



Village of Arlington Heights  
Plan Commission  
Board Room  
Arlington Heights Village Hall  
33 S. Arlington Heights Road  
Arlington Heights, IL 60005  
October 28, 2015  
7:30 PM

**I. CALL TO ORDER**

**II. ROLL CALL**

**III. APPROVAL OF MINUTES**

- A. The Moorings - 9/30/15
- B. Collision Damage Experts - 9/30/15
- C. Drost/Hasche Subdivision - 10/14/15

**IV. PUBLIC HEARINGS**

- A. 1510 E. Northwest Highway - PC#15-021  
Density Variation
- B. Hillside Auto - 25 E. University Dr. - PC#15-004  
Land Use Variation
- C. Arlington Downs - 3400 W. Euclid Ave. - PC#15-020  
PUD Amendment

**V. OTHER BUSINESS**

**VI. ADJOURNMENT**

Persons with disabilities requiring auxiliary aids or services, such as an American Sign Language interpreter or written materials in accessible formats, should contact David Robb, Disability Services Coordinator, at 33 S. Arlington Heights Road, Arlington Heights, Illinois 60005, (847)368-5793 (Voice), (847)368-5980 (Fax) or drobb@vah.com.



**Item:** The Moorings - 9/30/15

**Department:** Planning & Community Development

**ATTACHMENTS:**

**Description**

PC Minutes 9/30/15 DRAFT

**Type**

Minutes



# **DRAFT**

## PLAN

REPORT OF THE PROCEEDINGS OF A PUBLIC HEARING  
BEFORE THE VILLAGE OF ARLINGTON HEIGHTS  
PLAN COMMISSION

## COMMISSION

RE: THE MOORINGS - 811 EAST CENTRAL ROAD - PC# 15-012

REPORT OF PROCEEDINGS had before the Village of  
Arlington Heights Plan Commission Meeting taken at the  
Arlington Heights Village Hall, 33 South Arlington Heights  
Road, 3rd Floor Board Room, Arlington Heights, Illinois on the  
30th day of September, 2015, at the hour of 7:30 p.m.

## MEMBERS PRESENT:

JOE LORENZINI, Chairman  
LYNN JENSEN  
TERRY ENNES  
BRUCE GREEN  
JOHN SIGALOS

## ALSO PRESENT:

BILL ENRIGHT, Deputy Director

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CHAIRMAN LORENZINI: All right, good evening. I'd like to call this meeting of the Plan Commission to order. Would you all please rise and recite the pledge of allegiance with us?

(Pledge of allegiance.)

CHAIRMAN LORENZINI: Bill, roll call please.

MR. ENRIGHT: Commissioner Jensen.

COMMISSIONER JENSEN: Here.

MR. ENRIGHT: Commissioner Ennes.

COMMISSIONER ENNES: Here.

MR. ENRIGHT: Commissioner Green.

COMMISSIONER GREEN: Here.

MR. ENRIGHT: Commissioner Sigalos.

COMMISSIONER SIGALOS: Here.

MR. ENRIGHT: Chairman Lorenzini.

CHAIRMAN LORENZINI: Here. Okay, first item, next item on the agenda is approval of minutes from September 9th, 2015. There's five on the agenda to approve. Any corrections or comments or approval?

COMMISSIONER GREEN: I'd like to make a motion to approve.

CHAIRMAN LORENZINI: Second?

COMMISSIONER SIGALOS: I'll second.

CHAIRMAN LORENZINI: All in favor?

(Chorus of ayes.)

CHAIRMAN LORENZINI: Opposed?

(No response.)

CHAIRMAN LORENZINI: Thank you.

COMMISSIONER ENNES: I need to abstain from the first four, I was on vacation.

CHAIRMAN LORENZINI: Okay.

COMMISSIONER JENSEN: And I need to abstain from the last one.

CHAIRMAN LORENZINI: Okay, thank you. All right, the next item on the agenda is the public hearing. We have two public hearings tonight. There's quite a few people here, so if I can just explain the way this works?

The first thing we'll do, we'll have the petitioner come up and describe the project. Then we'll have the Staff report from Bill. Then each Commissioner will go around and ask questions from the Petitioner or from the Staff. Then after that, we'll open it up to the audience for questions or the public for questions. Then we'll come back for final questions and a final vote. Now, we'll do that for each of the public hearings.

So, the only thing I ask, we certainly encourage people to speak if they wish, but we would just ask you to keep your comments to this project that we're discussing and not to something, you know, that happened 20 years ago or somewhere else. So, with that, let's get started.

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Bill, have all the proper notices been given?

MR. ENRIGHT: Yes.

CHAIRMAN LORENZINI: Okay. Is the Petitioner here?

MR. PEPPERS: Yes, we are.

CHAIRMAN LORENZINI: Would you please come forward and anybody else who may be testifying? We'll swear you in. Raise your right hand.

(Witnesses sworn.)

CHAIRMAN LORENZINI: Thank you. Has the Petitioner read the recommendations or exceptions in the report?

MR. PEPPERS: Yes, we have, Mr. Chairman.

CHAIRMAN LORENZINI: And do you agree with them?

MR. PEPPERS: We agree with all the conditions.

CHAIRMAN LORENZINI: Okay, very good. Thank you. Okay, would you like to give us a brief presentation?

MR. PEPPERS: Yes, thank you very much. For the record, my name is Nicholas S. Peppers of the law firm Storino, Ramello & Durkin, 9501 West Devon, Rosemont, Illinois, the attorney for the Applicant, Presbyterian Homes, Case No. PC 15-012, regarding the planned unit development amendment for The Moorings project of Arlington Heights.

First of all, I'd like to thank the Plan Commission for scheduling this meeting. I know it's not your normal night. We all have busy schedules. I'd like to thank you for finding the time to have this meeting. I'd like to thank Staff, especially Bill Enright here for helping us navigate through the Staff process to turn this forward to you.

We are here pursuant to proper notice and publications which we have given Bill. We are here tonight seeking an amendment to Ordinances 85-154 of The Moorings planned unit development which as been amended seven or eight times since then to permit the following:

- \* The demolition of certain villas and sheltered care facility;
- \* Construction of the new fellowship hall to serve The Moorings residents;
- \* Construction of the new one-story memory care and four-story assisted living facilities.

Along with that, there will be five variations, which we'll touch on during the presentation, but quickly they are, excuse me, to permit:

1. A three-story courtyard without a 12-foot emergency access;
2. Building walls within 12 feet of paved surfaces in a few isolated locations;
3. A parking variation of a total of 43 spaces. We are providing 538 spaces. According to code, and we'll get into that, 581 will be required.
4. A height variation of three-and-a-half feet for the assisted living building only from 45 feet to 48.5 feet; and then

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5. A minimum dwelling unit size for one-bedroom assisted living units from the required 650 to 585, and the studio units from 550 to 481.

We'll get into detail as you see the plans on all of those and touch upon our reasons why we think these variations appropriate.

Prior to tonight's meeting, we did meet with Plat & Sub as some of you may recall back in November 11th, 2014. We received a positive recommendation. After that, we did have two meetings with Design Commission, one conceptual in April and then a formal one in August 25th. We did receive Design Commission recommendation with a couple of recommendations, conditions, excuse me, which was one of the conditions in your report in your report which we'll agree to abide by.

Also, on September 9th, we did host a neighborhood meeting for not only the residents of The Moorings but also those within 250 feet, some of the noticed are the people who you'll see tonight, where we introduced the project, fielded questions, and told them that we'd also be here again tonight and they would have an opportunity to get onto the record whatever comments and concerns they have, which brings us before you tonight. The Applicant, consultants, and its experts have worked hard, as you'll see from this presentation, to bring forward a rather complete and detailed presentation of the project.

In a minute I'll introduce our planner Scott Freres of Lakota Group, our architect Craig Kimmel from RLPS Architects, and then Mike MaRous our expert appraisal, to walk through the project and discuss the variations that are listed before us. But you know, we are mindful of the time that this Commission has tonight. I know you read your application packets and you've already seen this project. So, we will be efficient in our presentation tonight. However, to the extent that we miss something, you need us to address something, we're always prepared to go back and to address those concerns. But we intend to be as efficient as possible tonight.

Before I introduce Scott to go and start on the project, I'd like to introduce Todd Swortzel, the president and CEO of Presbyterian Homes, to make a couple of opening remarks, and then I'd like to get to our presentation. Thank you.

CHAIRMAN LORENZINI: Could you please state your name, spell your last name, and give an address for the court reporter?

MR. SWORTZEL: Sure. My name is Todd Swortzel and it's spelled S-w-o-r-t-z-e-l. My address is 3200 Grant Street in Evanston, Illinois.

I just want to thank you tonight. I'm excited to be here and to present this project to you. We have a great team working on this and Presbyterian Homes is excited to serve the residents of this community.

We've been in Arlington Heights since 2000, 15 years ago, when we purchased The Moorings. This is the first major

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change that we've made since we've been the owner, but we think it's essential for us to be able to serve seniors in the future. The residents, current residents of the community also are very excited and looking forward to what's being presented to you tonight, that they can benefit from it as they live in the community.

So, I just want to thank you for your time this evening. I know that you're in a hurry but I appreciate the time you're giving us to consider this. Thank you.

CHAIRMAN LORENZINI: Thank you. Okay, anybody coming up, please state your name, spell your last name, and give your address.

MR. FRERES: Mr. Chairman, my name is Scott Freres, I'm the principal of Lakota Group, 212 West, I'm sorry, 116 West Illinois Street, we just recently moved, Chicago, Illinois 60654.

Thanks very much for your attention this evening and your consideration. We do have a presentation before you, it will be brief and concise. I want to reiterate what Nick said, and that is we have a whole host of our experts with us. So, I'm the planner and Craig is the architect and Mike is the appraiser, and we're going through the bulk of the presentation. Should you have any questions with regards to engineering and parking, we have all of our folks with us this evening, so thank you very, very much for your time.

If I can get this to be over here, I'm going to just jump ahead a little bit. I'm going to organize the presentation briefly around an introduction to the project, the mission, the services that Todd already talked about, but our goal here today is to talk about an amendment to the PUD, reinvestment in The Moorings community. That's the program that's before you. The specifics, the details of it, you'll see in just a minute.

As Nick alluded to, there are five variation requests that are part of this proposal. You will see each of those reiterated throughout the presentation, talked about and answered in terms of how we responded to all of those. Again, they include the number of parking spaces, access lane to the courtyard, distance from building wall to paved area, minimum dwelling size units, and building height.

A little bit of history, briefly, on The Moorings, a lot of the community knows that it was previously the Magnus Farm. It had an open space feel to it, a character that many people in the community remember. In 1950, the use changed to a nursing facility. In 1986, a PUD was created by a separate entity. In 2000, Presbyterian Homes acquired the property and began a long-range plan of how to reinvest in it in moving forward into the future.

In 2005, the first visit before the Arlington Heights Board came through with improvement to the villas that were added to the campus. You will see those in just a moment. Here we are again 10 years later looking to reinvest again for the future of The Moorings campus as we change and look for an amendment to the PUD.

The topics, briefly, and I'm not going to hit on

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these in any detail, but I think they're important, and they're important because we wanted our neighbors and friends and our own folks within the community to understand that we looked at context and character and connectivity in service to the site in a lot of different ways. It is important to understand all of those really in the framework that we are one site within the Village, we were on a major roadway, Central Avenue, centrally located within the community. We're serving a broad audience, and while our audience is focused within the Arlington Heights community, it's a bigger picture that we're looking at and that it's important to start up high at 30,000 feet. As we do that, as we focus down, we realize that we're also part of the neighborhood. The neighborhood is a very important component to us because the campus was developed very much in mind with understanding the relationships to the homes and businesses that surround us.

Our site is zoned R-1 Institutional Zoning. It sits within essentially a residential, a hole of a donut of a residential area. On our south and on our east, we have our friends in Mount Prospect, on the north and on the west is Arlington Heights. So, we're cognizant of what's happening from the zoning and land use context perspective. Then there's the visual context of what that area looks like. As we drive down the roads, as we walk through the neighborhoods, as we talk to our neighbors, we need to understand the character of those homes and those businesses that surround us and the scale of those. So, it's not just about the use, it's about the three dimensions of that use, how big is it, what does it look like, what is the architecture, what are the materials, we need to be cognizant.

We did this study really as an effort to say we understand what's next to us. We care about what's next to us. We knew it was important take care of those that are around us in terms of screening and buffering and making sure that our uses are compatible as we move forward with developing the site.

These pictures generally give you a sense of the scale and character that primarily are one, maybe two-story, in some areas, single family residential, nice homes, well taken care of around the site, homes on Douglas, homes on the south that stub up into our property that really are part of the neighborhood. There are no through connecting streets, so we are an isolated entity, but we do realize that we have access points with regards to fire lanes that are part of our campus as well. Some of these pictures just give you the sense of that.

So, the internal, understanding our campus from within. We have a series of buildings that are focused around the core center. At the core area is the main heart of the campus. It's where all of the services and facilities are that bring everybody together. It's kind of the main street of the campus.

Surrounded by the campus, you'll have not only the entrance areas, you come in off of Central, a very nice entrance, well-landscaped, very simple, set back in terms of the character of driving back into the site. Very pastoral feeling as you drive through the

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campus on the drive with our ponds and our walkways and the pedestrian areas. You can see the cottages and villas, which are our single family product around the center.

In the center of our site is our independent living or our commons, that main street area. It's the taller component of our site. It's the four or five-story building that sits in the center of the site. Flat roof, here is a sense of it, here is a little picture that gives you a sense of the scale and the character. Bigger building but set back in and broken down in terms of size so it doesn't have a great impact in terms of the overall scale of it.

Here is the sense of the architecture and the scale of the building, just to give you a sense. It's a flat roof structure. It has balconies, it has some green space that surround it, the main entry comes in from the north.

Immediately adjacent to that and connected to that is our skilled care area and our service areas. This is where all of the trucks and loading come into the site. It comes in right near where you see that circle where that round barn is. That skilled care is a connected component of that. Pictures here show really two to three-story buildings in some areas. The scale and the character is a little different. It's got a roof form on it but an older scale, older architecture, older character as well to it.

Then far west of the main complex of buildings is our sheltered care building. This is a much simpler scale building, rather innocuous with regards to architectural style and the character, but nonetheless an important component surrounded by a little bit more parking in terms of the feel of the site and a three-story building in terms of the character and scale and brick facade. Here we are again with the picture. Important to see these because it's important to understand the context of what we're building here.

The last component of our existing site are our cottages. There's two different styles of cottages. There are the original cottages highlighted in yellow. They are essentially highlighted by a duplex or a quad, a four-building. They have garages that come off the front and there are outdoor living spaces off the back. The scale, again older, dated architecture, good quality, taken care of, nice landscape around, good buffering around the perimeter of those areas. They face the loop drive, that's part of our loop drive system.

Back in 2005, as we mentioned, we came in with our first plans to bring reinvestment back to the property. The goal was to really rethink that architecture of that and kind of that cottage style architecture of the villa, that it has some peaked roof forms and it has a little portico or front entrance and has a nice outdoor patio space, and a much more accentuated landscaping, again building on the beautiful grounds and character of the site that's already there.

It gives you a sense of the existing plan, and it's important to know that we have an existing circulation system and we're working within our existing circulation system as part of the

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plan that we're proposing to you this evening. The circular ring road drive accesses the main access off of Central, and then there are two stubs that are fire lane. One is off of the north to Central and one is off of the, excuse me, the west now back to Douglas. Both of those are really the access points for record purposes.

We also have the building entries, and why we show this is very important, Craig will get into it in just a bit, these building entries are important. They define the place so that people come in there and people know where the entrance is for the different types of uses are. As we add on, as we build, we have to redefine those entrances, and that connectivity between those buildings is critical to the flow and efficiency of the campus and those who live there. Here's the service areas that show how we're using it and where you're coming in to service these existing buildings.

We have a pedestrian network that's very well defined in the campus, heavily used, nicely landscaped that circumnavigates the entire property on the inside of the ring road system, it goes around our pond areas. It's certainly an important component for both the recreation, fitness, and just general enjoyment of the outdoor spaces, another key component that we are going to work with as we move forward in our proposal. What are we doing? Very simply, we are expanding in two key areas that we talked about before. One of those areas was the sheltered care area that I spoke of. I'm not sure if this, Bill, if this thing works. Oh, there, it does work a little bit.

This is our existing skill care. Where our sheltered care was in this location, and then we had some quad building of these villas or cottages that flanked along the western edge of our existing circulation drive or ring road.

What are those uses that we're putting in there? Briefly, the first component is a resident fellowship hall, a one, maybe two-story in terms of scale of building. Really the core area, the link, the bridge, the connection between where we are now, bringing it into this assisted living and connecting it back to the main street. It is the bridge that builds those beautiful architecture, defining architecture, and starting to frame that on that critical open space that everybody gets a value out of.

The second piece is the assisted living. Assisted living is a building that's broken down into many forms to create variety to break down the architecture, to add scale and interest, and make what would be a long building a very interesting building that's broken into different pieces, and addresses the road and our adjacent internal neighbors very nicely. Again, a four-story building, residential architecture, Craig will talk about this in a minute.

Now, the last building to the north, one to two-story building is our memory care unit. Again connected to assisted, connected to the fellowship, connected because of the need to bring those services and focus on that. But what happens with that building is it creates a spectacular cloistered courtyard space that you see in



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green in between A and C. We'll talk about that with regards to landscaping and how that works and how we address one of our variations that's related to that.

Just to give you a sense of the scale and character, you can see that what's important in this picture before Craig comes on up is the fact that the architecture, I can see you back over there, the architecture of the old building and the architecture of the new building, very important to see that we're respecting the materials that are there but we're moving to a different form, more detailed, more character, more residential in feel. Very, very critical and important for framing that pond and we're making a spectacular open space element that everybody within that community could enjoy. With that, I'll turn it over to you.

MR. KIMMEL: Hello, I'm Craig Kimmel with RLPS Architects. The address is 250 Valleybrook Drive, Lancaster, Pennsylvania. It's great to be here.

CHAIRMAN LORENZINI: Spell your last name?

MR. KIMMEL: Kimmel, K-i-m-m-e-l.

CHAIRMAN LORENZINI: Thank you.

MR. KIMMEL: It's great to be here. As we start to look at how these buildings start to frame views and how they start to define themselves architecturally, we really look at these buildings as kind of a bridge. They kind of work against some of the tall volumes of the independent living structures that are four and five stories. Also, we're also anchored against the cottages which are one stories. So, we're really looking to try and blend some of those features between the two buildings to create kind of a transition if you will between the most institutional part of the campus to the most residential.

So, as we start looking at what that translates into as we look at sections, one of the things that was pretty paramount for us is that we definitely wanted the new buildings to not sit taller than the existing buildings. So, if you look closely at this slide, and I apologize for the scale, you can see the dotted line that kind of runs across the top of the tallest of our buildings. So, we're sitting about five feet lower than the height of the existing structures as we kind of work our way from center to edge of the campus, and really in both directions.

As we blow up into a kind of larger scale, some of the other things that we're kind of relating to are this separation distance from the property lines. That was really important to us as we started looking at how this building kind of situated itself between the pond that existed really in the center of the campus and the cottages and villas that sit on the perimeter. So, that existing building height was critical to us as was that separation distance, and we really worked hard to try and keep this building as tight to that core as we possibly could.

As we start looking at sight lines from the property, in this graphic it's actually from a person standing 45 feet

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in off of the property line actually on Douglas where you can start to see those visual lines where they're trying to keep the scale of the building back far enough that it really has fairly minimal or negligible impact on anybody's view scape that exists down Douglas Avenue. There are a few exceptions to that and we'll talk about that as we go through the presentation.

As we start looking at this campus then, one of the things that was really paramount as we started looking at trying to reinvent the sheltered care, because the assisted living building is really a replacement facility for sheltered care that is basically coming down as part of this process, so we needed to build the assisted living building not where the sheltered care was because people are living there. So, we needed to be able to transition them into a new building and then go back and reinvent a portion of the site that the sheltered care existed on. So, as we look at that and we start looking at how that circulation inside the building works, for an assisted living resident, for a memory care resident, it became really critical that we kept those as tight to the core, to the main street that Scott talked about as possible and not allow those to start moving away because the frailty level of these residents are such that we really want to minimize travel distance so that they can really continue to enjoy life, take part in activities that are really germane to having them have a fruitful existence in these different levels of care.

As we move upstairs or on to the lower level, you can see the green is basically a service loop and the yellow is the public loop. So, we're really on this floor kind of crossing them but trying to keep them isolated, creating that loop between the basement of memory care and the health center component so that we really have the ability to service all of these buildings very well. That really becomes critical in terms of just quality of care for the people that are going to be living here.

So, the first building we'll talk a little bit about is resident fellowship hall. It is kind of the core. It becomes kind of the symbolic center to the whole campus. It is kind of the religious center to the campus. It is the one space in the new construction that is being served by all, or that is serving all levels of care. So, the healthcare residents come to this building as do independent living and the assisted living and memory care. So, its location as central is really critical to its success and use as a building that really brings the whole community together. This is just an image of what that looks like from across the pond, and just an enlargement of that as well. So, it really becomes the focal point architecturally and becomes really that center piece that starts to define in a way what The Moorings at Arlington Heights will become.

Assisted living is directly adjacent to that. It is basically a three-story building that falls out of grade as you move to the south. We are working with some grade changes, so as we move to the south the building does fall out because it's really critical for seniors that everything is on one level. So, that became a fundamental

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kind of defining element as we started positioning these buildings vertically on the site, which also kind of lends to the building height variation that we'll get into in a minute.

The character of the buildings was really critical as we looked at bringing masonry into the bases of the building, introducing different building material characters. The Design Commission really had very minor comments after we got through the process of working with them, really I think had great comments and ultimately really applauded kind of the design of the building. Just a blowup of the front entry porte-cochere.

One of the variations is really the unit size for the assisted living, and that exists in the one-bedroom and also in the studio. You'll see in the variation, the delta is about the same in both unit types, and really that is primarily a result of the fact that people aren't spending all day in these units. They are not really apartments. This is a building that is IDPH, so it's a space where residents sleep. They do spend some time there but a lot of their activities, all of their dining, their laundry services, living room spaces are all provided in more of a congregate area on each floor. We basically have divided the building up into neighborhoods, so each neighborhood is about 14 to 15 residents, and they each share their own activity living space.

So, when we start looking at the size of the unit, it really isn't like a typical dwelling unit. It's a little bit different because of the way people who are in these kinds of facilities live. They really live a lot of their day outside of their actual dwelling unit.

Same thing really exists for the studio. We only have three of these and they're actually designed in a way that they can be combined with a one-bedroom to create a two-bedroom as an option. But basically the same exact situation occurs here. We really don't have cooking in these units. We basically have a small area similar to what you would have in a hotel room where you may have a microwave. But there's really no cooking in this, and all of that meal preparation is done by staff and is done outside the actual dwelling unit. Just an example of some of those common spaces that we've done in other similar communities.

So, when we start looking at memory care then, we're really looking at a building that's one-story. It is set up as a neighborhood of 20 residents, but it is a little bit unique in terms of its care because it's really addressing the specific needs of a specific population. As Scott mentioned, the inside of the building, the courtyard side is really where all of the activity is, it's where all the life of this building is. So, when we look at the building from this side, it's kind of the front in terms of the formal front; but in terms of how the building actually lives daily, it's really the back of the building. So, when we look at the parking and the proximity of the parking to the building, it's really not the front. People are spending their entire days basically on this side of the

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building which is really the courtyard.

So, we've got great outdoor gardens, opportunities for them to interact with nature both physically and also on days when it's not nice to be outside. They certainly have the ability to view that. And all of the social spaces associated with this building are aligned along this edge, so you've got your living rooms, dining rooms, activity, TV rooms even, all kind of participate on the garden side of the building. Scott?

MR. FRERES: I want to switch for a second and put my landscape hat on. We have quite a campus landscape planned. Our focus is really on a couple of key areas with regards to the site. You've seen it all in the pictures so I won't get into it in any detail. But there's a couple of key landscape components. One of the foundation plantings and how we address plantings around the building, certainly we want to make sure safety and security is always important, but these buildings are going to have a really nice landscape package at their foundations as a component of this plan, and also providing a full access point from sidewalks along those spaces.

As I mentioned before, we have a courtyard. The courtyard, in the image that you saw before you, both are part of a discussion under variation number three. It has the distance from the building wall to paved areas that created the two areas you see highlighted. While we don't meet the standard, we have, I would say, accentuated the landscape area in those and buffer to those areas to the extent that we've really softened it and created a really beautiful environment in that space. We believe that alleviates any kind of concern for that distance offset in those areas.

Then also with regards to the site and circulation, as you look at all of this, we think about how the building is centrally located and contiguous. Everything is part of a loop system here. You can see the path that goes around the pond, we'll talk about that in a second. You can see the access that comes into the -- oops, sorry. There we go. There you go, thank you.

The cloistered courtyard is one of the highlights you've heard talked about, and it really is a space for people to gather. It's going to be programmed for a lot of different uses, whether there's events out there, the open lawn that's there for tent uses, the small area in the south meditation yard off of the chapel space, the memory garden. Again, getting people out into those areas and utilizing it with regards to our seasonal variations and temperature, we want to make this space as attractive all year round and provide seasonal interest for people just to look at them from within the buildings.

Again, landscaping around the building, thinking about the building as a whole, that building, the assisted living building really addresses the pond, and the pond acts as the key component. While we've landscaped on the west side, we'll talk about that a little bit more in specifics in just a minute, the pond side offers a great opportunity to really focus those views, that walkway

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space which is also our fire lane, I'll talk about that in just a second, but to really accentuate the views to that water space. Really that water space is important in terms of the edge and the condition and how we treat it, making sure we stabilize it, we naturalize that pond as with the landscape character that's part of it.

Circulation is another component that's important. As I mentioned before, our pattern and movement for traffic space is the same as it is today with the exception of the little area that you see right here which is really our drop-off area just as an access to the, controlled access into the --

CHAIRMAN LORENZINI: We can't see your pointer.

MR. FRERES: Okay. That's the, if you look in the building, you'll see our little drop-off space. That really is the entry point to the assisted living. That's where that corridor starts and where that access moves up to the memory care area. It also serves our parking lot, which we'll talk about in just a second. We have our circulation in terms of pedestrian and how we've taken what we have and tied it to the rest of the system that's already out in place.

Lastly, as I've mentioned, the wider path that you see around the pond is in fact a pathway but it's also providing that emergency fire access lane all the way around the back side of the pond up against all of our buildings. That comes into play really in this conversation, the access to the courtyard, we're talking about variation. While we don't have road access into that courtyard, we have easy access with regards to foot traffic and the wide pathways to get in there does not eat it off. It is accessible, and we believe reasonably accessible for fire and emergency from both the south and from the north. Again, looking at how that circulation works with regards to fire access, there is easy access from all vantage points to the buildings.

Parking. Briefly, there are two areas or three areas that are highlighted in yellowish, kind of ochre color. There is one to the very north that's a small surface parking lot. There is another surface parking lot immediately to the west of that memory care building. The box that you see on the south is actually underground parking that's within the basement or the lower level of the assisted living. Those are the new parking components that are servicing these buildings in addition to all the parking that's already existing on the campus today. To give you a sense of the scale and how much is there, we've numbered the total parking that's provided as part of those buildings.

When we talk about parking, we also have a variation that we are working around, and we can get into all the specifics of the variation, but suffice it to say at the end of the day we're about 43 short. I use the number 43 as opposed to the 40 that's in there because of the unit count discrepancy with beds, 73 beds versus 70 units. We just want it to be apples to apples with regards to that shortage.

But the real component behind here that strives to

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emphasize why the shortage is there is the relationship of parking as the ordinance defines parking for the resident fellowship hall, the amount of parking necessary. This building that we've talked about is for our residents and it is internal to our campus. It is utilized by our residents. It's already existing on the site, and as we've tracked it and we've managed it over time, we've realized there's very little parking demand that comes from the outside world to use that with regards to a daily basis. There may be special occasions but very rarely. We believe it's justified in terms of the overall package to reflect less parking demand for that particular area. The same with regards to the balance of parking for the AL units, and the Staff report nicely describes the lessened demand for that parking that really is in effect through half of a parking space per unit or less as more realistic with regards to the standards.

I want to show you in the aggregate, the important component in the aggregate is that shortage of 43. If you look at the bottom, you see the total parking on campus, and what we are starting with and what we are ending up with at the end of the day, we've added about 18 spaces overall in the campus. So, we're really trying to let everybody understand that we're removing some units, we're adding some units, but at the end of the day it's a very negligible increase. I think it's seven total units that we're adding to the whole project, and that extra parking kind of reflects that in terms of what we're doing. Ultimately, we're adding more units of people who don't drive cars, so we're not adding those who are driving, we are adding those who don't drive. That's an important component to consider in that variation request.

A little view across the site from our neighbors along Douglas Avenue, it's important to recognize and important to address some of the concerns that we've heard from our folks along Douglas, particularly with regards to key views into the site. And I want to have a little discussion with you to make sure that you know, that we have met with families, walked with them, we understand their concern and we're working towards solving that. We've got some images here this evening that we believe are very important for you to see.

The first and one of the most open views into the site is along that access road up to Douglas, our fire lane to the west. This is a view looking from in, out back to Douglas to our neighbors. This is another view looking back out. We've walked along the whole coastline of Douglas looking back in. This is what we see along Douglas looking back into our site, our white picket fence which is really kind of the hallmark on the edge of our site, looking back at our cottages or our villas that are there.

What you can't see behind there is the existing three-story sheltered care that's behind there. It gives us a sense of scale and the existing vegetation that's blocking it and that's important. This is showing you really where that line is of the existing building. So, the building that's going in today is of less height, less in terms of height of that same area in that same place.

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These views, two and three are important views, very open views into the site. While we recognize that there is, it kind of blurred out on me a little bit, but this is a view looking from number two which is looking back into the site, what we're trying to highlight here, and I wish I could point and show you that in the background, we're looking from Douglas now, in the background you can begin to see the top of our four-story new assisted living building, you can kind of see it, that it's tucked back in there. This is extrapolating the existing imagery by taking pictures from a vantage point, we're putting it in those pictures and then we're dropping in, in real time our building location on the plan so you get a sense of that. It's important, because what we're showing here is that we're not hiding every inch of the building but we're making a concerted effort to defer and block those views because those views are open today back into our site as well even with the existing mature vegetation.

AUDIENCE MEMBER: Can I ask a question while you've got these pictures up?

CHAIRMAN LORENZINI: Excuse me, we're going to have to wait.

AUDIENCE MEMBER: I mean you've been talking for a half hour.

CHAIRMAN LORENZINI: Well, that's, sometimes --

AUDIENCE MEMBER: I've got places to go, too.

CHAIRMAN LORENZINI: Sometimes this goes to midnight, sir. We've got to follow our procedure, I'm sorry.

AUDIENCE MEMBER: Yeah, I'm not buying a place there, so you know.

MR. FRERES: Number three, which is a key access point into the site again, as we've talked about, here is the existing view and there is the building. We recognize that that building is a four-story building in the background and that distance was talked about by Craig. What we want to show is the idea that we believe we can bring landscaping into the foreground and begin to break down that view. What it's not showing is that there's landscaping against the building. The view that's there today has very few parkway trees on our property. So implementing larger parkway trees immediately, bringing evergreens in the corner, and that photo is a little bit washed out, but bringing evergreens in on that corner, we're going to break down the view of the building. We don't expect it to go away but we do believe we can make a substantial dent in it and we will continually work with the lining those buildings to make sure that the views are blocked.

Last view here, if I can just do this back to the aerial view overlooking the whole site. And Craig, I think that might be your discussion of building height on the aerial that we talked about a little bit about before. There you go. Yes, I'm going to let you talk about that.

MR. KIMMEL: All right, thanks. So, just a point of clarification, and I missed this earlier so I apologize.

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CHAIRMAN LORENZINI: Could you give your name again for the court reporter?

MR. KIMMEL: Craig Kimmel, K-i-m-m-e-l, again. In terms of the assisted living building, just kind of related to that 40 versus 43 on the parking, basically what we're proposing is 70 one bedroom apartment assisted living units and three studios. So that gets us to the 73 units total, so that's just out of clarity. It is possible that you could convert three one-bedrooms and three studios into two-bedrooms, in which case you'd have 67 one-bedrooms and three two-bedrooms. That ends up being 70 units but still 73 beds. So, if we think about it in those terms, I think 73 is really the appropriate number. So, I just wanted to kind of get that into the record.

As we look at the building height issue, one of the things that we were really concerned about as we started looking at the design of this as well as the architectural character was really, you know, the reality that we have to screen the equipment that exists on the roof. So you can see in this graphic which is a section cut through the assisted living building, that there is almost a story of roof that basically is being used to completely conceal the mechanical equipment that basically sits in a well that's in the center of the building. So as we start looking at that building height issue, the 48 foot 6 versus 45, really it just has to do with where it falls on that slope of that screen in essence that's providing an architectural character to the building but also really providing a function to hide that equipment that exists up there.

As we start looking at some of the building height, oops, let me just back up a little bit here. Some of the things that I just wanted to touch on in terms of why the building is kind of the way it is. When we start looking at those neighborhoods of 15, we have an elevator in each of those neighborhoods that allows a resident to go a very short distance horizontally, to get an elevator to go down to some of the social spaces like dining and activity spaces. So, by spreading the building out and lessening its height, it really starts to be counterintuitive to serving the population that we're serving. So, we're trying to keep the hallway lines very minimized and allow them to very easily move horizontally to get to all of the functions in the building that allow them to live a full life.

I think as we, we touched base on this section a little bit before as it relates to the scale, and I think those photos really kind of show it very well in terms of that separation distance. You know, in terms of the overall variation, we're about 280 feet I think minimum here from the front face of a building to the nearest point of our four-story building. At that closest point, we've actually reduced the height of the roof so that it actually is lower than the other parts of the building to try and be sensitive to that. When you start looking then at the overall length of the building from the front of the house to the more typical condition, which is along that access drive, your dimension actually goes from 283 to around 330 feet. So, we're basically a football field away from the face of the



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houses along Douglas to the point where you actually see the building face that's kind of angled going away, so it does vary depending on where you take that measurement.

I think with that, I'll jump back forward here to storm water.

MR. FRERES: Always an exciting topic, storm water. We're almost at the end, we'll move along quickly. It's important to understand storm water, our understanding of it and our management of it and our concern for it is of utmost importance. We are not asking any variations to the ordinance. In fact, we're meeting or exceeding all of them. The most important thing is that we're meeting those that are established by the MWRD, which have changed and become more restrictive and more focused and highly regulated. We are also recognizing that above and beyond that, we have your own Staff that's managing and watching what we're doing from the IDPH as well.

So, all those components are built into the thinking also built in to the thinking, that was interesting. Almost at the end now, we're almost at the end. There you go.

(Pause for technical difficulties.)

MR. ENRIGHT: Do you know what slide you were on?

MR. FRERES: If we go into that we can get pictures there. Any one of those is fine when we went off. There you go, perfect. Does it go out when we go into slide show or no? No, it's fine. There you go, thank you, Bill.

An important component is reducing runoff, it's the most important thing as our engineers will tell you. The key component is making sure that we reduce it, an hour of the storm at a hundred-year peak and a one percent storm event, a 16 percent reduction in the amount of water that's coming off of that site being held and managed there. That's the most important thing to takeaway from this is to understand that we're holding it, managing it to a greater degree than what it is right now. We're also applying the best management practices we can with regards to runoff, capturing it, underground holding, as well as just recirculating it and using our own water recapture from our ponds to our irrigation.

Those are the key components that will be utilized throughout the site as a part of this plan. Just to give you a sense of how we look at it from a brief perspective, our site is 41 acres. The project area is about just shy of eight acres in terms of that. But when we balance the two existing conditions versus the proposed conditions, we're obviously increasing our impervious surface and we are, you know, aware of that and we're making sure that we're balancing our landscaped areas. By the end of the day, we're reducing that runoff and that's the keynote. The bottom note in there is we're reducing the runoff rate, even though we've increased the amount of impervious, we're reducing that runoff because the rates in the rules as part of MWRD are so much more restrictive.

So, what's the takeaway? The most important takeaway for our neighbors to understand again is that reduction in the

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runoff, the time in terms of the runoff and the volume, the reduced time and concentration of how we're holding it, and we are managing the requirements of all of these agencies above and beyond those requirements. From a physical standpoint, what you see is that the pond is bigger. We're actually adding to the pond, we're bring the pond a little bit farther to the south. It's not evident in the slide, but we're bringing it a little bit further south to get a little bit more potential and compensatory storage capacity.

I'll turn it over to Mike.

MR. MaROUS: Good evening, Michael MaRous, I'm the President of MaRous & Company, 300 South Northwest Highway, Park Ridge, Illinois.

CHAIRMAN LORENZINI: Spell your name please?

MR. MaROUS: M-a-R-o-u-s. Simply, I have been appraising real estate for 39 years and actually have done probably 50 appraisals in the Village of Arlington Heights. Actually I've worked for the Village for almost 20 years in various valuation and land use issues.

What was done here was to look at the proposed project, look at the benefits, look at the potential negatives, look at the expenditures, and look at its existing use and the proposed use, and look at its potential impact on property values. Over the last few years, we've actually done studies for senior projects in Lake Forest, several in Evanston, one in Highland Park, and one in Grayslake. We have prepared a report that has been submitted to you and I'll briefly summarize what was done.

It basically was per your ordinance to study what I just suggested and to determine if there was any negative or any impact to the surrounding neighborhood. As part of that, considered studies in similar situation with similar demographics, similar type use at modern high quality senior facilities throughout the metropolitan area. Clearly, the proposed development is providing significant investment, upgrades in landscaping, similar in height, building mass and appearance to the previous development, and the amount of anticipated traffic is comparable.

When we look at impacts, we look at the normal potential issues such as lights, such as traffic, such as noise, such as change of use. In this instance, we looked at basically comparisons of sale and resale in the immediate neighborhood and it actually reflected strong increase. Then we looked at a matched pair analyses of properties approximate to the senior facility, and we did that for the subject area, we did it in Northbrook and we did it in Cary. The finding was there was no measurable impact on the value of the residential properties adjacent to the senior and assisted living facilities.

In the matched pair, again we're trying to find a similar house with similar physical characteristics, similar amenities, similar age, close to the project, and one in a similar neighborhood, similar characteristics, and then I look at the transactions, make an

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analysis, and then come to a conclusion to see if there was any impact. And really briefly, in my analysis of this project, and again it's detailed in the study that was prepared, I found no negative impact, and in my opinion it will be a very positive impact for this neighborhood. Thank you.

MR. PEPPERS: If you'll indulge me, I just want to conclude, I have a few concluding remarks. As you can tell, Presbyterian Homes has made a strategic commitment to invest what would be north of \$70 million dollars into this project to rejuvenate the facilities that are out there right now and realign those with the needs of the seniors for now and in the future. As you have seen, the proposal is to demolish those dated structures that don't serve those needs and instead will result in, after all is said and done, of only seven new units to this project.

Presbyterian Homes has really taken and undertaking a substantial time and money to bring these experts to you, as you could tell from this extensive presentation. And we've really prepared a project sensitive to the neighbors, sensitive to the existing facilities, and really centralized these buildings to minimize those impacts. This isn't a cornfield development where we're going right up on the boundary line, or like what we did in downtown, lot line to lot line and having impacts on everyone.

This is very well thought out, well designed and architecturally enhanced and landscape enhanced project as you can tell. Finally, we had Mr. MaRous prepare his report, testify and to evaluate the variations that we're requesting. Again, his conclusion was that there was no materially negative impact on the surrounding property owners. We've used Mr. MaRous in a variety of projects and he's an expert in the area.

We do have a team here. We have others who have not spoken that are available to answer any questions you have. We respectfully request that you provide a positive recommendation to the Village Board, and if you have any questions or comments, we are available. Thank you very much.

CHAIRMAN LORENZINI: Thank you. Okay, so one gentleman was a little, you know, sometimes these meetings go long. So, the next thing Mr. Enright's going to do a Staff presentation, the Village's Planning Department viewpoint. We'll all be asking questions, and then we'll open it up to the public for questions. So, it's quite a long process. Mr. Enright, please, the Staff report?

MR. ENRIGHT: Chairman and members of the board and the public, I'll be very brief. The Petitioner has done a very thorough presentation, so I think it will be more important to hear from the public and the deliberations among the Planning Commission. However, the developer has submitted a very thorough application addressing traffic, parking, engineering, architecture, site planning, and landscaping. It's been thoroughly vetted by all the departments of the Village; the Police, Fire, Engineering, Public Works and Planning. We've worked with the developer to come up with the best plan feasible

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for the project.

We see this as not just a very important investment by the Presbyterian Homes in their project but also an important investment in the Village of Arlington Heights. The Moorings has been a great neighbor of the community for years, even prior to Presbyterian Homes taking over ownership. They continue to be a great neighbor. It's an excellent project. I've driven through there numerous times and around the site numerous times over the last 30 days to observe the lay of the land a little closer. We are fully in support at the administrative level of the PUD amendment and the various variations that go with that.

With respect to the recommendation for approval, Staff suggests a few fairly minor conditions of approval. One of which is, condition number one, that there is an Ordinance 85-154 which approved a PUD amendment back in 1985 to the site, and that was regarding the requirement to install a traffic signal on Central Road if warranted at the property owner's expense, if it was warranted in the future. As part of this petition, Eriksson Engineering did a very thorough analysis of not only parking, but the traffic circulation and traffic impacts of the development which would increase very marginally if at all with this project because they're only adding a net seven units.

And the warrant study for traffic signal at either of the entrances on Central Road was not met, so there is not enough traffic coming to and from the site to warrant a traffic signal there. However, that condition should stay in full force and effect as most conditions do from previous ordinances. Therefore, that's a condition, just to alert the property owner, that condition, that there is a signal warrant in the future they would have to install it and maintain it and pay for it.

Secondly, the Petitioner shall work with Village Staff on possible relocation of additional trees on site. There may be a few trees that possibly could be relocated on site. They're doing an excellent job. There's a lot of landscaping, mature landscaping and new landscaping that they're proposing with this development, so it's quite exceptional. We want to work with them on the possibility of saving a few more if feasible. Having said that, they are planting over 100 new trees on site.

The third condition would be compliance with the Design Commission motion. This went through the Design Commission review process, which is a seven-person group, appointed citizen group. They made a recommendation to approve the architecture with a few minor conditions of approval in August of 2015.

Fourth, as the developer alluded to, approval of an MWRD permit, that's the Metropolitan Water Reclamation District, which is the overseeing agency for storm water control in the region. The Village will have to review that in addition to the MWRD Agency as well as the Village of Mount Prospect because this eventually ends up in their public system, the storm water from this site.

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Fifthly, a landscape and tree preservation bond, which is a normal requirement as required prior to the issuance of a permit.

Then we have a normal kind of a catchall number six, compliance with all Federal, State and Village codes and policies.

With that, I would conclude Staff's presentation, but of course we're available to answer any questions on the project.

CHAIRMAN LORENZINI: Thank you, Bill. Do we have a motion to include the Staff report into the public record?

COMMISSIONER ENNES: So moved.

COMMISSIONER JENSEN: Second.

CHAIRMAN LORENZINI: Thank you. All in favor?

(Chorus of ayes.)

CHAIRMAN LORENZINI: Okay. Next, we'll go to the Commissioners for questions. Commissioner Sigalos, would you like to start?

COMMISSIONER SIGALOS: Yes. I've got to tell you, after that very excellent detailed presentation, you've really answered all the questions I had regarding parking and the variance of the size of the units and so forth. The only question I had, is this, I understand this is phase one of a multi-phase project? Overall project?

CHAIRMAN LORENZINI: State your name, spell your last name, and your address please.

MS. TOLAN: Hi, I'm Nancy Tolan, T-o-l-a-n. Also 3200 Grant Street in Evanston.

The phasing of this project is really as was described. We have a sheltered care building that's currently occupied. So, the intent is to construct a resident fellowship hall and assisted living simultaneously, and then relocate residents from sheltered care into assisted living, and then construct memory care.

COMMISSIONER SIGALOS: Okay, so this project, this \$70 plus million project is what's before us now but there is no future down the line phase two, phase three further developments of this site?

MS. TOLAN: There are not future plans to develop. There is good practices and understanding, you know, of how we manage our land moving forward. But we do not have projects planned beyond these two phases, yes.

COMMISSIONER SIGALOS: That's all I have. I think it was an excellent presentation.

CHAIRMAN LORENZINI: Thank you, John. Commissioner Jensen?

COMMISSIONER JENSEN: Yes, I think you've done a wonderful job of fleshing out what you brought before the Plat & Sub Committee, and so I'm very pleased with the presentation. I think the Staff work is very good.

My only comment was that I did not find your market study to be real helpful. You had 22 pages, two slides, a title page and a page summary and a lot of graphs, and I'm used to looking at

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a lot of graphs. They didn't mean very much to me in general. The vacancy rates were helpful. So as you bring this before the Board, you might want to reconsider what you want to put in front of them in terms of a market study because I found this to be a distraction.

But other than that, I'm very supportive of the project. I think it's a great project, a great project for the community, and I think it will serve The Moorings community well.

CHAIRMAN LORENZINI: Thank you, Lynn. Commissioner Ennes?

COMMISSIONER ENNES: While I didn't have the benefit of the Plat & Sub Committee, my compliments to the Petitioner for a very well thought out comprehensive plan. We see a lot of proposals and very few them are as detailed as this. So, my compliments to you on that.

I do have a couple of questions. In regard to the seven additional units, will those seven additional units provide housing for seven people or 14 people? Whoever might be able to answer it.

MR. KIMMEL: Seven.

COMMISSIONER ENNES: For seven.

MR. KIMMEL: Yes, they're individual occupancies.

COMMISSIONER ENNES: Okay, so we really have a net improvement in parking.

MR. KIMMEL: Yes.

COMMISSIONER ENNES: Okay. Once the project is completed, do you know what the lot coverage ratio is going to be for parking and buildings? I'm not looking for an exact number, just --

MR. ENRIGHT: Well they do meet code, I know that and they do have it in their submittal somewhere.

CHAIRMAN LORENZINI: Come back up to the mic please.

MR. FRERES: Yes, 17 percent per building. Yes, per building. I don't know if you want me to go all the way over to --

COMMISSIONER ENNES: No, that list is very long, it's just very long.

MR. FRERES: It's very long. It was on that slide where I showed the existing and the proposed --

COMMISSIONER ENNES: Okay. I might kill your name, Mr. Swortzel?

MR. FRERES: Scott Freres.

COMMISSIONER ENNES: Okay, I'm sorry. While you're up, your slide on the Douglas Avenue view number two.

MR. FRERES: Okay. Let's bring that up real quick.

COMMISSIONER ENNES: Actually, your architect may, if he's the one who prepared this directional view to show the height for the lot line, might be better able to answer this. Okay, and please forgive me, I am not an architect and it amazes me sometimes when we see this type of, ah, view number two.

MR. KIMMEL: View two, there you go. Yes.

COMMISSIONER ENNES: Okay. Sometimes when we see these

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and I go back and look at the properties after they're developed, it seems like the buildings are so much higher than what I thought these drawings were. So, my question to you is what do you do when you prepare a view like this? Because you've got to --

MR. KIMMEL: How do we generate the view? Okay.

COMMISSIONER ENNES: What are you doing to make sure that that's what the height is going to look like from the lot line?

MR. KIMMEL: Well, what we do is we're using a software program called Revit, so we're building the building, the proposed building and the buildings around it three dimensionally.

COMMISSIONER ENNES: Right, okay.

MR. KIMMEL: So, that gives us a height and a depth and the general character of the building. We're also modeling the topography, the site grading, so we know how the building is sitting on the site. We then take the photograph and we know where the photograph, the point at which it's taken, so within the computer-generated model we position a view from that point that the photograph was taken. Then we basically superimpose the photograph on the computer image and we make a little bit of adjustment because they're not always exact. So, in this case where you have foreground buildings, you can actually use the edges of foreground buildings to basically make sure that your view and your height and your angle are basically as comparable in the model as they can be to the original photograph. They're not, these are not perfect, I mean they can't be perfect.

COMMISSIONER ENNES: But I'm not going to come out later and see that the building is half the size of the white ridge line around that cottage?

MR. KIMMEL: No, no. I mean there is a little bit of margin for error in this because you're working with a photograph that in its very nature distorts the image a little bit through the lens that it's being taken from.

COMMISSIONER ENNES: One last question.

CHAIRMAN LORENZINI: Excuse me, leave these images up, okay?

COMMISSIONER ENNES: I don't know if this is really a statistical term that you use in laying out something like this, but what is the effective setback of all the buildings on your perimeter? Or maybe not effective, what is the shortest distance from one of your building improvements to the street?

MR. KIMMEL: I think, the closest distance I think is the 283-foot dimension.

COMMISSIONER ENNES: The 283 goes to the house on the other side of the street, doesn't it?

MR. KIMMEL: No, 283 is to the property line I believe.

MR. ENRIGHT: Well, I calculated, I think it's less than that. The closest point of the assisted living building to their west property line, and the property line is, you know, inside of the curb line by about 15-20 feet because they've got a parkway, is about

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165 feet to the closest point to the property line.

COMMISSIONER ENNES: Okay, which is considerable.

MR. ENRIGHT: But then you've got another 66 feet of street right of way which is the street and a parkway on the other side.

COMMISSIONER ENNES: Okay. That's all I have, thank you very much.

CHAIRMAN LORENZINI: Thank you, Terry. Commissioner Green?

COMMISSIONER GREEN: In the Plat & Sub, I was impressed by what was brought to us. After seeing the finished product, kudos to all the planning and the architect for what they've done and I think it's a great project. I look at this view here and I know that the building is going to be back there, but the most impressive part is that it's a 41-acre site and to be that far away from a sight line is a great project.

The Moorings has always been a real, what I think a real topnotch project within Arlington Heights for many years. I had the privilege of working on that project back in 1985. So, I'm pretty familiar with it for a long time. Good job, guys!

CHAIRMAN LORENZINI: Thank you, Bruce. I have a question for the architect, if you could come back please? So, this view I'm looking at right here, the new building, that is the new building in the background?

MR. KIMMEL: It is the new building in the background.

CHAIRMAN LORENZINI: Okay, and that's the view from sight line two?

MR. KIMMEL: Sight line two.

CHAIRMAN LORENZINI: Now, can we go back to the aerial, Bill, that shows sight lines one, two and three, where they're taken from? A couple of slides back. Okay, now, let's go to the sight line, the sights have three before and after you do the planting.

MR. KIMMEL: Okay. Go forward.

CHAIRMAN LORENZINI: Okay, so that's the new building there?

MR. KIMMEL: That is the new building.

CHAIRMAN LORENZINI: If it was built today with the existing trees, that's what it would look like?

MR. KIMMEL: Correct.

CHAIRMAN LORENZINI: On the next slide, it shows the trees planted?

MR. KIMMEL: Yes.

CHAIRMAN LORENZINI: Okay. How long in the future after those are planted is that view?

MR. KIMMEL: Ten years to get full maturity of the street trees.

CHAIRMAN LORENZINI: Okay. All right. Mr. MaRous?

MR. MaROUS: Yes.

CHAIRMAN LORENZINI: I'm sorry, I hope I don't murder



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your name.

MR. MaROUS: MaRous.

CHAIRMAN LORENZINI: MaRous. You said there was no substantial impact to the property values. Just give me an example of what would impact, not that this is going to, but let's say there was a project that would impact the property values, what type of things would they have to do to cause an impact to the property values?

MR. MaROUS: Waste transfer station.

CHAIRMAN LORENZINI: No, but with a facility like this.

MR. MaROUS: Oh, a facility like this?

CHAIRMAN LORENZINI: What could they possibly do to decrease the value of the homes?

MR. MaROUS: I think looking at this view right here if it was the main entrance and if it was wider and it accommodated all the truck traffic, the garbage trucks, et cetera, maybe have a standing area for cabs or other transportation that was sitting and parked on Douglas.

CHAIRMAN LORENZINI: Okay, that's good enough. All right, thank you. All right, that's all I have.

So, we'll go on to the public comment portion now. So, let me just ask the question, all those who want to make a statement or ask a question, would you please raise your hand? Okay, and may I ask, the yellow buttons, what do those say? I love?

AUDIENCE MEMBER: The Moorings.

CHAIRMAN LORENZINI: The Moorings, okay. Thank you. All right, so let's start on my right, your left side of the room. We'll start in the first row and then go to the next row and the next row. Does anybody on the first row want to speak? Please come forward, state your name, spell your last name please and give your address.

### **QUESTIONS FROM AUDIENCE**

MS. JOHNSON: Margaret Johnson, J-o-h-n-s-o-n, The Moorings resident, 811 East Central Road, Arlington Heights, Illinois, Apartment 415. I'd like to share my thoughts, which are the thoughts of a resident and who loves to live at The Moorings.

So, good evening. I'm Margaret Johnson, a resident at The Moorings since 2000. In a couple of weeks, I'll have been there 15 years, anyway as God would bless here, yeah, right.

I'd like to share with you how the buildings that you are now currently reviewing would be a benefit to The Moorings residents and to the neighborhood. Two of the buildings I'd like to share a few thoughts on are the new assisted living building and fellowship hall. First, I would like to point out, and I do, that The Moorings with its beautiful, well-kept grounds are not only a blessing to those who live there, but also to its surrounding neighborhood. The improvements that are listed are needed to modernize the assisted living homes for today's residents, but also to keep The Moorings in

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demand for generations to come.

The Moorings has, I'm nervous.

CHAIRMAN LORENZINI: It's okay, you're doing fine.

MS. JOHNSON: A successful Moorings maintains a successful neighborhood, always as beautiful as you see here today. The Moorings is a continuing care facility that's offering health and services to independent, assisted, memory, and healthcare. For some independent living residents, assisted living is going to become necessary. The design, the additional space and accommodations of the new building allow each one to truly continue to live in a very comfortable home.

The building is beautiful in my opinion. Inside and outside in its design, you create a perfect balance to the community and also to the grounds. Add the landscaping and trees, flowers, the greenery, a pond and even some swans, and as you look out the window you see a paradise garden. Truly a very special place to call home. I believe that the assisted living building and all the plans that you're reviewing were designed with the good of everyone in mind.

Now I'd like to share a few thoughts on fellowship hall, something I hold very close to my heart. The Moorings residents are men and women that come from all walks of life. They're very talented, very kind, very caring. They're people of all faiths, coming together, respecting one another, and they're the soul of the community. Fellowship hall would be the heart, it would be the center of community life.

The Moorings has a well developed and dedicated spiritual life group under the guidance of two chaplains. As a member for many years, I with others help serve and befriend many. I was so moved by those suffering major illness and end-of-life issues with no special place to go. It's become clear to me that a sacred space was absolutely needed so they can share and pray with their family and their friends and their loved ones. They needed a quiet and a peaceful place to be with family, friends, and also for themselves.

In addition to these individual needs, fellowship hall's location and the first that we've ever had a space large enough with easy access for everyone, would allow one to invite and to welcome the community as a whole to share in many, many programs. Some of these programs would include worship services, concerts, bible studies, memorial services, lectures, holiday celebrations and much more. We look forward, the residents, to the fellowship hall completion knowing it will be the center of community life, for in our coming together we create and we deepen friendships, we strengthen the community as a whole, and it helps us to grow in unity and in love which is good for each and every person that lives there.

I give thanks to all who have worked on this plan, and I thank you for your work and your discernment. I with the rest of the residents look forward to these plans becoming a reality. Thank you so much.

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CHAIRMAN LORENZINI: Thank you very much. Anybody else on first row who want to speak? Yes, ma'am, come forward. State your name, spell your last name please, and your address.

MS. BECKER: Vivian Becker, B-e-c-k-e-r. I'm one of the more than 450 residents of The Moorings. This became my home when I bought into it six years ago. Being part of this community makes me already then a homeowner and a taxpayer in this Village, and I see myself living here until the end of my days. I feel that this planned development at The Moorings will improve my investment in the community, in The Moorings itself, plus in the Village of Arlington Heights.

This continuing care senior facility is already a great asset to the Village. And any additional developments to the campus can only be more beneficial to the entire neighborhood. Thank you.

CHAIRMAN LORENZINI: Thank you. Anybody else on the first row who wish to speak? Okay, the second row, anybody? Yes, ma'am, come forward please. State your name, spell your last name please, and your address.

MS. FEELEY: My name is Eileen, E-i-l-e-e-n, Feeley, F-e-e-l-e-y. I'd like to focus on the assisted living. As each of us lives another day, we not only get older but we sometimes get more frail. Moving to a place like The Moorings provides a safe, secure place where all we need is available to us.

As a total community, people at The Moorings become each other's friends and neighbors. They've lost their lifelong friends, they've lost members of their family, and they begin to be a new family for each other. Then someone recognizes that they need more intensive support, so they graduate into the assisted living property which is a plus as far as their physical care is concerned, but it is not a plus as far as their mental capacity because the units presently in the assisted living area were not designed to be that. They were meant for a more health-oriented lifestyle.

So, presently, I have a neighbor across the hall. That neighbor turned 99 years old. At that point in time, she moved to assisted living. You'll notice I approached the podium slowly because right as she moved I broke my ankle. So, it's not possible for me to walk the great distance that presently exists between the independent living where she and I both were and the assisted living where she is.

We also have a World War II nurse in her 90's, obviously someone who has crossed the ocean dozens of time caring for the wounded. It's a little difficult to live in such a small space. It's not even possible for three of us to sit and converse. If we move to a generalized area like the living rooms that are available, it's difficult for her to go that far.

Geriatrics has researched this type of facility. One of the things that they've discovered and recommend is that people keep their own belongings. Now, every man has a favorite chair and every woman has a favorite gewgaw that they're not willing to give up.

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Presently, both can't be kept. You can only keep the barest amount of your clothing because there's not a lot of closet space. You can keep perhaps one or two pictures, and we all have pictures of births and weddings that are very important to us. So, we really would like to keep those.

As you look at the new drawing and you see Building B connected to the fellowship hall area, you can see that if my friend and I wanted to meet, each of us would only have to go half the distance that it presently takes us to visit each other. So, this would be a tremendous help to those who have suddenly become separated from the new family they just generated and now are separated from.

I think that the recommendation to enlarge the space is in line with current geriatric research. I think the fact that Arlington Heights offers such really great medical services is a plus for The Moorings. I would hope that as your family ages, they would come to join us at The Moorings.

CHAIRMAN LORENZINI: Thank you. Anybody else on the second row? Yes, ma'am.

MS. HORSWILL: I am Jane Horswill, H-o-r-s-w-i-l-l. I live at 1042 South Moorings Drive, Arlington Heights, Illinois 60005.

I'm here to talk about the memory center and I can hardly wait until that gets built. It sounds wonderful. I come before you this evening as a person who once spent 32 years in the medical health profession. I now live at The Moorings in a villa, which is considered independent living. My husband is now in the memory center with dementia. We have had the feeling that we would never grow old, but unfortunately old age creeps up on everyone, and so we moved to The Moorings for continued care.

Everyone in this room will eventually get old if one does not have a fatal accident before becoming elderly. Most of you will need care at some point. The Moorings offers independent living, assisted living for more care, rehab department, and a memory center for those who have Alzheimer's or dementia. As of now, there is still no cure for these diseases.

Have any of you gone to one of these retirement homes or have a loved one in a home? The Moorings definitely needs to modernize its facilities that more and more elderly need to have care.

Alzheimer's disease was rare a few years ago. Now, Alzheimer's disease is the second highest cause of death in the USA.

With memory loss on the rise, there needs to be a larger memory center. The new space will provide a more overall home-like environment for the residents. The residents will not have to share their dining room and activity space. Memory care and assisted living is not just an investment in The Moorings and in its current and future residents; it is an investment in the community.

If you have to think about a retirement home, would you not like a nice place to move to in your later years? Think about it. Thank you for listening.

CHAIRMAN LORENZINI: Thank you. Anybody else on the

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second row? Okay, we can just continue. Come forward, ma'am, but let me just ask a quick question. Everybody in favor of this project, would you please raise your hand? Okay. That just gives us Commissioners an idea. I still want you, if you want to come up and speak in favor, that's fine; or if you want to speak otherwise, that's fine. But this kind of gives us an idea of what you mostly are feeling. Yes, ma'am, your name and address, and spell it.

MS. BAUMGARTNER: My name is Charlotte Baumgartner, and I live at 753 Crescent Drive. I've been a resident of The Moorings for 11 years. As a nurse, I know how important exercise is to keep one's body healthy and fit. However, only in the last two years have I experienced the personal value of exercise and it changed my life.

We really need an appropriate dedicated space for our exercise program. Our locker room will become more than one shower, one toilet, and nine lockers. Right now, the limited space discourages residents from attending water aerobics or our arthritis class. The cardio and strength training class sometimes is 15 minutes less due to another event scheduled in the same room.

The assisted living residents exercise in the TV and activity room. We have no fitness space now that realistically fits the culture we live in. We have two women in their mid-90's in our chair cardio strength class, and another 100-year-old woman in our chair yoga class.

I believe The Moorings continuing care community is an asset to the Village. I would like to be assured that soon new residents and our present residents will be encouraged to exercise in an adequate beautiful space designed for keeping us healthy and fit throughout our lives. Thank you.

CHAIRMAN LORENZINI: Thank you. Anybody else on the third row? Anybody on the next row? The next row? Anybody else on this side of the room?

Okay. Let's cover this side of the room. Anybody on the second row? Oh, I'm sorry, sir, come forward. State your name, spell your last name please and your address.

MR. HINES: Excuse me, my name is Dave Hines. I live at 108 Hatlen Avenue, Mount Prospect which is the street east of Audrey, so two blocks over from The Moorings.

Just a couple of concerns. I don't really have a problem with The Moorings itself. As a neighbor or a unit, again I'm two blocks over so I can't speak to the adjoining neighbors, we flooded three times at our property. We flooded once in '87, I think it was a 500-year rain. We flooded in '89, I think that was a 200-year rain. I may have the numbers reversed, I don't remember. And we flooded in 2011.

The first flood was due to a construction dike breaking. If you look at Audrey, there's a swale that comes down. We're directly behind that swale. Where the mud came over, we have pictures of the mud. My neighbor had 36 inches in his basement, I had 18, and it went on down fast at Hatlen Avenue.

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My concern is, with the flooding, three issues. Construction, flooding while the project is going on, I want to make sure there's adequate dikes that won't break during torrential rains. We have the sewer concerns from elderly neighbors who aren't here right now. I understand that Mount Prospect and Arlington Heights share a sanitary sewer system. So, I know we're only talking about adding seven people, but I want to make sure that there is not additional usage or usage that hasn't been worked out with the Village of Mount Prospect in addition to Arlington Heights also.

Then the third would be the storm and the sanitary, I'm sorry, the storm water runoff. It sounds like you can compensate for it with a 100-year rain, but I'm more concerned with the higher rains than that. I know you have some underground trenches, I don't know if those are connected underneath the parking lots that release them at a slow rate. So, that's my concern with the flooding during and when the project is complete.

I understand from a previous meeting, and maybe you can just clarify this later or address it, that the project was supposed to start in 2016 and it was going to complete in two-and-a-half years. Then I also have a question about how is the project being funded? So, I'll turn the microphone over to whoever wants to answer.

CHAIRMAN LORENZINI: Okay. As far as flooding goes, the overall detention of the area is being improved. So, it's going to help whatever flooding occurs or has occurred, and they meet all of the requirements. But now you do have a legitimate concern about during construction. What happens if something goes wrong? Bill, could you or somebody answer that?

MR. ENRIGHT: Their engineer would have to, you know, I don't know all the particulars of how they're phasing the construction with respect to when they're going to start the detention versus the buildings. But I'm assuming that's --

CHAIRMAN LORENZINI: Well, I think the question is during construction, how do you ensure you don't increase the chance of flooding, where you at least keep it where it's at now?

MR. ENRIGHT: Well, hopefully one of the first things they would do would be to enlarge the facilities that they're going to enlarge, the west lake. But they'll have to testify to that.

CHAIRMAN LORENZINI: Can somebody --

MR. RENNER: Mike Renner, vice president with Eriksson Engineering.

CHAIRMAN LORENZINI: Would you spell your last name please?

MR. RENNER: Renner, R-e-n-n-e-r. Address is 145 Commerce Drive, Grayslake Illinois.

The question that you had asked is how do we mitigate any flooding or issues during construction. Although the details haven't been worked out quite yet, we will have to comply with the Village of Arlington Heights requirements for any sediment and erosion control during construction as well as MWRD. There will be a

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plan that is created that will include such things as sediment traps and erosion control fence.

All of this will be, for the most part, contained centrally to our campus. There is very little area affected, really isn't any construction that is taking place outside of the ring road with the exception of there is one sewer connection. But all the heavy duty construction is going to be taking place internal to the ring road where we can actually manage that. We'll probably put up a curtain adjacent to the pond to keep all of the erosion out of the pond. But there will be soil and erosion control elements that are placed on the property.

CHAIRMAN LORENZINI: Okay. The other question that I heard was we're making the storm water situation better by retaining more of the water, making the pond larger. But what about the sanitary? Where is the sanitary going? Is this going to make the situation, well, there's only seven more units so I don't know how bad it could make it.

MR. RENNER: That change to the sanitary is a small increase to the system. So, I don't think there's any concerns for capacity to downstream receiving sewer. We will have to comply with MWRD, the Village of Mount Prospect or Arlington Heights in connecting to that downstream sewer. We'll have to prove capacity.

CHAIRMAN LORENZINI: I think the last question was start and finish of the project and financing.

MR. SWORTZEL: The dates that he mentioned were correct. The plan start date is spring or early summer of 2016. The duration is going to be two to two-and-a-half years. Because it's a phase project, we need to complete the fellowship hall and assisted living before we are able to remove the existing sheltered care building and build memory support. So, it does create an extension of the construction period to two-and-a-half years.

The project will be financed through normal financing that we will do with investor investment, probably through municipal bonds.

CHAIRMAN LORENZINI: Okay, thank you. All right, anybody else on this side of the room have questions, comments? Okay. All right, if that's, yes, sir, did you have something? Please come forward. State your name, spell it for the court reporter please, and your address.

MR. BABICZ: Hi, my name is Ted Babicz and I am at 1124 South Douglas Avenue in Arlington Heights, Illinois.

CHAIRMAN LORENZINI: Can you spell your last name please?

MR. BABICZ: Babicz is B-a-b-i-c-z. I'm here as one of the concerned neighbors for the 1000 and 1100 block South Douglas Avenue in Arlington Heights. I'm looking forward to your support as far as the Planning Board to take a good hard look at some of the concerns of the residents and alternatives that we will present here to you.

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We attended the meeting, fellow residents and I attended the meeting with The Moorings as far as neighbors on 9/9/15. They presented their expansion of the properties, which they've all talked about tonight.

Just a little background, I was there in 1987 and part of the overall Douglas Avenue organization that worked with the Village as well as The Moorings which at that time I think had another name for the property, Lutheran General property. We came to a successful agreement, all parties being there, and the project took off.

Today, The Moorings is integrated within a quiet neighborhood on all sides of the property with residents owning single and two-story homes. Some of the residents who have been on Douglas for a short period of time, they're improving their homes; a lot of us have been there ten plus years.

What you have here is a new institutional building being introduced, you know, on the Douglas Avenue side. It's a residential side of Arlington Heights. What's there today works, single-family villas within the homes surrounding the neighborhood. In my particular case, that is my view of the new Moorings project. I live directly across from that. I also have six neighbors that will also share in that view.

One of the things that, you know, taking a look at, I was very surprised taking a look at the documentation that was sent to us on Friday, September 25th, I was clearly surprised that there was a great concern for businesses, homes, the church, North and Central Avenue into the east and south Mount Prospect residents. Douglas Avenue didn't even have a, I'm sorry, did not even get a simple honorable mention when all these considerations and documentation have been put together.

I did review the detailed drawings. I uncovered some disturbing information in Drawing A.102, partial ground floor plan, Area C. Something that we're not talking about here is the use of that building on that corner to be, number one, a loading dock and a disposal for garbage. There is a compactor within that building. So, what we're going to get is we're going to get noise from the loading dock. It's going to be an open thoroughfare with trucks, semi-tractor trailers, automobiles, pollution increase, noise at all times of the day and the evening. Garbage guys like to come at 3:00 a.m. in the morning to take the garbage and move it away from the property.

A question I also have is will they use Douglas Avenue as an entrance, you know, to this docking area? The trash compactor that's located next to the proposed dock will produce garbage smell, maybe, you know, an infestation of bugs and rodents. Again, I still look at the, you know, the 3:00 a.m. visits of where the beepers are. I've been in many hotels and that type of thing within some of the areas throughout the United States and that's generally when they do their business. That's my experience.

This document location, if you look at it in



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reference is number two, that view number two there is directly across. It's within 150 feet of Douglas Avenue, and to me that's a major concern. There's going to be noise and pollution from all that's there.

I did meet with the Village Planning Department, Latika Bhide and her manager Bill Enright. We reviewed some of the drawings. We took a look at various components of the project and the like. We saw a lot of nice layouts, and one of the things I did not see or failed to see is what you're looking at here. I did ask Bill, Bill agreed that it was reasonable to ask The Moorings folks to put these drawings together with a perspective looking from the Douglas side of the street.

So, from that point, I met personally with Nancy Tolan and the landscape architect, Scott Freres of the Lakota Group, and we did walk Douglas Avenue. I walked Douglas Avenue with these folks to take a look at the property, properties of Douglas Avenue and with respect to the properties in The Moorings property. We also went inside of Moorings and we took a tour from the facilities, trying to get somewhat of an idea of what it looked like.

So, in regard to that, we talked about why the building being where it is and their, you know, their rights or their, I heard the message that this location best suited their needs. They wanted to provide the right services according to market needs and remain competitive. I also got my question why to which, you know, they presented their reasons why they want the project to be where it is.

We left the meeting with an agreement to work together with the Village, with The Moorings folks as well as the residents of Douglas Avenue. On Monday, September 28th, I received an e-mail from Nancy with the superimposed layouts of the property which included pictures and renderings of the proposed buildings from the Douglas residents' view. I was mostly interested in resident view number three because I'm across the street from that view location. Very concerned to see the mass and the height of the assisted care building, let alone the color scheme. There's a lot of red buildings there, the color scheme is totally different and it kind of sticks out.

From the rendering itself, number two, the gentleman that lives at 1116 South Douglas is the one that directly would be looking in that area. He took one look at that drawing and says, hey, there's something wrong with it. It appears that the new buildings, and I appreciate, Terry, I appreciate your comment about there's a building growing after it's been built. He says that kind of looks like it's been positioned in the middle of the property. I'll show you, I'll share something a little farther down here where I came up with some calculations.

I asked Nancy to take a look and to check, you know, to check and see if all of this was done correctly. She said the proposed building images were generated from the site plan from photos taken within the last week, so I'm certain that these are accurate and

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positioned correctly. If one looks at the photographs, you can plainly see they are generated by Google Maps and dated August 2012. Images from Google Maps are panoramic views that are somewhat distorted, therefore, giving a not-so-true image.

I secondly asked Nancy for the dimensions from the Arlington Heights properties on Douglas Avenue to one of the curbs that is on Moorings Drive which would be on the east side. She came back with those numbers and I went through and I calculated using basic trig.

CHAIRMAN LORENZINI: Excuse me, let me just ask a quick question. Who's Nancy?

MR. BABICZ: I'm sorry, Nancy.

CHAIRMAN LORENZINI: Oh, okay, that's all right.

MR. BABICZ: I'm sorry, Nancy Tolan. I took, I just simply took the dimensions for the buildings, what was given to me by Nancy Tolan, and did a calculation and find that there's probably about 24.6 feet that are missing from that view. Just basic, simple trigonometry using 9.63 as the dimension looking up, and taking the buildings that are, the villas that are there, I've added, I've actually added height to that. If I lowered it down to where it was, I'd probably get a bigger dimension there. So, there are some missing views out of that height, there's a big difference.

As you can tell, I'm not in favor totally of the proposed project along Douglas Avenue. The Moorings have been great neighbors. They keep up the property, they cut their grass, the fencing around the property is great. The neighbors, you know, when they come to walk on our side of the street, they have all been very pleasant and the like. We never had any problems with them.

I know The Moorings wants to survive, answer the needs of the baby boom aging generation and older. We want them to remain strong and to be a good neighbor and to keep up their property. There is a saying, "We do not plan to fail; however, we sometimes fail to plan." This is a golden opportunity to plan to do the right thing for all parties.

I have a question for Craig Kimmel. There was a meeting that was held in November 2nd, 2014. I'll use what you stated at that meeting. He said that they would be introducing two new apartment buildings with 45 units and 41 units. He explained that the buildings would be connected to the common space on the first floor. He also said that there would be another four-story apartment building on the back end. So, I mean that's something that, are they going to, is there a plan?

CHAIRMAN LORENZINI: Well, let's finish your comments, and then we'll get their response.

MR. BABICZ: All right. So, what I'm asking is that, the folks from The Moorings, to take a re-look at the picture renderings. Please use current pictures and not Google to give true projections of the building for numbers one, two and three. Maybe one, it's the same level, that's, you know, okay, fine, but the thing is

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that, you know, you use a straight projection, great, but people always look around. So, you know, that's one of the components.

Incidentally, in the drawings with your dimensions, the Douglas properties have a distance of 30 feet from the building to the property line, the street is only 24-foot wide between the curb. Ultimately, I would ask that the new proposed buildings be relocated somewhere else on the property. If not, rethink the height of the project to two floors and redistribute the remaining assisted living units to other areas of the project in the campus. To use one example is the Autumn Leaves complex, you folks probably have worked on it. It's simple, it's elegant, and it's a single story.

Take a look at the redesign of the new buildings. To match the existing buildings that are out there, most of all, I mean even for villas as well as the five solid structures you have in place today are all red. You know, we're introducing new colors and it really sticks out as far as the drawings themselves.

I'm going to ask what are the traffic patterns going to be within The Moorings? Specially with semis, trucks, all the rest of that. How will they be entering and leaving the property? Will they be exiting on or through the emergency entrance off of Douglas Avenue?

If this project goes through, I as well as the residents of Douglas Avenue are requesting that the emergency exit or entrance on the 1100 block south of Douglas be permanently closed. It is, since 1987, there has been no emergency equipment to my, my neighbors', nor The Moorings' Nancy Tolan's knowledge, by the Police Department and/or the Fire Department using this entrance. It's been used mainly for snow removal and for the entrance to The Moorings lawn service. This closed area could mask whatever you're seeing here, because we have a nice little view here from the trees, would mask the view totally of the new structures that are there. I wish that you gentlemen would consider that.

In the current proposed drawings in the south assisted buildings, the details, there's a garage and laundry facility. Garages need ventilation, they have noisy fans. Where are those fans going to be located? People really need to make sure that you take a look at that. They shouldn't be on the Douglas Avenue side, they should be into The Moorings side, or venting somewhere through the roof through that access area that they have planned.

Soiled laundry from the patients' beds should be very smelly and where does the stink go? I'm hoping that the fans exhaust that and will either go into The Moorings courtyard or up above. The question is, you know, does The Moorings really need underground parking? Could it be located to another surface parking area? Can the extra floor space be used for assisted living or the residents?

Again, I go back to The Moorings, the drive, the thoroughfare, you're 150 feet of the residential section of South Douglas Avenue, you know, and I go back to the noise and peace of the

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neighborhood.

The initial project for the assisted living building will take two years, or two-and-a-half years as I heard tonight. The balance of the project will take another three years to the total of, reading some of the documentation, five years for the total project. Can we be reassured that there will be no construction workers, no cars, no trucks or equipment on South Douglas Avenue? This was promised by The Moorings staff. You know, then we ask that, we'd like to see that, you know, in writing if possible.

Then again what we also look at is we need to ask the question of what's in it for the Douglas residents for the pain and suffering and dust, dirt, noise and disruption? We went through The Moorings' 1987 project and it was very, very disruptive, very dusty. Part of the flooding problems that we had in 1987 was due to berming on the property.

This project was worked on without any knowledge of the residents on the periphery of The Moorings property. We were introduced to it on September 9th, which was late in the game in the approval process. We're asking for our voices to be heard and our requests given thought and consideration for all parties. We look forward to working with each and every one of you. Thank you.

CHAIRMAN LORENZINI: Thank you, sir. Bill what's the relation, you made those comments for those concerned about pickup time and traffic and whatnot. Does anything we're doing here violate any city codes?

MR. ENRIGHT: No, and there will be no entry or exiting to Douglas Avenue. This is strictly a fire lane. We can certainly investigate with our Fire Department whether or not they would like to keep that open. It's only accessible, in theory at least, to the Fire Department but not for everyday traffic.

CHAIRMAN LORENZINI: But is it needed for code in any way for fire access?

MR. ENRIGHT: It's part of the original PUD so we would have to look to see whether or not it's necessary. There are two egress and ingress points off of Central that are pretty far apart. So, it probably would not be required by code but we would have to investigate that with the Fire Department, because if we could properly close it off, if The Moorings was amenable to that, there could be additional landscaping there along that fence line. So, it's something we will certainly investigate with the Fire Department prior to this moving forward to the Village Board.

CHAIRMAN LORENZINI: All right. A lot of the other comments dealt with the design and layout and whatnot, and that's been approved by the Design Commission. To have to redesign this project at this point, I think we're past that.

My other concern is there's a lot of statements made about the accuracy on the views given. Would you like to address that? Would somebody like to address those in any way?

MR. KIMMEL: Yes, I think one of the things that is a

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little bit deceptive about the site is it is not flat. So, as you move south on Douglas, the grade does drop and it equally drops as you move south from what is the entry to assisted living down past this view, down around the base of the building. So, the elevation of the building does change as you move around the building.

In addition, the roofline, and I mentioned this a little bit earlier, where the building bends and is closest to Douglas, we have reduced the roofline so that view and view two where the building has a little bit lower perception is also because that is not the same ridge line as the view that's on the screen right now. It is lower by, I think about five feet. So, that does make up for some of that delta. It does not kind of translate to 26-and-a-half feet, so I'm not sure; the methodology that we used for all of the views is basically the same. I know that this photograph was definitely not a Google image, it was just taken, I think, Scott, a week ago? So, I'm not positive about image two and whether that was a Google image or not.

CHAIRMAN LORENZINI: Okay. We're certainly going to come back to the Commissioners to ask follow-up questions. But is there anybody else in the audience?

COMMISSIONER ENNES: If I could, one of the questions that was raised was in regard to garbage pickup. Bill, aren't there limitations on when haulers can remove waste from institutional properties?

MR. ENRIGHT: Well, not necessarily institutional but it's generally 7:00 to 7:00. But sometimes they come a little earlier, sometimes a little later, but everybody gets their garbage picked up, I mean there's garbage trucks all over.

COMMISSIONER ENNES: I abut an institutional property, and for a couple of months we had a problem with that. We talked to them, they got their hauler to quit coming in so early.

CHAIRMAN LORENZINI: Sir, did you have a comment? State your name, spell your last name please and give your address.

MR. PHILLIPS: Name is Robert Phillips, P-h-i-l-l-i-p-s, 1136 South Douglas. My question is do you anticipate any displacement of staff parking on Douglas which occurred when you repaved your parking lot recently? We had staff sitting outside our houses early in the morning on the way to work, not a very comfortable feeling, near my house, my wife, people sitting in their car.

CHAIRMAN LORENZINI: Yes, Nancy, come forward. First, let me ask, Bill, is there any restrictions on parking on that street?

MR. ENRIGHT: I don't believe there are any right now, but certainly the Plan Commission could make it a condition of the approval if you wanted to limit any, you know, any sort of parking on the street for --

CHAIRMAN LORENZINI: But how do you, if we did that, how would you distinguish between residents' guests and The Moorings?

MR. ENRIGHT: It's difficult but let's hear from the Petitioner. They're going to have to submit as part of the permit

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where they're going to park everybody. Their peak parking is about 65 percent of their onsite parking right now so they do have ample parking to accommodate a lot of people right now for, and that's my understanding, that they'll be able to accommodate their contractors.

CHAIRMAN LORENZINI: So, part of the permit is to accommodate parking?

MR. ENRIGHT: Well, part of their permit is to give us a plan for how they're going to accommodate and how they're going to phase construction to address all those types of issues.

CHAIRMAN LORENZINI: And that's up to Village's approval?

MR. ENRIGHT: Absolutely, the permits get approved by the Village, yes.

MS. TOLAN: Thank you. I apologize to the neighbors. There was a period of time where we were resurfacing our parking lots, and during that period of time those were not available for parking. But we do have ample parking on our site for our guests and residents and staff. I'm not aware of any other time except for when we were resurfacing the lots when parking was an issue. It is our plan to have all staff parking on the property when we are under construction. We will also manage construction traffic to and from the campus off of Central Road. Obviously we will park on the property or we will provide satellite parking and busing for our workers. So, we will not be parking on Douglas Avenue.

CHAIRMAN LORENZINI: Okay, thank you. Anybody else from the public? Yes, ma'am. State your name, spell your last name please, and give your address.

MRS. PHILLIPS: Jan Phillips, P-h-i-l-l-i-p-s, 1136 Douglas. Very clear what the benefits are to The Moorings residents this proposal will bring as well as financially no doubt to The Moorings organization. Unfortunately, those quality of life The Moorings residents gain and the organization gains financially are inverse for us, I would say, in spite of what the findings and their group shared. No doubt if anyone on the board were to live directly across from this, I think you'd have a hard time arguing that property values would not be impacted, considerations set for buyers of your property to begin with are negatively impacted, and just the overall feel of your neighborhood from what has historically been a very residential, lovely place to look at across the street from The Moorings because of the way they've maintained the property prior. But this building and its size, scope and placement is very concerning to our way of life and our financial benefits for our property.

Trees are great, they don't work miracles. They've got to grow. As you can clearly see on slide three here, this is opting to use cheap new trees and not place more mature trees in there. So, ten years was the figure from the organization themselves to get us to the next view of view three.

Number two, we unfortunately live in Illinois where trees are barren for a very good section of the year. So, it

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will address the problem in some seasons but not all. So, I think my final I guess ask to the group would just be to weigh not only the benefits to The Moorings residents, not only the benefits to The Moorings organization, but to those people who live across the street on Douglas so you can find a more balanced solution that benefits everyone. Thank you.

CHAIRMAN LORENZINI: Thank you. Anybody else? Okay, if not, we'll close the public portion of the hearing and go back to comments. Lynn, would you like to start?

COMMISSIONER JENSEN: Well, I would like to ask about the property valuations if I could. You used the technique of paired matchings. Is that the state of art in doing this kind of a valuation? You did five or six paired matchings?

CHAIRMAN LORENZINI: I'd just ask that everybody repeat their name just for the court reporter.

MR. MaROUS: Michael S. MaRous. Yes, that is the analysis that is used.

COMMISSIONER JENSEN: Is that state of the art?

MR. MaROUS: Yes, it is.

COMMISSIONER JENSEN: Okay, because it is, it still has a certain anecdotal element to it. I mean you're taking a couple of pairings, you're obviously selecting one and you're pairing it with something you could select a lot of different ways. So, is there anything you can assure us about the objectivity of how you pick and pair the matches?

MR. MaROUS: An attempt to find properties that have the most similar characteristics meaning age, appeal, design, square footage, modernization, location, anything that may have an impact, due to flooding, due to say a forced sale, a foreclosure would not be utilized. Looking for arms length transactions and also, you know, similar market periods because I think we're all aware most of the transactions from probably 2008 to 2012 were down considerably. So, even if we used during that time period, we'd try and use two similar properties during similar market periods. So, no, it's an art, it's not a science, it's not perfect.

COMMISSIONER JENSEN: Sure.

MR. MaROUS: But the other things that are looked at are, you know, the economic and the benefits, the amenities to the community, the infrastructure that it provides. I think you heard the \$70 million investment which also means jobs, which also means permanent jobs there, which also means higher real estate taxes, which also means in this situation significantly upgraded landscaping. I think we've all seen major facilities that haven't been modernized and what the negative impact that is to a neighborhood.

COMMISSIONER JENSEN: Okay, thank you.

CHAIRMAN LORENZINI: Terry?

COMMISSIONER ENNES: Mr. MaRous, I also have a valuation question.

MR. MaROUS: No problem.

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COMMISSIONER ENNES: Would you be a designated appraiser?

MR. MaROUS: I was awarded the MAI designation in 1980, which is the highest designation in the world, yes.

COMMISSIONER ENNES: Okay. When you did these paired matchings, you looked at comparable properties away from the subject and adjacent to the subject in comparison?

MR. MaROUS: Yes, the target is close to the subject, control is away. Yes.

COMMISSIONER ENNES: Okay. Did you, were you able to find paired sales where you had a property adjacent to the subject and sold before the change and then sold after the change? Were you able to do any comparisons like that?

MR. MaROUS: Which is called the sale-resale. We have looked at that. We had seen it and none of those were included in the study.

COMMISSIONER ENNES: It's a very difficult thing to find. I just wanted to know if they were included in your review.

MR. MaROUS: Well, and it also comes to a matter of timing such as this instance where there is an announcement of the project, so that's kind of the pre-project which is one period, then during the construction, and then what I would say a little bit of a maturation of one or two years. So, you have to be real careful as to how you compare your periods.

COMMISSIONER ENNES: Okay. Thank you, that's all I have.

CHAIRMAN LORENZINI: Bruce?

COMMISSIONER GREEN: Just a comment. I think all my questions have been answered, but the emergency exits are something that are required by and requested by the Fire Department. I can't imagine that they would look back on this and say we don't want to be as safe as we are currently. There might be other ways to treat these entrances in and out. There might be an opportunity to put some partially landscape pavers and things. They just have to be able to get through the gates. These are breakaway gates, I assume that when they hit these things, they would hit them and just they break away with the fire truck in. So, I wouldn't hold out a lot of hope that these things are going to go away. That's just been my experience.

CHAIRMAN LORENZINI: Thank you. John?

COMMISSIONER SIGALOS: I really don't have any further questions at this point.

CHAIRMAN LORENZINI: I just have one question. Is this the before or after with the landscaping?

MR. FRERES: Before.

CHAIRMAN LORENZINI: So this is what it would look like after the trees are planted?

MR. FRERES: Yeah, that's outside. It's important to recognize it, because this is today.

CHAIRMAN LORENZINI: So, those are the existing trees?



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MR. FRERES: Those are the trees in 10 years and it's important, somebody may have mentioned that they're small and not significant. The trees that we would intend to put in here are six to eight-inch caliper trees, big trees. A, because we're committed to moving some of the trees that are on the site, we're going to try and find someone to actually move them which would make a big impact. Two, if we put bigger ones in, in 10 years they will be a full size. Most trees take 25 to 30 years.

CHAIRMAN LORENZINI: Even putting six-inchers in there would take 10 years?

MR. FRERES: Yes. There is in the foreground, you can see off the side of the railing, on either side of the entrance, there are some evergreens in there. We recognize that those trees will lose their leaves and we want to make sure there's a secondary line of defense.

CHAIRMAN LORENZINI: Okay, thank you.

COMMISSIONER JENSEN: I'd like to make a valuation question again. We've had both in the e-mail that Mr. Babicz sent and what Ms. Phillips raised, that they said it's obvious it would decrease the value of the property. Do you have anything for this Commission to consider that would be supportive of that statement? Because we do have what has been stated as the state of the art in making this kind of valuations. So, I'd like to know, is there something we're missing that you're aware of that would be evidence to support your assertions?

MR. BABICZ: No, I do not have any other data or --

CHAIRMAN LORENZINI: Can you come up so we can hear?

MR. BABICZ: Again, Ted Babicz, 1124 South Douglas Avenue, B-a-b-i-c-z. No, I do not have any data. It's strictly speculation. When we do have a project of this type, people are going to look at it and they're going to look at it negatively, especially when it's under construction. I probably will not be able to sell my property for a reasonable value for the next five years. So, it's going to make that portion very difficult.

COMMISSIONER JENSEN: Well, is the duration of this, is this five years or is it two-and-a-half years?

MR. KIMMEL: Two-and-a-half.

MR. BABICZ: That's phase one.

MR. KIMMEL: No.

CHAIRMAN LORENZINI: If you're going to speak, come up to the mic please.

MR. KIMMEL: There are two phases to the project. The first phase is approximately 15 months, the second phase is approximately 15 months. The total duration is 30 months.

CHAIRMAN LORENZINI: When will these trees be planted?

MR. KIMMEL: These trees would potentially be planted --

MR. FRERES: Right away.

MR. KIMMEL: They're going to be one of the first things done if we're going to be transplanting trees.

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COMMISSIONER JENSEN: Okay, thank you.

CHAIRMAN LORENZINI: All right, anything else? Any other comments?

COMMISSIONER SIGALOS: If I could just make a comment, just for the residents on Douglas or on adjoining streets. Four or five years ago, a similar facility, Lutheran Home, came to the Village and wanted to build a large addition right in a very residential neighborhood. They had similar parking problems and the residents had parking problems on the streets and they had concerns about the mass of the addition and what that would look like. I've got a number of personal friends that live right across the street from the Lutheran Home, down the street from the Lutheran Home. Now that that addition has been completed, they have absolutely no concerns at all. It blends in very well with the neighborhood and they've done an excellent job there with their landscaping and so forth.

So, I kind of liken that to what this building will look like and this is set back much farther off the street than the Lutheran Home petition request. That's my only comment.

CHAIRMAN LORENZINI: Any other comments, recommendations?

COMMISSIONER GREEN: I'd like to make a recommendation.

**A motion to recommend to the Village Board of Trustees approval of PC #15-012, a Planned Unit Development Amendment by amending Ordinances 85-154, 88-015, 89-041, 91-108, 92-051, 93-051, 02-015 and 06-069 to allow:**

- A) A new two-story resident fellowship hall
- B) A new four-story assisted living building
- C) A new one-story (with basement) memory care building
- D) Demolish the existing sheltered care building
- E) And demolish two quad villas

**And the following variations:**

1. A variation from Chapter 28, Section 5.1-8.11 from the requirement that inner courts are permitted for one and two-story buildings to allow inner court for a three-story building without the required 12-foot emergency access.
2. A variation from Chapter 28, Section 5.1-8.14, *Minimum Distance from Building Wall to Paved Area*, to allow a building wall for the memory care building to be seven feet from a paved area instead of the required 12 feet.
3. A variation from Chapter 28, Section 11.4, *Schedule of Parking Requirements*, to allow 538 parking spaces where 581 is required, a variation of 43 spaces.
4. A variation from Chapter 28, Section 5.1-8.9, *Maximum Height*, to allow the assisted living building to be 48.5 feet tall whereas 45 feet maximum is permitted, a variation of 3.5 feet.

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5. A variation from Chapter 28, Section 51.-8.10, *Dwelling Standards*, to allow assisted living units to be 588 square feet in area where 650 square feet is required for one-bedroom units, a variation of 65 square feet per unit, and to allow studio units 481 square feet in size where 550 is required, a variation of 69 square feet per unit.

This recommendation is subject to the following conditions:

1. Condition from Ordinance 85-154 regarding the requirement to install a traffic signal if warranted at the property owner's expense shall remain in full force and effect.
2. The Petitioner shall work with Village Staff on possible relocation of additional trees on site.
3. Compliance with the Design Commission motion dated August 25, 2015.
4. Approval of an MWRD permit for storm water.
5. A landscape and tree presentation bond is required prior to issuance of a building permit.
6. Compliance with all federal, state, and Village codes and policies.

CHAIRMAN LORENZINI: Is there a second?

COMMISSIONER JENSEN: I'll second that.

CHAIRMAN LORENZINI: Roll call vote please.

MR. ENRIGHT: Commissioner Ennes.

COMMISSIONER ENNES: Yes.

MR. ENRIGHT: Commissioner Jensen.

COMMISSIONER JENSEN: Yes.

MR. ENRIGHT: Commissioner Sigalos.

COMMISSIONER SIGALOS: Yes.

MR. ENRIGHT: Commissioner Green.

COMMISSIONER GREEN: Yes.

MR. ENRIGHT: Chairman Lorenzini.

CHAIRMAN LORENZINI: Yes. Okay, you received a unanimous approval. This is just a recommendation to the Board of Trustees. The Trustees have the final approval of this project. Bill, is there a date this is going to go to the Board of Trustees?

MR. ENRIGHT: Monday night, October 19th at 8:00 p.m. in this room.

CHAIRMAN LORENZINI: Thank you. Congratulations and good luck with everything! Thank you all for attending.

There is one other hearing we have to go to, so if you're going to continue to talk, would you please go out in the hallway and we'll move on to the second hearing? If you would like your plans back, you can have them.

(Whereupon, the public hearing on the above-mentioned petition was adjourned at 9:40 p.m.)



**Item:** Collision Damage Experts - 9/30/15

**Department:** Planning & Community Development

**ATTACHMENTS:**

**Description**

PC Minutes 9/30/15 DRAFT

**Type**

Minutes

PLAN

REPORT OF THE PROCEEDINGS OF A PUBLIC HEARING  
BEFORE THE VILLAGE OF ARLINGTON HEIGHTS  
PLAN COMMISSION

COMMISSION

RE: COLLISION DAMAGE EXPERTS - 9 EAST COLLEGE DRIVE - PC# 15-018

REPORT OF PROCEEDINGS had before the Village of  
Arlington Heights Plan Commission Meeting taken at the  
Arlington Heights Village Hall, 33 South Arlington Heights  
Road, 3rd Floor Board Room, Arlington Heights, Illinois on the  
30th day of September, 2015, at the hour of 9:40 p.m.

MEMBERS PRESENT:

JOE LORENZINI, Chairman  
LYNN JENSEN  
TERRY ENNES  
BRUCE GREEN  
JOHN SIGALOS

ALSO PRESENT:

BILL ENRIGHT, Deputy Director

CHAIRMAN LORENZINI: Okay, let's move on to the next public hearing, Collision Damage Experts, 9 East College Drive, PC# 15-018. Have all the proper notices been given, Bill?

MR. ENRIGHT: Yes.

CHAIRMAN LORENZINI: Is the Petitioner here?

MR. KILMER: Yes. We're still coming in.

CHAIRMAN LORENZINI: Please come forward and anybody else who is going to testify and we'll swear you in.

MR. KILMER: If you don't mind waiting some moment, we're actually waiting outside.

(Pause.)

CHAIRMAN LORENZINI: Bill, let's do a five-minute recess.  
(Off the record.)

CHAIRMAN LORENZINI: Okay, let's reconvene the meeting and get started with PC# 15-018. Let's note that the Petitioner has handed out this booklet, Collision Damage Experts and a listing of the locations of their facilities.

Okay. Bill, have all the proper notices been given?

MR. ENRIGHT: Yes.

CHAIRMAN LORENZINI: Okay, and is the Petitioner here?

MR. KILMER: Here.

CHAIRMAN LORENZINI: Anybody who is going to testify, would you have them all come forward? Raise your right hand and we'll swear you all in. Just come forward please, raise your right hand.

(Witnesses sworn.)

CHAIRMAN LORENZINI: Thank you. You all don't have to testify but you're sworn in if you do. Okay, has the Petitioner read the, well, I guess there's no recommendations at this point.

MR. ENRIGHT: Well, Staff has a recommendation, which we'll get to. The Petitioner can make their case at this point.

CHAIRMAN LORENZINI: All right. Why don't you state your name, spell your last name, give an address and give us a brief description of what you're here for?

MR. KILMER: So, good evening. I appreciate everyone is hanging here as late as we are. I want to first thank the Staff who's been great, Bill and Latika before him.

My name is Patrick Kilmer, K-i-l-m-e-r. I'm here representing Collision Damage Experts. Just kind of a brief overview of everything and then I'll pass it off to Chuck who is --

The property is 9 East College Drive. The Applicant is Collision Damage Experts. They want to put an auto body repair shop on this property. The property has been vacant for 29 months, fully vacant for 29 months. The property consists of a building of 22,939 square feet, and the size of the lot is 58,378

square feet.

The property is located in M-1 Industrial District. What we're requesting right now are a land use variation for major motor vehicle repair, and also they'd like to store vehicles on the outside of the property, and the reduction of the parking from 64 to 56.

Just to kind of give you a background of what we've gone through and everything, we had a Plat & Sub meeting on April 8, 2015, and then we met with the neighbors on May 7, 2015 to consider our application and here we are. So, Chuck Freiberg is here to speak to you about, he's got a presentation about his use for the property and how it will not --

CHAIRMAN LORENZINI: Mr. Freiberg, you want to state your name, spell your last name and give an address please?

MR. FREIBERG: Yes. My name is Chuck, Charles Freiberg. Spell it or do you just want the address then? I'm sorry.

CHAIRMAN LORENZINI: Spell your last name please.

MR. FREIBERG: F-r-e-i-b-e-r-g.

CHAIRMAN LORENZINI: And an address you wish to use.

MR. FREIBERG: 5710 South Western Avenue, Chicago, Illinois is the corporate office.

I appreciate the opportunity to be here. I feel very honored to be able to make it this far to speak to everybody here. I feel that, I've come to Arlington Heights because it's an area that I do travel through frequently and I have a sister who lives out this way. It's a nice community along with the fact that I have one of my prime partners, not partners, actually one of the insurance carriers that I do business with has asked me to come up here. They feel a strong need to have a company like ours up there.

We have quite a few facilities that do a lot of work for a lot of insurance carriers, and there are times that we are asked to go to different areas to, actually to do the work for them because they're used to what we do. They trust what we do, and we do a pretty good job with them, returning vehicles to an undamaged state.

As far as history on myself, I started my business back in 1982 with one location, and slowly added up four locations until 2010. Since 2010 to now, I've added on seven locations. Since our last meeting with the public, actually I've opened another location over in Des Plaines.

At this point, I'd like to talk to you a little bit about what we've done. We have a lot of value added services that we do do, with friendly knowledgeable staff, comfortable waiting area and beverages available for everybody. We can do repair, we do do repair update by text or phone and however the customer would like to be updated on the process of the vehicle. Enterprise rental cars are in-house. They will have during the day only whatever is assigned to

stay that day. Enterprise rental will drop them off, it will be on site so the customer can leave in the rental car and we'll begin processing their car.

We do offer, we will do if need be, free pickup and delivery for anybody who cannot make it out with no transportation. We do CE classes for Illinois, Indiana and Michigan which is actually a continuing education class that insurance agents need to, I'm sorry, but how many hours do they have to do? They have to do 30 hours of education every two years to maintain their license. We do those for everybody out there. We do a lot of, we can do mobile and online estimating for them, for our customers out this way as well. Extended hours of operation, most hours are normally 8:00 to 5:00, but if we need to be open for them to be able to drop off or stay a little bit late, not that the operations are going inside the facility but we will stay late to make it convenient for a customer.

We do repair all makes and models. We use waterborne paints, which is not, I do have a specialist here that can describe the paint and who works for the paint company. As far as, we have a third party CSI, which we have out there that does check quality control and the satisfaction of all of our customers.

Do you want, excuse me, Monty, would you like to come up and explain this? Monty is a consultant. His name is on our list and we think he's probably a little bit better at explaining this than I am. This is what Monty does.

MR. MONTGOMERY: Yes. I'm Monty Montgomery, M-o-n-t-g-o-m-e-r-y. I reside at 2971 Sandy Creek, Germantown, Tennessee, so excuse my southern voice. But like Chuck said, I'm a consultant. I work with --

CHAIRMAN LORENZINI: If you could speak into the mic please?

MR. MONTGOMERY: Sir? Oh, sorry.

CHAIRMAN LORENZINI: Speak into the mic.

MR. MONTGOMERY: I'm a rambler, I'm sorry.

CHAIRMAN LORENZINI: I used to live in Mississippi, your drawl is not too bad.

MR. MONTGOMERY: Okay, so you can understand me, great. I work with Chuck and Collision Damage Experts. You know, I want to talk to you guys about the difference between your average collision repair shop or your average mechanical shop that's been in the past. As you can see from the pictures, this is not your normal collision repair center.

We work with them on customer service type issues and ways to serve the community better which we'll stick to the presentation. Go ahead, and go to the next slide please. As you can see, we have 11 locations in three states, and the reason why they are



growing so fast, we've pretty much doubled sales in the last five years, is because the communities that we go to, we actually better the community with the type of facilities that we put in as you can see with the great looks of the front of the buildings. The offices are just as nice. The offices rival higher end homes inside the offices are fireplaces and flat screen TVs and granite countertops, and the bathrooms are equally well done as well as the shops are.

So, we were asked to go to these communities based on the insurance companies who want to offer their customers this type of service, this type of high level service. This industry is moving in this direction. We're trying to get the industry out of the dark ages and into offering places like this. As you can see, CDE is on the forefront of doing that. Next slide please.

Here is a map just showing where the locations are. They're mostly in Illinois, Indiana and then we have the one in Canton, Michigan. Next slide.

This is a picture of two of the latest locations. The one on the left would be Crown Point, Indiana. The one on the right would be the Hammond, Indiana location. As you can see, the offices are very well and nicely appointed. Next slide please.

This is the interior shop. As you can see, it's not a dark, greasy, messy, mechanical parts laying everywhere and dust and everything. Every shop is equipped with the latest equipment to repair the cars. Every shop is equipped with a foreman and his sole total job is to run around with a little Zamboni and keep the shops clean. This is pretty much how most of the shops look at any given time. Next slide please.

So, you know, the collision damage repair process, just briefly, the claim gets reported, the assignment is received. We typically schedule repairs. We provide alternative transportation. We will typically pre-wash the car to inspect and make sure we capture all the damage on the car. The vehicle would be completely disassembled and blueprinted, and then we will perform the body structural repairs, the refinish repairs. We assemble it and detail it, we're going to do a final inspection, and then deliver it. Next slide please.

Community involvement. So, CDE has been highly involved in the community over the last five years that I've been working with them. As you can see on the list here, Mother's Day Care for a Cause Car Donation, Avon Walk For Breast Cancer, Sponsorship of Crown Point Police Department, Tinley Food Pantry, Methodist Hospital Foundation, Family Rescue Foundation, MS Society, American Cancer Society, and then Recycled Rods.

Recycled Rods is just a program where a needy family receives a car, the shop will acquire a totaled out vehicle and then restore it to pre-accident condition and then give it away to a needy family in the community. We typically get the whole community

involved in this. The mayor is normally involved, the fire department is normally involved. We typically do that around Christmastime and it's a really, really good community event to gather the community and give a needy family a car.

Then we've mentioned the CE classes. Then as you can see down the list marathon, March of Dimes, Miracle Foundation for Women with Breast Cancer, and then Love For Rachel. So, when we come to Arlington, we will definitely look for avenues to get involved with the local community as well. Next slide.

This is just some pictures from the last, the first car actually that we gave away. This was at Crown Point, Indiana. Next slide please.

Here are some more pictures just where we're talking about giving it away, here is the car being pulled out to show the consumer. This, as you can see, the floors in the shop, and the lights are well lit also, just the same as all the locations.

This is the Recycled Rods. The Recycled Rods is, as I described, another car giveaway. So, here is one that we picked up, what it looked like before, and then what it looked like after. Next slide.

Then here is us giving it away, and then there's the final car. This was done in conjunction with Progressive Insurance Company and I think it was done over in Addison, Illinois. Next slide.

Here is where they sponsored the Blackhawks or what is this? This picture?

MR. FREIBERG: Junior Blackhawks.

MR. MONTGOMERY: Junior Blackhawks.

CHAIRMAN LORENZINI: If you're going to be speaking, you need to go to the mic.

MR. FREIBERG: Okay, sorry.

MR. MONTGOMERY: I'm sorry. Next slide please. This is the Hammond location. The picture on the left is what it looked like before and then here is the after picture. It will be real similar to what will happen in Arlington. So, next slide please.

This is the Lynwood location, what it looked like before and then the after shot. This is the Lansing location, before and after.

MR. FREIBERG: This is an unusual picture, I'm sorry, an unusual picture being it looks like a freestyle ranch in a subdivision. It's actually in the middle of an industrial street. It's homes on the one side and industrial, this is in the middle. That's actually 10,000 square feet in the back behind it and you see it going down on the left-hand side of the picture I guess.

MR. MONTGOMERY: Next slide. The Crown Point location, the before and after. Notice the landscaping. Everything is well appointed. Next slide please.

Then as we stated, the property consists of approximately 22,139 square feet, 58,000 square-foot on the site. The property has been vacant for almost two years and a half. So, you know, similar height, it's 15 to 20 feet compared to the current demand of 30 feet, so it's probably why the property has been sitting for a while. Then CDE plans to spend approximately half a million to \$1 million to modernize this property.

MR. KILMER: Just to confirm, so this slide actually is a little outdated. It says almost two years vacant, actually we just confirmed it today that it's been vacant for 29 months. I just want to confirm that.

MR. MONTGOMERY: Next slide. Here is a Google map look of the view looking down on the location. CDE's position with the subject property is to create a positive impact at Arlington Heights. We will not create any noise disturbance. We're not creating the disturbance of odor mainly because we use waterborne based type paints. We don't use the solvent ones anymore that causes the odor. Most of our compressors are low noise compressors today. Our spray booths that are the new modern type spray booths are low noise also.

Parking of total loss vehicles will not disturb the neighbors. We actually have ample parking space for that. We don't leave total loss vehicles on the lot. Once they're deemed total losses, we try to expedite to get them moved quickly. Did you have a comment on that?

MR. FREIBERG: Yes. I just wanted to comment on the tow truck, the thoughts and the problems with that. It's my business and I will direct the tow trucks to not bring up so many vehicles to the facility. As it is now, we do not take vehicles at our facility after hours. The tow drivers bring them back to their yards and they will bring them to us in the morning. So, there will not be anything after hours at all.

I can assure you on that and we will be hiring local tow truck companies up here and make sure that if they want to do business with me, those would be the rules.

MR. MONTGOMERY: With regard to occupancy, the building has been vacant for almost, we've clarified that. 17 full-time employees is what we project for the location with annual sales of \$4.5 million and an annual payroll of \$2.2 million. We typically will repair about 2,142 on average vehicles at these locations. Then all operations, parts, materials, supplies will be purchased from local and state vendors, and all these numbers are based on capacity.

On the noise disturbance, CDE Collisions, we have five that are located next to residences. So, five of the CDE Collisions are next to residential areas currently. Hours of operation, we limit to 7:00 to 6:00, Monday through Friday, and then 8:00 to 2:00 on Saturday. The building is very well insulated as you

can see by the picture. It's got a slab of concrete with what looks like about seven or eight, nine, 10 inches of foam, and then another slab of concrete. This building was built to refrigerate a manufacturer that was in the building prior. So, you will not be able to hear anything outside of this building, period. It is virtually impossible to get through that type of wall that's about a foot thick. Next slide please.

Here are some decibel readings. CDE did do decibel readings at the property. Exterior subject property without additional noise create 58 to 68 decibels.

MR. FREIBERG: The photos, yes, okay, either one, we're taking photos with this and I believe, can I bring him up?

CHAIRMAN LORENZINI: Sure. State your name, spell it, give an address and speak into the mic.

MR. FELLARS: Reed Fellars, F-e-l-l-a-r-s, 318 West Willow Street in Chicago. So, we have a building that has a continuous seven inches of styrene foam and two-and-a-half inches on either side of the shotcrete basically which sticks to the styrene. It is done by a company in Union, Illinois. They did another --

AUDIENCE MEMBER: Can you speak up please?

MR. FELLARS: They did another building on University and I saw that building going up and I had to have that when I rehabilitated 9 East College Drive in 2007. So, it really was done to insulate the building. We had, R-30 walls there with styrene which is better with sound than it is at insulation, among the foams of polyester styrene it gets one-and-a-half times that kind of insulated value. But the shotcrete sticks to the styrene because that's what this guy uses and we put R-45 in the ceiling and it's 15 inches deeper than regular fiber glass insulation with white vinyl facing.

So, what we achieved there was probably a LEEDs qualified building, the back one certainly. If Mr. Freiberg doesn't put any penetration through that back wall, you won't hear anything right outside that wall.

COMMISSIONER ENNES: Are you the owner of the property?

MR. FELLARS: I work for, I'm the owner's representative of West Way, Incorporated that owns the building. I was the general contractor on that construction.

COMMISSIONER ENNES: Okay.

CHAIRMAN LORENZINI: Can you continue please?

MR. MONTGOMERY: Excuse me, Reed. When these decibel readings are done on this site here with a combination of different positions looking around, you can see it looks like it ranges from about 68 decibels with the door shut and nothing going on. This is just where it's at. For example, the one up on the far left which I believe goes out towards the front of the property is approximately 60 decibels with nothing going on around there. The next one shows it

about 58, and this one here is on the, I believe it's on the west side of the property aiming towards the south near where the overhead door is at, right. Then the other one is near the, I guess it would be the north side of the building but on the north and the west side. It's showing about 68 decibels. This is just general noise in the area itself with not much going on.

I believe one of these two, they look identical like they're identical shots, but in one of these, there here, Reed was in the building holding the horn, blowing the horn on my vehicle and with the overhead door open, and then another time blowing the horn with the door shut. They didn't vary. The same thing here as well, it's at 60 decibels. Near the southerly portion of the west side of the property, he's standing there, taking and doing this reading, and the overhead door is open on the side. You can't really see it, but it is open. Again, another one is 52 decibels aimed at the building, and they're all right around the same.

I'm not sure where they need to be but that's where they currently are with nothing. As Reed had said, these, they won't go higher than that. I believe, are there more of these on the slide? Because there are more of --

MR. FELLARS: That's just showing --

CHAIRMAN LORENZINI: Come up please.

MR. MONTGOMERY: Okay, I'm sorry. Well, we took readings also at 7212 Indianapolis Boulevard at another location, and you can see how the decibel, they are here now and this is outside the building with the overhead door, the overhead doors are open. It's a nice, warm day out, and we are at 58 decibels on one and 54 on the other.

Then this building is a block building with a -- on the outside so there's probably an additional -- there are homes directly behind that with --

COMMISSIONER JENSEN: Can I get just a clarification? Can either of you or Staff tell us what decibel reading would be appropriate for the Village? What I would like to see, and it's referenced in here that there are some STC which is standard transmission classification they claim that are 75 which means you can't hear anything at all.

MR. ENRIGHT: Well, we have an industrial component standard in the Village municipal code, Chapter 28, zoning for the M-1 District. Dependent upon the octaves like the pitch of the sound it can range, but the loudest that's adjacent to a residential, that would be at the property line, they took these next to the building, so if you went to the property line to get it is 58.

COMMISSIONER JENSEN: So, they actually meet or exceed the requirement?

MR. ENRIGHT: Well, their numbers show in excess of 58,

yes, closer to the building, so I don't know what it would have been if they had taken it at the property line. I don't think they did that.

COMMISSIONER JENSEN: Which should be less.

MR. MONTGOMERY: But those decibel readings were taken with no work being performed whatsoever. Just the normal pretty day outside.

CHAIRMAN LORENZINI: As the ambient noise level.

MR. MONTGOMERY: Correct.

CHAIRMAN LORENZINI: Okay, go ahead.

MR. FREIBERG: As far as where the homes are in the back and the dock door on the side, we did do the decibel readings with the doors open with the horns blaring. We could not hear it whether the doors were open or closed.

MR. KILMER: Also, we talked to our architect with regard to the decibel readings, actually this door is facing away from the homes so it's channeling the sound to the next property, the industrial property. That's why it will be even less for the residential homes. It's kind of like how you have a speaker, if you have a speaker pointing one way, the sound's going to go that way. So, the fact that the dock door points to the industrial property next door means the residential homes will hear even less.

CHAIRMAN LORENZINI: All right, thank you.

MR. FELLARS: One last detail if I can. There is a redundant wall that Chuck doesn't have shown on his drawing there that is also made out of solarcrete, and there's actually two doors that have got 38-foot wide dock separating, it's about 25 feet, there's an existing dock right now, an interior recessed dock. He's got an opportunity to lose that so this vestibule is 25 feet deep. There's not going to be a sound problem with or without that, but the interior wall is also made of seven inches of solarcrete.

CHAIRMAN LORENZINI: All right, thank you. Anything else?

MR. FREIBERG: The total loss vehicles would be on the south side but there will not be that many, and once they're deemed total loss, they're usually gone in 24 to 48 hours. I will install a solid fence, there's currently an eight-foot fence now with staggered saturated boards on it all the way across. From our side of the fence you can barely see it but you do see it. I am not sure if from the south side looking north, there's a lot of brush back there but I will enclose it so it's a solid fence. Like I said earlier, too, we will not allow vehicles to be dropped off at all in the evening or early in the morning.

CHAIRMAN LORENZINI: What about Sundays?

MR. FREIBERG: No. No Sundays.

CHAIRMAN LORENZINI: Anything else?

MR. FREIBERG: That's it.

CHAIRMAN LORENZINI: Thank you.

MR. KILMER: Actually, so just to kind of go over everything, I know there are some other complaints in this. So, there were some questions when we met with the neighbors a couple of months ago about the odors. We want to kind of reiterate the fact that we use water solvent paint mostly. Also, our paint is triple filtered, so none of the odors would get out of the property. Of course we can talk about this briefly.

MR. FREIBERG: Okay, at this time, we have Dan Fennema and Don Putney. Don Putney is from the distributor of the paint booth and the filters, and Dan Fennema works for the paint company. They would be able to speak about this shortly.

CHAIRMAN LORENZINI: Mr. Freiberg, what is your and Monty's relationship?

MR. FREIBERG: Monty actually works for AkzoNobel. He is hired and he is a consultant that comes out once a month from Tennessee to further grow our business and process and basically that's what it is.

CHAIRMAN LORENZINI: Okay.

MR. FENNEMA: My name is Dan Fennema, I reside at 1665 South Monarch Avenue, New Lenox, Illinois.

CHAIRMAN LORENZINI: Would you spell your last name please?

MR. FENNEMA: F-e-n-n-e-m-a.

MR. PUTNEY: My name is Don Putney, last name is P-u-t-n-e-y, 9114 Virginia Road, Suite 106 in Lake in the Hills, Illinois.

MR. FENNEMA: In regard to the water-based paint, I work with AkzoNobel, which sells him his paint. We've been the supplier to Chuck since he's opened his facility about seven years ago. He uses waterborne paint products at all his locations. He's been proactive, although we don't have to use waterborne paint in this part of the country, it's mandated in Canada, California and New Jersey at this time. But he has been proactive as far as the waterborne paint goes. So, the VOCs or volatile organic compounds that give us the smell or the odors from solvent borne paint aren't involved in the water borne.

COMMISSIONER GREEN: I have a question. Is this a base coat, top coat process?

MR. FENNEMA: Yes, it is. Yes, it is.

COMMISSIONER GREEN: Is the base coat, is it water --

MR. FENNEMA: The base coat is waterborne.

COMMISSIONER GREEN: How about the top coat?

MR. FENNEMA: The top coat is a solvent borne. It's a high solids --

COMMISSIONER GREEN: What about primer?

MR. FENNEMA: Primer is also a urethane, high solids

borne.

COMMISSIONER GREEN: So, you have two out of three that are smelly.

MR. FENNEMA: Right, but that's --

COMMISSIONER GREEN: That's my question. That's all.

CHAIRMAN LORENZINI: Okay, anything else?

MR. PUTNEY: Yes. The spray booth equipment, addressing the odors and any particulates, the filters as he said, you know, the EPA mandates, they have to be at least 98 percent efficient on the solids. The way we help with the odors is, number one, the stacks all height will have to be at least six feet above the roof height. The fans then drive the odor spray up higher at a high rate of speed so it gets into any prevailing winds to help disperse anything in there. The other thing a spray booth does is it takes, the mandate by health code is you have to keep that interval at 25 percent of the TTL limits. So, that way it mixes what small amount of overspray, solvents, or waterborne paint might be in there, it mixes it with a large volume of air so that any odors and stuff are taken care of in that process. So, that's kind of the difference with the modern spray booths compared to the things we used to use 10 years ago.

CHAIRMAN LORENZINI: Okay, thank you.

MR. FREIBERG: This is for the, to talk about the parking space, being that the building is not as, the mezzanine that's up at the top of the office, and I don't even know how many square foot, but that's just where the building is actually 22,000 square feet and some change. We kind of figured out that this is not going to be a corporate office up here. So, the 25 employees actually drops down to actually 17. We've got only what's required and what's needed and instead of 25 employees and eight service bays, it will be 17 at some point when we, you know, fully running.

Like I said earlier as well, the tow truck drivers, the tow truck companies will work for me. We do not do own towing, and we will direct them to do towing only during open hours. After hours, everything will go back to their yards and be brought to us the next working day.

The hours of operation, as Monty said earlier to you, is from 7:00 a.m. to 6:00 p.m., and 8:00 a.m. to 2:00 p.m. on Saturday. We will have signs actually on the property that will actually tell the, let the tow truck drivers know where they can park the vehicle when we are not there meaning that, a little bit, like say 7:30 in the morning or, they'll know the rule and we'll enforce the rule through our contracts with our tow trucks.

I would like to say I respectfully appreciate and hope that the request to the Village and the Plan Commission to allow us to come in and would allow us to do business here and I can't thank you enough for letting me come this far to speak to everyone of you.



CHAIRMAN LORENZINI: Thank you.

MR. FREIBERG: Thank you.

CHAIRMAN LORENZINI: Bill, Staff report?

MR. ENRIGHT: Chairman Lorenzini, members of the Plan Commission and public, Staff is certainly appreciative of Collision Damage Experts' interest in the Village. I believe we've reached out to them and we'd be more than happy to work with them on finding a more suitable site. We're not supportive of this land use variation adjacent to residential given the nature of the business. We don't believe that they have met the criteria to grant a land use variation and the hardship criteria that are listed in Village code.

For that reason, just to clarify the variations, based on all the recent information that came out tonight, assuming their assertion that there are 17 employees instead of 25 and that the office space is less, we still have to count the mezzanine space because we have to count every space within the building. So, my calculations show they would meet code for parking, but that wasn't really much of an issue for us in terms of the code required parking. What is of issue is onsite storage of vehicles within 150 feet of a residential district, which is not permitted by code and would require an additional variation.

Therefore, we're not supportive of their request and that variation either in addition to the land use variation:

1. Again, the Petitioner in our opinion has not met the three land use criteria in order to grant a land use variation;
2. We believe that this is incompatible, the incompatibility of this use with the residential uses to the south;
3. Inconsistency with the Village's Comprehensive Plan, specifically Land Use Goal 4, "Incompatible zoning should be avoided," and Land Use Goal 1, "To ensure that the general land use pattern and relationships of all land uses remain or become acceptable to the present and future community;"
4. Concerns with the outdoor storage of vehicles within 150 of a residential zoning district, which requires an additional variation from code;
5. Concerns with towing operations during the early day, late night and Sundays; and
6. Also, the Petitioner has provided information on the building itself and its structural ability to contain noise produced from activities related to a major auto repair facility; however, Staff is not fully convinced that given the proximity to residential and multiple garage doors that would reasonably be expected to remain open, although they have indicated that it might be closed because of the air conditioning, the noise would be contained within the building.

Now, they have asserted that they won't allow tow trucks to come to the site outside of their normal business hours. But keep in mind their normal business hours can change. We don't have much control over that.

We also don't have control over, you know, what the tow trucks would actually do or what would be required of them in the future. The Village would have really little ways to monitor them and enforce something like that. So, although we appreciate that assertion, we have to take into consideration whether or not it can, you know, viably be enforced by the Village. It would be next to impossible to enforce something like that.

Regarding the noise and the attenuation, they present that the building itself is well insulated because of the prior user which also helps them insulate noise which I don't doubt. It's better than just having a normal siding wall with very little insulation. However, with their decibel readings, since Staff was not part of that and was not invited to that, nor were the residents, there is no way for us to understand what was actually going on and the level of noise in the area. For instance, when they do their decibel reading without anything going on in the site, they show decibel levels of 58 to 68 from ambient noise. Then when they had a car honking the horn for whatever duration or however loud the horn is, it was actually less. I mean it was within that range but at the lower end of the range. So, when they had a car pressing on its horn, it actually registered lower than the ambient noise, which is a bit questionable to me.

I don't, I'm not doubting that those things were registered at that time, but when there's ambient noise levels that it got raised to 68 decibels, what was going on? Was a truck going down the street at the time and it caught that noise and the decibel went up? I don't know. Was it relatively quiet at the time? Because as we know, traffic is probably the loudest noise that we deal with during the day other than someone mowing their lawn. But you know, traffic generates a lot of noise and this is close to Arlington Heights Road, so it's really, you know, a lot of these decibel readings, you know, quite honestly, you have to take it with a grain of salt in my opinion because we don't know exactly what was happening at the time they took the registered decibel rates.

In addition, honking the car horn in the facility, you know, hopefully that's not going to happen in their operation. Hopefully, they're not, you know, driving around inside the building honking their horn, but there are a lot of other things that a car repair business does that do make a lot of noise. I don't know, honestly I don't know their operations completely, but if it's an auto repair business, I'm assuming they have some pretty loud equipment in there.

From OSHA standards, a typical residential boundary noise limit is about 55, which is very comparable to our 58 in our code as being kind of the maximum threshold that's at a comfortable level for residential. But looking at some of the body shop decibels of different equipment, again it ranges from 65 to 110 for different types of equipment for a body shop. For mechanical service, it can range from 80 to 100 decibels. I don't know if they do any welding, but that can be from 80 to 110.

So, the fundamental point here is that the building very well may be better insulated than most buildings, but typically major auto repair can be a lot of activity and we're not convinced that it's not going to spill out into the adjacent residential. This is not a permitted use in this zoning district. It would be permitted in the M-2 District where we don't have adjacent residential.

We appreciate the investment that they want to make. It's a great investment in the community, up to a million dollars. This property has lagged in taxes and could even appeal the taxes. There is a slight benefit although not a whole lot based on their estimated sales tax of \$45,000, about \$9,000 of that would come to the Village, \$9,000. So, to us it's really not about, you know, the tax issue at all. It's about really whether or not we're convinced that this type of business, based on our experience with other auto businesses in town, whether or not it truly would be so quiet given the nature of the business, given its proximity to residential.

So, fundamentally, that's Staff's recommendation that represents the administration, all the department as well as Village Manager coming to that conclusion and that we have not been convinced and the burden of proof is on the Petitioner to demonstrate to us that they've met the land use criteria which is basically measuring the impacts of the business on adjacent properties versus the impact on the property owner not being able to utilize the property for this specific use. We think that balance weighs more towards, you know, protecting the residential properties given the nature of the business.

CHAIRMAN LORENZINI: Is that it, Bill?

MR. ENRIGHT: Yes, that would conclude it.

CHAIRMAN LORENZINI: Thank you. Do we have a motion to accept the Staff report?

COMMISSIONER GREEN: I'll make that motion.

CHAIRMAN LORENZINI: Second?

COMMISSIONER SIGALOS: I'll second.

CHAIRMAN LORENZINI: All in favor?

(Chorus of ayes.)

CHAIRMAN LORENZINI: Okay. Now, we'll go to the Commissioners for questions. Commissioner Jensen, would you like to

start?

COMMISSIONER JENSEN: Sure. Bill, help clarify a couple of things for me. The difference between the M-1 and M-2 Districts, especially with respect to the distance from residential property for one thing, and what needs to happen with noise, odors and visual requirements that are different between the M-2 and the M-1?

MR. ENRIGHT: Well, some things are very similar if it's adjacent to residential to protect residential neighborhoods. But the M-2 District typically aren't near residential like the M-1 is in this particular industrial park. The M-2 allows a lot more intense uses, heavy duty uses that would tend to generate more noise, higher intensity. It doesn't mean every single property is. I mean we've got a lot of office development in the M-2 District. In the M-1 we might have some light manufacturing. But by and large, the M-2 allows a significantly lot, you know, a lot more intense processing and manufacturing type uses.

COMMISSIONER JENSEN: As I look at the code on M-2 and M-1, both of them say that certain things have to be done greater than 150 feet and within 150 feet of residential. So, the code suggests that M-2 can be within 150 feet, or can be 150 feet from residential.

MR. ENRIGHT: Right. But we don't, it's very, it's rare.

COMMISSIONER JENSEN: I mean that's what our code says.

MR. ENRIGHT: But in reality, the zoning map does not have that situation. It's very minimal. The most contiguous area that we have between either M-1 or M-2 and a residential is this neighborhood where it was developed, you know, in the 60's and platted with the residential properties directly abutting the manufacturing properties. But you're right, I mean either way, whether it's M-1 or M-2 adjacent to residential, there's still some protections.

COMMISSIONER JENSEN: And the noise, odor and so forth, it looked to me like the requirements were exactly the same for both M-1 and M-2 in terms of noise, in terms of odor and so forth. I could not see in the code any difference. So, my question comes down to which activity do you think CDE is going to be involved in that would be more appropriately in the M-2 District since really the code requirements are essentially the same? I understand your --

MR. ENRIGHT: Well, you're kind of missing my answer. The M-2, there's very rare occasions where it actually abuts the residential. So, that provision only kicks in if it is abutting residential. But it doesn't. I'm not saying there isn't a little bit that might abut, but for the most part this M-1 District that we have in the north end of town where this Petitioner would like to locate is the longest line by far of residential abutting M-1.

So, it can happen in the M-1 District because we have so much of a contiguous boundary. The M-2 does not join up with

residential to the extent that it does with M-1. So, from a practical standpoint, you know, we don't, a lot of M-2 properties don't have to meet those standards because they're not adjacent to residential.

COMMISSIONER JENSEN: Okay. With respect to the land use variation, obviously there are three parts to it: the reasonable yield, unique circumstances, and then change to the character of the locality. Do you have a problem with their explanation for the reasonable yield and unique circumstances? Or does most of your concerns go to the third about changing the essential character of the locality?

MR. ENRIGHT: Well, I mean, you know, usually with respect to reasonable yield, we look towards if the property has been vacant for a period of time. I'm not necessarily convinced that some of the data they provided about the layout of the site is necessarily a negative for the site. But yes, our concern is more than anything the third criteria, about the impact, you know, to the adjacent properties that, you know, the variation if granted would not alter the essential character of the locality and that goes to the adjacent properties.

COMMISSIONER JENSEN: Well, they have shown that it's been vacant for 29 months and I think we've had people come before this Commission that have had vacancies of a lot shorter period of time and we said yes, you've met the reasonable yield criteria.

Unique circumstances, I don't know whether, I'd have to know what the basis is, but they indicate that this building is not well suited for manufacturing even though it's in a manufacturing district because it doesn't meet what would be the current standards in terms of the height of the building. So, I guess I would ask the Petitioner, what's the basis for that remark that this building that's 15 to 20 feet as opposed to 30 make it inappropriate for industrial use?

MR. GREEN: Good evening. My name is Brandon Green, G-r-e-e-n. Address, 1113 North Wood Street, Chicago.

I work for Colliers International. I'm an industrial real estate broker. I specialize in the north/northwest suburbs and represent quite a few property owners and various companies. But long story short, you would never develop a building like this today. If you drive around and look at any new industrial product, new buildings specifically, 30, 32 to 36-foot clear with exterior loading, a lot bigger truck base, this is functionally obsolete which I think is why it's been on the market for 29 months.

COMMISSIONER JENSEN: You would make the statement as they do in here that we would expect it to be vacant for the foreseeable future which they've stated in here a number of times? Is that your professional judgment as well?

MR. GREEN: Absolutely.

COMMISSIONER JENSEN: So, then coming back to the real,

it seems like in my opinion you've dealt with the first two of the criteria. So, our issues go to the third one about the essential character of the locality. As I read the Staff report, it seemed to me that a lot of things hung on the assumption that the bay doors are going to be open during the summer months. Now, the Petitioner stated I guess under oath that it's not going to be, they're not going to be open because of the air conditioning and because of the attributes of this building. So, it seems to me, and they've given somewhat of an explanation, I don't know if there's documentation, that the fact that the doors are going to be closed should deal with a lot of the noise, odors, and visual issues that have been raised here.

So, I'm having a little trouble, Bill, seeing how we feel that they have not met, you know, the change in the essential character of the locality if indeed we take them at face value given that they're under oath.

MR. ENRIGHT: Well, I disagree with what you're saying about Staff's opinion on just this related to doors. I mean in recommendation number three here, Staff does not believe that the petition meets the goals related to land uses given the potential for noise, odors, outside storage of vehicles, towing operations.

Regarding noise with respect to the building, you know, yes, they've got these certain walls that, you know, this supercrete or whatever it's called that is better than just a normal wall. But it's my understanding that these, you know, work where it's like 75 decibels, but I'm concerned that some operations can exceed that from a typical auto body shop. So, will it really contain those noises? Sure, it would do a better job than probably most buildings would if they were built with lesser standards, but my concern is that the noise that would be generated from the building may exceed what the walls are able to attenuate.

COMMISSIONER JENSEN: Well, then I'm going to have to rely on my fellow Commissioners here because on one of their documents they assert that their STC rating for the materials that they use, brick masonry and for the solarcrete is 75 STC which I guess sound transmission classification, which when I look it up and it's probably not the best place to look, in Wikipedia it says if it's over 60 this has superior sound proofing and the sound will be almost inaudible. Actually when it comes the appropriate time, I'm hoping that Commissioner Green can speak to that issue and reassure me that you're correct that there's a problem because they've asserted that the materials have an STC rating of 75.

MR. ENRIGHT: I guess it depends on what's --

COMMISSIONER GREEN: Lynn, if you like, that may be true on the wall and the ceiling, the weak points are the windows and the doors. So, there's no rating on the windows and the doors. That's where the noise is going to come from much easier than a wall, and

there's not much you can do to a door or a window to make it that kind of a --

COMMISSIONER JENSEN: So there could be some choices from these other places.

COMMISSIONER GREEN: If you pick and test just the foam on the wall, that's going to have a very good rating. Take the same test on the window or a door and you're going to see it's going to vary tremendously.

COMMISSIONER JENSEN: I think, I guess I would, I guess the position I would take would be that we ought to actually explore it a little further. I'd be happy with a continuation rather than just rejecting their petition to actually resolve some of these issues you have. You have issues around sound, you have some issues around filtration and a number of other things which are clearly spelled out in the code. I wouldn't want to make a decision based on just that we think they're not giving us the correct information. We need a third party to basically document where that is.

I would feel a lot more comfortable turning down what I consider to be a fairly attractive development of this property based on something objective and hard evidence rather than just a supposition that what they stated is not correct. So, I think that's all I have at this point.

CHAIRMAN LORENZINI: Thank you, Lynn. Terry?

COMMISSIONER ENNES: Mr. Freiberg, if I could ask you a couple of questions? Do you have a sound engineer here today?

MR. FREIBERG: Sorry?

COMMISSIONER ENNES: Do you have a sound engineer? Is one of your people, no?

MR. FREIBERG: No.

COMMISSIONER ENNES: I think that would be helpful. I do a lot of work in the automotive repair business, and I'm not sure how many decibels come out of a car horn as opposed to a high powered equipment and some of the equipment that you might be using in that shop. It would be nice to hear from an expert in that field who could explain that to us. I have the same concerns, I don't want to put an operation in the neighborhood where people are going to have problems and I don't think you do. It sounds like you've done a lot of research with this.

I'm familiar with solarcrete buildings. The insulation though is missing from the windows in the back. I don't think that insulation is on the doors. So, to me that's an area that that can escape. So, that's something, and I agree that I'd probably like to hear more information and continue this as opposed to denying it tonight.

I have another question. Can you tell me where in your presentation of materials that you talk about the fact that there

is a primer in the top coat that are solvent-based when all I have heard until Mr. Green asked that question was we use water-based paint?

MR. FREIBERG: Right. When I had first met with the neighbors, I did say water-based paint. When I went downstairs in the parking lot, I immediately had spoke to Cheryl back there and said that I made a big mistake because I know that the primer is not water solvent and I know that the clear is not. And I had written an apology letter out and sent it to all the residents that were at the --

COMMISSIONER ENNES: So, that is something they've received?

MR. FREIBERG: Yes. Yes, via certified mail. Going back a little bit based on the question about the sound and whether or not operations are in process, yes, I guess you could consider that hearsay but it's not. There are buildings at 7212 Indianapolis Boulevard, fully operational, middle of the afternoon, with the decibel reader, nothing had changed and it was not heard outside. They could not hear our operations outside. There are no windows at the back of the building, which I would agree with you with the windows, with the transferring of sound, there's no windows at 9 East College Drive on the back either. There's no windows on the sides coming up forward.

COMMISSIONER ENNES: I thought I saw a window in the back.

MR. FREIBERG: No.

COMMISSIONER ENNES: My office is a block away from there.

MR. FREIBERG: I don't think there is.

MR. FELLARS: There's no windows in the back.

CHAIRMAN LORENZINI: Excuse me, please come to the mic if you're going to speak.

MR. FELLARS: The front building has glass block windows, none of them are operable, all of them 12 by 12 glass block. But there are no windows in the back building. There's only one overhead door and it's got an insulated space --

COMMISSIONER ENNES: Maybe that was the side of the building. Bill, could you go back to those photos with the meters? That's where I noticed the window.

MR. ENRIGHT: There are none in the back.

COMMISSIONER ENNES: Okay, it must have been on the side.

MR. FELLARS: Yes, it's on the front of the building. The back building is 100 by 125.

COMMISSIONER ENNES: There's two buildings?

MR. FELLARS: Yes.

CHAIRMAN LORENZINI: Speak into the mic please.

MR. FELLARS: The original building is 80 by 125, the 80 feet fronts right onto College Drive and that has glass block



windows and only glass block windows. The back building is 100 by 125 and it was built in 1980. It's essentially a butler building that's been dressed up like probably no other butler building has been dressed up. But there are no windows, there's two doors for man passage, three-foot by seven-foot in that back wall, and that's the only penetration in the back wall. There's no penetration in the east wall, and on the west wall it has a 10 by 10 overhead door only.

COMMISSIONER ENNES: Okay, thank you. I appreciate your going and getting all of these letters. It would have been nice if we got these earlier so that we could have read them.

MR. FREIBERG: Sure, sure.

COMMISSIONER ENNES: None of these are employees, right?

MR. FREIBERG: No, those are all residents that live around our sites.

COMMISSIONER ENNES: That live around your buildings?

MR. FREIBERG: Yes.

COMMISSIONER ENNES: Okay, that says a lot. That's all I have for right now.

CHAIRMAN LORENZINI: Do we need to extend the meeting, Bill?

MR. ENRIGHT: Not yet, but in 11 or 10 minutes you will. It's 10:49, so 11.

CHAIRMAN LORENZINI: Why don't we just do it now.

MR. ENRIGHT: You can do that now if you think it's going to go over.

CHAIRMAN LORENZINI: I think so.

MR. ENRIGHT: You need to make a motion.

COMMISSIONER GREEN: I make a motion to extend it to 11:30 at this point.

CHAIRMAN LORENZINI: Second?

COMMISSIONER SIGALOS: I'll second it.

CHAIRMAN LORENZINI: Roll call good enough or voice vote?

MR. ENRIGHT: Voice vote.

CHAIRMAN LORENZINI: All in favor?

(Chorus of ayes.)

CHAIRMAN LORENZINI: Opposed?

(No response.)

CHAIRMAN LORENZINI: Okay. Just so you know how this goes, when we're done asking questions, then we'll go to the public for questions. So, I hope it won't be too much longer.

COMMISSIONER ENNES: That's all I have.

CHAIRMAN LORENZINI: Okay, Mr. Green? Commissioner Green.

COMMISSIONER GREEN: I am concerned, Mr. Freiberg,

about when we met at Plat & Sub. I'm an old paint buying man from many, many years ago and I knew that the top coat and primer were not water-based. So there was no explanation to that. Just so everybody knows, that's two out of three are stinkers. From doing this work, it's loud work and it's hot work and of course I didn't have the benefit of air conditioning when I was doing this but I would, if I was there doing it, the door would be open. I would need some fresh air.

So, I think it is a little bit, on your part, disingenuous to say that these are water-based and to tout this as a water-based operation. So, I did not appreciate that, I'm just letting it right out right now.

MR. FREIBERG: I understand, I respect that.

COMMISSIONER GREEN: I have a question about the fence, Bill. What kind of fence is required around that backyard between the residential?

MR. ENRIGHT: A solid fence. It can be wood or it can be, you know, stone.

COMMISSIONER GREEN: How tall?

MR. ENRIGHT: Well, normally between zoning districts six feet, but we are looking at eight feet here because they want to have some outdoor storage of vehicles in the back.

COMMISSIONER GREEN: In the past, farther in that neighborhood, we required other fences of other some more solid material at a much greater height. Why did we do that there and not here?

MR. ENRIGHT: Well, the only one I can recall is 120 East University Drive that's farther north of here away from the residential. That was Hillside Towing. They're a towing business, that's what they do. They bring a lot of vehicles to that facility and store them. There was about, I think it was about a 12-foot tall, solid concrete fence.

The primary reason for that was the storage of vehicles including trucks, smaller trucks. Also, there is a business to the east of that property that had very sensitive manufacturing equipment in their business, in their building, which is only about 20 feet from the property line. Vibrations and noise would actually impact some of the machinery that would, you know, analyze like levels of, you know, vibration within this room that they had. You know, I can't explain the whole thing, but basically they had a lot of sensitive monitoring equipment that, you know, was very sensitive to vibrations from the outside. So, part of the reason for that was to cut down on noise, vibrations and things of that nature.

COMMISSIONER GREEN: Well, if the Village required that to cut down on the noise, why aren't we requiring it here?

MR. ENRIGHT: You could but --

COMMISSIONER GREEN: If it was a good remedy for

Hillside Towing, why would that not be --

MR. ENRIGHT: I'm not sure if the residents would like a 12-foot wall in their backyard either.

COMMISSIONER GREEN: It all depends on, well, maybe we can hear from some of the residents and we'll find out.

MR. ENRIGHT: Right, you can ask them. Yes.

COMMISSIONER GREEN: I always wondered if that was a code requirement or if that was just an additional requirement.

MR. ENRIGHT: No, it was an additional requirement of that zoning action.

COMMISSIONER GREEN: You clarified it, thank you. Just a question for the owner of the building, it's been vacant for 29 months. Well, obviously it was occupied before the 29 months, so, you know, whether you're looking for a 40-foot or 30-foot ceiling, the building was occupied by somebody at some point. So, it's been, up until just recently in the lousy economy that we're in that this thing went down. Is that correct?

MR. FELLARS: The tenant moved to a larger facility.

COMMISSIONER GREEN: Okay, but it was occupied before 29 months?

MR. FELLARS: I built it for Carlson Laboratories.

COMMISSIONER GREEN: Okay, well, then how long were they there?

MR. FELLARS: From 2008 until 2013.

COMMISSIONER GREEN: How old is the building?

MR. FELLARS: 1967 the front building, 1980 the back building.

COMMISSIONER GREEN: Okay, so what happened back in '67 and '80? Has this thing been occupied more or less up until the last 29 months? Or has it sat for ten years?

MR. FELLARS: No, Munch Supply was before Carlson Laboratories. Before Munch Supply was Prospect Door.

COMMISSIONER GREEN: So, it's had a pretty good record of being rented.

MR. FELLARS: Yes, well, owned. We didn't purchase it until 2007.

COMMISSIONER GREEN: Yes, but there was a business-occupying building.

MR. FELLARS: Yes, yes.

COMMISSIONER GREEN: Okay, I just wanted to make sure that the 29 months is a recent phenomenon. No other questions at this time.

CHAIRMAN LORENZINI: Thank you, Bruce. Commissioner Sigalos?

COMMISSIONER SIGALOS: Can I ask the building owner or contractor again?

MR. FELLARS: Yes.

COMMISSIONER SIGALOS: I was hearing before, I guess all we heard was this was a concrete building with the styrene insulation and how well insulated. But the a little while ago I just heard you say that one of the buildings is a butler building.

MR. FELLARS: Yes.

COMMISSIONER SIGALOS: Which one is that?

MR. FELLARS: The one that's now a solarcrete building, the back building from 1980, 100 feet by 125 feet was a butler building with seven feet of masonry and then nothing but steel siding, going from there up with one inch of insulation --

COMMISSIONER SIGALOS: I mean a butler building is the most basic building you can build.

MR. FELLARS: That's exactly right. So, I removed all the walls all the way around that building and had solarcrete put all the way around it. Then there's a dividing wall that separates the truck dock. My purpose was to make an ice chest inside there and the truck dock was the airlock to the ice chest.

Now, Chuck has the possibility of occupying this building and keeping that same redundancy for the purpose of noise. I understand the doubts about the noise and perhaps the city would come and be there for a test on noise because I'm real confident that noise isn't going to be a factor.

COMMISSIONER SIGALOS: Again, as Commissioner Green pointed out, noise isn't a factor if this is all a solid concrete wall. But you've got penetrations in there. You've got doors and windows and that's where the noise is going to emanate. Again, I don't know how you regulate whether these doors are open to get some fresh air through there.

Another thing, I'm really, really disappointed with Mr. Freiberg and everyone associated here trying to say that this doesn't emit any odors because of waterborne paint. I think you're being very deceptive and it just really concerns me.

CHAIRMAN LORENZINI: That's a statement, we don't need a response right now. Anything else?

COMMISSIONER SIGALOS: No. Oh, one last thing. I saw in one of your slides you provide alternative transportation to your customers. I assume while their vehicle is being repaired?

MR. FREIBERG: Correct.

COMMISSIONER SIGALOS: Will you store those vehicles on site?

MR. FREIBERG: The vehicles? No, they're by appointment only. The vehicles are actually requested on the day that the customer is dropping off. They're brought out there by the employees of Enterprise. They'll be on site and they will be handed over to the customer so they're not waiting for a vehicle and they're

gone the same day. There's never anything else there from Enterprise overnight.

COMMISSIONER SIGALOS: Okay, thank you.

COMMISSIONER JENSEN: Before you go to the public, just one more question. Oh, I'm sorry, you get to ask first.

CHAIRMAN LORENZINI: No, go ahead.

COMMISSIONER JENSEN: My question is why are you storing these total loss vehicles at 150 feet of the residential? Why don't you store them elsewhere on the property so that they would be at least more than 150 feet from residential?

MR. FREIBERG: Great question. We could absolutely do that.

CHAIRMAN LORENZINI: Excuse me, can you just --

MR. FREIBERG: I'm sorry?

CHAIRMAN LORENZINI: Bill, can we go to the aerial of the property? Thank you. Very good.

MR. FREIBERG: There is a, actually it's a double lane, both sides of the building going east to the west, I'm sorry, north-south. We could absolutely, if allowed, if you would like, we can actually put these vehicles on the side of the building, on either side at your request that they would be farther away. Now, they aren't there for a long period of time at all. Once they're deemed total loss, the insurance companies handle the paperwork and they send their tow truck out to pick it up.

COMMISSIONER JENSEN: The reason I ask that is because then you would be within code on that particular element anyway. You'd be more than 150 feet away, and whether you're in M-1 or in M-2, if you're more than 150 the vehicle can be outside under certain circumstances as long as they're screened.

MR. FREIBERG: That would be true, yes. We could also, if allowed, put where the main box is of 100 feet by 125 feet going east and west, we could take off that driveway on both sides, so it would still be at least 100 feet farther away from the, I'm not sure how wide that very rear lot is, the very south end of the building to the property line. It looks like possibly 35 feet or so maybe?

MR. FELLARS: It's 55 feet.

MR. FREIBERG: It's 55 feet?

MR. FELLARS: Yes.

MR. FREIBERG: Okay. Then if we went forward, it's a 100-foot long building, I'm not sure how far you want it off, it would be 155 feet but it would have to be in front into the narrow area of the building which we could do. There is parking on both sides. They could be placed there.

COMMISSIONER JENSEN: Okay, thank you.

MR. FREIBERG: Absolutely.

CHAIRMAN LORENZINI: We talked about a fence. Where

would this fence be? Just across the southern boundary of the property?

MR. ENRIGHT: There's a fence there now that's on the southern portion of the property along the co-terminus property line.

CHAIRMAN LORENZINI: Okay, so it's just running from east to west. Does it go north and south at all?

MR. ENRIGHT: Just east and west.

CHAIRMAN LORENZINI: Okay, at six-foot high?

MR. ENRIGHT: I think it's a little taller than that. Probably closer to eight.

CHAIRMAN LORENZINI: Okay, all right.

MR. FELLARS: If I might, that fence wraps both corners. It comes around I think eight or 16 feet on both sides and it's a good sturdy fence with four by sixes and eight feet tall. And it looks good.

CHAIRMAN LORENZINI: So, it's eight-foot tall. Would that cover any, would you bring anything in there taller than eight-foot, the vehicles?

MR. FREIBERG: No. No, we would not.

CHAIRMAN LORENZINI: Okay. Bill, one question. On Northwest Highway around New Wilke, there's a lot of repair shops there next to residences. Is that just because it was grandfathered like that?

MR. ENRIGHT: Yes, those were built years ago.

CHAIRMAN LORENZINI: Years ago.

MR. ENRIGHT: Probably in the county, and we've had complaints from residential. And regarding the fence, the fence does not, at this property, I concur it's in great shape, it does not meet code, the existing fence because it's a semi-open fence. So it's board on board. We require a solid fence. So, one of the recommendations would be, if you did approve this, that they put a new fence in. I think they've said they were willing to do that.

CHAIRMAN LORENZINI: All right. The public has been very patient, so let's go to the public portion now. Yes, sir, would you come up? State your name, spell your last name and give your address.

#### **QUESTIONS FROM AUDIENCE**

MR. VERNE: Sure. My name is Ken, last name Verne, V-e-r-n-e. I live at 10 East Burr Oak which if I can approach I have a picture actually from my deck. On the aerial right now, this is the larger square that backs out to my house.

CHAIRMAN LORENZINI: If you have a picture, could you pass it around? He's showing us a view from his deck of the back of the building.

MR. VERNE: This is a landscape plan that we've had designed that was an enhancement for our backyard that would be butting up right against this use. So, as you can see, we're going to extend our deck, add a nice patio. Ignore the fire pit, it's not code. You know, so that's our grand scheme and our plan was to invest over \$20,000 into our backyard because of the fact that we are fortunate. We have a, especially for Arlington Heights, a very large, very usable yard that from 8:00 to 2:00 on a Saturday we don't want to see the auto body shop from our backyard.

CHAIRMAN LORENZINI: Thank you. Anything else?

MR. VERNE: Yes. So, I do have a few comments, too. One was our issue has nothing to do with this business. They have put together a really nice plan. They're successful, they have 11 different locations. If this was his only location, I think I may have a different feeling about it where it's someone that's trying to make a living and I can't argue with that. This would be his 12th location in an area that isn't zoned for a maintenance shop.

I just messed up my own car, I took it to a body shop and I respect the fact that, yes, when the doors and the windows are closed, absolutely. But I've never seen a car get into a building without opening the doors. And every time I went to pick up my car or bring it back or, because I had some issues with it, the doors are all open. Why? Because they're bringing cars in. They've got new guys coming up to say, hey, can you look at this?

Then you say it's by appointment only, are you going to turn away someone that sees you and needs you to fix their car? Not necessarily. I appreciate the fact that they want to control these tow truck drivers. Can you promise me? No, you can't.

And joining on with the comment that the fact that they're only open 8:00 to 2:00. Well, that's today, or they're only open 7:00 to 6:00. Well, I guess I'm not going to have dinner on my back porch at 5:30 because they're still open, or they stay past 6:00 because they are a customer oriented business and someone rolls in at 6:00 or 6:30, are they going to say no? Of course not. I want the business to succeed. I don't want it to succeed in my backyard.

Now, if I can elaborate to the gentleman from Colliers International, I, too, am in industrial real estate. I work for a company called HSA Commercial Real Estate. We're based in Chicago. I've used Colliers brokers in a lot of different markets, I can respect what Colliers is saying. But we're not marketing this as a bulk industrial building. This is a light manufacturing or it could be, you know, I've got a 1950's building in Rockford, Illinois. You know what, it's part of my portfolio, we get creative. You know, we allow people to use it floor stack it, a month-to-month basis or, you know, low or high stacking. It could only go up two rows, they don't need high clear heights because, you know, bulk industrial needs bulk

industrial.

There's a lot of other uses out there. As you've brought up the point, it's been occupied since 1967 for the majority of that time period; it can be occupied again by a use that isn't against our current zoning. I've been in the house for a couple of years so maybe I've been fortunate that it's been empty for two plus years. I've lived in the house for two plus years, so in my timing was impeccable.

But the fact is I have an eleven-year-old and I have a 14-year-old. We've got kids that just moved in next to us on one side, kids next to us on the other. The fact is if they're doing this cleaning operation, they're doing this painting operation, all that runoff has to go somewhere. You know what, it's not necessarily the best, you know, they can filter it all they want but the reality is it's going to have an impact on us.

When it comes to selling our house, I can't wait until Sundays to show my house because I don't want them to hear the power drills that are fixing the cars in my backyard. The last comparison I do want to make was you showed pictures of the proximity to other residential neighborhoods and I respect that, except the fact that I don't live in Lansing. I don't live in Lynwood. I couldn't even tell you where it's at. And I definitely don't live in Hammond, Indiana, because I have a higher expectation, a higher quality of life expectation, there's no disregard to them, but you know what, I pay over \$8,000 in taxes, for real estate taxes purposes only to live in Arlington Heights, to send my kids to Buffalo Grove High School, to send them to Cooper and not to deal with this. So, thank you for your time.

CHAIRMAN LORENZINI: Thank you. Anybody else? Yes, ma'am. Give us your name, spell your last name and address.

MS. BEDIAN: It's Cilla Bedian, B-e-d-i-a-n. I live in 12 West Burr Oak Drive, Arlington Heights. I have two things. One is I have a letter from a neighbor. Will you allow me to read because she couldn't come? Is that okay?

CHAIRMAN LORENZINI: Sure.

MS. BEDIAN: Okay. So, this is what she wrote. It says:

My husband and I live within 250 feet. That will be very much affected by the changes you plan to make. We had planned to attend the meeting personally this evening, but unfortunately my husband took ill and I have to stay with him.

It scares me and upsets me that the Village of Arlington Heights would even consider changing the zoning ordinances to allow an auto body shop to be next to a residential area. We have a family member who owned an auto body shop in Palatine on Colfax Avenue. I was there numerous times and it is a busy, noisy, and dirty place.



That doesn't belong near people's homes, and that's why Palatine has many of these types of businesses on Colfax Avenue west of their post office.

We have lived in our home for almost 25 years. Our backyard borders the industrial park. We have had several business neighbors over the years, some have been better neighbors than others in regards to following the Village rules and ordinances. I and my neighbors have had to call and make complaints many times, but at least these companies were not polluting our air directly as auto body shops do or making loud noises from early in the morning to late at night.

I sincerely hope you remember we live in the Village of Arlington Heights and we do not want our neighborhood community or Village to be damaged by poor choices of our Village may make, thank you. This is Helen Kugler who lives on 4 West Burr Oak Drive in Arlington Heights.

CHAIRMAN LORENZINI: Could you spell that last name?

MS. BEDIAN: Her last name is spelled K-u-g-l-e-r.

CHAIRMAN LORENZINI: Thank you.

COMMISSIONER ENNES: Bill, that letter is already in the record, isn't it?

MR. ENRIGHT: Correct. Just for the record, that letter was forwarded to me at 4:17 p.m. today. It was immediately put upon our Novis packet system for public viewing, which you also can view.

MS. BEDIAN: Then I have one question. I guess just a clarification. When I went to the information meeting, we talked about, and I know they already apologized, but we talked about the paint that was being used. We did receive a letter saying that they had made a mistake and it was not water-based. Did they, was that also send to the Village as well?

CHAIRMAN LORENZINI: Bill?

MR. ENRIGHT: I have not seen that.

MS. BEDIAN: It just saddens me to --

MR. ENRIGHT: Well, go ahead.

MS. BEDIAN: Okay. The reason why I'm saying it is that I trust my Village people who have the possibility to make this happen or not happen. I trust that they have everything that they need to make a good choice. I can't do that, that's not my job, it's their job. So, I'm just concerned that this decision was based on whatever information you were handed and it may not be complete.

MR. ENRIGHT: Staff is recommending denial of the project. With respect to the letter, the previous Staff planner who was handling this case, her last day was last week. So, it is very possible that that information was forwarded to her and I could not find it, I did not find it in the files so it may not have been printed out from the file. So, as I specified, I did not see it but it doesn't

mean that it wasn't forwarded to us.

But irregardless of that, the Staff's position on this is to not approve it.

MS. BEDIAN: Then my last comment is that I really hope that we can trust that, I know it's not their choice only but please listen to them for their approval, the fact that they don't want it approved, and let's not make this longer, please.

CHAIRMAN LORENZINI: Thank you. Anything else from the public? Yes, sir. State your name, spell your last name, give your address. Mr. Kilmer, I'll give you one last shot.

MR. DAVIDSON: My name is Ronald Davidson. I live at 106 East Burr Oak Drive.

CHAIRMAN LORENZINI: Could you spell your last name please?

MR. DAVIDSON: D-a-v-i-d-s-o-n.

CHAIRMAN LORENZINI: Thank you.

MR. DAVIDSON: I've lived in, our family has lived in our home for 46 years. Our family is strongly opposed to zoning variations at 9 East College Drive in the industrial park that would allow Collision Damage Experts to open and operate their business next door to residential homes in the Berkley Square Subdivision and extremely close to homes in the North Gate Subdivision, and also the Middle Creek Subdivision. Allowing Collision Damage Experts to open for business will cause a reduction in our home market values, destroy our peace and quiet, and expose us to toxic materials coming into our homes.

Auto body repair is extremely loud, unacceptably noisy and toxic. The loud noises created can travel far and be heard by homeowners even at great distances away. The toxic materials will enter our residents' homes and cause harm.

These very objectionable effects from their business will seriously reduce the quality of life for our residents, especially those who require daytime naps and sleep such as babies, night workers, and seniors and residents homebound with illnesses, all of whom absolutely require total peace and quiet in a toxin-free environment. The very objectionable effects from their business will also seriously reduce the market values of our residents' homes. Regardless of a homeowner's residential location within each of the three subdivisions affected, a reduction of market values close to the business will also reduce the market values for homes farther away.

As previously stated, my family and many families with whom I have spoken are totally against CDE, Collision Damage Experts, to open for business at 9 East College Drive. If the Village, against the homeowners' objections, chooses to allow CDE to open for business, their approval at a minimum should include all of the same conditions and requirements that the Village required a few years ago

before allowing Hillside Automotive Collision Damage Repair and Towing to open for business on University Drive, a similar business located a few blocks away from 9 East College Drive. A few of those requirements which should also be required for CDE to open include:

- \* The requirement to install at least 12-inch thick, soundproof, insulated walls on all four sides with minimum R50 soundproof insulated ceiling, insulated garage doors, and fixed insulated windows.
- \* The requirement to install a vertical sound barrier fence surrounding the building on all four sides. The fence is to consist of a vertical 14-foot, by the way it was mentioned earlier that it was 12 feet, it's 14 feet, I measured it with a tape measure at Hillside, a sound barrier wall on all four sides as they have at Hillside. These are the same sound barrier walls seen along the sides of many of our local highways.
- \* The requirement to limit business work hours to Monday through Friday, 9:00 to 5:00, no overtime allowed, no weekend work, no traffic after 5:00 p.m. or weekends allowed.

Those are the rules for Hillside. The Village specified these requirements as conditions to satisfy objections from neighboring commercial businesses in the industrial park. There were no homeowners' objections to satisfy because Hillside is not located near homes. The Village's approval specified conditional requirements to protect neighboring businesses in the industrial park. If the Village required conditional protections for businesses, then the Village most certainly should require the same conditional protections for residential homeowners.

In conclusion, my family objects to allowing CDE to open for business at 9 East College Drive, and we request the Village not to approve their petition for zoning variations. Thank you for your consideration.

CHAIRMAN LORENZINI: Thank you. Anybody else from the public who wish to make a statement or to speak? Yes, ma'am. Your name, spell your last name, and your address please.

MS. BABIC: My name is Rose Babic, B-a-b-i-c. I live at 14 East Burr Oak Drive, right next door. I just want to say Ron said a lot and I think he speaks for all of us very eloquently. But coming here today and getting that letter and finding out about the paint, just that alone, the company has made a lot of verbal promises, seeing that they were deceitful on that, I couldn't put a lot of trust in what they're promising. I strongly, strongly oppose them in our backyard for that reason on top of all the other ones.

CHAIRMAN LORENZINI: Okay. Thank you.

MS. BABIC: Thank you.

CHAIRMAN LORENZINI: Anybody else from the public wishing to make a statement? Yes, ma'am? Your name, spell your last name, and your address please.

MS. SERGES: My name is Ann Serges and I live at 130 East Burr Oak Drive.

CHAIRMAN LORENZINI: Would you spell your last name please?

MS. SERGES: I thank you for being --

CHAIRMAN LORENZINI: Could you spell your last name, ma'am? Could you please spell your last name?

MS. SERGES: Oh, I'm sorry. S-e-r-g-e-s.

CHAIRMAN LORENZINI: Thank you.

MS. SERGES: I'm depending upon you, our Board, to keep our community in a sound healthy way with the beauty that it has. I have been here for 45 years. My children have grown here. We've enjoyed it tremendously.

We border the industrial park. When we purchased our homes, it was a commitment. No one would be building anything back there outside of offices or businesses of that type. Now to bring in an auto repair, you're going to take, they commented, oh, they're up against our fence, we'll put it on the side. However, if you put it on the side, the young gentleman who has a patio that is high will oversee and really see the junkyard. Excuse me for using that expression but did you ever see a view of damaged cars? What do they look like? When I was a kid we called it a junkyard; as an adult, I still do.

I don't believe that this is a view that our lovely community would want to have their residents look at. As the gentleman said who's a painter, my husband was also, solvents are not without odor. They all have odor. So, this on a hot day is not going to be, as he said, who are we to control the gentlemen in a place who are sweating and hot working there? We cannot control them. They want fresh air, they want to breathe some fresh air after being in all the fumes.

Therefore, I really don't think that this is the proper type of building that should be in our beautiful community. I thank you and ask you for your full support. Thank you.

CHAIRMAN LORENZINI: Thank you. Anybody else from the public would like to make a statement? Okay. Mr. Kilmer, I cut you off a couple of times. Since we did have a hiccup with the change of staff, do you want to make a brief statement about the letter that you sent?

MR. KILMER: Yes. So, we did circulate the letter to Latika before she left. Then just to answer, so I know this is a technicality but, you know, I focused on the presentation that it's almost all water solvents, not all of them. Then just to answer that question a little more further if you don't mind?

MR. FENNEMA: I'm sorry, I just wanted to clarify the waterborne. We're in our paint business. When we talk about waterborne, we kind of imply that that's all waterborne products. It's all low VOC products. That would probably have been a better explanation for it, low VOC which is, in California the lowest VOC contents that we try to make.

MR. KILMER: What's VOC?

MR. FENNEMA: VOC is this volatile organic compounds. So, that's the solvent smell that you smell that is coming off the paint. So, the lower the VOCs obviously, the less odors. So, I just wanted to clarify that.

CHAIRMAN LORENZINI: Okay, thank you. So, we'll go back to the Commissioners now for final --

MR. KILMER: Sorry, one more question, I apologize. So, I'm the zoning attorney and Chuck is a great guy to work with. We had that neighborhood meeting where he made an offhand comment about how all water solvent paint, all paints are water solvent. He called me up frantically while driving home and told me he was worried about was that most people wouldn't have sent a letter. Most people would have just ignored it and hope they didn't catch it. But he sent a letter to everyone. He wrote the letter out and he made sure everyone got it.

So, the fact that he did that at all, most people wouldn't have done it at all, kind of speaks to his character and what kind of neighbor the community would get.

CHAIRMAN LORENZINI: Okay, thank you. Okay, let's go back to the Commission for final questions and statements. Commissioner Sigalos, would you like to start?

COMMISSIONER SIGALOS: Just following up with your last comment, I'm sure Mr. Freiberg is very honorable. But the fact is that you still have an odorous paint and I don't think this is the proper use, that we should give a variation in this zoning district adjacent to a residential. These people bought their homes there, lived there many years. If this business was there first and they chose to buy a home there, well, buyer beware. But the fact is that they've lived there in a residential neighborhood, and to change the M-1 District to allow this major vehicle repair business to be in there, I can't support it.

CHAIRMAN LORENZINI: Commissioner Jensen?

COMMISSIONER JENSEN: I'll pass for now.

CHAIRMAN LORENZINI: Commissioner Ennes?

COMMISSIONER ENNES: It's a tough call. I really came in opposed to this. I would need to hear more information to change my opposition on it in regard to the VOCs, what the remediation for that is, what's being done to minimize that. Also, I want to hear from a sound engineer. So, my recommendation would be I want to continue that

until I got more data.

CHAIRMAN LORENZINI: Commissioner Green?

COMMISSIONER GREEN: The smells that will be coming out of this place are no different than the smell of curry that comes out of Indian restaurants. We had this issue back then and there was a lawsuit and everything else involved with the smell of curry hitting the neighborhoods. There is nothing that can be done that would satisfy the code because the code is very open on this. Nothing had to be done to take the smell of curry out of the air, you do remember that.

So, this stink that's in the air now, let's say worse for you than the smell of curry. I don't think curry will kill you; it can be objectionable but I don't think it's deadly. But I just don't think that this is the place for this business. If you were across the street and the back of your building was facing the other way, it would be a thousand times better than this side of the street butting up within 50 feet of residential property.

I just, there's too many negatives for me. I am not in favor of this project.

CHAIRMAN LORENZINI: Bill, on the south side of the building, are there any windows or doors?

MR. ENRIGHT: There is a door.

CHAIRMAN LORENZINI: Overhead?

MR. ENRIGHT: No, it's just a pedestrian door at the southwest.

CHAIRMAN LORENZINI: Okay. All right. Actually I've got to say I was pretty impressed with the presentation, you know, for an industrial type facility. I don't think I've seen this good of a presentation with all the community involvement and the way the shop look and all, and I don't doubt the integrity of any of the speakers on what they're saying.

But it comes down to we have M-1 and M-2 Districts for a reason, and I've always trusted and felt confident of the recommendations that the Planning Department has given us. This is M-1 for a reason and not M-2. So, that's all I have to say.

Any questions or comments, suggestions?

COMMISSIONER JENSEN: Yes. First of all, I just think that the character of the Petitioner got impugned because of faulty information. Clearly he did not try to lie to anyone, and I think it's unfortunate, we usually have a certain amount of mutual respect. I don't think the Petitioner was treated well in that regard and I would apologize for that.

I think the code probably does need to be changed. It doesn't have anything to do with the Petitioner per se, but the code if you read M-1 and M-2 and how we're applying it, there's hardly any difference between the two write-ups. I've got both of them sitting

right here. I look at them and most of the thing is about odor, smell, visual issues and so forth are identical.

I understand, Bill, that you've said we apply it differently. Then let's put it in the code. It makes it a lot easier for somebody like me to basically say, sure, it doesn't belong here. But the way this is written, I have a difficulty with that.

But I quite frankly would like to see it continued so that we could get some answers. We've got a lot of assertions on both sides. The Petitioner has asserted some things, the residents have asserted some things. If they want to invest the money and time to get some documentation to make, you know, to give evidence for their position, I would be willing to hear this again personally. I don't know whether any other Commissioners would or not.

But I'd hate to see this, this could be an attractive development for the community if indeed they can live up to the assertions that they've made, and they've made quite a few. So, I would have trouble going against it.

CHAIRMAN LORENZINI: Does anyone want to make a motion?

COMMISSIONER ENNES: Let me ask the Petitioner a question. Mr. Freiberg, would you be interested in coming back and trying to document some of the variable issues with a sound engineer?

MR. FREIBERG: Absolutely, yes. Yes, yes, absolutely, yes, I would.

COMMISSIONER ENNES: Okay. I mean I think you have a pretty impressive operation --

MR. FREIBERG: Thank you. I do pride myself on that, yes.

COMMISSIONER ENNES: I can tell. But I still have concerns about VOCs in the neighborhood. I personally don't think it's the best location, but if there are ways to remediate that where that's not going to get into the air into the neighborhood, and if it can be demonstrated that the sound isn't going to impact the neighborhood, I don't know if you use hydraulic equipment or what which is at a much lower threshold that seems to get through the insulation as opposed to a car horn, but that's something I would consider as opposed to denying it tonight.

COMMISSIONER JENSEN: I think it would be more than the sound though, he'd have to do the odor and the sound and the whole array of things that are actually objected to by Staff that caused them to recommend turning down this petition.

MR. FREIBERG: I understand.

CHAIRMAN LORENZINI: But even if they did all that, you know, it could still change over the years, you know. The fact is this is an M-2 application on M-1 District.

COMMISSIONER ENNES: I understand.

CHAIRMAN LORENZINI: And I just don't know if that

would sway me either way.

MR. ENRIGHT: We've got one more minute.

CHAIRMAN LORENZINI: Yes, let's take a vote to extend this. Anybody want to make a recommendation to extend it?

COMMISSIONER GREEN: I'd like to extend another 15 minutes.

COMMISSIONER SIGALOS: I'll second that.

CHAIRMAN LORENZINI: All in favor?

(Chorus of ayes.)

CHAIRMAN LORENZINI: Opposed?

(No response.)

CHAIRMAN LORENZINI: Okay, we're good until 11:45.

COMMISSIONER SIGALOS: Yes, I personally don't see where an extension is going to solve anything. I mean the fact is that this is what the business is, and businesses are going to change their operation. I think, I'm assuming you've looked at other sites within an industrial park?

MR. FREIBERG: Yes, I have. I've looked pretty exhaustively I will say for quite a few months. I've looked at locations in Des Plaines and through Arlington Heights, on the north side of Arlington Heights. It is strictly, it's because of vendors of mine that have requested that I come out to this area.

COMMISSIONER SIGALOS: I understand that, but I mean there's a tremendous amount of buildings for sale. I mean this isn't the only building for sale in an industrial area. The problem is that this backs up to a residential area where others don't. I mean as my fellow Commissioner said, if it was farther across the street, there would be no issue.

MR. FREIBERG: We've looked at some of the buildings across the street and didn't see anything that would suit our purpose. Plus, with the extent of the renovation and dollars involved, it did not make sense. Parking was also a larger issue across the street and some of the areas around them.

COMMISSIONER SIGALOS: You mentioned the extent of renovation and you showed us some pictures of other facilities before and after. I didn't see any proposed rendering from your architect of what this would look like, what you're intending to do with this.

MR. FREIBERG: We would reface it, and going down the sides as far as the office, there would be a lot more glass on the front. We'd more than likely remove the mezzanine and have it a two-story very nice looking, very clean. Back in 2009 when I started to renovate my own business, as Dan Fennema had said earlier about being proactive with water borne paints, years before it was pretty much in Illinois and Indiana areas, I switched all my companies to waterborne paint in 2010, for our grand opening of the Hammond location at 7212 Indianapolis Boulevard, at our grand opening, we had an assortment of



80 people inside the building roughly from here to that window in the corner there we were painting a car, and they didn't know it, they didn't hear it, and we had a guitarist and a violinist playing.

We do have photos of that but we didn't present that tonight. While they were eating, I had announced that we were painting a car at this time and you're welcome to walk over to it because there was windows on. They were masked up, we pulled the paper off and they were able to look inside and see this, I think at that time it was a new Camaro, it was brand new, so it was the complete side of the back of a brand new Camaro. Nobody knew, they thought it was amazing, they could not smell it. You can't walk into my facility and smell solvent paints. It's there but the odors are non-existent, this is due to the lower VOCs.

Even myself, I grew up back in the day of using acrylic lacquers and paint thinners and, yes, the paint was very strong. I can't tolerate that smell any longer now that I'm used to using what our facilities use. This is not something that, you can sit in our front office, you can walk in the building in the back during operations and you most likely will not smell anything of any VOCs or anything with primer. Years ago, we would have women in our offices and our waiting areas that would complain about the odors, you know, mention it to our customer service representatives at the counter, how do you stand it in here? It does not happen any longer. I believe most recently we had a woman tell Cheryl about how just clean and odorless it was because she was used to the odors as well in other areas and other sites.

I know that I've looked at actually purchasing some of the other places that are here in Arlington Heights and this was something that did not work out. I have extended that for quite a while, probably the better part of the year before I decided on this building here. I don't know if I answered your question, I'm sorry.

CHAIRMAN LORENZINI: Okay. Any recommendations?

MR. KILMER: Can I --

CHAIRMAN LORENZINI: No, I'm sorry. So, we've got, it sounds like there's three possible options. One is to reject, one is to accept, and one is to extend. Now, the first two we can all vote on yes or no. If we go on to extend, if somebody recommends to extend it, does everybody have to agree to it?

MR. ENRIGHT: You have to take a vote. Someone is going to have to make a motion. Someone is going to have to second the motion and there has to be an affirmative vote to continue the public hearing to a date certain, three out of five minimum. So, there has to be a motion, a second, and a vote and a majority vote for any motion.

CHAIRMAN LORENZINI: Okay.

COMMISSIONER JENSEN: I'll move that we continue this petition to a later date.

CHAIRMAN LORENZINI: Is there a second?

COMMISSIONER ENNES: I'll second that.

CHAIRMAN LORENZINI: Roll call vote.

MR. ENRIGHT: Commissioner Sigalos.

COMMISSIONER SIGALOS: No.

MR. ENRIGHT: Commissioner Green.

COMMISSIONER GREEN: No.

MR. ENRIGHT: Commissioner Jensen.

COMMISSIONER JENSEN: Yes.

MR. ENRIGHT: Commissioner Ennes.

COMMISSIONER ENNES: Yes.

MR. ENRIGHT: Chairman Lorenzini.

CHAIRMAN LORENZINI: No.

MR. ENRIGHT: It fails.

CHAIRMAN LORENZINI: So, now we have two options, to approve or reject.

COMMISSIONER GREEN: I'd like to make a motion.

**A motion to recommend to the Village Board of Trustees denial of PC# 15-018, a request for a Land Use Variation for Collision Damage Experts located at 9 East College Drive, for the following reasons:**

1. The Petitioner has not met the three land use variation criteria required to grant a land use variation;
2. Incompatibility of this use with the residential uses to the south;
3. Inconsistency with the Village Comprehensive Plan, specifically Land Use Goal #4, "Incompatible zoning should be avoided," and Land Use Goal #1, "To ensure that the general land use pattern and relationships of all land uses remain or become acceptable to the present and future community;" Staff does not believe that this petition meets these goals related to land uses given the potential for noise, odors, outside storage of vehicles, towing operations.
4. Concerns with the outdoor storage of vehicles within 150 of a residential zoning district, which requires an additional variation from code;
5. Concerns with towing operations during the early day, late night and Sundays;
6. The Petitioner has provided information on the building itself and its structural ability to contain noise produced from activities related to a major auto repair facility; however, Staff is not fully convinced that given the proximity to residential and multiple garage doors that would reasonably be expected to remain open during warmer months, that noise would be contained within the building and not

**disturb adjacent residents.**

CHAIRMAN LORENZINI: Second?

COMMISSIONER SIGALOS: I'll second that.

CHAIRMAN LORENZINI: Roll call vote please.

MR. ENRIGHT: Commissioner Ennes.

COMMISSIONER ENNES: No.

MR. ENRIGHT: Commissioner Jensen.

COMMISSIONER JENSEN: No.

MR. ENRIGHT: Commissioner Green.

COMMISSIONER GREEN: Yes.

MR. ENRIGHT: Commissioner Sigalos.

COMMISSIONER SIGALOS: Yes.

MR. ENRIGHT: Chairman Lorenzini.

CHAIRMAN LORENZINI: Yes.

MR. ENRIGHT: Motion passes three to two.

CHAIRMAN LORENZINI: So, the motion passed to deny this. But you still have the option to go to the Board of Trustees. This is only a recommendation to the Board of Trustees, the Board of Trustees has the final say so. Is there anything else that we should hear, Bill?

MR. ENRIGHT: This would be expected to go to the Village Board on Monday, October the 19th at 8:00 p.m. in this room unless the Petitioner seeks a longer time period. So, the public should look at the Village's agenda which is posted the Friday before the Monday meeting, so that would be the 16th, to see if it's on for the 19th. And they can always contact the Planning Department.

COMMISSIONER JENSEN: Clarification, if they take it upon themselves to try to get some documentation around the issues that have been raised here, they certainly can change their submission to the Board I assume? And if they could bring more evidence to back up what they are proposing and what they have asserted?

MR. ENRIGHT: Correct.

CHAIRMAN LORENZINI: I personally would like to see this business in Arlington Heights. I just don't, I feel for, I agree with what the residents say, I don't think we should penalize the residents or change zoning for what they bought into. Thank you.

Okay. Any other business?

MR. ENRIGHT: No. We do have some upcoming meetings on October 14th, we have a public hearing. There's one case, the Drost/Hasche Subdivision. October 28th, we have three public hearings. November 4th, we are looking to have two public hearings. We do have a quorum for that. The reason we want to move up that date, because the normal date, November 11th, is Veterans Day, and the second meeting in November is the day before Thanksgiving, night before Thanksgiving. So, we figured you didn't want to meet on that time period either.

CHAIRMAN LORENZINI: Do we have anything else, Bill?

MR. ENRIGHT: No.

CHAIRMAN LORENZINI: Can we have a motion to adjourn?

COMMISSIONER GREEN: I'll make that motion.

CHAIRMAN LORENZINI: Second?

COMMISSIONER SIGALOS: Second.

CHAIRMAN LORENZINI: All in favor?

(Chorus of ayes.)

CHAIRMAN LORENZINI: Thank you.

(Whereupon, the public hearing on the above-mentioned petition was adjourned at 11:37 p.m.)

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**Item:** Drost/Hasche Subdivision - 10/14/15

**Department:** Planning & Community Development

**ATTACHMENTS:**

| <b>Description</b>        | <b>Type</b> |
|---------------------------|-------------|
| PC Minutes 10/14/15 DRAFT | Minutes     |

PLAN

REPORT OF THE PROCEEDINGS OF A PUBLIC HEARING  
BEFORE THE VILLAGE OF ARLINGTON HEIGHTS  
PLAN COMMISSION

COMMISSION

RE: DROST/HASCHE SUBDIVISION  
921/927/931 N. HIGHLAND AVENUE - PC# 15-017

REPORT OF PROCEEDINGS had before the Village of  
Arlington Heights Plan Commission Meeting taken at the  
Arlington Heights Village Hall, 33 South Arlington Heights  
Road, 3rd Floor Board Room, Arlington Heights, Illinois on the  
14th day of October, 2015, at the hour of 7:30 p.m.

MEMBERS PRESENT:

BRUCE GREEN, Acting Chairman  
LYNN JENSEN  
TERRY ENNES  
JOHN SIGALOS  
JAY CHERWIN

ALSO PRESENT:

BILL ENRIGHT, Deputy Director

ACTING CHAIRMAN GREEN: I'd like to call this meeting to order. Our first item is the pledge of allegiance. If you'd all please rise and join us?

(Pledge of allegiance.)

ACTING CHAIRMAN GREEN: Bill, would you take the attendance please?

MR. ENRIGHT: Yes. Commissioner Cherwin.

COMMISSIONER CHERWIN: Here.

MR. ENRIGHT: Commissioner Ennes.

COMMISSIONER ENNES: Here.

MR. ENRIGHT: Commissioner Green.

ACTING CHAIRMAN GREEN: Here.

MR. ENRIGHT: Commissioner Jensen.

COMMISSIONER JENSEN: Here.

MR. ENRIGHT: Commissioner Sigalos.

COMMISSIONER SIGALOS: Here.

ACTING CHAIRMAN GREEN: Is the Petitioner here tonight? Who's ever going to --

MR. MILLER: Yes.

ACTING CHAIRMAN GREEN: Is that a yes?

MR. MILLER: Yes.

ACTING CHAIRMAN GREEN: Yes, okay. Who's ever going to testify, if you'd all stand up? I'll swear you in, who's ever going to testify on behalf of the Petitioner.

MR. ENRIGHT: If I could just quickly interrupt, first item on the agenda is approval of minutes for Holy Nation Presbyterian Church. If you could make a motion to approve those?

COMMISSIONER ENNES: I'd like to make a motion to approve the minutes from the church meeting, at the last meeting.

ACTING CHAIRMAN GREEN: All right. Is there a second?

COMMISSIONER SIGALOS: I'll second.

ACTING CHAIRMAN GREEN: All those in favor say aye.

(Chorus of ayes.)

ACTING CHAIRMAN GREEN: All those opposed?

(No response.)

COMMISSIONER JENSEN: I have to abstain because I wasn't, I didn't attend.

ACTING CHAIRMAN GREEN: Now we'll start with PC, let's see, let's get it out here, #15-017. So, who's ever going to testify on behalf of the Petitioner, raise your hand and we'll swear you in.

(Witness sworn.)

ACTING CHAIRMAN GREEN: Thank you. Bill, have all the legal notices been presented on this case?

MR. ENRIGHT: Yes.

ACTING CHAIRMAN GREEN: If you would identify yourself and address for the court reporter, spell your last name, and then tell



us about your project?

MR. MILLER: Okay. Bruce Miller, 32 West Sherman Street in Palatine. My last name is spelled M-i-l-l-e-r. Okay. Can you put the overhead on the neighborhood?

MR. ENRIGHT: Sure.

MR. MILLER: Up there first I guess. Okay. So, I'm here tonight on behalf of two families, Charlie and Tracy Drost and Jay and Jennifer Hasche. I'm here tonight to petition for a two-lot subdivision on the 900 block of North Highland Avenue.

Currently, there are three single-family homes on three 50-foot wide lots at 921, 927 and 931 North Highland Avenue. Earlier this year, the Drosts purchased the two northern properties, 927 and 931, and while they had those properties under contract they approached the neighbor to the south, 921 North Highland Avenue, about purchasing 25 feet of the adjacent yard. That proposal had two major benefits. One, it would give the Hasches the ability to have a 75-foot wide lot in the historic district which is something everyone would like to have, and then it also allowed the Drosts to use some of the proceeds toward the construction of a new home on the northern property.

So, once that was worked out, we started the subdivision process and then that brings me here tonight. Can you put up the preliminary plat?

So, we're proposing to resubdivide into two lots, Lot 1 and Lot 2. Both lots would be 75 feet wide. Bill, do you have the site plan?

MR. ENRIGHT: No.

MR. MILLER: Okay. So, do the Commissioners have the site plan for the proposed properties?

MR. ENRIGHT: That was not forwarded. It's just that --

COMMISSIONER ENNES: Are you talking about the three lots?

MR. MILLER: The proposal for the new home, the site plan which shows the proposed footprint for the new home and the footprint for the existing house.

MR. ENRIGHT: The reason that wasn't forwarded is because that's not part of their approval process. The variation is for the Lot 2, but the new house and Lot 1 would be a separate design review process. They're not, they won't really approve that. They're just approving the two-lot subdivision and variation.

MR. MILLER: Okay. So, on Lot 1, the Drosts are proposing to build a new single family home, and I'll skip all the other stuff because you don't have the footprint for it. That proposal would meet all R-3 zoning standards for that lot. The Hasches are proposing on Lot 2, there's an existing house there, to demolish an

existing detached garage and build a new attached garage on the side of the house.

On Lot 2, on the south side of the existing house, we are asking for a variance, some relief on the side yard setback. The existing house was built as a conforming house or side yard setback. It was a newer home built in 2007 and 2008. With the proposed subdivision into a 75-foot wide lot, obviously we can't meet the ten percent side yard setback, which would be seven-and-a-half feet because it's under that.

Lastly, just a word about 75-foot wide lots in the neighborhood, there are four 75-foot wide lots on the 900 block in North Highland. There's a handout from Staff, that's the handout right there that shows other 75-foot wide lots. I count 14 within one block of these properties, and there are more 75-foot wide lots to the north on Highland, of Willow Street, and there are more 75-foot wide lots to the south of Elm Street. So, 75-foot wide lots are fairly common in the neighborhood.

That concludes my remarks. I'll be happy to answer any questions that you have.

ACTING CHAIRMAN GREEN: Bruce, have you seen the six recommendations on the blue sheet?

MR. MILLER: I have.

ACTING CHAIRMAN GREEN: Do you agree with those?

MR. MILLER: I do.

ACTING CHAIRMAN GREEN: Thank you. We're going to turn it over to the Plan Commissioners here for any questions. We'll start with you, Jay.

MR. ENRIGHT: If we could, the Staff report?

ACTING CHAIRMAN GREEN: Oh, Staff report, I'm sorry.

MR. ENRIGHT: That's okay.

ACTING CHAIRMAN GREEN: I'm a little rusty at this, I haven't done this for a while.

MR. ENRIGHT: That's okay. Staff is fully supportive of this subdivision. We agree with the Petitioner that the two-lot subdivision of 75-foot wide lots is consistent with the neighborhood. It will require a variation for Lot 2, for the existing house. It does meet code today with just over a five-foot setback, almost five-and-a-half. With the new wider lot, it falls into nonconforming so we'd grant a variation as part of this petition so that it's legal conforming.

This is a preliminary plat approval, so if it gets approved by the Plan Commission and Village Board, then a Mylar will have to be drafted and the different utilities will have to sign off on the plat. So, they'll have to come back for a second review of the Plan Commission and Village Board. That's condition number one, subject to final plat.

The variation is the second action sought. They will be required to pay a fee-in-lieu of detention for the two lots, so that will have to be calculated as part of final engineering and final plat. We are recommending though that the variation for Lot 2 is just for existing conditions, so it would not apply to any future additions or even a tear-down in the future.

A Design Commission application for the addition to the Lot 2 house and the new home on Lot 1 would have to be submitted to the Planning Department for review.

Also, prior to the final plat which is the Mylar being recorded with the County Recorder of Deeds, you'd have to demolish the existing homes that are going to be coming down on the middle and northern lot.

So, those are the conditions that Staff is recommending as part of this approval process. At that point, we conclude our presentation.

ACTING CHAIRMAN GREEN: Thank you, Bill. Do we have a motion to enter the Staff report?

COMMISSIONER JENSEN: So moved.

ACTING CHAIRMAN GREEN: Is there a second?

COMMISSIONER SIGALOS: I'll second.

ACTING CHAIRMAN GREEN: All those in favor?

(Chorus of ayes.)

ACTING CHAIRMAN GREEN: All those opposed?

(No response.)

ACTING CHAIRMAN GREEN: Looks like it's entered. Now we can go to the Plan Commissioners for any comments and questions. Jay, let me start with you.

COMMISSIONER CHERWIN: Yes, you know, I reviewed this in the committee. We asked the questions then, I think you guys, it sounds like it's pretty consistent. I don't see any significant changes with regards to that. I'm good with it. No questions.

COMMISSIONER SIGALOS: Yes, I don't have any questions either. I was at Plat & Sub and I thought it was fine and I still believe it's fine. So, no questions.

ACTING CHAIRMAN GREEN: Terry?

COMMISSIONER ENNES: Well, I wasn't at Plat & Sub. However, I think your documentation is very good and I don't see why we wouldn't approve this.

ACTING CHAIRMAN GREEN: Lynn?

COMMISSIONER JENSEN: I, too, was at Plat & Sub. I think all the issues have been handled, so I don't have any questions.

ACTING CHAIRMAN GREEN: Might as well jump on the bandwagon. I don't have any questions either. I think it's a great thing. Just so you know, I'm all in favor of lot consolidation to bigger lots. So, I think it's a great idea.

COMMISSIONER ENNES: So, can I make a motion?

ACTING CHAIRMAN GREEN: Well, if there's any, I have to open it up to the public if anybody wants to speak. I'm looking at the three gentlemen on the front row.

AUDIENCE MEMBER: We're good.

ACTING CHAIRMAN GREEN: So, I guess if there's no comments, we're going to close the public hearing, and any recommendation you might have.

COMMISSIONER ENNES: Yes, I would make a motion.

**A motion to recommend to the Village Board of Trustees approval of PC# 15-017, the Drost/Hasche Preliminary Plat of Subdivision for two lots and a Variation from Chapter 28, Section 5.1-3.6, Required Minimum Yards, to allow a reduction to the minimum south side yard setback from 7.5 feet to 5.33 feet for the existing home at 921 North Highland Avenue (Lot 2).**

**This approval is contingent upon compliance with the recommendation of the Plan Commission and the following recommendations detailed in the Staff Development Committee report dated October 8, 2015:**

1. Submittal of a Final Plat of Subdivision.
2. The variation for the south side yard setback on Lot 2 shall only apply to the existing structure at 921 North Highland Avenue, while all new structures shall comply with current code standards.
3. A fee-in-lieu of detention shall be required.
4. A Design Commission application must be submitted for the new home and any addition to the existing home.
5. The Petitioner will be required to demolish the existing home and garage at 927 North Highland Avenue prior to recording the final plat.
6. The Petitioner shall comply with all applicable federal, state, and Village codes, regulations and policies.

ACTING CHAIRMAN GREEN: Is there a second?

COMMISSIONER SIGALOS: I'll second.

ACTING CHAIRMAN GREEN: Any comments or discussion?  
Would you take roll call vote?

MR. ENRIGHT: Commissioner Ennes.

COMMISSIONER ENNES: Yes.

MR. ENRIGHT: Commissioner Sigalos.

COMMISSIONER SIGALOS: Yes.

MR. ENRIGHT: Commissioner Cherwin.

COMMISSIONER CHERWIN: Yes.

MR. ENRIGHT: Commissioner Jensen.

COMMISSIONER JENSEN: Yes.

MR. ENRIGHT: Chairman Green.

ACTING CHAIRMAN GREEN: Yes. Congratulations, you have a unanimous favorable vote. This will be passed on to the Trustees. Is there a date for that, Bill?

MR. ENRIGHT: Yes, it will likely be November 2nd at 8:00 p.m. in this room.

MR. MILLER: Thank you.

ACTING CHAIRMAN GREEN: And good luck with that.

MR. MILLER: All right, thank you.

MR. ENRIGHT: We have no other business tonight. I did want to remind the Plan Commission that we do have a public hearing on October 28th, Wednesday night, 7:30 p.m. There are three cases. One is a minor variation for an existing apartment building going from five to six units by reorganizing the interior and it technically needs a variation. So, for density, very minor though.

We also have Arlington Downs amendment to the planned unit development. They've gone to the Design Commission already with all new architectural design of the retail buildings. It's more contemporary modern. When they started speaking with their brokers marketing the properties in getting interest from retailers, the theme, although nice and well conceived, to have it more Churchill Downs looking was not thought to be good from a marketing standpoint. So, they've got a really nice, more contemporary design with a lot more windows and it's quite interesting, and enhanced landscaping. It's I think a much better project overall but basically the same as what you've seen before, some tweaks to the site plan but nothing, you know, major. So, that will be going as well.

Then we have -- boy, I'm trying to think what the third case is now. We have another case on that night that's pretty minor. I can't recall it right now, so that will be on the 28th.

COMMISSIONER JENSEN: Is there a Plat & Sub meeting that night?

MR. ENRIGHT: At this point, not. But I might have something to go on that night, depending upon when I get plans in.

COMMISSIONER JENSEN: Can you give us an update on your recruiting activities for a new planner?

MR. ENRIGHT: Not in public.

ACTING CHAIRMAN GREEN: Okay. Before we close this public hearing, I just want to make a comment that I had a, I'm going to call it the misfortune of calling the Building Department here in Arlington Heights this week, and my comment is that the Staff that answered the phone and was servicing me was not the most cordial people. I think that this makes a, is part of the problem that we hear about, about how long does it take to get through things and just the whole can be a negative experience dealing with Planning and the

Building Department. I don't agree with that but I just, these people on the phone were not cordial and I don't think that is a good presentation for the public.

So, just a comment on that. You may want to just pass it on to whoever that would be passed on to, but I just wanted it to be in this public forum. So, that's my only comment on that.

MR. ENRIGHT: Well, to clarify, you mentioned Planning there?

ACTING CHAIRMAN GREEN: No, no, no. I mean we always get, not the Planning but just in general, the process is not friendly enough, it's not fast enough to get through it. I think personally that the Planning Department does a marvelous job, and I think the Plan Commission and everybody does a great job for getting these projects in and for getting these projects out. The next step after they go through the Planning of course is to get the permit. I think that from the effort that we put on here, that to get that response in that sort of demeanor back from whoever was answering the phone over there doesn't speak well for the Village of Arlington Heights. That's all.

MR. ENRIGHT: Duly noted. I'll pass it on.

ACTING CHAIRMAN GREEN: I'll talk to you after the thing, Bill.

MR. ENRIGHT: Yes, I'll pass it on to --

ACTING CHAIRMAN GREEN: I just think it might want to be freshened up a little bit. Thank you. I mean I'm not, you know, I just don't like that presentation to the public and I was just the public at that point.

MR. ENRIGHT: Understood.

ACTING CHAIRMAN GREEN: Anything else, gentlemen?

COMMISSIONER JENSEN: Motion to adjourn.

ACTING CHAIRMAN GREEN: Motion to adjourn. Is there a second to that?

COMMISSIONER CHERWIN: Second.

ACTING CHAIRMAN GREEN: All those in favor say aye.  
(Chorus of ayes.)

ACTING CHAIRMAN GREEN: We're adjourned.

(Whereupon, the meeting was adjourned  
at 7:46 p.m.)

I, ROBERT LUTZOW, depose and say that I am a direct record court reporter doing business in the State of Illinois; that I reported verbatim the foregoing proceedings and that the foregoing is a true and correct transcript to the best of my knowledge and ability.

ROBERT LUTZOW

SUBSCRIBED AND SWORN TO

BEFORE ME THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, A.D. 2015.

NOTARY PUBLIC



**Item:** 1510 E. Northwest Highway - PC#15-021

**Department:** Planning & Community Development

### **Requested Action**

Approval associated with converting a 5-unit apartment building to a 6-unit apartment building requiring a variation.

### **Variations Required**

1. A variation from Chapter 28, Section 5.1-6.3, Minimum Lot Size to allow a minimum lot size of 14,250 SF instead of the required 15,000 SF for 6 dwelling units.
2. A variation from Chapter 28, Section 5.1-6.4.1, Required Minimum Yards to allow for the location of a required second access stairway, within the required 20 feet exterior side yard setback for an R-6 district. The variation request is for a 13.36 feet encroachment that will result in a 6.64 feet setback.

### **Recommendation**

The Staff Development Committee recommends approval of PC15-021, a variation from Chapter 28, Section 5.1-6.3, Minimum Lot Size to allow a minimum lot size of 14,250 SF instead of the required 15,000 SF for 6 dwelling units; and approval of a variation from Chapter 28, Section 5.1-6.4.1, Required Minimum Yards to allow for a second stairway access setback of 6.64 feet where 20 feet is required, a variation of 13.36 feet, subject to the following conditions:

1. The petitioner removes the storage from the garage space, thereby freeing up the parking space to meet the 12 parking space requirement for a 6 dwelling unit building.
2. The variation for the exterior side yard shall apply only to the stairwell.
3. Foundation plantings at the base of the addition shall be required and consist of a mix of shrubs and perennials.
4. The petitioner shall comply with all applicable Federal, State and Village codes and policies.



**ATTACHMENTS:****Description**

Staff Report  
Legal Notification  
Location Map  
Petitioner Justification  
Plat of Survey  
Site & Building Plans

**Type**

Board or Commission Report  
Correspondence  
Exhibits  
Correspondence  
Exhibits  
Exhibits

# STAFF DEVELOPMENT COMMITTEE REPORT

To: Plan Commission  
 Prepared By: Bill Enright, Deputy Director Planning and Community Development  
 Meeting Date: October 28, 2015  
 Date Prepared: October 21, 2015  
 Project Title: 1510 E. Northwest Highway  
 Address: 1510 E. Northwest Highway

## Background Information

Petitioner: Angelo Rosado  
 Address: 1510 E. Northwest Highway  
 Arlington Heights, IL 60004

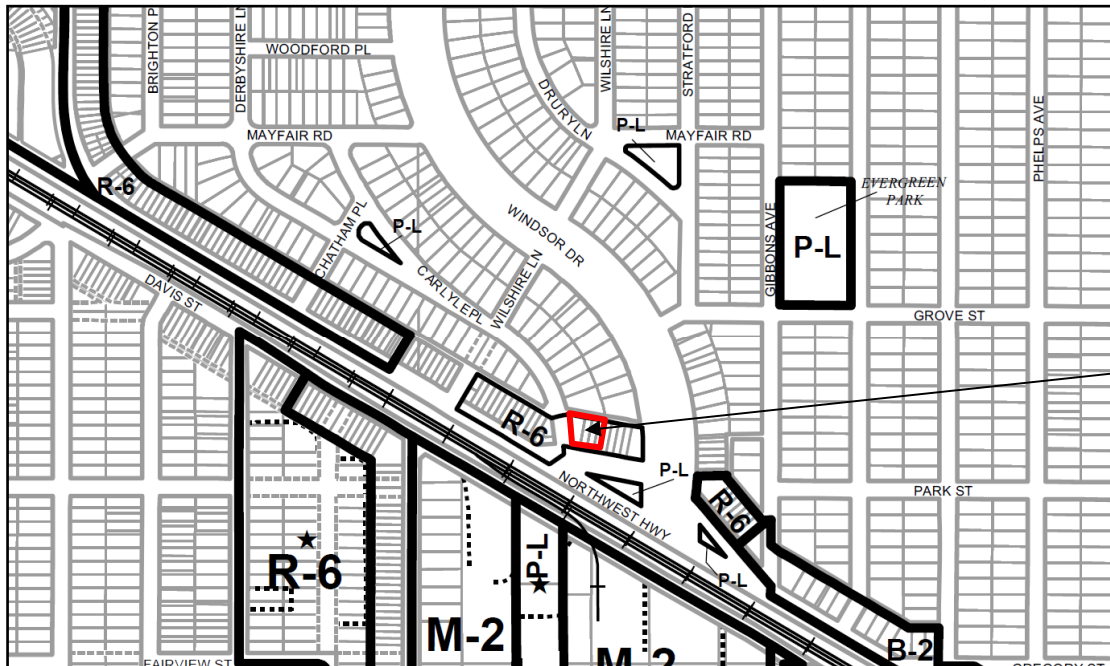
**Existing Zoning:** R-6, Multiple Family Dwelling District

## **Requested Action:**

- Approval associated with converting a 5-unit apartment building to a 6-unit apartment building requiring a variation.

## **Variations Required:**

- A variation from Chapter 28, Section 5.1-6.3, Minimum Lot Size to allow a minimum lot size of 14,250 SF instead of the required 15,000 SF for 6 dwelling units.
- A variation from Chapter 28, Section 5.1-6.4.1, Required Minimum Yards to allow for the location of a required second access stairway, within the required 20 feet exterior side yard setback for an R-6 district. The variation request is for a 13.36 feet encroachment that will result in a 6.64 feet setback.



SUBJECT  
PROPERTY

## **Surrounding Properties:**

|       | Zoning                                 | Use           | Comprehensive Plan             |
|-------|----------------------------------------|---------------|--------------------------------|
| North | R-3, One Family Dwelling District      | Single-Family | Single Family Detached         |
| South | R-3, One Family Dwelling District      | Open Space    | Parks                          |
| East  | R-6, Multiple Family Dwelling District | Multi-Family  | Moderate Density Multi- Family |
| West  | R-6, Multiple Family Dwelling District | Townhomes     | Moderate Density Multi- Family |

**Project Summary**

The subject site is approximately 14,250 square feet (0.33 acres) in area and located on the north side of Northwest Highway, east of Carlyle Place. There is an existing 5-unit apartment building on this property containing four 2-bedroom units and one 4-bedroom unit which is two-story. It is the petitioner's intent to convert the one 4-bedroom apartment unit into two 2-bedroom apartment units. The petitioner is also proposing to add a required outdoor stairwell for egress from the upper story unit.

**Plat and Subdivision Committee**

The Plat and Subdivision Committee of the Plan Commission met on July 22, 2015 to discuss the project and did not express any objections, and felt the petitioner met the hardship criteria.

**Zoning and Comprehensive Plan**

Pursuant to the Village's Comprehensive Plan, the property is designated Moderate Density Multi-Family. The apartment building is consistent with the Village's Comprehensive Plan.

Per the Zoning Ordinance, the following are the minimum lot size requirements for multiple-family units in the R-6 district:

|                   |                                |
|-------------------|--------------------------------|
| 4-bedroom         | 4,000-sq.ft. per dwelling unit |
| 3-bedroom         | 3,500-sq.ft. per dwelling unit |
| 2-bedroom or less | 2,500-sq.ft. per dwelling unit |

Therefore, for the existing apartment configuration, a minimum lot area of 14,000-sq. ft. is required. Since the existing lot area is approximately 14,250-sq.ft., this requirement is met. With the proposed apartment configuration, a minimum lot size of 15,000-sq. ft. is required, necessitating a variation of 750-sq.ft.

| CURRENT         |           |                           |                   |                         |
|-----------------|-----------|---------------------------|-------------------|-------------------------|
| Number of Units | Type      | Minimum Lot Size per unit | Lot Size Required | Total Lot Size Required |
| 1               | 4-bedroom | 4,000-sq.ft.              | 4,000-sq.ft.      | 14,000-sq.ft.           |
| 4               | 2-bedroom | 2,500-sq.ft.              | 10,000-sq.ft.     |                         |
| PROPOSED        |           |                           |                   |                         |
| 6               | 2-bedroom | 2,500-sq.ft.              | 15,000-sq.ft.     | 15,000-sq.ft.           |

As the deficiency in the lot area represents only 5.3% of the total lot size (14,250-sq.ft.) the Staff Development Committee is supportive of the variation required for the conversion from a 5-unit to a 6-unit apartment building. The following variations are required:

- **Variation from Chapter 28, Section 5.1-6.3, Minimum Lot Size to allow a minimum lot size of 14,250 SF instead of the required 15,000 SF for 6 dwelling units**
- **Variation from Chapter 28, Section 5.1-6.4.1, Required Minimum Yards to allow for the location of a required second access stairway, within the required 20 feet exterior side yard setback for an R-6 district. The variation request is for a 13.36 feet encroachment that will result in a 6.64 feet setback.**

The Petitioner provided a written response received on September 17, 2015 to the three variation criteria:

- **The property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in that zone; and**
- **The plight of the owner is due to unique circumstances; and**
- **The variation, if granted, will not alter the essential character of the locality.**

Staff does not object to the variations for minimum lot size or required minimum yards as this is in an existing building and the stairway access is a health and safety requirement. In addition the existing building is setback 14 feet and already non

conforming. The stairway is also only 8 feet by 14 feet so it is a small extension to the building. If the request for the variations is approved by the Village Board, Staff would recommend that these variations apply only to the existing structure and all new structures would need to comply with current code standards.

The proposed stairway addition has been reviewed by the Planning and Community Development Department and it is favorable for an Administrative Design Approval, pending the outcome of the Plan Commission review.

### **Building, Site, and Landscape Related Issues**

The petitioner's intent is to convert the two-story 4-bedroom apartment into two 2-bedroom apartments. Since the upper floor unit would only have an indoor stairwell for egress, an exterior stair is being proposed as a second means of egress, as required by Building Code.

The following are the required setbacks for this property:

| <b>Yards</b>                        | <b>Required Setback</b>  | <b>Existing Setback</b>                                          | <b>Meets/Does not Meet</b>        |
|-------------------------------------|--------------------------|------------------------------------------------------------------|-----------------------------------|
| Front (along Northwest Highway)     | 25 FT                    | 24.5 FT                                                          | NO(leave as legal non conforming) |
| Rear                                | 30 FT                    | 7.39 FT                                                          | *Variation granted                |
| Exterior Side (along Carlyle Place) | 20 FT                    | 14.04 FT                                                         | NO                                |
| Interior Side                       | 10 FT (10% of Lot Width) | 10 FT (This appears to be 10', a to-scale plat must be provided) | YES                               |

\*In 2014, the Zoning Board of Appeals granted a variation for this property to allow the attached garage to be located 7.39 feet from the rear property line.

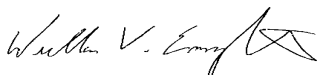
### **Traffic & Parking Issues**

Per Chapter 28, two parking spaces are required per dwelling unit. Therefore, 12 parking spaces would be required for a 6-unit building. It appears there are 12 parking spaces on the site – 9 surface spaces and 3 spaces within the garage. At the ZBA meeting on August 11, 2014, the petitioner stated that one space within the attached garage will be used for storing maintenance equipment. In that case, there would be a deficit of one space. At the Plat and Subdivision meeting on July 22, 2015, the petitioner said he would remove the maintenance equipment from the garage, thereby freeing up the one additional space needed to meet the parking requirement.

### **Recommendation**

The Staff Development Committee recommends approval of PC15-021, a variation from Chapter 28, Section 5.1-6.3, Minimum Lot Size to allow a minimum lot size of 14,250 SF instead of the required 15,000 SF for 6 dwelling units; and approval of a variation from Chapter 28, Section 5.1-6.4.1, Required Minimum Yards to allow for a second stairway access setback of 6.64 feet where 20 feet is required, a variation of 13.36 feet, subject to the following conditions:

1. The petitioner removes the storage from the garage space, thereby freeing up the parking space to meet the 12 parking space requirement for a 6 dwelling unit building.
2. The variation for the exterior side yard shall apply only to the stairwell.
3. Foundation plantings at the base of the addition shall be required and consist of a mix of shrubs and perennials.
4. The petitioner shall comply with all applicable Federal, State and Village codes and policies.



October 21, 2015

Bill Enright, Deputy Director of Planning and Community Development

C: Randy Recklaus, Village Manager  
All Department Heads

NOTICE OF  
PUBLIC HEARING  
NOTICE IS HEREBY  
GIVEN THAT THE PLAN  
COMMISSION OF THE  
VILLAGE OF ARLINGTON  
HEIGHTS WILL CONDUCT  
A PUBLIC HEARING ON  
OCTOBER 28, 2015 AT 7:30  
P.M. in the Municipal Building,  
33 South Arlington  
Heights Road, Arlington  
Heights, Illinois to consider  
Petition No. 15-021, a request  
for approval associated with  
converting a 5-unit apartment  
building to a 6-unit apartment  
building, requiring a variation.  
The subject site is located at 1510  
E. Northwest Highway, Arlington  
Heights, Illinois and is legally  
described as:  
Lot 202, Lot 203, Lot 204, Lot  
205 in "Stonegate" being a  
resubdivision of the H. Roy  
Berry Company's East  
Moreland, being a subdivision  
of that part of the west  
half of the Northwest Quarter  
of Section 33, and that  
part of the East half of the  
Northeast quarter of Section  
32, lying northeasterly of the  
Chicago and Northwestern  
Railroad Co., all in Township  
42 North, Range 11 East  
of the Third Principal meridian,  
in Cook County, Illinois.  
As part of said request the  
petitioner is requesting the  
following variations from  
the Municipal Code:  
• Chapter 28, Section 5.1-6.3,  
Minimum Lot Size to allow a  
minimum lot size of 14,250  
SF instead of the required  
15,000 SF for 6 dwelling  
units.  
• Chapter 28, Section 5.1-  
6.4.1, Required Minimum  
Yards to allow for the location  
of a required second access  
stairway, within the required  
20 feet exterior side yard  
setback for an R-6 district.  
The variation request is for a  
13.36 feet encroachment that  
will result in a 6.64 feet  
setback.  
And any other variations as  
determined necessary by the  
Plan Commission.  
All persons desiring to be  
heard shall be given the opportunity  
to be heard.  
Should any individual need  
auxiliary aid or service,  
such as a sign language  
interpreter or materials in  
alternative formats, please  
contact the Health Department  
at 33 South Arlington  
Heights Road, Arlington  
Heights, Illinois 60005, (847)  
368-5760, TDD# (847) 368-  
5794.  
Joe Lorenzini, Chairman  
ARLINGTON HEIGHTS  
PLAN COMMISSION  
Published in Daily Herald  
October 13, 2015 (4421964)

## CERTIFICATE OF PUBLICATION

Paddock Publications, Inc.

# Daily Herald

Corporation organized and existing under and by virtue of the laws of the State of Illinois, DOES HEREBY CERTIFY that it is the publisher of the **DAILY HERALD**. That said **DAILY HERALD** is a secular newspaper and has been circulated daily in the Village(s) of Algonquin, Antioch, Arlington Heights, Aurora, Barrington, Barrington Hills, Lake Barrington, North Barrington, South Barrington, Bartlett, Batavia, Buffalo Grove, Burlington, Campton Hills, Carpentersville, Cary, Deer Park, Des Plaines, South Elgin, East Dundee, Elburn, Elgin, Elk Grove Village, Fox Lake, Fox River Grove, Geneva, Gilberts, Grayslake, Green Oaks, Gurnee, Hainesville, Hampshire, Hanover Park, Hawthorn Woods, Hoffman Estates, Huntley, Inverness, Island Lake, Kildeer, Lake Villa, Lake in the Hills, Lake Zurich, Libertyville, Lincolnshire, Lindenhurst, Long Grove, Mt. Prospect, Mundelein, Palatine, Prospect Heights, Rolling Meadows, Round Lake, Round Lake Beach, Round Lake Heights, Round Lake park, Schaumburg, Sleepy Hollow, St. Charles, Streamwood, Tower Lakes, Vernon Hills, Volo, Wauconda, Wheeling, West Dundee, Wildwood, Sugar Grove, North Aurora

County(ies) of Cook, Kane, Lake, McHenry

and State of Illinois, continuously for more than one year prior to the date of the first publication of the notice hereinafter referred to and is of general circulation throughout said Village(s), County(ies) and State.

I further certify that the **DAILY HERALD** is a newspaper as defined in "an Act to revise the law in relation to notices" as amended in 1992 Illinois Compiled Statutes, Chapter 7150, Act 5, Section 1 and 5. That a notice of which the annexed printed slip is a true copy, was published October 13, 2015 in said **DAILY HERALD**.

IN WITNESS WHEREOF, the undersigned, the said **PADDOCK PUBLICATIONS, Inc.**, has caused this certificate to be signed by, this authorized agent, at Arlington Heights, Illinois.

**PADDOCK PUBLICATIONS, INC.**  
**DAILY HERALD NEWSPAPERS**

BY *Danula Baltz*  
Authorized Agent

Control # 4421964

RECEIVED

OCT 15 2015





1510 E. Northwest Highway  
Prepared by: Planning & Economic Development Department  
Village of Arlington Heights  
July 2015



**Location: 1510 E. Northwest Hwy.**

Scope of work is to convert one of the five apartments from 4-bedroom, two-story apartment into two 2-bedroom apartments. The current unit layout and size is almost impossible to rent.

**Variations:**

1. Approval on shortage of the 750 Sf lot area from required 15,000 SF.

Current lot area is 14,250 SF., zoning ordinance requires 2500 SF of lot area per unit. Converted 6 unit building would need  $6 \times 2500 = 15000$  SF. My property is 750 SF short of meeting the zoning requirement.

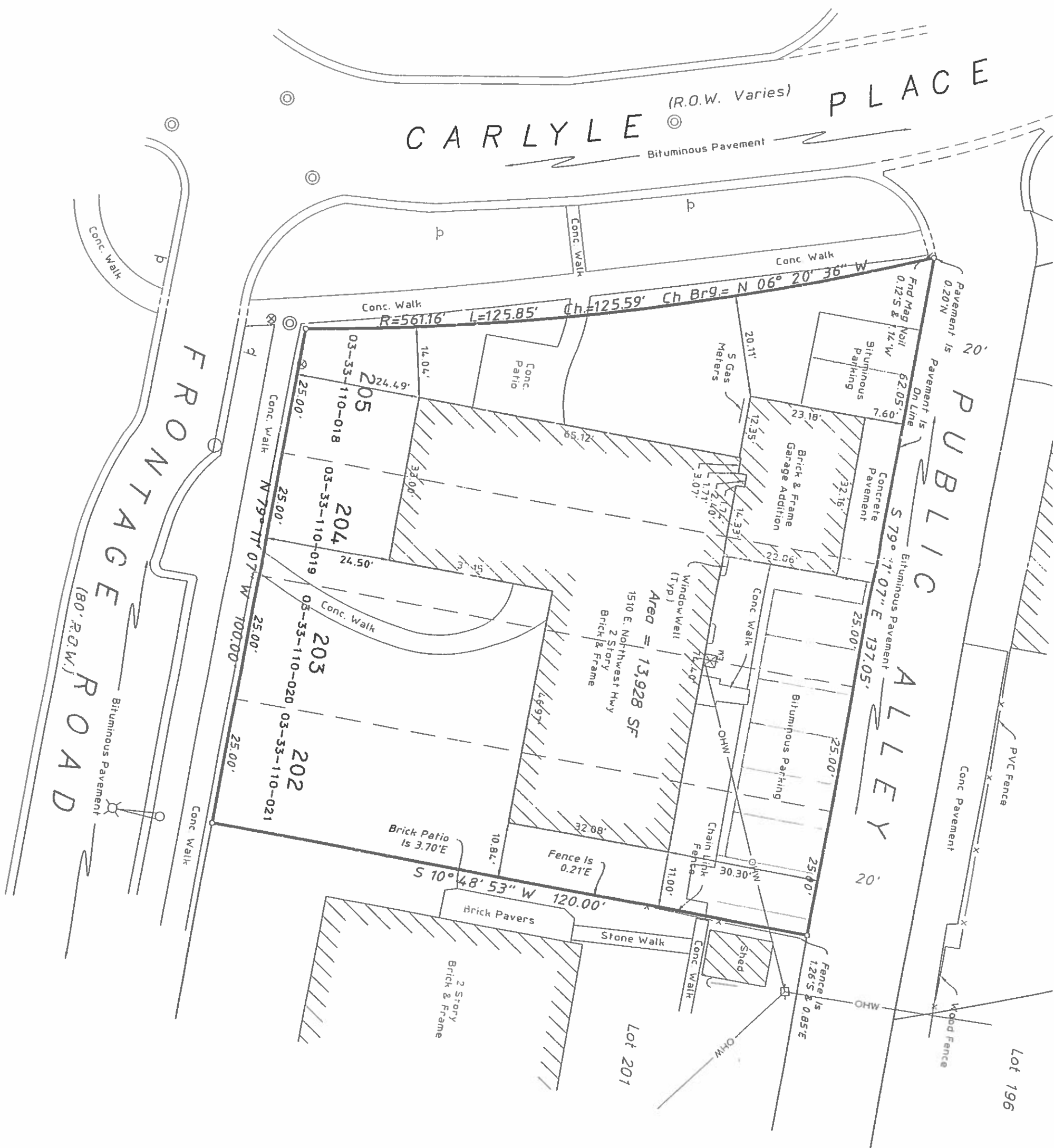
2. Side setback reduction.

Due to safety requirement of having two ways of egress from any apartment unit, I need to build second stairway. The best location to do that is on the West side of the building. Following VoAH Building Department advice, I propose to build enclosed stair way that would serve the purpose of second exit, but may be closer to property lot line than minimum required by zoning ordinance. The new stair enclosure will match the existing building design.

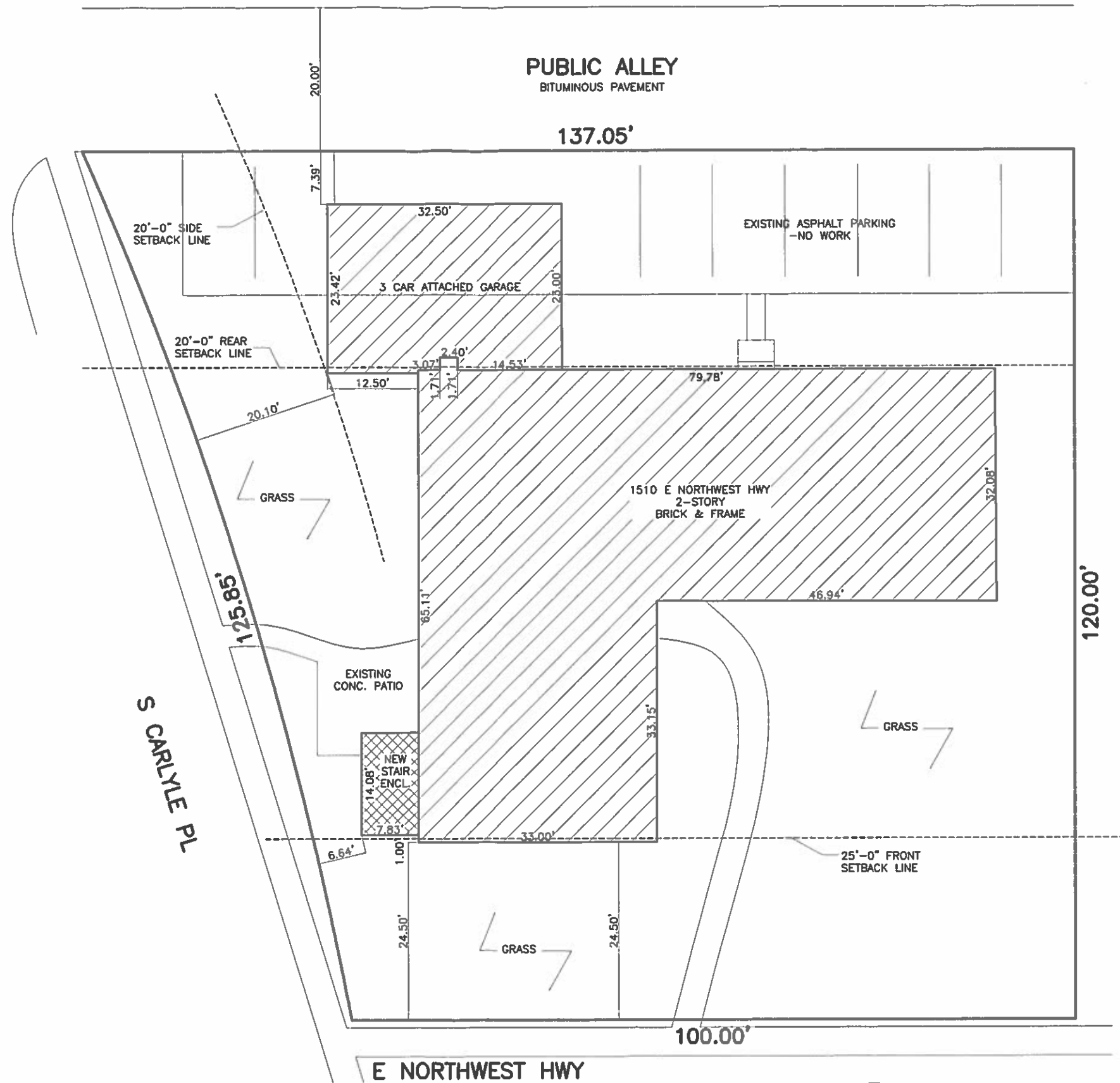
RECEIVED

SEP 17 2015

PLANNING & COMMUNITY  
DEVELOPMENT DEPARTMENT







E NORTHWEST HWY

SITE PLAN

SCALE: 1/8"=1'-0"



REVISIONS:

DRAWN BY:  
LL

CHECKED BY:

SITE PLAN

1510 E NORTHWEST HWY  
ARLINGTON HEIGHTS, IL

ARCHITECTURE PLANNING ARCHITECTURAL ENGINEERING

**Red Architects Ltd**

929 N. Damen Ave.  
Chicago IL 60622

773 772 2756 office  
773 772 2854 fax

PROJECT:

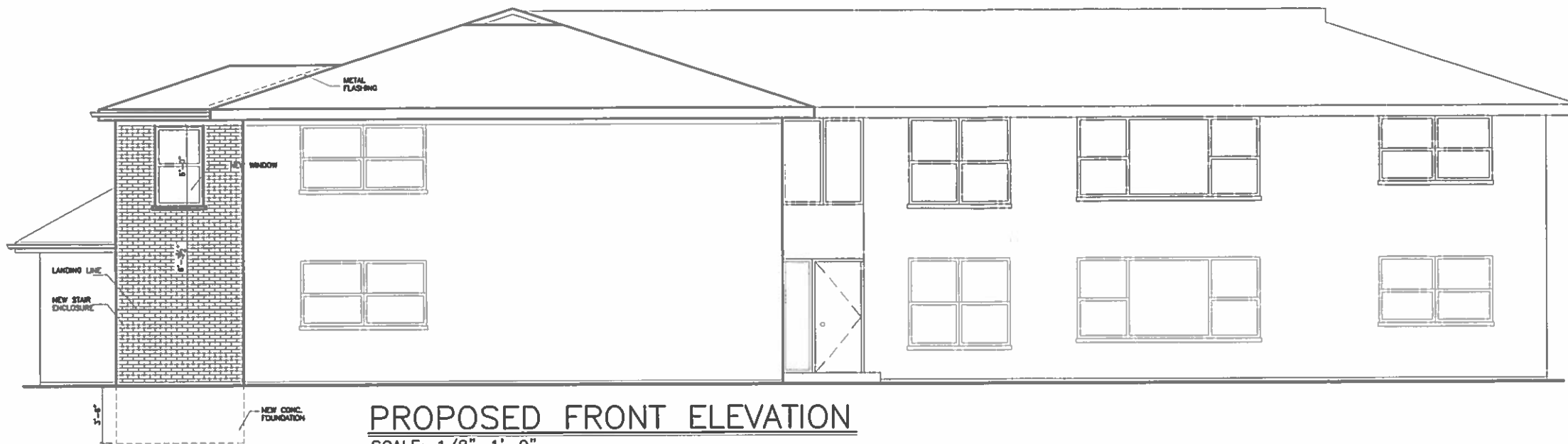
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DATE:

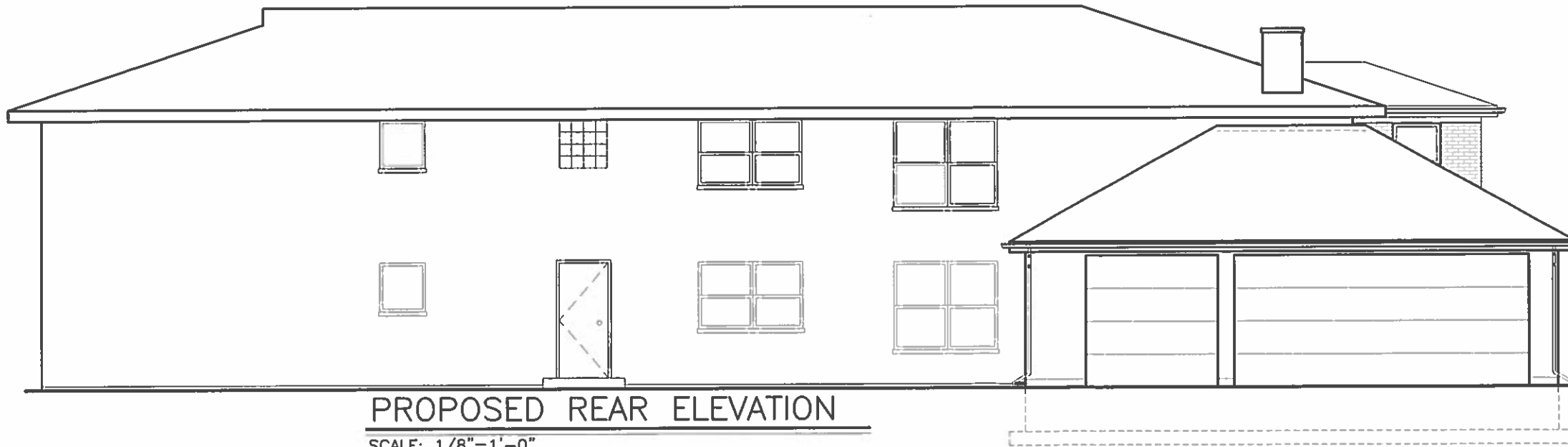
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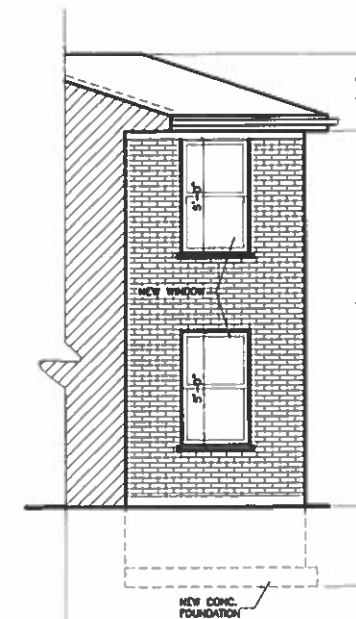
1 OF 7



**PROPOSED FRONT ELEVATION**  
SCALE: 1/8"=1'-0"



**PROPOSED REAR ELEVATION**  
SCALE: 1/8"=1'-0"



**PARTIAL REAR ELEVATION**  
SCALE: 1/8"=1'-0"

REVISIONS:

DRAWN BY:  
LL

CHECKED BY:

FRONT AND PARTIAL REAR  
ELEVATION

1510 E NORTHWEST HWY  
ARLINGTON HEIGHTS, IL

ARCHITECTURE PLANNING ARCHITECTURAL ENGINEERING

**Red Architects Ltd**

928 M. Duman Ave.  
Chicago IL 60622  
773.772.2756 office  
773.772.2554 fax

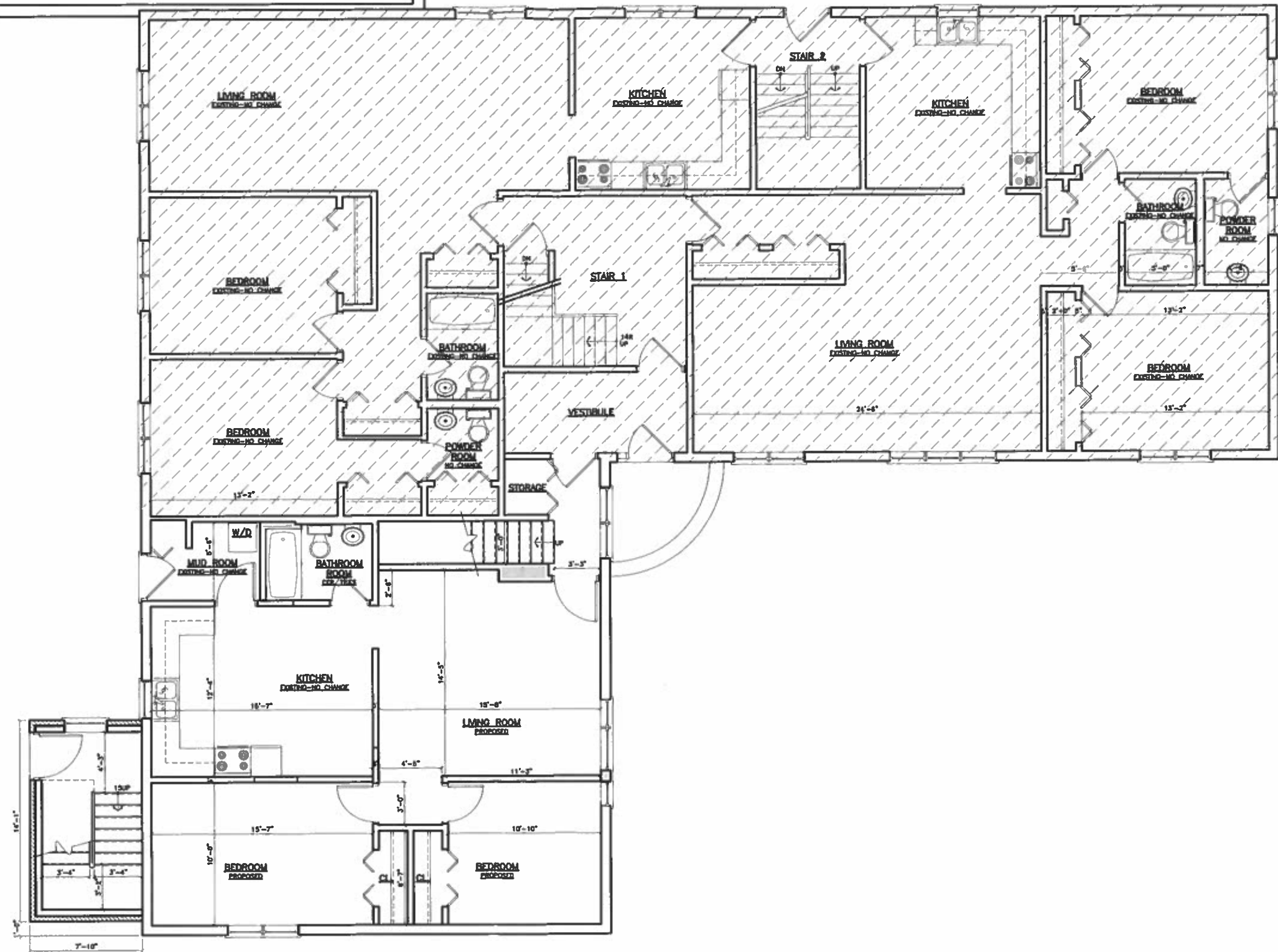
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SHEET:

**A1**



PROPOSED FIRST FLOOR PLAN

SCALE: 1/8" = 1'-0"



NOT IN CONTRACT  
-NO WORK

REVISIONS:

DRAWN BY:  
LL

CHECKED BY:

PROPOSED FIRST FLOOR  
PLAN

1510 E NORTHWEST HWY  
ARLINGTON HEIGHTS, IL

ARCHITECTURE PLANNING ARCHITECTURAL ENGINEERING

**Red Architects Ltd**

929 N. Damen Ave.  
Chicago IL 60622  
773 772 2756 office  
773 772 2854 fax

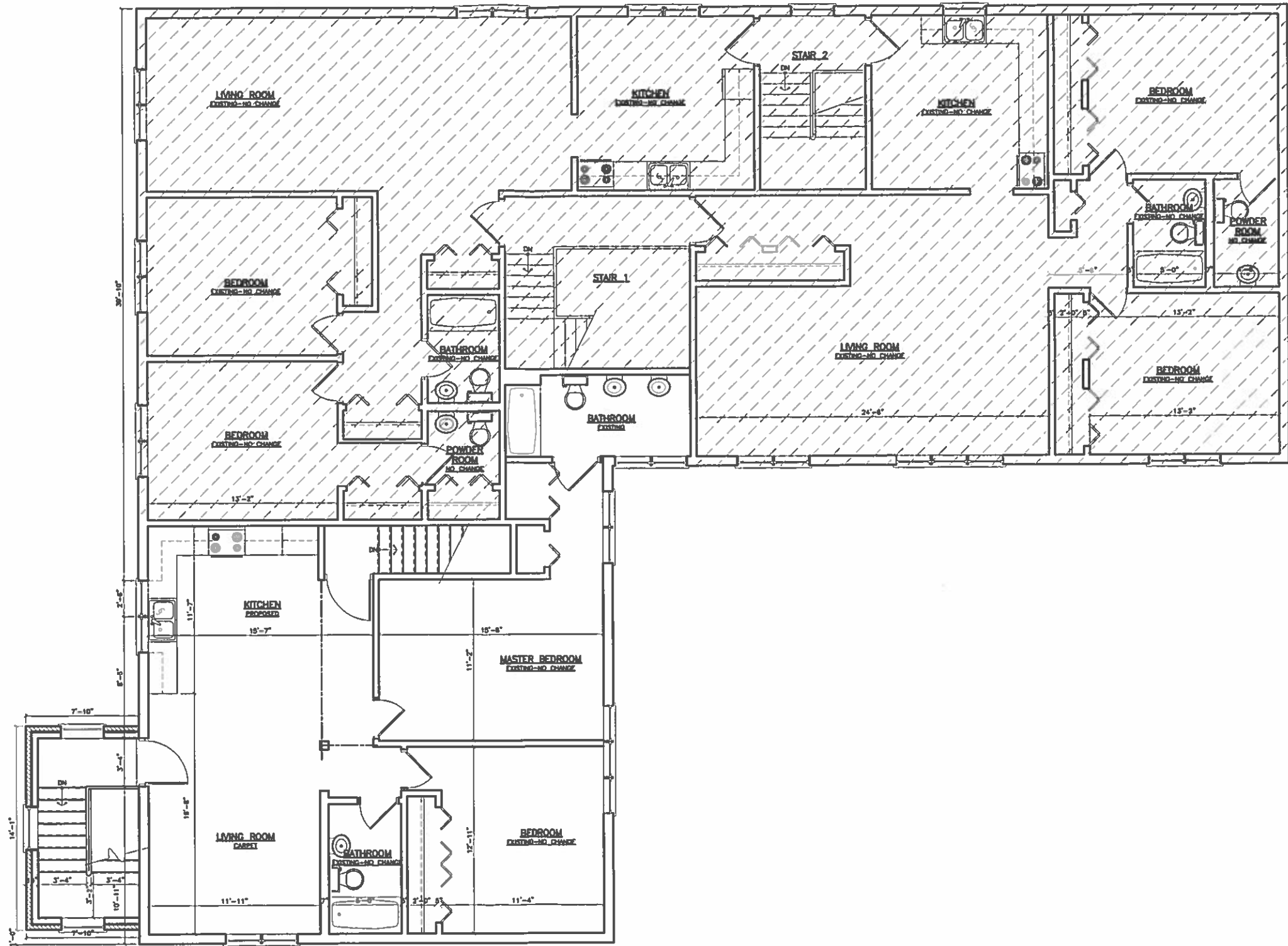
PROJECT:

SCALE:

DATE:

SHEET:

**A3**



PROPOSED SECOND FLOOR PLAN  
SCALE: 1/8" = 1'-0"

NOT IN CONTRACT  
-NO WORK

|                                                 |       |
|-------------------------------------------------|-------|
| REVISIONS:                                      |       |
| DRAWN BY:<br>LL                                 |       |
| CHECKED BY:                                     |       |
| PROPOSED SECOND FLOOR PLAN                      |       |
| 1510 E NORTHWEST HWY<br>ARLINGTON HEIGHTS, IL   |       |
| ARCHITECTURE PLANNING ARCHITECTURAL ENGINEERING |       |
| Red Architects Ltd                              |       |
| 929 N. Damen Ave.<br>Chicago IL 60622           |       |
| 773.772.2156 office<br>773.772.2854 fax         |       |
| PROJECT:                                        | DATE: |
| SCALE:                                          |       |
| SHEET:                                          |       |
| A4                                              |       |
| 2 OF 7                                          |       |



**Item:** Hillside Auto - 25 E. University Dr. - PC#15-004

**Department:** Planning & Community Development

### **Requested Action**

A Land Use Variation to allow Motor Vehicle Repair, Major in the M-1 district.

### **Variations Identified**

Chapter 28, Section 6.12-1(3) Traffic Engineering Approval, to waive the requirement for a traffic study and parking analysis from a Certified Traffic Engineer.

### **Recommendation**

The Staff Development Committee recommends approval of PC15-004, a Land Use Variation to permit Motor Vehicle Repair Major, in the M-1 zoning district; and a variation from Chapter 28, Section 6.12-1 (3) to waive a formal traffic study and parking analysis, subject to the following:

1. A new 10 foot tall vinyl solid fence shall be required along the perimeter of the site per Exhibit A (site plan).
2. Landscaping shall be installed at the front of the building as illustrated on the floor / site plan.
3. The petitioner shall repair, fill and patch potholes and cracks in the storage lot.
4. The petitioner shall stripe parking spaces along rear of the building to accommodate employees, estimated at 5 employees.
5. An MWRD permit may be required for the sanitary system grease trap in order to conform with an automotive use.
6. Junkyards, vehicle compactors/crushers, and painting of vehicles are specifically prohibited.
7. Hours of operation shall be limited to 8:00am until 6:00pm Monday to Friday, and 8:00am to 12:00pm Saturday. Compliance with all Federal, State and Village

regulations and policies.

**ATTACHMENTS:**

**Description**

PC Staff Report  
Legal Notification  
Location Map  
Plat & Sub Minutes  
Site Aerial  
Site Plan  
Floor Plan - Landscape Plan  
Justification Narrative  
Department Comments - Petitioner  
Response - Round 1  
Department Comments - Petitioner  
Response - Round 2

**Type**

Report  
Correspondence  
Exhibits  
Minutes  
Exhibits  
Exhibits  
Exhibits  
Correspondence  
Correspondence  
Correspondence

## **STAFF DEVELOPMENT COMMITTEE REPORT**

**To:** Plan Commission  
**Prepared By:** Bill Enright, Deputy Director Planning and Community Development  
**Meeting Date:** October 28, 2015  
**Date Prepared:** October 22, 2015  
**Project Title:** Hillside Auto  
**Address:** 25 E. University Drive

### **BACKGROUND INFORMATION**

**Petitioner:** James and Mark Balek  
**Address:** 200 E. Palatine Road  
 Arlington Heights, IL 60004

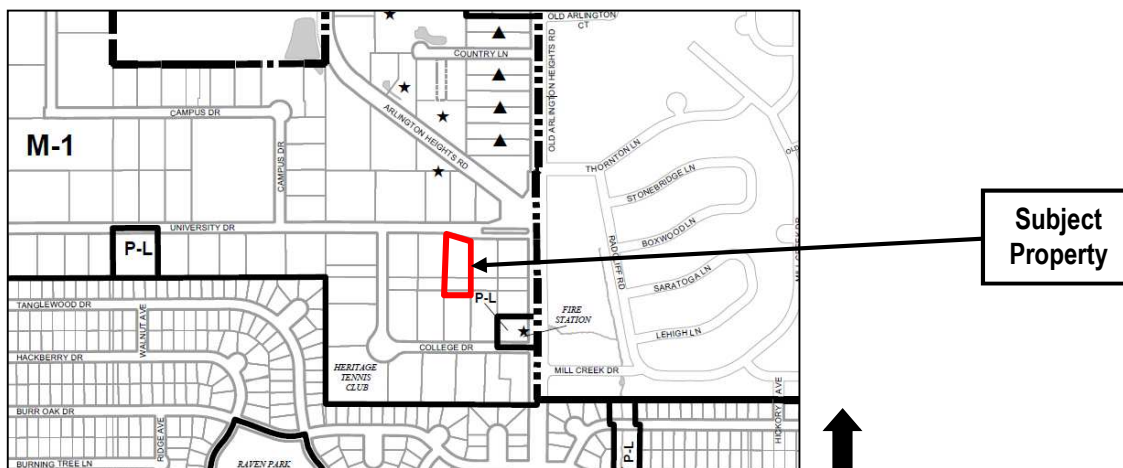
**Existing Zoning:** M-1, Research, Development and Light Manufacturing District

### **Requested Action:**

- A Land Use Variation to allow Motor Vehicle Repair, Major in the M-1 district.

### **Variations Identified:**

- Chapter 28, Section 6.12-1(3) *Traffic Engineering Approval*, to waive the requirement for a traffic study and parking analysis from a Certified Traffic Engineer.



### **Surrounding Properties**

| Direction | Existing Zoning                                            | Existing Use                                                 | Comprehensive Plan   |
|-----------|------------------------------------------------------------|--------------------------------------------------------------|----------------------|
| North     | M-1, Research, Development, & Light Manufacturing District | Industrial, Warehouse (Pro Fastening System, Public Storage) | R&D, Mfg., Warehouse |
| South     | M-1, Research, Development, & Light Manufacturing District | Industrial/Commercial (Bancare)                              | R&D, Mfg., Warehouse |
| East      | M-1, Research, Development, & Light Manufacturing District | Industrial/Commercial (Leonard's Guide – Logistics Company)  | R&D, Mfg., Warehouse |
| West      | M-1, Research, Development, & Light Manufacturing District | Industrial/Commercial (Buckeridge Door)                      | R&D, Mfg., Warehouse |

**Background**

The subject property is approximately 1.28 acres including a 15,110 square foot building. The petitioner, Hillside Auto Body and Towing has their primary location at 200 E. Palatine Road. In 2004, the petitioner received a land use variation to allow Motor Vehicle Repair, Major Facility and Motor Vehicle Towing Service in the M-1 Research, Development and Light Manufacturing District at 120 W. University Drive (which is 500 feet to the west and across University Drive from the subject site). The petitioner would like to operate a Motor Vehicle Repair, Major Facility at this location and will be occupying the entire building. Motor Vehicle Repair, Major is permitted in the "B-3" and "M-2" districts, but not M-1. Therefore, a land use variation is necessary to allow this use at this location.

Per the Zoning Ordinance, "Major motor vehicle repair" is defined as "engine rebuilding or major reconditioning of worn or damaged motor vehicles or trailers; collision service, including body, frame or fender straightening or repair; and overall painting of vehicles." Hillside Auto has indicated that they recently entered into two new contracts to provide auto body and mechanical repair services to a fleet of vehicles owned by a national rental company, and an inventory of vehicles for a local dealership. To accommodate the additional space for its expanding repair operations, they are requesting a land use variation to allow motor vehicle repair, major at 25 E. University Dr.

Hillside Auto has indicated that they anticipate hiring two to five new employees immediately, and more employees as their operations expand. The number of vehicles that will be stored for auto or mechanical repair, on any given day, will be 10 to 15 vehicles. The facility would operate on Monday through Friday from 8:00 a.m. to 5:00 p.m. and Saturdays from 8:00 a.m. to 12:00 p.m.

Hillside Auto had anticipated fully transitioning its operations (towing and repair) from 200 E. Palatine Road to 120 W. University Drive. However, as operating out of a single location is no longer feasible for them, they are seeking a land use variation for their repair operations at this site. Hillside Auto has indicated that if the land use variation is granted, they will commence operations at this site immediately.

**In addition, the petitioner has represented that they plan to fully transition operations from the Palatine Road site to the University Drives sites by July 2016, however they cannot guarantee a date that they will cease operations at 200 E. Palatine Road.**

**Zoning and Comprehensive Plan**

The site is currently zoned M-1 Research, Development, & Light Manufacturing District, which does not permit this use, therefore a Land Use Variation is required. The petitioner submitted a response to the following hardship criteria in their letter dated March 13, 2015:

- **The property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in that zone; and**
- **The plight of the owner is due to unique circumstances; and**
- **The variation, if granted, will not alter the essential character of the locality.**

Staff supports the land use variation request as the criteria above have been justified, and more specifically for the following reasons:

- The site have been vacant for over 5 years;
- The use is consistent with other adjacent uses;
- As stated by the petitioner, it is their intent to fully transition operations from 200 E. Palatine Road to the 25 E. University Drive site and the existing site at 120 E. University Drive.

The Village's Comprehensive Plan designates this property as 'R&D, Mfg., Warehouse'. Given the scope of this petition and the surrounding land uses, this use is consistent with the Comprehensive Plan.

**Plat and Subdivision Committee**

The Plat and Subdivision Committee met on October 22, 2014 and did not have objections to this proposal moving forward through the public hearing process.



**Building, Site and Landscaping**

The Petitioner is not proposing any exterior modifications to the building, therefore Design review is not required. Per the Zoning Ordinance, within the M-1 district, all research, business, production, servicing and processing must take place within completely enclosed buildings unless otherwise specified. All storage must be in completely enclosed buildings or structures if located within 150 feet of a residence district. Storage located elsewhere in this district may be open to the sky but must be enclosed by solid walls or fences (including solid doors or gates thereto) at least eight feet high, but in no case lower in height than the enclosed storage and suitably landscaped. Since the proposed property is not within 150 feet of a residence district, storage may be located outside but must be enclosed by a solid wall or fence, at least 8 feet in height. At this time, there is an existing chain link fence in the rear of the property. The petitioner has agreed to install a new, solid vinyl fence 10 feet tall around the perimeter of the storage area. Staff would recommend that the fence gate at the storage entrance include slats to provide some degree of screening from the roadway.

In addition, the petitioner originally provided several options to stripe parking spaces in the rear storage area, however during the review process the request was modified by the petitioner to patch and fill potholes and cracks in the rear storage area rather than stripe individual spaces. Typically curbed islands of parking areas would be required, but since this area is for storage of vehicles, staff supports leaving the rear parking area as non conforming with respect to the requirement for curbed islands. Also given that a new 10 foot tall fence will enclose this area, staff supports the petitioner's request to not landscape the lot and leave as non conforming. Staff notes that painting of vehicles is not proposed, nor are vehicle compactors / crushers. Thus those uses shall be prohibited as a condition of this petition.

In addition, the petitioner shall confirm with MWRD whether or not the existing sanitary system grease trap would have to be evaluated to see if it meets the MWRD criteria for an automotive use.

**Traffic & Parking**

At this time, there are no clearly striped parking spaces for this property. The petitioner has indicated that for their new contracts, Hillside will be responsible for transporting the vehicles to and from the owner's facility and therefore they do not anticipate an increased need for customer parking. The petitioner has agreed to provide striped parking spaces for employees at the rear of the building.

The petitioner had originally provided plans to stripe the rear storage area to include parking for the site. However, the zoning code does allow for parking to be met off site as long as that parking is within 1,000 feet of the use served. The petitioner's 120 E. University Drive site has more parking than required by code (excess of 82 spaces) and is 500 feet from this site.

Per the Zoning Code, the parking requirements for this use are calculated as follows:

| Use          | Code Use                          | Square Footage (SF)/Bays | Parking Square Footage (SF) | Parking Standard                                                   | Employees         | Vehicles | Required Parking |
|--------------|-----------------------------------|--------------------------|-----------------------------|--------------------------------------------------------------------|-------------------|----------|------------------|
| Office       | Business and Professional Offices | 1800 SF                  | 1800                        | 1 space/ 300 SF                                                    |                   |          | 6                |
| Service Area | Automobile Service Station        | 12 bays                  | 13,310                      | One space for each employee plus three spaces for each service bay | 5                 |          | 41               |
| <b>Total</b> |                                   |                          | <b>15,110</b>               |                                                                    |                   |          | <b>47</b>        |
|              |                                   |                          |                             |                                                                    | Spaces available  |          | 5                |
|              |                                   |                          |                             |                                                                    | Surplus/(Deficit) |          | (42)*            |

\*Chapter 28 Section 11.3-3 allows for parking requirements to be met in the M zoning districts within 1,000 feet of the use served.

Although the 25 E. University Drive site does not provide the required stripped parking spaces, they can meet the requirement at their 120 E. University Drive site, which is 500 feet to the West. In addition the 120 E. University site has a code excess of 82 parking spaces.

Per the Zoning Ordinance, a Traffic study and Parking analysis is required for projects seeking a Land Use Variation that are not adjacent to a major or secondary arterial street as defined by the Village's Thoroughfare Plan. The petitioner is seeking a variation for the following:

- **Chapter 28, Section 6.12-1(3) *Traffic Engineering Approval*, to waive the requirement for a traffic study and parking analysis from a Certified Traffic Engineer.**

Staff supports a variation to not require a traffic study and parking analysis given the limited impact of this use on adjacent roadways.

### **Recommendation**

The Staff Development Committee recommends approval of PC15-004, a Land Use Variation to permit Motor Vehicle Repair Major, in the M-1 zoning district; and a variation from Chapter 28, Section 6.12-1 (3) to waive a formal traffic study and parking analysis, subject to the following:

1. A new 10 foot tall vinyl solid fence shall be required along the perimeter of the site per Exhibit A (site plan).
2. Landscaping shall be installed at the front of the building as illustrated on the floor / site plan.
3. The petitioner shall repair, fill and patch potholes and cracks in the storage lot.
4. The petitioner shall stripe parking spaces along rear of the building to accommodate employees, estimated at 5 employees.
5. An MWRD permit may be required for the sanitary system grease trap in order to conform with an automotive use.
6. Junkyards, vehicle compactors/crushers, and painting of vehicles are specifically prohibited.
7. Hours of operation shall be limited to 8:00am until 6:00pm Monday to Friday, and 8:00am to 12:00pm Saturday.
8. Compliance with all Federal, State and Village regulations and policies.

October 22, 2015

Bill Enright, Deputy Director of Planning and Community Development

C: Randy Recklaus, Village Manager  
All Department Heads

NOTICE OF  
PUBLIC HEARING  
NOTICE IS HEREBY  
GIVEN THAT THE PLAN  
COMMISSION OF THE  
VILLAGE OF ARLINGTON  
HEIGHTS WILL CONDUCT  
A PUBLIC HEARING ON  
OCTOBER 28, 2015 AT 7:30  
P.M. in the Municipal Building,  
33 South Arlington  
Heights Road, Arlington  
Heights, Illinois to consider  
Petition No. 15-004, A Land  
Use Variation for Motor Vehicle  
Repair, Major in the  
M-1 zoning district for Hill-  
side Auto, and a variation to  
Chapter 28, Section 6.12-1(3)  
to waive the requirement  
for a traffic and parking  
study, and any other variations  
as determined necessary  
by the Plan Commission.

The subject site is located at  
25 E. University Drive, Ar-  
lington Heights, IL and le-  
gally described as:

Lot 16 in resubdivision of  
part of lot 1 and all of lots 2  
thru 5 inclusive in Arlington  
Industrial and Research  
Center Unit 1, a subdivision  
of part of the Southwest 1/4  
and part of the Northwest 1/4  
in Section 8, Township 42  
North Range 11 East of the  
third principal meridian ac-  
cording to the plat thereof  
recorded May 10, 1966 as  
document number 19821923  
in Cook County, Illinois.

All persons desiring to be  
heard shall be given the op-  
portunity to be heard.  
Should any individual need  
auxiliary aid or service,  
such as a sign language  
interpreter or materials in  
alternative formats, please  
contact the Health Depart-  
ment at 33 South Arlington  
Heights Road, Arlington  
Heights, Illinois 60005, (847)  
368-5760, TDD# (847) 368-  
5794.

Joe Lorentini, Chairman  
ARLINGTON HEIGHTS  
PLAN COMMISSION  
Published In Daily Herald  
October 13, 2015 (4421961)

## CERTIFICATE OF PUBLICATION

Paddock Publications, Inc.

# Daily Herald

Corporation organized and existing under and by virtue of the laws of the State of Illinois, DOES HEREBY CERTIFY that it is the publisher of the DAILY HERALD. That said DAILY HERALD is a secular newspaper and has been circulated daily in the Village(s) of Algonquin, Antioch, Arlington Heights, Aurora, Barrington, Barrington Hills, Lake Barrington, North Barrington, South Barrington, Bartlett, Batavia, Buffalo Grove, Burlington, Campton Hills, Carpentersville, Cary, Deer Park, Des Plaines, South Elgin, East Dundee, Elburn, Elgin, Elk Grove Village, Fox Lake, Fox River Grove, Geneva, Gilberts, Grayslake, Green Oaks, Gurnee, Hainesville, Hampshire, Hanover Park, Hawthorn Woods, Hoffman Estates, Huntley, Inverness, Island Lake, Kildeer, Lake Villa, Lake in the Hills, Lake Zurich, Libertyville, Lincolnshire, Lindenhurst, Long Grove, Mt. Prospect, Mundelein, Palatine, Prospect Heights, Rolling Meadows, Round Lake, Round Lake Beach, Round Lake Heights, Round Lake park, Schaumburg, Sleepy Hollow, St. Charles, Streamwood, Tower Lakes, Vernon Hills, Volo, Wauconda, Wheeling, West Dundee, Wildwood, Sugar Grove, North Aurora

County(ies) of Cook, Kane, Lake, McHenry

and State of Illinois, continuously for more than one year prior to the date of the first publication of the notice hereinafter referred to and is of general circulation throughout said Village(s), County(ies) and State.

I further certify that the DAILY HERALD is a newspaper as defined in "an Act to revise the law in relation to notices" as amended in 1992 Illinois Compiled Statutes, Chapter 7150, Act 5, Section 1 and 5. That a notice of which the annexed printed slip is a true copy, was published October 13, 2015 in said DAILY HERALD.

IN WITNESS WHEREOF, the undersigned, the said PADDOCK PUBLICATIONS, Inc., has caused this certificate to be signed by, this authorized agent, at Arlington Heights, Illinois.

PADDOCK PUBLICATIONS, INC.  
DAILY HERALD NEWSPAPERS

BY Danula Baltz  
Authorized Agent

Control # 4421961

RECEIVED

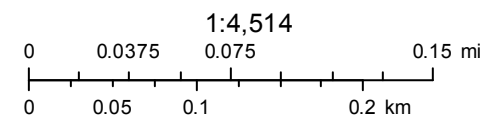
OCT 15 2015

PLANNING & COMMUNITY  
DEVELOPMENT DEPARTMENT

# Hillside Auto Location Aerial



October 19, 2015



**REPORT OF THE PROCEEDINGS OF  
THE PLAT & SUBDIVISION COMMITTEE**  
OF THE VILLAGE OF ARLINGTON HEIGHTS PLAN COMMISSION  
HELD AT VILLAGE HALL ON:

October 22, 2014

**Project Title:** Hillside Towing  
**Address:** 25 E. University Drive  
**Petitioner:** James and Mark Balek  
200 E. Palatine Road  
Arlington Heights, IL 60004

**Requested Action:**

1. A Land Use Variation to allow Major Repair in the M-2 district.

**Variations Required:**

- Chapter 28, Section 6.12-1(3) *Traffic Engineering Approval*, to waive the requirement for a traffic study and parking analysis from a qualified professional Engineer.
- Chapter 28, Section 11.4, Schedule of Parking Requirements, to allow 18 parking spaces instead of the required 47 spaces

**Attendees:** Mark Balek, Hillside Auto Body and Services, Inc.  
Jill Balek, Hillside Auto Body and Services, Inc.  
Catherine Balek, Hillside Auto Body and Services, Inc.  
Bruce Green, Plan Commissioner  
Jay Cherwin, Plan Commissioner  
Terry Ennes, Plan Commissioner  
Latika Bhide, Development Planner

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**Project Summary**

The subject property is approximately 1.28 acres in area with a free-standing building totaling approximately 15,110 square feet in area. At this time, there does not appear to be a striped parking area for this building. The petitioner, Hillside Auto Body and Towing has their primary location at 200 E. Palatine Road. In 2004, the petitioner received a land use variation to allow Motor Vehicle Repair, Major Facility and Motor Vehicle Towing Service in the M-1 Research, Development and Light Manufacturing District at 120 W. University Drive. The petitioner would like to operate a Major Motor Vehicle Repair Facility at this location and will be occupying the entire tenant space. Major Motor Vehicle Repair is permitted in the "B-3" and "M-2" districts. Therefore, a land use variation would be necessary to allow this use at this location. Hillside Auto Body and Towing had anticipated fully transitioning its operations (towing and repair) from 200 E. Palatine Road to 120 W. University Drive. However, as operating out of a single location is no longer feasible for them, they are seeking a land use variation for their repair operations at this site.

**Meeting Discussion:**

M. Balek said that they own the building at 120 W. University Drive. He said that business was good and that they have 2 new contracts – one with the Rohrman dealerships and the other with Ryder International. They have bought the building at 25 E. University Drive as it fits their need to expand and stay in Arlington Heights. He said the unique thing will be that there will be probably 6 employees, but very few customers will come to the site, as they (Hillside) will pick up and deliver vehicles. He said that it is normally one for one, bring one vehicle to the site, and deliver one vehicle (off-site). He said that there was plenty of parking available. M. Balek said that the property was screened as it was fenced all the way around and that they were finishing up installing the landscaping. He said that if anyone saw their operation at 120 W. University Drive, they would see that it was well maintained.

Ms. Bhide said that the property was zoned M-1 and since major auto repair was permitted in the M-2 and B-3 districts,



therefore a land use variation was necessary. She said that the petitioner would also require a variation from the requirement for a traffic study and parking analysis from a qualified professional Engineer which staff was supportive of. She said that the Code parking requirement for the site was 47 spaces, based on the number of bays and employees. It appears that there are no striped parking spaces for the property at this time. Therefore, a variation would be necessary to allow the 18 (proposed) parking spaces.

J. Cherwin said that he did not have any questions. He said that he did not know that they had a location on University Drive, just the one on Palatine Road. He said that he did have questions about the recommendation for the Palatine Road site in the staff report. T. Ennes stated that a few years ago, his firm had done some property tax work for Hillside, but are not currently not doing any work for them (Hillside) and therefore he did not have a conflict of interest. He said that he was familiar with their property as the building his office is located in backs up to their existing facility on University Drive. He asked if the building that they would occupy was the old Planned Plumbing Building. M. Balek said that it was. T. Ennes said it would be good to have that building back on the tax rolls. He said that he felt it was a good idea. T. Ennes asked if it was their (Hillside's) intention to eventually move of their facility on Palatine Road. M. Balek said yes. He said he would like to see that property developed. M. Balek said that he needed to do something with that (Palatine Road) property, it was costing him money and he could make money be redeveloping the property. T. Ennes said that it was a valuable property. M. Balek said that it was a tough market, but they had brought some plans to the Village. M. Balek said that this property is close to the other property they own and is unique in that there will only be employees at this location. The vehicles are transported back and forth from the site – when they pick up a Ryder truck, they take back a Ryder truck. T. Ennes said that there was plenty of parking in the back and confirmed that there was no residential around this property. He asked about the work that would be done at this location. M. Balek said that they would perform auto body as well as mechanical work at this location. He said that the trucks are worked on at the location across the street because it has higher ceilings, larger overhead doors and a 65 foot spray booth. T. Ennes said that he was glad to see this property getting utilized and that this would open up the property on Palatine Road for development. He asked if they had applied for the 6B designation. M. Balek said that they had been told that they were not eligible for the 6B classification. T. Ennes said that the classification was applicable if they manufactured a product and if the property was vacant for 2 years. B. Green asked why staff was recommending that operations at the 200 E. Palatine Road cease by a certain date as part of this request. L. Bhide said that the recommendation was that the non-conforming portion of the operation at that location cease by a certain date so that the non-conforming use would not exist in perpetuity and the Village would like to see the site cleaned and restored by a certain date. B. Green said that he had never seen that condition. He felt that if a viable business wants to expand to another location why they would be required to close another location. He felt that the one does not relate to the other and we should encourage them to expand. He said that he would look for additional information (about the recommendation) at the Plan Commission hearing. He said that he understands what the Village has at the back of their mind. M. Balek said that he was born and raised in Arlington Heights with the 5<sup>th</sup> generation (of the family) here and he would like to stay here (in Arlington Heights). He said that he was upset at the recommendation in the report.

## **RECOMMENDATION**

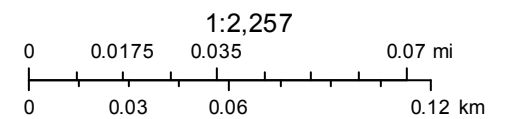
Commissioner Green said that the Petitioner should move forward through the process.

**Bruce Green, Chair**  
**PLAT & SUBDIVISION COMMITTEE**  
**Latika Bhide, Recorder**

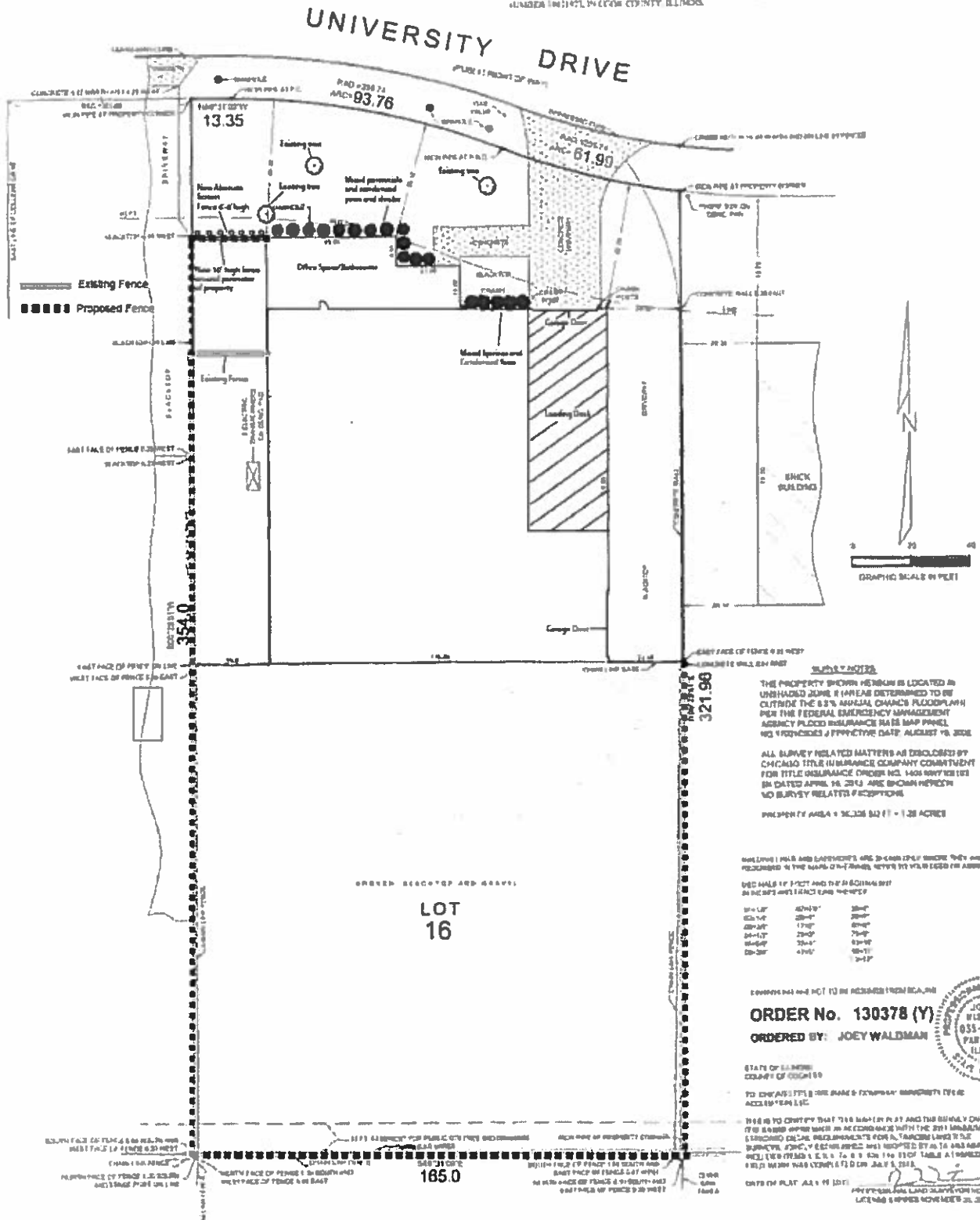
# Hillside Auto Site Aerial



October 19, 2015



## Exhibit A

[illegible]



The site plan shows a property with several key features and dimensions:

- Top Boundary:** A line with dimensions 46.33, 43.80, 36.12, 15.02, 21.56, 15.02, 42.79, and 24.03.
- Left Boundary:** A line with dimensions 25.0, 143.04, and 24.56.
- Right Boundary:** A line with dimensions 118.66 and 115.45.
- Internal Features:**
  - Office Space/Bathrooms:** A large rectangular area in the upper left.
  - Garage:** A large rectangular area in the lower right, containing a **Loading Dock**, **Garage Door**, and **CRASH POSTS**.
  - Driveway:** A narrow strip on the right side, labeled **CONCRETE DRIVEWAY** and **BLACKTOP DRIVEWAY**.
  - Crash Posts:** A row of posts along the right boundary, labeled **CRASH POSTS**.
  - Crash Pits:** Two rectangular areas, labeled **CRASH PIT** and **CRASH PIT**.
  - Blacktop:** A rectangular area in the center, labeled **BLACKTOP**.
  - Concrete:** A rectangular area in the center, labeled **CONCRETE**.
  - Crash Posts:** A row of posts along the right boundary, labeled **CRASH POSTS**.
  - Crash Pits:** Two rectangular areas, labeled **CRASH PIT** and **CRASH PIT**.
  - Blacktop:** A rectangular area in the center, labeled **BLACKTOP**.
  - Concrete:** A rectangular area in the center, labeled **CONCRETE**.
- Other Features:**
  - Existing tree:** Two locations marked with a tree symbol.
  - Mixed perennials and condensed yews and shrubs:** A row of plants along the top boundary.
  - MANHOLE:** A circular feature near the top left.
  - 2 ELECTRIC TRANSFORMERS ON CONC PAD:** A rectangular feature on the left boundary.
  - Chain Link Gate:** A gate at the bottom right corner.
- Dimensions:**
  - 25 feet:** A horizontal dimension across the top of the main area.
  - 15 Feet:** A vertical dimension across the middle of the main area.
  - 40 feet:** A horizontal dimension across the bottom of the main area.
  - 118 feet:** A vertical dimension along the right side of the main area.
  - 90.45 feet:** A horizontal dimension across the bottom of the main area.



200 E. Palatine Road, Arlington Heights, Illinois 60004  
120 W. University Drive, Arlington Heights, Illinois 60004  
25 E. University Drive, Arlington Heights, Illinois 60004  
(847) 253-0183 Phone (847) 253-1658 Fax  
markb@hillside towing.net

March 13, 2015

*Via E-Mail*

Plan Commission  
Village of Arlington Heights  
33 S. Arlington Heights Road  
Arlington Heights, Illinois 60005  
Latika.bhide@vah.com

**Re: PLAN COMMISSION APPLICATION**

Petitioner: Hillside Auto Body & Service, Inc.  
Property: 25 E. University Drive, Arlington Heights, Illinois  
PIN No. 03-08-103-0004-000  
File No.: P.C. \_\_\_\_\_

Dear Plan Commission Members:

Petitioner, Hillside Auto Body & Service, Inc. ("Petitioner" or "Hillside"), respectfully requests a Land Use Variation for 25 E. University Drive (the "Property")<sup>1</sup> to allow Major Vehicle Repair as defined in Ch. 28 § 3.2-149 of the Village of Arlington Heights ("Village") Municipal Code ("VAH Code"). Hillside also requests a variance to waive the traffic study and parking analysis as required in Ch. 28, § 6.12-1(3). The Property is currently located in an M-1 District.

In addition to the Land Use Variation, the Village's Staff Development Committee ("Development Committee") has identified an additional variance: to allow 18 parking spots instead of 47 as required under Ch. 28 § 11.4. *See* Ex. A [Staff Report No. T1468 at p. 1 (Oct. 17, 2014)]. As detailed below, Hillside no longer requests this variance.

**Background<sup>2</sup>**

By way of background, the Balek Family has resided in and operated businesses in the Village for more than 115 years. Since their original purchase of 200 E. Palatine Road (a/k/a 1901 N. Arlington Heights Road), five generations of Baleks have lived in, and continue to live in, Arlington Heights. In the 1920s, the Balek Family established Hillside, its towing and repair service business. Hillside is currently in its second generation of ownership.

Hillside operates out of its 200 E. Palatine Road location and 120 W. University Drive location. Hillside anticipates transitioning all of its operations from 200 E. Palatine Road to its

<sup>1</sup> Hillside Auto Body & Service, Inc. leases the Property from University Drive Acquisitions, LLC. *See* Ex. G.

<sup>2</sup> This background is provided for informational purposes only.



University Drive locations in the near future. Currently, Hillside undertakes its repair work at both its 120 W. University location and 200 E. Palatine location. Hillside has experienced significant growth in recent years, and requires additional space to expand its repair operations. Specifically, Hillside has recently contracted with a national truck rental company and local dealership to provide minor body and mechanical repair services. While the variation requested is for "Major Vehicle Repair" as defined in the VAH Code, the repair services contracted for are, "automotively speaking," minor in nature.

The Property is conveniently located to coordinate operations with Hillside's 120 W. University location. *See* Ex. F [Map of University Drive]. The Property includes a 16,000 square foot building and the rear of the Property is fully enclosed by an 8-foot chain linked fence. Hillside estimates it will have 12 bays in the building for repair work. Hillside also estimates that, on any given day, it will store 10 to 15 vehicles for repair on the Property or in the building. The vehicles being stored for repair will be stored inside or in the rear of the building, neither of which are visible to the public. Nevertheless, the anticipated repair work is limited to minor body and mechanical repairs. While Hillside intends to provide the required customer and employee parking, Hillside notes that it will be responsible for transporting a majority of the vehicles to and from the customer.

#### **Petitioner's Responses to Development Committee's Recommendation**

Pursuant to the Development Committee's Report and Recommendations (Ex. A), Hillside respectfully submits the following responses:

- 1. The property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in that zone.**

Petitioner will not attain a reasonable return if the variance is not granted. Hillside's influx in business requires additional repair space. Hillside currently uses its 120 W. University location and its 200 E. Palatine location for its repair operations. These locations, however, are landlocked and not susceptible to expansion. Further, Hillside anticipates the redevelopment of its 200 E. Palatine Road location in the near future. The Property is an optimal alternative because it is ideally located to coordinate operations with Hillside's 120 W. University location. *See* Ex. F. The variance is compatible with the underlying M-1 classification which allows for industrial assembling, manufacturing, processing, and repairing of mechanical parts. *See* Ch. 28 § 5.5-1. The requested variance is also consistent with the Major Vehicle Repair variance the Village granted for Hillside's 120 W. University location, which is within the same M-1 District as the Property. *See* Ordinance Granting A Land Use Variation, Doc. No. 0422339007 (June 7, 2004).

If granted, Hillside will begin operating out of the Property immediately, marking the first time in more than five years that the Property will be in use. The Property has been vacant since at least 2010, and, when purchased, was in a state of disrepair. Hillside has made significant improvements to the Property, including cleaning, repainting, updating the offices, and mud-jacking the floors back into position. If not granted, however, Hillside will be required to look outside Arlington Heights for a new location to expand its operations. Hillside is unable

to quantify how long it will take to locate a new property, acquire necessary authorizations, prepare that property, and transition operations.

**2. The plight of the owner is due to unique circumstances.**

The plight of Hillside is due to unique circumstances. As noted above, Hillside's other locations are landlocked and not susceptible to expansion. Moreover, the proposed use, Major Vehicle Repair, is compatible with the underlying M-1 zoning classification which currently allows for industrial related uses, including assembling, manufacturing, processing, and repair of mechanical parts and products. *See* Ch. 28 § 5.5-1. Hillside's proposed use, minor auto body and mechanical repair work, is similar. Hillside's hours of operation are also consistent with other businesses in the District, Monday through Friday 8:00 a.m. to 5:00 p.m., and Saturday 8:30 a.m. to 12:00 p.m. The requested variance is consistent with the variance the Village has already granted for Hillside's 120 W. University location, which is within the same District as the Property. *See* Ordinance, Doc. No. 0422339007; Ex. F. Finally, the University Drive locations are conveniently located to coordinate repair operations. *See* Ex. F.

**3. The variation, if granted, will not alter the essential character of the locality.**

The proposed action will not alter the essential character of the locality. As stated above, the proposed use, Major Vehicle Repair, is compatible with the underlying M-1 zoning classification which authorizes assembling, manufacturing, processing, and repair of mechanical parts and products. *See* Ch. 28 § 5.5-1. Similarly, Hillside will be repairing mechanical parts and vehicles. Hillside's hours of operation are consistent with other businesses in the District, Monday through Friday 8:00 a.m. to 5:00 p.m., and Saturday 8:30 a.m. to 12:00 p.m. The requested variance is akin to the Major Vehicle Repair variance granted to Hillside for its adjacent facility located at 120 W. University Drive, within the same M-1 District. *See* Ordinance, Doc. No. 0422339007; Ex. F.

Finally, the requested action will enhance this locality. The Property has not been used since at least 2010. Prior to the purchase, the Property was in utter disrepair. Indeed, the property taxes had not been paid and were sold to a third-party. Hillside has already made significant improvements to the Property and building, including, cleaning, repainting, updating the offices, and mud-jacking the floors back into position. All vehicles requiring repair, will be parked in the rear or inside the building, neither of which are visible to the public. *See* Ex. A. In any event, the repairs contracted for are minor in nature. Only customer parking will be visible from University Drive. *See* Exs. C-D. In addition to rendering the Property more aesthetically pleasing, if the variance is granted, Hillside's operations will bring the vacant property back into the stream of commerce. Hillside anticipates increased sales tax revenue to the Village as a result of additional auto parts purchases from local businesses. Hillside also anticipates hiring 2 to 5 additional employees to handle the increased business.

**4. A fully dimensioned detailed site plan.**

Petitioner has attached a current survey of the Property (Ex. C), and five (5) proposed site plans delineating the various parking options available that will satisfy the Village's parking

requirements. *See* Ex. D. Pursuant to Ch. 28 § 11.4, Hillside is required to provide 47 lined parking spaces. Hillside initially proposed 18 parking spaces, which would require an additional variance. *See* Ch. 28 § 11.4. Hillside, however, has determined it can provide the requisite 47 spaces and no longer requests this variance.

The Property was a pre-existing building with pre-existing landscaping when purchased in July 2013. Because this is a pre-existing building with kept landscaping, Petitioner has not included additional landscaping in its Proposed Surveys. Attached as Exhibit E are photographs of the current landscaping.

**5. The vehicle storage must be clearly delineated on the plans and details of the proposed fence must be provided.**

Petitioner has submitted five (5) proposed plans for parking and vehicle storage. *See* Ex. D. Petitioner notes vehicles for repair may also be stored inside the existing building. The Property is already enclosed by an 8-foot chain link fence. *See* Ex. C. The vehicles stored for repair will not be visible from the public roadways, and, it is anticipated that vehicles stored for repair will only require minor repair work. *See* Exs. C-D.

**6. Justification for a waiver of the traffic study and parking analysis.**

Petitioner also requests a variance to waive the traffic study and parking analysis as required under Ch. 28 § 6.12-1(3). For all the reasons stated above, Petitioner will not attain a reasonable return if this variance is not granted, the plight of the owner is due to unique circumstances, and this variance will not alter the essential locality. The anticipated number of employees parking on the Property will be limited and customer traffic will also be limited because Hillside will be transporting a majority of the vehicles to and from the customers. Hillside also has adequate space to meet the parking requirements. *See* Ch. 28 § 11.4; Ex. D. The Property was previously operated by a plumbing company with more than 75 employees which is far greater than the volume anticipated by Hillside. For the foregoing reasons, Hillside respectfully requests a variance waiving the traffic and parking study analysis.

**7-8. Petitioner shall cease all non-conforming operations at 200 E. Palatine Road property by a specific date to be determined by the Village. The 200 E. Palatine Road property shall be cleaned and restored within 6 months of ceasing operations.**

Petitioner respectfully requests additional guidance from the Village with regard to this request; specifically, Petitioner requests citation to the relevant VAH Code Section requiring this information. *See* Ex. B.

Notwithstanding the foregoing, Petitioner and the Owner<sup>3</sup> of 200 E. Palatine Road are in the process of planning for the redevelopment of 200 E. Palatine Road. If this variance is granted, Hillside anticipates transitioning all of its operations to the University Drive locations in or before December 2015. Petitioner also notes that the Owner of 200 E. Palatine Road has been in contact with multiple organizations and real estate brokers interested in leasing 200 E. Palatine

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<sup>3</sup> Hillside leases 200 E. Palatine Road from Balek Properties, LLC.

Road. Hillside and the Owner will continue to keep the Village informed of the status of the redevelopment. To the extent Hillside transitions its operations before a redevelopment plan has been finalized, Hillside and the Owner will begin restoration of 200 E. Palatine Road in anticipation of such redevelopment.<sup>4</sup>

\* \* \*

Respectfully submitted,

**Hillside Auto Body & Service, Inc.**

By: James Balek, Jr.  
James Balek, Jr.  
President

By: Mark Balek  
Mark Balek  
Vice President

Enclosures

cc. Colleen J. Balek, Esq. (via e-mail [cbalek@hillside towing.net](mailto:cbalek@hillside towing.net) w/o enclosures)

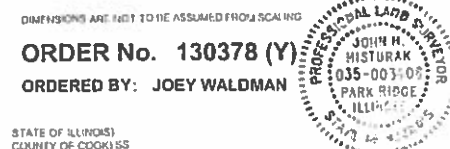
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<sup>4</sup> Petitioner's response to Questions 6 and 7 is provided for informational purposes only and is not to be considered binding representations and have no legal effect. Petitioner makes no representations or warranties of any kind by or on behalf of Hillside or Balek Properties, LLC, regarding any of the information provided.

## 1440 Renaissance Drive, Suite 140, Park Ridge, IL 60068 Phone 847-296-6900 Fax 847-296-6906

## ALTA/ACSM LAND TITLE SURVEY

LOT 16 IN REF. DIVISION OF PART OF LOT 1 AND ALL OF LOTS 2 THRU 5 INCLUSIVE IN ARLINGTON INDUSTRIAL AND RESEARCH CENTER UNIT 1, A SUBDIVISION OF PART OF THE SOUTHWEST 1/4 AND "A" OF THE NORTHWEST 1/4 IN SECTION 42 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED MAY 10, 1966 AS DOCUMENT NUMBER 19921923, IN COOK COUNTY, ILLINOIS.



TO CHICAGO TITLE INSURANCE COMPANY UNIVERSITY DRIVE  
ACQUISITION, LLC.

- THIS IS TO CERTIFY THAT THIS MAP OR PLAN AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/CAS/LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 7a, 8, 9, 10a, 11a, 13 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON JULY 5, 2013.

DATE OF FLAT JULY 18, 2013

PROFESSIONAL LAND SURVEYOR NO 3468  
LICENSE EXPIRES NOVEMBER 30, 2014

# CERTIFIED SURVEY, INC.

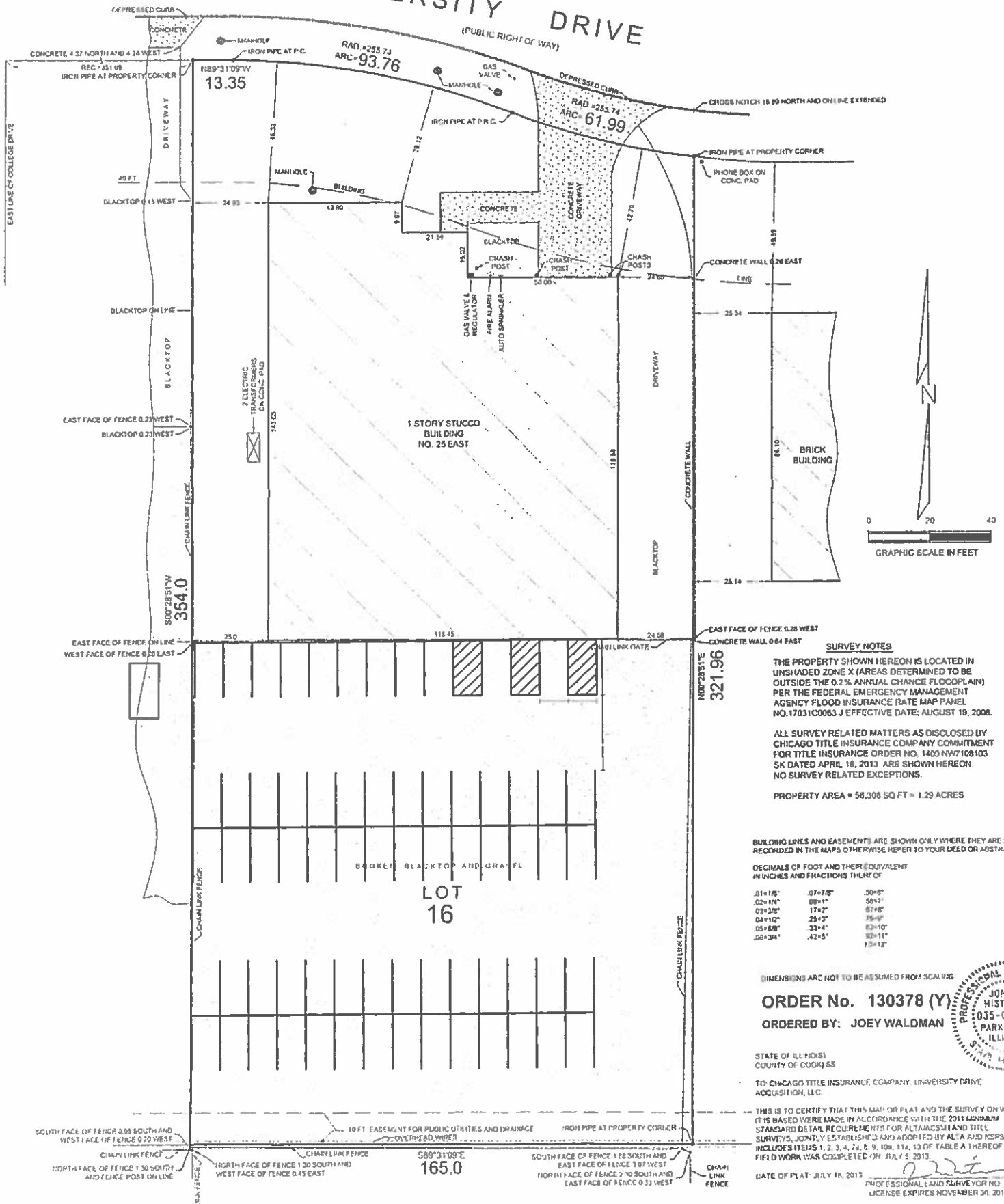
1440 Renaissance Drive, Suite 140, Park Ridge, IL 60068 Phone 847-296-6900 Fax 847-296-6906

Email: surveys@certifiedsurvey.com

## ALTA/ACSM LAND TITLE SURVEY

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### UNIVERSITY DRIVE (PUBLIC RIGHT OF WAY)





# CERTIFIED SURVEY, INC.

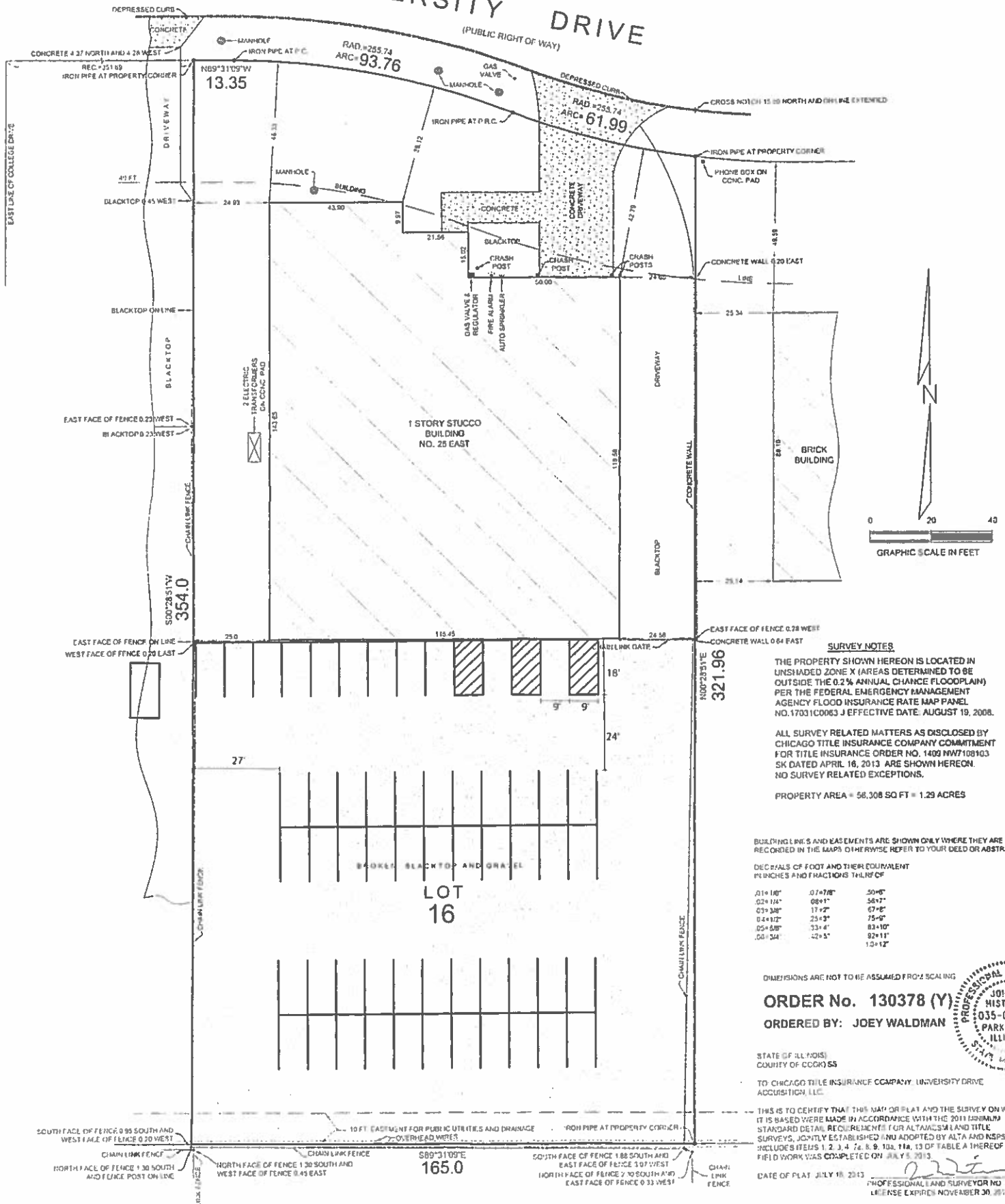
1440 Renaissance Drive, Suite 140, Park Ridge, IL 60068 Phone 847-296-6900 Fax 847-296-6906

Email: surveys@certifiedsurvey.com

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UNIVERSITY DRIVE  
(PUBLIC RIGHT OF WAY)



### SURVEY NOTES

THE PROPERTY SHOWN HEREON IS LOCATED IN UNSHADED ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) PER THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP PANEL NO. 17031C0063 J EFFECTIVE DATE: AUGUST 19, 2008.

ALL SURVEY RELATED MATTERS AS DISCLOSED BY CHICAGO TITLE INSURANCE COMPANY COMMITMENT FOR TITLE INSURANCE ORDER NO. 1409 NW7108103 SK DATED APRIL 16, 2013 ARE SHOWN HEREON. NO SURVEY RELATED EXCEPTIONS.

PROPERTY AREA = 58,308 SQ FT = 1.29 ACRES

BUILDING LINES AND EASEMENTS ARE SHOWN ONLY WHERE THEY ARE SO RECORDED IN THE MAPS OTHERWISE REFER TO YOUR DEED OR ABSTRACT.

DECIMALS OF FOOT AND THEIR EQUIVALENT FRACTIONS AND FRACTIONS THEREOF

|            |           |          |
|------------|-----------|----------|
| 0.10 1/10" | 0.17 1/8" | 50 1/8"  |
| 0.25 1/4"  | 0.89 1/2" | 56 1/2"  |
| 0.35 3/8"  | 17 1/2"   | 67 1/2"  |
| 0.44 1/2"  | 23 1/2"   | 75 1/2"  |
| 0.54 5/8"  | 33 1/4"   | 83 1/4"  |
| 0.60 3/4"  | 42 1/2"   | 92 1/2"  |
|            |           | 100 1/2" |

DIMENSIONS ARE NOT TO BE ASSUMED FROM SCALING

ORDER No. 130378 (Y)

ORDERED BY: JOEY WALDMAN

STATE OF ILLINOIS  
COUNTY OF COOK SS

TO CHICAGO TITLE INSURANCE COMPANY UNIVERSITY DRIVE ACQUISITION, LLC

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2011 NATIONAL STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NEPS, AND INCLUDES ITEMS 1, 2, 3, 4, 7a, 8, 9, 10a, 11a, 13 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON JULY 5, 2013.

DATE OF PLAT: JULY 18, 2013

PROFESSIONAL LAND SURVEYOR NO. 3468  
LICENSE EXPIRES NOVEMBER 30, 2014

## 1440 Renaissance Drive, Suite 140, Park Ridge, IL 60068 Phone 847-296-6900 Fax 847-296-6906

## ALTA/ACSM LAND TITLE SURVEY

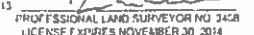
LOT 16 IN RESUBDIVISION OF PART OF LOT 1 AND ALL OF LOTS 2 THRU 5 INCLUSIVE IN ARLINGTON INDUSTRIAL AND RESEARCH CENTER UNIT 1, A SUBDIVISION OF PART OF THE SOUTHWEST 1/4 AND "A" 1/4 OF THE NORTHWEST 1/4 IN SECTION 8, TOWNSHIP 42 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED MAY 10, 1965 AS DOCUMENT NUMBER 19821923, IN COOK COUNTY, ILLINOIS.



## 1440 Renaissance Drive, Suite 140, Park Ridge, IL 60068 Phone 847-296-6900 Fax 847-296-6906

# ALTA/ACSM LAND TITLE SURVEY

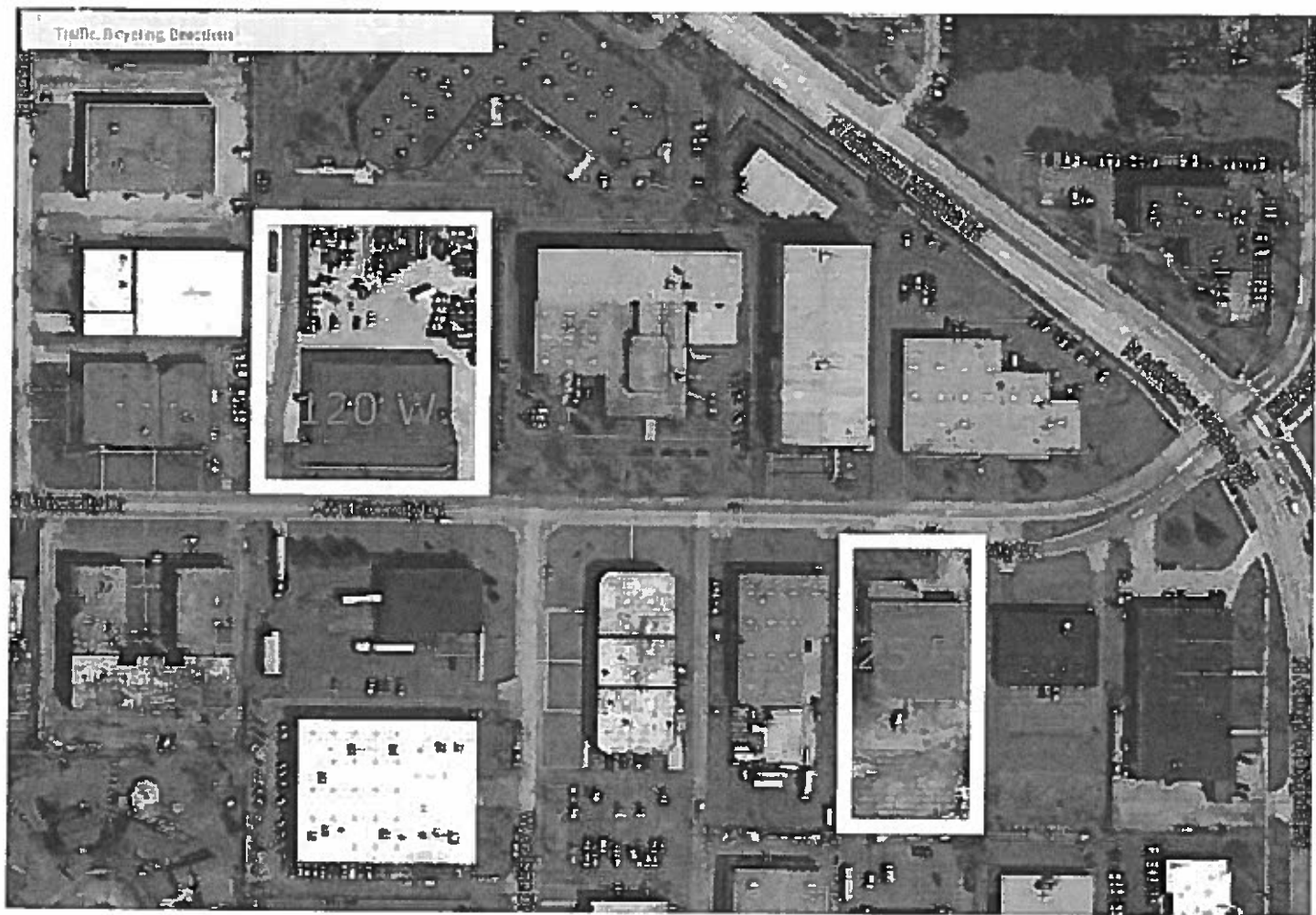
UNIVERSITY DRIVE  
(PUBLIC RIGHT OF WAY)



THE PROPERTY SHOWN HEREON IS LOCATED IN UNIMAGED ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) PER THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP PANEL NO. 17031C0063 J EFFECTIVE DATE: AUGUST 19, 2008.  
 ALL SURVEY RELATED MATTERS AS DISCLOSED BY CHICAGO TITLE INSURANCE COMPANY COMMITMENT FOR TITLE INSURANCE ORDER NO. 1403 NW7108103 SK DATED APRIL 16, 2013 ARE SHOWN HEREON NO SURVEY RELATED EXCEPTIONS.  
 PROPERTY AREA = 58,388 SQ FT = 1.29 ACRES  
 DIMENSIONS ARE NOT TO BE ASSUMED FROM SCALING  
**ORDER No. 130378 (Y)**  
**ORDERED BY: JOEY WALDMAN**  
 STATE OF IL 19105  
 COUNTY OF COOK 63  
 TO: CHICAGO TITLE INSURANCE COMPANY, UNIVERSITY DRIVE  
 ACQUISITION, LLC.  
 THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2011 ALTIMETER STANDARD DETAIL REQUIREMENTS FOR ALTIMETER LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 7a, 8, 9, 10a, 11a, 13 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON JULY 8, 2013.  
 DATE OF PLAT JULY 18, 2013  
 PROFESSIONAL LAND SURVEYOR NO. 34568  
 LICENSE EXPIRES NOVEMBER 30, 2014



Hillside Auto Body & Service, Inc.  
Plan Commission Application



# BUILDING DEPARTMENT

1

## PETITIONER'S APPLICATION – ARLINGTON HEIGHTS PLAN COMMISSION

Petition #: P.C. \_\_\_\_\_  
Petitioner: Hillside Auto Body & Service, Inc.  
120 W. University Drive  
Arlington Heights, IL 60004  
Owner: University Drive Acquisitions, LLC  
25 E. University Drive  
Arlington Heights, IL 60004  
Contact Person: Mark Balek  
Address: 120 W. University Drive  
Arlington Heights, IL 60004  
Phone: (847) 253-0183  
Fax #: (847) 253-1658  
E-Mail: markb@hillside towing.net

P.I.N.# 03-08-103-004-0000  
Location: 25 E. University Drive  
Rezoning: X Current: M1 Proposed: M-1  
Subdivision: N/A  
# of Lots: \_\_\_\_\_ Current: \_\_\_\_\_ Proposed: \_\_\_\_\_  
PUD: \_\_\_\_\_ For: \_\_\_\_\_  
Special Use: \_\_\_\_\_ For: \_\_\_\_\_  
Land Use Variation: X For: Major Repair in  
M-1 district.  
Land Use: \_\_\_\_\_ Current: \_\_\_\_\_  
Proposed: \_\_\_\_\_  
Site Gross Area: 15,110 square feet  
# of Units Total: Not applicable  
1BR: \_\_\_\_\_ 2BR: \_\_\_\_\_ 3BR: \_\_\_\_\_ 4BR: \_\_\_\_\_

DO EXISTING STRUCTURES, IF ANY, MEET MINIMUM REQUIREMENTS OF THE FOLLOWING:

- |    | <u>YES</u> | <u>NO</u> |             |               |
|----|------------|-----------|-------------|---------------|
| 1. | _____      | _____     | VILLAGE     | BUILDING CODE |
| 2. | _____      | _____     | PRESENT     | ZONING USE    |
| 3. | _____      | _____     | REQUESTED   | ZONING USE    |
| 4. | _____      | _____     | SUBDIVISION | REQUIRED      |
| 5. | _____      | _____     | SIGN        | CODE          |

6. GENERAL COMMENTS

BUILDING - EXISTING BUILDING EQUIPMENT IS NOT KNOWN.  
THE MAJOR VEHICLE REPAIR MAY REQUIRE  
ADDITIONAL VENTILATION. BY DEB PIERCE.

RECEIVED

APR - 1 2015

PLANNING & COMMUNITY  
DEVELOPMENT DEPARTMENT

Director

Date

# BUILDING DEPARTMENT

1A

## PETITIONER'S APPLICATION – ARLINGTON HEIGHTS PLAN COMMISSION

Petition #: P.C. \_\_\_\_\_  
Petitioner: Hillside Auto Body & Service, Inc.  
120 W. University Drive  
Arlington Heights, IL 60004  
Owner: University Drive Acquisitions, LLC  
25 E. University Drive  
Arlington Heights, IL 60004  
Contact Person: Mark Balek  
Address: 120 W. University Drive  
Arlington Heights, IL 60004  
Phone: (847) 253-0183  
Fax #: (847) 253-1658  
E-Mail: markb@hillsidetowing.net

P.I.N.# 03-08-103-004-0000  
Location: 25 E. University Drive  
Rezoning: X Current: M1 Proposed: M-1  
Subdivision: N/A  
# of Lots: \_\_\_\_\_ Current: \_\_\_\_\_ Proposed: \_\_\_\_\_  
PUD: \_\_\_\_\_ For: \_\_\_\_\_  
Special Use: \_\_\_\_\_ For: \_\_\_\_\_  
Land Use Variation: X For: Major Repair in  
M-1 district.  
Land Use: \_\_\_\_\_ Current: \_\_\_\_\_  
Proposed: \_\_\_\_\_  
Site Gross Area: 15,110 square feet  
# of Units Total: Not applicable  
1BR: \_\_\_\_\_ 2BR: \_\_\_\_\_ 3BR: \_\_\_\_\_ 4BR: \_\_\_\_\_

### INSPECTIONAL SERVICES:

SEE ATTACHED COMMENTS

RECEIVED

APR - 9 2015

PLANNING & COMMUNITY  
DEVELOPMENT DEPARTMENT

Paul Batt  
Director

4/9/15  
Date



# MEMORANDUM

**TO:** Latika Bhide - Development Planner

**FROM:** Paul Butt – Fire Safety Plan Reviewer

**DATE:** 4/9/15

**RE:** Hillside Towing  
25 E. University  
PC#15-004

---

I have reviewed the documents submitted for the above referenced Plan Commission hearing review and offer the following comments:

1. This project is being reviewed as a building change of use from an S-2(low hazard storage) to an S-1(moderate hazard storage) per the 2009 International Building Code. Maximum allowable quantities of hazardous material shall comply with Table 307.1(1) of the 2009 International Fire Code(I.F.C.)
2. Compliance with the 2009 I.F.C., Section 2211(Repair Garages) is required. Provide a response for each applicable sub-section as to the intent for compliance.
3. The existing fire sprinkler system shall be reviewed and hydraulically calculated to verify that the demand of Ordinary Group 2 per NFPA-13 can be achieved. This shall be performed and submitted by a licensed fire protection engineer.
4. The narrative indicates that the anticipated work would also include minor body repair. Describe to what degree is “minor”. Spraying of flammable finishes shall comply 2009 I.F.C., Chapter 15, Flammable Finishes.
5. Monitoring of the existing fire protection system by a fire alarm system is required. Fire alarm notification devices shall be required throughout the building.
6. Describe any and all interior alterations that will occur in preparation to conduct business. This includes office space as well as the car repair area.
7. The narrative indicates “significant improvements have been made to the property and building, including, cleaning, repainting and updating the offices”. Provide, in detail, the work that has been performed as to ascertain the applicability of Building Permits.
8. The narrative states “if granted, Hillside will begin operating out of the property immediately”. Operation of this business at this location prior to compliance with the requirements stated above, other Village Code requirements and an approved Village Business license is prohibited.

Village of Arlington Heights  
Public Works Department

## Memorandum

To: Cris Papierniak, Assistant Director of Public Works

From: Jeff Musinski, Utilities Superintendent

Date: April 1, 2015

Subject: 120 W University Dr., P.C. #15-004

---

With regard to the proposed Land Use Variation, I have the following comments:

- 1) The proposed sewer discharge as a result the proposed land use variation will require input from MWDRGC.

If you have any questions, please feel free to contact me.

C. file

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APR - 6 2015  
PLANNING & COMMUNITY  
DEVELOPMENT DEPARTMENT

# ENGINEERING DEPARTMENT

3

## PETITIONER'S APPLICATION – ARLINGTON HEIGHTS PLAN COMMISSION

Petition #: P.C. 15-004  
 Petitioner: Hillside Auto Body & Service, Inc.  
120 W. University Drive  
Arlington Heights, IL 60004  
 Owner: University Drive Acquisitions, LLC  
25 E. University Drive  
Arlington Heights, IL 60004  
 Contact Person: Mark Balek  
 Address: 120 W. University Drive  
Arlington Heights, IL 60004  
 Phone: (847) 253-0183  
 Fax #: (847) 253-1658  
 E-Mail: markb@hillsidetowing.net

P.I.N.# 03-08-103-004-0000  
 Location: 25 E. University Drive  
 Rezoning: X Current: M1 Proposed: M-1  
 Subdivision: N/A  
 # of Lots:      Current:      Proposed:       
 PUD:      For:       
 Special Use:      For:       
 Land Use Variation: X For: Major Repair in  
M-1 district.  
 Land Use:      Current:       
Proposed:       
 Site Gross Area: 15,110 square feet  
 # of Units Total: Not applicable  
 1BR:      2BR:      3BR:      4BR:     

### 1. PUBLIC IMPROVEMENTS

| REQUIRED.....            | YES | NO       | COMMENTS |
|--------------------------|-----|----------|----------|
| a. Underground Utilities |     |          |          |
| Water.....               |     | <u>X</u> |          |
| Sanitary Sewer.....      |     | <u>X</u> |          |
| Storm Sewer .....        |     | <u>X</u> |          |
| b. Surface Improvement   |     |          |          |
| Pavement .....           |     | <u>X</u> |          |
| Curb & Gutter .....      |     | <u>X</u> |          |
| Sidewalks .....          |     | <u>X</u> |          |
| Street Lighting .....    |     | <u>X</u> |          |
| c. Easements             |     |          |          |
| Utility & Drainage ..... |     | <u>X</u> |          |
| Access.....              |     | <u>X</u> |          |

### 2. PERMITS REQUIRED OTHER THAN VILLAGE:

|              |             |         |             |
|--------------|-------------|---------|-------------|
| a. MWRDGC    | <u>X(?)</u> | b. IDOT |             |
| c. ARMY CORP |             | d. IEPA | <u>X(?)</u> |
| e. CCHD      |             |         |             |

|                                      | YES | NO       | COMMENTS   |
|--------------------------------------|-----|----------|------------|
| 3. R.O.W. DEDICATIONS?.....          |     | <u>X</u> |            |
| 4. SITE PLAN ACCEPTABLE?.....        |     |          | <u>TBD</u> |
| 5. PRELIMINARY PLAT ACCEPTABLE       |     |          | <u>N/A</u> |
| 6. TRAFFIC STUDY ACCEPTABLE          |     |          | <u>N/A</u> |
| 7. STORM WATER DETENTION REQUIRED    |     | <u>X</u> |            |
| 8. CONTRIBUTION ORDINANCE EXISTING?  |     | <u>X</u> |            |
| 9. FLOOD PLAIN OR FLOODWAY EXISTING? |     | <u>X</u> |            |
| 10. WETLAND EXISTING                 |     | <u>X</u> |            |

GENERAL COMMENTS ATTACHED

NO FURTHER COMMENTS AT THIS TIME

PLANS PREPARED BY: N/A  
 DATE OF PLANS: N/A

James J. Mull 3/30/15  
 Director Date





## Arlington Heights Fire Department Plan Review Sheet

P. C. Number 15-004

Project Name Hillside Towing

Project Location 25 E. University Dr

Planning Department Contact Latika Bhide

### General Comments

Please follow the recommendations from the Building Department with regards to code updates.

**RECEIVED**

APR 03 2015

PLANNING & COMMUNITY  
DEVELOPMENT DEPARTMENT

**NOTE: PLAN IS CONCEPTUAL ONLY  
SUBJECT TO DETAILED PLAN REVIEW**

Date April 2, 2015

Reviewed By: LT. Andrew Larson

Arlington Heights Fire Department

# ARLINGTON HEIGHTS POLICE DEPARTMENT

## Community Services Bureau

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### DEPARTMENT PLAN REVIEW SUMMARY

**Hillside Towing**  
**120 W. University Dr.**  
**Land Use Variation**

#### Round 1 Review Comments

**04/09/2015**

1. **Character of use:**  
The character of use should not be problematic.
2. **Are lighting requirements adequate?**  
Lighting should be up to Village of Arlington Heights code.
3. **Present traffic problems?**  
There are no traffic problems.
4. **Traffic accidents at particular location?**  
This is not a problem area in relation to traffic accidents.
5. **Traffic problems that may be created by the development.**  
This development should not create any additional traffic problems.
6. **General comments:**  
Fence around property should be free of holes and in good repair to prevent access to the property and vehicles. Keys to vehicles should be stored in a secure location and not inside the vehicles on site.

**RECEIVED**  
APR 10 2015  
PLANNING & COMMUNITY  
DEVELOPMENT DEPARTMENT

 #272  
\_\_\_\_\_  
Brandi Romag, Crime Prevention Officer  
Community Services Bureau

Approved by:

  
\_\_\_\_\_  
Supervisor's Signature

## HEALTH SERVICES DEPARTMENT

6

### PETITIONER'S APPLICATION – ARLINGTON HEIGHTS PLAN COMMISSION

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                  120 W. University Drive  
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Special Use: \_\_\_\_\_ For: \_\_\_\_\_  
Land Use Variation: X For: Major Repair in  
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Land Use: \_\_\_\_\_ Current: \_\_\_\_\_  
Proposed: \_\_\_\_\_  
Site Gross Area: 15,110 square feet  
# of Units Total: Not applicable  
1BR: \_\_\_\_\_ 2BR: 3BR: 4BR:

1. GENERAL COMMENTS:

No comments.

RECEIVED

APR - 2 2015

PLANNING & COMMUNITY  
DEVELOPMENT DEPARTMENT

Terese Biskner, 3/31/15 *TB*

Environmental Health Officer Date

James McCalister, 3/31/15 *JM*

Director Date

# PLANNING & COMMUNITY DEPARTMENT

7

## PETITIONER'S APPLICATION – ARLINGTON HEIGHTS PLAN COMMISSION

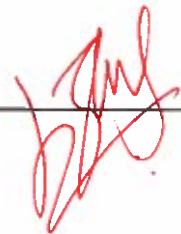
Petition #: P.C. \_\_\_\_\_  
 Petitioner: Hillside Auto Body & Service, Inc.  
120 W. University Drive  
Arlington Heights, IL 60004  
 Owner: University Drive Acquisitions, LLC  
25 E. University Drive  
Arlington Heights, IL 60004  
 Contact Person: Mark Balek  
 Address: 120 W. University Drive  
Arlington Heights, IL 60004  
 Phone: (847) 253-0183  
 Fax #: (847) 253-1658  
 E-Mail: markb@hillsideauto.com

P.I.N.# 03-08-103-004-0000  
 Location: 25 E. University Drive  
 Rezoning: X Current: M1 Proposed: M-1  
 Subdivision: N/A  
 # of Lots: \_\_\_\_\_ Current: \_\_\_\_\_ Proposed: \_\_\_\_\_  
 PUD: \_\_\_\_\_ For: \_\_\_\_\_  
 Special Use: \_\_\_\_\_ For: \_\_\_\_\_  
 Land Use Variation: X For: Major Repair in  
M-1 district.  
 Land Use: \_\_\_\_\_ Current: \_\_\_\_\_  
 Proposed: \_\_\_\_\_  
 Site Gross Area: 15,110 square feet  
 # of Units Total: Not applicable  
 1BR: \_\_\_\_\_ 2BR: \_\_\_\_\_ 3BR: \_\_\_\_\_ 4BR: \_\_\_\_\_

- |    | <u>YES</u> | <u>NO</u> |                                                                 |
|----|------------|-----------|-----------------------------------------------------------------|
| 1. | <u>✓</u>   | <u>✓</u>  | COMPLIES WITH COMPREHENSIVE PLAN?                               |
| 2. | <u>✓</u>   | <u>✓</u>  | COMPLIES WITH THOROUGHFARE PLAN?                                |
| 3. | <u>✓</u>   | <u>✓</u>  | VARIATIONS NEEDED FROM ZONING REGULATIONS?<br>(See below.)      |
| 4. | <u>✓</u>   | <u>✓</u>  | VARIATIONS NEEDED FROM SUBDIVISION REGULATIONS?<br>(See below.) |
| 5. | <u>✓</u>   | <u>✓</u>  | SUBDIVISION REQUIRED?                                           |
| 6. | <u>✓</u>   | <u>✓</u>  | SCHOOL/PARK DISTRICT CONTRIBUTIONS REQUIRED?<br>(See below.)    |

Comments:

PLEASE SEE ATTACHED.

  
 \_\_\_\_\_  
 Date 4.10.15



Planning Department Comments, Hillside Auto Body & Service (PL15-003, 25 E. University Drive, Round 1)

7. The property at 25 E. University Drive is zoned M-1. A Land Use Variation for 'Motor Vehicle Repair, Major' in the M-1 district is required.
8. The following variations are necessary:
  - a. Chapter 28, Section 6.12-1(3) Traffic Engineering Approval, to waive the requirement for a traffic study and parking analysis by a qualified professional engineer.

Please provide a written justification for the zoning variation above by responding to the following criteria:

- a. The property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in that zone.
- b. The plight of the owner is due to unique circumstances.
- c. The variation, if granted, will not alter the essential character of the locality.

Staff is supportive of the a variation to not require a traffic study and parking analysis.

**PARKING**

9. The total code required parking for this site is calculated as:

| Use                   | CODE USE                          | SF/<br>Employees/Bays | PARKING<br>CALC (SF) | PARKING RATIO<br>(1:X)          | PARKING<br>REQUIRED   |
|-----------------------|-----------------------------------|-----------------------|----------------------|---------------------------------|-----------------------|
| Office                | Business and Professional Offices | 1800 SF*              | 1800 SF              | 1 space/300 SF                  | 6                     |
| Service Area          | Automobile Service Station        | 12 bays/ 5 employees* | 12 bays/ 5 employees | 1 space/employee + 3 spaces/bay | 41                    |
| <b>Total</b>          |                                   |                       |                      |                                 | <b>47</b>             |
| <i>Total Provided</i> |                                   |                       |                      |                                 | <b>55<sup>^</sup></b> |
| Surplus / (Deficit)   |                                   |                       |                      |                                 | <b>8</b>              |

\* The square footage of the office area was previously provided. The application indicates that there will be 5 employees and 12 bays. As stated in #18 below, a floor plan is needed delineating how the space will be used and the square footages of the various areas.

<sup>^</sup> Several different parking plans have been presented. Option E delineates 39 spaces and would does not provide for the Code required parking spaces. Other options A, B, C and D delineate 67, 55, 60 and 72 spaces respectively. Please see additional comments relative to the proposed parking plans below.

10. Per the Plat of Survey provided, the rear yard is broken blacktop and asphalt. Per Chapter 28, Section 11.2-12.2, all off-street parking areas shall be improved with a compacted base, surfaced with asphaltic concrete or comparable all-weather dustless material of a design and thickness in accordance with prescribed engineering standards.
11. Per Chapter 28, Section 11.2-12.6, curbing is required for the perimeter of all parking areas providing space for parking five or more vehicles in accordance with prescribed engineering standards.
12. For Options C, D and E, the parking spaces proposed on the east side of the building and the two-way drive aisle does not meet the dimensional standards of the Ordinance. A parallel parking space must be 9'x 21' in dimension. A two-way drive aisle must be at least 24' in width. The plan must be revised or the parking along the east side of the building eliminated.
13. The ends of all parking rows must include a landscape island equal in area to one parking space. None of the different options proposed include parking islands. The proposed parking plan must be revised to provide the required landscape islands.

14. For options A and B, all parking is proposed in the rear of the property, behind a fence. How will customers access parking?

A revised parking plan with the selected option and meeting all the requirements of the Ordinance must be provided.

15. Please note that any parking lot lighting proposed must meet the provisions of Chapter 28, Section 11.2-12.5, Lighting.

**OTHER**

16. Will any towing services be operated at this location? Will any tow trucks be stored on-site?
17. The applicant shall provide written confirmation that the operations will not violate the requirements for: noise, smoke and particulate matter, vibration, fire and explosive hazard, odors, noxious odorous matter, & glare and heat, as outlined in Section 5.1-17.2, Industrial Performance Standards.
18. Per Chapter 28, Section 5.1-17.1, the applicant shall provide written confirmation that all work shall take place within completely enclosed buildings.
19. Provide a floor plan for the space indicating how the space is proposed to be used and the square footages of the various uses. Indicate the location of the bays on the floor plan.
20. In the M-1 district, storage may be open to the sky but shall be enclosed by solid walls or fences (including solid doors or gates thereto) at least eight feet high, but in no case lower in height than the enclosed storage and suitably landscaped. The application indicates that vehicles will be stored on-site and there is an 8 foot tall chain link fence. A chain link fence does not meet the requirements of the Ordinance. Revise plans to provide an 8 foot tall solid wall or fence and perimeter landscaping. Please provide a landscaping plan.
21. The required front yard setback for a property in the M-1 district is 40 feet. From the Plat of Survey provided, the front yard setback is 39.12 feet. This is considered existing non-confirming. No action is needed.
22. If any exterior modifications are proposed, then a Design review will be required.
23. The petitioner stated during the public hearing for PC 03-025, land use variation and variation for 120 E. University Drive, their intent to develop the property at 200 E. Palatine Road. The petitioner should provide a letter indicating the date when they will cease operations at 200 E. Palatine Road – the specific date to be determined by the petitioner and Village.

Hillside Towing  
120 W. University Drive  
PC 15-004  
April 8, 2015

### **Landscape Issues**

- 1) Pursuant to Chapter 28, section 5.1-17.1c, storage shall be enclosed by a solid wall or fence that is eight feet high and suitably landscaped. Provide details for a screen wall and landscaping for the perimeter of the storage area located in the rear of the site.
- 2) The ends of all parking rows must include a landscape island, which contains a 4" caliper shade tree (Chapter 28, section 6.16-1.2b). Provide landscape islands at the ends of all parking rows.
- 3) It is recommended that landscaping be provided along the front elevation. The landscaping should consist of a mix of trees, shrubs and perennials.



200 E. Palatine Road, Arlington Heights, IL 60004  
120 W. University Drive, Arlington Heights, IL 60004  
Phone (847) 253-0183 Fax (847) 253-1658

September 16, 2015

*Via E-Mail*

Plan Commission  
Village of Arlington Heights  
33 S. Arlington Heights Road  
Arlington Heights, IL 60005  
latika.bhide@vah.com

**Re: Response to Plan Commission Round 1 Comments**  
Petitioner: Hillside Auto Body & Service, Inc.  
Property: 25 E. University Drive, Arlington Heights  
PIN No. 03-08-103-0004-0000  
File No.: P.C. 15-004

Dear Plan Commission:

Petitioner, Hillside Auto Body & Service, Inc. ("Petitioner" or "Hillside"), provides its written response to the Plan Commission's Round 1 Comments to Petitioner's Application for a Land Use Variation for 25 E. University Drive, Arlington Heights (the "Property"):

**Petitioner's Revised Plan:**

Preliminarily, Petitioner does not anticipate significant customer interaction at the Property. Petitioner will be transporting vehicles for repair to and from customer locations. Petitioner also has sufficient customer parking at its adjacent location, 120 W. University Drive, Arlington Heights. Petitioner, therefore, has determined that customer parking at the Property is not feasible. Pursuant to Chapter 28, Section 11.1-5, Petitioner will utilize 120 W. University Drive for customer parking, if any. Both properties are in the possession of Hillside Auto Body & Service, Inc., and have common ownership.<sup>1</sup> Accordingly, Petitioner withdraws its proposed parking options (A-E), and submits a Revised Plan for the Property.

The Revised Plan also details Petitioner's planned removal of the chain-link fence and installation of a 10-foot solid vinyl or concrete fence, as well as landscaping material. Petitioner has also provided a floor plan delineating the offices, loading dock, and proposed bays within the Building. No other exterior or interior modifications are proposed at this time.

\* \* \* \*

---

<sup>1</sup> 25 E. University Drive is owned by University Drive Acquisition, LLC and 120 W. University Drive is owned by Hillside Realty, LLC. James A. Balek, Jr. and Mark Balek, are the Members and Managers of both Properties.

**1. Building Department**

1) Building – Existing building equipment is not known. The major vehicle repair may require additional ventilation.

*No response required.*

**1A. Building Department: Inspectional Services**

1) This project is being reviewed as a building change use from an S-2 (low hazard storage) to an S-1 (moderate storage hazard) per the 2009 International Building Code. Maximum allowable quantities of hazardous material shall comply with 307.1(1) of the 2009 International Fire Code (I.F.C.).

*Response:* To the extent a response is required, Petitioner shall comply with Section 307.1(1) of the 2009 International Fire Code.

2) Compliance with the 2009 I.F.C., Section 2211 (Repair Garages) is required. Provide a response for each applicable sub-section as to the intent for compliance.

*Response:* Petitioner affirms its intent to comply with the following applicable sub-sections of Section 2211 of the International Fire Code (2009):

2211.1 General

2211.2 Storage and use of flammable and combustible liquids

2211.2.1 Cleaning of parts.

2211.2.2 Waste oil, motor oil and other Class IIIB liquids.

2211.2.2.1 Tank location

2211.2.2.2 Liquid classification

2211.2.3 Drainage and disposal of liquids and oil-soaked waste

2211.2.3.1 Disposal of liquids

2211.2.3.2 Disposal of oily waste

2211.3 Sources of Ignition.

2211.3.1 Equipment

2211.3.2 Smoking

2211.5 Preparation of vehicles for repair

2211.6 Fire extinguishers

Any sections not listed above are inapplicable.

3) The existing fire sprinkler system shall be reviewed and hydraulically calculated to verify that the demand of Ordinary Group 2 per NFPA-13 can be achieved. This shall be performed and submitted by a licensed fire protection engineer.

*Response:* Petitioner shall obtain a review and hydraulic calculation to verify that demand of Ordinary Group 2 per NFPA-13 can be achieved by a licensed fire protection engineer and provide a copy of the report to the Village.

4) The narrative indicates that the anticipated work would also include minor body repair. Describe to what degree is "minor." Spraying of flammable finishes shall comply with 2009 I.F.C., Chapter 15, Flammable Finishes.

*Response:* Minor body repair includes, but is not limited to, removing and replacing front fenders, bumper covers, and other small parts. Painting and spraying will not occur at this Property. Any painting or spraying will be completed at Petitioner's 120 W. University location in its Spray Booth.

5) Monitoring of the existing fire protection system by a fire alarm system is required. Fire alarm notification devices shall be required throughout the building. This includes office space as well as the car repair area.

*Response:* Petitioner is obtaining quotes from fire alarm monitoring companies. Petitioner currently contracts with Cintas for its other 120 W. University location.

6) The narrative indicates "significant improvements have been made to the property and building, including cleaning, repainting and updating the offices." Provide, in detail, the work that has been performed as to ascertain the applicability of Building Permits.

*Response:* As noted in its Application, Petitioner cleaned the inside and outside of the Property. Petitioner touched up the paint in the offices and mudjacked the floors. Petitioner also obtained necessary permits from the Village, and redid the front and side driveway with concrete.

7) The narrative states "if granted, Hillside will begin operating out of the property immediately." Operation of this business at this location prior to compliance with the requirements stated above, other Village Code requirements and an approved business license is prohibited.

*Response:* To the extent a response is required, Petitioner will comply with all prerequisites prior to operating a business out of the Property.

**2. Public Works Department**

1) The proposed sewer discharge as a result of the proposed land use variation will require input from MWDRGC.

*No response required.*

**3. Engineering Department**

*No response required.*

**4. Fire Department**

1) Please follow the recommendations from the Building Department with regards to code updates.

*No response required.*

**5. Police Department**

1) Character of use:

The character of use should not be problematic.

*No response required.*

- 2) Are lighting requirements adequate?  
Lighting should be up to Village of Arlington Heights code.

*Response:* As noted above, the storage lot will not be open to customers or the general public, and additional lighting is not required.

- 3) Present traffic problems?  
There are no traffic problems.

*No response required.*

- 4) Traffic accidents at particular location?  
This is not a problem area in relation to traffic problems.

*No response required.*

- 5) Traffic problems that may be created by the development?  
This development should not create any additional traffic problems.

*No response required.*

- 6) General comments:  
Fence around property should be free of holes and in good repair to prevent access to the property and vehicles. Keys to vehicles should be stored in a secure location and not inside the vehicles on site.

*Response:* Petitioner, with Village approval and permits, will remove the existing chain-link fence and install a 10-foot solid vinyl or concrete fence. *See* Petitioner's Revised Plan. Keys to vehicles will be stored inside the Building, not inside vehicles parked in the storage lot.

## **6. Health Services Department**

*No response required.*

## **7. Planning & Community Development**

- 7) The property at 25 E. University Drive is zoned M-1. A Land Use Variation for 'Major Vehicle Repair, Major' in the M-1 District is required.

*No response required.*

- 8) The following variations are necessary:  
a. Chapter 28, Section 6.12-1.3(3) Traffic Engineering Approval, to waive the requirement for a traffic study and parking analysis by a qualified professional engineer.

Please provide a written justification for the zoning variation above by responding to the following criteria:

- a. The property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in that zone.
- b. The plight of the owner is due to unique circumstances.
- c. The variation, if granted, will not alter the essential character of the locality.

Staff is supportive of the a variation to not require a traffic study and parking analysis.

*Response:* Please see Hillside's Application to the Village of Arlington Heights Plan Commission.

#### PARKING

9) The total code required parking for this site is calculated as:

[Chart and footnotes omitted]

*No response required.*

10) Per the Plat of Survey provided, the rear yard is broken blacktop and asphalt. Per Chapter 28, Section 11.2-12.2, all off-street parking areas shall be improved with compacted base, surfaced with asphaltic concrete or comparable all-weather dustless material of design and thickness in accordance with the prescribed engineering standards.

*Response:* The enclosed storage lot is paved asphalt with some broken blacktop. Petitioner withdraws its previously proposed parking options. The storage lot will not be open to customers or the general public. *See* Petitioner's Revised Plan. Notwithstanding the foregoing, Petitioner, with Village approval and permits, will repair the pot holes and areas of broken asphalt.

11) Per Chapter 28, Section 11.2-12.6, curbing is required for the perimeter of all parking areas providing space for parking five or more vehicles in accordance with prescribed engineering standards.

*Response:* Petitioner withdraws its previously proposed parking options. *See* Petitioner's Revised Plan. There will be no customer parking at this location. Landscape islands or curbing located in the middle of the storage lot and/or at the ends of parking rows will have an impact on daily operations and inhibit the ability of tow trucks to pull in and out and park vehicles, as well as minimize the number of vehicles that could be stored on site. The additional landscaping will not benefit the general public since there will be no customer or public parking within this area. Moreover, the perimeter of the storage area will be screened by a 10-foot fence and landscaped. *See* Petitioner's Revised Plan.

12) For Options C, D and E, the parking spaces proposed on the east side of the building and the two-way drive aisle does not meet the dimensional standards of the Ordinance. A parallel parking space must be 9'x21' in dimension. A two-way drive aisle must be at least 24' width. The plan must be revised or the parking along the east side of the building eliminated.

*Response:* Petitioner withdraws its previously proposed parking options, including Options C, D, and E. *See* Petitioner's Revised Plan.



13) The ends of all parking rows must include a landscape island equal in area to one parking space. None of the different options proposed include parking islands. The proposed parking plan must be revised to provide the required landscaping islands.

*Response:* Petitioner withdraws its previously proposed parking options. *See* Petitioner's Revised Plan. There will be no customer parking at the Property. Landscape islands or curbing located in the middle of the storage lot and/or at the ends of parking rows will have an impact on daily operations and inhibit the ability of tow trucks to pull in and out and park vehicles, as well as minimize the number of vehicles that could be stored on site. The additional landscaping will not benefit the general public since there will be no customer or public parking within this area. Moreover, the perimeter of the storage area will be screened by a 10-foot fence and landscaped. *See* Petitioner's Revised Plan.

14) For options A and B, all parking is proposed in the rear of the property, behind a fence. How will customers access parking?

*Response:* Petitioner withdraws its previously proposed parking options. *See* Petitioner's Revised Plan. All customer interaction and parking, if any, will occur at 120 W. University Drive.

15) Please note that any parking lot lighting proposed must meet the provisions of Chapter 28, Section 11.2-12.5.

*Response:* Petitioner withdraws its previously proposed parking options. *See* Petitioner's Revised Plan. The storage lot will not be open to customers or the general public, and additional off-street lighting is not required.

16) Will any towing services be operated at this location? Will any tow trucks be stored on-site?

*Response:* Towing services, if any, will be ancillary to the primary use of the Property, automotive repair. Vehicles will need to be towed to and from the Property for repair work and delivery to customers. Petitioner may temporarily park tow trucks at the Property throughout the day and overnight.

17) The applicant shall provide written confirmation that the operations will not violate the requirements for: noise, smoke and particulate matter, vibration, fire and explosive hazard, odors, noxious odorous matter, [and] glare and heat, as outlined in Section 5.1-17.2, Industrial Performance Standards.

*Response:* Petitioner affirms that its operations will not violate the requirements of the Industrial Performance Standards as outlined in Chapter 28, Section 5.1-17.2(a)-(g).

18) Per Chapter 28, Section 5.1-17.1, the applicant shall provide written confirmation that all work shall take place within completely enclosed buildings.

*Response:* Pursuant to Chapter 28, Section 5.1-17.1(c). Petitioner affirms that all repair work shall take place within completely enclosed buildings.

19) Provide a floor plan for the space indicating how the space is proposed to be used and the square footages of the various uses. Indicate the location of the bays on the floor plan.

*Response:* Please see Petitioner's Revised Plan.

20) In the M-1 district, storage may be open to the sky but shall be enclosed by solid walls or fences (including solid doors or gates thereto) at least eight feet high, but in no case lower in height than the enclosed storage and suitably landscaped. The application indicates that vehicles will be stored on-site and there is an 8 foot tall chain link fence. A chain link fence does not meet the requirements of the Ordinance. Revise plans to provide an 8 foot solid wall or fence and perimeter landscaping. Please provide a landscaping plan.

*Response:* Petitioner, with Village approval and permits, will remove the existing chain-link fence and install a 10-foot solid vinyl or concrete fence and landscaping. *See* Petitioner's Revised Plan.

21) The required front yard setback for the property in an M-1 district is 40 feet. From the Plat of Survey provided, the front yard setback is 39.12 feet. This is considered existing non-conforming. No action is needed.

*No response required.*

22) If any exterior modifications are proposed, then a Design review will be required.

*Response:* No exterior modifications to the building are proposed.

23) The petitioner stated during the public hearing for PC 03-25, land use variation for 120 E. University Drive, their intent to develop the property at 200 E. Palatine Road. The petitioner should provide a letter indicating the date when they will cease operations at 200 E. Palatine Road – the specific date to be determined by petitioner and the Village.

*Response:* Petitioner respectfully requests additional guidance from the Village with regard to this request, specifically, Petitioner requests citation to the relevant VAH Section requiring this information. *See* Petitioner's Application Nos. 7-8; *see also* Report of Proceedings of the Plat & Subdivision Committee dated October 22, 2014.

#### LANDSCAPE ISSUES

1) Pursuant to Chapter 28, Section 5.1-17.1c, storage shall be enclosed by a solid wall or fence that is eight feet high and suitably landscaped. Provide details for a screen wall and landscaping for the perimeter of the storage area located in the rear of the site.

*Response:* Petitioner, with Village approval and permits, will remove the existing chain-link fence and install a 10-foot solid vinyl or concrete fence. *See* Petitioner's Revised Plan. Petitioner has provided a detailed landscaping plan for the property. *See* Petitioner's Revised Plan.

2) The ends of all parking rows must include a landscape island, which contains callper shade tree (Chapter 28, section 6.6-1.2b). Provide landscape islands at the ends of all parking rows.

*Response:* Landscape islands or curbed islands located in the middle of the storage lot and/or at the ends of parking rows will have an impact on daily operations and inhibit the ability of tow trucks to pull in and out and park vehicles, as well as minimize the number of vehicles that could be stored on site. The additional landscaping will not benefit the general public since there will be no customer or public parking within this area. Moreover, the perimeter of the storage area will be screened by a 10-foot fence and landscaped. *See* Petitioner's Revised Plan.

3) It is recommended that landscaping be provided along the front elevation. The landscaping should consist of a mix of trees, shrubs and perennials.

*Response:* Please see Petitioner's Responses to Nos. 1 and 2, above. Please see Petitioner's Revised Plan, which provides for a mix of trees, shrubs, and perennials.

Respectfully submitted,

James A. Balek, Jr.  
Mark Balek

cc. Colleen J. Balek, Esq. (via e-mail)

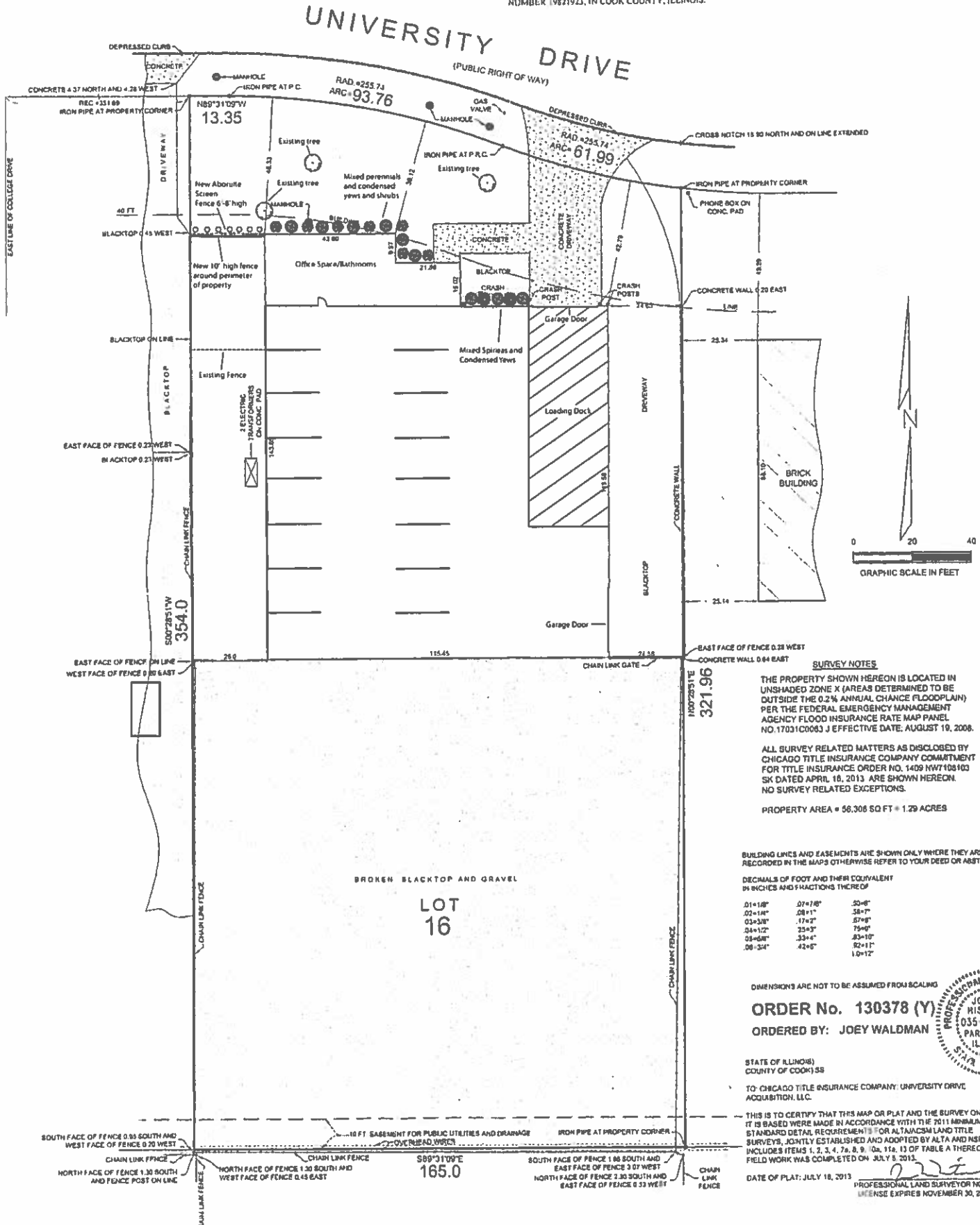
# CERTIFIED SURVEY, INC.

1440 Renaissance Drive, Suite 140, Park Ridge, IL 60068 Phone 847-296-6900 Fax 847-296-6906

Email: surveys@certifiedsurvey.com

## ALTA/ACSM LAND TITLE SURVEY

LOT 16 IN RESUBDIVISION OF PART OF LOT 1 AND ALL OF LOTS 2 THRU 5 INCLUSIVE IN ARJINGTON INDUSTRIAL AND RESEARCH CENTER UNIT 1, A SUBDIVISION OF PART OF THE SOUTHWEST 1/4 AND 1/4 OF THE NORTHWEST 1/4 IN SECTION 4, TOWNSHIP 43 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED MAY 10, 1966 AS DOCUMENT NUMBER 19821923, IN COOK COUNTY, ILLINOIS.



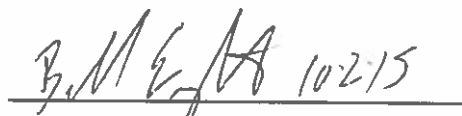
**PC #15-004**

**Hillside Towing**

**Planning and Community Development**

**Round 2 Comments- October 2, 2015**

1. The petitioner has indicated that a new 10 foot tall solid fence will be installed around the perimeter of the rear parking/outdoor storage area. Please revise the site plan to indicate the location of the new fence and provide details on the type of fence (ie provide a cut sheet example of the fence type).
2. Staff concurs that given excess parking at 120 E. University Drive and being within 1,000 feet of 25 E. University Drive, that the 25 E. University Drive site does not require a parking variation. However, please stripe spaces for the anticipated employees along the south side of the building.
3. Staff is in agreement that the rear lot, which is primarily storage, does not need to be fully repaved or curbs provided. However, as stated by the petitioner the rear lot shall be patched and potholes filled. Given the use of this area and the commitment to install a new 10 foot tall fence, the area does not require landscaping.
4. The petitioner, in its Application to the Village of Arlington Heights Plan Commission dated 3/13/15, states in the Petitioners Responses to Development Committee's Recommendation, #'s 7 -8, that "If this variance is granted, Hillside anticipates transitioning all of its operations to the University Drive locations in or before December 2015." Staff concurs with this timeline and is of the expectation that the petitioner shall follow through with their statement to transition all operations.
5. Once operations transition from 200 E. Palatine Road to the University Drive sites, does the petitioner plan to demolish all existing structures at 200 E. Palatine Road and if so what is the timeline for completing demolition?
6. Please revise the floor plan and label each of the bays by number to clearly delineate the bays. Also provide dimensions on the floor plan for a typical bay and the drive aisles.
7. Please detail the type of work that will be performed at the site such as body work, oil changes, transmission repairs, painting, etc to more clearly indicate operations.
8. Will there be any sound mitigation upgrades to the building?
9. This project will be scheduled for public hearing of the Plan Commission on October 28, 2015 subject to the Petitioner providing the revised site plan and providing responses to these comments.

A handwritten signature in black ink, appearing to read "B. Enright", followed by the date "10-2-15". The signature is written over a horizontal line.

Bill Enright, Deputy Director Planning and Community Development

**PLAN COMMISSION PC #15-004**  
**Hillside Towing**  
**120 W. University Dr.**  
**LUV**  
**Round 2**

11. Engineering's comment #2 from the first round was that the MWRD may need to be involved. The existing sanitary system (grease trap) would have to be evaluated to see if it met their criteria for automotive use.
12. No new comments.

 9/28/15  
James J. Massarelli, P.E. Date  
Director of Engineering

**RECEIVED**  
SEP 28 2015  
PLANNING & COMMUNITY  
DEVELOPMENT DEPARTMENT



200 E. Palatine Road, Arlington Heights, IL 60004  
120 W. University Drive, Arlington Heights, IL 60004  
Phone (847) 253-0183 Fax (847) 253-1658

October 9, 2015

*Via E-Mail*

Plan Commission  
Village of Arlington Heights  
33 S. Arlington Heights Road  
Arlington Heights, IL 60005  
benright@vah.com

**Re: Response to Plan Commission Round 2 Comments**  
Petitioner: Hillside Auto Body & Service, Inc.  
Property: 25 E. University Drive, Arlington Heights  
PIN No. 03-08-103-0004-0000  
File No.: P.C. 15-004

Dear Plan Commission:

Petitioner, Hillside Auto Body & Service, Inc. ("Petitioner" or "Hillside"), provides its written response to the Plan Commission's Round 2 Comments to Petitioner's Application for a Land Use Variation for 25 E. University Drive, Arlington Heights (the "Property"):

**Planning and Community Development:**

1. The petitioner has indicated that a new 10 foot tall solid fence will be installed around the perimeter of the rear parking/outdoor storage area. Please revise the site plan to indicate the location of the new fence and provide details on the type of fence (ie provide a cut sheet example of the fence type).

*Response:* Please see attached site plan. The new fence will be a 10 foot solid vinyl, simulated stone fence. Petitioner anticipates installing a Simtek Vinyl Fence, specifications attached.

2. Staff concurs that given excess parking at 120 [W] University Drive and being within 1,000 feet of 25 E. University Drive, that the 25 E. University Drive site does not require a parking variation. However, please stripe spaces for the anticipated employees along the south side of the building.

*Response:* Hillside will stripe parking spaces for anticipated employees along the south side of the Building.

3. Staff is in agreement that the rear lot, which is primarily storage, does not need to be fully repaved or curbs provided. However, as stated by the petitioner the rear lot shall

be patched and potholes filled. Given the use of this area and the commitment to install a new 10 foot tall fence, the area does not require landscaping.

*No response required.*

4. The petitioner, in its Application to the Village of Arlington Heights Plan Commission dated 3/13/15, states in the Petitioner's Responses to Development Committee's Recommendation, #7-8, that "if this variance is granted, Hillside anticipates transitioning all of its operations to the University Drive locations in or before December 2015." Staff concurs with this timeline and is of the expectation that the petitioner shall follow through with their statement to transition all operations.

*Response:* Petitioner once again respectfully requests additional guidance from the Village with regard to this Comment and similar comments made to Petitioner; specifically, Petitioner requests citation to the relevant VAH Code Section requiring information regarding an unrelated property for a land use variance. *See* Report of Proceedings of the Plat & Subdivision Committee (Oct. 22, 2014); Email to Latika Bhide (Oct. 23, 2014); Hillside's Application to Plan Commission Responses 6 and 7 (Mar. 13, 2015); Hillside's Responses to Round 1 Comments No. 23 (Sept. 16, 2015).

As noted in Hillside's Application, this anticipated timeline was provided for informational purposes only and was not intended to be a binding representation. *See* Hillside's Application Nos. 6-7 n. 4-5. While Hillside will fully transition operations to the University Drive sites, it cannot guarantee a date it will cease operations at 200 E. Palatine Road. The use of 200 E. Palatine Road is not relevant to Hillside's request for a variance at 25 E. University Drive, and Hillside objects to the inclusion of any conditions related to 200 E. Palatine Road in the variance for 25 E. University Drive. Notwithstanding the foregoing, the December 2015 timeline initially provided in March 2015 is no longer feasible. Hillside believes July 2016 is a more accurate timeframe.

5. Once operations transition from 200 E. Palatine Road to the University Drive sites, does the petitioner plan to demolish the existing structures at 200 E. Palatine Road and if so what is the timeline for completing demolition?

*Response:* Petitioner once again respectfully requests additional guidance from the Village with regard to this Comment and similar comments made to Petitioner; specifically, Petitioner requests citation to the relevant VAH Code Section requiring information regarding an unrelated property for a land use variance. *See* Report of Proceedings of the Plat & Subdivision Committee (Oct. 22, 2014); Email to Latika Bhide (Oct. 23, 2014); Hillside's Application to Plan Commission Responses 6 and 7 (Mar. 13, 2015); Hillside's Responses to Round 1 Comments No. 23 (Sept. 16, 2015). Moreover, as noted in Hillside's Application, Hillside is not the owner of 200 E. Palatine Road, but leases 200 E. Palatine Road from Balek Properties, LLC. *See* Hillside's Plan Commission Application Nos. 6-7.



6. Please revise the floor plan and label each of the bays by number to clearly delineate the bays. Also provide dimensions on the floor plan for a typical bay and the drive aisles.

*Response:* Please see attached Revised Floor Plan. At this time, Hillside anticipates 12 bays that will be approximately 25 feet by 15 feet each, with a drive aisle from the side garage and down the center.

7. Please detail the type of work that will be performed at the site such as body work, oil changes, transmission repairs, painting, etc to more clearly indicate operations.

*Response:* Hillside will not paint at 25 E. University Drive. Painting will occur at 120 W. University in Hillside's spray booth. Body work will include removing and installing body parts like fenders, bumpers, bumper covers, assemblies, mirrors, and wheels. All minor mechanical work such as tune-ups, brakes, and minor mechanical and electrical repair.

8. Will there be any sound mitigation upgrades to the building?

*Response:* Hillside does not anticipate any sound mitigation updates at this time.

9. This project will be scheduled for public hearing of the Plan Commission on October 28, 2015 subject to the Petitioner providing a revised site plan and providing responses to these comments.

*No response required.*

#### **Engineering**

11. Engineering's comment #2 from the first round was that the MWRD may need to be involved. The existing sanitary system (grease trap) would have to be evaluated to see if it met their criteria for automotive use.

*Response:* Hillside will cooperate with all necessary evaluations.

12. No new comments.

*No response required.*

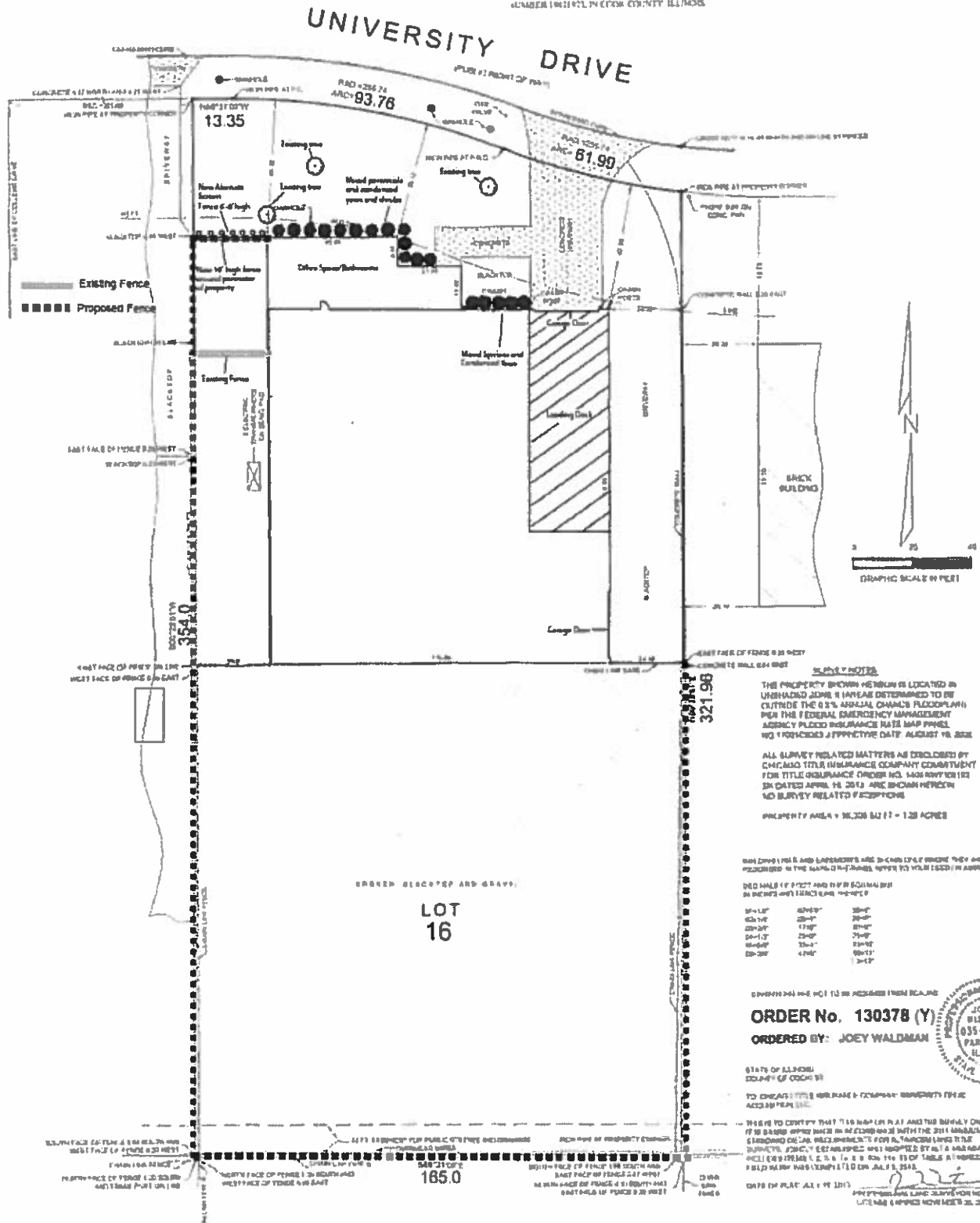
Respectfully submitted,  
James A. Balek, Jr.  
Mark Balek

cc. Colleen J. Balek  
Laura Luisi  
Mark S. Dym

Hillside Auto Body & Service, Inc.  
Landscaping  
Existing Fence and Proposed Fence

# ALTA/ACSM LAND TITLE SURVEY

THIS IS A PARTIAL SURVEY OF PART OF LOT 1 AND ALL OF LOT 2 TOWNSHIP 3 NORTH RANGE 14 EAST OF THE THIRD PRINCIPAL MERIDIAN, AND ALSO A PARTIAL SURVEY OF PART OF THE NORTHWEST 1/4 AND SOUTHWEST 1/4 OF THE NORTHWEST 1/4 IN SECTION 4, TOWNSHIP 3 NORTH RANGE 14 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THE RECORD RETURNED MAY 18 1966 AS DOCUMENT 7 NUMBER 101121 IN CLERK COUNTY ILLINOIS.



[illegible]



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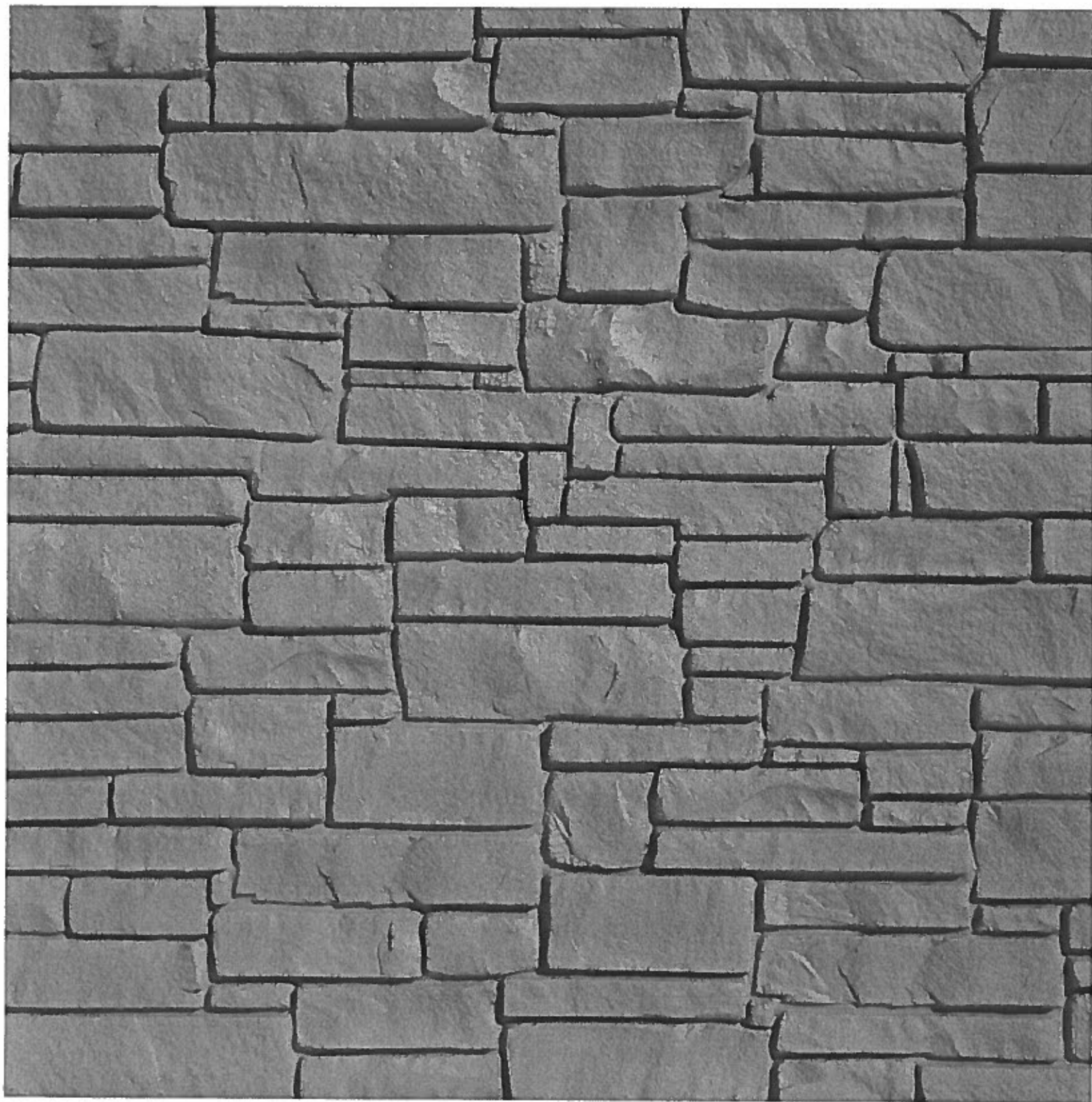
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**Item:** Arlington Downs - 3400 W. Euclid Ave. - PC#15-020

**Department:** Planning & Community Development

**Requested Action:**

1. Amendment to PUD Ordinances 12-006, 12-039 and 14-025 to allow modifications to the approved Arlington Downs development plan.

**Variations Required:**

- Chapter 28, Section 5.1-22.1, Conditions of Use from the required 15 foot setback for parking lots along Rohlwing Road to allow 10 feet for the parking area, north of Building D1.
- Chapter 28, Section 11.4, Schedule of Parking Requirements from the required 2,526 spaces to allow 2,028 spaces.

**RECOMMENDATION**

The Staff Development Committee recommends approval of an amendment to PUD Ordinances 12-006, 12-039 and 14-025 to allow modifications to the approved Arlington Downs development plan including the following:

- Repeal Ordinance #12-006, Section Six, which granted conceptual approval for restaurants, a drive through bank and drive through pharmacy.
- Repeal Ordinance #12-006, Section Nine: General Condition #5 which granted conceptual approval for future restaurants.
- Repeal Ordinance #12-006, Section Nine: General Condition # 7 which limited the amount of non sales and food and beverage tax generators.
- Repeal Ordinance 12-039 Section Two, #1b regarding the current requirement for a right turn lane on Rohlwing Road.
- Conceptual approval for the following:
- "Up to 26,825 square feet of indoor restaurant space and 6,400 square feet of outdoor restaurant space in Zones A, D and E combined, subject to further evaluation of parking during the Special Use process."

And variations to Chapter 28, Section 5.1-22.1, Conditions of Use from the required 15 foot setback for parking lots along Rohlwing Road to allow 10 feet for the parking area north of Building D1; and Chapter 28, Section 11.4, Schedule of Parking Requirements from the required 2,526 spaces to allow 2,028 spaces.

Said approval shall be subject to the following conditions:

1. No more than 15,000 SF of medical office is permitted in Zone D and E combined and no more than 21,600 SF of medical office is permitted for all zones.
2. No more than 20,000 SF of non-sales tax / food and beverage tax generators shall be allowed in Zones D and E combined.
3. The petitioner shall install a right hand turn lane from southbound Rohlwing Road to westbound Euclid Avenue as part of Phase2 (hotel and water park), or with Phase 3, 4 or 5 if any of those phases preceed Phase 2. Implementation may occur at a later phase, or not required at all, if agreed upon by both the Village of Arlington Heights and the City of Rolling Meadows.
4. The entry feature / sign at Euclid and Rohlwing Roads will require separate review by staff prior to issuance of a permit.
5. Developer shall grant an easement, if necessary, along Euclid Avenue to accommodate a portion of the proposed bike path.
6. All restaurants and the child day care will require Special Use approval.
7. The landscape plan shall be revised prior to Village Board consideration to address comments dated October 21, 2015 attached as Exhibit A.
8. Compliance with the Design Commission motion of September 9, 2015.
9. Compliance with all Federal, State and Village policies and regulations.

#### **ATTACHMENTS:**

| <b>Description</b>                        | <b>Type</b>                |
|-------------------------------------------|----------------------------|
| Staff Report                              | Report                     |
| Legal Notice                              | Correspondence             |
| Location Map                              | Exhibits                   |
| Plat & Sub Minutes                        | Minutes                    |
| Design Commission Report                  | Board or Commission Report |
| DC Minutes 9/8/15                         | Minutes                    |
| Site Development Plans - A                | Exhibits                   |
| Site Development Plans - B                | Exhibits                   |
| Parking Study                             | Exhibits                   |
| Traffic Impact Study                      | Exhibits                   |
| Traffic Study Update                      | Exhibits                   |
| Truck Turning Exhibits                    | Exhibits                   |
| Department Comments Petitioners Responses | Exhibits                   |



**STAFF DEVELOPMENT COMMITTEE REPORT**

**To:** Plan Commission  
**Prepared By:** Bill Enright, Deputy Director Planning and Community Development  
**Meeting Date:** October 28, 2015  
**Date Prepared:** October 22, 2015  
**Project Title:** Arlington Downs  
**Address:** 3400 W. Euclid Avenue

**BACKGROUND INFORMATION**

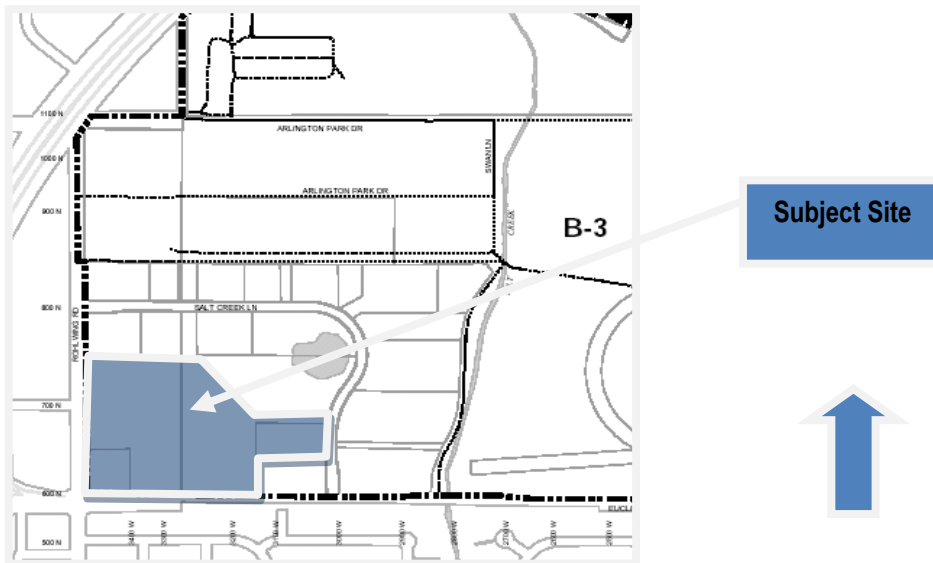
**Petitioner:** Jeffrey Funke  
**Address:** Funke Architects  
 515 Lincoln Ave.  
 Winnetka, IL 60093  
**Existing Zoning:** B-3, General Service, Wholesale and Motor Vehicle District

**Requested Action:**

1. Amendment to PUD Ordinances 12-006, 12-039 and 14-025 to allow modifications to the approved Arlington Downs development plan.

**Variations Required:**

- Chapter 28, Section 5.1-22.1, Conditions of Use from the required 15 foot setback for parking lots along Rohlwing Road to allow 10 feet for the parking area, north of Building D1.
- Chapter 28, Section 11.4, Schedule of Parking Requirements from the required 2,526 spaces to allow 2,028 spaces.

**Surrounding Land Uses:**

| Direction | Existing Zoning                                                            | Existing Use                                               | Comprehensive Plan       |
|-----------|----------------------------------------------------------------------------|------------------------------------------------------------|--------------------------|
| North     | B-3, General Service Wholesale & Motor Vehicle District                    | Various Office and Light Industrial Buildings & Open Space | Offices Only & Mixed Use |
| South     | The City of Rolling Meadows; Single Family Homes                           |                                                            |                          |
| East      | B-3, General Service Wholesale & Motor Vehicle District                    | Various Office and Light Industrial Buildings              | Offices Only & Mixed Use |
| West      | The City of Rolling Meadows; Various Office and Light Industrial Buildings |                                                            |                          |

**Background:**

The subject site is located at the northeast corner of Euclid Avenue and Rohlwing Road and consists of several land parcels that have a combined area of 27 acres. In 2012, and a subsequent amendment in 2014, the Village Board of Trustees approved the Arlington Downs mixed use development which included the following:

A master development plan for the Arlington Downs mixed use development that was divided into 5 different use zones; Zones A and C: Residential / Mixed Use, Zone B: Hotel and Entertainment (Water Park), and Zones D and E: Commercial. When combined, the Arlington Downs Mixed Use Development includes:

- 657 luxury apartment units;
- 161 limited service hotel rooms;
- The reopening of the water park with a 1,000 person occupancy and a new entry addition along the west building elevation to include an arcade;
- 100,750 square feet of commercial/retail space;
- 2,013 parking spaces.

A copy of the previously approved 2014 site plan is attached.

**Current Request**

The petitioner is requesting an amendment to the existing PUD with the primary changes being the following:

- Change in the architecture for the commercial Zones D and E;
- Eliminate two right-in, right-out curb cuts in Zone D (one on Euclid and one on Rohlwing);
- Enhanced plaza spaces in Zone D, including reintroducing a second outlot building (building D4) in front of the existing residential tower;
- Developing Zone E as a 12,000 square foot retail/restaurant building instead of the previously approved 12,000 square foot pharmacy with drive through and 5,000 sq ft of medical office;
- Eliminating a drive through bank in Zone D and a 7,000 sf restaurant in Zone B;
- Eliminating the requirement that a right turn lane for southbound Rohlwing Road (at Euclid) be installed.

Staff supports most changes as they are enhancements to the development plan, however staff at this time does not support the request to eliminate the right turn lane for southbound Rohlwing Road at Euclid Avenue. Staff is willing to evaluate this request further but will need to do so in consultation with staff from the city of Rolling Meadows and Cook County Department of Highways.

**Requested Revisions and Amendments to PUD Conditions**

Based on the changes to the proposed plans in Zone D and E, the petitioner is requesting the following amendments to certain conditions of the PUD approval as stipulated in Ordinance #12-006 (Preliminary PUD) , Ordinance #12-039 (Final PUD) and Ordinance #14-025 (PUD Amendment) as follows:

**Original PUD**

- Ordinance #12-006, Section Six: That conceptual approval is hereby granted for the following:
  - a. up to 20,000 square feet of restaurant space in Zones A and/or D;
  - b. a drive-through pharmacy in Zone E, and
  - c. a drive-through bank in Zone D.

The current request is for the conceptual approval of 26,825 SF of indoor restaurant space in Zones A, D and E, and an additional 6,400 square feet of outdoor restaurant space. The petitioner is no longer seeking to include a bank and pharmacy, each with a drive through. Staff concurs with these changes. Also staff concurs with the request for conceptual approval for restaurant space, however there are some concerns with the parking in Zone E, which may limit the amount of seating area for restaurants. Therefore Ordinance 12-006, Section Six should be repealed in its entirety. This amendment to the PUD would then include the following:

Conceptual approval is hereby granted for the following:

- a. "up to 26,825 square feet of indoor restaurant space and 6,400 square feet of outdoor restaurant space in Zones A, D and E combined, subject to further evaluation of parking during the Special Use process."

In addition, the following condition should also be repealed in its entirety::

- Ordinance #12-006, Section Nine: General Conditions, 5. Conceptual approval for future restaurant up to 20,000 SF gross total in Zones A and/or D.

#### Non Sales tax and Food and Beverage Tax Generators

The PUD Ordinance restricts the amount of square feet in Zones D, E and A as follows:

- Ordinance #12-006, Section Nine: General Conditions, 7. No more than 27,100 SF of gross leasable area in Zones D, E and Buildings #5 and #6 in Zone A, shall be leased to non-sales tax / food and beverage tax generators.

Buildings #5 and #6 in Zone A are now labeled buildings D4 and D5 and are in Zone D. The developer is proposing 15,000 sf of medical office in Building D1 and a 1,610 sf hair salon in building E1 for a total of 16,610 sf. These uses do not generate sales tax nor food and beverage taxes. As with the current PUD, staff continues to recommend a maximum amount of square feet so that the remainder of uses generate important sales and food and beverage taxes. Staff is recommending that the condition above be repealed and a new condition included in this PUD amendment so that no more than 20,000 SF of non- sales tax / food and beverage tax generators are allowed in Zones D and E combined, which allows for flexibility to add some additional service type uses in Zones D and E.

In addition staff recommends a maximum square footage of medical offices in Zone D and E to be capped at the current request, which is 15,000 square feet. Additional medical office in other zones may be feasible therefore there should be a cap of 21,600 square feet of medical office overall for the project (the additional 6,600 sf of medical is based on previous requests by the developer to allow for additional medical office, particularly in Zone C).

#### Plat and Subdivision Committee

The Plat and Subdivision Committee met on September 9, 2015 and provided positive feedback to the developer and recommended that they proceed forward with the petition.

#### Zoning and Comprehensive Plan

The petitioner is seeking an amendment to the underlying PUD Ordinances 12-006 and 12-039 and the amended PUD Ordinance 14-025 to allow for certain modifications to the previously approved Arlington Downs site development plan.

The Arlington Downs multi-use concept was presented and approved as a unique development that offered a variety of different land uses (commercial, entertainment, residential), incorporated pedestrian friendly amenities and plazas, included a prominent and centralized open space pavilion, and created interesting focal points and visual alignments that linked the five different development zones in a cohesive, unified and interconnected manner. The Staff Development Committee is very supportive of the Petitioner moving forward with the proposed modifications as the unified site planning features will continue to be maintained.

#### Site Plan and Building Design

The Design Commission recommended approval of the new architectural design at their September 8, 2015 meeting. The new design is a more contemporary architecture with larger window openings to enhance the retail appeal of the development. A modern theme for the retail portion of Arlington Downs is appropriate and consistent with the modern aesthetic of Tower One and the approved Sheraton Hotel building. Also the plaza spaces at the corner of the development between buildings D1 and D2 and between buildings D4 and D5 are more detailed and contemporary as well. In addition, the connectivity of the various buildings has been enhanced with decorative crosswalks, elimination of the bank drive through in Zone D, and better linkages between the two plazas in Zone D. The entry feature sign at the corner of Euclid and Rohlwing will require a separate review as Staff would like to work further with the petitioner on the design and size of this feature.

The proposed site plan delineates 5 retail buildings in Zone D which are proposed as a mix of retail, restaurant and medical office. Zone E consists of 1 retail building with restaurant and commercial uses. Also included is a 4,500 square foot restaurant and a child day care in Zone A (the existing residential building). The breakdown of square feet for Zones A, D and E is:

| <u>Building</u> | <u>Use</u>              | <u>Square feet</u> |
|-----------------|-------------------------|--------------------|
| A               | Mixed Residential/Comm. | 11,100             |
| D1              | Medical Office          | 15,000             |
| D2              | Mixed Commercial        | 11,350             |
| D3              | Mixed Commercial        | 11,350             |
| D4              | Restaurant              | 5,150              |
| D5              | Restaurant              | 5,150              |
| E1              | Mixed Commercial        | <u>12,000</u>      |
| Total           |                         | 71,100             |

Per Section 5.1-22 Overlay Zoning District, Euclid Avenue / Rohlwing Avenue, the following setbacks are required for this development:

- Building Setbacks: 15 feet along Euclid Avenue and Rohlwing Road and 70 feet along Salt Creek Lane  
As proposed, all buildings (D1, D2, D3 and E1) meet the 15 foot setback requirement.
- Parking Lot Setbacks: 15 feet along Euclid Avenue and Rohlwing Road and 10 feet along Salt Creek Lane  
The parking area, north of Building D1 does not meet the 15 foot setback requirement from Rohlwing Road (it is setback 10 FT). All other parking areas meet the setback requirement.

Therefore, the following variation is needed:

- Chapter 28, Section 5.1-22.1, Conditions of Use from the required 15 foot setback for parking lots along Rohlwing Road to allow 10 feet for the parking area north of Building D1.

The petitioner submitted a written response to the following variation criteria:

- The property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in that zone; and
- The plight of the owner is due to unique circumstances; and
- The variation, if granted, will not alter the essential character of the locality.

Staff does not object to this variation as it's for 10 parking spaces only, and still provides for a 10 foot setback allowing adequate space for landscaping.

On the following page is a chart comparing the current approvals and the proposed changes to the PUD.

| Arlington Downs 2015 PUD Amendment: Current and Proposed PUD |                                            |                                                  |                                                                                                       |
|--------------------------------------------------------------|--------------------------------------------|--------------------------------------------------|-------------------------------------------------------------------------------------------------------|
|                                                              |                                            | Current PUD                                      | Proposed Amendment                                                                                    |
| <b>Zone A</b>                                                | Residential tower                          | 214 dwelling units                               | no change                                                                                             |
|                                                              |                                            | 24,750 commercial (health club; restaurant)      | Eliminate health club but add a day care; 11,100 sf (4,500 sf restaurant; 6,600 sf day care estimate) |
|                                                              |                                            | 5,100 sf outlot (1)                              | moved to Zone D                                                                                       |
|                                                              |                                            |                                                  |                                                                                                       |
| <b>Zone B</b>                                                | Hotel                                      | 161 rooms / conference rooms                     | no change                                                                                             |
|                                                              | Water Park                                 | 1,000 capacity                                   | no change                                                                                             |
|                                                              |                                            |                                                  |                                                                                                       |
| <b>Zone C</b>                                                | Residential Tower Phase 2                  | 442 dwelling units                               | no change                                                                                             |
|                                                              |                                            | 6,600 sf medical                                 | No office / commercial                                                                                |
|                                                              |                                            |                                                  |                                                                                                       |
| <b>Zone D</b>                                                | Commercial                                 | 46,200 sf                                        | 48,000 sf                                                                                             |
|                                                              |                                            | (15,600 sf medical dental; 1 restaurant; bank)   | (15,000 sf medical; 3 restaurants)                                                                    |
|                                                              |                                            |                                                  |                                                                                                       |
| <b>Zone E</b>                                                | Commercial                                 | 18,100 sf (commercial)                           | 12,000 sf                                                                                             |
|                                                              |                                            | (or mix of 12,600 sf commercial & 5,500 sf med.) | (3 restaurants & 1,610 sf salon)                                                                      |
|                                                              |                                            |                                                  |                                                                                                       |
|                                                              | <b>Total Commercial (excluding Zone B)</b> | <b>100,750 sf (27,700 sf medical)</b>            | <b>71,100 sf (15,000 sf medical)</b>                                                                  |

### **Traffic & Parking**

The petitioner has submitted a detailed traffic and parking study assessing the impacts of the development. A shared parking model has been used to evaluate the parking requirements for this development as was done with the original PUD and amendments thereto. Below is a comparison of the current approved PUD and the proposed amendment (please refer to Exhibit B for more details on parking data):

| Parking                                | Current PUD | Proposed Amendment |
|----------------------------------------|-------------|--------------------|
| Required by Code:                      | 2,562       | 2,526              |
| Supply:                                | 2,013       | 2,028              |
| Deficit by Code:                       | (549)       | (498)              |
|                                        |             |                    |
| Peak Demand (Shared Parking Analysis): | 1,825       | 1,858              |
| Supply:                                | 2,013       | 2,028              |
|                                        |             |                    |
| Surplus based on Peak Demand:          | +188        | +170               |

The following parking variation is required:

- **A variation from Chapter 28, Section 11.4 to allow a reduction to the required parking from 2,526 parking stalls to 2,028 parking stalls.**

Said variation can be supported as the petitioner has provided an extensive shared parking analysis which demonstrates that the peak parking demand is estimated at 1,858 at 6:00 PM weekdays and 1,814 at 12:00 PM weekends. Overall the parking supply of

2,028 is adequate to meet peak demand. Analyzing parking zone by zone, Zone B is the only zone with a deficit, which is 84 spaces at the peak demand hour (6:00pm weekdays). However the adjacent Zone D has a surplus of 165 spaces at 6:00PM weekdays. The chart below summarizes the combined parking demand / supply for Zones B and D.

#### Zones B and D Parking Demand:

| <u>Weekdays (6:00pm)</u>                            | <u>Peak Demand</u> | <u>Supply</u> | <u>Surplus / (Deficit)</u> |
|-----------------------------------------------------|--------------------|---------------|----------------------------|
| Zone B (hotel and Family Entertainment/Water Park): | 498                | 414           | (84)                       |
| Zone D (retail/restaurant):                         | <u>291</u>         | <u>456</u>    | <u>165</u>                 |
| TOTAL:                                              | 789                | 870           | 81                         |

| <u>Weekends (12:00pm)</u> | <u>Peak Demand</u> | <u>Supply</u> | <u>Surplus / (Deficit)</u> |
|---------------------------|--------------------|---------------|----------------------------|
| Zone B:                   | 460                | 414           | (46)                       |
| Zone D:                   | <u>302</u>         | <u>456</u>    | <u>154</u>                 |
| TOTAL:                    | 762                | 870           | 108                        |

Residential Zone A has a surplus of 59 spaces and residential Zone C is at the required parking, so there is some excess parking in Zone A to meet the needs of the other zones. Also, if the Zone A underground garage is made accessible to employees during the daytime, it would help address parking demand. Based on discussions with the developer the actual parking demand for the residential tower in Zone A is less than the 1.45 required per the PUD, therefore there may be excess parking available if needed. In addition, the PUD allows for an additional 28 spaces in Zone A just east of the tower if a two level garage is constructed if necessary. Zone A now includes a day care and restaurant. Both will require a Special Use.

Based on the proposed uses, Zone E is required by code to provide 144 parking spaces and 109 spaces are provided for a deficit of 35 spaces. The shared parking study estimates a peak weekday demand in Zone E of 105 spaces at 6:00pm, a surplus of 4. However the weekend peak demand increases to 146, a deficit of 37 spaces. Once specific restaurant users are identified a reduction in the total seating area within Zone E may be required or accommodations for employee parking made in Zone A to cover this demand shortfall for Zone E. Each restaurant will require a Special Use at which time specific seating areas, type of restaurant, and estimated parking demand can be evaluated and limited if necessary.

#### **Site Access**

The developer is proposing eliminating two curb cuts, one along Euclid Avenue and one along Rohlwing Road. Both were right-in right-out. Staff is in agreement with this change as it directs traffic to the two main access points along the main ring road. It also allows for better pedestrian circulation and connectivity within Zone D. The updated traffic study includes a warrant study that concludes that a traffic signal will be warranted at Euclid and the main ring road drive, however the County will likely require actual traffic counts to make the determination as to warrants being met for a new signal. The current PUD requires the developer to pay for the installation and maintenance of a future traffic signal if warranted.

The petitioner is requesting that the condition of the original PUD to require the installation of a right turn lane for southbound Rohlwing Road (to turn west onto Euclid Avenue), is eliminated as the traffic study analysis concludes that it is not necessary. Staff at this point does not concur with eliminating this requirement as the Village needs to confer with the City of Rolling Meadows and Cook County Department of Highways in order to determine if this right turn lane should be installed. However staff is agreeable to repealing this condition (and replace with a new condition). Thus, Ordinance 12-039, Section Two, #1.b. which currently states that the petitioner make the following improvement as part of Phase 2 (water park / Hotel) or with Phase 3,4 or 5 if any of those phase precede Phase 2:

*“a right hand turn lane from southbound Rohlwing Road to westbound Euclid Avenue. Implementation may occur at a later phase if agreed upon by both the Village of Arlington Heights and the City of Rolling Meadows.”*

Staff agrees to repeal this condition but in its place add a new condition as part of this PUD amendment to read as follows:

*"The petitioner shall install a right hand turn lane from southbound Rohlwing Road to westbound Euclid Avenue as part of Phase2 (hotel and water park), or with Phase 3, 4 or 5 if any of those phases preceed Phase 2. Implementation may occur at a later phase, or not required at all, if agreed upon by both the Village of Arlington Heights and the City of Rolling Meadows."*

The current PUD also requires a bike path along Euclid Avenue. The City of Rolling Meadows has obtained a grant to conduct preliminary engineering studies for the alignment of the path. An easement from this development may be necessary along Euclid Avenue to accommodate the bike path (maybe 2 to 3 feet). Therefore as a condition of approval Staff will recommend that the easement is granted if necessary.

### **RECOMMENDATION**

The Staff Development Committee recommends approval of an amendment to PUD Ordinances 12-006, 12-039 and 14-025 to allow modifications to the approved Arlington Downs development plan including the following:

- Repeal Ordinance #12-006, Section Six, which granted conceptual approval for restaurants, a drive through bank and drive through pharmacy.
- Repeal Ordinance #12-006, Section Nine: General Condition #5 which granted conceptual approval for future restaurants.
- Repeal Ordinance #12-006, Section Nine: General Condition # 7 which limited the amount of non sales and food and beverage tax generators.
- Repeal Ordinance 12-039 Section Two, #1b regarding the current requirement for a right turn lane on Rohlwing Road.
- Conceptual approval for the following:  
    "Up to 26,825 square feet of indoor restaurant space and 6,400 square feet of outdoor restaurant space in Zones A, D and E combined, subject to further evaluation of parking during the Special Use process."

And variations to Chapter 28, Section 5.1-22.1, Conditions of Use from the required 15 foot setback for parking lots along Rohlwing Road to allow 10 feet for the parking area north of Building D1; and Chapter 28, Section 11.4, Schedule of Parking Requirements from the required 2,526 spaces to allow 2,028 spaces.

Said approval shall be subject to the following conditions:

1. No more than 15,000 SF of medical office is permitted in Zone D and E combined and no more than 21,600 SF of medical office is permitted for all zones.
2. No more than 20,000 SF of non-sales tax / food and beverage tax generators shall be allowed in Zones D and E combined.
3. The petitioner shall install a right hand turn lane from southbound Rohlwing Road to westbound Euclid Avenue as part of Phase2 (hotel and water park), or with Phase 3, 4 or 5 if any of those phases preceed Phase 2. Implementation may occur at a later phase, or not required at all, if agreed upon by both the Village of Arlington Heights and the City of Rolling Meadows.
4. The entry feature / sign at Euclid and Rohlwing Roads will require separate review by staff prior to issuance of a permit.
5. Developer shall grant an easement, if necessary, along Euclid Avenue to accommodate a portion of the proposed bike path.
6. All restaurants and the child day care will require Special Use approval.
7. The landscape plan shall be revised prior to Village Board consideration to address comments dated October 21, 2015 attached as Exhibit A.
8. Compliance with the Design Commission motion of September 9, 2015.
9. Compliance with all Federal, State and Village policies and regulations.

October 22, 2015

Bill Enright, Deputy Director of Planning and Community Development

Cc: Randy Recklaus, Village Manager  
All Department Heads

**EXHIBIT A: Landscaping Comments**

- 1) Must provide screening for service areas/drive aisles along Euclid and Rohlwing Road. The service area between building D2 and D3 must be fully screened and consist of walls and/or landscaping. It is recommended that evergreen trees be provided in this area. In Zone 'E' for the building east of the entry drive (building E1), provide additional landscaping to buffer the drive through lane and refuse area.
- 2) Per the approved design guidelines, the project entries are to be planted and heavily landscaped. Identify what will be planted within the crosshatch. The legend does not identify the crosshatch that is on a 45 degree angle. The landscaping must be consistent with the prior approved plan.
- 3) Along Euclid and Rohlwing 'Long Grass' and shade trees are proposed. Incorporate additional landscaping that consists of a mix of trees, shrubs and perennials. Per the Design Guidelines, 'the foundation areas around the buildings will be planted with a mixture of trees, shrubs and perennials to complement the architecture.
- 4) Site furnishings are required on the parking side of all retail buildings per the Design Guidelines. Site furnishing plans are required with manufacturer cut sheets for all proposed site furnishings. Continue the gabion seat wall and planters in front of (parking lot side) building D1. The planter area shall contain a mix of shrubs and perennials.
- 5) Per the approved Design Guidelines, pedestrian poles and bollard lighting is required along the retail building storefronts.
- 6) A tree fee of \$4 per lineal foot of frontage is required at the time of permit along with a landscape compliance bond that is 30% of the estimated landscape costs.



**EXHIBIT B: Parking**

Based on the proposed changes, the following is the revised parking calculation for this site (please note that the table provides the surplus and deficits for each zone according to Code followed by the surplus or deficit according to the shared parking study by V3 Companies):

| Zone   | Land Use                          | Units        | Code Required Parking      | Total # parking spaces required | Required Parking By Zone<br><br>Code / Shared Parking Study | Parking Provided | Surplus/ (Deficit)<br>Code / Shared Parking Study |
|--------|-----------------------------------|--------------|----------------------------|---------------------------------|-------------------------------------------------------------|------------------|---------------------------------------------------|
| A      | Apartment                         | 214 units    | 2 spaces per dwelling unit | 428                             | 501 / 349                                                   | 408              | (93) / 59                                         |
|        | Day Care                          | 15 employees | 3 per 2 empl               | 23                              |                                                             |                  |                                                   |
|        | Restaurant                        | 4,500 SF     | 1/45 SF seat.              | 50                              |                                                             |                  |                                                   |
| B      | Hotel                             | 161 rooms    | 1 space per room           | 161                             | 599 / 498                                                   | 414              | (185) / (84)                                      |
|        | Hotel – Conference Center         | 300 people   | 30% capacity               | 90                              |                                                             |                  |                                                   |
|        | Water Park                        | 1,000 people | 30% capacity               | 300                             |                                                             |                  |                                                   |
|        | Water Park – Family Entertainment | 160 people   | 30% capacity               | 48                              |                                                             |                  |                                                   |
| C      | Apartment                         | 442 units    | 2 spaces per dwelling unit | 884                             | 884 / 615                                                   | 641              | (243) / 26                                        |
| D      | Medical Office                    | 15,000 SF    | 1/200 SF                   | 75                              | 398 / 291                                                   | 456              | 58 / 165                                          |
|        | Restaurant                        | 14,510 SF    | 1/45SF* seating            | 161                             |                                                             |                  |                                                   |
|        | Restaurant – Outdoor Seating      | 4,500 SF     | 1/45SF seating             | 100                             |                                                             |                  |                                                   |
|        | Retail                            | 18,490 SF    | 1/300 SF                   | 62                              |                                                             |                  |                                                   |
| E      | Restaurant                        | 7,815 SF     | 1/45SF* seating            | 87                              | 144 / 105                                                   | 109              | (35) / 4                                          |
|        | Restaurant – Outdoor Seating      | 1,900 SF     | 1/45SF seating             | 42                              |                                                             |                  |                                                   |
|        | Salon                             | 1,610 SF     | 1/250 SF                   | 6                               |                                                             |                  |                                                   |
|        | Retail                            | 2,575 SF     | 1/300 SF                   | 9                               |                                                             |                  |                                                   |
| Totals |                                   |              |                            |                                 | 2,526 / 1,858                                               | 2,028            | (498) / 170                                       |

\* Assumes seating area as 50% of gross floor area

Arlington Downs

3400 W. Euclid Ave.  
Arlington Heights, IL

Arlington DEVCO LLC

PAPPAGEORGE  
HAYMES

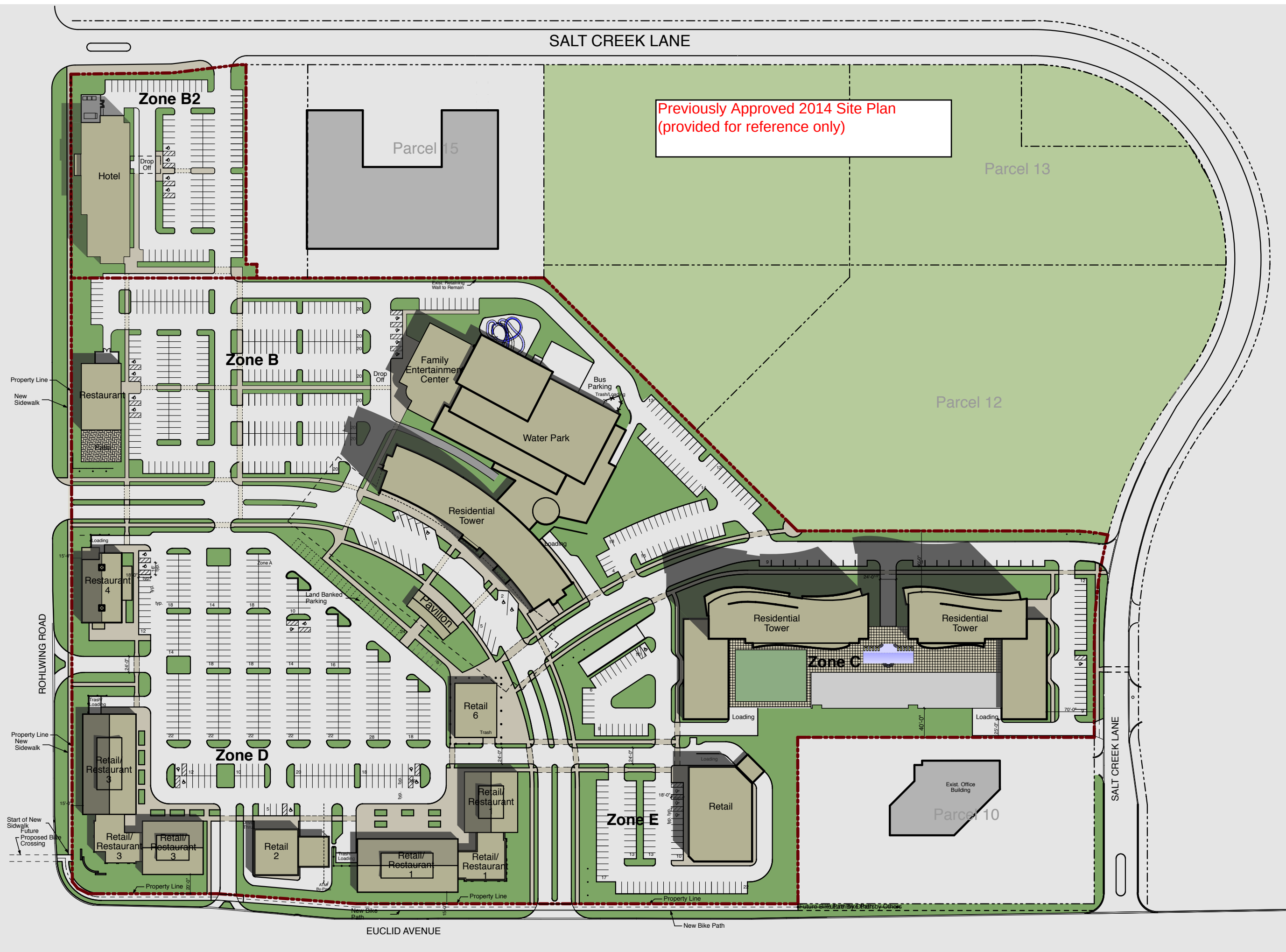
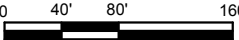
pappageorgehaymes partners  
www.pappageorgehaymes.com

P/H # 132216

These plans are schematic and are subject to further refinement for compliance with code required exiting, life safety improvements and coordination with existing systems.

2/24/14

Overall Site Plan



NOTICE OF  
PUBLIC HEARING  
NOTICE IS HEREBY  
GIVEN THAT THE PLAN  
COMMISSION OF THE  
VILLAGE OF ARLINGTON  
HEIGHTS WILL CONDUCT  
A PUBLIC HEARING ON  
OCTOBER 28, 2015, AT 7:30  
P.M. in the Municipal Build-  
ing, 33 South Arlington  
Heights Road, Arlington  
Heights, Illinois to consider  
Petition No. 15-020, an  
amendment to Ordinances  
#12-006, #12-037, #12-039, #14-  
025 for Arlington Downs  
Planned Unit Development,  
said property located at lo-  
cated at 3400 W. Euclid Ave-  
nue and 3555 W. Salt Creek  
Lane, Arlington Heights, IL,  
legally described as:  
Arlington Downs P.U.D. of  
lots 11, 17, & 18 in Arlington  
Park Office Center Sub. Re-  
corded January 3, 2013 Doc-  
ument 1300334039 and;  
Arlington Downs Two, being  
a resubdivision of lots 1, 2  
and 4 in Arlington Downs,  
being a Planned Unit Deve-  
lopment of part of the north-  
west 1/4 of Section 25 and  
part of the Northeast 1/4 of  
Section 26, Township 42  
North, Range 10, East of the  
Third Principal Meridian,  
According to the Plat of said  
Arlington Downs Two, Re-  
corded October 25, 2013 as  
document 1329839038, in  
Cook County, Illinois, and;  
Lot 16 in Arlington Park Of-  
fice Center, being a subdivi-  
sion of part of the Northwest  
1/4 of Section 25, and part of  
the Northeast 1/4 of Section  
26, Township 42 North,  
range 10, East of the Third  
Principal Meridian, re-  
corded on May 22, 1980, Doc-  
ument Number 25466742, in  
Cook County, Illinois.  
As part of said request the  
petitioner is requesting the  
following variations from  
the Municipal Code:  
• A Variation from Chapter  
28, Section 11.4 Schedule of  
Parking Requirements, to  
allow a reduction in parking  
from 2,453 to 2,021;  
• A Variation from Chapter  
28, Section 5.1-22.1 Condi-  
tions of Use to allow a reduc-  
tion for parking lot setbacks  
from 15 feet to 10 feet along  
Rahlwing Road.  
And other variations as de-  
termined necessary by the  
Plan Commission.  
All persons desiring to be  
heard shall be given the op-  
portunity to be heard.  
Should any individual need  
auxiliary aid or service,  
such as a sign language  
interpreter or materials in  
alternative formats, please  
contact the Health Depart-  
ment at 33 South Arlington  
Heights Road, Arlington  
Heights, Illinois 60005, (847)  
368-5760, TDD# (847) 368-  
5794.

Joe Lorenzini, Chairman  
ARLINGTON HEIGHTS  
PLAN COMMISSION  
Published in Daily Herald  
October 13, 2015 (4421963)

## CERTIFICATE OF PUBLICATION

Paddock Publications, Inc.

# Daily Herald

Corporation organized and existing under and by virtue of the laws of the State of Illinois, DOES HEREBY CERTIFY that it is the publisher of the DAILY HERALD. That said DAILY HERALD is a secular newspaper and has been circulated daily in the Village(s) of Algonquin, Antioch, Arlington Heights, Aurora, Barrington, Barrington Hills, Lake Barrington, North Barrington, South Barrington, Bartlett, Batavia, Buffalo Grove, Burlington, Campton Hills, Carpentersville, Cary, Deer Park, Des Plaines, South Elgin, East Dundee, Elburn, Elgin, Elk Grove Village, Fox Lake, Fox River Grove, Geneva, Gilberts, Grayslake, Green Oaks, Gurnee, Hainesville, Hampshire, Hanover Park, Hawthorn Woods, Hoffman Estates, Huntley, Inverness, Island Lake, Kildeer, Lake Villa, Lake in the Hills, Lake Zurich, Libertyville, Lincolnshire, Lindenhurst, Long Grove, Mt. Prospect, Mundelein, Palatine, Prospect Heights, Rolling Meadows, Round Lake, Round Lake Beach, Round Lake Heights, Round Lake park, Schaumburg, Sleepy Hollow, St. Charles, Streamwood, Tower Lakes, Vernon Hills, Volo, Wauconda, Wheeling, West Dundee, Wildwood, Sugar Grove, North Aurora

County(ies) of Cook, Kane, Lake, McHenry

and State of Illinois, continuously for more than one year prior to the date of the first publication of the notice hereinafter referred to and is of general circulation throughout said Village(s), County(ies) and State.

I further certify that the DAILY HERALD is a newspaper as defined in "an Act to revise the law in relation to notices" as amended in 1992 Illinois Compiled Statutes, Chapter 7150, Act 5, Section 1 and 5. That a notice of which the annexed printed slip is a true copy, was published October 13, 2015 in said DAILY HERALD.

IN WITNESS WHEREOF, the undersigned, the said PADDOCK PUBLICATIONS, Inc., has caused this certificate to be signed by, this authorized agent, at Arlington Heights, Illinois.

PADDOCK PUBLICATIONS, INC.  
DAILY HERALD NEWSPAPERS

BY Danula Baltz  
Authorized Agent

Control # 4421963

RECEIVED

OCT 15 2015

PLANNING & COMMUNITY  
DEVELOPMENT DEPARTMENT





Arlington Park Dr

Cigar Ln

Arlington Park Dr

Salt Creek Ln

Rohlwing Rd

Swan Ln

Arlington Downs  
3400 W. Euclid Ave.  
Prepared by: Planning & Community  
Development Department  
September 2015



**REPORT OF THE PROCEEDINGS OF  
THE PLAT & SUBDIVISION COMMITTEE**  
OF THE VILLAGE OF ARLINGTON HEIGHTS PLAN COMMISSION  
HELD AT VILLAGE HALL ON:

September 9, 2015

**Project Title:** Arlington Downs  
**Address:** 3400 W. Euclid Avenue  
**Petitioner:** Jeffrey Funke  
Funke Architects  
515 Lincoln Ave.  
Winnetka, IL 60093

**Requested Action:**

- Amendment to PUD Ordinances 12-006, 12-039 and 14-025 to allow modifications to the approved Arlington Downs development plan

**Variations Identified:**

- Chapter 28, Section 5.1-22.1, Conditions of Use from the required 15 foot setback for parking lots along Rohlwing Road to allow 10 feet for the parking area, north of Building D1 and from the required 15 foot setback for parking lots along Euclid Avenue to allow 12.4 feet for the parking lot east of Building D3.
- Chapter 28, Section 11.4, Schedule of Parking Requirements from the required 2,453 spaces to allow 2,032 spaces, a deficit of 421 spaces.

**Attendees:** Jeffrey Funke, Funke Architects, Petitioner  
Vince Bertucci, Chi-Arc, Petitioner  
Rick Cavanaugh, Arlington Downs  
Lora Schaeffer, V3 Engineering  
David Lore, Kettlekamp Landscaping  
Lynn Jensen, Plan Commissioner  
Bruce Green, Plan Commissioner  
John Sigalos, Plan Commissioner  
Latika Bhide, Development Planner

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**Project Summary**

The subject site is located at the northeast corner of Euclid Avenue and Rohlwing Road and consists of several land parcels that have a combined area of 24.95 acres (1,086,659 square feet). In 2012, the Village Board of Trustees approved the Arlington Downs mixed use development which included the following:

A master development plan for the Arlington Downs mixed use development that was divided into 5 different use zones; Zones A and C: Residential / Mixed Use, Zone B: Hotel and Entertainment (Water Park), and Zones D and E: Commercial. When combined, the Arlington Downs Mixed Use Development includes:

- 657 luxury apartment units,
- 161 limited service hotel rooms (in two phases),
- The reopening of the water park with a 1,000 person occupancy and a new 10,000 square foot entry addition along the west building elevation.
- 100,750 square feet of commercial/retail space,
- 2,013 parking spaces.

At this time, the petitioner is proposing to move forward with the development of the retail portion of the project located

in Zones D & E. The scope of this proposal includes six new retail buildings and all corresponding site development within Zones D & E. An amendment to the PUD is necessary due to changes in parking, architectural design, modifications to the site plan and building layout and including 3 restaurants in Zone E.

Based on the changes to the proposed plans in Zone D and E, the petitioner is requesting the following amendments to certain conditions of the PUD approval as stipulated in Ordinance #12-006 (Preliminary PUD) , Ordinance #12-039 (Final PUD) and Ordinance #14-025 (PUD Amendment) as follows:

- Ordinance #12-006; The current request would eliminate the conceptual approval for a drive-through bank in Zone D and a drive-through pharmacy in Zone E.
- Ordinance #12-006; The current request is for the conceptual approval of 28,725 SF of restaurant space with 3 restaurants in Zone D and 3 restaurants in Zone E. There is a parking deficit in Zone E. Conceptual approval of restaurants in Zone E is recommended to be subject to meeting parking requirements and obtaining a Special Use for each restaurant.
- Ordinance #12-006; The current request includes Buildings #5 and #6 in Zone D. Staff is recommending that the condition above be modified so that no more than 20,590 SF of non- sales/food and beverage sales tax generators are allowed in Zones D and E combined.
- Site plan modifications, changes in architectural design and building layout and parking and including 3 restaurants in Zone E.

**Meeting Discussion:**

Mr. Bertucci indicated that the developer wishes to proceed forward with all six commercial buildings in Zone D and E, hopefully this Fall. He described the changes to the project including a different architectural style, eliminating the drive through bank and pharmacy, and including medical office in Zone D.

Commissioner Jensen indicated that the previous parking studies were convincing and would like to see the updated parking study for this amendment.

L. Bhide indicated that overall parking is sufficient but staff has some concern with Zone E and having three restaurants there. These restaurants will require a Special Use so once more is known about the type of restaurant and the seating areas, staff will be able to better determine parking needs.

Mr. Cavanaugh indicated that its hard at this point to determine parking needs for Zone E as we don't yet know how the floor space will be layed out and the seating areas. They are looking at Potbelly's and Chipolte.

Commissioner Sigalos thought this was a great project and liked the new style, he shares staffs concern with parking in Zone E so that will need to be closely evaluated as part of the Special Uses. He didn't think that people will park elsewhere on site as its too far and across the main access drive.

Mr. Bertucci indicated that building D4 and D5 near the plaza in front of the existing residential building will include two fine dining restaurants. There is interest from two established restaurants to locate here.

Commissioner Sigalos asked for a status on the hotel?

Mr. Cavanaugh indicated that they are in for permits and would like to begin construction this Fall.

Commissioner Green indicated that he is very supportive of the project. He too has some concern with parking in Zone E as you are not likely to cross over the main access drive for additional parking. Once we have actual plans the numbers will probably not be as signficant so he's not too concerned.

Mr. Bertucci added that one idea on parking is to have designated parking for employees so that they don't park where customers want to park in Zone E. Also seating areas may not be as high as 50% as indicated in the parking studies.

Commissioner Jensen asked for the status of the pharmacy?

Mr. Cavanaugh indicated that they are no longer looking at a pharmacy for the project. They have had a lot of other interest though from restaurants.

Commissioner Green added that he was glad to see that the drive through bank was no longer part of the project.

Commissioner Jensen asked how long it would take to construct Zones D and E?

Mr. Cavanaugh indicated by Fall 2016. He added that Fat Rosies and Devontis were interested in the site. Therefore given the interest from restaurants, they are designed each building to accommodate restaurants.

### **RECOMMENDATION**

The Plat & Sub Committee was overall very supportive of the project and recommended that the Petitioner move forward through the process.

**Bruce Green, Chair**  
**PLAT & SUBDIVISION COMMITTEE**  
**Latika Bhide, Recorder**

## STAFF DESIGN COMMISSION REPORT

### PROJECT INFORMATION:

**Project Name:** Arlington Downs – Retail  
**Project Address:** 3400 W. Euclid Ave.  
**Prepared By:** Steve Hautzinger

**Date Prepared:** August 28, 2015

### PETITIONER INFORMATION:

**DC Number:** 15-110  
**Petitioner Name:** Vince Bertucci  
**Petitioner Address:** ChiArc  
515 Lincoln Ave.  
Winnetka, IL 60093  
**Meeting Date:** September 8, 2015

### Requested Action(s):

1. Approval of the proposed architectural designs for six new retail buildings, landscaping, and site design elements within zones D & E of the Arlington Downs mixed use development.

## ANALYSIS

### Introduction:

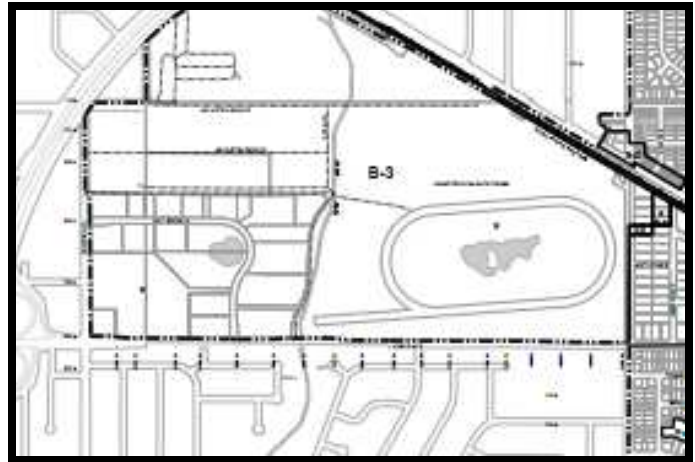
The subject design is being forwarded to the Design Commission for review pursuant to Chapter 6 of the Municipal Code, specifically Section 6-501 (e)(1), which states that the Design Commission "shall review all Plan Commission, Zoning Board of Appeals, Building Permit and Sign Permit applications for new construction and those improvements which affect the architectural design of the building, site improvements or signage to determine whether it meets with the standards, requirements and purposes of the Design Guidelines and Chapter 30, Sign Regulations."

The Arlington Downs mixed use development received Design Commission approval on December 13, 2011 with subsequent amendments. At this time, the petitioner is proposing to move forward with the development of the retail portion of the project located in Zones D & E. The scope of this proposal includes six new retail buildings and all corresponding site development within Zones D & E. The petitioner is seeking approval for the architectural designs, as well as the corresponding landscape design, hardscape design, site lighting design, and site furnishings. This proposal also requires Plan Commission approval for an amendment to the previously approved PUD.

### Site Maps:



**Aerial Map**



**Zoning Map**



### **Design Guidelines:**

Design Guidelines for the overall Arlington Downs development were required as part of the original PUD approval to establish the overall architectural style, theme, and character for the development. The Design Guidelines dated 8/5/13 were approved by the Design Commission on August 13, 2013. The retail portion of the approved Design Guidelines illustrates an architectural theme based on the Arlington Park International Racecourse. Bright white buildings with pitched roofs, cupolas, and shed dormers established an aesthetic similar to Arlington Park. The retail buildings had staggered facades and they wrapped the corners of the site. The design included a gazebo pavilion structure in the plaza across from Tower One.

Other requirements of the Design Guidelines include:

1. Pedestrian friendly site.
2. Generous landscaping and decorative hardscape areas.
3. Attractive buildings and landscape from all directions.
4. Highly detailed facades.
5. Abundant site lighting including: lighted bollards, pedestrian/sidewalk pole fixtures, street/parking pole fixtures, and decorative wayfinding fixtures with banners.
6. Screening of utilities and mechanical equipment.
7. Trash areas screened with materials to match the building.
8. Enhanced landscaping at two main street entries and the southwest corner of site.
9. Landscape is required to meet Village requirements:
  - a. Parkway trees 40' to 60' on center. Internal roads same.
  - b. Paved surfaces to be screened with minimum 3' tall shrub hedge.
  - c. Landscaped parking islands required.
10. Specialty paving is required at major building entries, pedestrian crosswalks, and to unify the retail uses.
11. Site furnishings shall be provided in the pedestrian areas on the parking side of all retail buildings.
12. Sustainable features are encouraged.

The current proposal appears to comply with the spirit of these requirements. However, the overall theme has been changed from the Arlington Park aesthetic to a much more modern style and character.

### **Architectural Design:**

The design of the proposed retail buildings are large linear buildings built of ground face CMU with flat roofs and large planes of galvanized steel wire mesh screen walls in front of the facades. The mesh screen walls are proposed to be covered with vegetation. A large glass curtain wall feature caps one end of each building. The galvanized steel mesh material is continued throughout the site in the form of fencing along the entry drives and crushed concrete filled gabion basket features used for planters, benches, and ground signs.

A modern theme for the retail portion of Arlington Downs is appropriate and consistent with the modern aesthetic of Tower One and the approved Sheraton Hotel building. However, the overall material palette proposed has an industrial feel that the Design Commission should evaluate.

All six retail buildings share the same basic design concept, with slight changes in overall building length and CMU color. Two colors of ground face CMU are proposed, but each building will use just one of the colors. It is recommended that the design of the CMU walls be further developed with additional detailing such as horizontal banding of a contrasting color. The proposed charcoal CMU is quite dark to be used for the entire wall of a building, and it should be considered as an accent color only.

Portions of the architectural renderings inaccurately depict the proposed colors, and they should be adjusted to more accurately represent the design intent. The Design Commission should refer to the actual material samples for the actual color palette.

Items to clarify include:

1. The clear anodized storefronts and roof copings are shown as tan, where they are proposed to be silver.
2. The galvanized steel mesh wall is shown as tan on building D3, and a dark bronze color on buildings D2 & E1. The actual material sample is polished silver. The design intent needs to be clarified. It is recommended that a mock up sample of the mesh wall be provided for review.
3. The drawings are unclear regarding which buildings are proposed to be “charcoal” CMU versus “gray” CMU.
4. The drawings need to clarify where the rust colored corten steel will be used.
5. Building D1 includes a large canopy on the east. The petitioner should clarify the reason for the proposed canopy.

Mechanical Screening. All rooftop and grade mounted mechanical units are required to be fully screened from public view. The petitioner is proposing to locate all of the rooftop mechanical units towards the center of roof so that they can be fully screened by the perimeter parapet walls.

Trash and Utility Screening. The trash and utility areas are proposed to be internal to the buildings, and are nicely incorporated into the design of the buildings. All utility equipment shall be required to be installed within the designated utility areas.

**Site Design Elements:** The site design elements of this proposal need to be further developed and documented to clarify the design intent.

Site Design:

1. The aerial rendering of the overall site illustrated on page H1 depicts lively pedestrian plazas with outdoor dining on the south side of the retail buildings facing Euclid Avenue. This suggests lively retail storefronts facing the street. However, the site and landscape plans do not include pedestrian areas on the south side of the buildings which suggests that this will be the back side of the retail buildings. This could result in dead, blacked out storefronts. The view of the development from Euclid and Rohlwing will be the primary view corridors for this development, so it is important to evaluate this detail to ensure that all sides of the retail buildings will look like fronts.
2. The proposed pedestrian walkways range from 12.7-14.2 feet in front of the retail buildings. The retail site plan in the Design Guidelines included generous pedestrian walkways ranging from 25–60 feet. The required setback along Euclid and Rohlwing is 15 feet. Consider reducing the building setback to enlarge the pedestrian walkways.
3. The site plan indicates a row of dead end parking along the main entry drive from Euclid Avenue. Per the Design Guidelines, the main entry drives are required to have enhanced landscape features. The proposed dead end parking should be omitted in this area to allow more open space for an abundance of landscaping.

Landscape, Site Furnishings, and Signage:

1. The “Site Planting” and “Furniture-Finishes” character images represent some interesting landscaping schemes. However, detailed landscape and site furnishings plans are required to show where and how these various options will be used.
  - a. Detailed landscape plans are required with actual plans materials specified.
    - i. Along Euclid and Rohlwing ‘Long Grass’ is proposed. Incorporate additional landscaping that consists of a mix of trees, shrubs and perennials. Per the Design Guidelines, ‘the foundation areas around the buildings will be planted with a mixture of trees, shrubs and perennials to complement the architecture.
  - b. Site furnishings are required on the parking side of all retail buildings. Site furnishing plans are required with manufacturer cut sheets for all proposed site furnishings.
2. The service areas and drive aisles along Euclid are required to be fully screened with walls and/or landscaping.

3. The steel mesh building walls are illustrated with vegetation growing on them. Planters need to be shown to support the vegetation. Vines may be difficult to establish. The appearance of the mesh walls needs to be considered without any vegetation.
4. Shade trees are recommended along the widened pedestrian storefront walks.
5. The proposed horse sculptures to be located along the Euclid parkway are a fun landscape feature to help give this development a unique identity. However, more detail is required for review, such as the size and material proposed for the sculptures. In the past, the Design Commission has reviewed requests for public art, such as horse sculptures, so it is recommended that this item return to the Design Commission at a future date for a more detailed review.
6. The gabion basket features are proposed to be filled with crushed concrete. It is recommended that a stone with a variety of warmer colors to complement the building material palette be used.
7. A crushed concrete filled gabion basket wall is proposed to face the street intersection at Euclid and Rohlwing. This feature lacks interest and requires further design development. The proposed "Arlington Downs" signage is unremarkable and requires further design development. "Village of Arlington Heights" signage should be incorporated into this feature. The proposed electronic LED sign is not allowed. Separate review is required for all signage.

#### Hardscape:

1. The Civil site plans indicate concrete sidewalks and striped crosswalks. The renderings show various colored pavements and pavers. Detailed hardscape plans are required to clarify the design intent. Specialty paving is required at major building entries, pedestrian crosswalks, and to unify the retail uses. The crosswalks installed as part of Tower One are just painted stripes, which does not comply with this requirement.
  - a. The checkerboard crosswalk pattern shown in the photo on page I-12 is discouraged.
2. The renderings indicate detailed plazas with intricate paving patterns, planters, and fountains. Detailed site plans are required to clarify the design intent for the plazas.

#### Site Lighting:

1. Per the approved Design Guidelines, pedestrian poles and bollard lighting is required along the retail building storefronts. Additional pedestrian poles and bollard lights must be added to the proposed plans.
2. The proposed banners on the pedestrian light poles are a nice feature to add interest to the overall retail center. However, per the sign code, the lower banner arm is required to be at least 8 feet above pedestrian areas, and light poles with banners are required to have a 100 foot separation. A sign variation may be required to allow the quantity of banners proposed.
3. More detail is required regarding the proposed architectural building accent lighting.

**Sustainability:** The extensive amount of sustainable design features as outlined on page O-1 are encouraged and appreciated.

## **RECOMMENDATION:**

It is recommended that the Design Commission **continue** the request for approval of the proposed architectural designs for six new retail buildings, landscaping, and site design elements within zones D & E of the Arlington Downs mixed use development located at 3400 W. Euclid Avenue to allow time for further design development and to more clearly document the design intent. This recommendation is based on the plans dated 8/12/15 and received 9/3/15, Design Commission recommendations, compliance with all applicable Federal, State, and Village codes regulations and policies, the issuance of all required permits, and resolution of the following:

1. This review deals with architectural design only and should not be construed to be an approval of, or to have any other impact on, any other zoning and/or land use issues or decisions that stem from zoning, sign code or building or any other reviews. In addition

to the normal technical review, permit drawings will be reviewed for consistency with the Design Commission and any other Commission or Board approval conditions. It is the architect/homeowner/builder's responsibility to comply with the Design Commission approval and ensure that building permit plans and sign permit plans comply with all zoning code, building code and sign code requirements.

2. Signage is not included in this review and all signage will be required to comply with code, Chapter 30, or prior stipulations

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August 28, 2015

Steve Hautzinger AIA, Design Planner

c: Charles Witherington Perkins, Director of Planning and Community Development, Bill Enright, Deputy Director Planning, Latika Bhide, Development Planner, Petitioner, DC File 15-110

**APPROVED**  
**MINUTES OF**  
**THE VILLAGE OF ARLINGTON HEIGHTS**  
**DESIGN COMMISSION MEETING**  
**HELD AT THE ARLINGTON HEIGHTS MUNICIPAL BUILDING**  
**33 S. ARLINGTON HEIGHTS RD.**  
**SEPTEMBER 8, 2015**

**Chair Eckhardt** called the meeting to order at 6:30 p.m.

Members Present: Ted Eckhardt, Chair  
John Fitzgerald  
Jonathan Kubow  
Anthony Fasolo

Members Absent: Alan Bombick

Also Present: Brian Hyde, Greenscape Homes for *1013 N. Beverly Ln.*  
Linda & Martin O'Brien, Owners of *903 E. Crabtree Dr.*  
Tiana Brazzale & Paul Balga, Owners of *905 S. Evergreen Ave.*  
Keith Ginnodo, Kingsley Ginnodo Architects for *905 S. Evergreen Ave.*  
Kirsten Kingsley, Kingsley Ginnodo Architects for *905 S. Evergreen Ave.*  
Katie & Chris Karsten, Owners of *1216 E. Mayfair Rd.*  
Jereme Smith, Design First for *1216 E. Mayfair Rd.*  
Jeff Funke, Spring Bank Real Estate Group and Funk Architects for  
*Arlington Downs*  
Ryan Kettelkamp, Landscape Architect for *Arlington Downs*  
Steve Hautzinger, Staff Liaison

**REVIEW OF MEETING MINUTES FROM AUGUST 25, 2015**

**A MOTION WAS MADE BY COMMISSIONER KUBOW, SECONDED BY COMMISSIONER FITZGERALD, TO APPROVE THE MEETING MINUTES OF AUGUST 25, 2015. ALL WERE IN FAVOR. THE MOTION CARRIED.**

## ITEM 5. COMMERCIAL REVIEW

### DC#15-110 – Arlington Downs – 3400 W. Euclid Ave. – Retail Development

**Commissioner Fasolo** recused himself from the discussion because of his previous involvement with the project, and left the meeting.

**Mr. Jeff Funke**, representing *Spring Bank Real Estate Group* and *Funke Architects*, **Mr. Ryan Kettelkamp**, the landscape architect, were present on behalf of the project.

**Mr. Hautzinger** presented Staff comments. The Arlington Downs mixed use development received Design Commission approval on December 13, 2011 with subsequent amendments. At this time, the petitioner is proposing to move forward with the development of the retail portion of the project located in Zones D & E. The scope of this proposal includes six new retail buildings and all corresponding site development within Zones D & E. The petitioner is seeking approval for the architectural designs, as well as the corresponding landscape design, hardscape design, site lighting design, and site furnishings. This proposal also requires Plan Commission approval for an amendment to the previously approved PUD.

The Arlington Downs Design Guidelines were presented to the commissioners, which were required as part of the original PUD approval to establish the overall architectural style, theme, and character for the development. The Design Guidelines dated 8/5/13 were approved by the Design Commission on August 13, 2013. The retail portion of the approved Design Guidelines illustrates an architectural theme based on the Arlington Park International Racecourse. Bright white buildings with pitched roofs, cupolas, and shed dormers established an aesthetic similar to Arlington Park. The retail buildings had staggered facades and they wrapped the corners of the site. The design included a gazebo pavilion structure in the plaza across from Tower One. Other requirements of the Design Guidelines were also reviewed. The current proposal appears to comply with the spirit of these requirements; however, the overall theme has been changed from the Arlington park aesthetic to a much more modern style and character.

With regards to the architectural design, **Mr. Hautzinger** stated that the renderings really tell the story. A modern theme for the retail portion is appropriate and consistent with the modern aesthetic of Tower One and the approved Sheraton Hotel building. However, the commissioners should evaluate the overall material palette proposed, which has an industrial feel. All six retail buildings share the same basic design concept, with slight changes in overall building length and CMU color. It is recommended that the design of the CMU walls be further developed with additional detailing such as horizontal banding of a contrasting color, and due to the dark color of the proposed charcoal CMU, it is recommended that this color be considered as an accent color only.

**Mr. Hautzinger** pointed out that portions of the architectural renderings inaccurately depict the proposed colors and they should be adjusted to more accurately represent the design intent. Items to clarify include:

1. The clear anodized storefronts and roof copings are shown as tan, where they are proposed to be silver.
2. The galvanized steel mesh wall is shown as tan on building D3, and a dark bronze color on buildings D2 & E1. The actual material sample is polished silver. The design intent needs to be clarified. It is recommended that a mock up sample of the mesh wall be provided for review.
3. The drawings are unclear regarding which buildings are proposed to be “charcoal” CMU versus “gray” CMU.
4. The drawings need to clarify where the rust colored corten steel will be used.
5. Building D1 includes a large canopy on the east. The petitioner should clarify the reason for the proposed canopy.

In regards to the site design, the site design elements of this proposal need to be further developed and documented to clarify the design intent, such as the following:

#### Site Design:

1. The aerial rendering of the overall site illustrated on page H1 depicts lively pedestrian plazas with outdoor dining on the south side of the retail buildings facing Euclid Avenue. This suggests lively retail storefronts facing the street. However, the site and landscape plans do not include pedestrian areas on the south side of the buildings which suggests that this will be the back side of the retail buildings. This could result in dead, blacked out storefronts. The view of the development from Euclid and Rohlwing will be the primary view corridors for this development, so it is important to evaluate this detail to ensure that all sides of the retail buildings will look like fronts.
2. The proposed pedestrian walkways range from 12.7-14.2 feet in front of the retail buildings. The retail site plan in the Design Guidelines included generous pedestrian walkways ranging from 25–60 feet. The required setback along Euclid and Rohlwing is 15 feet. Consider reducing the building setback to enlarge the pedestrian walkways.
3. The site plan indicates a row of dead end parking along the main entry drive from Euclid Avenue. Per the Design Guidelines, the main entry drives are required to have enhanced landscape features. The proposed dead end parking should be omitted in this area to allow more open space for an abundance of landscaping.

#### Landscape, Site Furnishings, and Signage:

1. The “Site Planting” and “Furniture-Finishes” character images represent some interesting landscaping schemes; however, detailed landscape and site furnishings plans are required to show where and how these various options will be used.
  - a. Detailed landscape plans are required with actual plant materials specified.
    - Along Euclid and Rohlwing ‘Long Grass’ is proposed. Incorporate additional landscaping that consists of a mix of trees, shrubs and perennials. Per the Design Guidelines, ‘the foundation areas around the buildings will be planted with a mixture of trees, shrubs and perennials to complement the architecture.’
  - b. Site furnishings are required on the parking side of all retail buildings. Site furnishing

plans are required with manufacturer cut sheets for all proposed site furnishings.

2. The service areas and drive aisles along Euclid are required to be fully screened with walls and/or landscaping.
3. The steel mesh building walls are illustrated with vegetation growing on them. Planters need to be shown to support the vegetation. Vines may be difficult to establish. The appearance of the mesh walls needs to be considered without any vegetation.
4. Shade trees are recommended along the widened pedestrian storefront walks.
5. The proposed horse sculptures to be located along the Euclid parkway are a fun landscape feature to help give this development a unique identity. However, more detail is required for review, such as the size and material proposed for the sculptures. In the past, the Design Commission has reviewed requests for public art, such as horse sculptures, so it is recommended that this item return to the Design Commission at a future date for a more detailed review.
6. The gabion basket features are proposed to be filled with crushed concrete. It is recommended that a stone with a variety of warmer colors to complement the building material palette be used.
7. A crushed concrete filled gabion basket wall is proposed to face the street intersection at Euclid and Rohlwing. This feature lacks interest and requires further design development. The proposed "Arlington Downs" signage is unremarkable and requires further design development. "Village of Arlington Heights" signage should be incorporated into this feature. The proposed electronic LED sign is not allowed. Separate review is required for all signage.

#### Hardscape:

1. The Civil site plans indicate concrete sidewalks and striped crosswalks. The renderings show various colored pavements and pavers. Detailed hardscape plans are required to clarify the design intent. Specialty paving is required at major building entries, pedestrian crosswalks, and to unify the retail uses. The crosswalks installed as part of Tower One are just painted stripes, which does not comply with this requirement.
  - a. The checkerboard crosswalk pattern shown in the photo on page I-12 is discouraged.
2. The renderings indicate detailed plazas with intricate paving patterns, planters, and fountains. Detailed site plans are required to clarify the design intent for the plazas.

#### Site Lighting:

1. Per the approved Design Guidelines, pedestrian poles and bollard lighting is required along the retail building storefronts. Additional pedestrian poles and bollard lights must be added to the proposed plans.
2. The proposed banners on the pedestrian light poles are a nice feature to add interest to the overall retail center. However, per the sign code, the lower banner arm is required to be at least 8 feet above pedestrian areas, and light poles with banners are required to have a 100 foot separation. A sign variation may be required to allow the quantity of banners proposed.
3. More detail is required regarding the proposed architectural building accent lighting.



Sustainability:

The extensive amount of sustainable design features outlined are encouraged and appreciated.

**Mr. Hautzinger** concluded by stating that Staff recommends the project be continued until some of the previous items can be further clarified. He also pointed out that the petitioner has an updated presentation for tonight, which may respond to some of the comments in the Staff report.

**Mr. Funke** gave an overhead presentation and said that they have been working on the 30-acre site for the last year and a half, trying to find a way to connect people and bring people closer together with the buildings, sidewalks and landscaping. The prominent corner at Euclid and Rohlwing is critical to how they set the stage for the retail development. Focal points were created to connect the tower to the corner at Euclid and Rohlwing with a pedestrian friendly plaza in front of the tower, a water feature, outdoor pavilion, and simple building architecture that creates and emphasizes the plazas and the landscape to bring people through to the retail landscape. Buildings E1 and D3 activate the corner with an entrance road created off Euclid, and screen walls were designed that create a trellis/canopy system that activates during the day as well as at night, and screen not only the trash enclosure area but also allow for outdoor space. The proposed retail building design is a simple rectangular design with trash and electrical rooms brought inside, which allows for more excitement for the screen walls and the end caps of the buildings. The two smaller buildings in front of the tower are also a simple design, with trash enclosures inside and an exciting glass wall/terrace feature.

**Mr. Funke** said that from an elevation perspective, the buildings are designed to be four-sided. However, they do anticipate retailers to focus their tenant space entrances on the north side of the buildings. They are not opposed to increasing the width of the sidewalks on the north side of the buildings along Euclid Avenue

**Mr. Kettelkamp** gave an overhead presentation of the proposed landscaping, plaza spaces, entry signage, site lighting, and site furnishings being proposed in each zone of the overall site. This includes enhanced paving in the pedestrian crosswalks, expanded green zones on the south side along Euclid and on the west side along Rohlwing Road, and a linear bike path that continues along Euclid with designated nodes for bike parking upon entry into the site. Trees will be planted in a grid “orchard” pattern to reinforce the architecture and allow the tree plantings to speak to the architecture. The lighting plan was also presented which introduces a pedestrian level of lighting, which is a continuation of the types and fixtures that exist on the site, as well as lighting on the screen walls. A series of mesh fencing with vines will help screen the parking, and a slight berm along Euclid Avenue will screen the restaurant drive thru lane. Proposed planting images were also shown that included a variety of vines for the screen walls, a hierarchy of tall grasses, tree hedging, ornamental trees that replicate the look of an orchard, and a layering of plantings to complement the existing plants on the site. The front corner of the site will be transformed to create a very memorable experience with a combination of signage, grasses, flowering perennials, lighting, site furnishings and sculptural elements. **Mr.**

**Funke** also presented and reviewed the material samples and colors being proposed. He clarified that the mesh building walls will be galvanized steel, not stainless steel as shown on the sample board, and the corten steel shown on the sample board has been omitted.

**Mr. Hautzinger** reiterated that the commissioners should decide if they feel there is enough information provided tonight to make a motion to approve the retail portion of this development. Staff felt that landscape and site design were not quite at a level of detail for approval, and he added that previous portions of this development were approved at a higher level of design development with specific details called out such as specific plantings. Staff felt the commissioners should provide feedback tonight as to whether or not there were any large areas that were heading in the wrong direction, both architecturally and site design.

**Commissioner Fitzgerald** liked the overall plan being proposed, although it was quite a departure from what was originally presented. He was in favor of the layout, the outdoor areas for people to gather, the screen walls with plantings, the different colors within the buildings, and the gabion walls that are very cool. He felt the landscaping looked preliminary at this level, although the basics look good, and he was not opposed to Staff approving the final details. He also liked the pedestrian paving treatments.

**Commissioner Kubow** liked the architecture being proposed and how the petitioner focused on the main entrance that was being accentuated at the prominent corner at Rohlwing and Euclid. He also liked how the mesh screen walls extend past the buildings. He understood the reason for no parking on the south side of the buildings along Euclid and he asked if efforts would be made to activate the south side of the retail buildings, such as with outdoor seating as shown in the rendering. **Mr. Funke** replied that the glass storefronts facing south will not be spandrel glass but might be used as storefront display areas. Outdoor seating would depend on each tenant; however, they intend on being as adaptive to each tenant as possible. In terms of the landscaping, **Commissioner Kubow** liked the concept of the long grass and the introduction of a berm along Euclid, which creates some intrigue within the development to draw people in. He felt the prominent corner was going in a good direction and he hoped to see the concept taken further, although he wondered about the gabion wall. **Mr. Funke** explained that the gabion wall will have a three dimensional quality with the different rocks creating shadows, which will then be lit at night.

**Chair Eckhardt** felt the development was very monumental, completely different than the white cupola design of the racetrack, which he felt was wise to move away from. He felt the 6 end cap pavilions were fantastic; however, he questioned if there were too many and whether the development was big enough to create sub-areas. He also referred to the proposed screen walls with plantings that were made into major elements of the facades and he felt the proposed vegetation was not realistic. Because the building architecture is well designed and so strong, he was concerned about the appropriateness of the end caps all being the same and how a tenant might want to modify it for their specific space. In terms of the proposed materials, **Chair Eckhardt** had no issue with the big blank walls, which help the signable area.

He felt the project was going in the right direction, although he wondered about the repetitiveness of the building design instead of each building having its own unique design.

**Chair Eckhardt** asked Staff for clarification regarding approval tonight and whether or not the individual buildings would return for another review. **Mr. Hautzinger** explained that the petitioner is seeking approval tonight for the architectural designs for all six retail buildings, as well as for all of the site design elements, and if approved, the individual buildings would not return for another review. **Chair Eckhardt** asked if there was enough detail being presented tonight. **Mr. Hautzinger** felt the petitioner answered and clarified many questions tonight, and there was adequate architectural details being shown tonight for an approval; however, he was not as comfortable with the amount of site design details presented tonight, which is a huge component of this development.

**Chair Eckhardt** asked about any Plan Commission review process for this portion of the project and **Mr. Hautzinger** explained that the petitioner will need to amend the PUD that was previously approved for the project because the layout of the buildings, overall square footage of the buildings, and parking has changed; however, the changes are mostly consistent with the original PUD approval.

**Mr. Hautzinger** also said that Staff shares the same concerns stated by Chair Eckhardt about the repetition of the building design, and he referred to the small, modern Esplanade Center located directly east of the site that has a lot of variety. He added that architectural lighting is a key component for the development, which he felt needed to be further clarified with regards to the mesh walls that are a huge feature within the development and depicted in different ways in the renderings. Staff suggested that a larger scale mock-up sample of the mesh wall be considered. **Mr. Funke** clarified that the mesh walls are intended to all be the same. In response to the reference made to the Esplanade, he said that they want to create simplicity with the buildings, and changing colors, shapes, and parapet height will lose its sense of place and take away from the cleanness of the building.

**Chair Eckhardt** stated that all 3 commissioners must vote in favor for the project for it to be approved tonight, since one commissioner is not here and another commissioner recused himself.

**Mr. Funke** also clarified that the mesh panels were revised to be a tighter weave and will consist of galvanized steel with a galvanized 1 x 1 mesh panel; and the vines have been omitted from the proposal. **Chair Eckhardt** cautioned the petitioner about wind noise with the mesh panels.

**Mr. Hautzinger** asked the commissioners if they were comfortable with the charcoal grey CMU color being proposed for the entire wall, which Staff felt was too dark and more appropriate as an accent color. Staff also asked for clarification on the alternating grey colors being proposed for the buildings. **Mr. Funke** replied that the building colors would be switched up with every other one being light grey and the other being dark grey, and some are larger, some are smaller, and the mesh panels slide in different ways to screen certain elements. **Mr. Hautzinger**

reiterated that there was still confusion about many of site design items and that the site plans need to be further developed before final approval can be given.

**Chair Eckhardt** asked Commissioner Fitzgerald for feedback on the current status of the landscape architecture. **Commissioner Fitzgerald** said there was nothing in the entire presentation that he did not like and he was fine with Staff approving the final details; however, if anything substantially changes from what is being shown tonight, then it should be brought back to the commissioners. **Commissioner Kubow** agreed.

**Mr. Hautzinger** asked for clarification from the commissioners that they felt the building design and site design for the development should be in substantial compliance with the renderings shown tonight, and the commissioners confirmed this. **Mr. Funke** clarified that from a plaza perspective, some of the details in the renderings vary slightly from what is actually being proposed; however, overall, the elements shown in the rendering will be incorporated into the final design. There will be more green space than what is shown in the rendering and a different paving pattern.

**A MOTION WAS MADE BY COMMISSIONER FITZGERALD, SECONDED BY COMMISSIONER KUBOW, TO APPROVE THE ARCHITECTURAL DESIGNS FOR SIX NEW RETAIL BUILDINGS, LANDSCAPING, AND SITE DESIGN ELEMENTS WITHIN ZONES D & E OF THE ARLINGTON DOWNS MIXED USE DEVELOPMENT LOCATED AT 3400 W. EUCLID AVENUE, AS SUBMITTED, AND WITH REVISIONS SUBMITTED ON 9/8/15. THIS RECOMMENDATION IS BASED ON THE PLANS DATED 8/12/15 AND RECEIVED 9/3/15, REVISED PLANS RECEIVED 9/8/15, DESIGN COMMISSION RECOMMENDATIONS, COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE, AND VILLAGE CODES, REGULATIONS, AND POLICIES, THE ISSUANCE OF ALL REQUIRED PERMITS, AND RESOLUTION OF THE FOLLOWING:**

- 1. APPROVAL OF THE OVERALL ARCHITECTURAL THEME AND SITE DESIGN CONCEPTS PRESENTED TONIGHT, WITH A REQUIREMENT THAT STAFF REVIEW AND APPROVE THE FINAL DETAILS WHEN THEY ARE DEVELOPED, WITH ANY DRAMATIC CHANGES OR INCORRECT IMPLEMENTATION TO BE BROUGHT BACK TO THE DESIGN COMMISSION.**
- 2. THIS REVIEW REPRESENTS DESIGN APPROVAL ONLY AND SHOULD NOT BE CONSTRUED TO BE AN APPROVAL OF, OR TO HAVE ANY OTHER IMPACT ON, ANY OTHER ZONING AND/OR LAND USE ISSUES OR DECISIONS THAT STEM FROM ZONING, SIGN CODE OR BUILDING OR ANY OTHER REVIEWS.**
- 3. IT IS THE PETITIONER'S RESPONSIBILITY TO SUBMIT THE APPROPRIATE PERMIT APPLICATION(S) TO THE BUILDING DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO PROCEEDING WITH ANY WORK. IN ADDITION TO THE NORMAL TECHNICAL REVIEW, PERMIT DRAWINGS WILL BE REVIEWED FOR CONSISTENCY WITH THE DESIGN COMMISSION AND ANY OTHER COMMISSION OR BOARD APPROVAL CONDITIONS. IT IS THE PETITIONER'S RESPONSIBILITY TO INCORPORATE ALL REQUIREMENTS LISTED ON THE CERTIFICATE OF APPROPRIATENESS INTO THE PERMIT DRAWINGS, AND TO ENSURE THAT BUILDING PERMIT PLANS AND SIGN PERMIT PLANS COMPLY WITH ALL ZONING CODE, BUILDING CODE AND SIGN CODE REQUIREMENTS.**

**Chair Eckhardt** was okay with the very broad motion tonight; however, he encouraged the petitioner to not lose any of the charm that was presented tonight through the renderings when the final details are submitted to Staff for final approval. Staff needs to be convinced that the renderings being shown tonight are the true direction of the final design.

**FITZGERALD, AYE; KUBOW, AYE; ECKHARDT, AYE; FASOLO, RECUSE.  
ALL WERE IN FAVOR. MOTION CARRIED.**



ARLINGTON DOWNS RETAIL  
3400 W EUCLID AVENUE

New Construction for Six Retail Buildings  
and Development of Related Property  
Arlington Heights, Illinois 60005

OWNER:  
Arlington Downs WPH, LLC.  
Arlington Downs Commercial, LLC.  
PSB / Euclid, LLC.

ARCHITECT:  
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ARCHITECT:  
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CIVIL CONSULTANT:  
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P: 630.729.6216

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Kettelkamp & Kettelkamp  
1315 Sherman Place Evanston, IL 60201  
P: 847.905.1281

PLAN COMMISSION APPLICATION REV. 1  
for PUD AMENDMENT 10.07.15

| 3400 W EUCLID AVENUE - DRAWING INDEX |                                                 | DESIGN<br>COMMISSION<br>SUBMITTAL | PLAN<br>COMMISSION<br>APPLICATION | PLAN<br>COMMISSION<br>APPLICATION<br>REVISION 1 |
|--------------------------------------|-------------------------------------------------|-----------------------------------|-----------------------------------|-------------------------------------------------|
| SHT NO.                              | SHEET DESCRIPTION                               |                                   |                                   |                                                 |
|                                      |                                                 |                                   | 9/3/2015                          | 10/7/2015                                       |
| GENERAL INFORMATION                  |                                                 |                                   |                                   |                                                 |
| A                                    | TITLE/COVER SHEET                               |                                   | X                                 | X                                               |
| A0.10                                | RENDERING                                       |                                   | X                                 | X                                               |
| A0.20                                | PLAT OF SURVEY                                  |                                   | X                                 | X                                               |
| A0.30                                | SUBJECT PROPERTY MAP w/ ADDRESS & PIN           | X                                 | X                                 | X                                               |
|                                      |                                                 |                                   |                                   |                                                 |
| CIVIL                                |                                                 |                                   |                                   |                                                 |
|                                      |                                                 |                                   |                                   |                                                 |
| C3.0                                 | OVERALL SITE PLAN                               |                                   | X                                 | X                                               |
| C3.1                                 | LAYOUT AND PAVING PLAN - SOUTH                  |                                   | X                                 | X                                               |
| C3.2                                 | LAYOUT AND PAVING PLAN - NORTH                  |                                   | X                                 | X                                               |
| C4.1                                 | GRADING PLAN - SOUTH                            |                                   | X                                 | X                                               |
| C4.2                                 | GRADING PLAN - NORTH                            |                                   | X                                 | X                                               |
| C5.0                                 | OVERALL UTILITY PLAN                            |                                   |                                   | X                                               |
| C5.1                                 | UTILITY PLAN - SOUTH                            |                                   | X                                 | X                                               |
| C5.2                                 | UTILITY PLAN - NORTH                            |                                   | X                                 | X                                               |
|                                      |                                                 |                                   |                                   |                                                 |
| LANDSCAPE ARCHITECTURE               |                                                 |                                   |                                   |                                                 |
|                                      |                                                 |                                   |                                   |                                                 |
| L1.0                                 | OVERALL SITE LANDSCAPE PLAN / TREE PRESERVATION | X                                 | X                                 | X                                               |
| L1.1                                 | LANDSCAPE PLAN - SOUTH                          |                                   | X                                 | X                                               |
| L2.1                                 | LANDSCAPE PLAN - NORTH PLAZA                    |                                   | X                                 | X                                               |
| L2.2                                 | LANDSCAPE PLAN - ZONE E                         |                                   | X                                 | X                                               |
| L2.3                                 | LANDSCAPE PLAN - SOUTH PLAZA                    |                                   | X                                 | X                                               |
| L3.0                                 | LANDSCAPE DETAILS                               |                                   | X                                 | X                                               |
| L3.1                                 | LANDSCAPE DETAILS                               |                                   | X                                 | X                                               |
| L3.2                                 | LANDSCAPE DETAILS                               |                                   |                                   | X                                               |
|                                      |                                                 |                                   |                                   |                                                 |
| ARCHITECTURAL                        |                                                 |                                   |                                   |                                                 |
|                                      |                                                 |                                   |                                   |                                                 |
|                                      | SITE PLANS                                      |                                   |                                   |                                                 |
|                                      |                                                 |                                   |                                   |                                                 |
| A1.10                                | SITE PLAN w/ LIGHTING                           | X                                 | X                                 | X                                               |
|                                      |                                                 |                                   |                                   |                                                 |
|                                      | FLOOR PLANS                                     |                                   |                                   |                                                 |
|                                      |                                                 |                                   |                                   |                                                 |
| A2.10                                | BUILDING 'D1' GROUND FLOOR AND ROOF PLANS       |                                   | X                                 | X                                               |
| A2.20                                | BUILDING 'D2' GROUND FLOOR AND ROOF PLANS       |                                   | X                                 | X                                               |
| A2.30                                | BUILDING 'D3' GROUND FLOOR AND ROOF PLANS       |                                   | X                                 | X                                               |
| A2.40                                | BUILDING 'D4' GROUND FLOOR AND ROOF PLANS       |                                   | X                                 | X                                               |
| A2.50                                | BUILDING 'D5' GROUND FLOOR AND ROOF PLANS       |                                   | X                                 | X                                               |
| A2.60                                | BUILDING 'E1' GROUND FLOOR AND ROOF PLANS       |                                   | X                                 | X                                               |
| A2.70                                | BUILDING PLAN DETAILS                           |                                   |                                   | X                                               |
|                                      |                                                 |                                   |                                   |                                                 |
|                                      | ELEVATIONS, SECTIONS                            |                                   |                                   |                                                 |
|                                      |                                                 |                                   |                                   |                                                 |
| A3.10                                | BUILDING 'D1' EXTERIOR ELEVATIONS               |                                   | X                                 | X                                               |
| A3.20                                | BUILDING 'D2' EXTERIOR ELEVATIONS               |                                   | X                                 | X                                               |
| A3.30                                | BUILDING 'D3' EXTERIOR ELEVATIONS               |                                   | X                                 | X                                               |
| A3.40                                | BUILDING 'D4' EXTERIOR ELEVATIONS               |                                   | X                                 | X                                               |
| A3.50                                | BUILDING 'D5' EXTERIOR ELEVATIONS               |                                   | X                                 | X                                               |
| A3.60                                | BUILDING 'E1' EXTERIOR ELEVATIONS               |                                   | X                                 | X                                               |
|                                      |                                                 |                                   |                                   |                                                 |
|                                      | BUILDING SECTIONS                               |                                   |                                   |                                                 |
|                                      |                                                 |                                   |                                   |                                                 |
| A4.10                                | BUILDING SECTIONS                               |                                   | X                                 | X                                               |
| A4.20                                | BUILDING PARAPET SECTION                        |                                   |                                   | X                                               |
|                                      |                                                 |                                   |                                   |                                                 |
|                                      | WALL SECTIONS                                   |                                   |                                   |                                                 |
|                                      |                                                 |                                   |                                   |                                                 |
| A5.20                                | SCREEN WALL DETAILS                             |                                   |                                   | X                                               |
| A5.21                                | SCREEN WALL DETAILS                             |                                   |                                   | X                                               |
|                                      |                                                 |                                   |                                   |                                                 |





RENDERING SW CORNER

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OWNER(S):  
ARLINGTON DOWNS WPH, LLC  
ARLINGTON DOWNS COMMERCIAL, LLC  
PSB / EUCLID, LLC  
  
2920 W. EUCLID AVENUE  
ARLINGTON HEIGHTS IL 60005

PLAN  
COMMISSION  
APPLICATION

|     |                                             |
|-----|---------------------------------------------|
| △   |                                             |
| △   |                                             |
| △   |                                             |
| △   |                                             |
| △   |                                             |
| 2   | 09.03.15 PLAN COMMISSION APPLICATION REV. 1 |
| 1   | 09.03.15 PLAN COMMISSION APPLICATION        |
| NO. | DATE DESCRIPTION                            |

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SHEET TITLE:

RENDERING

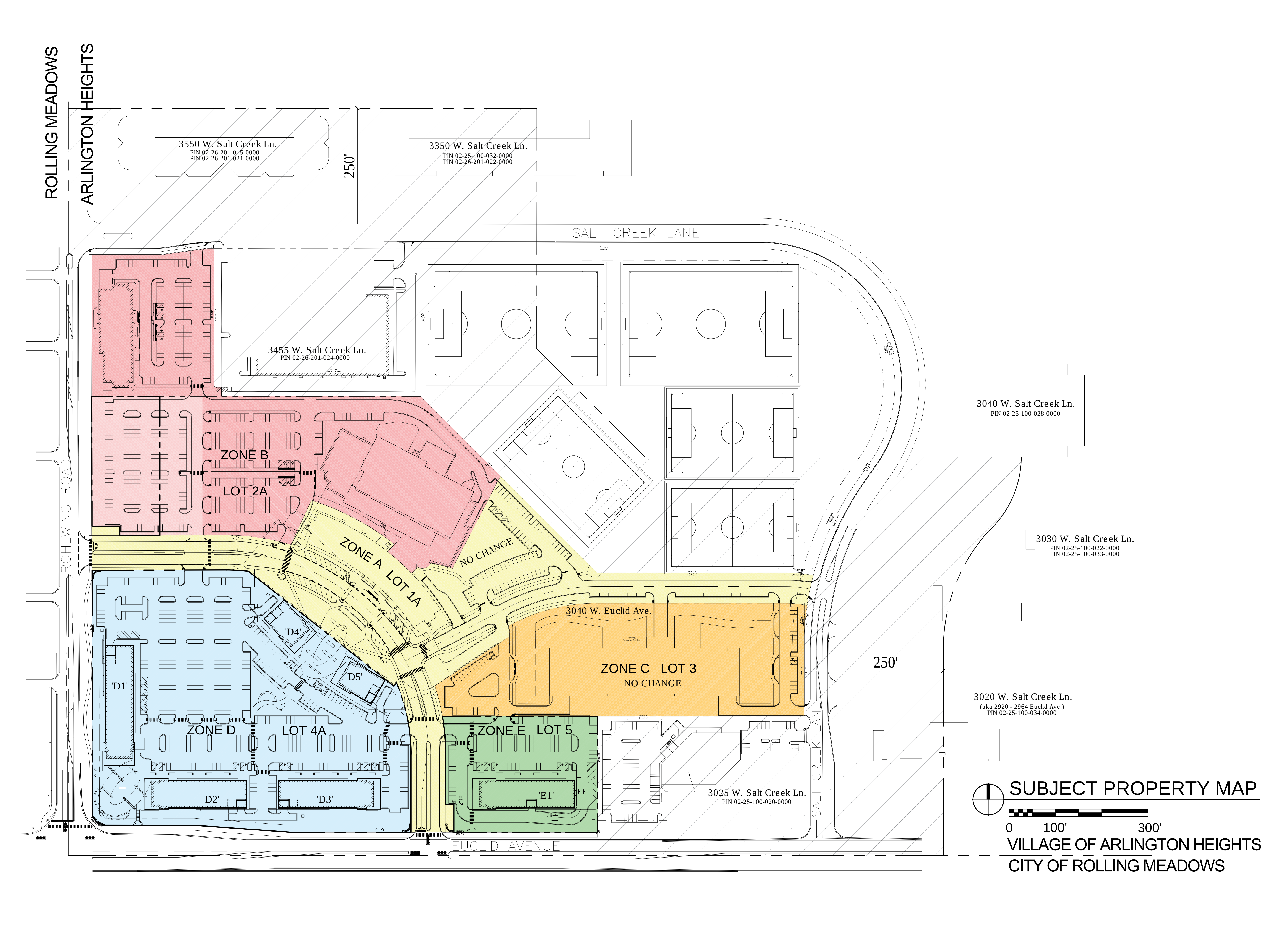
SHEET NO.

A0.10









## ARLINGTON DOWNS - RETAIL

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ARLINGTON DOWNS COMMERCIAL, LLC  
PSB / EUCLID, LLC  
2920 W. EUCLID AVENUE  
ARLINGTON HEIGHTS IL 60005

## PLAN COMMISSION APPLICATION

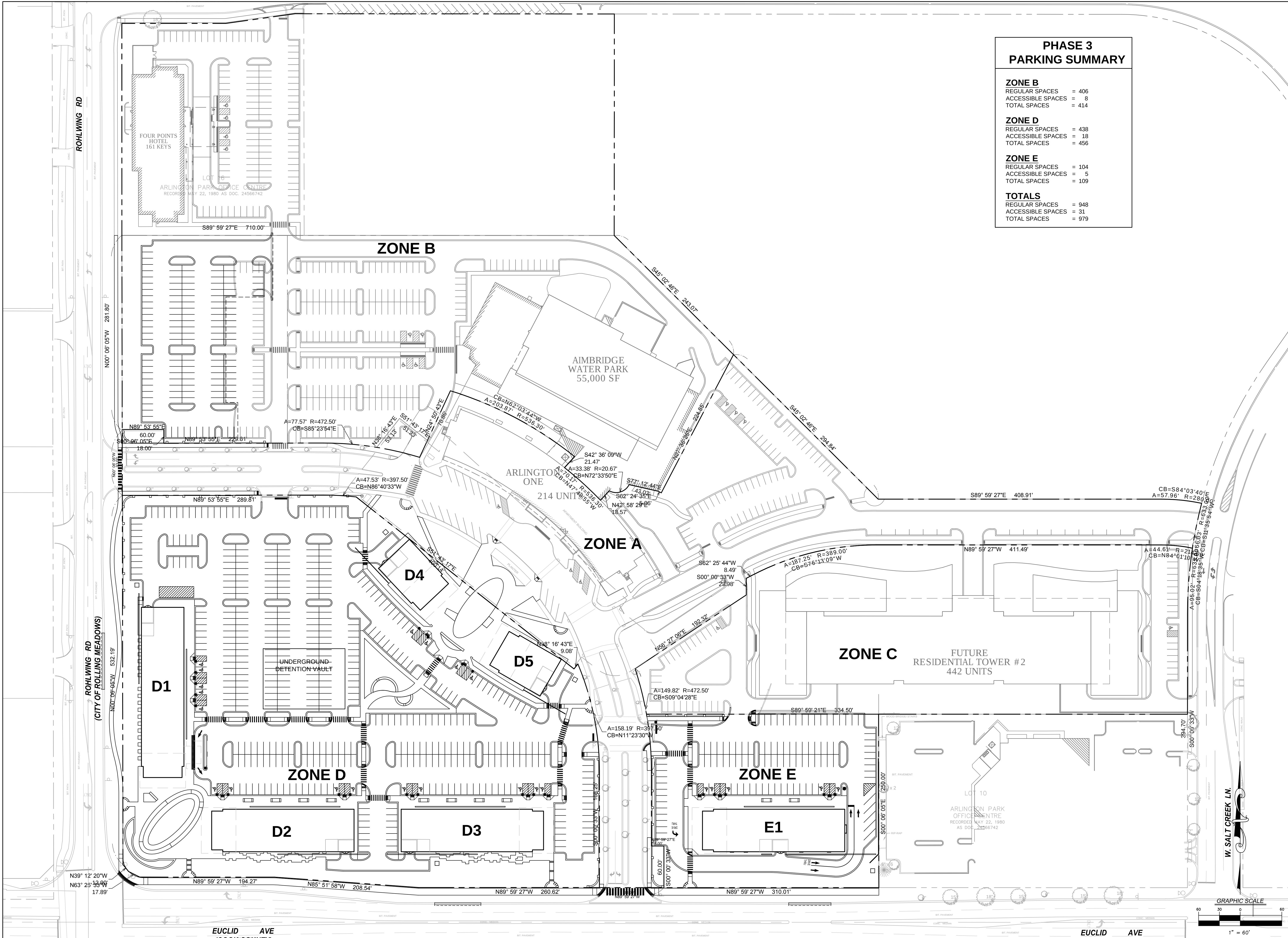
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|-----|----------|------------------------------------|
| 1   | 09.03.15 | PLAN COMMISSION APPLICATION REV. 1 |
| 2   | 09.03.15 | PLAN COMMISSION APPLICATION        |
| NO. | DATE     | DESCRIPTION                        |

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SHEET TITLE:  
**SUBJECT  
PROPERTY  
MAP**

SHEET NO.  
**A0.30**





| PHASE 3<br>PARKING SUMMARY |       |
|----------------------------|-------|
| <b>ZONE B</b>              |       |
| REGULAR SPACES             | = 406 |
| ACCESSIBLE SPACES          | = 8   |
| TOTAL SPACES               | = 414 |
| <b>ZONE D</b>              |       |
| REGULAR SPACES             | = 438 |
| ACCESSIBLE SPACES          | = 18  |
| TOTAL SPACES               | = 456 |
| <b>ZONE E</b>              |       |
| REGULAR SPACES             | = 104 |
| ACCESSIBLE SPACES          | = 5   |
| TOTAL SPACES               | = 109 |
| <b>TOTALS</b>              |       |
| REGULAR SPACES             | = 948 |
| ACCESSIBLE SPACES          | = 31  |
| TOTAL SPACES               | = 979 |



V3 Companies  
7325 Janes Avenue  
Woodridge, IL 60517  
630.724.9200 phone  
630.724.9202 fax  
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## ARLINGTON DOWNS - RETAIL

OWNER(S):  
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ARLINGTON DOWNS COMMERCIAL, LLC  
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2920 W. EUCLID AVENUE  
ARLINGTON HEIGHTS IL 60005

| NO.       | DATE | DESCRIPTION                        |
|-----------|------|------------------------------------|
| 10-07-15  |      | PLAN COMMISSION APPLICATION REV.1  |
| 09-03-15  |      | PLAN COMMISSION APPLICATION        |
| 08-12-15  |      | DESIGN COMMISSION REVIEW SUBMITTAL |
| Revisions |      |                                    |

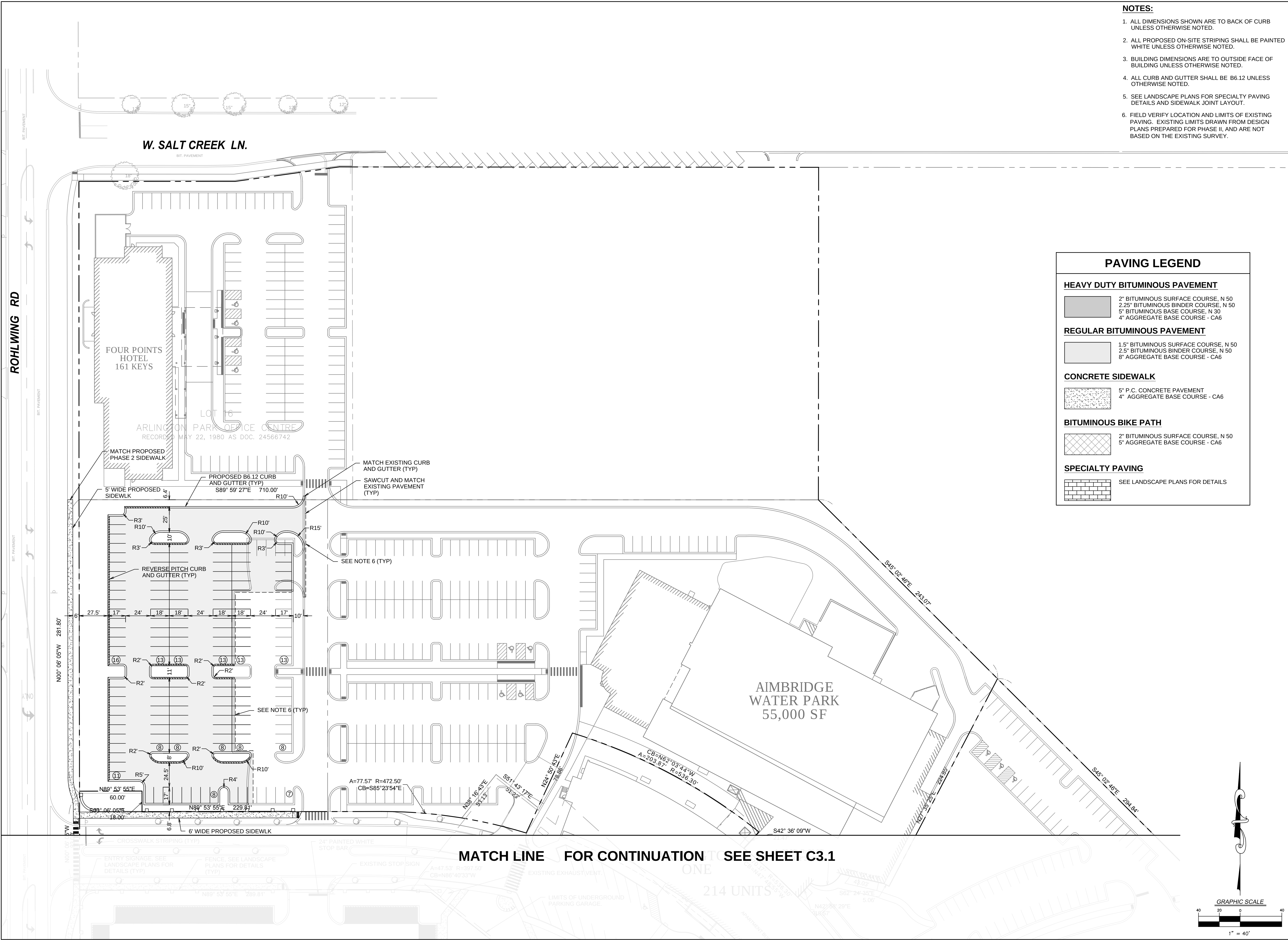
SHEET TITLE:  
**OVERALL  
SITE PLAN**  
SHEET NO.

**C3.0**









- NOTES:**
1. ALL DIMENSIONS SHOWN ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.
  2. ALL PROPOSED ON-SITE STRIPING SHALL BE PAINTED WHITE UNLESS OTHERWISE NOTED.
  3. BUILDING DIMENSIONS ARE TO OUTSIDE FACE OF BUILDING UNLESS OTHERWISE NOTED.
  4. ALL CURB AND GUTTER SHALL BE B6.12 UNLESS OTHERWISE NOTED.
  5. SEE LANDSCAPE PLANS FOR SPECIALTY PAVING DETAILS AND SIDEWALK JOINT LAYOUT.
  6. FIELD VERIFY LOCATION AND LIMITS OF EXISTING PAVING. EXISTING LIMITS DRAWN FROM DESIGN PLANS PREPARED FOR PHASE II, AND ARE NOT BASED ON THE EXISTING SURVEY.

**PAVING LEGEND**

**HEAVY DUTY BITUMINOUS PAVEMENT**

2" BITUMINOUS SURFACE COURSE, N 50  
2.25" BITUMINOUS BINDER COURSE, N 50  
5" BITUMINOUS BASE COURSE, N 30  
4" AGGREGATE BASE COURSE - CA6

**REGULAR BITUMINOUS PAVEMENT**

1.5" BITUMINOUS SURFACE COURSE, N 50  
2.5" BITUMINOUS BINDER COURSE, N 50  
8" AGGREGATE BASE COURSE - CA6

**CONCRETE SIDEWALK**

5" P.C. CONCRETE PAVEMENT  
4" AGGREGATE BASE COURSE - CA6

**BITUMINOUS BIKE PATH**

2" BITUMINOUS SURFACE COURSE, N 50  
5" AGGREGATE BASE COURSE - CA6

**SPECIALTY PAVING**

SEE LANDSCAPE PLANS FOR DETAILS



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**ARLINGTON  
DOWNS -  
RETAIL**

**OWNER(S):**

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2920 W. EUCLID AVENUE  
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| 09-03-15 | PLAN COMMISSION APPLICATION        |             |
| 08-12-15 | DESIGN COMMISSION REVIEW SUBMITTAL |             |

SHEET TITLE:  
**LAYOUT AND  
PAVING PLAN  
- NORTH**

SHEET NO.

**C3.2**



MATCH LINE FOR CONTINUATION SEE SHEET C4.2

NOTES:

1. ALL PAVEMENT SPOT GRADE ELEVATIONS AND RIM ELEVATIONS WITHIN OR ALONG CURB AND GUTTER REFER TO EDGE OF PAVEMENT ELEVATIONS UNLESS OTHERWISE NOTED.
2. ALL ELEVATIONS SHOWN DEPICT FINISHED GRADE UNLESS OTHERWISE NOTED. SUBTRACT TOPSOIL THICKNESS OR PAVEMENT SECTION TO ESTABLISH SUBGRADE ELEVATIONS.
3. PROVIDE 1.50% CROSS SLOPE AND 4.00% MAXIMUM LONGITUDINAL SLOPE ON ALL SIDEWALKS AND PEDESTRIAN PATHS UNLESS OTHERWISE INDICATED. PLEASE NOTE THAT THE ILLINOIS ACCESSIBILITY CODE REQUIRES A MAXIMUM CONSTRUCTED CROSS SLOPE OF 2.00% AND LONGITUDINAL SLOPE OF 5.00%.

ARLINGTON ONE  
214 UNITS

FF=729.2

FF=729.1

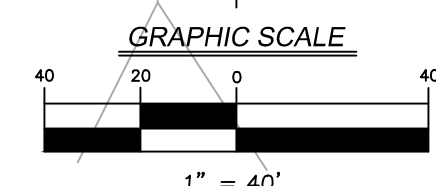
FF=730.1

FF=729.1

FF=725.8

ROHLWING RD  
(CITY OF ROLLING MEADOWS)

EUCLID AVE  
(COOK COUNTY)



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ARLINGTON  
DOWNS -  
RETAIL

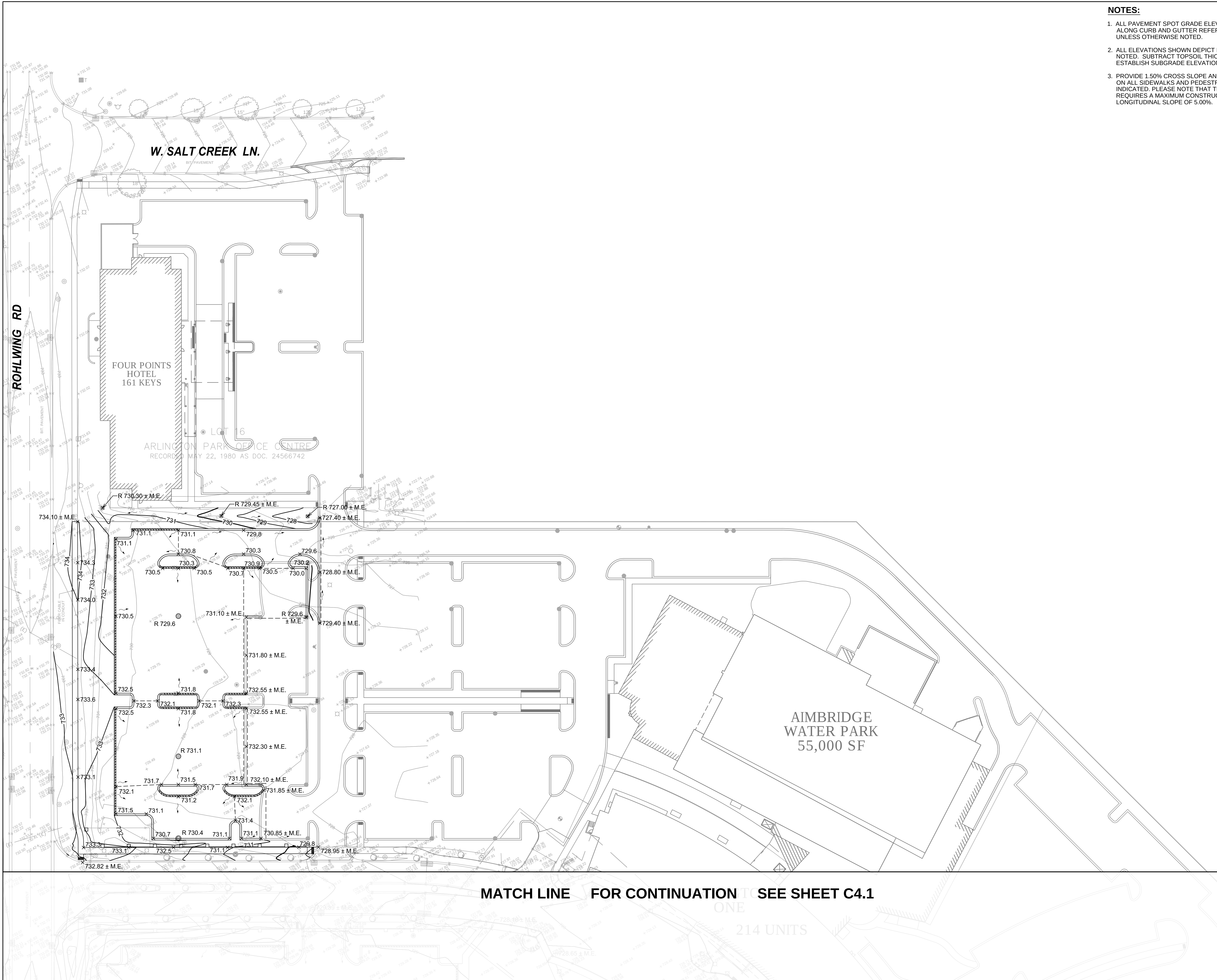
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PSB / EUCLID, LLC  
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ARLINGTON HEIGHTS IL 60005

|           |          |                                    |
|-----------|----------|------------------------------------|
| △         | _____    |                                    |
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| △         | _____    |                                    |
| △         | _____    |                                    |
| △         | 10-07-15 | PLAN COMMISSION APPLICATION REV.1  |
| △         | 09-03-15 | PLAN COMMISSION APPLICATION        |
| △         | 08-12-15 | DESIGN COMMISSION REVIEW SUBMITTAL |
| NO.       | DATE     | DESCRIPTION                        |
| Revisions |          |                                    |

SHEET TITLE:  
GRADING  
PLAN -  
SOUTH  
SHEET NO.

C4.1





**NOTES:**

1. ALL PAVEMENT SPOT GRADE ELEVATIONS AND RIM ELEVATIONS WITHIN OR ALONG CURB AND GUTTER REFER TO EDGE OF PAVEMENT ELEVATIONS UNLESS OTHERWISE NOTED.
2. ALL ELEVATIONS SHOWN DEPICT FINISHED GRADE UNLESS OTHERWISE NOTED. SUBTRACT TOPSOIL THICKNESS OR PAVEMENT SECTION TO ESTABLISH SUBGRADE ELEVATIONS.
3. PROVIDE 1.50% CROSS SLOPE AND 4.00% MAXIMUM LONGITUDINAL SLOPE ON ALL SIDEWALKS AND PEDESTRIAN PATHS UNLESS OTHERWISE INDICATED. PLEASE NOTE THAT THE ILLINOIS ACCESSIBILITY CODE REQUIRES A MAXIMUM CONSTRUCTED CROSS SLOPE OF 2.00% AND LONGITUDINAL SLOPE OF 5.00%.



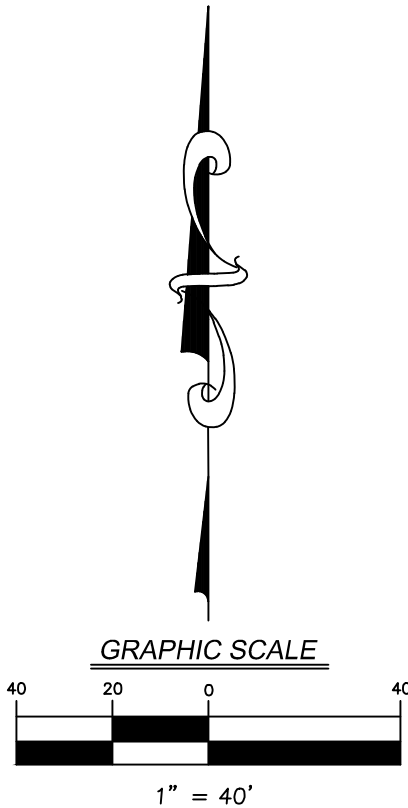
**ARLINGTON  
DOWNS -  
RETAIL**

**OWNER(S):**  
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ARLINGTON DOWNS COMMERCIAL, LLC  
PSB / EUCLID, LLC  
2920 W. EUCLID AVENUE  
ARLINGTON HEIGHTS IL 60005

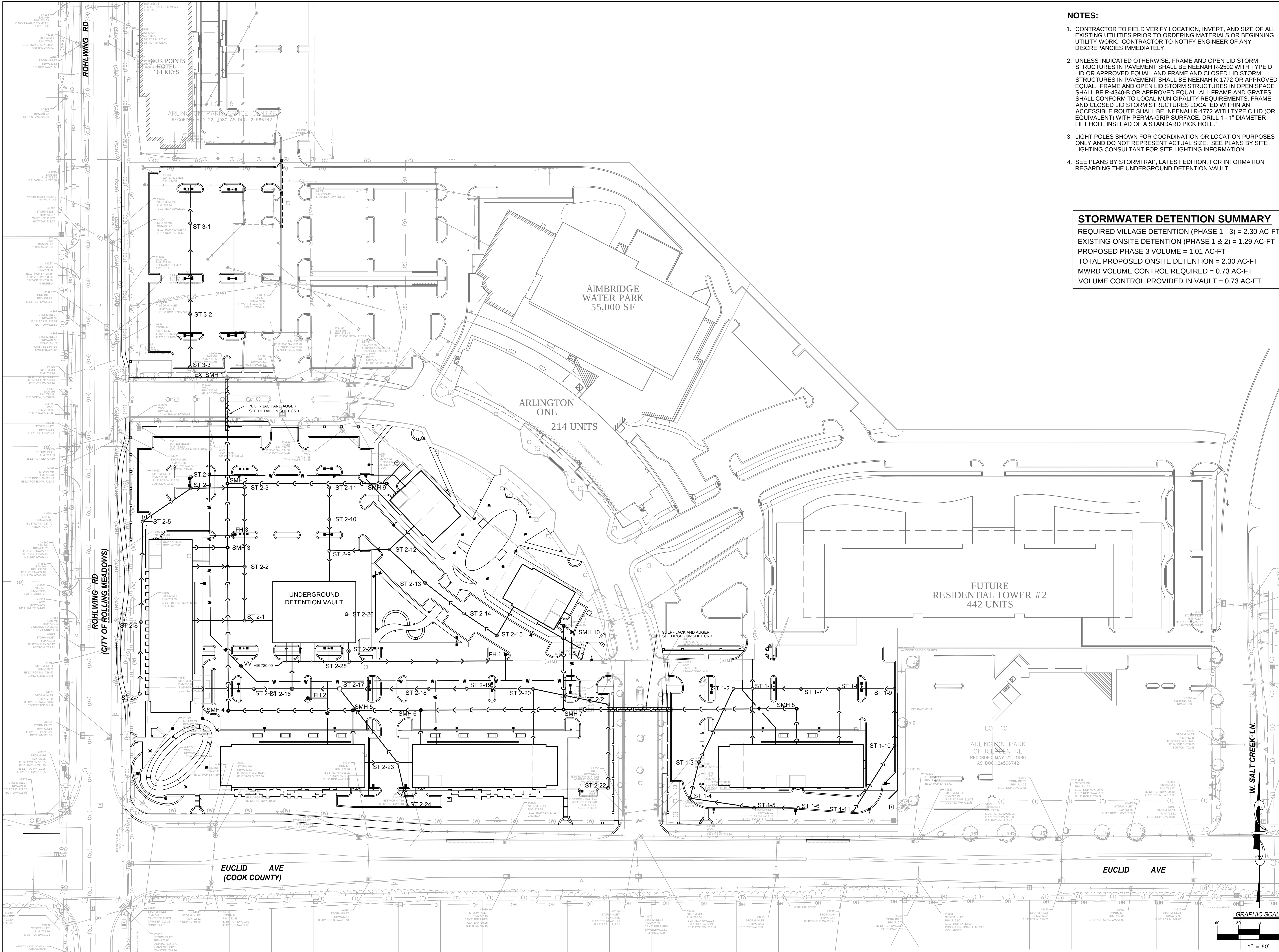
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| △         |          |                                    |
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| △         |          |                                    |
| △         |          |                                    |
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| △         | 08-12-15 | DESIGN COMMISSION REVIEW SUBMITTAL |
| NO.       | DATE     | DESCRIPTION                        |
| Revisions |          |                                    |

SHEET TITLE:  
**GRADING  
PLAN -  
NORTH**  
SHEET NO.

**C4.2**







- NOTES:**
1. CONTRACTOR TO FIELD VERIFY LOCATION, INVERT, AND SIZE OF ALL EXISTING UTILITIES PRIOR TO ORDERING MATERIALS OR BEGINNING UTILITY WORK. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES IMMEDIATELY.
  2. UNLESS INDICATED OTHERWISE, FRAME AND OPEN LID STORM STRUCTURES IN PAVEMENT SHALL BE NEENAH R-2502 WITH TYPE D LID OR APPROVED EQUAL, AND FRAME AND CLOSED LID STORM STRUCTURES IN PAVEMENT SHALL BE NEENAH R-1772 OR APPROVED EQUAL. FRAME AND OPEN LID STORM STRUCTURES IN OPEN SPACE SHALL BE R-4340-B OR APPROVED EQUAL. ALL FRAME AND GRATES SHALL CONFORM TO LOCAL MUNICIPALITY REQUIREMENTS. FRAME AND CLOSED LID STORM STRUCTURES LOCATED WITHIN AN ACCESSIBLE ROUTE SHALL BE "NEENAH R-1772 WITH TYPE C LID (OR EQUIVALENT) WITH PERMA-GRIP SURFACE. DRILL 1 - 1" DIAMETER LIFT HOLE INSTEAD OF A STANDARD PICK HOLE."
  3. LIGHT POLES SHOWN FOR COORDINATION OR LOCATION PURPOSES ONLY AND DO NOT REPRESENT ACTUAL SIZE. SEE PLANS BY SITE LIGHTING CONSULTANT FOR SITE LIGHTING INFORMATION.
  4. SEE PLANS BY STORMTRAP, LATEST EDITION, FOR INFORMATION REGARDING THE UNDERGROUND DETENTION VAULT.

| STORMWATER DETENTION SUMMARY                          |
|-------------------------------------------------------|
| REQUIRED VILLAGE DETENTION (PHASE 1 - 3) = 2.30 AC-FT |
| EXISTING ONSITE DETENTION (PHASE 1 & 2) = 1.29 AC-FT  |
| PROPOSED PHASE 3 VOLUME = 1.01 AC-FT                  |
| TOTAL PROPOSED ONSITE DETENTION = 2.30 AC-FT          |
| MWRD VOLUME CONTROL REQUIRED = 0.73 AC-FT             |
| VOLUME CONTROL PROVIDED IN VAULT = 0.73 AC-FT         |



**V3**

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ARLINGTON DOWNS COMMERCIAL, LLC  
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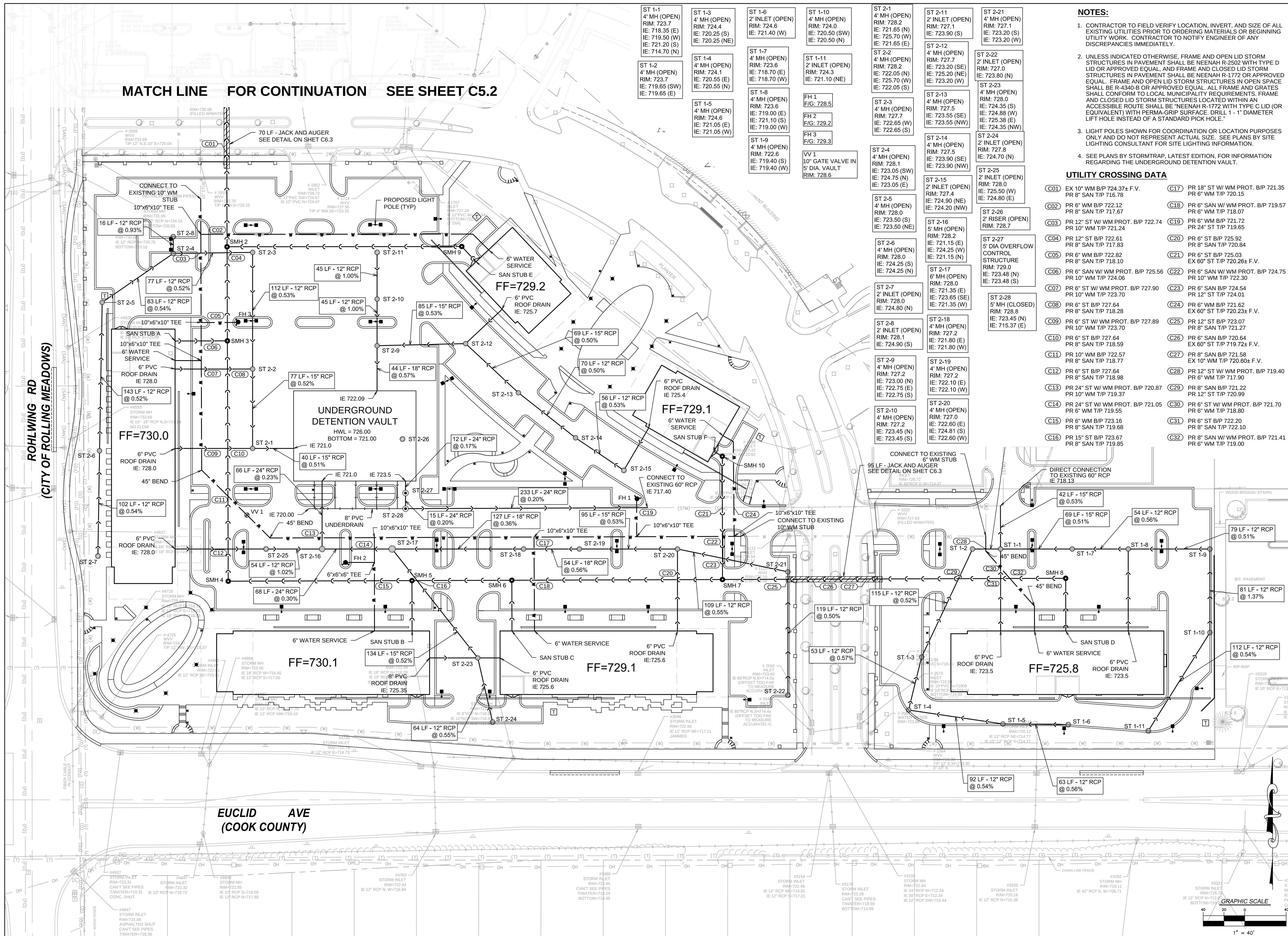
2920 W. EUCLID AVENUE  
ARLINGTON HEIGHTS IL 60005

| NO.       | DATE                              | DESCRIPTION |
|-----------|-----------------------------------|-------------|
| 10-07-15  | PLAN COMMISSION APPLICATION REV.1 |             |
| 09-03-15  | PLAN COMMISSION APPLICATION       |             |
| 08-12-15  | DESIGN COMMISSION REVIEW SUBMITAL |             |
| Revisions |                                   |             |

SHEET TITLE:  
**OVERALL  
UTILITY PLAN**

SHEET NO.  
**C5.0**





- NOTES:**
- CONTRACTOR TO FIELD VERIFY LOCATION, INVERT, AND SIZE OF ALL EXISTING UTILITIES PRIOR TO ORDERING MATERIALS OR BEGINNING UTILITY WORK. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES IMMEDIATELY.
  - UNLESS INDICATED OTHERWISE, FRAME AND OPEN LID STORM STRUCTURES IN PAVEMENT SHALL BE NEENAH R-2502 WITH TYPE D LID OR APPROVED EQUAL, AND FRAME AND CLOSED LID STORM STRUCTURES IN PAVEMENT SHALL BE NEENAH R-1772 OR APPROVED EQUAL. FRAME AND OPEN LID STORM STRUCTURES IN OPEN SPACE SHALL BE R-4340-B OR APPROVED EQUAL. ALL FRAME AND GRATES SHALL CONFORM TO LOCAL MUNICIPALITY REQUIREMENTS. FRAME AND CLOSED LID STORM STRUCTURES LOCATED WITHIN AN ACCESSIBLE ROUTE SHALL BE NEENAH R-1772 WITH TYPE C LID (OR EQUIVALENT) WITH PERMA-GRIP SURFACE. DRILL 1" - 1" DIAMETER LIFT HOLE INSTEAD OF A STANDARD PICK HOLE.
  - LIGHT POLES SHOWN FOR COORDINATION OR LOCATION PURPOSES ONLY AND DO NOT REPRESENT ACTUAL SIZE. SEE PLANS BY SITE LIGHTING CONSULTANT FOR SITE LIGHTING INFORMATION.
  - SEE PLANS BY STORMTRAP, LATEST EDITION, FOR INFORMATION REGARDING THE UNDERGROUND DETENTION VAULT.

| UTILITY CROSSING DATA |                                                          |
|-----------------------|----------------------------------------------------------|
| C01                   | EX 10" WM B/P 724.37± F.V.<br>PR 8" SAN T/P 716.78       |
| C02                   | PR 6" WM B/P 722.12<br>PR 8" SAN T/P 717.67              |
| C03                   | PR 12" ST W/ WM PROT. B/P 722.74<br>PR 10" WM T/P 721.24 |
| C04                   | PR 12" ST B/P 722.61<br>PR 8" SAN T/P 717.83             |
| C05                   | PR 6" WM B/P 722.82<br>PR 8" SAN T/P 718.10              |
| C06                   | PR 6" SAN W/ WM PROT. B/P 725.56<br>PR 10" WM T/P 724.06 |
| C07                   | PR 6" ST W/ WM PROT. B/P 727.90<br>PR 10" WM T/P 723.70  |
| C08                   | PR 6" ST B/P 727.64<br>PR 8" SAN T/P 718.28              |
| C09                   | PR 6" ST W/ WM PROT. B/P 727.89<br>PR 10" WM T/P 723.70  |
| C10                   | PR 6" ST B/P 727.64<br>PR 8" SAN T/P 718.59              |
| C11                   | PR 10" WM B/P 722.57<br>PR 8" SAN T/P 718.77             |
| C12                   | PR 6" ST B/P 727.64<br>PR 8" SAN T/P 718.98              |
| C13                   | PR 24" ST W/ WM PROT. B/P 720.87<br>PR 10" WM T/P 719.37 |
| C14                   | PR 24" ST W/ WM PROT. B/P 721.05<br>PR 6" WM T/P 719.55  |
| C15                   | PR 6" WM B/P 723.16<br>PR 8" SAN T/P 719.68              |
| C16                   | PR 15" ST B/P 723.67<br>PR 8" SAN T/P 719.85             |
| C17                   | PR 18" ST W/ WM PROT. B/P 721.35<br>PR 6" WM T/P 720.15  |
| C18                   | PR 6" SAN W/ WM PROT. B/P 719.57<br>PR 6" WM T/P 718.07  |
| C19                   | PR 6" WM B/P 721.72<br>PR 24" ST T/P 719.65              |
| C20                   | PR 6" ST B/P 725.92<br>PR 8" SAN T/P 720.84              |
| C21                   | PR 6" ST B/P 725.03<br>EX 60" ST T/P 720.26± F.V.        |
| C22                   | PR 6" SAN W/ WM PROT. B/P 724.75<br>PR 10" WM T/P 722.30 |
| C23                   | PR 6" SAN B/P 724.54<br>PR 12" ST T/P 724.01             |
| C24                   | PR 6" WM B/P 721.62<br>EX 60" ST T/P 720.23± F.V.        |
| C25                   | PR 12" ST B/P 723.07<br>PR 8" SAN T/P 721.27             |
| C26                   | PR 6" SAN B/P 720.64<br>EX 60" ST T/P 719.72± F.V.       |
| C27                   | PR 8" SAN B/P 721.58<br>EX 10" WM T/P 720.60± F.V.       |
| C28                   | PR 12" ST W/ WM PROT. B/P 719.40<br>PR 6" WM T/P 717.90  |
| C29                   | PR 8" SAN B/P 721.22<br>PR 6" WM T/P 720.99              |
| C30                   | PR 6" ST W/ WM PROT. B/P 721.70<br>PR 6" WM T/P 718.80   |
| C31                   | PR 8" ST B/P 722.20<br>PR 8" SAN T/P 722.10              |
| C32                   | PR 8" SAN W/ WM PROT. B/P 721.41<br>PR 6" WM T/P 719.00  |

**funk architects**  
160 east Grand 300  
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C: 312.593.4812  
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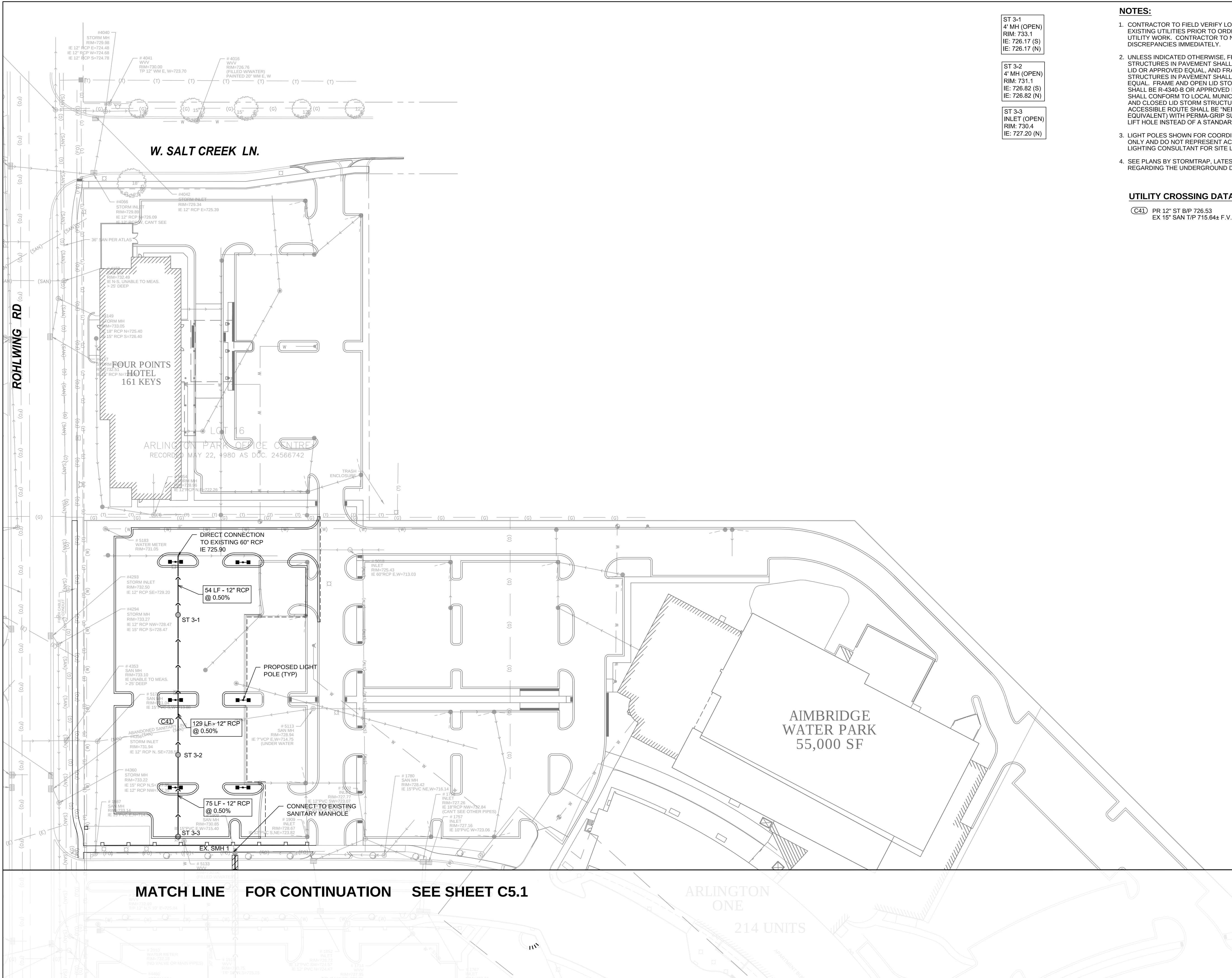
# ARLINGTON DOWNS - RETAIL

**OWNER(S):**  
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ARLINGTON DOWNS COMMERCIAL, LLC  
PSB / EUCLID, LLC  
2920 W. EUCLID AVENUE  
ARLINGTON HEIGHTS IL 60005

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| 09-03-15  |      | PLAN COMMISSION APPLICATION       |
| 08-12-15  |      | DESIGN COMMISSION REVIEW SUBMITAL |
| Revisions |      |                                   |

SHEET TITLE:  
**UTILITY PLAN  
- SOUTH**  
SHEET NO.  
**C5.1**





ST 3-1  
4" MH (OPEN)  
RIM: 733.1  
IE: 726.17 (S)  
IE: 726.17 (N)

ST 3-2  
4" MH (OPEN)  
RIM: 731.1  
IE: 726.82 (S)  
IE: 726.82 (N)

ST 3-3  
INLET (OPEN)  
RIM: 730.4  
IE: 727.20 (N)

**NOTES:**

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- SEE PLANS BY STORMTRAP, LATEST EDITION, FOR INFORMATION REGARDING THE UNDERGROUND DETENTION VAULT.

**UTILITY CROSSING DATA**

C41 PR 12" ST B/P 726.53  
EX 15" SAN T/P 715.64± F.V.



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**ARLINGTON DOWNS - RETAIL**

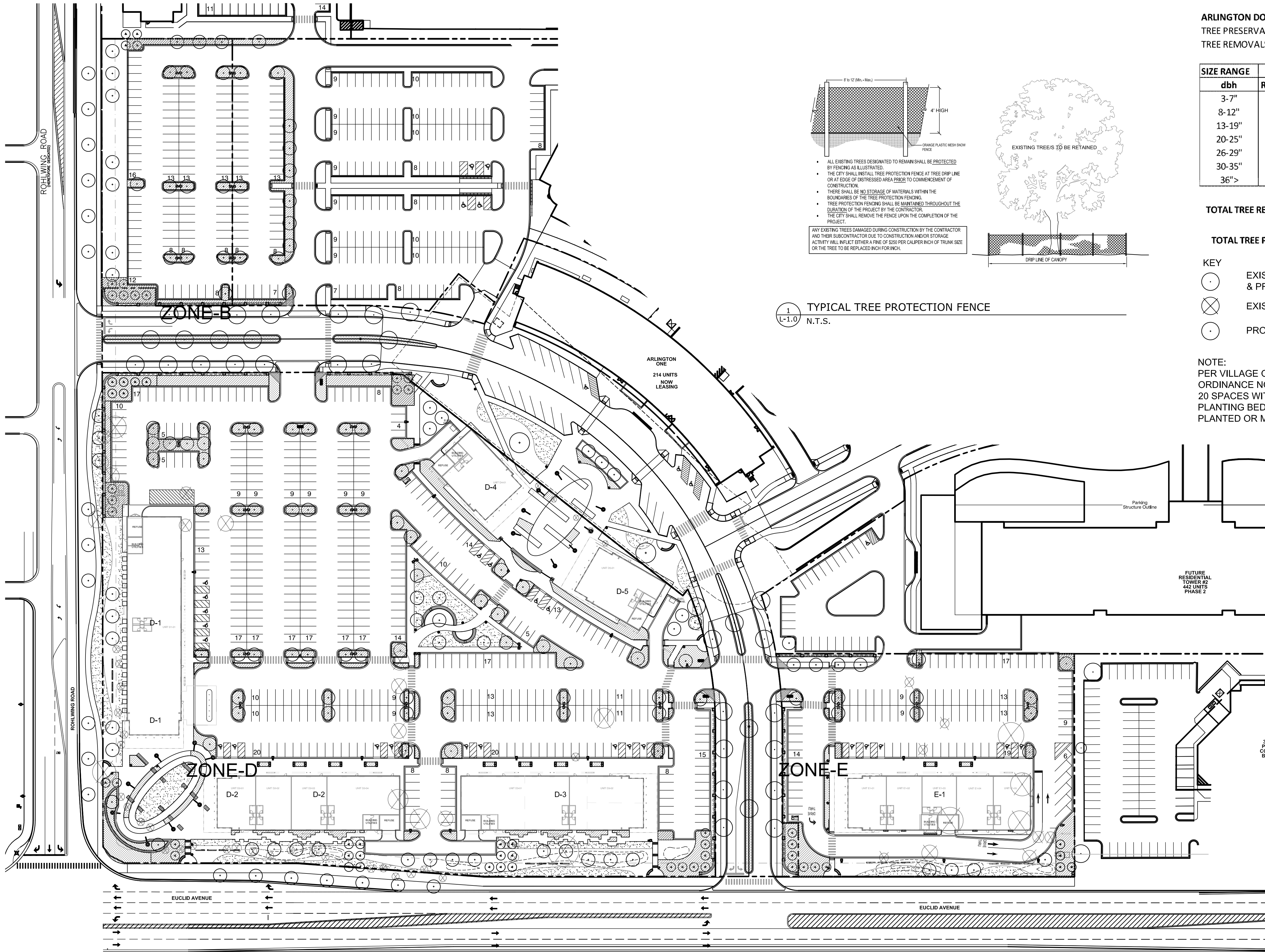
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| 08-12-15  | DESIGN COMMISSION REVIEW SUBMITTAL |             |
| Revisions |                                    |             |

SHEET TITLE:  
**UTILITY PLAN - NORTH**  
SHEET NO.

**C5.2**





ARLINGTON DOWNS  
TREE PRESERVATION PLAN  
TREE REMOVALS      REMOVALS

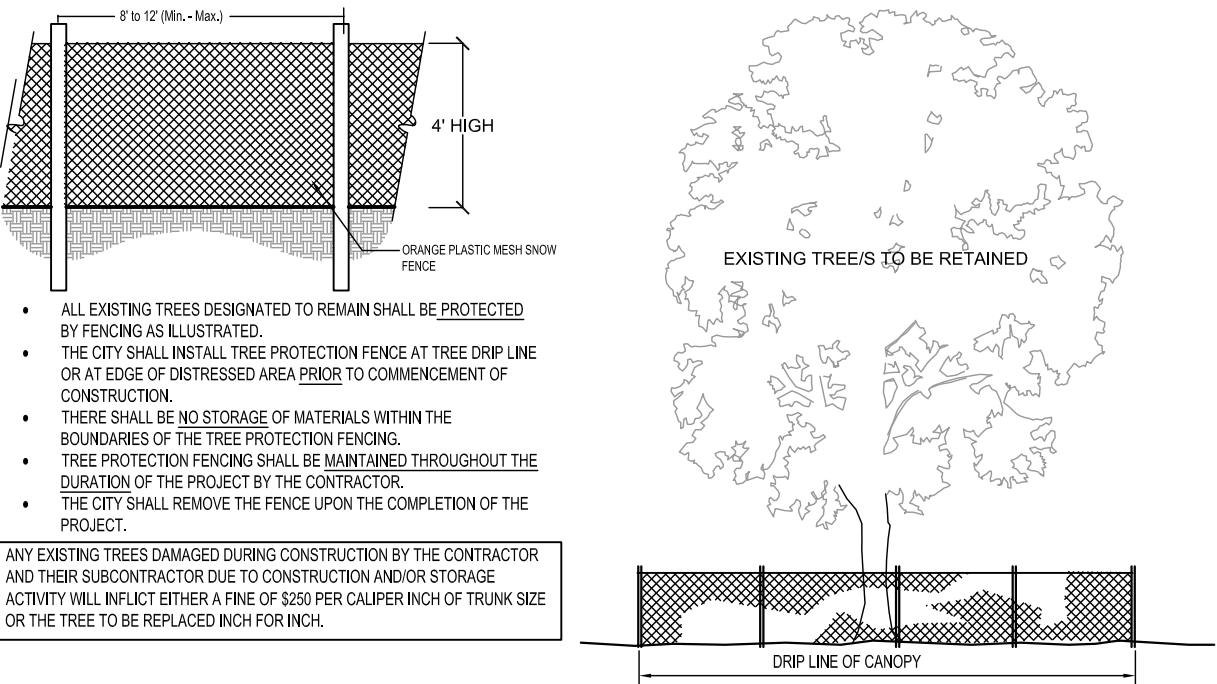
| SIZE RANGE | QTY | REPLACEMENT |          |
|------------|-----|-------------|----------|
|            |     | RATE        | REQUIRED |
| 3-7"       | 31  | 0           | 0        |
| 8-12"      | 14  | 3           | 42       |
| 13-19"     | 12  | 4           | 48       |
| 20-25"     | 1   | 5           | 5        |
| 26-29"     | 0   | 6           | 0        |
| 30-35"     | 0   | 7           | 0        |
| 36">       | 0   | 8           | 0        |

TOTAL TREE REQUIRED FOR REPLACEMENT      95

TOTAL TREE PROVIDED AS REPLACEMENT      144

- KEY
- EXISTING TREES TO BE RETAINED & PROTECTED (Per Detail 1)
  - EXISTING TREES TO BE REMOVED
  - PROPOSED SHADE TREES - Min. 4" caliper

NOTE:  
PER VILLAGE OF ARLINGTON HEIGHTS LANDSCAPE ORDINANCE NO PARKING BAY TO BE LONGER THAN 20 SPACES WITHOUT A A PARKING SPOT SIZED PLANTING BED WITH ONE 4" CALIPER SHADE TREE & PLANTED OR MULCHED GROUNDCOVER.



1  
L1.0  
TYPICAL TREE PROTECTION FENCE  
N.T.S.

1  
L1.0  
OVERALL SITE PLAN  
SCALE: 1" = 60'



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&  
Kettelkamp  
landscape  
architecture  
1315 Sherman Place  
Evanston Illinois 60201  
847.905.1281

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PSB / EUCLID, LLC  
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ARLINGTON HEIGHTS IL 60005

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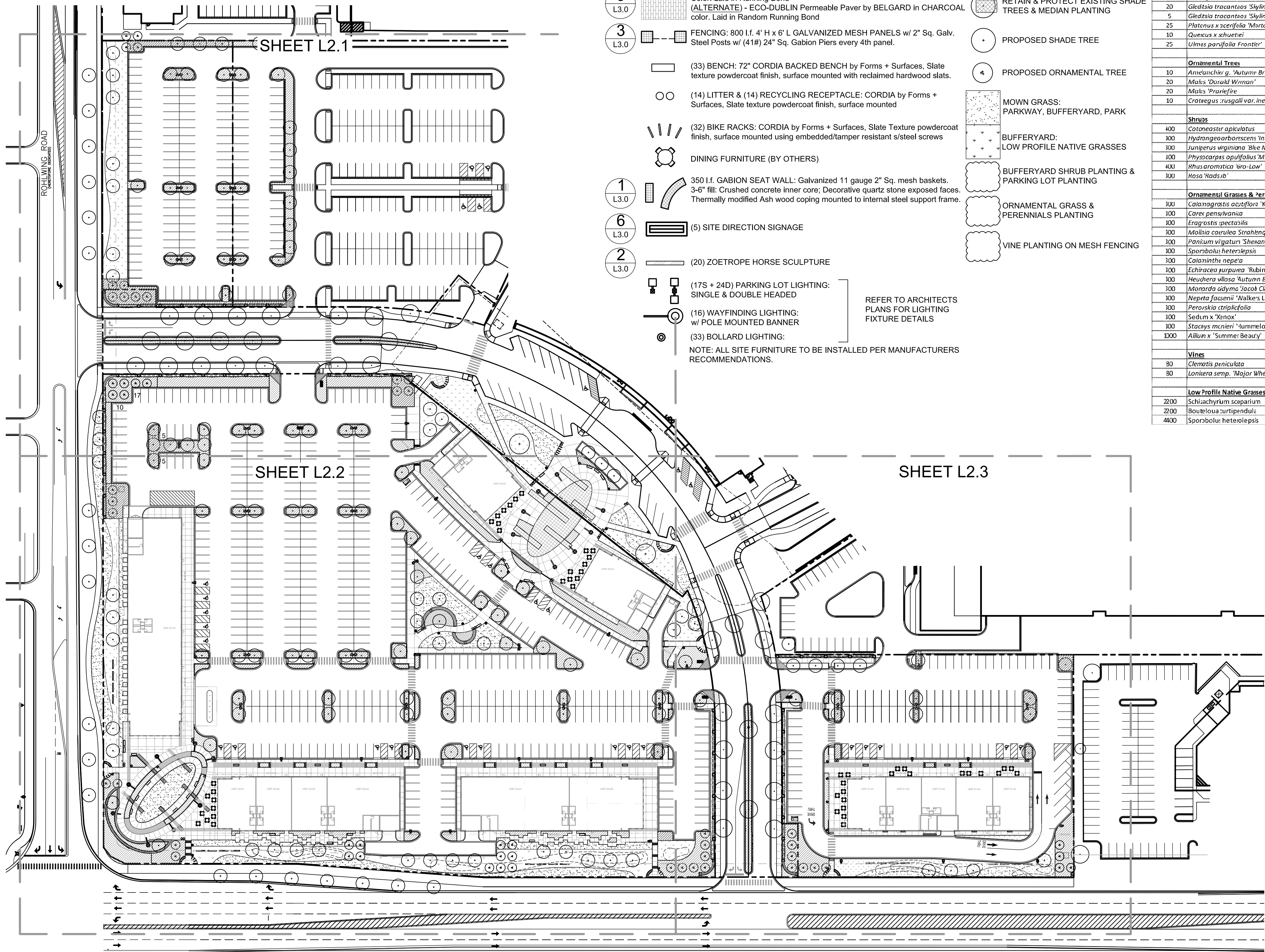
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SHEET TITLE:  
**OVERALL SITE  
LANDSCAPE  
PLAN**

SHEET NO.

L1.0





## KEY

### SITE AMENITIES

5  
L3.0

4,700 s.f. ACCENT PAVING: 4"x24" MODULE By BELGARD In GRAPHITE Color. Laid in Running Bond  
(ALTERNATE) - ECO-DUBLIN Permeable Paver by BELGARD in CHARCOAL color. Laid in Random Running Bond

3  
L3.0

FENCING: 800 L.f. 4' H x 6' L GALVANIZED MESH PANELS w/ 2" Sq. Galv. Steel Posts w/ (41#) 24" Sq. Gabion Piers every 4th panel.

(33) BENCH: 72" CORDIA BACKED BENCH by Forms + Surfaces, Slate texture powdercoat finish, surface mounted with reclaimed hardwood slats.

(14) LITTER & (14) RECYCLING RECEPTACLE: CORDIA by Forms + Surfaces, Slate texture powdercoat finish, surface mounted

(32) BIKE RACKS: CORDIA by Forms + Surfaces, Slate Texture powdercoat finish, surface mounted using embedded/tamper resistant s/steel screws

DINING FURNITURE (BY OTHERS)

1  
L3.0

350 L.f. GABION SEAT WALL: Galvanized 11 gauge 2" Sq. mesh baskets. 3-6" fill. Crushed concrete inner core; Decorative quartz stone exposed faces. Thermally modified Ash wood coping mounted to internal steel support frame.

6  
L3.0

(5) SITE DIRECTION SIGNAGE

2  
L3.0

(20) ZOETROPE HORSE SCULPTURE

(17S + 24D) PARKING LOT LIGHTING: SINGLE & DOUBLE HEADED

(16) WAYFINDING LIGHTING: w/ POLE MOUNTED BANNER

(33) BOLLARD LIGHTING:

NOTE: ALL SITE FURNITURE TO BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS.

REFER TO ARCHITECTS PLANS FOR LIGHTING FIXTURE DETAILS

### PLANTING

RETAIN & PROTECT EXISTING SHADE TREES & MEDIAN PLANTING

PROPOSED SHADE TREE

PROPOSED ORNAMENTAL TREE

MOWN GRASS: PARKWAY, BUFFERYARD, PARK

BUFFERYARD: LOW PROFILE NATIVE GRASSES

BUFFERYARD SHRUB PLANTING & PARKING LOT PLANTING

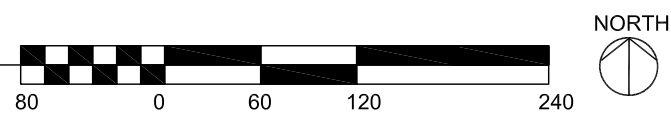
ORNAMENTAL GRASS & PERENNIALS PLANTING

VINE PLANTING ON MESH FENCING

### PLANT SCHEDULE

| QTY                                        | SCIENTIFICNAME                           | COMMON NAME                    | SIZE                                  | LOCATION                                  |
|--------------------------------------------|------------------------------------------|--------------------------------|---------------------------------------|-------------------------------------------|
| <b>Shade Trees</b>                         |                                          |                                |                                       |                                           |
| 25                                         | Acerx freemanii 'Marms'                  | Marm's Freeman Maple           | 4" BB                                 | Bufferyard, Parking Lot, On Site Planting |
| 20                                         | Gleditsia tracantosa 'Siyline'           | Honey Locust                   | 6"-8" BB                              | Bufferyard, Parking Lot, On Site Planting |
| 5                                          | Gleditsia tracantosa 'Siyline'           | Honey Locust                   | 10" Space                             | Large Signature Tree, Plaza               |
| 25                                         | Platanus x scerifolia 'Morton Circle'    | ExclamationPlaneTree           | 4" DB                                 | Bufferyard, Parking Lot                   |
| 10                                         | Quercus x schuettei                      | Schuettei's Hybrid Oak         | 4" DB                                 | Bufferyard                                |
| 25                                         | Ulmex parvifolia Frontier                | Frontier Lacebark Elm          | 4" BB                                 | On-Site Planting                          |
| <b>Ornamental Trees</b>                    |                                          |                                |                                       |                                           |
| 10                                         | Anemone x 'Autumn Brilliance'            | Autumn Brilliance Serviceberry | 8'-10' BE                             | On-Site Tree Planting                     |
| 20                                         | Mahs 'Dorvald Wiman'                     | White Flowering Crabapple      | 8'-10' BE                             | Bufferyard                                |
| 20                                         | Mahs 'Prairie Fire'                      | Pink Flowering Crabapple       | 8'-10' BE                             | Bufferyard                                |
| 10                                         | Crataegus ruscifolia var. Inermis        | Clump Thornless Hawthorn       | 8'-10' BE                             | Bufferyard                                |
| <b>Shrubs</b>                              |                                          |                                |                                       |                                           |
|                                            |                                          |                                | (2,000 @ 3" c.c.)                     |                                           |
| 400                                        | Cotoneaster apiculatus                   | Cranberry Cotoncuster          | 5-gallon                              | Bufferyard                                |
| 300                                        | Hydrangea arborescens 'Incrediball'      | Incrediball Hydrangea          | 5-gallon                              | Bufferyard                                |
| 300                                        | Juniperus virginiana 'Blue Mountain'     | Blue Mountain Juniper          | 5-gallon                              | Bufferyard                                |
| 100                                        | Physocarpus opulifolius 'Minda'          | Coppertina Ninebark            | 7-gallon                              | Bufferyard                                |
| 400                                        | Rhus aromatica 'Gro-Low'                 | Gro-Low Sumac                  | 5-gallon                              | Bufferyard                                |
| 300                                        | Rosa 'Holdsab'                           | Carefree Sunshine Shrub Rose   | 3-gallon                              | Bufferyard                                |
| <b>Ornamental Grasses &amp; Perennials</b> |                                          |                                |                                       |                                           |
|                                            |                                          |                                | (4500 @ 3" o.c.)                      |                                           |
| 300                                        | Calamagrostis acutiflora 'Karl Foerster' | Karl Foerster Reed Grass       | 1-gallon                              | On-Site Planting                          |
| 300                                        | Carex pensylvanica                       | Pennsylvania Sedge             | 1-gallon                              | On-Site Planting                          |
| 300                                        | Eragrostis spectabilis                   | Purple Love Grass              | 1-gallon                              | On-Site Planting                          |
| 300                                        | Muhlenbergia caerulea 'Shenandoah'       | Tall Moor Grass                | 1-gallon                              | On-Site Planting                          |
| 300                                        | Panicum virgatum 'Shenandoah'            | Red Switch Grass               | 3-gallon                              | On-Site Planting                          |
| 300                                        | Sporobolus heterolepis                   | Prairie Dropseed               | 1-gallon                              | Parking lots                              |
| 300                                        | Calaminthe nepeta                        | Lesser Calamint                | 1-gallon                              | On-Site Planting                          |
| 300                                        | Echinacea purpurea 'Rubinstein'          | Coneflower                     | 1-gallon                              | On-Site Planting                          |
| 300                                        | Heuchera villosa 'Autumn Bride'          | Autumn Brice Alumroot          | 1-gallon                              | On-Site Planting                          |
| 300                                        | Monarda adyma 'Jacob Cline'              | Jacob Cline Beebalm            | 1-gallon                              | On-Site Planting                          |
| 300                                        | Nepeta fasciculata 'Walker's Low'        | Walker's Low Catmint           | 1-gallon                              | On-Site Planting                          |
| 300                                        | Perovskia atriplicifolia                 | Russian Sage                   | 1-gallon                              | On-Site Planting                          |
| 100                                        | Sedum x 'Xanox'                          | Sedum                          | 1-gallon                              | On-Site Planting                          |
| 100                                        | Stacya mcnieri 'Lummelo'                 | Betony                         | 1-gallon                              | On-Site Planting                          |
| 1000                                       | Allium x 'Summer Beauty'                 | Ornamental Onion               | Bulb                                  | On-Site Planting                          |
| <b>Vines</b>                               |                                          |                                |                                       |                                           |
|                                            |                                          |                                | (1,000 l.f. / 1" per panel)           |                                           |
| 80                                         | Clematis paniculata                      | Sweet Autumn Clematis          | 1-gallon                              | Parking lot Mesh Fence                    |
| 80                                         | Lonicera semp. 'Major Wheeler'           | Major Wheeler Honeysuckle      | 1-gallon                              | Parking lot Mesh Fence                    |
| <b>Low Profile Native Grasses</b>          |                                          |                                |                                       |                                           |
|                                            |                                          |                                | (35,000 s.f. / 1" o.c. = 8,800 plugs) |                                           |
| 2200                                       | Schizanthus scoparium                    | Little Bluestem                | plugs                                 | Bufferyard                                |
| 2200                                       | Bouteloua curtipendula                   | Sideoats Grama                 | plugs                                 | Bufferyard                                |
| 4000                                       | Sporobolus heterolepis                   | Prairie Dropseed               | plugs                                 | Bufferyard, Parking Lot                   |

1 LANDSCAPE PLAN  
L1.1 SCALE: 1" = 60'



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Kettelkamp  
&  
Kettelkamp  
landscape  
architecture

1315 Sherman Place  
Evanston Illinois 63201  
847.905.1281

ARLINGTON  
DOWNS -  
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10.07.15 Plan Commission Application (Rev. 1)  
08.03.15 Plan Commission Application  
NO. DATE DESCRIPTION

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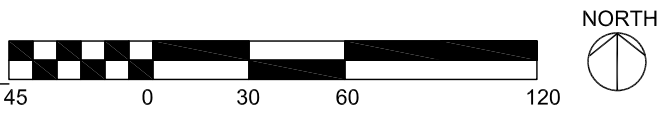
#### SHEET TITLE:

LANDSCAPE  
PLAN - SOUTH

#### SHEET NO.

L1.1





1 LANDSCAPE DETAIL PLAN  
L2.1 SCALE= 1"=30'



**funke.**  
**architects**

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Chicago IL 60641  
c. 312.593.4812  
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f. 312.546.7065

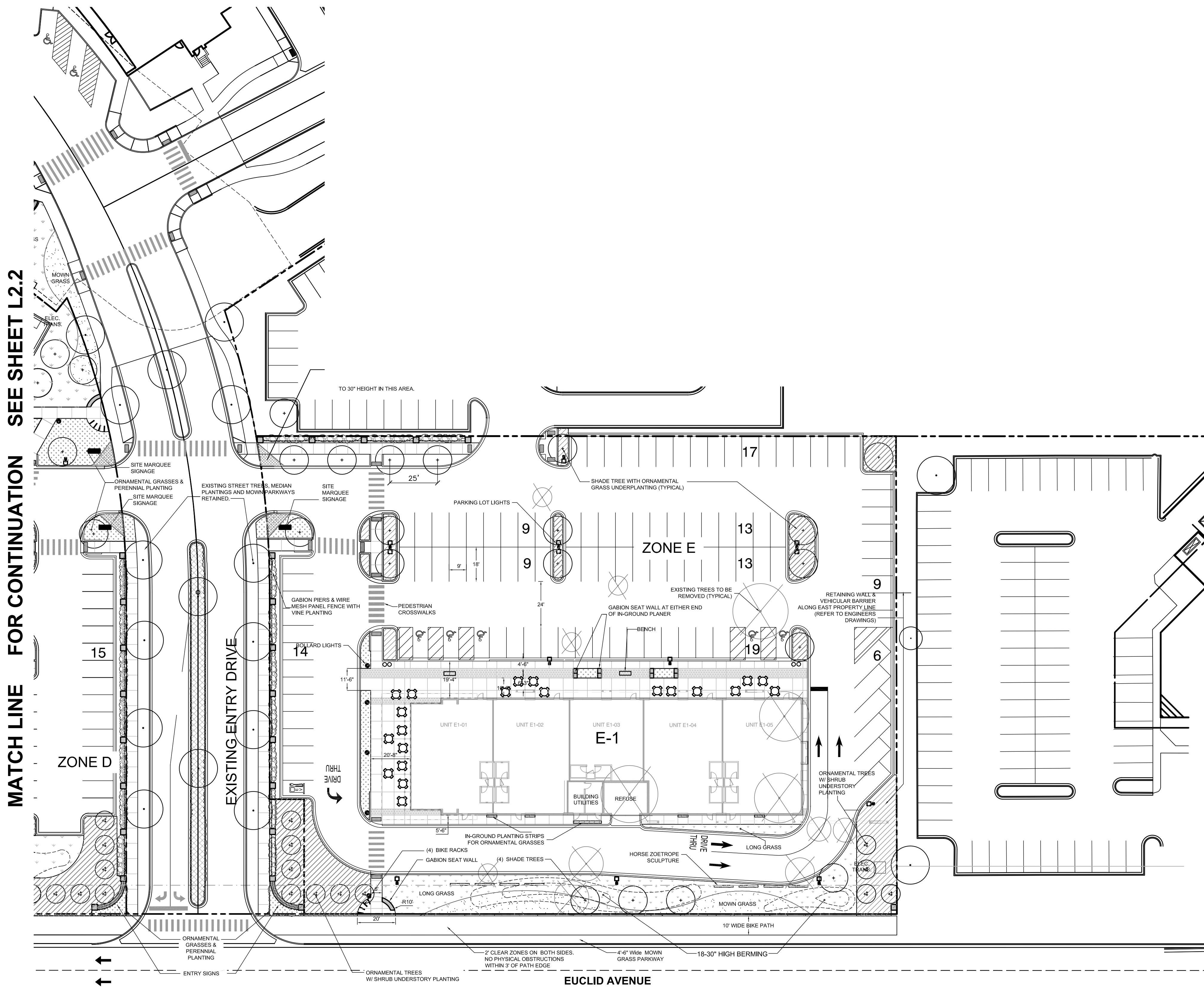
[www.funkearchitects.com](http://www.funkearchitects.com)

## L2.1

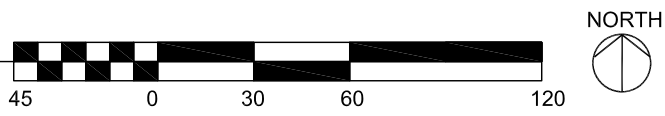








1 LANDSCAPE DETAIL PLAN  
L2.3 SCALE= 1" = 30'



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847.905.1281

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| 1 | 09.03.15 | Plan Commission Application             |
| 2 | 10.07.15 | Plan Commission Application (New Sheet) |

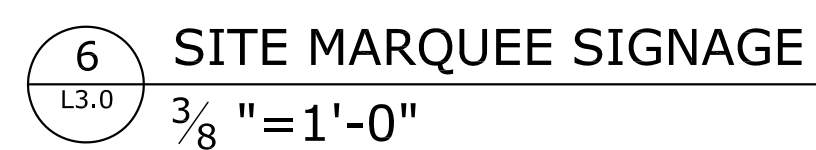
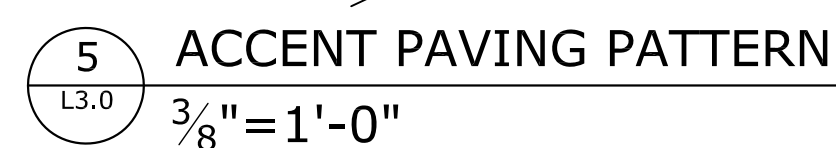
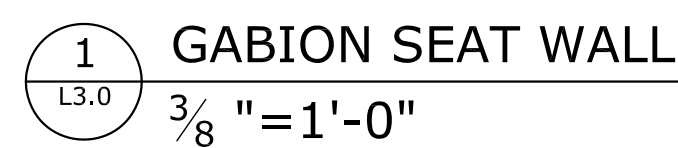
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SHEET TITLE:  
**LANDSCAPE  
PLAN SOUTH  
PLAZA**

SHEET NO.

# L2.3



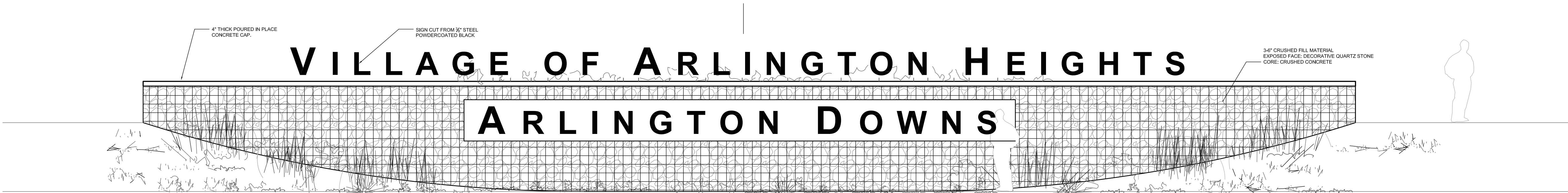


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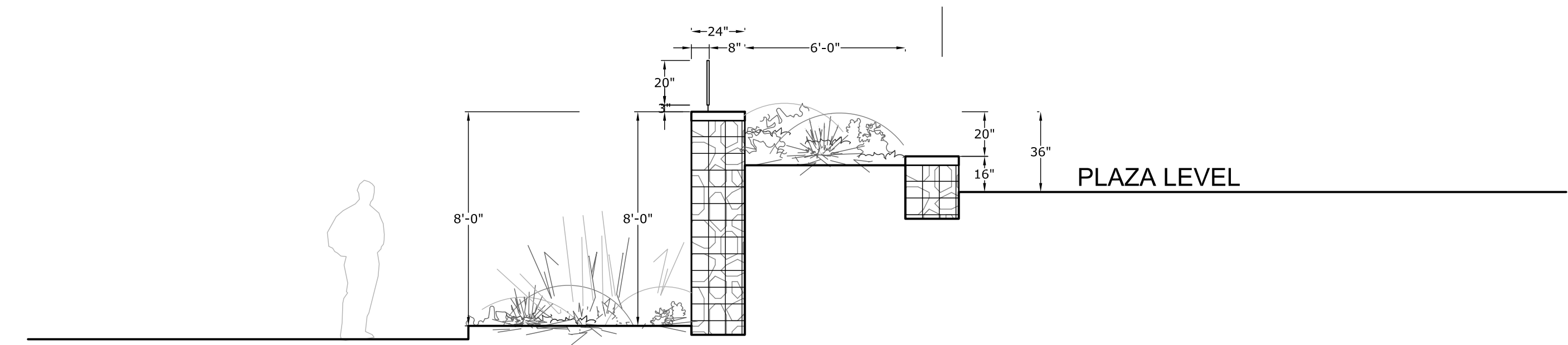






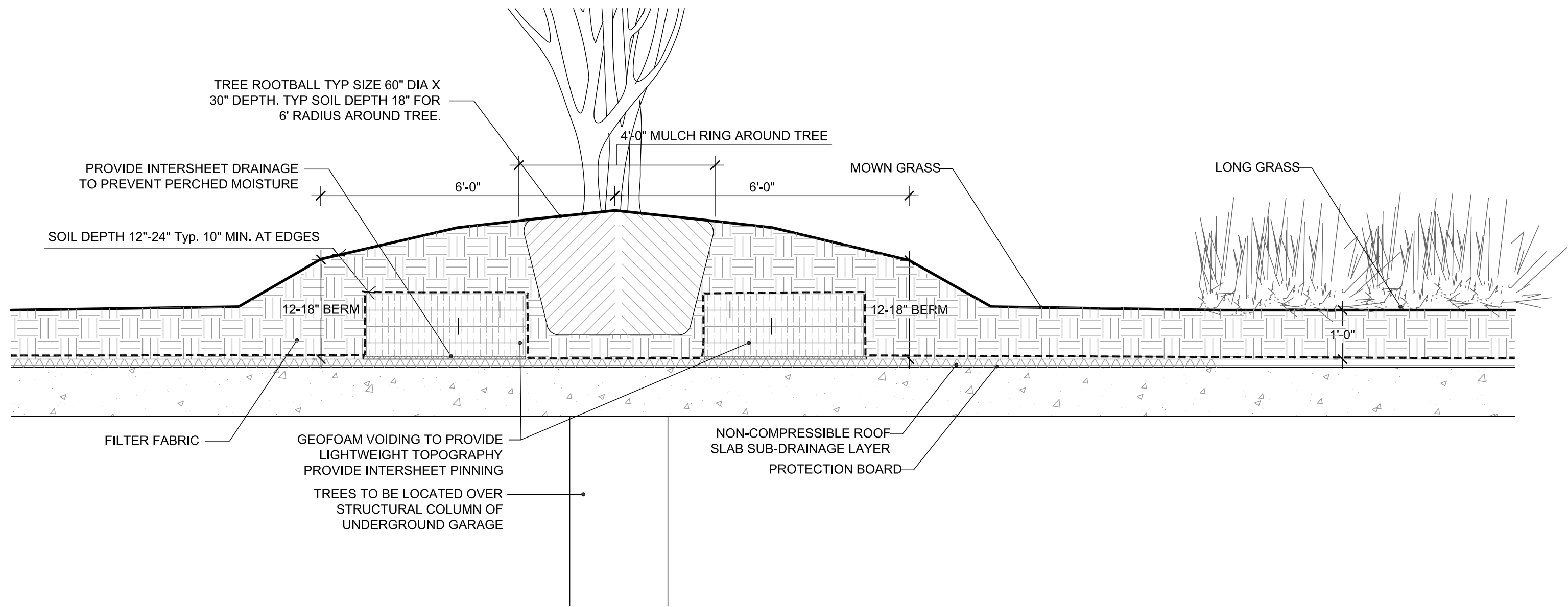


ELEVATION



CROSS SECTION

1 MONUMENT SIGN  
1/4" = 1'-0"



2 GARAGE ROOFTOP PLANTING DETAIL, TYP.  
1/2" = 1'-0"

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architecture  
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| 2 | 10.07.15 Plan Commission Application (New Sheet) |
| 1 | 09.03.15 Plan Commission Application             |

| NO. | DATE     | DESCRIPTION                             |
|-----|----------|-----------------------------------------|
| 2   | 10.07.15 | Plan Commission Application (New Sheet) |
| 1   | 09.03.15 | Plan Commission Application             |

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SHEET TITLE:  
LANDSCAPE DETAILS

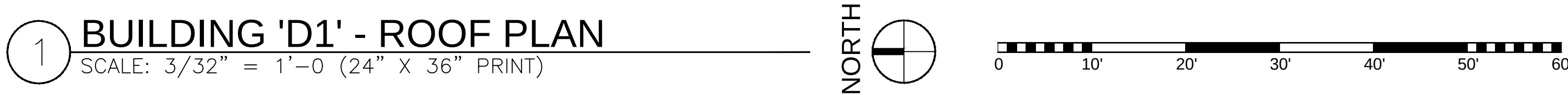
SHEET NO.

L3.2

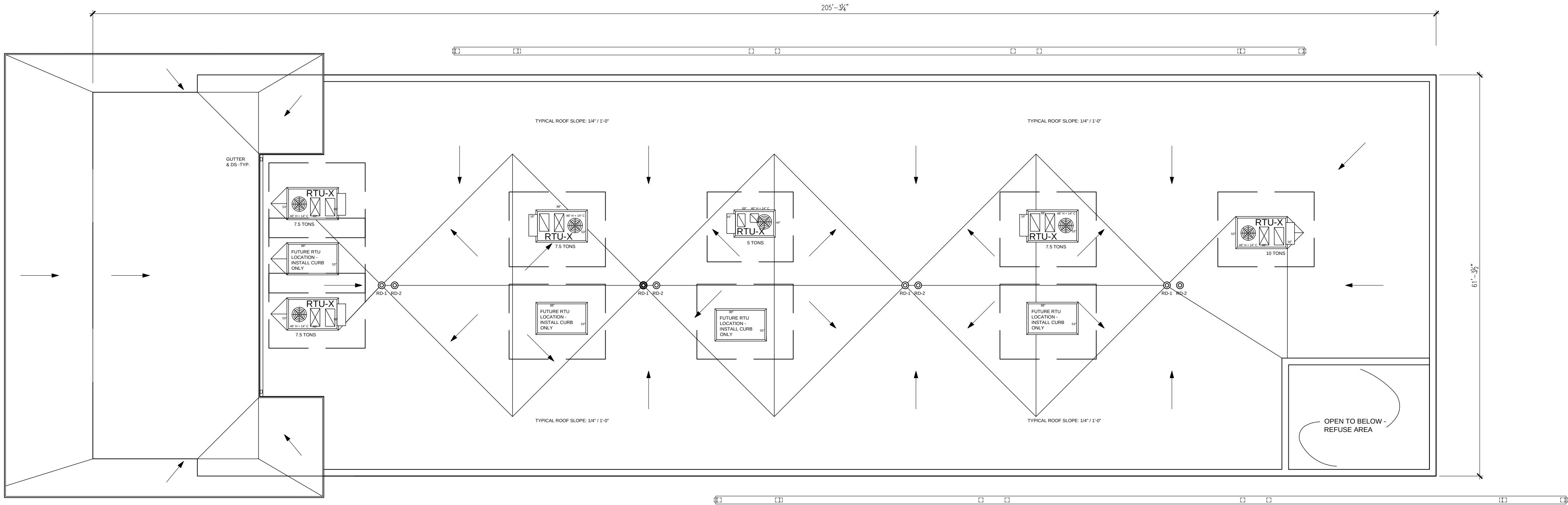




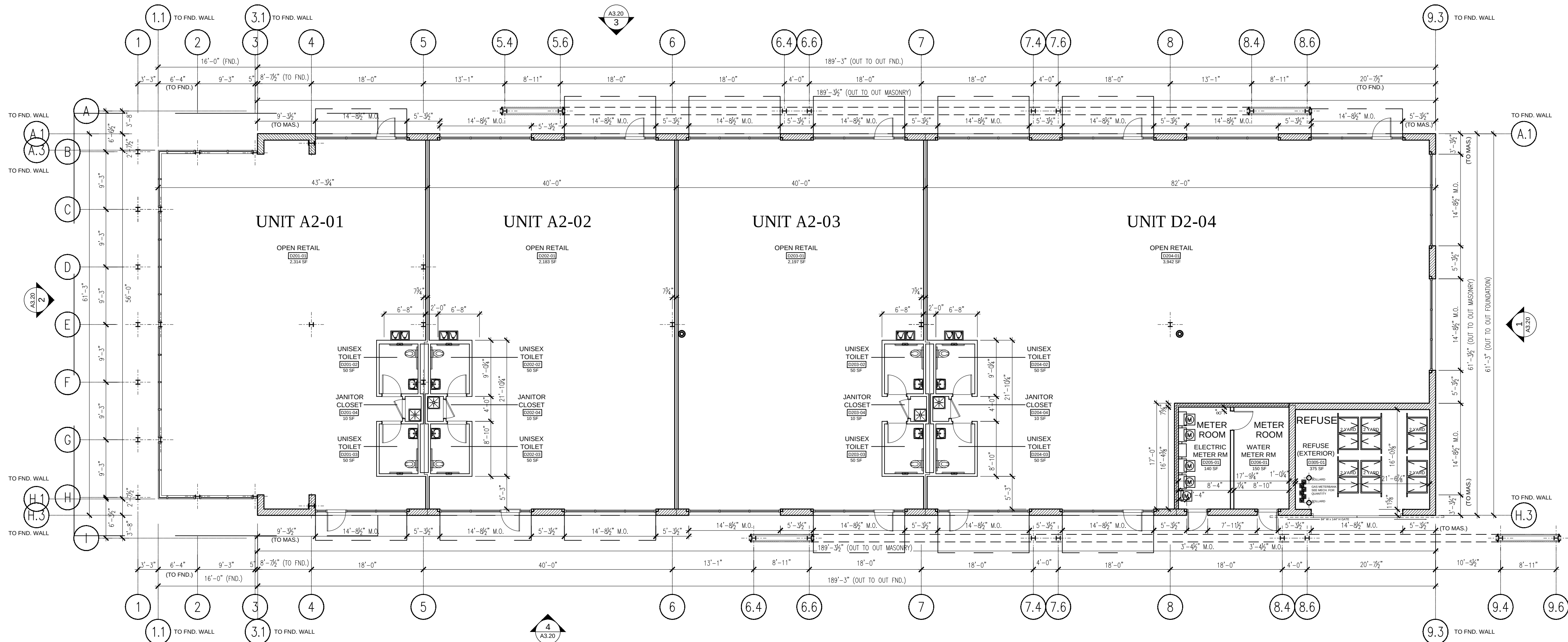
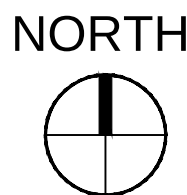




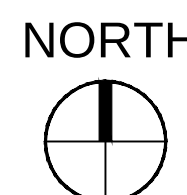




1 BUILDING 'D2' - ROOF PLAN  
SCALE: 3/32" = 1'-0" (24" X 36" PRINT)



2 BUILDING 'D2' - GROUND FLOOR PLAN  
SCALE: 3/32" = 1'-0" (24" X 36" PRINT) AREA: 12,000 SF



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## PLAN COMMISSION APPLICATION

|   |                                    |
|---|------------------------------------|
| 1 | PLAN COMMISSION APPLICATION REV. 1 |
| 2 | PLAN COMMISSION APPLICATION        |
| 3 | NO. DATE DESCRIPTION               |

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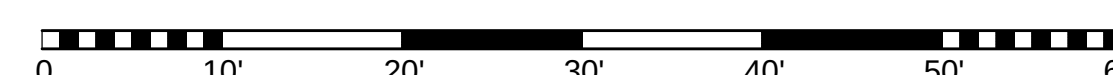
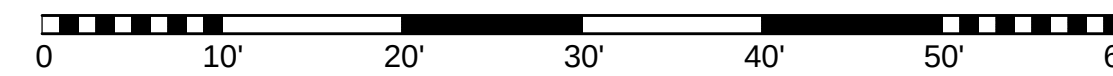
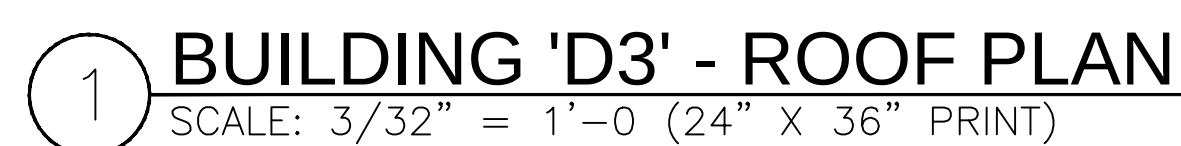
SHEET TITLE:

## BUILDING D2 PLANS

SHEET NO.

# A2.20





**OWNER(S):**  
ARLINGTON DOWNS WPH, LLC  
ARLINGTON DOWNS COMMERCIAL, LLC  
PSB / EUCLID, LLC  
  
2920 W. EUCLID AVENUE  
ARLINGTON HEIGHTS IL 60005

# PLAN COMMISSION APPLICATION

|                                                                                       |                 |                                    |
|---------------------------------------------------------------------------------------|-----------------|------------------------------------|
|  | _____           | _____                              |
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|  | <b>09.03.15</b> | PLAN COMMISSION APPLICATION REV. 1 |
|  | <b>09.03.15</b> | PLAN COMMISSION APPLICATION        |
| <b>NO.</b>                                                                            | <b>DATE</b>     | <b>DESCRIPTION</b>                 |

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SHEET TITLE:

## BUILDING D3 PLANS

SHEET NO. \_\_\_\_\_

## A2.30



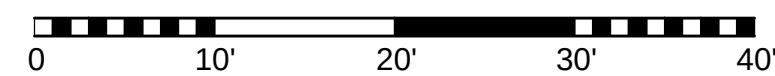
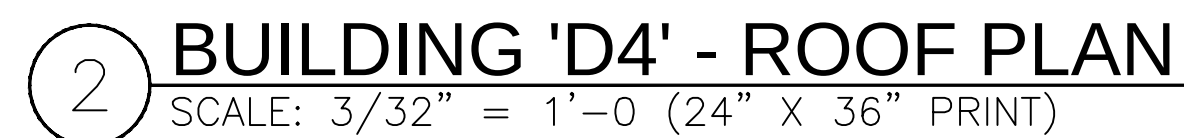
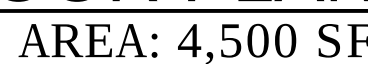
**OWNER(S):**  
ARLINGTON DOWNS WPH, LLC  
ARLINGTON DOWNS COMMERCIAL, LLC  
PSB / EUCLID, LLC  
  
2920 W. EUCLID AVENUE  
ARLINGTON HEIGHTS IL 60005

| NO. | DATE     | DESCRIPTION                        |
|-----|----------|------------------------------------|
| 1   | 09.03.15 | PLAN COMMISSION APPLICATION        |
| 2   | 09.03.15 | PLAN COMMISSION APPLICATION REV. 1 |
|     |          |                                    |
|     |          |                                    |
|     |          |                                    |
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SHEET TITLE:

SHEET NO. \_\_\_\_\_

**BUILDING 'D4' - GROUND FLOOR PLAN**  
SCALE: 3/32" = 1'-0" (24" X 36" PRINT) AREA: 4,500 SF





**OWNER(S):**  
ARLINGTON DOWNS WPH, LLC  
ARLINGTON DOWNS COMMERCIAL, LLC  
PSB / EUCLID, LLC  
  
2920 W. EUCLID AVENUE  
ARLINGTON HEIGHTS IL 60005

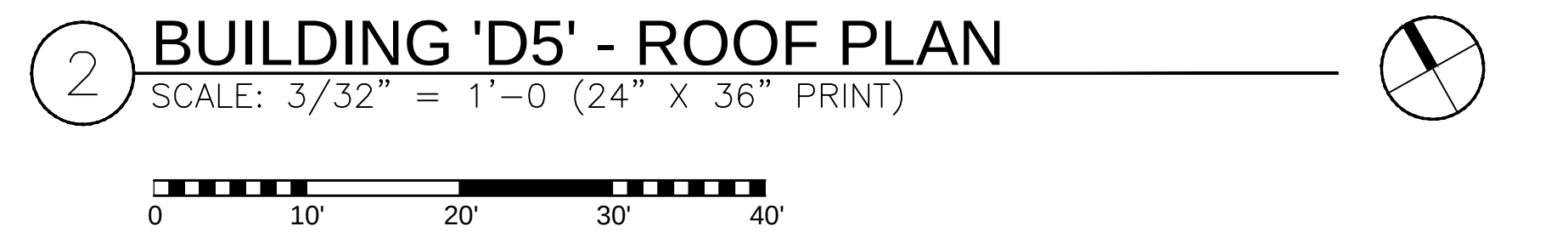
| <b>PLANNED MAINTENANCE</b> |                 |                                    |
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|                            | <b>09.03.15</b> | PLAN COMMISSION APPLICATION REV. 1 |
|                            | <b>09.03.15</b> | PLAN COMMISSION APPLICATION        |
| <b>NO.</b>                 | <b>DATE</b>     | <b>DESCRIPTION</b>                 |

SHEET TITLE:

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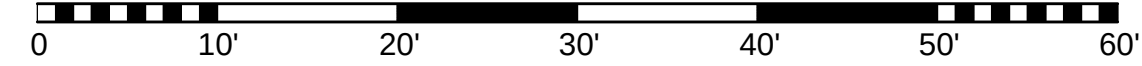
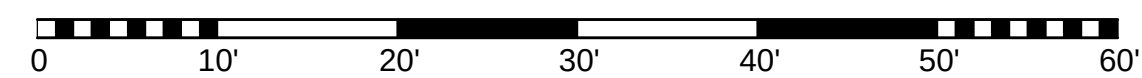
**BUILDING 'D5' - GROUND FLOOR PLAN**  
SCALE:  $3/32" = 1'-0"$  (24" X 36" PRINT) AREA: 4,500 SF

0 10' 20' 30' 40'



2 BUILDING 'D5' - ROOF PLAN  
SCALE:  $\frac{3}{32}'' = 1'-0''$  (24" X 36" PRINT)





# PLAN COMMISSION APPLICATION

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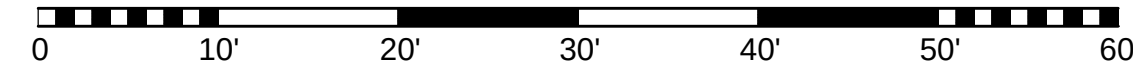
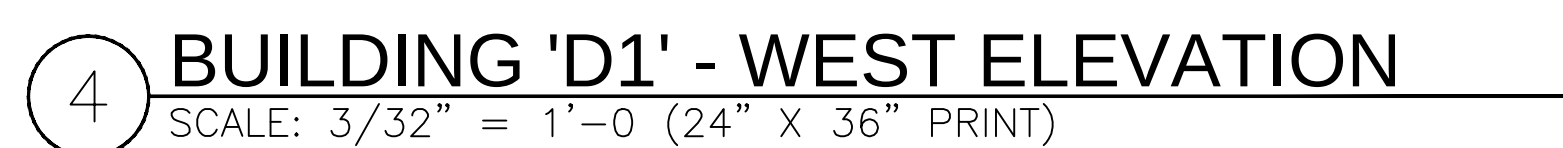
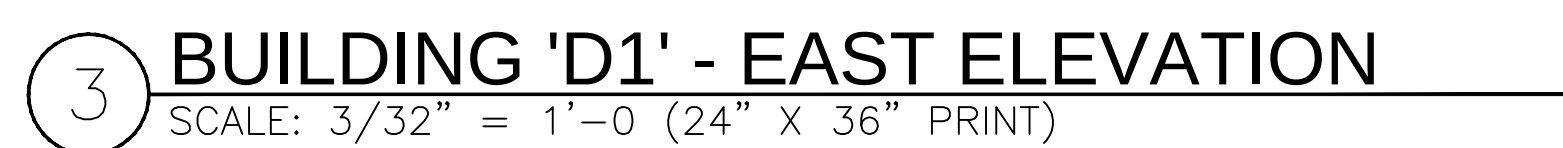
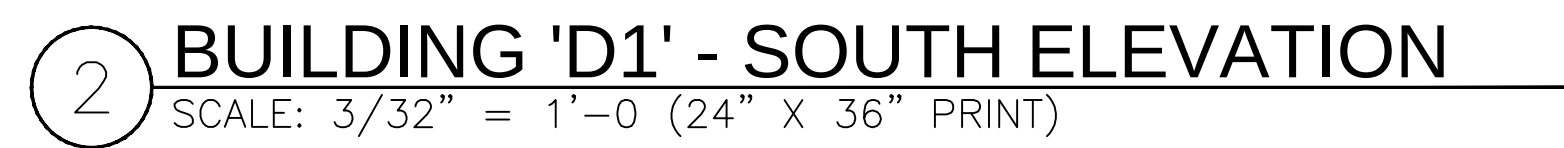
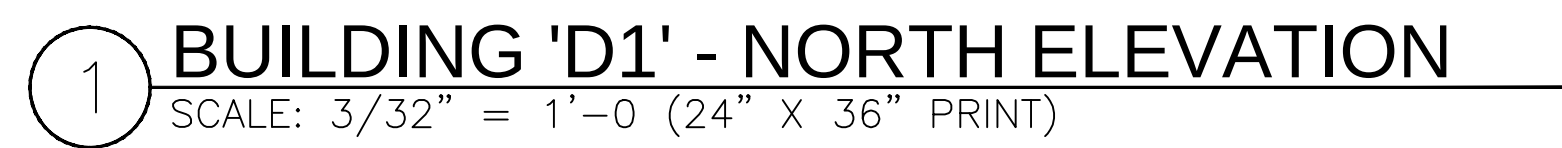
## BUILDING E1 PLANS

## A2.60



## A2.70





**OWNER(S):**  
ARLINGTON DOWNS WPH, LLC  
ARLINGTON DOWNS COMMERCIAL, LLC  
PSB / EUCLID, LLC  
  
2920 W. EUCLID AVENUE  
ARLINGTON HEIGHTS IL 60005

# PLAN COMMISSION APPLICATION

| NO. |          | DATE                               | DESCRIPTION |
|-----|----------|------------------------------------|-------------|
| 1   | 09.03.15 | PLAN COMMISSION APPLICATION REV. 1 |             |
| 2   | 09.03.15 | PLAN COMMISSION APPLICATION        |             |
| 3   |          |                                    |             |
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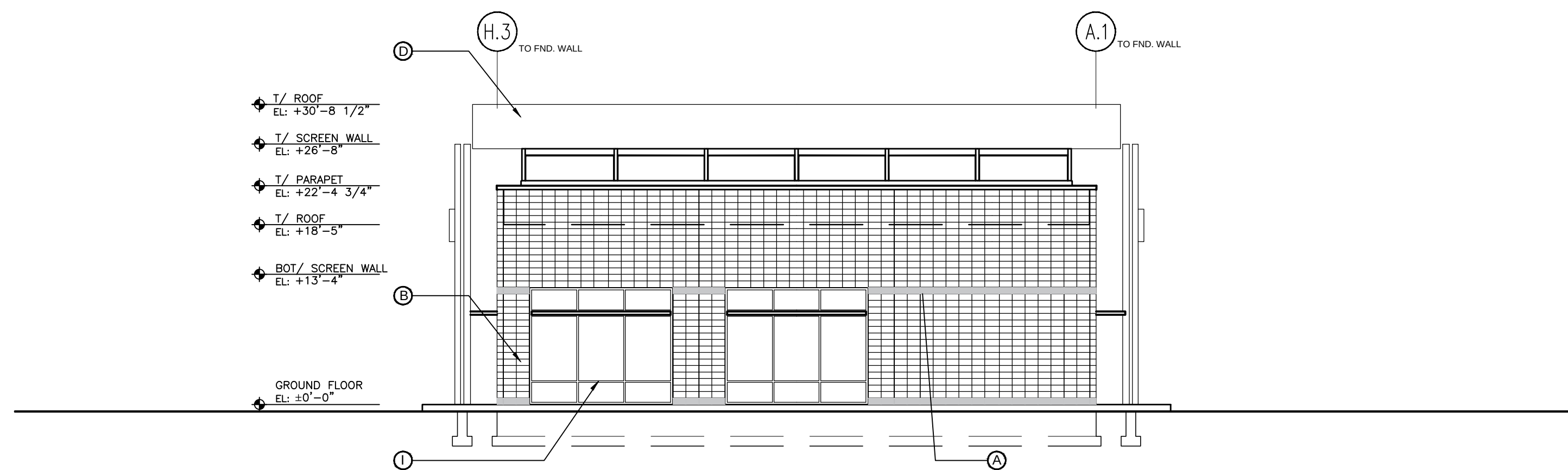
**SHEET TITLE:**

## BUILDING D1 ELEVATIONS

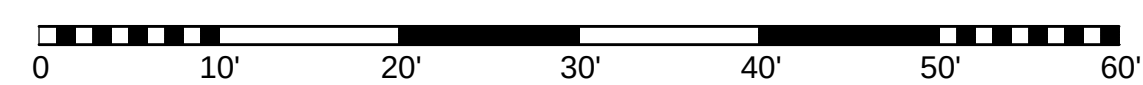
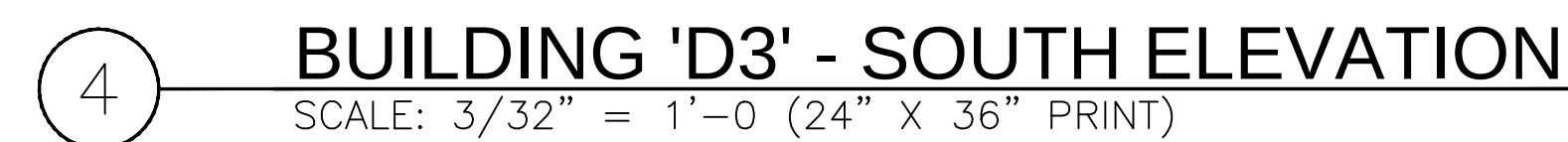
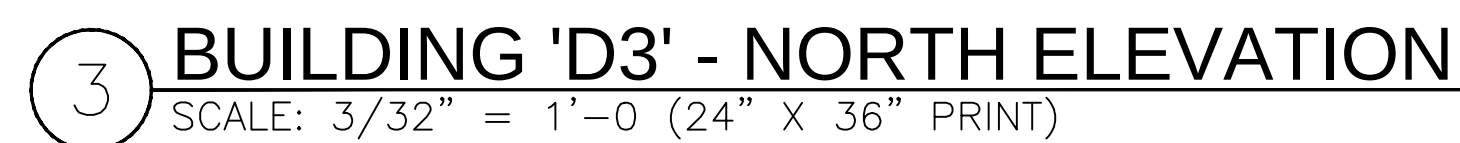
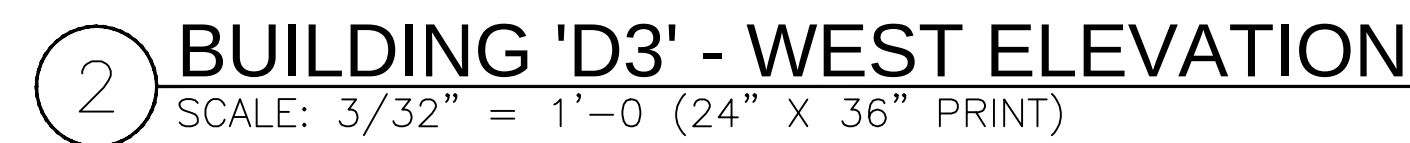
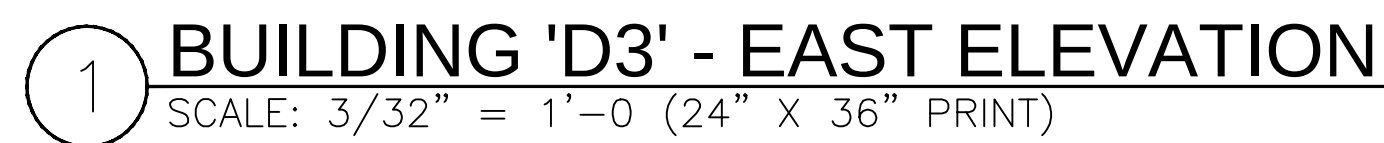
SHEET NO.

## A3.10









**OWNER(S):**  
ARLINGTON DOWNS WPH, LLC  
ARLINGTON DOWNS COMMERCIAL, LLC  
PSB / EUCLID, LLC  
  
2920 W. EUCLID AVENUE  
ARLINGTON HEIGHTS IL 60005

# PLAN COMMISSION APPLICATION

|  | <b>NO.</b> | <b>DATE</b>     | <b>DESCRIPTION</b>                 |
|--|------------|-----------------|------------------------------------|
|  |            |                 |                                    |
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|  | <b>2</b>   | <b>09.03.15</b> | PLAN COMMISSION APPLICATION REV. 1 |
|  | <b>1</b>   | <b>09.03.15</b> | PLAN COMMISSION APPLICATION        |

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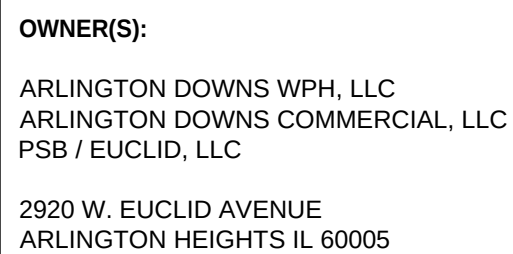
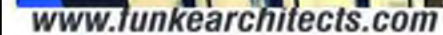
**SHEET TITLE:**

## BUILDING D3 ELEVATIONS

SHEET NO.

### A3.30



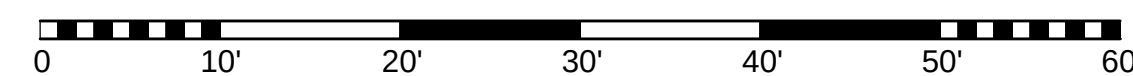
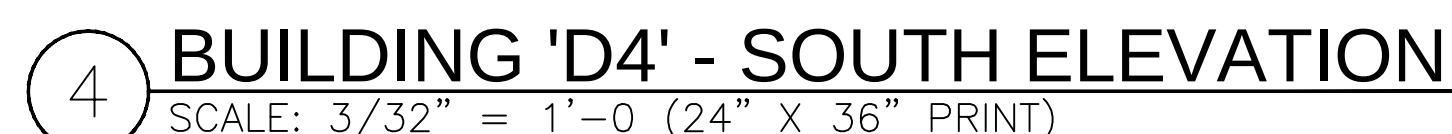
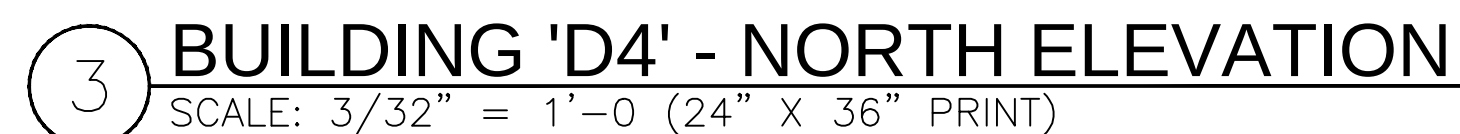
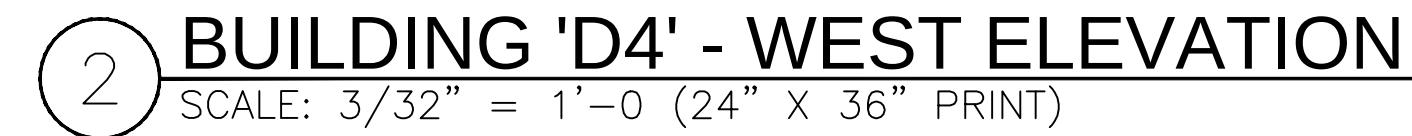
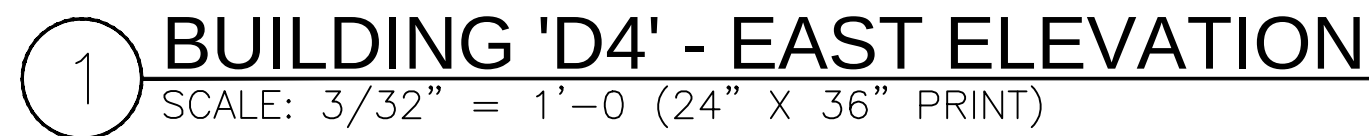


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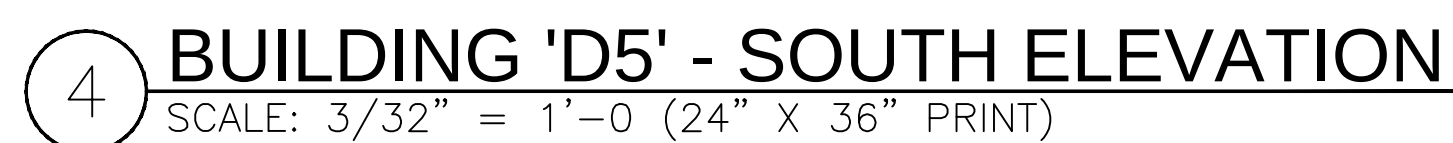
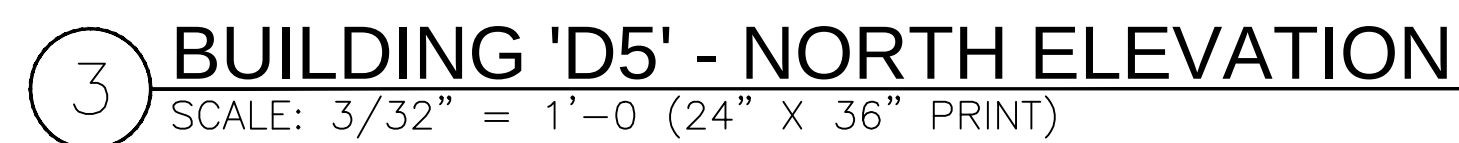
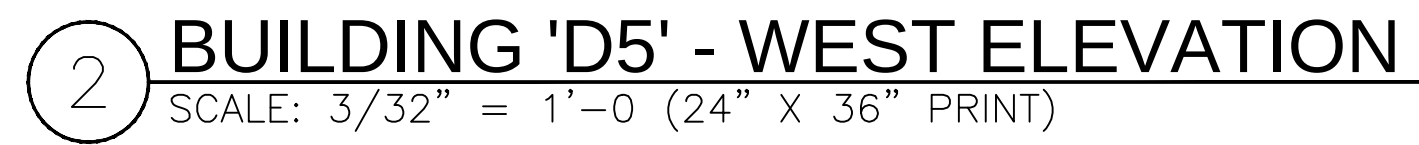
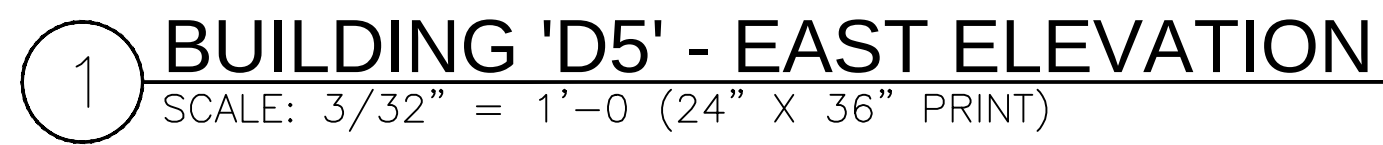
SHEET TITLE:

SHEET NO.

### A3.40







ARLINGTON  
DOWNS -  
RETAIL

**OWNER(S):**  
ARLINGTON DOWNS WPH, LLC  
ARLINGTON DOWNS COMMERCIAL, LLC  
PSB / EUCLID, LLC  
  
2920 W. EUCLID AVENUE  
ARLINGTON HEIGHTS IL 60005

# PLAN COMMISSION APPLICATION

| NO. | DATE     | DESCRIPTION                        |
|-----|----------|------------------------------------|
| 2   | 09.03.15 | PLAN COMMISSION APPLICATION REV. 1 |
| 1   | 09.03.15 | PLAN COMMISSION APPLICATION        |

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SHEET TITLE:

## BUILDING D5 ELEVATIONS

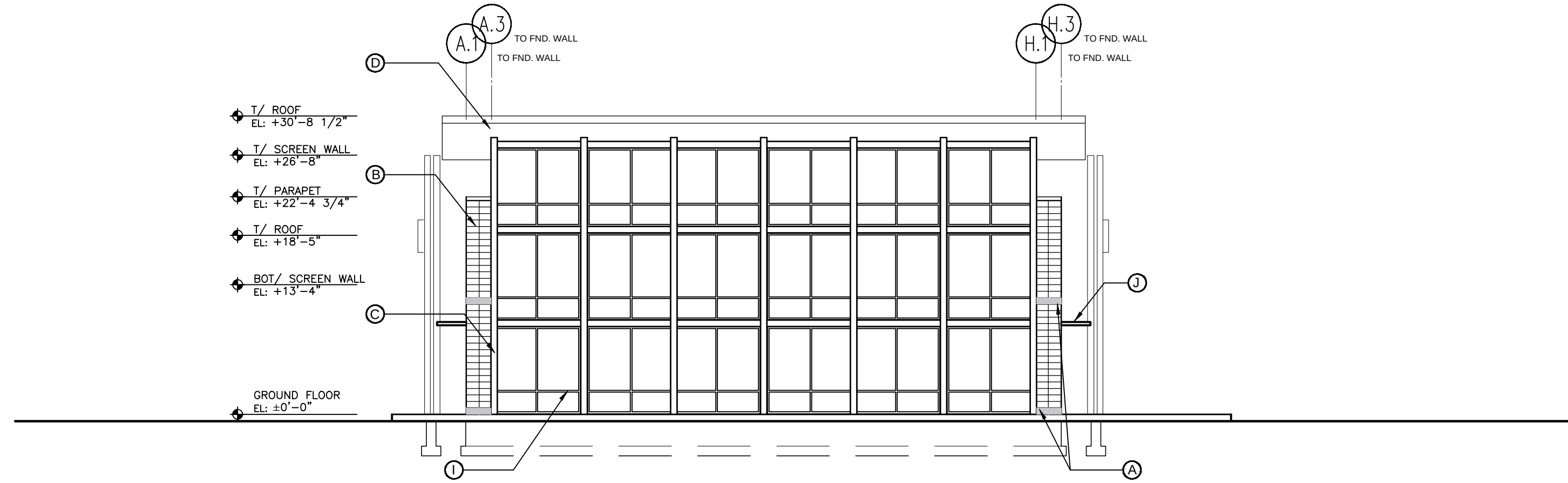
SHEET NO.

## A3.50

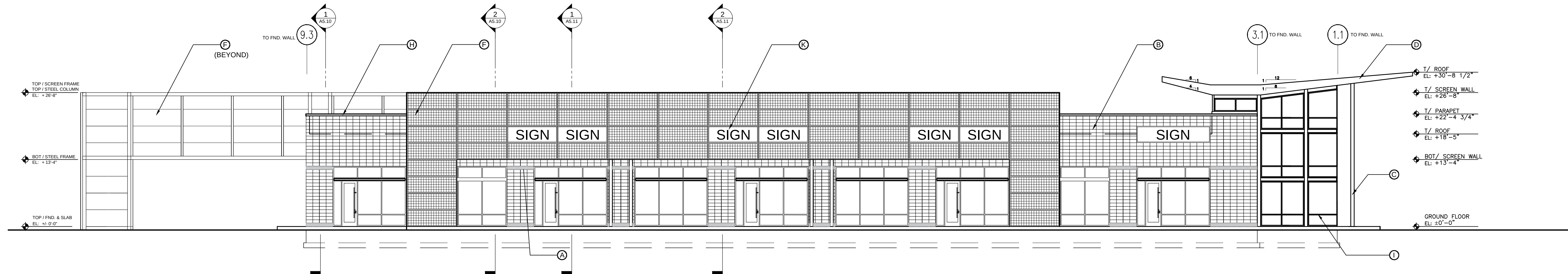




1 BUILDING 'E1'- EAST ELEVATION  
SCALE: 3/32" = 1'-0 (24" X 36" PRINT)



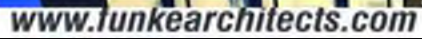
2 BUILDING 'E1'- WEST ELEVATION  
SCALE: 3/32" = 1'-0 (24" X 36" PRINT)











**OWNER(S):**  
ARLINGTON DOWNS WPH, LLC  
ARLINGTON DOWNS COMMERCIAL, LLC  
PSB / EUCLID, LLC  
2920 W. EUCLID AVENUE  
ARLINGTON HEIGHTS IL 60005

# PLAN COMMISSION APPLICATION

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SHEET TITLE:

## BUILDING PARAPET SECTION

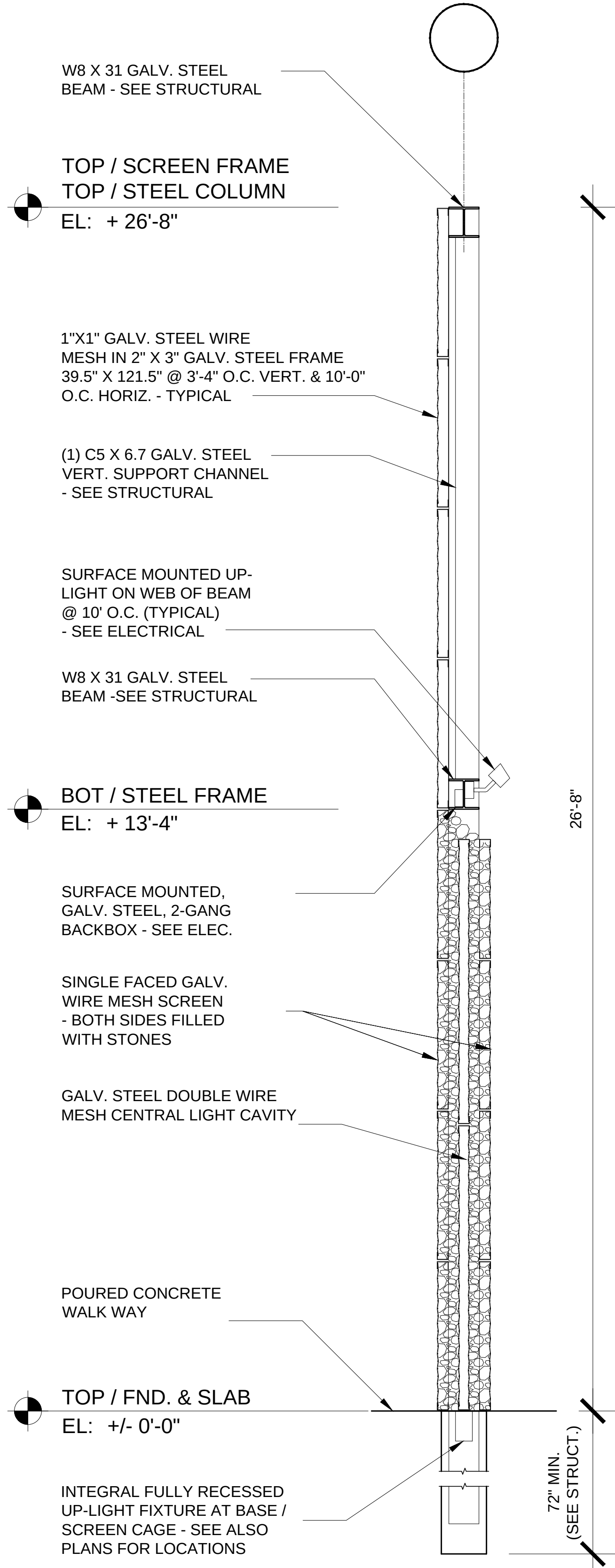
SHEET NO.

## A4.20

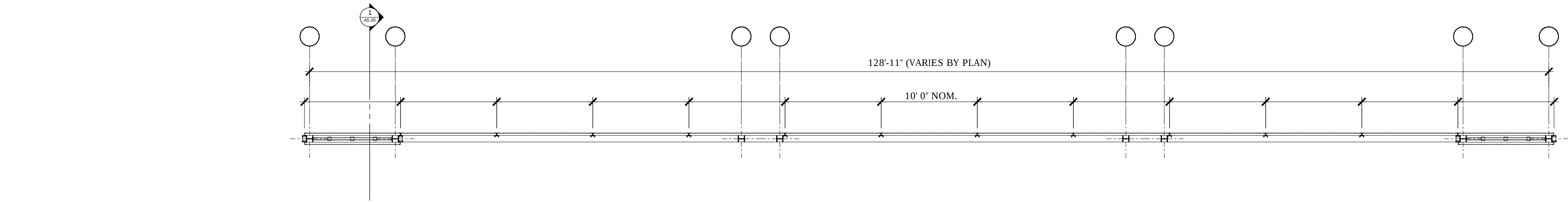


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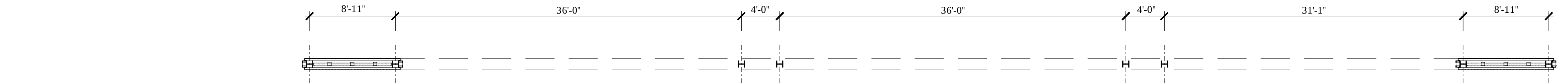




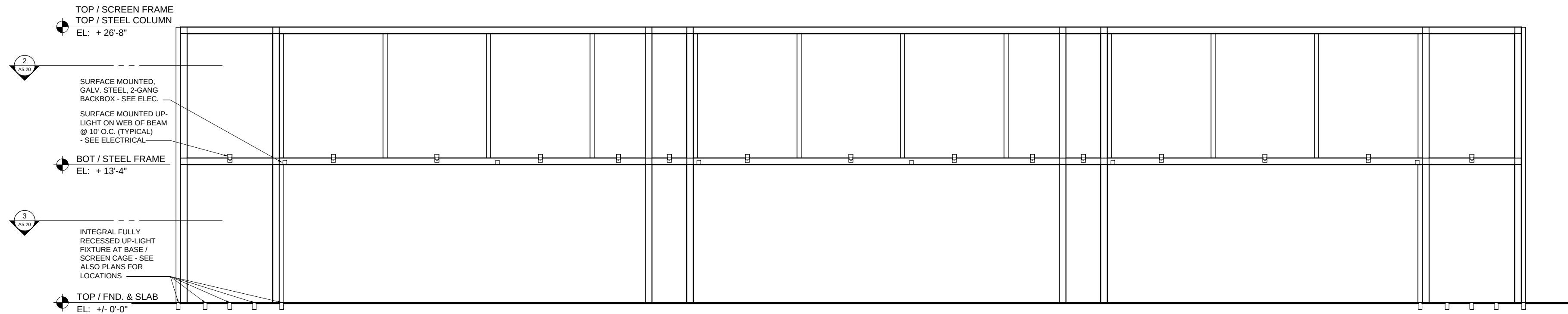
1 SCREEN FRAME SECTION  
SCALE: 1/2" = 1'-0" (24" X 36" SHEET)



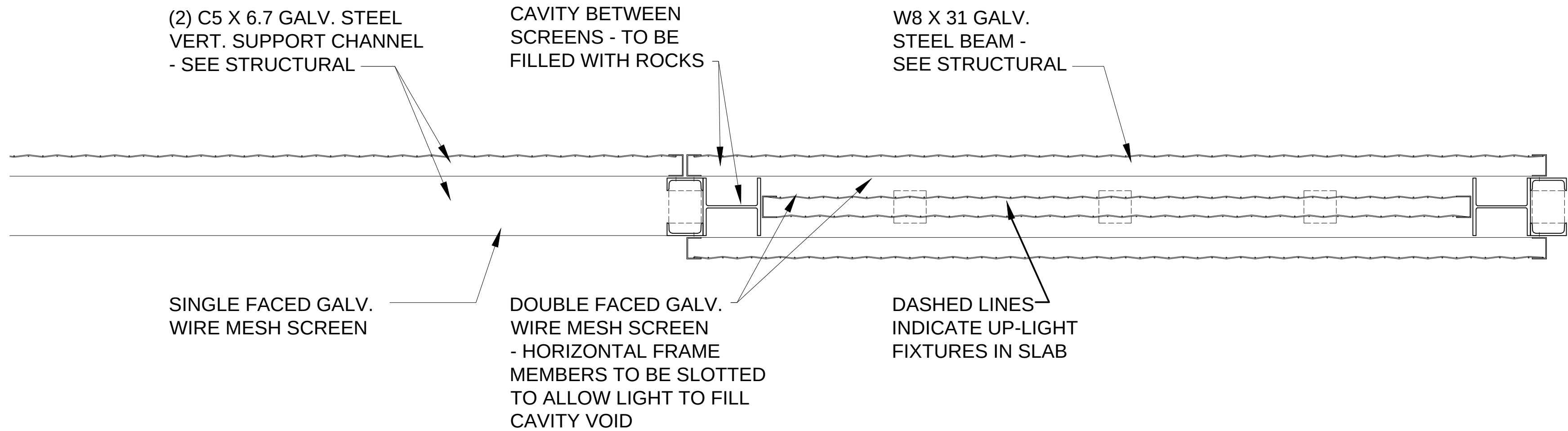
2 TYPICAL SCREEN WALL PLAN DETAIL  
SCALE: 1/8" = 1'-0" (24" X 36" SHEET)



3 TYPICAL SCREEN WALL PLAN DETAIL  
SCALE: 1/8" = 1'-0" (24" X 36" SHEET)



4 SCREEN WALL FRAME ELEVATION  
SCALE: 1/8" = 1'-0" (24" X 36" SHEET)



5 SCREEN WALL PLAN DETAIL  
SCALE: 1" = 1'-0" (24" X 36" SHEET)



## ARLINGTON DOWNS - RETAIL

OWNER(S):  
ARLINGTON DOWNS WPH, LLC  
ARLINGTON DOWNS COMMERCIAL, LLC  
PSB / EUCLID, LLC  
2920 W. EUCLID AVENUE  
ARLINGTON HEIGHTS IL 60005

## PLAN COMMISSION APPLICATION

|    |          |                                    |
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| 1  | 09.03.15 | PLAN COMMISSION APPLICATION REV. 1 |
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| 9  | 09.03.15 | PLAN COMMISSION APPLICATION        |
| 10 | 09.03.15 | PLAN COMMISSION APPLICATION        |

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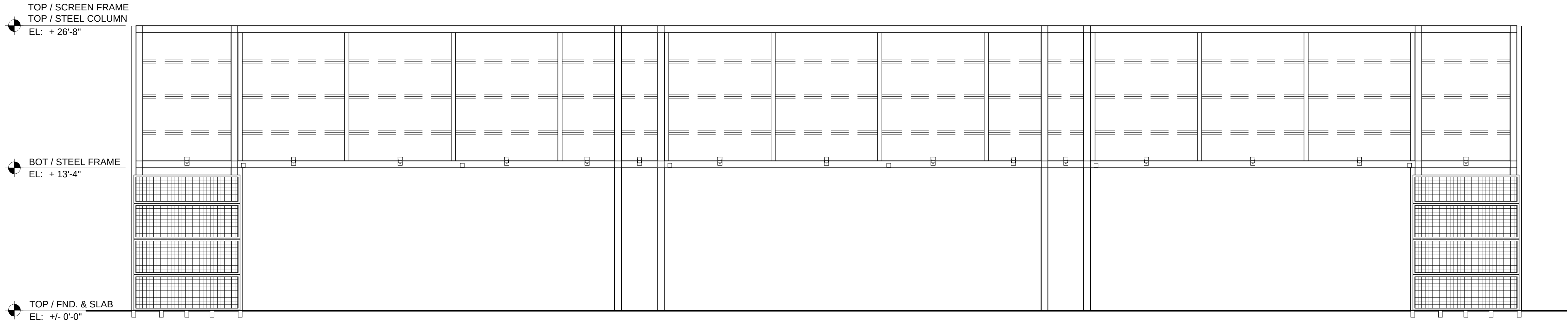
SHEET TITLE:

## SCREEN WALL DETAILS

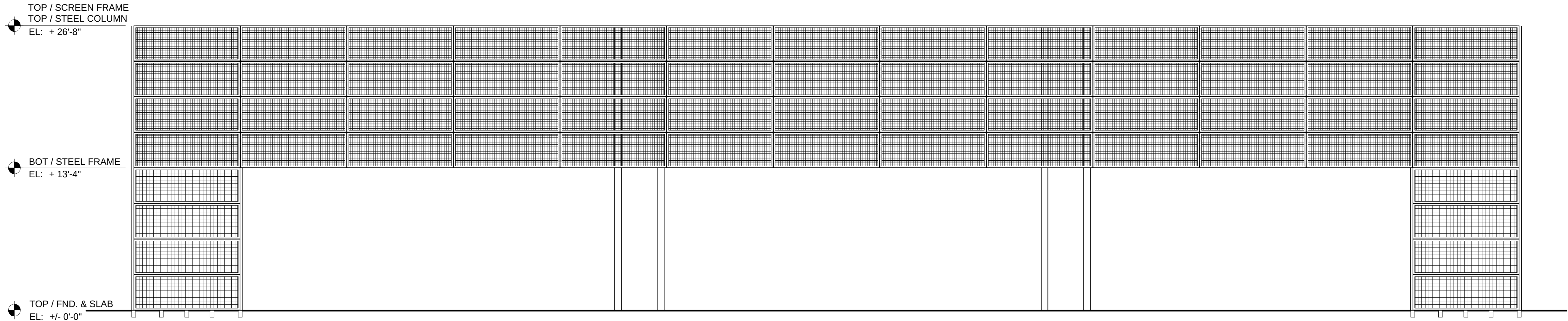
SHEET NO.

# A5.20





1 SCREEN WALL FRAME BACK ELEVATION  
SCALE: 3/16" = 1'-0" (24" X 36" SHEET)



2 SCREEN WALL FRAME FRONT ELEVATION  
SCALE: 3/16" = 1'-0" (24" X 36" SHEET)



140 east Grand 300  
Chicago, IL 60611  
c. 312.373.4812  
p. 312.428.9779  
f. 312.546.7065

## ARLINGTON DOWNS - RETAIL

OWNER(S):  
ARLINGTON DOWNS WPH, LLC  
ARLINGTON DOWNS COMMERCIAL, LLC  
PSB / EUCLID, LLC  
2920 W. EUCLID AVENUE  
ARLINGTON HEIGHTS IL 60005

## PLAN COMMISSION APPLICATION

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| 2   | 09.03.15 PLAN COMMISSION APPLICATION REV. 1 |
| 1   | 09.03.15 PLAN COMMISSION APPLICATION        |
| NO. | DATE DESCRIPTION                            |

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## SCREEN WALL DETAILS

SHEET NO.

# A5.21



## **ARLINGTON DOWNS PARKING ASSESSMENT**

DATE: September 2, 2015  
**Updated October 23, 2015**

TO: Jeffrey Funke, Funke Architects  
Vince Bertucci, ChiArc

FROM: Peter Reinhofer, P.E.

RE: Arlington Downs Shared Parking Study  
Arlington Heights, Illinois

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V3 Companies has prepared this parking assessment to present the conclusions of the parking demand and shared parking analysis and to determine the designated number of parking spaces needed for the mixed-use Arlington Downs development. Arlington Downs, located at the northeast corner of Rohlwing Road and Euclid Avenue in Arlington Heights, Illinois, is a mixed use project that will include residential, restaurant, hotel, retail, and entertainment land uses.

The purpose of this parking analysis is to confirm that the number of proposed parking spaces for the individual zones and the overall Arlington Downs development will be adequate to serve the demand of the site. The study will calculate the number of parking spaces required utilizing the Village of Arlington Heights municipal code parking rates, the approved Planned Unit Development (PUD) parking rates, and a shared parking analysis based on the parking characteristics of the proposed land use plan.

### **Arlington Downs Planned Unit Development**

The site is part of a proposed redevelopment plan of the previous Arlington Sheraton hotel. A PUD was originally approved in 2012 with subsequent modifications to the land use plan, which proposed five development zones. The updated redevelopment will also consist of five development zones.

Zone A consists of the previous hotel that has been redeveloped into 214 apartment units, named Arlington One, which is already completed and partially occupied. The future development of Zone A will also include an 11,000 square foot day care facility and 4,500 square feet of restaurant space. Zone A currently has a 313-space parking garage in addition to 24 surface parking spaces in front of the apartment building and 32 surface parking spaces



east of the apartment building. The parking lot east of the apartment building will be expanded from 32 spaces to 71 spaces, for a total of 408 parking spaces on Zone A. Ownership has indicated that the apartment building is currently 67 percent leased and 62 percent occupied. In addition, the number of parking spaces occupied by tenants is approximately 80 spaces.

Zone B, which is currently permitted, consists of a 161-room hotel with conference space to be constructed at the southeast corner of Rohlwing Road and Salt Creek Lane. In addition, this Zone includes the re-opening of the existing water park and the development of the attached family entertainment center. Zone B includes the construction of 414 surface parking spaces located between the proposed hotel and the waterpark.

Zone C will include the future development of a second residential tower with 442 apartment units. It is our understanding that the required parking for the second residential tower will be fully accommodated within Zone C as part of the site design, likely with underground parking or a parking garage. The parking required is estimated to be 641 parking spaces based on the PUD approved parking rate of 1.45 parking spaces per unit.

Zone D of the development includes the construction of five buildings which will include a mix of retail, restaurant, and medical office uses. This Zone includes the construction of 456 surface parking spaces. Zone E consists of one retail building with retail and restaurant land uses and 109 surface parking spaces.

Overall, the proposed PUD includes a total of 2,028 parking spaces. Exhibit A illustrates the overall proposed site plan for Arlington Downs and Table 1 provides a summary of the various land uses summarized by Zone.



**Table 1 – Proposed Land Use Plan By Zone**

| Zone | Land Use                                                 | Size      |
|------|----------------------------------------------------------|-----------|
| A    | Apartment                                                | 214 units |
|      | Child Care                                               | 11,000 sf |
|      | High Turnover (Sit-Down)                                 | 4,500 sf  |
| B    | Water Park                                               | 55,000 sf |
|      | Water Park - Family Entertainment                        | 9,000 sf  |
|      | Hotel                                                    | 161 rooms |
|      | Hotel - Conference Center                                | 4,600 sf  |
| C    | Apartment                                                | 442 units |
| D    | D1 - Medical Office                                      | 15,000 sf |
|      | D2 - Shopping Center                                     | 6,290 sf  |
|      | D2 - Shopping Center                                     | 5,710 sf  |
|      | D3 - High Turnover (Sit-Down)                            | 5,510 sf  |
|      | D3 - High Turnover (Sit-Down) - Outdoor Seating          | 1,500 sf  |
|      | D3 - Shopping Center                                     | 2,560 sf  |
|      | D3 - Shopping Center                                     | 3,930 sf  |
|      | D4 - High Turnover (Sit-Down)                            | 4,500 sf  |
|      | D4 - High Turnover (Sit-Down) - Outdoor Seating          | 1,500 sf  |
|      | D5 - High Turnover (Sit-Down)                            | 4,500 sf  |
|      | D5 - High Turnover (Sit-Down) - Outdoor Seating          | 1,500 sf  |
| E    | Fast Food without Drive Through Window                   | 2,570 sf  |
|      | Fast Food without Drive Through Window - Outdoor Seating | 1,500 sf  |
|      | Shopping Center                                          | 2,575 sf  |
|      | Salon                                                    | 1,610 sf  |
|      | High Turnover (Sit-Down)                                 | 2,575 sf  |
|      | High Turnover (Sit-Down) - Outdoor Seating               | 200 sf    |
|      | Fast Food with Drive Through Window                      | 2,670 sf  |
|      | Fast Food with Drive Through Window - Outdoor Seating    | 200 sf    |

### **Parking Generation Analysis**

A parking generation analysis is performed to estimate the parking demand during peak times for a site and determine if the number of proposed parking spaces is adequate to serve that peak demand. Typically, required parking for a site is determined using parking ratios for various land uses found in a municipal code.

The original PUD Shared Parking Study, dated May 25, 2012, developed site specific parking demand rates for the various land uses. The parking rates established in that parking study, in





addition to subsequent studies with modified land use plans, were approved by the Village of Arlington Heights.

An additional publication with parking generation information is the Urban Land Institute's (ULI) Shared Parking, 2<sup>nd</sup> Edition Manual. This manual primarily focuses on the concept of shared parking, which accounts for how parking demand fluctuates for individual land uses throughout a typical day.

#### *Parking Requirements per Village of Arlington Heights Municipal Code*

The Village of Arlington Heights Municipal Code, Chapter 28-Section 11.4, provides a schedule of off-street parking ratios to determine the required number of parking spaces corresponding to its specified land use. Table 2 provides a breakdown of the Village's parking rates and required parking spaces for the Arlington Downs development by zone.

The Village Code provides a parking rate for restaurants based on the seating area of the restaurant. Since final interior plans are not yet developed for the various restaurants, it is assumed that 50 percent of the interior restaurant floor area will be seating area. The outdoor area is considered 100 percent as seating area. The water park and family entertainment areas are classified as recreational areas which require parking spaces equal to 30 percent of the occupancy.

**Table 2 – Required Parking Spaces per Arlington Heights Village Code**

| Zone                         | Land Use                          | Independent Variable | Parking Supply Ratio               | Required Parking Spaces | Required Parking By Zone | Parking Provided | Surplus/ Deficit |
|------------------------------|-----------------------------------|----------------------|------------------------------------|-------------------------|--------------------------|------------------|------------------|
| A                            | Apartment                         | 214 units            | 2 spaces per dwelling unit         | 428                     | 501                      | 408              | -93              |
|                              | Child Care                        | 15 employee          | 3 spaces per 2 employees           | 23                      |                          |                  |                  |
|                              | Restaurant                        | 4,500 sf             | 1 space per 45 SF of seating area* | 50                      |                          |                  |                  |
| B                            | Hotel                             | 161 rooms            | 1 space per room                   | 161                     | 599                      | 414              | -185             |
|                              | Hotel - Conference Center         | 300 people           | 30% occupancy                      | 90                      |                          |                  |                  |
|                              | Water Park                        | 1,000 people         | 30% occupancy                      | 300                     |                          |                  |                  |
|                              | Water Park - Family Entertainment | 160 people           | 30% occupancy                      | 48                      |                          |                  |                  |
| C                            | Apartment                         | 442 units            | 2 spaces per dwelling unit         | 884                     | 884                      | 641              | -243             |
| D                            | Medical Office                    | 15,000 sf            | 1 space per 200 SF                 | 75                      | 398                      | 456              | 58               |
|                              | Restaurant                        | 14,510 sf            | 1 space per 45 SF of seating area* | 161                     |                          |                  |                  |
|                              | Restaurant - Outdoor Seating      | 4,500 sf             | 1 space per 45 SF of seating area  | 100                     |                          |                  |                  |
|                              | Shopping Center                   | 18,490 sf            | 1 space per 300 SF                 | 62                      |                          |                  |                  |
| E                            | Restaurant                        | 7,815 sf             | 1 space per 45 SF of seating area* | 87                      | 144                      | 109              | -35              |
|                              | Restaurant - Outdoor Seating      | 1,900 sf             | 1 space per 45 SF of seating area  | 42                      |                          |                  |                  |
|                              | Salon                             | 1,610 sf             | 1 space per 250 SF                 | 6                       |                          |                  |                  |
|                              | Shopping Center                   | 2,575 sf             | 1 space per 300 SF                 | 9                       |                          |                  |                  |
| <b>TOTAL REQUIRED SPACES</b> |                                   |                      |                                    | <b>2,526</b>            | <b>2,028</b>             | <b>-498</b>      |                  |

\*Seating area estimated as 50% of gross area

As Table 2 illustrates, Arlington Downs would require 2,526 parking spaces based on the Village Code. Based on the site providing 2,028 parking spaces, there would be a parking deficit of 498 parking spaces for the overall site. In addition, each of the individual zones would have a deficit in parking with the exception of Zone D, which provides a surplus of 58 parking spaces.



### *Parking Requirements per Approved PUD Parking Rates*

The original PUD Shared Parking Study, dated May 25, 2012, developed site specific parking rates based on actual parking demand for the various land uses. As stated in the report, data on parking demand for similar individual land uses was obtained from the Institute of Transportation Engineers (ITE) Parking Generation, 4th Edition manual, the Urban Land Institute's Shared Parking, 2nd Edition report, and other parking studies. Table 3 illustrates the various parking demand rates, compares to the Village Code parking requirement, and provides the approved PUD parking rate. The approved PUD rates are separated by weekday demand and weekend demand.

**Table 3 – Approved PUD Parking Rates from 2012 Shared Parking Study**

| Land Use       | Unit           | Village Code     | ITE             | ULI         | Other Data              | Ratio Used          |
|----------------|----------------|------------------|-----------------|-------------|-------------------------|---------------------|
| Apartment      | Dwelling       | 2.0/unit         | 1.23 (1.13)     | 1.65 (1.65) | 1.3/unit <sup>(1)</sup> | <b>1.45/unit</b>    |
| Hotel          | Guest room     | 1.0/room         | 0.6 (0.66)      | 1.25 (1.08) | -na-                    | <b>1.0/room</b>     |
| Conference     | Occupancy      | 30%              | -na-            | -na-        | -na-                    | <b>30%</b>          |
| Retail         | 1,000 sq. ft.  | 3.33             | 3.76 (4.67)     | 3.6 (4.0)   | -na-                    | <b>3.6 (4.0)</b>    |
| Office         | 1,000 sq. ft.  | 3.33             | 2.84 (-na-)     | 3.8(0.38)   | -na-                    | <b>3.33 (.38)</b>   |
| Childcare      | Child/Employee | 1.5 per employee | .24(-na-)/child | -na-        | -na-                    | <b>.24(0)/child</b> |
| Bank           | 1,000 sq. ft   | 3.33             | 4.0 (3.5)       | 4.6 (4.6)   | -na-                    | <b>4.0 (3.5)</b>    |
| Medical Office | 1,000 sq. ft   | 5.0              | 3.2 (-na-)      | 4.5 (4.5)   | 4.5 <sup>(2)</sup>      | <b>4.5 (4.5)</b>    |
| Water Park     | Occupancy      | 30%              | -na-            | -na-        | 25% <sup>(3)</sup>      | <b>25%</b>          |
| Restaurant     | 1,000 sq. ft.  | 11.1             | 10.6 (16.4)     | 10.5 (15.0) | -na-                    | <b>10.6 (15.0)</b>  |
| Health Club    | 1,000 sq. ft.  | 4.0              | 5.87 (2.89)     | 7.0 (5.75)  | -na-                    | <b>6.0 (4.0)</b>    |

Note– Weekday Demand (Weekend Demand)

- (1) Auto Ownership for Rental Units in Arlington Heights – US Census.
- (2) Walker Parking Study of Medical/Dental Office Buildings
- (3) Water Park Operator Experience

Utilizing the approved PUD parking rates, Table 4 provides the parking demand for the Arlington Downs development by Zone and for the overall development.



**Table 4 – Required Parking Spaces per Approved PUD Rates**

| Zone                          | Land Use                          | Independent Variable | Required PUD Parking - Weekday |         | Required PUD Parking - Weekend |              | Parking Provided | Surplus/ Deficit |
|-------------------------------|-----------------------------------|----------------------|--------------------------------|---------|--------------------------------|--------------|------------------|------------------|
|                               |                                   |                      | By Use                         | By Zone | By Use                         | By Zone      |                  |                  |
| A                             | Apartment                         | 214 units            | 310                            | 380     | 310                            | 378          | 408              | 28               |
|                               | Medical Office                    | 90 children          | 22                             |         | 0                              |              |                  |                  |
|                               | Restaurant                        | 4,500 sf             | 48                             |         | 68                             |              |                  |                  |
| B                             | Hotel                             | 161 rooms            | 161                            | 549     | 161                            | 549          | 414              | -135             |
|                               | Hotel - Conference Center         | 300 people           | 90                             |         | 90                             |              |                  |                  |
|                               | Water Park                        | 1,000 people         | 250                            |         | 250                            |              |                  |                  |
|                               | Water Park - Family Entertainment | 160 people           | 48                             |         | 48                             |              |                  |                  |
| C                             | Apartment                         | 442 units            | 641                            | 641     | 641                            | 641          | 641              | 0                |
| D                             | Medical Office                    | 15,000 sf            | 68                             | 337     | 68                             | 428          | 456              | 28               |
|                               | Restaurant                        | 14,510 sf            | 154                            |         | 218                            |              |                  |                  |
|                               | Restaurant - Outdoor Seating      | 4,500 sf             | 48                             |         | 68                             |              |                  |                  |
|                               | Shopping Center                   | 18,490 sf            | 67                             |         | 74                             |              |                  |                  |
| E                             | Restaurant                        | 7,815 sf             | 83                             | 118     | 118                            | 163          | 109              | -54              |
|                               | Restaurant - Outdoor Seating      | 1,900 sf             | 20                             |         | 29                             |              |                  |                  |
|                               | Salon                             | 1,610 sf             | 6                              |         | 6                              |              |                  |                  |
|                               | Shopping Center                   | 2,575 sf             | 9                              |         | 10                             |              |                  |                  |
| <b>TOTAL REQUIRED PARKING</b> |                                   |                      | <b>2,025</b>                   |         |                                | <b>2,159</b> | <b>2,028</b>     | <b>-131</b>      |

As Table 4 illustrates, the parking demand at Arlington Downs would be 2,025 parking spaces during the week and 2,159 during the weekend. Based on the overall site providing 2,028 parking spaces, there would be a parking surplus of 3 spaces during the week and a parking deficit of 131 parking spaces during the weekend. Zones A, C, and D meet or exceed the PUD required parking while Zones B and E would not meet the PUD required parking.

*Parking Requirements per ULI's Shared Parking, 2nd Edition Manual*

Shared parking is the concept of using a parking space to serve two or more land uses without conflict. Conventional parking regulations typically require that each development, or land use type, provide enough parking to serve its own peak demand, leaving unused parking spaces during the off peak periods. Shared parking allows multiple complementary land uses, whose peak parking demands do not coincide, to share the same pool of parking spaces, resulting in a more efficient use of those spaces.

ULI's Shared Parking, 2nd Edition focuses on the concept of shared parking and peak time variations among different land uses. It provides recommended time-of-day factors for both the weekday and weekend. The factors were based on the percent accumulation of the independent variable for each hour of the weekday and weekend, from 6 am to midnight. All hourly percentages used are documented in ULI's Shared Parking for each particular land use, with the exception of the water park, family entertainment and child care uses, where time-of-day factors from the approved Shared Parking Study are used.



The ULI's Shared Parking also accounts for differences in demand by employees versus customers/patrons. The methodology from the approved PUD Shared Parking Study was utilized to separate the employee parking from the customer parking.

Exhibits 2 through 6 illustrate the shared parking model for each Zone of the Arlington Downs development while Exhibit 7 illustrates the entire Arlington Downs development. The results of the shared parking model are summarized in Table 5.

**Table 5 – Required Parking Spaces per Shared Parking Model**

| Zone          | Provided Parking | Weekday      |                    |                   |                       | Weekend      |                    |                   |                       |
|---------------|------------------|--------------|--------------------|-------------------|-----------------------|--------------|--------------------|-------------------|-----------------------|
|               |                  | PUD Rates    | Hourly Peak Demand | Peak Parking Time | Peak Surplus/ Deficit | PUD Rates    | Hourly Peak Demand | Peak Parking Time | Peak Surplus/ Deficit |
| A             | 408              | 380          | 360                | 7-9 pm            | 48                    | 378          | 378                | 8-9 pm            | 30                    |
| B             | 414              | 549          | 500                | 5-6 pm            | -86                   | 549          | 460                | 12-2 pm           | -46                   |
| C             | 641              | 641          | 641                | 7-11 pm           | 0                     | 641          | 641                | 7-11 pm           | 0                     |
| D             | 456              | 337          | 298                | 1-2 pm            | 158                   | 428          | 306                | 7-8 pm            | 150                   |
| E             | 109              | 118          | 112                | 1-2 pm            | -3                    | 163          | 146                | 1-2 pm            | -37                   |
| <b>Total:</b> | <b>2,028</b>     | <b>2,025</b> | <b>1,858</b>       | <b>6-7 pm</b>     | <b>170</b>            | <b>2,159</b> | <b>1,814</b>       | <b>12-1 pm</b>    | <b>214</b>            |

As illustrated, the peak period of parking demand varies by zone and for the overall development. The residential Zones A and C meet and exceed the peak period parking demand for weekday and weekends. Zone D exceeds the peak period parking demand during a weekday and weekend, with a surplus of 158 and 150 parking spaces, respectively.

Zone B, which includes the water park, family entertainment center, hotel, and conference center is projected to have a parking deficit during the peak periods of 86 spaces during the weekday and 46 spaces during the weekend. During the weekday peak period, the shared parking analysis assumes that the water park, entertainment center, and conference center will be at maximum occupancy. It is anticipated that overflow parking from Zone B could park in the spaces in front of the apartment building or the expanded 71-space surface lot to the east of the apartment building. In addition, Zone D is anticipated to have a parking surplus of 158 spaces during the weekday peak period and 150 during the weekend peak period, providing another parking option.

Zone E will peak during the afternoons and have a deficit of three parking spaces during the weekday and 37 parking spaces during the weekend peak hour. One of the fast food restaurants will have a drive through facility, which may decrease the parking demand for that restaurant. In addition, the restaurant customers may include patrons of the water park and family entertainment center in addition to the apartment residents and hotel guests, which may also decrease the parking demand. Overflow parking from Zone E could utilize the surplus parking in Zone D.





Overall, Arlington Downs is providing 2,028 parking spaces for the site. The weekday peak period demand will occur during the evening hours between 6 pm and 7 pm with 1,858 parking spaces required. Therefore, the site will have a surplus of 170 parking spaces, approximately 8 percent of the site. The weekend peak period demand will occur during the afternoon hours of 12 pm to 1 pm with 1,814 parking spaces required. This will result in a site surplus of 214 parking spaces, about 11 percent of the site.

### **Summary**

For this assessment, parking spaces for the Arlington Downs mixed-use development were calculated using the parking rates from the Village of Arlington Heights Municipal Code, the approved PUD parking rates, and the methodology in ULI's Shared Parking manual. Arlington Downs will provide a total of 2,028 surface and garage parking spaces for the overall development. Utilizing the parking rates from the Village Code results in the overall site requiring 2,526 parking spaces, which would result in a parking deficit of 498 parking spaces. In addition, each of the individual zones would have a deficit in parking with the exception of Zone D, which provides a surplus of 58 parking spaces.

The original PUD Shared Parking Study, dated May 25, 2012 and approved by the Village of Arlington Heights, developed site specific parking demand rates for the various land uses. Utilizing the approved PUD rates results in a total parking demand for the site of 2,025 parking spaces during the week and 2,159 during the weekend. Based on the overall site providing 2,028 parking spaces, there would be a parking surplus of 3 spaces during the week and a parking deficit of 131 parking spaces during the weekend. Zones A, C, and D meet or exceed the PUD required parking while Zones B and E would not meet the PUD required parking.

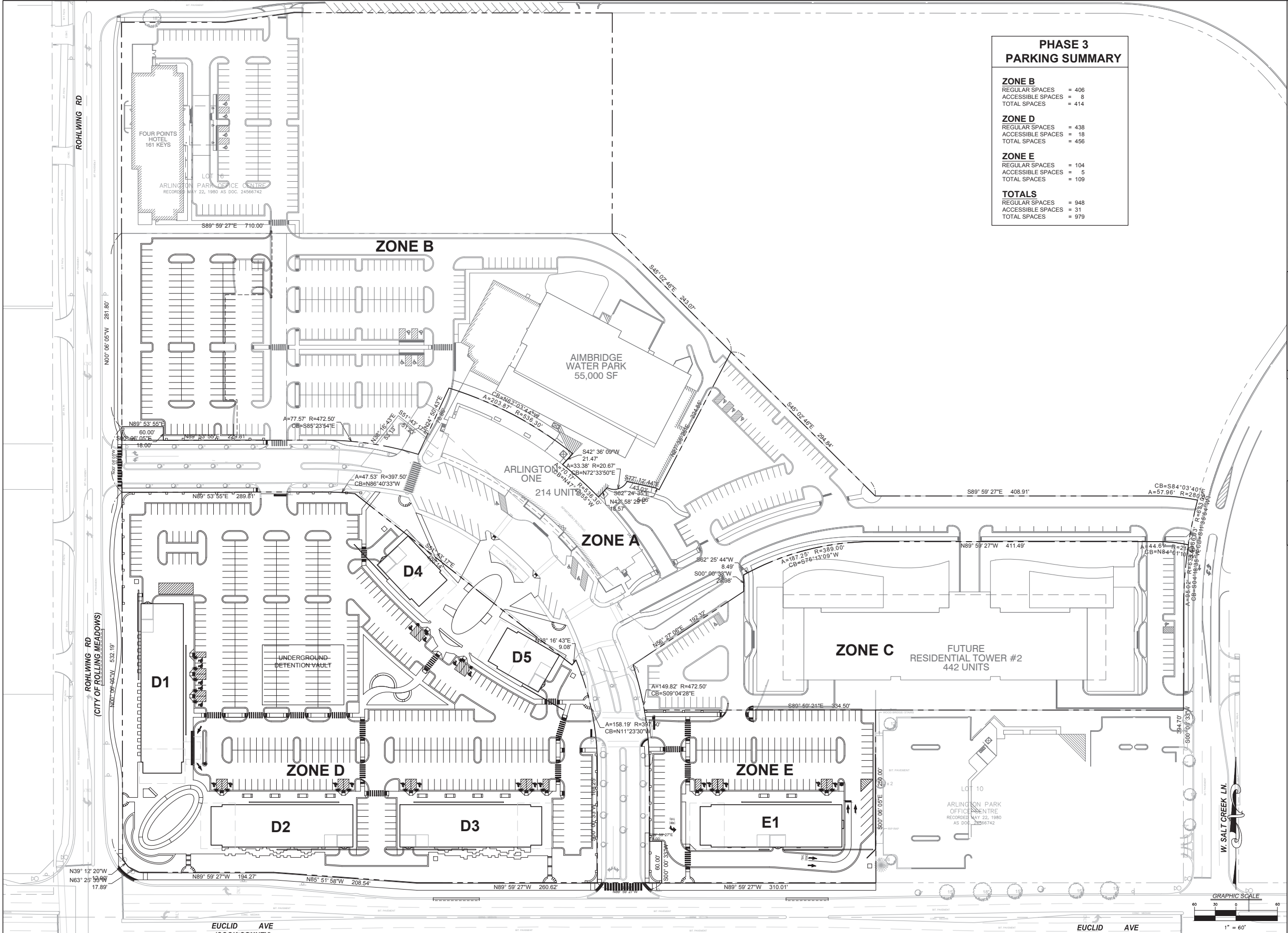
A shared parking analysis was conducted, which analyzes the parking demands of the various land uses based on peak time parking variations among the different land uses. The weekday peak period demand will occur during the evening hours between 6 pm and 7 pm with 1,858 parking spaces required. Therefore, the site will have a surplus of 170 parking spaces, approximately 8 percent of the site. The weekend peak period demand will occur during the afternoon hours of 12 pm to 1 pm with 1,814 parking spaces required. This will result in a site surplus of 214 parking spaces, about 11 percent of the site.

Zones A, C, and D meet or exceed the weekday and weekend peak period parking demand, resulting in a surplus of parking spaces for those zones. Zone B, which includes the water park, family entertainment center, hotel, and conference center is projected to have a parking deficit during the peak periods of 86 spaces during the weekday and 46 spaces during the weekend. It is anticipated that overflow parking from Zone B could park in the spaces in front of the apartment building or the expanded 71-space surface lot to the east of the apartment building. In addition, Zone D provides a surplus of parking which could also be utilized.

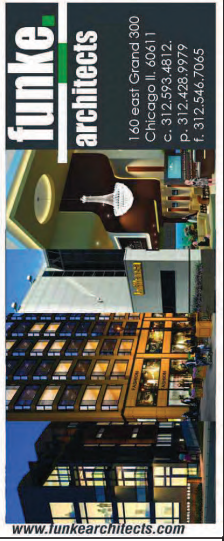


Zone E will peak during the afternoons and have a deficit of three parking spaces during the weekday and 37 parking spaces during the weekend peak hour. One of the fast food restaurants will have a drive through facility, which may decrease the parking demand for that restaurant. In addition, the restaurant customers may include patrons of the water park and family entertainment center in addition to the apartment residents and hotel guests, which may also decrease the parking demand. Overflow parking from Zone E could utilize the surplus parking in Zone D.

Based on this parking assessment, it can be concluded that the 2,028 parking spaces proposed for the Arlington Downs development will accommodate the peak parking demand of the development.



| PHASE 3<br>PARKING SUMMARY |       |
|----------------------------|-------|
| <b>ZONE B</b>              |       |
| REGULAR SPACES             | = 406 |
| ACCESSIBLE SPACES          | = 8   |
| TOTAL SPACES               | = 414 |
| <b>ZONE D</b>              |       |
| REGULAR SPACES             | = 438 |
| ACCESSIBLE SPACES          | = 18  |
| TOTAL SPACES               | = 456 |
| <b>ZONE E</b>              |       |
| REGULAR SPACES             | = 104 |
| ACCESSIBLE SPACES          | = 5   |
| TOTAL SPACES               | = 109 |
| <b>TOTALS</b>              |       |
| REGULAR SPACES             | = 948 |
| ACCESSIBLE SPACES          | = 31  |
| TOTAL SPACES               | = 979 |



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ARLINGTON  
DOWNS -  
RETAIL

OWNER(S):  
ARLINGTON DOWNS WPH, LLC  
ARLINGTON DOWNS COMMERCIAL, LLC  
PSB / EUCLID, LLC  
2920 W. EUCLID AVENUE  
ARLINGTON HEIGHTS IL 60005

| NO.      | DATE               | DESCRIPTION |
|----------|--------------------|-------------|
| 09-30-15 | ISSUED FOR PRICING |             |
| 09-16-15 | ISSUED FOR PRICING |             |

SHEET TITLE:  
**OVERALL  
SITE PLAN**

SHEET NO.

**C3.0**

ZONE A  
Approximated Parking Demand Peaking Characteristics, by Land Use Component and Time of Day (Weekdays)

| Parking Demand Generators, Required Parking, and Associated Peak Parking Requirements |                                      |        |                            |        |                               |        |                               |        |                              |        |                              |        |                      |        |                      |        |                          |        |                                     |        |                  |        |                     |        |                        |        |                                 |        |                                  |        |                      |        |            | TOTAL |           |         |        |    |     |
|---------------------------------------------------------------------------------------|--------------------------------------|--------|----------------------------|--------|-------------------------------|--------|-------------------------------|--------|------------------------------|--------|------------------------------|--------|----------------------|--------|----------------------|--------|--------------------------|--------|-------------------------------------|--------|------------------|--------|---------------------|--------|------------------------|--------|---------------------------------|--------|----------------------------------|--------|----------------------|--------|------------|-------|-----------|---------|--------|----|-----|
| Required Spaces                                                                       | Shopping Center - Typical (Customer) |        | Shopping Center (Employee) |        | Fine/Casual Dining (Customer) |        | Fine/Casual Dining (Employee) |        | Family Restaurant (Customer) |        | Family Restaurant (Employee) |        | Fast Food (Customer) |        | Fast Food (Employee) |        | Hotel - Business (Guest) |        | Hotel Conference/Banquet (Customer) |        | Hotel (Employee) |        | Residential (Guest) |        | Residential (Reserved) |        | Medical/Dental Office (Visitor) |        | Medical/Dental Office (Employee) |        | Family Entertainment |        | Water Park |       | Childcare |         |        |    |     |
|                                                                                       | Portion                              | Spaces | Portion                    | Spaces | Portion                       | Spaces | Portion                       | Spaces | Portion                      | Spaces | Portion                      | Spaces | Portion              | Spaces | Portion              | Spaces | Portion                  | Spaces | Portion                             | Spaces | Portion          | Spaces | Portion             | Spaces | Portion                | Spaces | Portion                         | Spaces | Portion                          | Spaces | Portion              | Spaces | Portion    |       | Spaces    | Portion | Spaces |    |     |
| 6:00 AM                                                                               | 1%                                   | -      | 10%                        | -      | 0%                            | -      | 0%                            | -      | 25%                          | -      | 50%                          | -      | 5%                   | -      | 15%                  | -      | 95%                      | -      | 0%                                  | -      | 5%               | -      | 0%                  | -      | 100%                   | 278    | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -     | 0%        | -       | 3%     | 1  | 279 |
| 7:00 AM                                                                               | 5%                                   | -      | 15%                        | -      | 0%                            | -      | 20%                           | 1      | 50%                          | -      | 75%                          | -      | 10%                  | -      | 20%                  | -      | 90%                      | -      | 0%                                  | -      | 30%              | -      | 10%                 | 3      | 100%                   | 278    | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -     | 0%        | -       | 30%    | 7  | 289 |
| 8:00 AM                                                                               | 15%                                  | -      | 40%                        | -      | 0%                            | -      | 50%                           | 4      | 60%                          | -      | 90%                          | -      | 20%                  | -      | 30%                  | -      | 80%                      | -      | 30%                                 | -      | 90%              | -      | 20%                 | 6      | 100%                   | 278    | 90%                             | -      | 60%                              | -      | 0%                   | -      | 0%         | -     | 0%        | -       | 75%    | 17 | 305 |
| 9:00 AM                                                                               | 35%                                  | -      | 75%                        | -      | 0%                            | -      | 75%                           | 5      | 75%                          | -      | 90%                          | -      | 30%                  | -      | 40%                  | -      | 70%                      | -      | 60%                                 | -      | 90%              | -      | 20%                 | 6      | 100%                   | 278    | 90%                             | -      | 100%                             | -      | 5%                   | -      | 5%         | -     | 5%        | -       | 95%    | 21 | 310 |
| 10:00 AM                                                                              | 65%                                  | -      | 85%                        | -      | 15%                           | 6      | 90%                           | 6      | 85%                          | -      | 100%                         | -      | 55%                  | -      | 75%                  | -      | 60%                      | -      | 60%                                 | -      | 100%             | -      | 20%                 | 6      | 100%                   | 278    | 100%                            | -      | 100%                             | -      | 10%                  | -      | 10%        | -     | 10%       | -       | 100%   | 22 | 318 |
| 11:00 AM                                                                              | 85%                                  | -      | 95%                        | -      | 40%                           | 16     | 90%                           | 6      | 90%                          | -      | 100%                         | -      | 85%                  | -      | 100%                 | -      | 60%                      | -      | 60%                                 | -      | 100%             | -      | 20%                 | 6      | 100%                   | 278    | 100%                            | -      | 100%                             | -      | 20%                  | -      | 20%        | -     | 20%       | -       | 100%   | 22 | 328 |
| 12:00 PM                                                                              | 95%                                  | -      | 100%                       | -      | 75%                           | 31     | 90%                           | 6      | 100%                         | -      | 100%                         | -      | 100%                 | -      | 100%                 | -      | 55%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | 6      | 100%                   | 278    | 30%                             | -      | 100%                             | -      | 30%                  | -      | 30%        | -     | 30%       | -       | 90%    | 20 | 341 |
| 1:00 PM                                                                               | 100%                                 | -      | 100%                       | -      | 75%                           | 31     | 90%                           | 6      | 90%                          | -      | 100%                         | -      | 100%                 | -      | 100%                 | -      | 55%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | 6      | 100%                   | 278    | 90%                             | -      | 100%                             | -      | 30%                  | -      | 30%        | -     | 30%       | -       | 90%    | 20 | 341 |
| 2:00 PM                                                                               | 95%                                  | -      | 100%                       | -      | 65%                           | 27     | 90%                           | 6      | 50%                          | -      | 100%                         | -      | 90%                  | -      | 95%                  | -      | 60%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | 6      | 100%                   | 278    | 100%                            | -      | 100%                             | -      | 30%                  | -      | 30%        | -     | 30%       | -       | 100%   | 22 | 339 |
| 3:00 PM                                                                               | 90%                                  | -      | 100%                       | -      | 40%                           | 16     | 75%                           | 5      | 45%                          | -      | 75%                          | -      | 60%                  | -      | 70%                  | -      | 60%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | 6      | 100%                   | 278    | 100%                            | -      | 100%                             | -      | 40%                  | -      | 40%        | -     | 40%       | -       | 100%   | 22 | 327 |
| 4:00 PM                                                                               | 90%                                  | -      | 100%                       | -      | 50%                           | 21     | 75%                           | 5      | 45%                          | -      | 75%                          | -      | 55%                  | -      | 60%                  | -      | 65%                      | -      | 65%                                 | -      | 90%              | -      | 20%                 | 6      | 100%                   | 278    | 90%                             | -      | 100%                             | -      | 60%                  | -      | 60%        | -     | 60%       | -       | 90%    | 20 | 330 |
| 5:00 PM                                                                               | 95%                                  | -      | 95%                        | -      | 75%                           | 31     | 100%                          | 7      | 75%                          | -      | 95%                          | -      | 60%                  | -      | 70%                  | -      | 70%                      | -      | 100%                                | -      | 70%              | -      | 40%                 | 13     | 100%                   | 278    | 80%                             | -      | 100%                             | -      | 100%                 | -      | 100%       | -     | 100%      | -       | 50%    | 11 | 340 |
| 6:00 PM                                                                               | 95%                                  | -      | 95%                        | -      | 95%                           | 39     | 100%                          | 7      | 80%                          | -      | 95%                          | -      | 85%                  | -      | 90%                  | -      | 75%                      | -      | 100%                                | -      | 40%              | -      | 60%                 | 19     | 100%                   | 278    | 67%                             | -      | 67%                              | -      | 100%                 | -      | 100%       | -     | 100%      | -       | 25%    | 6  | 349 |
| 7:00 PM                                                                               | 95%                                  | -      | 95%                        | -      | 100%                          | 41     | 100%                          | 7      | 80%                          | -      | 95%                          | -      | 80%                  | -      | 90%                  | -      | 75%                      | -      | 100%                                | -      | 20%              | -      | 100%                | 32     | 100%                   | 278    | 30%                             | -      | 30%                              | -      | 80%                  | -      | 80%        | -     | 80%       | -       | 10%    | 2  | 360 |
| 8:00 PM                                                                               | 80%                                  | -      | 90%                        | -      | 100%                          | 41     | 100%                          | 7      | 80%                          | -      | 95%                          | -      | 50%                  | -      | 60%                  | -      | 80%                      | -      | 100%                                | -      | 20%              | -      | 100%                | 32     | 100%                   | 278    | 15%                             | -      | 15%                              | -      | 70%                  | -      | 70%        | -     | 70%       | -       | 7%     | 2  | 360 |
| 9:00 PM                                                                               | 50%                                  | -      | 75%                        | -      | 100%                          | 41     | 100%                          | 7      | 60%                          | -      | 80%                          | -      | 30%                  | -      | 40%                  | -      | 85%                      | -      | 100%                                | -      | 20%              | -      | 100%                | 32     | 100%                   | 278    | 0%                              | -      | 0%                               | -      | 40%                  | -      | 40%        | -     | 40%       | -       | 3%     | 1  | 359 |
| 10:00 PM                                                                              | 30%                                  | -      | 40%                        | -      | 95%                           | 39     | 100%                          | 7      | 55%                          | -      | 65%                          | -      | 20%                  | -      | 30%                  | -      | 95%                      | -      | 50%                                 | -      | 20%              | -      | 100%                | 32     | 100%                   | 278    | 0%                              | -      | 0%                               | -      | 5%                   | -      | 5%         | -     | 5%        | -       | 1%     | -  | 356 |
| 11:00 PM                                                                              | 10%                                  | -      | 15%                        | -      | 75%                           | 31     | 85%                           | 6      | 50%                          | -      | 65%                          | -      | 10%                  | -      | 20%                  | -      | 100%                     | -      | 0%                                  | -      | 10%              | -      | 80%                 | 26     | 100%                   | 278    | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -     | 0%        | -       | 0%     | -  | 341 |
| 12:00 AM                                                                              | 0%                                   | -      | 0%                         | -      | 25%                           | 10     | 35%                           | 2      | 25%                          | -      | 35%                          | -      | 5%                   | -      | 20%                  | -      | 100%                     | -      | 0%                                  | -      | 5%               | -      | 50%                 | 16     | 100%                   | 278    | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -     | 0%        | -       | 0%     | -  | 306 |
| MAXIMUM                                                                               |                                      | -      |                            | -      |                               | 41     |                               | 7      |                              | -      |                              | -      |                      | -      |                      | -      |                          | -      |                                     | -      |                  | -      |                     | 32     |                        | 278    |                                 | -      |                                  | -      |                      | -      |            | -     |           | -       |        | 22 | 360 |

TOTAL REQUIRED PARKING WITHOUT SHARED SPACES: 380

TOTAL REQUIRED PARKING WITH SHARED SPACES: 360

Approximated Parking Demand Peaking Characteristics, by Land Use Component and Time of Day (Weekends)

| Parking Demand Generators, Required Parking, and Associated Peak Parking Requirements |                                      |        |                            |        |                               |        |                               |        |                              |        |                              |        |                      |        |                      |        |                          |        |                                     |        |                  |        |                     |        |                        |        |                                 |        |                                  |        |                      |        | TOTAL |            |        |           |        |     |
|---------------------------------------------------------------------------------------|--------------------------------------|--------|----------------------------|--------|-------------------------------|--------|-------------------------------|--------|------------------------------|--------|------------------------------|--------|----------------------|--------|----------------------|--------|--------------------------|--------|-------------------------------------|--------|------------------|--------|---------------------|--------|------------------------|--------|---------------------------------|--------|----------------------------------|--------|----------------------|--------|-------|------------|--------|-----------|--------|-----|
| Required Spaces                                                                       | Shopping Center - Typical (Customer) |        | Shopping Center (Employee) |        | Fine/Casual Dining (Customer) |        | Fine/Casual Dining (Employee) |        | Family Restaurant (Customer) |        | Family Restaurant (Employee) |        | Fast Food (Customer) |        | Fast Food (Employee) |        | Hotel - Business (Guest) |        | Hotel Conference/Banquet (Customer) |        | Hotel (Employee) |        | Residential (Guest) |        | Residential (Reserved) |        | Medical/Dental Office (Visitor) |        | Medical/Dental Office (Employee) |        | Family Entertainment |        |       | Water Park |        | Childcare |        |     |
|                                                                                       | Portion                              | Spaces | Portion                    | Spaces | Portion                       | Spaces | Portion                       | Spaces | Portion                      | Spaces | Portion                      | Spaces | Portion              | Spaces | Portion              | Spaces | Portion                  | Spaces | Portion                             | Spaces | Portion          | Spaces | Portion             | Spaces | Portion                | Spaces | Portion                         | Spaces | Portion                          | Spaces | Portion              | Spaces |       | Portion    | Spaces | Portion   | Spaces |     |
| Time Of Day                                                                           |                                      |        |                            |        | 58                            |        | 10                            |        |                              |        |                              |        |                      |        |                      |        |                          |        |                                     |        |                  |        | 32                  |        | 278                    |        |                                 |        |                                  |        |                      |        |       |            |        |           |        |     |
| 6:00 AM                                                                               | 1%                                   | -      | 10%                        | -      | 0%                            | -      | 0%                            | -      | 10%                          | -      | 50%                          | -      | 5%                   | -      | 15%                  | -      | 95%                      | -      | 0%                                  | -      | 5%               | -      | 0%                  | -      | 100%                   | 278    | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%    | -          | 0%     | -         | -      | 278 |
| 7:00 AM                                                                               | 5%                                   | -      | 15%                        | -      | 0%                            | -      | 20%                           | 2      | 25%                          | -      | 75%                          | -      | 10%                  | -      | 20%                  | -      | 90%                      | -      | 0%                                  | -      | 30%              | -      | 20%                 | 6      | 100%                   | 278    | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%    | -          | 0%     | -         | -      | 286 |
| 8:00 AM                                                                               | 10%                                  | -      | 40%                        | -      | 0%                            | -      | 30%                           | 3      | 45%                          | -      | 90%                          | -      | 20%                  | -      | 30%                  | -      | 80%                      | -      | 30%                                 | -      | 90%              | -      | 20%                 | 6      | 100%                   | 278    | 90%                             | -      | 60%                              | -      | 0%                   | -      | 0%    | -          | 0%     | -         | -      | 287 |
| 9:00 AM                                                                               | 30%                                  | -      | 75%                        | -      | 0%                            | -      | 60%                           | 6      | 70%                          | -      | 90%                          | -      | 30%                  | -      | 40%                  | -      | 70%                      | -      | 60%                                 | -      | 90%              | -      | 20%                 | 6      | 100%                   | 278    | 90%                             | -      | 100%                             | -      | 5%                   | -      | 5%    | -          | -      | -         | 290    |     |
| 10:00 AM                                                                              | 50%                                  | -      | 85%                        | -      | 0%                            | -      | 75%                           | 8      | 90%                          | -      | 100%                         | -      | 55%                  | -      | 75%                  | -      | 60%                      | -      | 60%                                 | -      | 100%             | -      | 20%                 | 6      | 100%                   | 278    | 100%                            | -      | 100%                             | -      | 50%                  | -      | 50%   | -          | -      | -         | 292    |     |
| 11:00 AM                                                                              | 65%                                  | -      | 95%                        | -      | 15%                           | 9      | 75%                           | 8      | 90%                          | -      | 100%                         | -      | 85%                  | -      | 100%                 | -      | 60%                      | -      | 60%                                 | -      | 100%             | -      | 20%                 | 6      | 100%                   | 278    | 100%                            | -      | 100%                             | -      | 75%                  | -      | 75%   | -          | -      | -         | 301    |     |
| 12:00 PM                                                                              | 80%                                  | -      | 100%                       | -      | 50%                           | 29     | 75%                           | 8      | 100%                         | -      | 100%                         | -      | 100%                 | -      | 100%                 | -      | 55%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | 6      | 100%                   | 278    | 30%                             | -      | 100%                             | -      | 100%                 | -      | 100%  | -          | -      | -         | 321    |     |
| 1:00 PM                                                                               | 90%                                  | -      | 100%                       | -      | 55%                           | 32     | 75%                           | 8      | 85%                          | -      | 100%                         | -      | 100%                 | -      | 100%                 | -      | 55%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | 6      | 100%                   | 278    | 0%                              | -      | 0%                               | -      | 100%                 | -      | 100%  | -          | -      | -         | 324    |     |
| 2:00 PM                                                                               | 100%                                 | -      | 100%                       | -      | 45%                           | 26     | 75%                           | 8      | 65%                          | -      | 100%                         | -      | 90%                  | -      | 95%                  | -      | 60%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | 6      | 100%                   | 278    | 0%                              | -      | 0%                               | -      | 90%                  | -      | 90%   | -          | -      | -         | 318    |     |
| 3:00 PM                                                                               | 100%                                 | -      | 100%                       | -      | 45%                           | 26     | 75%                           | 8      | 40%                          | -      | 75%                          | -      | 60%                  | -      | 70%                  | -      | 60%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | 6      | 100%                   | 278    | 0%                              | -      | 0%                               | -      | 80%                  | -      | 80%   | -          | -      | -         | 318    |     |
| 4:00 PM                                                                               | 95%                                  | -      | 100%                       | -      | 45%                           | 26     | 75%                           | 8      | 45%                          | -      | 75%                          | -      | 55%                  | -      | 60%                  | -      | 65%                      | -      | 65%                                 | -      | 90%              | -      | 20%                 | 6      | 100%                   | 278    | 0%                              | -      | 0%                               | -      | 70%                  | -      | 70%   | -          | -      | -         | 318    |     |
| 5:00 PM                                                                               | 90%                                  | -      | 95%                        | -      | 60%                           | 35     | 100%                          | 10     | 60%                          | -      | 95%                          | -      | 60%                  | -      | 70%                  | -      | 70%                      | -      | 100%                                | -      | 75%              | -      | 40%                 | 13     | 100%                   | 278    | 0%                              | -      | 0%                               | -      | 60%                  | -      | 60%   | -          | -      | -         | 336    |     |
| 6:00 PM                                                                               | 80%                                  | -      | 85%                        | -      | 90%                           | 52     | 100%                          | 10     | 70%                          | -      | 95%                          | -      | 85%                  | -      | 90%                  | -      | 75%                      | -      | 100%                                | -      | 60%              | -      | 60%                 | 19     | 100%                   | 278    | 0%                              | -      | 0%                               | -      | 60%                  | -      | 60%   | -          | -      | -         | 359    |     |
| 7:00 PM                                                                               | 75%                                  | -      | 80%                        | -      | 95%                           | 55     | 100%                          | 10     | 70%                          | -      | 95%                          | -      | 80%                  | -      | 90%                  | -      | 75%                      | -      | 100%                                | -      | 55%              | -      | 100%                | 32     | 100%                   | 278    | 0%                              | -      | 0%                               | -      | 50%                  | -      | 50%   | -          | -      | -         | 375    |     |
| 8:00 PM                                                                               | 65%                                  | -      | 75%                        | -      | 100%                          | 58     | 100%                          | 10     | 65%                          | -      | 95%                          | -      | 50%                  | -      | 60%                  | -      | 80%                      | -      | 100%                                | -      | 55%              | -      | 100%                | 32     | 100%                   | 278    | 0%                              | -      | 0%                               | -      | 40%                  | -      | 40%   | -          | -      | -         | 378    |     |
| 9:00 PM                                                                               | 50%                                  | -      | 65%                        | -      | 90%                           | 52     | 100%                          | 10     | 30%                          | -      | 80%                          | -      | 30%                  | -      | 40%                  | -      | 85%                      | -      | 100%                                | -      | 55%              | -      | 100%                | 32     | 100%                   | 278    | 0%                              | -      | 0%                               | -      | 30%                  | -      | 30%   | -          | -      | -         | 372    |     |
| 10:00 PM                                                                              | 35%                                  | -      | 45%                        | -      | 90%                           | 52     | 100%                          | 10     | 25%                          | -      | 65%                          | -      | 20%                  | -      | 30%                  | -      | 95%                      | -      | 50%                                 | -      | 45%              | -      | 100%                | 32     | 100%                   | 278    | 0%                              | -      | 0%                               | -      | 5%                   | -      | 5%    | -          | -      | -         | 372    |     |
| 11:00 PM                                                                              | 15%                                  | -      | 15%                        | -      | 90%                           | 52     | 85%                           | 9      | 15%                          | -      | 65%                          | -      | 10%                  | -      | 20%                  | -      | 100%                     | -      | 0%                                  | -      | 45%              | -      | 80%                 | 26     | 100%                   | 278    | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%    | -          | -      | -         | 365    |     |
| 12:00 AM                                                                              | 0%                                   | -      | 0%                         | -      | 50%                           | 29     | 50%                           | 5      | 10%                          | -      | 35%                          | -      | 5%                   | -      | 20%                  | -      | 100%                     | -      | 0%                                  | -      | 30%              | -      | 50%                 | 16     | 100%                   | 278    | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%    | -          | -      | -         | 328    |     |
| MAXIMUM                                                                               |                                      | -      |                            | -      |                               | 58     |                               | 10     |                              | -      |                              | -      |                      | -      |                      | -      |                          | -      |                                     | -      |                  | -      |                     | 32     |                        | 278    |                                 | -      |                                  | -      |                      | -      |       | -          |        | -         | 378    |     |



ZONE B  
Approximated Parking Demand Peaking Characteristics, by Land Use Component and Time of Day (Weekdays)

| Parking Demand Generators, Required Parking, and Associated Peak Parking Requirements |                                      |        |                            |        |                               |        |                               |        |                              |        |                              |        |                      |        |                      |        |                          |        |                                     |        |                  |        |                     |        |                        |        |                                 |        |                                  |        |                      |        |            |        |           |        |       |   |     |
|---------------------------------------------------------------------------------------|--------------------------------------|--------|----------------------------|--------|-------------------------------|--------|-------------------------------|--------|------------------------------|--------|------------------------------|--------|----------------------|--------|----------------------|--------|--------------------------|--------|-------------------------------------|--------|------------------|--------|---------------------|--------|------------------------|--------|---------------------------------|--------|----------------------------------|--------|----------------------|--------|------------|--------|-----------|--------|-------|---|-----|
|                                                                                       | Shopping Center - Typical (Customer) |        | Shopping Center (Employee) |        | Fine/Casual Dining (Customer) |        | Fine/Casual Dining (Employee) |        | Family Restaurant (Customer) |        | Family Restaurant (Employee) |        | Fast Food (Customer) |        | Fast Food (Employee) |        | Hotel - Business (Guest) |        | Hotel Conference/Banquet (Customer) |        | Hotel (Employee) |        | Residential (Guest) |        | Residential (Reserved) |        | Medical/Dental Office (Visitor) |        | Medical/Dental Office (Employee) |        | Family Entertainment |        | Water Park |        | Childcare |        |       |   |     |
| Required Spaces                                                                       |                                      |        |                            |        |                               |        |                               |        |                              |        |                              |        |                      |        | 129                  |        | 90                       |        | 32                                  |        |                  |        |                     |        |                        |        |                                 |        |                                  |        | 48                   |        | 250        |        |           |        |       |   |     |
| Time Of Day                                                                           | Portion                              | Spaces | Portion                    | Spaces | Portion                       | Spaces | Portion                       | Spaces | Portion                      | Spaces | Portion                      | Spaces | Portion              | Spaces | Portion              | Spaces | Portion                  | Spaces | Portion                             | Spaces | Portion          | Spaces | Portion             | Spaces | Portion                | Spaces | Portion                         | Spaces | Portion                          | Spaces | Portion              | Spaces | Portion    | Spaces | Portion   | Spaces | TOTAL |   |     |
| 6:00 AM                                                                               | 1%                                   | -      | 10%                        | -      | 0%                            | -      | 0%                            | -      | 25%                          | -      | 50%                          | -      | 5%                   | -      | 15%                  | -      | 95%                      | 123    | 0%                                  | -      | 5%               | 2      | 0%                  | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -      | 0%        | -      | 3%    | - | 125 |
| 7:00 AM                                                                               | 5%                                   | -      | 15%                        | -      | 0%                            | -      | 20%                           | -      | 50%                          | -      | 75%                          | -      | 10%                  | -      | 20%                  | -      | 90%                      | 116    | 0%                                  | -      | 30%              | 10     | 10%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -      | 30%       | -      | 126   |   |     |
| 8:00 AM                                                                               | 15%                                  | -      | 40%                        | -      | 0%                            | -      | 50%                           | -      | 60%                          | -      | 90%                          | -      | 20%                  | -      | 30%                  | -      | 80%                      | 103    | 30%                                 | 27     | 90%              | 29     | 20%                 | -      | 100%                   | -      | 90%                             | -      | 60%                              | -      | 0%                   | -      | 0%         | -      | 75%       | -      | 159   |   |     |
| 9:00 AM                                                                               | 35%                                  | -      | 75%                        | -      | 0%                            | -      | 75%                           | -      | 75%                          | -      | 90%                          | -      | 30%                  | -      | 40%                  | -      | 70%                      | 90     | 60%                                 | 54     | 90%              | 29     | 20%                 | -      | 100%                   | -      | 90%                             | -      | 100%                             | -      | 5%                   | 2      | 5%         | 13     | 95%       | -      | 188   |   |     |
| 10:00 AM                                                                              | 65%                                  | -      | 85%                        | -      | 15%                           | -      | 90%                           | -      | 85%                          | -      | 100%                         | -      | 55%                  | -      | 75%                  | -      | 60%                      | 77     | 60%                                 | 54     | 100%             | 32     | 20%                 | -      | 100%                   | -      | 100%                            | -      | 100%                             | -      | 10%                  | 5      | 10%        | 25     | 100%      | -      | 193   |   |     |
| 11:00 AM                                                                              | 85%                                  | -      | 95%                        | -      | 40%                           | -      | 90%                           | -      | 90%                          | -      | 100%                         | -      | 85%                  | -      | 100%                 | -      | 60%                      | 77     | 60%                                 | 54     | 100%             | 32     | 20%                 | -      | 100%                   | -      | 100%                            | -      | 100%                             | -      | 20%                  | 10     | 20%        | 50     | 100%      | -      | 223   |   |     |
| 12:00 PM                                                                              | 95%                                  | -      | 100%                       | -      | 75%                           | -      | 90%                           | -      | 100%                         | -      | 100%                         | -      | 100%                 | -      | 100%                 | -      | 55%                      | 71     | 65%                                 | 59     | 100%             | 32     | 20%                 | -      | 100%                   | -      | 100%                            | -      | 100%                             | -      | 30%                  | 14     | 30%        | 75     | 90%       | -      | 251   |   |     |
| 1:00 PM                                                                               | 100%                                 | -      | 100%                       | -      | 75%                           | -      | 90%                           | -      | 90%                          | -      | 100%                         | -      | 100%                 | -      | 100%                 | -      | 55%                      | 71     | 65%                                 | 59     | 100%             | 32     | 20%                 | -      | 100%                   | -      | 90%                             | -      | 100%                             | -      | 30%                  | 14     | 30%        | 75     | 90%       | -      | 251   |   |     |
| 2:00 PM                                                                               | 95%                                  | -      | 100%                       | -      | 65%                           | -      | 90%                           | -      | 100%                         | -      | 100%                         | -      | 90%                  | -      | 95%                  | -      | 60%                      | 77     | 65%                                 | 59     | 100%             | 32     | 20%                 | -      | 100%                   | -      | 100%                            | -      | 100%                             | -      | 30%                  | 14     | 30%        | 75     | 100%      | -      | 257   |   |     |
| 3:00 PM                                                                               | 90%                                  | -      | 100%                       | -      | 40%                           | -      | 75%                           | -      | 45%                          | -      | 75%                          | -      | 60%                  | -      | 70%                  | -      | 60%                      | 77     | 65%                                 | 59     | 100%             | 32     | 20%                 | -      | 100%                   | -      | 100%                            | -      | 100%                             | -      | 40%                  | 19     | 40%        | 100    | 100%      | -      | 287   |   |     |
| 4:00 PM                                                                               | 90%                                  | -      | 100%                       | -      | 50%                           | -      | 75%                           | -      | 45%                          | -      | 75%                          | -      | 55%                  | -      | 60%                  | -      | 65%                      | 84     | 65%                                 | 59     | 90%              | 29     | 20%                 | -      | 100%                   | -      | 90%                             | -      | 100%                             | -      | 60%                  | 29     | 60%        | 150    | 90%       | -      | 351   |   |     |
| 5:00 PM                                                                               | 95%                                  | -      | 95%                        | -      | 75%                           | -      | 100%                          | -      | 75%                          | -      | 95%                          | -      | 60%                  | -      | 70%                  | -      | 70%                      | 90     | 100%                                | 90     | 70%              | 22     | 40%                 | -      | 100%                   | -      | 80%                             | -      | 100%                             | -      | 100%                 | 48     | 100%       | 250    | 50%       | -      | 500   |   |     |
| 6:00 PM                                                                               | 95%                                  | -      | 95%                        | -      | 95%                           | -      | 100%                          | -      | 80%                          | -      | 95%                          | -      | 85%                  | -      | 90%                  | -      | 75%                      | 97     | 100%                                | 90     | 40%              | 13     | 60%                 | -      | 100%                   | -      | 67%                             | -      | 67%                              | -      | 100%                 | 48     | 100%       | 250    | 25%       | -      | 498   |   |     |
| 7:00 PM                                                                               | 95%                                  | -      | 95%                        | -      | 100%                          | -      | 100%                          | -      | 80%                          | -      | 95%                          | -      | 80%                  | -      | 90%                  | -      | 75%                      | 97     | 100%                                | 90     | 20%              | 6      | 100%                | -      | 100%                   | -      | 30%                             | -      | 30%                              | -      | 80%                  | 38     | 80%        | 200    | 10%       | -      | 431   |   |     |
| 8:00 PM                                                                               | 80%                                  | -      | 90%                        | -      | 100%                          | -      | 100%                          | -      | 80%                          | -      | 95%                          | -      | 50%                  | -      | 60%                  | -      | 80%                      | 103    | 100%                                | 90     | 20%              | 6      | 100%                | -      | 100%                   | -      | 15%                             | -      | 15%                              | -      | 70%                  | 34     | 70%        | 175    | 7%        | -      | 408   |   |     |
| 9:00 PM                                                                               | 50%                                  | -      | 75%                        | -      | 100%                          | -      | 100%                          | -      | 60%                          | -      | 80%                          | -      | 30%                  | -      | 40%                  | -      | 85%                      | 110    | 100%                                | 90     | 20%              | 6      | 100%                | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 40%                  | 19     | 40%        | 100    | 3%        | -      | 325   |   |     |
| 10:00 PM                                                                              | 30%                                  | -      | 40%                        | -      | 95%                           | -      | 100%                          | -      | 55%                          | -      | 65%                          | -      | 20%                  | -      | 30%                  | -      | 95%                      | 123    | 50%                                 | 45     | 20%              | 6      | 100%                | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 5%                   | 2      | 5%         | 13     | 1%        | -      | 189   |   |     |
| 11:00 PM                                                                              | 10%                                  | -      | 15%                        | -      | 75%                           | -      | 85%                           | -      | 50%                          | -      | 65%                          | -      | 10%                  | -      | 20%                  | -      | 100%                     | 129    | 0%                                  | -      | 10%              | 3      | 80%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -      | 0%        | -      | 132   |   |     |
| 12:00 AM                                                                              | 0%                                   | -      | 0%                         | -      | 25%                           | -      | 35%                           | -      | 25%                          | -      | 35%                          | -      | 5%                   | -      | 20%                  | -      | 100%                     | 129    | 0%                                  | -      | 5%               | 2      | 50%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -      | 0%        | -      | 131   |   |     |
| MAXIMUM                                                                               |                                      | -      |                            | -      |                               | -      |                               | -      |                              | -      |                              | -      |                      | -      |                      | -      | 129                      |        | 90                                  |        | 32               |        | -                   |        | -                      |        | -                               |        | -                                |        | 48                   |        | 250        |        | -         | 500    |       |   |     |

TOTAL REQUIRED PARKING WITHOUT SHARED SPACES: 549

TOTAL REQUIRED PARKING WITH SHARED SPACES: 500

Approximated Parking Demand Peaking Characteristics, by Land Use Component and Time of Day (Weekends)

| Parking Demand Generators, Required Parking, and Associated Peak Parking Requirements |                                      |        |                            |        |                               |        |                               |        |                              |        |                              |        |                      |        |                      |        |                          |        |                                     |        |                  |        |                     |        |                        |        |                                 |        |                                  |        |                      |        | TOTAL   |            |         |           |       |     |
|---------------------------------------------------------------------------------------|--------------------------------------|--------|----------------------------|--------|-------------------------------|--------|-------------------------------|--------|------------------------------|--------|------------------------------|--------|----------------------|--------|----------------------|--------|--------------------------|--------|-------------------------------------|--------|------------------|--------|---------------------|--------|------------------------|--------|---------------------------------|--------|----------------------------------|--------|----------------------|--------|---------|------------|---------|-----------|-------|-----|
|                                                                                       | Shopping Center - Typical (Customer) |        | Shopping Center (Employee) |        | Fine/Casual Dining (Customer) |        | Fine/Casual Dining (Employee) |        | Family Restaurant (Customer) |        | Family Restaurant (Employee) |        | Fast Food (Customer) |        | Fast Food (Employee) |        | Hotel - Business (Guest) |        | Hotel Conference/Banquet (Customer) |        | Hotel (Employee) |        | Residential (Guest) |        | Residential (Reserved) |        | Medical/Dental Office (Visitor) |        | Medical/Dental Office (Employee) |        | Family Entertainment |        |         | Water Park |         | Childcare |       |     |
| Required Spaces                                                                       |                                      |        |                            |        |                               |        |                               |        |                              |        |                              |        |                      |        | 129                  |        | 90                       |        | 32                                  |        |                  |        |                     |        |                        |        |                                 |        |                                  |        | 48                   |        |         | 250        |         |           |       |     |
| Time Of Day                                                                           | Portion                              | Spaces | Portion                    | Spaces | Portion                       | Spaces | Portion                       | Spaces | Portion                      | Spaces | Portion                      | Spaces | Portion              | Spaces | Portion              | Spaces | Portion                  | Spaces | Portion                             | Spaces | Portion          | Spaces | Portion             | Spaces | Portion                | Spaces | Portion                         | Spaces | Portion                          | Spaces | Portion              | Spaces | Portion | Spaces     | Portion | Spaces    | TOTAL |     |
| 6:00 AM                                                                               | 1%                                   | -      | 10%                        | -      | 0%                            | -      | 0%                            | -      | 10%                          | -      | 50%                          | -      | 5%                   | -      | 15%                  | -      | 95%                      | 123    | 0%                                  | -      | 5%               | 2      | 0%                  | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%      | -          | 0%      | -         | -     | 125 |
| 7:00 AM                                                                               | 5%                                   | -      | 15%                        | -      | 0%                            | -      | 20%                           | -      | 25%                          | -      | 75%                          | -      | 10%                  | -      | 20%                  | -      | 90%                      | 116    | 0%                                  | -      | 30%              | 10     | 20%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%      | -          | -       | -         | 126   |     |
| 8:00 AM                                                                               | 10%                                  | -      | 40%                        | -      | 0%                            | -      | 30%                           | -      | 45%                          | -      | 90%                          | -      | 20%                  | -      | 30%                  | -      | 80%                      | 103    | 30%                                 | 27     | 90%              | 29     | 20%                 | -      | 100%                   | -      | 90%                             | -      | 60%                              | -      | 0%                   | -      | 0%      | -          | -       | 159       |       |     |
| 9:00 AM                                                                               | 30%                                  | -      | 75%                        | -      | 0%                            | -      | 60%                           | -      | 70%                          | -      | 90%                          | -      | 30%                  | -      | 40%                  | -      | 70%                      | 90     | 60%                                 | 54     | 90%              | 29     | 20%                 | -      | 100%                   | -      | 90%                             | -      | 100%                             | -      | 5%                   | 2      | 5%      | 13         | -       | -         | 188   |     |
| 10:00 AM                                                                              | 50%                                  | -      | 85%                        | -      | 0%                            | -      | 75%                           | -      | 90%                          | -      | 100%                         | -      | 55%                  | -      | 75%                  | -      | 60%                      | 77     | 60%                                 | 54     | 100%             | 32     | 20%                 | -      | 100%                   | -      | 100%                            | -      | 100%                             | -      | 50%                  | 24     | 50%     | 125        | -       | -         | 312   |     |
| 11:00 AM                                                                              | 65%                                  | -      | 95%                        | -      | 15%                           | -      | 75%                           | -      | 90%                          | -      | 100%                         | -      | 85%                  | -      | 100%                 | -      | 60%                      | 77     | 60%                                 | 54     | 100%             | 32     | 20%                 | -      | 100%                   | -      | 100%                            | -      | 100%                             | -      | 75%                  | 36     | 75%     | 188        | -       | -         | 387   |     |
| 12:00 PM                                                                              | 80%                                  | -      | 100%                       | -      | 50%                           | -      | 75%                           | -      | 100%                         | -      | 100%                         | -      | 100%                 | -      | 100%                 | -      | 55%                      | 71     | 65%                                 | 59     | 100%             | 32     | 20%                 | -      | 100%                   | -      | 30%                             | -      | 100%                             | -      | 100%                 | 48     | 100%    | 250        | -       | -         | 460   |     |
| 1:00 PM                                                                               | 90%                                  | -      | 100%                       | -      | 55%                           | -      | 75%                           | -      | 85%                          | -      | 100%                         | -      | 100%                 | -      | 100%                 | -      | 55%                      | 71     | 65%                                 | 59     | 100%             | 32     | 20%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 100%                 | 48     | 100%    | 250        | -       | -         | 460   |     |
| 2:00 PM                                                                               | 100%                                 | -      | 100%                       | -      | 45%                           | -      | 75%                           | -      | 100%                         | -      | 100%                         | -      | 90%                  | -      | 95%                  | -      | 60%                      | 77     | 65%                                 | 59     | 100%             | 32     | 20%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 90%                  | 43     | 90%     | 225        | -       | -         | 436   |     |
| 3:00 PM                                                                               | 100%                                 | -      | 100%                       | -      | 45%                           | -      | 75%                           | -      | 40%                          | -      | 75%                          | -      | 60%                  | -      | 70%                  | -      | 60%                      | 77     | 65%                                 | 59     | 100%             | 32     | 20%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 80%                  | 38     | 80%     | 200        | -       | -         | 406   |     |
| 4:00 PM                                                                               | 95%                                  | -      | 100%                       | -      | 45%                           | -      | 75%                           | -      | 45%                          | -      | 75%                          | -      | 55%                  | -      | 60%                  | -      | 65%                      | 84     | 65%                                 | 59     | 90%              | 29     | 20%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 70%                  | 34     | 70%     | 175        | -       | -         | 381   |     |
| 5:00 PM                                                                               | 90%                                  | -      | 95%                        | -      | 60%                           | -      | 100%                          | -      | 60%                          | -      | 95%                          | -      | 60%                  | -      | 70%                  | -      | 70%                      | 90     | 100%                                | 90     | 75%              | 24     | 40%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 60%                  | 29     | 60%     | 150        | -       | -         | 383   |     |
| 6:00 PM                                                                               | 80%                                  | -      | 85%                        | -      | 90%                           | -      | 100%                          | -      | 70%                          | -      | 95%                          | -      | 85%                  | -      | 90%                  | -      | 75%                      | 97     | 100%                                | 90     | 60%              | 19     | 60%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 60%                  | 29     | 60%     | 150        | -       | -         | 385   |     |
| 7:00 PM                                                                               | 75%                                  | -      | 80%                        | -      | 95%                           | -      | 100%                          | -      | 70%                          | -      | 95%                          | -      | 80%                  | -      | 90%                  | -      | 75%                      | 97     | 100%                                | 90     | 55%              | 18     | 100%                | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 50%                  | 24     | 50%     | 125        | -       | -         | 354   |     |
| 8:00 PM                                                                               | 65%                                  | -      | 75%                        | -      | 100%                          | -      | 100%                          | -      | 65%                          | -      | 95%                          | -      | 50%                  | -      | 60%                  | -      | 80%                      | 103    | 100%                                | 90     | 55%              | 18     | 100%                | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 40%                  | 19     | 40%     | 100        | -       | -         | 330   |     |
| 9:00 PM                                                                               | 50%                                  | -      | 65%                        | -      | 90%                           | -      | 100%                          | -      | 30%                          | -      | 80%                          | -      | 30%                  | -      | 40%                  | -      | 85%                      | 110    | 100%                                | 90     | 55%              | 18     | 100%                | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 30%                  | 14     | 30%     | 75         | -       | -         | 307   |     |
| 10:00 PM                                                                              | 35%                                  | -      | 45%                        | -      | 90%                           | -      | 100%                          | -      | 25%                          | -      | 65%                          | -      | 20%                  | -      | 30%                  | -      | 95%                      | 123    | 50%                                 | 45     | 45%              | 14     | 100%                | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 5%                   | 2      | 5%      | 13         | -       | -         | 197   |     |
| 11:00 PM                                                                              | 15%                                  | -      | 15%                        | -      | 90%                           | -      | 85%                           | -      | 15%                          | -      | 65%                          | -      | 10%                  | -      | 20%                  | -      | 100%                     | 129    | 0%                                  | -      | 45%              | 14     | 80%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%      | -          | -       | -         | 143   |     |
| 12:00 AM                                                                              | 0%                                   | -      | 0%                         | -      | 50%                           | -      | 50%                           | -      | 10%                          | -      | 35%                          | -      | 5%                   | -      | 20%                  | -      | 100%                     | 129    | 0%                                  | -      | 30%              | 10     | 50%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%      | -          | -       | -         | 139   |     |
| MAXIMUM                                                                               |                                      | -      |                            | -      |                               | -      |                               | -      |                              | -      |                              | -      |                      | -      |                      | -      | 129                      |        | 90                                  |        | 32               |        | -                   |        | -                      |        | -                               |        | -                                |        | 48                   |        | 250     |            | -       | 460       |       |     |

ZONE C  
Approximated Parking Demand Peaking Characteristics, by Land Use Component and Time of Day (Weekdays)

| Parking Demand Generators, Required Parking, and Associated Peak Parking Requirements |                                      |        |                            |        |                               |        |                               |        |                              |        |                              |        |                      |        |                      |        |                          |        |                                     |        |                  |        |                     |        |                        |        |                                 |        |                                  |        |                      |        |            |        |           |        |       |   |     |
|---------------------------------------------------------------------------------------|--------------------------------------|--------|----------------------------|--------|-------------------------------|--------|-------------------------------|--------|------------------------------|--------|------------------------------|--------|----------------------|--------|----------------------|--------|--------------------------|--------|-------------------------------------|--------|------------------|--------|---------------------|--------|------------------------|--------|---------------------------------|--------|----------------------------------|--------|----------------------|--------|------------|--------|-----------|--------|-------|---|-----|
|                                                                                       | Shopping Center - Typical (Customer) |        | Shopping Center (Employee) |        | Fine/Casual Dining (Customer) |        | Fine/Casual Dining (Employee) |        | Family Restaurant (Customer) |        | Family Restaurant (Employee) |        | Fast Food (Customer) |        | Fast Food (Employee) |        | Hotel - Business (Guest) |        | Hotel Conference/Banquet (Customer) |        | Hotel (Employee) |        | Residential (Guest) |        | Residential (Reserved) |        | Medical/Dental Office (Visitor) |        | Medical/Dental Office (Employee) |        | Family Entertainment |        | Water Park |        | Childcare |        |       |   |     |
| Required Spaces                                                                       |                                      |        |                            |        |                               |        |                               |        |                              |        |                              |        |                      |        |                      |        |                          |        |                                     |        |                  |        | 66                  |        | 575                    |        |                                 |        |                                  |        |                      |        |            |        |           |        |       |   |     |
| Time Of Day                                                                           | Portion                              | Spaces | Portion                    | Spaces | Portion                       | Spaces | Portion                       | Spaces | Portion                      | Spaces | Portion                      | Spaces | Portion              | Spaces | Portion              | Spaces | Portion                  | Spaces | Portion                             | Spaces | Portion          | Spaces | Portion             | Spaces | Portion                | Spaces | Portion                         | Spaces | Portion                          | Spaces | Portion              | Spaces | Portion    | Spaces | Portion   | Spaces | TOTAL |   |     |
| 6:00 AM                                                                               | 1%                                   | -      | 10%                        | -      | 0%                            | -      | 0%                            | -      | 25%                          | -      | 50%                          | -      | 5%                   | -      | 15%                  | -      | 95%                      | -      | 0%                                  | -      | 5%               | -      | 0%                  | -      | 100%                   | 575    | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -      | 0%        | -      | 3%    | - | 575 |
| 7:00 AM                                                                               | 5%                                   | -      | 15%                        | -      | 0%                            | -      | 20%                           | -      | 50%                          | -      | 75%                          | -      | 10%                  | -      | 20%                  | -      | 90%                      | -      | 0%                                  | -      | 30%              | -      | 10%                 | 7      | 100%                   | 575    | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -      | 0%        | -      | 30%   | - | 582 |
| 8:00 AM                                                                               | 15%                                  | -      | 40%                        | -      | 0%                            | -      | 50%                           | -      | 60%                          | -      | 90%                          | -      | 20%                  | -      | 30%                  | -      | 80%                      | -      | 30%                                 | -      | 90%              | -      | 20%                 | 13     | 100%                   | 575    | 90%                             | -      | 60%                              | -      | 0%                   | -      | 0%         | -      | 0%        | -      | 75%   | - | 588 |
| 9:00 AM                                                                               | 35%                                  | -      | 75%                        | -      | 0%                            | -      | 75%                           | -      | 75%                          | -      | 90%                          | -      | 30%                  | -      | 40%                  | -      | 70%                      | -      | 60%                                 | -      | 90%              | -      | 20%                 | 13     | 100%                   | 575    | 90%                             | -      | 100%                             | -      | 5%                   | -      | 5%         | -      | 5%        | -      | 95%   | - | 588 |
| 10:00 AM                                                                              | 65%                                  | -      | 85%                        | -      | 15%                           | -      | 90%                           | -      | 85%                          | -      | 100%                         | -      | 55%                  | -      | 75%                  | -      | 60%                      | -      | 60%                                 | -      | 100%             | -      | 20%                 | 13     | 100%                   | 575    | 100%                            | -      | 100%                             | -      | 10%                  | -      | 10%        | -      | 100%      | -      | 588   |   |     |
| 11:00 AM                                                                              | 85%                                  | -      | 95%                        | -      | 40%                           | -      | 90%                           | -      | 90%                          | -      | 100%                         | -      | 85%                  | -      | 100%                 | -      | 60%                      | -      | 60%                                 | -      | 100%             | -      | 20%                 | 13     | 100%                   | 575    | 100%                            | -      | 100%                             | -      | 20%                  | -      | 20%        | -      | 100%      | -      | 588   |   |     |
| 12:00 PM                                                                              | 95%                                  | -      | 100%                       | -      | 75%                           | -      | 90%                           | -      | 100%                         | -      | 100%                         | -      | 100%                 | -      | 100%                 | -      | 55%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | 13     | 100%                   | 575    | 30%                             | -      | 100%                             | -      | 30%                  | -      | 30%        | -      | 90%       | -      | 588   |   |     |
| 1:00 PM                                                                               | 100%                                 | -      | 100%                       | -      | 75%                           | -      | 90%                           | -      | 90%                          | -      | 100%                         | -      | 100%                 | -      | 100%                 | -      | 55%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | 13     | 100%                   | 575    | 90%                             | -      | 100%                             | -      | 30%                  | -      | 30%        | -      | 90%       | -      | 588   |   |     |
| 2:00 PM                                                                               | 95%                                  | -      | 100%                       | -      | 65%                           | -      | 90%                           | -      | 50%                          | -      | 100%                         | -      | 90%                  | -      | 95%                  | -      | 60%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | 13     | 100%                   | 575    | 100%                            | -      | 100%                             | -      | 30%                  | -      | 30%        | -      | 100%      | -      | 588   |   |     |
| 3:00 PM                                                                               | 90%                                  | -      | 100%                       | -      | 40%                           | -      | 75%                           | -      | 45%                          | -      | 75%                          | -      | 60%                  | -      | 70%                  | -      | 60%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | 13     | 100%                   | 575    | 100%                            | -      | 100%                             | -      | 40%                  | -      | 40%        | -      | 100%      | -      | 588   |   |     |
| 4:00 PM                                                                               | 90%                                  | -      | 100%                       | -      | 50%                           | -      | 75%                           | -      | 45%                          | -      | 75%                          | -      | 55%                  | -      | 60%                  | -      | 65%                      | -      | 65%                                 | -      | 90%              | -      | 20%                 | 13     | 100%                   | 575    | 90%                             | -      | 100%                             | -      | 60%                  | -      | 60%        | -      | 90%       | -      | 588   |   |     |
| 5:00 PM                                                                               | 95%                                  | -      | 95%                        | -      | 75%                           | -      | 100%                          | -      | 75%                          | -      | 95%                          | -      | 60%                  | -      | 70%                  | -      | 70%                      | -      | 100%                                | -      | 70%              | -      | 40%                 | 26     | 100%                   | 575    | 80%                             | -      | 100%                             | -      | 100%                 | -      | 100%       | -      | 50%       | -      | 601   |   |     |
| 6:00 PM                                                                               | 95%                                  | -      | 95%                        | -      | 95%                           | -      | 100%                          | -      | 80%                          | -      | 95%                          | -      | 85%                  | -      | 90%                  | -      | 75%                      | -      | 100%                                | -      | 40%              | -      | 60%                 | 40     | 100%                   | 575    | 67%                             | -      | 67%                              | -      | 100%                 | -      | 100%       | -      | 25%       | -      | 615   |   |     |
| 7:00 PM                                                                               | 95%                                  | -      | 95%                        | -      | 100%                          | -      | 100%                          | -      | 100%                         | -      | 80%                          | -      | 80%                  | -      | 90%                  | -      | 75%                      | -      | 100%                                | -      | 20%              | -      | 100%                | 66     | 100%                   | 575    | 30%                             | -      | 30%                              | -      | 80%                  | -      | 80%        | -      | 10%       | -      | 641   |   |     |
| 8:00 PM                                                                               | 80%                                  | -      | 90%                        | -      | 100%                          | -      | 100%                          | -      | 80%                          | -      | 95%                          | -      | 50%                  | -      | 60%                  | -      | 80%                      | -      | 100%                                | -      | 20%              | -      | 100%                | 66     | 100%                   | 575    | 15%                             | -      | 15%                              | -      | 70%                  | -      | 70%        | -      | 7%        | -      | 641   |   |     |
| 9:00 PM                                                                               | 50%                                  | -      | 75%                        | -      | 100%                          | -      | 100%                          | -      | 60%                          | -      | 80%                          | -      | 30%                  | -      | 40%                  | -      | 85%                      | -      | 100%                                | -      | 20%              | -      | 100%                | 66     | 100%                   | 575    | 0%                              | -      | 0%                               | -      | 40%                  | -      | 40%        | -      | 3%        | -      | 641   |   |     |
| 10:00 PM                                                                              | 30%                                  | -      | 40%                        | -      | 95%                           | -      | 100%                          | -      | 55%                          | -      | 65%                          | -      | 20%                  | -      | 30%                  | -      | 95%                      | -      | 50%                                 | -      | 20%              | -      | 100%                | 66     | 100%                   | 575    | 0%                              | -      | 0%                               | -      | 5%                   | -      | 5%         | -      | 1%        | -      | 641   |   |     |
| 11:00 PM                                                                              | 10%                                  | -      | 15%                        | -      | 75%                           | -      | 85%                           | -      | 50%                          | -      | 65%                          | -      | 10%                  | -      | 20%                  | -      | 100%                     | -      | 0%                                  | -      | 10%              | -      | 80%                 | 53     | 100%                   | 575    | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -      | 0%        | -      | 628   |   |     |
| 12:00 AM                                                                              | 0%                                   | -      | 0%                         | -      | 25%                           | -      | 35%                           | -      | 25%                          | -      | 35%                          | -      | 5%                   | -      | 20%                  | -      | 100%                     | -      | 0%                                  | -      | 5%               | -      | 50%                 | 33     | 100%                   | 575    | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -      | 0%        | -      | 608   |   |     |
| MAXIMUM                                                                               |                                      | -      |                            | -      |                               | -      |                               | -      |                              | -      |                              | -      |                      | -      |                      | -      |                          | -      |                                     | -      |                  | -      | 66                  |        | 575                    |        | -                               |        | -                                |        | -                    |        | -          |        | -         |        | 641   |   |     |

TOTAL REQUIRED PARKING WITHOUT SHARED SPACES: 641

TOTAL REQUIRED PARKING WITH SHARED SPACES: 641

Approximated Parking Demand Peaking Characteristics, by Land Use Component and Time of Day (Weekends)

| Parking Demand Generators, Required Parking, and Associated Peak Parking Requirements |                                      |        |                            |        |                               |        |                               |        |                              |        |                              |        |                      |        |                      |        |                          |        |                                     |        |                  |        |                     |        |                        |        |                                 |        |                                  |        |                      |        | TOTAL   |            |         |           |     |     |
|---------------------------------------------------------------------------------------|--------------------------------------|--------|----------------------------|--------|-------------------------------|--------|-------------------------------|--------|------------------------------|--------|------------------------------|--------|----------------------|--------|----------------------|--------|--------------------------|--------|-------------------------------------|--------|------------------|--------|---------------------|--------|------------------------|--------|---------------------------------|--------|----------------------------------|--------|----------------------|--------|---------|------------|---------|-----------|-----|-----|
|                                                                                       | Shopping Center - Typical (Customer) |        | Shopping Center (Employee) |        | Fine/Casual Dining (Customer) |        | Fine/Casual Dining (Employee) |        | Family Restaurant (Customer) |        | Family Restaurant (Employee) |        | Fast Food (Customer) |        | Fast Food (Employee) |        | Hotel - Business (Guest) |        | Hotel Conference/Banquet (Customer) |        | Hotel (Employee) |        | Residential (Guest) |        | Residential (Reserved) |        | Medical/Dental Office (Visitor) |        | Medical/Dental Office (Employee) |        | Family Entertainment |        |         | Water Park |         | Childcare |     |     |
| Required Spaces                                                                       |                                      |        |                            |        |                               |        |                               |        |                              |        |                              |        |                      |        |                      |        |                          |        |                                     |        |                  |        | 66                  |        | 575                    |        |                                 |        |                                  |        |                      |        |         |            |         |           |     |     |
| Time Of Day                                                                           | Portion                              | Spaces | Portion                    | Spaces | Portion                       | Spaces | Portion                       | Spaces | Portion                      | Spaces | Portion                      | Spaces | Portion              | Spaces | Portion              | Spaces | Portion                  | Spaces | Portion                             | Spaces | Portion          | Spaces | Portion             | Spaces | Portion                | Spaces | Portion                         | Spaces | Portion                          | Spaces | Portion              | Spaces | Portion | Spaces     | Portion | Spaces    |     |     |
| 6:00 AM                                                                               | 1%                                   | -      | 10%                        | -      | 0%                            | -      | 0%                            | -      | 10%                          | -      | 50%                          | -      | 5%                   | -      | 15%                  | -      | 95%                      | -      | 0%                                  | -      | 5%               | -      | 0%                  | -      | 100%                   | 575    | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%      | -          | 0%      | -         | 575 |     |
| 7:00 AM                                                                               | 5%                                   | -      | 15%                        | -      | 0%                            | -      | 20%                           | -      | 25%                          | -      | 75%                          | -      | 10%                  | -      | 20%                  | -      | 90%                      | -      | 0%                                  | -      | 30%              | -      | 20%                 | 13     | 100%                   | 575    | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%      | -          | 0%      | -         | 588 |     |
| 8:00 AM                                                                               | 10%                                  | -      | 40%                        | -      | 0%                            | -      | 30%                           | -      | 45%                          | -      | 90%                          | -      | 20%                  | -      | 30%                  | -      | 80%                      | -      | 30%                                 | -      | 90%              | -      | 20%                 | 13     | 100%                   | 575    | 90%                             | -      | 60%                              | -      | 0%                   | -      | 0%      | -          | -       | -         | 588 |     |
| 9:00 AM                                                                               | 30%                                  | -      | 75%                        | -      | 0%                            | -      | 60%                           | -      | 70%                          | -      | 90%                          | -      | 30%                  | -      | 40%                  | -      | 70%                      | -      | 60%                                 | -      | 90%              | -      | 20%                 | 13     | 100%                   | 575    | 90%                             | -      | 100%                             | -      | 5%                   | -      | 5%      | -          | -       | -         | 588 |     |
| 10:00 AM                                                                              | 50%                                  | -      | 85%                        | -      | 0%                            | -      | 75%                           | -      | 90%                          | -      | 100%                         | -      | 55%                  | -      | 75%                  | -      | 60%                      | -      | 60%                                 | -      | 100%             | -      | 20%                 | 13     | 100%                   | 575    | 100%                            | -      | 100%                             | -      | 50%                  | -      | 50%     | -          | -       | -         | 588 |     |
| 11:00 AM                                                                              | 65%                                  | -      | 95%                        | -      | 15%                           | -      | 75%                           | -      | 90%                          | -      | 100%                         | -      | 85%                  | -      | 100%                 | -      | 60%                      | -      | 60%                                 | -      | 100%             | -      | 20%                 | 13     | 100%                   | 575    | 100%                            | -      | 100%                             | -      | 75%                  | -      | 75%     | -          | -       | -         | 588 |     |
| 12:00 PM                                                                              | 80%                                  | -      | 100%                       | -      | 50%                           | -      | 75%                           | -      | 100%                         | -      | 100%                         | -      | 100%                 | -      | 100%                 | -      | 55%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | 13     | 100%                   | 575    | 30%                             | -      | 100%                             | -      | 100%                 | -      | 100%    | -          | 100%    | -         | -   | 588 |
| 1:00 PM                                                                               | 90%                                  | -      | 100%                       | -      | 55%                           | -      | 75%                           | -      | 85%                          | -      | 100%                         | -      | 100%                 | -      | 100%                 | -      | 55%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | 13     | 100%                   | 575    | 0%                              | -      | 0%                               | -      | 100%                 | -      | 100%    | -          | -       | -         | 588 |     |
| 2:00 PM                                                                               | 100%                                 | -      | 100%                       | -      | 45%                           | -      | 75%                           | -      | 65%                          | -      | 100%                         | -      | 90%                  | -      | 95%                  | -      | 60%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | 13     | 100%                   | 575    | 0%                              | -      | 0%                               | -      | 90%                  | -      | 90%     | -          | -       | -         | 588 |     |
| 3:00 PM                                                                               | 100%                                 | -      | 100%                       | -      | 45%                           | -      | 75%                           | -      | 40%                          | -      | 75%                          | -      | 60%                  | -      | 70%                  | -      | 60%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | 13     | 100%                   | 575    | 0%                              | -      | 0%                               | -      | 80%                  | -      | 80%     | -          | -       | -         | 588 |     |
| 4:00 PM                                                                               | 95%                                  | -      | 100%                       | -      | 45%                           | -      | 75%                           | -      | 45%                          | -      | 75%                          | -      | 55%                  | -      | 60%                  | -      | 65%                      | -      | 65%                                 | -      | 90%              | -      | 20%                 | 13     | 100%                   | 575    | 0%                              | -      | 0%                               | -      | 70%                  | -      | 70%     | -          | -       | -         | 588 |     |
| 5:00 PM                                                                               | 90%                                  | -      | 95%                        | -      | 60%                           | -      | 100%                          | -      | 60%                          | -      | 95%                          | -      | 60%                  | -      | 70%                  | -      | 70%                      | -      | 100%                                | -      | 75%              | -      | 40%                 | 26     | 100%                   | 575    | 0%                              | -      | 0%                               | -      | 60%                  | -      | 60%     | -          | -       | -         | 601 |     |
| 6:00 PM                                                                               | 80%                                  | -      | 85%                        | -      | 90%                           | -      | 100%                          | -      | 70%                          | -      | 95%                          | -      | 85%                  | -      | 90%                  | -      | 75%                      | -      | 100%                                | -      | 60%              | -      | 60%                 | 40     | 100%                   | 575    | 0%                              | -      | 0%                               | -      | 60%                  | -      | 60%     | -          | -       | -         | 615 |     |
| 7:00 PM                                                                               | 75%                                  | -      | 80%                        | -      | 95%                           | -      | 100%                          | -      | 70%                          | -      | 95%                          | -      | 80%                  | -      | 90%                  | -      | 75%                      | -      | 100%                                | -      | 55%              | -      | 100%                | 66     | 100%                   | 575    | 0%                              | -      | 0%                               | -      | 50%                  | -      | 50%     | -          | -       | -         | 641 |     |
| 8:00 PM                                                                               | 65%                                  | -      | 75%                        | -      | 100%                          | -      | 100%                          | -      | 65%                          | -      | 95%                          | -      | 50%                  | -      | 60%                  | -      | 80%                      | -      | 100%                                | -      | 55%              | -      | 100%                | 66     | 100%                   | 575    | 0%                              | -      | 0%                               | -      | 40%                  | -      | 40%     | -          | -       | -         | 641 |     |
| 9:00 PM                                                                               | 50%                                  | -      | 65%                        | -      | 90%                           | -      | 100%                          | -      | 30%                          | -      | 80%                          | -      | 30%                  | -      | 40%                  | -      | 85%                      | -      | 100%                                | -      | 55%              | -      | 100%                | 66     | 100%                   | 575    | 0%                              | -      | 0%                               | -      | 30%                  | -      | 30%     | -          | -       | -         | 641 |     |
| 10:00 PM                                                                              | 35%                                  | -      | 45%                        | -      | 90%                           | -      | 100%                          | -      | 25%                          | -      | 65%                          | -      | 20%                  | -      | 30%                  | -      | 95%                      | -      | 50%                                 | -      | 45%              | -      | 100%                | 66     | 100%                   | 575    | 0%                              | -      | 0%                               | -      | 5%                   | -      | 5%      | -          | -       | -         | 641 |     |
| 11:00 PM                                                                              | 15%                                  | -      | 15%                        | -      | 90%                           | -      | 85%                           | -      | 15%                          | -      | 65%                          | -      | 10%                  | -      | 20%                  | -      | 100%                     | -      | 0%                                  | -      | 45%              | -      | 80%                 | 53     | 100%                   | 575    | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%      | -          | -       | -         | 628 |     |
| 12:00 AM                                                                              | 0%                                   | -      | 0%                         | -      | 50%                           | -      | 50%                           | -      | 10%                          | -      | 35%                          | -      | 5%                   | -      | 20%                  | -      | 100%                     | -      | 0%                                  | -      | 30%              | -      | 50%                 | 33     | 100%                   | 575    | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%      | -          | -       | -         | 608 |     |
| MAXIMUM                                                                               | -                                    | -      | -                          | -      | -                             | -      | -                             | -      | -                            | -      | -                            | -      | -                    | -      | -                    | -      | -                        | -      | -                                   | -      | -                | -      | 66                  | -      | 575                    | -      | -                               | -      | -                                | -      | -                    | -      | -       | -          | -       | 641       |     |     |

ZONE D  
Approximated Parking Demand Peaking Characteristics, by Land Use Component and Time of Day (Weekdays)

| Parking Demand Generators, Required Parking, and Associated Peak Parking Requirements |                                      |        |                            |        |                               |        |                               |        |                              |        |                              |        |                      |        |                      |        |                          |        |                                     |        |                  |        |                     |        |                        |        |                                 |        |                                  |        |                      |        |            | TOTAL  |           |        |     |   |     |
|---------------------------------------------------------------------------------------|--------------------------------------|--------|----------------------------|--------|-------------------------------|--------|-------------------------------|--------|------------------------------|--------|------------------------------|--------|----------------------|--------|----------------------|--------|--------------------------|--------|-------------------------------------|--------|------------------|--------|---------------------|--------|------------------------|--------|---------------------------------|--------|----------------------------------|--------|----------------------|--------|------------|--------|-----------|--------|-----|---|-----|
|                                                                                       | Shopping Center - Typical (Customer) |        | Shopping Center (Employee) |        | Fine/Casual Dining (Customer) |        | Fine/Casual Dining (Employee) |        | Family Restaurant (Customer) |        | Family Restaurant (Employee) |        | Fast Food (Customer) |        | Fast Food (Employee) |        | Hotel - Business (Guest) |        | Hotel Conference/Banquet (Customer) |        | Hotel (Employee) |        | Residential (Guest) |        | Residential (Reserved) |        | Medical/Dental Office (Visitor) |        | Medical/Dental Office (Employee) |        | Family Entertainment |        | Water Park |        | Childcare |        |     |   |     |
| Required Spaces                                                                       | 54                                   |        | 13                         |        | 109                           |        | 19                            |        | 63                           |        | 11                           |        |                      |        |                      |        |                          |        |                                     |        |                  |        |                     |        |                        |        | 45                              |        | 23                               |        |                      |        |            |        |           |        |     |   |     |
| Time Of Day                                                                           | Portion                              | Spaces | Portion                    | Spaces | Portion                       | Spaces | Portion                       | Spaces | Portion                      | Spaces | Portion                      | Spaces | Portion              | Spaces | Portion              | Spaces | Portion                  | Spaces | Portion                             | Spaces | Portion          | Spaces | Portion             | Spaces | Portion                | Spaces | Portion                         | Spaces | Portion                          | Spaces | Portion              | Spaces | Portion    | Spaces | Portion   | Spaces |     |   |     |
| 6:00 AM                                                                               | 1%                                   | 1      | 10%                        | 1      | 0%                            | -      | 0%                            | -      | 25%                          | 16     | 50%                          | 6      | 5%                   | -      | 15%                  | -      | 95%                      | -      | 0%                                  | -      | 5%               | -      | 0%                  | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -      | 0%        | -      | 3%  | - | 24  |
| 7:00 AM                                                                               | 5%                                   | 3      | 15%                        | 2      | 0%                            | -      | 20%                           | 4      | 50%                          | 32     | 75%                          | 8      | 10%                  | -      | 20%                  | -      | 90%                      | -      | 0%                                  | -      | 30%              | -      | 10%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -      | 0%        | -      | 30% | - | 49  |
| 8:00 AM                                                                               | 15%                                  | 8      | 40%                        | 5      | 0%                            | -      | 50%                           | 10     | 60%                          | 38     | 90%                          | 10     | 20%                  | -      | 30%                  | -      | 80%                      | -      | 30%                                 | -      | 90%              | -      | 20%                 | -      | 100%                   | -      | 90%                             | 41     | 60%                              | 14     | 0%                   | -      | 0%         | -      | 0%        | -      | 75% | - | 126 |
| 9:00 AM                                                                               | 35%                                  | 19     | 75%                        | 10     | 0%                            | -      | 75%                           | 14     | 75%                          | 47     | 90%                          | 10     | 30%                  | -      | 40%                  | -      | 70%                      | -      | 60%                                 | -      | 90%              | -      | 20%                 | -      | 100%                   | -      | 90%                             | 41     | 100%                             | 23     | 5%                   | -      | 5%         | -      | 95%       | -      | 164 |   |     |
| 10:00 AM                                                                              | 65%                                  | 35     | 85%                        | 11     | 15%                           | 16     | 90%                           | 17     | 85%                          | 54     | 100%                         | 11     | 55%                  | -      | 75%                  | -      | 60%                      | -      | 60%                                 | -      | 100%             | -      | 20%                 | -      | 100%                   | -      | 100%                            | 45     | 100%                             | 23     | 10%                  | -      | 10%        | -      | 100%      | -      | 212 |   |     |
| 11:00 AM                                                                              | 85%                                  | 46     | 95%                        | 12     | 40%                           | 44     | 90%                           | 17     | 90%                          | 57     | 100%                         | 11     | 85%                  | -      | 100%                 | -      | 60%                      | -      | 60%                                 | -      | 100%             | -      | 20%                 | -      | 100%                   | -      | 100%                            | 45     | 100%                             | 23     | 20%                  | -      | 20%        | -      | 100%      | -      | 255 |   |     |
| 12:00 PM                                                                              | 95%                                  | 51     | 100%                       | 13     | 75%                           | 82     | 90%                           | 17     | 100%                         | 63     | 100%                         | 11     | 100%                 | -      | 100%                 | -      | 55%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | -      | 100%                   | -      | 30%                             | 14     | 100%                             | 23     | 30%                  | -      | 30%        | -      | 90%       | -      | 274 |   |     |
| 1:00 PM                                                                               | 100%                                 | 54     | 100%                       | 13     | 75%                           | 82     | 90%                           | 17     | 90%                          | 57     | 100%                         | 11     | 100%                 | -      | 100%                 | -      | 55%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | -      | 100%                   | -      | 90%                             | 41     | 100%                             | 23     | 30%                  | -      | 30%        | -      | 90%       | -      | 298 |   |     |
| 2:00 PM                                                                               | 95%                                  | 51     | 100%                       | 13     | 65%                           | 71     | 90%                           | 17     | 50%                          | 32     | 100%                         | 11     | 90%                  | -      | 95%                  | -      | 60%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | -      | 100%                   | -      | 100%                            | 45     | 100%                             | 23     | 30%                  | -      | 30%        | -      | 100%      | -      | 263 |   |     |
| 3:00 PM                                                                               | 90%                                  | 49     | 100%                       | 13     | 40%                           | 44     | 75%                           | 14     | 45%                          | 28     | 75%                          | 8      | 60%                  | -      | 70%                  | -      | 60%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | -      | 100%                   | -      | 100%                            | 45     | 100%                             | 23     | 40%                  | -      | 40%        | -      | 100%      | -      | 224 |   |     |
| 4:00 PM                                                                               | 90%                                  | 49     | 100%                       | 13     | 50%                           | 55     | 75%                           | 14     | 45%                          | 28     | 75%                          | 8      | 55%                  | -      | 60%                  | -      | 65%                      | -      | 65%                                 | -      | 90%              | -      | 20%                 | -      | 100%                   | -      | 90%                             | 41     | 100%                             | 23     | 60%                  | -      | 60%        | -      | 90%       | -      | 231 |   |     |
| 5:00 PM                                                                               | 95%                                  | 51     | 95%                        | 12     | 75%                           | 82     | 100%                          | 19     | 75%                          | 47     | 95%                          | 10     | 60%                  | -      | 70%                  | -      | 70%                      | -      | 100%                                | -      | 70%              | -      | 40%                 | -      | 100%                   | -      | 80%                             | 36     | 100%                             | 23     | 100%                 | -      | 100%       | -      | 50%       | -      | 280 |   |     |
| 6:00 PM                                                                               | 95%                                  | 51     | 95%                        | 12     | 95%                           | 104    | 100%                          | 19     | 80%                          | 50     | 95%                          | 10     | 85%                  | -      | 90%                  | -      | 75%                      | -      | 100%                                | -      | 40%              | -      | 60%                 | -      | 100%                   | -      | 67%                             | 30     | 67%                              | 15     | 100%                 | -      | 100%       | -      | 25%       | -      | 291 |   |     |
| 7:00 PM                                                                               | 95%                                  | 51     | 95%                        | 12     | 100%                          | 109    | 100%                          | 19     | 80%                          | 50     | 95%                          | 10     | 80%                  | -      | 90%                  | -      | 75%                      | -      | 100%                                | -      | 20%              | -      | 100%                | -      | 100%                   | -      | 30%                             | 14     | 30%                              | 7      | 80%                  | -      | 80%        | -      | 10%       | -      | 272 |   |     |
| 8:00 PM                                                                               | 80%                                  | 43     | 90%                        | 12     | 100%                          | 109    | 100%                          | 19     | 80%                          | 50     | 95%                          | 10     | 50%                  | -      | 60%                  | -      | 80%                      | -      | 100%                                | -      | 20%              | -      | 100%                | -      | 100%                   | -      | 15%                             | 7      | 15%                              | 3      | 70%                  | -      | 70%        | -      | 7%        | -      | 253 |   |     |
| 9:00 PM                                                                               | 50%                                  | 27     | 75%                        | 10     | 100%                          | 109    | 100%                          | 19     | 60%                          | 38     | 80%                          | 9      | 30%                  | -      | 40%                  | -      | 85%                      | -      | 100%                                | -      | 20%              | -      | 100%                | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 40%                  | -      | 40%        | -      | 3%        | -      | 212 |   |     |
| 10:00 PM                                                                              | 30%                                  | 16     | 40%                        | 5      | 95%                           | 104    | 100%                          | 19     | 55%                          | 35     | 65%                          | 7      | 20%                  | -      | 30%                  | -      | 95%                      | -      | 50%                                 | -      | 20%              | -      | 100%                | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 5%                   | -      | 5%         | -      | 1%        | -      | 186 |   |     |
| 11:00 PM                                                                              | 10%                                  | 5      | 15%                        | 2      | 75%                           | 82     | 85%                           | 16     | 50%                          | 32     | 65%                          | 7      | 10%                  | -      | 20%                  | -      | 100%                     | -      | 0%                                  | -      | 10%              | -      | 80%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -      | 0%        | -      | 144 |   |     |
| 12:00 AM                                                                              | 0%                                   | -      | 0%                         | -      | 25%                           | 27     | 35%                           | 7      | 25%                          | 16     | 35%                          | 4      | 5%                   | -      | 20%                  | -      | 100%                     | -      | 0%                                  | -      | 5%               | -      | 50%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -      | 0%        | -      | 54  |   |     |
| MAXIMUM                                                                               |                                      | 54     |                            | 13     |                               | 109    |                               | 19     |                              | 63     |                              | 11     |                      | -      |                      | -      |                          | -      |                                     | -      |                  | -      |                     | -      |                        | -      |                                 | 45     |                                  | 23     |                      | -      |            | -      |           | -      | 298 |   |     |

TOTAL REQUIRED PARKING WITHOUT SHARED SPACES: 337

TOTAL REQUIRED PARKING WITH SHARED SPACES: 298

Approximated Parking Demand Peaking Characteristics, by Land Use Component and Time of Day (Weekends)

| Parking Demand Generators, Required Parking, and Associated Peak Parking Requirements |                                      |        |                            |        |                               |        |                               |        |                              |        |                              |        |                      |        |                      |        |                          |        |                                     |        |                  |        |                     |        |                        |        |                                 |        |                                  |        |                      |        | TOTAL   |            |         |           |     |     |
|---------------------------------------------------------------------------------------|--------------------------------------|--------|----------------------------|--------|-------------------------------|--------|-------------------------------|--------|------------------------------|--------|------------------------------|--------|----------------------|--------|----------------------|--------|--------------------------|--------|-------------------------------------|--------|------------------|--------|---------------------|--------|------------------------|--------|---------------------------------|--------|----------------------------------|--------|----------------------|--------|---------|------------|---------|-----------|-----|-----|
|                                                                                       | Shopping Center - Typical (Customer) |        | Shopping Center (Employee) |        | Fine/Casual Dining (Customer) |        | Fine/Casual Dining (Employee) |        | Family Restaurant (Customer) |        | Family Restaurant (Employee) |        | Fast Food (Customer) |        | Fast Food (Employee) |        | Hotel - Business (Guest) |        | Hotel Conference/Banquet (Customer) |        | Hotel (Employee) |        | Residential (Guest) |        | Residential (Reserved) |        | Medical/Dental Office (Visitor) |        | Medical/Dental Office (Employee) |        | Family Entertainment |        |         | Water Park |         | Childcare |     |     |
| Required Spaces                                                                       | 59                                   |        | 15                         |        | 152                           |        | 27                            |        | 91                           |        | 16                           |        |                      |        |                      |        |                          |        |                                     |        |                  |        |                     |        |                        |        | 45                              |        | 23                               |        |                      |        |         |            |         |           |     |     |
| Time Of Day                                                                           | Portion                              | Spaces | Portion                    | Spaces | Portion                       | Spaces | Portion                       | Spaces | Portion                      | Spaces | Portion                      | Spaces | Portion              | Spaces | Portion              | Spaces | Portion                  | Spaces | Portion                             | Spaces | Portion          | Spaces | Portion             | Spaces | Portion                | Spaces | Portion                         | Spaces | Portion                          | Spaces | Portion              | Spaces | Portion | Spaces     | Portion | Spaces    |     |     |
| 6:00 AM                                                                               | 1%                                   | 1      | 10%                        | 2      | 0%                            | -      | 0%                            | -      | 10%                          | 9      | 50%                          | 8      | 5%                   | -      | 15%                  | -      | 95%                      | -      | 0%                                  | -      | 5%               | -      | 0%                  | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%      | -          | 0%      | -         | -   | 20  |
| 7:00 AM                                                                               | 5%                                   | 3      | 15%                        | 2      | 0%                            | -      | 20%                           | 5      | 25%                          | 23     | 75%                          | 12     | 10%                  | -      | 20%                  | -      | 90%                      | -      | 0%                                  | -      | 30%              | -      | 20%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%      | -          | 0%      | -         | -   | 45  |
| 8:00 AM                                                                               | 10%                                  | 6      | 40%                        | 6      | 0%                            | -      | 30%                           | 8      | 45%                          | 41     | 90%                          | 14     | 20%                  | -      | 30%                  | -      | 80%                      | -      | 30%                                 | -      | 90%              | -      | 20%                 | -      | 100%                   | -      | 90%                             | 41     | 60%                              | 14     | 0%                   | -      | 0%      | -          | 0%      | -         | -   | 130 |
| 9:00 AM                                                                               | 30%                                  | 18     | 75%                        | 11     | 0%                            | -      | 60%                           | 16     | 70%                          | 64     | 90%                          | 14     | 30%                  | -      | 40%                  | -      | 70%                      | -      | 60%                                 | -      | 90%              | -      | 20%                 | -      | 100%                   | -      | 90%                             | 41     | 100%                             | 23     | 5%                   | -      | 5%      | -          | 5%      | -         | -   | 187 |
| 10:00 AM                                                                              | 50%                                  | 30     | 85%                        | 13     | 0%                            | -      | 75%                           | 20     | 90%                          | 82     | 100%                         | 16     | 55%                  | -      | 75%                  | -      | 60%                      | -      | 60%                                 | -      | 100%             | -      | 20%                 | -      | 100%                   | -      | 100%                            | 45     | 100%                             | 23     | 50%                  | -      | 50%     | -          | 50%     | -         | -   | 229 |
| 11:00 AM                                                                              | 65%                                  | 38     | 95%                        | 14     | 15%                           | 23     | 75%                           | 20     | 90%                          | 82     | 100%                         | 16     | 85%                  | -      | 100%                 | -      | 60%                      | -      | 60%                                 | -      | 100%             | -      | 20%                 | -      | 100%                   | -      | 100%                            | 45     | 100%                             | 23     | 75%                  | -      | 75%     | -          | 75%     | -         | -   | 261 |
| 12:00 PM                                                                              | 80%                                  | 47     | 100%                       | 15     | 50%                           | 76     | 75%                           | 20     | 100%                         | 91     | 100%                         | 16     | 100%                 | -      | 100%                 | -      | 55%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | -      | 100%                   | -      | 30%                             | 14     | 100%                             | 23     | 100%                 | -      | 100%    | -          | 100%    | -         | -   | 302 |
| 1:00 PM                                                                               | 90%                                  | 53     | 100%                       | 15     | 55%                           | 84     | 75%                           | 20     | 85%                          | 77     | 100%                         | 16     | 100%                 | -      | 100%                 | -      | 55%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 100%                 | -      | 100%    | -          | 100%    | -         | -   | 265 |
| 2:00 PM                                                                               | 100%                                 | 59     | 100%                       | 15     | 45%                           | 68     | 75%                           | 20     | 65%                          | 59     | 100%                         | 16     | 90%                  | -      | 95%                  | -      | 60%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 90%                  | -      | 90%     | -          | 90%     | -         | -   | 237 |
| 3:00 PM                                                                               | 100%                                 | 59     | 100%                       | 15     | 45%                           | 68     | 75%                           | 20     | 40%                          | 36     | 75%                          | 12     | 60%                  | -      | 70%                  | -      | 60%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 80%                  | -      | 80%     | -          | 80%     | -         | -   | 210 |
| 4:00 PM                                                                               | 95%                                  | 56     | 100%                       | 15     | 45%                           | 68     | 75%                           | 20     | 45%                          | 41     | 75%                          | 12     | 55%                  | -      | 60%                  | -      | 65%                      | -      | 65%                                 | -      | 90%              | -      | 20%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 70%                  | -      | 70%     | -          | 70%     | -         | -   | 212 |
| 5:00 PM                                                                               | 90%                                  | 53     | 95%                        | 14     | 60%                           | 91     | 100%                          | 27     | 60%                          | 55     | 95%                          | 15     | 60%                  | -      | 70%                  | -      | 70%                      | -      | 100%                                | -      | 75%              | -      | 40%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 60%                  | -      | 60%     | -          | 60%     | -         | -   | 255 |
| 6:00 PM                                                                               | 80%                                  | 47     | 85%                        | 13     | 90%                           | 137    | 100%                          | 27     | 70%                          | 64     | 95%                          | 15     | 85%                  | -      | 90%                  | -      | 75%                      | -      | 100%                                | -      | 60%              | -      | 60%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 60%                  | -      | 60%     | -          | 60%     | -         | -   | 303 |
| 7:00 PM                                                                               | 75%                                  | 44     | 80%                        | 12     | 95%                           | 144    | 100%                          | 27     | 70%                          | 64     | 95%                          | 15     | 80%                  | -      | 90%                  | -      | 75%                      | -      | 100%                                | -      | 55%              | -      | 100%                | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 50%                  | -      | 50%     | -          | 50%     | -         | -   | 306 |
| 8:00 PM                                                                               | 65%                                  | 38     | 75%                        | 11     | 100%                          | 152    | 100%                          | 27     | 65%                          | 59     | 95%                          | 15     | 50%                  | -      | 60%                  | -      | 80%                      | -      | 100%                                | -      | 55%              | -      | 100%                | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 40%                  | -      | 40%     | -          | 40%     | -         | -   | 302 |
| 9:00 PM                                                                               | 50%                                  | 30     | 65%                        | 10     | 90%                           | 137    | 100%                          | 27     | 30%                          | 27     | 80%                          | 13     | 30%                  | -      | 40%                  | -      | 85%                      | -      | 100%                                | -      | 55%              | -      | 100%                | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 30%                  | -      | 30%     | -          | 30%     | -         | -   | 244 |
| 10:00 PM                                                                              | 35%                                  | 21     | 45%                        | 7      | 90%                           | 137    | 100%                          | 27     | 25%                          | 23     | 65%                          | 10     | 20%                  | -      | 30%                  | -      | 95%                      | -      | 50%                                 | -      | 45%              | -      | 100%                | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 5%                   | -      | 5%      | -          | 5%      | -         | -   | 225 |
| 11:00 PM                                                                              | 15%                                  | 9      | 15%                        | 2      | 90%                           | 137    | 85%                           | 23     | 15%                          | 14     | 65%                          | 10     | 10%                  | -      | 20%                  | -      | 100%                     | -      | 0%                                  | -      | 45%              | -      | 80%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%      | -          | 0%      | -         | -   | 195 |
| 12:00 AM                                                                              | 0%                                   | -      | 0%                         | -      | 50%                           | 76     | 50%                           | 14     | 10%                          | 9      | 35%                          | 6      | 5%                   | -      | 20%                  | -      | 100%                     | -      | 0%                                  | -      | 30%              | -      | 50%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%      | -          | 0%      | -         | -   | 105 |
| MAXIMUM                                                                               |                                      | 59     |                            | 15     |                               | 152    |                               | 27     |                              | 91     |                              | 16     |                      | -      |                      | -      |                          | -      |                                     | -      |                  | -      |                     | -      |                        | -      |                                 | 45     |                                  | 23     |                      | -      |         | -          |         | -         | 306 |     |

ZONE E  
Approximated Parking Demand Peaking Characteristics, by Land Use Component and Time of Day (Weekdays)

| Parking Demand Generators, Required Parking, and Associated Peak Parking Requirements |                                      |        |                            |        |                               |        |                               |        |                              |        |                              |        |                      |        |                      |        |                          |        |                                     |        |                  |        |                     |        |                        |        |                                 |        |                                  |        |                      |        |            | TOTAL  |           |        |      |     |     |   |    |
|---------------------------------------------------------------------------------------|--------------------------------------|--------|----------------------------|--------|-------------------------------|--------|-------------------------------|--------|------------------------------|--------|------------------------------|--------|----------------------|--------|----------------------|--------|--------------------------|--------|-------------------------------------|--------|------------------|--------|---------------------|--------|------------------------|--------|---------------------------------|--------|----------------------------------|--------|----------------------|--------|------------|--------|-----------|--------|------|-----|-----|---|----|
|                                                                                       | Shopping Center - Typical (Customer) |        | Shopping Center (Employee) |        | Fine/Casual Dining (Customer) |        | Fine/Casual Dining (Employee) |        | Family Restaurant (Customer) |        | Family Restaurant (Employee) |        | Fast Food (Customer) |        | Fast Food (Employee) |        | Hotel - Business (Guest) |        | Hotel Conference/Banquet (Customer) |        | Hotel (Employee) |        | Residential (Guest) |        | Residential (Reserved) |        | Medical/Dental Office (Visitor) |        | Medical/Dental Office (Employee) |        | Family Entertainment |        | Water Park |        | Childcare |        |      |     |     |   |    |
| Required Spaces                                                                       | 12                                   |        | 3                          |        | 23                            |        | 5                             |        |                              |        |                              |        | 64                   |        | 11                   |        |                          |        |                                     |        |                  |        |                     |        |                        |        |                                 |        |                                  |        |                      |        |            |        |           |        |      |     |     |   |    |
| Time Of Day                                                                           | Portion                              | Spaces | Portion                    | Spaces | Portion                       | Spaces | Portion                       | Spaces | Portion                      | Spaces | Portion                      | Spaces | Portion              | Spaces | Portion              | Spaces | Portion                  | Spaces | Portion                             | Spaces | Portion          | Spaces | Portion             | Spaces | Portion                | Spaces | Portion                         | Spaces | Portion                          | Spaces | Portion              | Spaces | Portion    | Spaces | Portion   | Spaces |      |     |     |   |    |
| 6:00 AM                                                                               | 1%                                   | -      | 10%                        | -      | 0%                            | -      | 0%                            | -      | 25%                          | -      | 50%                          | -      | 5%                   | 3      | 15%                  | 2      | 95%                      | -      | 0%                                  | -      | 5%               | -      | 0%                  | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -      | 0%        | -      | 3%   | -   | 5   |   |    |
| 7:00 AM                                                                               | 5%                                   | 1      | 15%                        | -      | 0%                            | -      | 20%                           | 1      | 50%                          | -      | 75%                          | -      | 10%                  | 6      | 20%                  | 2      | 90%                      | -      | 0%                                  | -      | 30%              | -      | 10%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -      | 0%        | -      | 30%  | -   | 10  |   |    |
| 8:00 AM                                                                               | 15%                                  | 2      | 40%                        | 1      | 0%                            | -      | 50%                           | 3      | 60%                          | -      | 90%                          | -      | 20%                  | 13     | 30%                  | 3      | 80%                      | -      | 30%                                 | -      | 90%              | -      | 20%                 | -      | 100%                   | -      | 90%                             | -      | 60%                              | -      | 0%                   | -      | 0%         | -      | 0%        | -      | 75%  | -   | 22  |   |    |
| 9:00 AM                                                                               | 35%                                  | 4      | 75%                        | 2      | 0%                            | -      | 75%                           | 4      | 75%                          | -      | 90%                          | -      | 30%                  | 19     | 40%                  | 4      | 70%                      | -      | 60%                                 | -      | 90%              | -      | 20%                 | -      | 100%                   | -      | 90%                             | -      | 100%                             | -      | 90%                  | -      | 100%       | -      | 5%        | -      | 5%   | -   | 95% | - | 33 |
| 10:00 AM                                                                              | 65%                                  | 8      | 85%                        | 3      | 15%                           | 3      | 90%                           | 5      | 85%                          | -      | 100%                         | -      | 55%                  | 35     | 75%                  | 8      | 60%                      | -      | 60%                                 | -      | 100%             | -      | 20%                 | -      | 100%                   | -      | 100%                            | -      | 100%                             | -      | 100%                 | -      | 10%        | -      | 10%       | -      | 100% | -   | 62  |   |    |
| 11:00 AM                                                                              | 85%                                  | 10     | 95%                        | 3      | 40%                           | 9      | 90%                           | 5      | 90%                          | -      | 100%                         | -      | 85%                  | 54     | 100%                 | 11     | 60%                      | -      | 60%                                 | -      | 100%             | -      | 20%                 | -      | 100%                   | -      | 100%                            | -      | 100%                             | -      | 100%                 | -      | 20%        | -      | 20%       | -      | 100% | -   | 92  |   |    |
| 12:00 PM                                                                              | 95%                                  | 11     | 100%                       | 3      | 75%                           | 17     | 90%                           | 5      | 100%                         | -      | 100%                         | -      | 100%                 | 64     | 100%                 | 11     | 55%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | -      | 100%                   | -      | 100%                            | -      | 100%                             | -      | 100%                 | -      | 30%        | -      | 30%       | -      | 90%  | -   | 111 |   |    |
| 1:00 PM                                                                               | 100%                                 | 12     | 100%                       | 3      | 75%                           | 17     | 90%                           | 5      | 90%                          | -      | 100%                         | -      | 100%                 | 64     | 100%                 | 11     | 55%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | -      | 100%                   | -      | 90%                             | -      | 100%                             | -      | 100%                 | -      | 30%        | -      | 30%       | -      | 90%  | -   | 112 |   |    |
| 2:00 PM                                                                               | 95%                                  | 11     | 100%                       | 3      | 65%                           | 15     | 90%                           | 5      | 50%                          | -      | 100%                         | -      | 90%                  | 58     | 95%                  | 10     | 60%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | -      | 100%                   | -      | 100%                            | -      | 100%                             | -      | 100%                 | -      | 30%        | -      | 30%       | -      | 100% | -   | 102 |   |    |
| 3:00 PM                                                                               | 90%                                  | 11     | 100%                       | 3      | 40%                           | 9      | 75%                           | 4      | 45%                          | -      | 75%                          | -      | 60%                  | 38     | 70%                  | 8      | 60%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | -      | 100%                   | -      | 100%                            | -      | 100%                             | -      | 100%                 | -      | 40%        | -      | 40%       | -      | 100% | -   | 73  |   |    |
| 4:00 PM                                                                               | 90%                                  | 11     | 100%                       | 3      | 50%                           | 12     | 75%                           | 4      | 45%                          | -      | 75%                          | -      | 55%                  | 35     | 60%                  | 7      | 65%                      | -      | 65%                                 | -      | 90%              | -      | 20%                 | -      | 100%                   | -      | 90%                             | -      | 100%                             | -      | 100%                 | -      | 60%        | -      | 60%       | -      | 90%  | -   | 72  |   |    |
| 5:00 PM                                                                               | 95%                                  | 11     | 95%                        | 3      | 75%                           | 17     | 100%                          | 5      | 75%                          | -      | 95%                          | -      | 60%                  | 38     | 70%                  | 8      | 70%                      | -      | 100%                                | -      | 70%              | -      | 40%                 | -      | 100%                   | -      | 80%                             | -      | 100%                             | -      | 100%                 | -      | 100%       | -      | 100%      | -      | 50%  | -   | 82  |   |    |
| 6:00 PM                                                                               | 95%                                  | 11     | 95%                        | 3      | 95%                           | 22     | 100%                          | 5      | 80%                          | -      | 95%                          | -      | 85%                  | 54     | 90%                  | 10     | 75%                      | -      | 100%                                | -      | 40%              | -      | 60%                 | -      | 100%                   | -      | 67%                             | -      | 67%                              | -      | 100%                 | -      | 100%       | -      | 25%       | -      | 105  |     |     |   |    |
| 7:00 PM                                                                               | 95%                                  | 11     | 95%                        | 3      | 100%                          | 23     | 100%                          | 5      | 80%                          | -      | 95%                          | -      | 80%                  | 51     | 90%                  | 10     | 75%                      | -      | 100%                                | -      | 20%              | -      | 100%                | -      | 100%                   | -      | 30%                             | -      | 30%                              | -      | 80%                  | -      | 80%        | -      | 10%       | -      | 103  |     |     |   |    |
| 8:00 PM                                                                               | 80%                                  | 10     | 90%                        | 3      | 100%                          | 23     | 100%                          | 5      | 80%                          | -      | 95%                          | -      | 50%                  | 32     | 60%                  | 7      | 80%                      | -      | 100%                                | -      | 20%              | -      | 100%                | -      | 100%                   | -      | 15%                             | -      | 15%                              | -      | 70%                  | -      | 70%        | -      | 7%        | -      | 80   |     |     |   |    |
| 9:00 PM                                                                               | 50%                                  | 6      | 75%                        | 2      | 100%                          | 23     | 100%                          | 5      | 60%                          | -      | 80%                          | -      | 30%                  | 19     | 40%                  | 4      | 85%                      | -      | 100%                                | -      | 20%              | -      | 100%                | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 40%                  | -      | 40%        | -      | 3%        | -      | 59   |     |     |   |    |
| 10:00 PM                                                                              | 30%                                  | 4      | 40%                        | 1      | 95%                           | 22     | 100%                          | 5      | 55%                          | -      | 65%                          | -      | 20%                  | 13     | 30%                  | 3      | 95%                      | -      | 50%                                 | -      | 20%              | -      | 100%                | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 5%                   | -      | 5%         | -      | 1%        | -      | 48   |     |     |   |    |
| 11:00 PM                                                                              | 10%                                  | 1      | 15%                        | -      | 75%                           | 17     | 85%                           | 4      | 50%                          | -      | 65%                          | -      | 10%                  | 6      | 20%                  | 2      | 100%                     | -      | 0%                                  | -      | 10%              | -      | 80%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -      | 0%        | -      | 0%   | -   | 30  |   |    |
| 12:00 AM                                                                              | 0%                                   | -      | 0%                         | -      | 25%                           | 6      | 35%                           | 2      | 25%                          | -      | 35%                          | -      | 5%                   | 3      | 20%                  | 2      | 100%                     | -      | 0%                                  | -      | 5%               | -      | 50%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -      | 0%        | -      | 0%   | -   | 13  |   |    |
| MAXIMUM                                                                               |                                      | 12     |                            | 3      |                               | 23     |                               | 5      |                              | -      |                              | -      |                      | 64     |                      | 11     |                          | -      |                                     | -      |                  | -      |                     | -      |                        | -      |                                 | -      |                                  | -      |                      | -      |            | -      |           | -      |      | 112 |     |   |    |

TOTAL REQUIRED PARKING WITHOUT SHARED SPACES: 118

TOTAL REQUIRED PARKING WITH SHARED SPACES: 112

Approximated Parking Demand Peaking Characteristics, by Land Use Component and Time of Day (Weekends)

| Parking Demand Generators, Required Parking, and Associated Peak Parking Requirements |                                      |        |                            |        |                               |        |                               |        |                              |        |                              |        |                      |        |                      |        |                          |        |                                     |        |                  |        |                     |        |                        |        |                                 |        |                                  |        |                      |        | TOTAL   |            |         |           |     |
|---------------------------------------------------------------------------------------|--------------------------------------|--------|----------------------------|--------|-------------------------------|--------|-------------------------------|--------|------------------------------|--------|------------------------------|--------|----------------------|--------|----------------------|--------|--------------------------|--------|-------------------------------------|--------|------------------|--------|---------------------|--------|------------------------|--------|---------------------------------|--------|----------------------------------|--------|----------------------|--------|---------|------------|---------|-----------|-----|
|                                                                                       | Shopping Center - Typical (Customer) |        | Shopping Center (Employee) |        | Fine/Casual Dining (Customer) |        | Fine/Casual Dining (Employee) |        | Family Restaurant (Customer) |        | Family Restaurant (Employee) |        | Fast Food (Customer) |        | Fast Food (Employee) |        | Hotel - Business (Guest) |        | Hotel Conference/Banquet (Customer) |        | Hotel (Employee) |        | Residential (Guest) |        | Residential (Reserved) |        | Medical/Dental Office (Visitor) |        | Medical/Dental Office (Employee) |        | Family Entertainment |        |         | Water Park |         | Childcare |     |
| Required Spaces                                                                       | 13                                   |        | 3                          |        | 33                            |        | 6                             |        |                              |        |                              |        | 92                   |        | 16                   |        |                          |        |                                     |        |                  |        |                     |        |                        |        |                                 |        |                                  |        |                      |        |         |            |         |           |     |
| Time Of Day                                                                           | Portion                              | Spaces | Portion                    | Spaces | Portion                       | Spaces | Portion                       | Spaces | Portion                      | Spaces | Portion                      | Spaces | Portion              | Spaces | Portion              | Spaces | Portion                  | Spaces | Portion                             | Spaces | Portion          | Spaces | Portion             | Spaces | Portion                | Spaces | Portion                         | Spaces | Portion                          | Spaces | Portion              | Spaces | Portion | Spaces     | Portion | Spaces    |     |
| 6:00 AM                                                                               | 1%                                   | -      | 10%                        | -      | 0%                            | -      | 0%                            | -      | 10%                          | -      | 50%                          | -      | 5%                   | 5      | 15%                  | 2      | 95%                      | -      | 0%                                  | -      | 5%               | -      | 0%                  | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%      | -          | 0%      | -         | 7   |
| 7:00 AM                                                                               | 5%                                   | 1      | 15%                        | -      | 0%                            | -      | 20%                           | 1      | 25%                          | -      | 75%                          | -      | 10%                  | 9      | 20%                  | 3      | 90%                      | -      | 0%                                  | -      | 30%              | -      | 20%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%      | -          | 0%      | -         | 14  |
| 8:00 AM                                                                               | 10%                                  | 1      | 40%                        | 1      | 0%                            | -      | 30%                           | 2      | 45%                          | -      | 90%                          | -      | 20%                  | 18     | 30%                  | 5      | 80%                      | -      | 30%                                 | -      | 90%              | -      | 20%                 | -      | 100%                   | -      | 90%                             | -      | 60%                              | -      | 0%                   | -      | 0%      | -          | 0%      | -         | 27  |
| 9:00 AM                                                                               | 30%                                  | 4      | 75%                        | 2      | 0%                            | -      | 60%                           | 4      | 70%                          | -      | 90%                          | -      | 30%                  | 28     | 40%                  | 6      | 70%                      | -      | 60%                                 | -      | 90%              | -      | 20%                 | -      | 100%                   | -      | 90%                             | -      | 100%                             | -      | 5%                   | -      | 5%      | -          | -       | -         | 44  |
| 10:00 AM                                                                              | 50%                                  | 7      | 85%                        | 3      | 0%                            | -      | 75%                           | 5      | 90%                          | -      | 100%                         | -      | 55%                  | 51     | 75%                  | 12     | 60%                      | -      | 60%                                 | -      | 100%             | -      | 20%                 | -      | 100%                   | -      | 100%                            | -      | 100%                             | -      | 50%                  | -      | 50%     | -          | -       | -         | 78  |
| 11:00 AM                                                                              | 65%                                  | 8      | 95%                        | 3      | 15%                           | 5      | 75%                           | 5      | 90%                          | -      | 100%                         | -      | 85%                  | 78     | 100%                 | 16     | 60%                      | -      | 60%                                 | -      | 100%             | -      | 20%                 | -      | 100%                   | -      | 100%                            | -      | 100%                             | -      | 75%                  | -      | 75%     | -          | -       | -         | 115 |
| 12:00 PM                                                                              | 80%                                  | 10     | 100%                       | 3      | 50%                           | 17     | 75%                           | 5      | 100%                         | -      | 100%                         | -      | 100%                 | 92     | 100%                 | 16     | 55%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | -      | 100%                   | -      | 30%                             | -      | 100%                             | -      | 100%                 | -      | 100%    | -          | -       | -         | 143 |
| 1:00 PM                                                                               | 90%                                  | 12     | 100%                       | 3      | 55%                           | 18     | 75%                           | 5      | 85%                          | -      | 100%                         | -      | 100%                 | 92     | 100%                 | 16     | 55%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 100%                 | -      | 100%    | -          | -       | -         | 146 |
| 2:00 PM                                                                               | 100%                                 | 13     | 100%                       | 3      | 45%                           | 15     | 75%                           | 5      | 65%                          | -      | 100%                         | -      | 90%                  | 83     | 95%                  | 15     | 60%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 90%                  | -      | 90%     | -          | -       | -         | 134 |
| 3:00 PM                                                                               | 100%                                 | 13     | 100%                       | 3      | 45%                           | 15     | 75%                           | 5      | 40%                          | -      | 75%                          | -      | 60%                  | 55     | 70%                  | 11     | 60%                      | -      | 65%                                 | -      | 100%             | -      | 20%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 80%                  | -      | 80%     | -          | -       | -         | 102 |
| 4:00 PM                                                                               | 95%                                  | 12     | 100%                       | 3      | 45%                           | 15     | 75%                           | 5      | 45%                          | -      | 75%                          | -      | 55%                  | 51     | 60%                  | 10     | 65%                      | -      | 65%                                 | -      | 90%              | -      | 20%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 70%                  | -      | 70%     | -          | -       | -         | 96  |
| 5:00 PM                                                                               | 90%                                  | 12     | 95%                        | 3      | 60%                           | 20     | 100%                          | 6      | 60%                          | -      | 95%                          | -      | 60%                  | 55     | 70%                  | 11     | 70%                      | -      | 100%                                | -      | 75%              | -      | 40%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 60%                  | -      | 60%     | -          | -       | -         | 107 |
| 6:00 PM                                                                               | 80%                                  | 10     | 85%                        | 3      | 90%                           | 30     | 100%                          | 6      | 70%                          | -      | 95%                          | -      | 85%                  | 78     | 90%                  | 14     | 75%                      | -      | 100%                                | -      | 60%              | -      | 60%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 60%                  | -      | 60%     | -          | -       | -         | 141 |
| 7:00 PM                                                                               | 75%                                  | 10     | 80%                        | 2      | 95%                           | 31     | 100%                          | 6      | 70%                          | -      | 95%                          | -      | 80%                  | 74     | 90%                  | 14     | 75%                      | -      | 100%                                | -      | 55%              | -      | 100%                | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 50%                  | -      | 50%     | -          | -       | -         | 137 |
| 8:00 PM                                                                               | 65%                                  | 8      | 75%                        | 2      | 100%                          | 33     | 100%                          | 6      | 65%                          | -      | 95%                          | -      | 50%                  | 46     | 60%                  | 10     | 80%                      | -      | 100%                                | -      | 55%              | -      | 100%                | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 40%                  | -      | 40%     | -          | -       | -         | 105 |
| 9:00 PM                                                                               | 50%                                  | 7      | 65%                        | 2      | 90%                           | 30     | 100%                          | 6      | 30%                          | -      | 80%                          | -      | 30%                  | 28     | 40%                  | 6      | 85%                      | -      | 100%                                | -      | 55%              | -      | 100%                | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 30%                  | -      | 30%     | -          | -       | -         | 79  |
| 10:00 PM                                                                              | 35%                                  | 5      | 45%                        | 1      | 90%                           | 30     | 100%                          | 6      | 25%                          | -      | 65%                          | -      | 20%                  | 18     | 30%                  | 5      | 95%                      | -      | 50%                                 | -      | 45%              | -      | 100%                | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 5%                   | -      | 5%      | -          | -       | -         | 65  |
| 11:00 PM                                                                              | 15%                                  | 2      | 15%                        | -      | 90%                           | 30     | 85%                           | 5      | 15%                          | -      | 65%                          | -      | 10%                  | 9      | 20%                  | 3      | 100%                     | -      | 0%                                  | -      | 45%              | -      | 80%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%      | -          | -       | -         | 49  |
| 12:00 AM                                                                              | 0%                                   | -      | 0%                         | -      | 50%                           | 17     | 50%                           | 3      | 10%                          | -      | 35%                          | -      | 5%                   | 5      | 20%                  | 3      | 100%                     | -      | 0%                                  | -      | 30%              | -      | 50%                 | -      | 100%                   | -      | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%      | -          | -       | -         | 28  |
| MAXIMUM                                                                               |                                      | 13     |                            | 3      |                               | 33     |                               | 6      |                              | -      |                              | -      |                      | 92     |                      | 16     |                          | -      |                                     | -      |                  | -      |                     | -      |                        | -      |                                 | -      |                                  | -      |                      | -      |         | -          |         | -         | 146 |



ARLINGTON DOWNS SITE TOTAL

Approximated Parking Demand Peaking Characteristics, by Land Use Component and Time of Day (Weekdays)

| Parking Demand Generators, Required Parking, and Associated Peak Parking Requirements |                                      |        |                            |        |                               |        |                               |        |                              |        |                              |        |                      |        |                      |        |                          |        |                                     |        |                  |        |                     |        |                        |        |                                 |        |                                  |        |                      |        |            | TOTAL  |           |        |  |
|---------------------------------------------------------------------------------------|--------------------------------------|--------|----------------------------|--------|-------------------------------|--------|-------------------------------|--------|------------------------------|--------|------------------------------|--------|----------------------|--------|----------------------|--------|--------------------------|--------|-------------------------------------|--------|------------------|--------|---------------------|--------|------------------------|--------|---------------------------------|--------|----------------------------------|--------|----------------------|--------|------------|--------|-----------|--------|--|
|                                                                                       | Shopping Center - Typical (Customer) |        | Shopping Center (Employee) |        | Fine/Casual Dining (Customer) |        | Fine/Casual Dining (Employee) |        | Family Restaurant (Customer) |        | Family Restaurant (Employee) |        | Fast Food (Customer) |        | Fast Food (Employee) |        | Hotel - Business (Guest) |        | Hotel Conference/Banquet (Customer) |        | Hotel (Employee) |        | Residential (Guest) |        | Residential (Reserved) |        | Medical/Dental Office (Visitor) |        | Medical/Dental Office (Employee) |        | Family Entertainment |        | Water Park |        | Childcare |        |  |
| Required Spaces                                                                       | 66                                   |        | 16                         |        | 173                           |        | 31                            |        | 63                           |        | 11                           |        | 64                   |        | 11                   |        | 129                      |        | 90                                  |        | 32               |        | 98                  |        | 853                    |        | 45                              |        | 23                               |        | 48                   |        | 250        |        | 22        |        |  |
| Time Of Day                                                                           | Portion                              | Spaces | Portion                    | Spaces | Portion                       | Spaces | Portion                       | Spaces | Portion                      | Spaces | Portion                      | Spaces | Portion              | Spaces | Portion              | Spaces | Portion                  | Spaces | Portion                             | Spaces | Portion          | Spaces | Portion             | Spaces | Portion                | Spaces | Portion                         | Spaces | Portion                          | Spaces | Portion              | Spaces | Portion    | Spaces | Portion   | Spaces |  |
| 6:00 AM                                                                               | 1%                                   | 1      | 10%                        | 2      | 0%                            | -      | 0%                            | -      | 25%                          | 16     | 50%                          | 6      | 5%                   | 3      | 15%                  | 2      | 95%                      | 123    | 0%                                  | -      | 5%               | 2      | 0%                  | -      | 100%                   | 853    | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -      | 3%        | 1      |  |
| 7:00 AM                                                                               | 5%                                   | 3      | 15%                        | 2      | 0%                            | -      | 20%                           | 6      | 50%                          | 32     | 75%                          | 8      | 10%                  | 6      | 20%                  | 2      | 90%                      | 116    | 0%                                  | -      | 30%              | 10     | 10%                 | 10     | 100%                   | 853    | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -      | 30%       | 7      |  |
| 8:00 AM                                                                               | 15%                                  | 10     | 40%                        | 6      | 0%                            | -      | 50%                           | 16     | 60%                          | 38     | 90%                          | 10     | 20%                  | 13     | 30%                  | 3      | 80%                      | 103    | 30%                                 | 27     | 90%              | 29     | 20%                 | 20     | 100%                   | 853    | 90%                             | 41     | 60%                              | 14     | 0%                   | -      | 0%         | -      | 75%       | 17     |  |
| 9:00 AM                                                                               | 35%                                  | 23     | 75%                        | 12     | 0%                            | -      | 75%                           | 23     | 75%                          | 47     | 90%                          | 10     | 30%                  | 19     | 40%                  | 4      | 70%                      | 90     | 60%                                 | 54     | 90%              | 29     | 20%                 | 20     | 100%                   | 853    | 90%                             | 41     | 100%                             | 23     | 5%                   | 2      | 5%         | 13     | 95%       | 21     |  |
| 10:00 AM                                                                              | 65%                                  | 43     | 85%                        | 14     | 15%                           | 26     | 90%                           | 28     | 85%                          | 54     | 100%                         | 11     | 55%                  | 35     | 75%                  | 8      | 60%                      | 77     | 60%                                 | 54     | 100%             | 32     | 20%                 | 20     | 100%                   | 853    | 100%                            | 45     | 100%                             | 23     | 10%                  | 5      | 10%        | 25     | 100%      | 22     |  |
| 11:00 AM                                                                              | 85%                                  | 56     | 95%                        | 15     | 40%                           | 69     | 90%                           | 28     | 90%                          | 57     | 100%                         | 11     | 85%                  | 54     | 100%                 | 11     | 60%                      | 77     | 60%                                 | 54     | 100%             | 32     | 20%                 | 20     | 100%                   | 853    | 100%                            | 45     | 100%                             | 23     | 20%                  | 10     | 20%        | 50     | 100%      | 22     |  |
| 12:00 PM                                                                              | 95%                                  | 63     | 100%                       | 16     | 75%                           | 130    | 90%                           | 28     | 100%                         | 63     | 100%                         | 11     | 100%                 | 64     | 100%                 | 11     | 55%                      | 71     | 65%                                 | 59     | 100%             | 32     | 20%                 | 20     | 100%                   | 853    | 30%                             | 14     | 100%                             | 23     | 30%                  | 14     | 30%        | 75     | 90%       | 20     |  |
| 1:00 PM                                                                               | 100%                                 | 66     | 100%                       | 16     | 75%                           | 130    | 90%                           | 28     | 90%                          | 57     | 100%                         | 11     | 100%                 | 64     | 100%                 | 11     | 55%                      | 71     | 65%                                 | 59     | 100%             | 32     | 20%                 | 20     | 100%                   | 853    | 90%                             | 41     | 100%                             | 23     | 30%                  | 14     | 30%        | 75     | 90%       | 20     |  |
| 2:00 PM                                                                               | 95%                                  | 63     | 100%                       | 16     | 65%                           | 112    | 90%                           | 28     | 50%                          | 32     | 100%                         | 11     | 90%                  | 58     | 95%                  | 10     | 60%                      | 77     | 65%                                 | 59     | 100%             | 32     | 20%                 | 20     | 100%                   | 853    | 100%                            | 45     | 100%                             | 23     | 30%                  | 14     | 30%        | 75     | 100%      | 22     |  |
| 3:00 PM                                                                               | 90%                                  | 59     | 100%                       | 16     | 40%                           | 69     | 75%                           | 23     | 45%                          | 28     | 75%                          | 8      | 60%                  | 38     | 70%                  | 8      | 60%                      | 77     | 65%                                 | 59     | 100%             | 32     | 20%                 | 20     | 100%                   | 853    | 100%                            | 45     | 100%                             | 23     | 40%                  | 19     | 40%        | 100    | 100%      | 22     |  |
| 4:00 PM                                                                               | 90%                                  | 59     | 100%                       | 16     | 50%                           | 87     | 75%                           | 23     | 45%                          | 28     | 75%                          | 8      | 55%                  | 35     | 60%                  | 7      | 65%                      | 84     | 65%                                 | 59     | 90%              | 29     | 20%                 | 20     | 100%                   | 853    | 90%                             | 41     | 100%                             | 23     | 60%                  | 29     | 60%        | 150    | 90%       | 20     |  |
| 5:00 PM                                                                               | 95%                                  | 63     | 95%                        | 15     | 75%                           | 130    | 100%                          | 31     | 75%                          | 47     | 95%                          | 10     | 60%                  | 38     | 70%                  | 8      | 70%                      | 90     | 100%                                | 90     | 70%              | 22     | 40%                 | 39     | 100%                   | 853    | 80%                             | 36     | 100%                             | 23     | 100%                 | 48     | 100%       | 250    | 50%       | 11     |  |
| 6:00 PM                                                                               | 95%                                  | 63     | 95%                        | 15     | 95%                           | 164    | 100%                          | 31     | 80%                          | 50     | 95%                          | 10     | 85%                  | 54     | 90%                  | 10     | 75%                      | 97     | 100%                                | 90     | 40%              | 13     | 60%                 | 59     | 100%                   | 853    | 67%                             | 30     | 67%                              | 15     | 100%                 | 48     | 100%       | 250    | 25%       | 6      |  |
| 7:00 PM                                                                               | 95%                                  | 63     | 95%                        | 15     | 100%                          | 173    | 100%                          | 31     | 80%                          | 50     | 95%                          | 10     | 80%                  | 51     | 90%                  | 10     | 75%                      | 97     | 100%                                | 90     | 20%              | 6      | 100%                | 98     | 100%                   | 853    | 30%                             | 14     | 30%                              | 7      | 80%                  | 38     | 80%        | 200    | 10%       | 2      |  |
| 8:00 PM                                                                               | 80%                                  | 53     | 90%                        | 14     | 100%                          | 173    | 100%                          | 31     | 80%                          | 50     | 95%                          | 10     | 50%                  | 32     | 60%                  | 7      | 80%                      | 103    | 100%                                | 90     | 20%              | 6      | 100%                | 98     | 100%                   | 853    | 15%                             | 7      | 15%                              | 3      | 70%                  | 34     | 70%        | 175    | 7%        | 2      |  |
| 9:00 PM                                                                               | 50%                                  | 33     | 75%                        | 12     | 100%                          | 173    | 100%                          | 31     | 60%                          | 38     | 80%                          | 9      | 30%                  | 19     | 40%                  | 4      | 85%                      | 110    | 100%                                | 90     | 20%              | 6      | 100%                | 98     | 100%                   | 853    | 0%                              | -      | 0%                               | -      | 40%                  | 19     | 40%        | 100    | 3%        | 1      |  |
| 10:00 PM                                                                              | 30%                                  | 20     | 40%                        | 6      | 95%                           | 164    | 100%                          | 31     | 55%                          | 35     | 65%                          | 7      | 20%                  | 13     | 30%                  | 3      | 95%                      | 123    | 50%                                 | 45     | 20%              | 6      | 100%                | 98     | 100%                   | 853    | 0%                              | -      | 0%                               | -      | 5%                   | 2      | 5%         | 13     | 1%        | -      |  |
| 11:00 PM                                                                              | 10%                                  | 7      | 15%                        | 2      | 75%                           | 130    | 85%                           | 26     | 50%                          | 32     | 65%                          | 7      | 10%                  | 6      | 20%                  | 2      | 100%                     | 129    | 0%                                  | -      | 10%              | 3      | 80%                 | 78     | 100%                   | 853    | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -      | 0%        | -      |  |
| 12:00 AM                                                                              | 0%                                   | -      | 0%                         | -      | 25%                           | 43     | 35%                           | 11     | 25%                          | 16     | 35%                          | 4      | 5%                   | 3      | 20%                  | 2      | 100%                     | 129    | 0%                                  | -      | 5%               | 2      | 50%                 | 49     | 100%                   | 853    | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -      | 0%        | -      |  |
| MAXIMUM                                                                               |                                      | 66     |                            | 16     |                               | 173    |                               | 31     |                              | 63     |                              | 11     |                      | 64     |                      | 11     |                          | 129    |                                     | 90     |                  | 32     |                     | 98     |                        | 853    |                                 | 45     |                                  | 23     |                      | 48     |            | 250    |           | 22     |  |

TOTAL REQUIRED PARKING WITHOUT SHARED SPACES: 2,025

TOTAL REQUIRED PARKING WITH SHARED SPACES: 1,858

Approximated Parking Demand Peaking Characteristics, by Land Use Component and Time of Day (Weekends)

| Parking Demand Generators, Required Parking, and Associated Peak Parking Requirements |                                      |        |                            |        |                               |        |                               |        |                              |        |                              |        |                      |        |                      |        |                          |        |                                     |        |                  |        |                     |        |                        |        |                                 |        |                                  |        |                      |        |            | TOTAL  |           |        |       |       |
|---------------------------------------------------------------------------------------|--------------------------------------|--------|----------------------------|--------|-------------------------------|--------|-------------------------------|--------|------------------------------|--------|------------------------------|--------|----------------------|--------|----------------------|--------|--------------------------|--------|-------------------------------------|--------|------------------|--------|---------------------|--------|------------------------|--------|---------------------------------|--------|----------------------------------|--------|----------------------|--------|------------|--------|-----------|--------|-------|-------|
|                                                                                       | Shopping Center - Typical (Customer) |        | Shopping Center (Employee) |        | Fine/Casual Dining (Customer) |        | Fine/Casual Dining (Employee) |        | Family Restaurant (Customer) |        | Family Restaurant (Employee) |        | Fast Food (Customer) |        | Fast Food (Employee) |        | Hotel - Business (Guest) |        | Hotel Conference/Banquet (Customer) |        | Hotel (Employee) |        | Residential (Guest) |        | Residential (Reserved) |        | Medical/Dental Office (Visitor) |        | Medical/Dental Office (Employee) |        | Family Entertainment |        | Water Park |        | Childcare |        |       |       |
| Required Spaces                                                                       | 72                                   |        | 18                         |        | 243                           |        | 43                            |        | 91                           |        | 16                           |        | 92                   |        | 16                   |        | 129                      |        | 90                                  |        | 32               |        | 98                  |        | 853                    |        | 45                              |        | 23                               |        | 48                   |        | 250        |        | 0         |        |       |       |
| Time Of Day                                                                           | Portion                              | Spaces | Portion                    | Spaces | Portion                       | Spaces | Portion                       | Spaces | Portion                      | Spaces | Portion                      | Spaces | Portion              | Spaces | Portion              | Spaces | Portion                  | Spaces | Portion                             | Spaces | Portion          | Spaces | Portion             | Spaces | Portion                | Spaces | Portion                         | Spaces | Portion                          | Spaces | Portion              | Spaces | Portion    | Spaces | Portion   | Spaces |       |       |
| 6:00 AM                                                                               | 1%                                   | 1      | 10%                        | 2      | 0%                            | -      | 0%                            | -      | 10%                          | 9      | 50%                          | 8      | 5%                   | 5      | 15%                  | 2      | 95%                      | 123    | 0%                                  | -      | 5%               | 2      | 0%                  | -      | 100%                   | 853    | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -      | -         | -      | 1,005 |       |
| 7:00 AM                                                                               | 5%                                   | 4      | 15%                        | 3      | 0%                            | -      | 20%                           | 9      | 25%                          | 23     | 75%                          | 12     | 10%                  | 9      | 20%                  | 3      | 90%                      | 116    | 0%                                  | -      | 30%              | 10     | 20%                 | 20     | 100%                   | 853    | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -      | -         | -      | 1,059 |       |
| 8:00 AM                                                                               | 10%                                  | 7      | 40%                        | 7      | 0%                            | -      | 30%                           | 13     | 45%                          | 41     | 90%                          | 14     | 20%                  | 18     | 30%                  | 5      | 80%                      | 103    | 30%                                 | 27     | 90%              | 29     | 20%                 | 20     | 100%                   | 853    | 90%                             | 41     | 60%                              | 14     | 0%                   | -      | 0%         | -      | -         | -      | 1,191 |       |
| 9:00 AM                                                                               | 30%                                  | 22     | 75%                        | 14     | 0%                            | -      | 60%                           | 26     | 70%                          | 64     | 90%                          | 14     | 30%                  | 28     | 40%                  | 6      | 70%                      | 90     | 60%                                 | 54     | 90%              | 29     | 20%                 | 20     | 100%                   | 853    | 90%                             | 41     | 100%                             | 23     | 5%                   | 2      | 5%         | 13     | -         | -      | 1,297 |       |
| 10:00 AM                                                                              | 50%                                  | 36     | 85%                        | 15     | 0%                            | -      | 75%                           | 32     | 90%                          | 82     | 100%                         | 16     | 55%                  | 51     | 75%                  | 12     | 60%                      | 77     | 60%                                 | 54     | 100%             | 32     | 20%                 | 20     | 100%                   | 853    | 100%                            | 45     | 100%                             | 23     | 50%                  | 24     | 50%        | 125    | -         | -      | 1,499 |       |
| 11:00 AM                                                                              | 65%                                  | 47     | 95%                        | 17     | 15%                           | 36     | 75%                           | 32     | 90%                          | 82     | 100%                         | 16     | 85%                  | 78     | 100%                 | 16     | 60%                      | 77     | 60%                                 | 54     | 100%             | 32     | 20%                 | 20     | 100%                   | 853    | 100%                            | 45     | 100%                             | 23     | 75%                  | 36     | 75%        | 188    | -         | -      | 1,652 |       |
| 12:00 PM                                                                              | 80%                                  | 58     | 100%                       | 18     | 50%                           | 122    | 75%                           | 32     | 100%                         | 91     | 100%                         | 16     | 100%                 | 92     | 100%                 | 16     | 55%                      | 71     | 65%                                 | 59     | 100%             | 32     | 20%                 | 20     | 100%                   | 853    | 30%                             | 14     | 100%                             | 23     | 100%                 | 48     | 100%       | 250    | -         | -      | 1,814 |       |
| 1:00 PM                                                                               | 90%                                  | 65     | 100%                       | 18     | 55%                           | 134    | 75%                           | 32     | 85%                          | 77     | 100%                         | 16     | 100%                 | 92     | 100%                 | 16     | 55%                      | 71     | 65%                                 | 59     | 100%             | 32     | 20%                 | 20     | 100%                   | 853    | 0%                              | -      | 0%                               | -      | 100%                 | 48     | 100%       | 250    | -         | -      | 1,783 |       |
| 2:00 PM                                                                               | 100%                                 | 72     | 100%                       | 18     | 45%                           | 109    | 75%                           | 32     | 65%                          | 59     | 100%                         | 16     | 90%                  | 83     | 95%                  | 15     | 60%                      | 77     | 65%                                 | 59     | 100%             | 32     | 20%                 | 20     | 100%                   | 853    | 0%                              | -      | 0%                               | -      | 90%                  | 43     | 90%        | 225    | -         | -      | 1,713 |       |
| 3:00 PM                                                                               | 100%                                 | 72     | 100%                       | 18     | 45%                           | 109    | 75%                           | 32     | 40%                          | 36     | 75%                          | 12     | 60%                  | 55     | 70%                  | 11     | 60%                      | 77     | 65%                                 | 59     | 100%             | 32     | 20%                 | 20     | 100%                   | 853    | 0%                              | -      | 0%                               | -      | 80%                  | 38     | 80%        | 200    | -         | -      | 1,624 |       |
| 4:00 PM                                                                               | 95%                                  | 68     | 100%                       | 18     | 45%                           | 109    | 75%                           | 32     | 45%                          | 41     | 75%                          | 12     | 55%                  | 51     | 60%                  | 10     | 65%                      | 84     | 65%                                 | 59     | 90%              | 29     | 20%                 | 20     | 100%                   | 853    | 0%                              | -      | 0%                               | -      | 70%                  | 34     | 70%        | 175    | -         | -      | 1,595 |       |
| 5:00 PM                                                                               | 90%                                  | 65     | 95%                        | 17     | 60%                           | 146    | 100%                          | 43     | 60%                          | 55     | 95%                          | 15     | 60%                  | 55     | 70%                  | 11     | 70%                      | 90     | 100%                                | 90     | 75%              | 24     | 40%                 | 39     | 100%                   | 853    | 0%                              | -      | 0%                               | -      | 60%                  | 29     | 60%        | 150    | -         | -      | 1,682 |       |
| 6:00 PM                                                                               | 80%                                  | 58     | 85%                        | 15     | 90%                           | 219    | 100%                          | 43     | 70%                          | 64     | 95%                          | 15     | 85%                  | 78     | 90%                  | 14     | 75%                      | 97     | 100%                                | 90     | 60%              | 19     | 60%                 | 59     | 100%                   | 853    | 0%                              | -      | 0%                               | -      | 60%                  | 29     | 60%        | 150    | -         | -      | 1,803 |       |
| 7:00 PM                                                                               | 75%                                  | 54     | 80%                        | 14     | 95%                           | 231    | 100%                          | 43     | 70%                          | 64     | 95%                          | 15     | 80%                  | 74     | 90%                  | 14     | 75%                      | 97     | 100%                                | 90     | 55%              | 18     | 100%                | 98     | 100%                   | 853    | 0%                              | -      | 0%                               | -      | 50%                  | 24     | 50%        | 125    | -         | -      | 1,813 |       |
| 8:00 PM                                                                               | 65%                                  | 47     | 75%                        | 14     | 100%                          | 243    | 100%                          | 43     | 65%                          | 59     | 95%                          | 15     | 50%                  | 46     | 60%                  | 10     | 80%                      | 103    | 100%                                | 90     | 55%              | 18     | 100%                | 98     | 100%                   | 853    | 0%                              | -      | 0%                               | -      | 40%                  | 19     | 40%        | 100    | -         | -      | 1,756 |       |
| 9:00 PM                                                                               | 50%                                  | 36     | 65%                        | 12     | 90%                           | 219    | 100%                          | 43     | 30%                          | 27     | 80%                          | 13     | 30%                  | 28     | 40%                  | 6      | 85%                      | 110    | 100%                                | 90     | 55%              | 18     | 100%                | 98     | 100%                   | 853    | 0%                              | -      | 0%                               | -      | 30%                  | 14     | 30%        | 75     | -         | -      | 1,643 |       |
| 10:00 PM                                                                              | 35%                                  | 25     | 45%                        | 8      | 90%                           | 219    | 100%                          | 43     | 25%                          | 23     | 65%                          | 10     | 20%                  | 18     | 30%                  | 5      | 95%                      | 123    | 50%                                 | 45     | 45%              | 14     | 100%                | 98     | 100%                   | 853    | 0%                              | -      | 0%                               | -      | 5%                   | 2      | 5%         | 13     | -         | -      | 1,500 |       |
| 11:00 PM                                                                              | 15%                                  | 11     | 15%                        | 3      | 90%                           | 219    | 85%                           | 37     | 15%                          | 14     | 65%                          | 10     | 10%                  | 9      | 20%                  | 3      | 100%                     | 129    | 0%                                  | -      | 45%              | 14     | 80%                 | 78     | 100%                   | 853    | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -      | -         | -      | 1,380 |       |
| 12:00 AM                                                                              | 0%                                   | -      | 0%                         | -      | 50%                           | 122    | 50%                           | 22     | 10%                          | 9      | 35%                          | 6      | 5%                   | 5      | 20%                  | 3      | 100%                     | 129    | 0%                                  | -      | 30%              | 10     | 50%                 | 49     | 100%                   | 853    | 0%                              | -      | 0%                               | -      | 0%                   | -      | 0%         | -      | -         | -      | -     | 1,208 |
| MAXIMUM                                                                               |                                      | 72     |                            | 18     |                               | 243    |                               | 43     |                              | 91     |                              | 16     |                      | 92     |                      | 16     |                          | 129    |                                     | 90     |                  | 32     |                     | 98     |                        | 853    |                                 | 45     |                                  | 23     |                      | 48     |            | 250    |           | -      | 1,814 |       |

# ***TRAFFIC IMPACT STUDY***

REPORT FOR:

***ChiArc***



**ARLINGTON DOWNS**  
**EUCLID AVENUE AND ROHLWING ROAD**  
**ARLINGTON HEIGHTS, ILLINOIS**

PREPARED BY:



V3 Companies  
7325 Janes Avenue  
Woodridge, Illinois 60517

V3 Project No. 15126

**August 20, 2015**



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## I. INTRODUCTION

V3 Companies has been retained by ChiArc to conduct a traffic impact study for the Arlington Downs mixed-use development located at Euclid Avenue and Rohlwing Road in Arlington Heights, Illinois. The development is located west of the Arlington International Racecourse and is bounded by Euclid Avenue to the south, Rohlwing Road to the west, and Salt Creek Lane to the north and east. A location map is included as Figure 1.

The site, which has been undergoing redevelopment for several years, currently consists of a 214-unit high-rise apartment building that recently opened and is partially occupied. A 55,000 square foot indoor water park is attached to the apartment building but is currently no in operation. A 161-room hotel with a conference space has been approved and will be under construction soon. The proposed plan for the remaining portions of the site include re-opening the indoor water with an attached family entertainment center, a second residential tower with 442 units, and a mix of retail, restaurant, and medical office land uses. Table 1 provides a summary of the proposed land use plan for Arlington Downs. A conceptual site plan is included in Figure 2.

**Table 1: Proposed Land Use Plan**

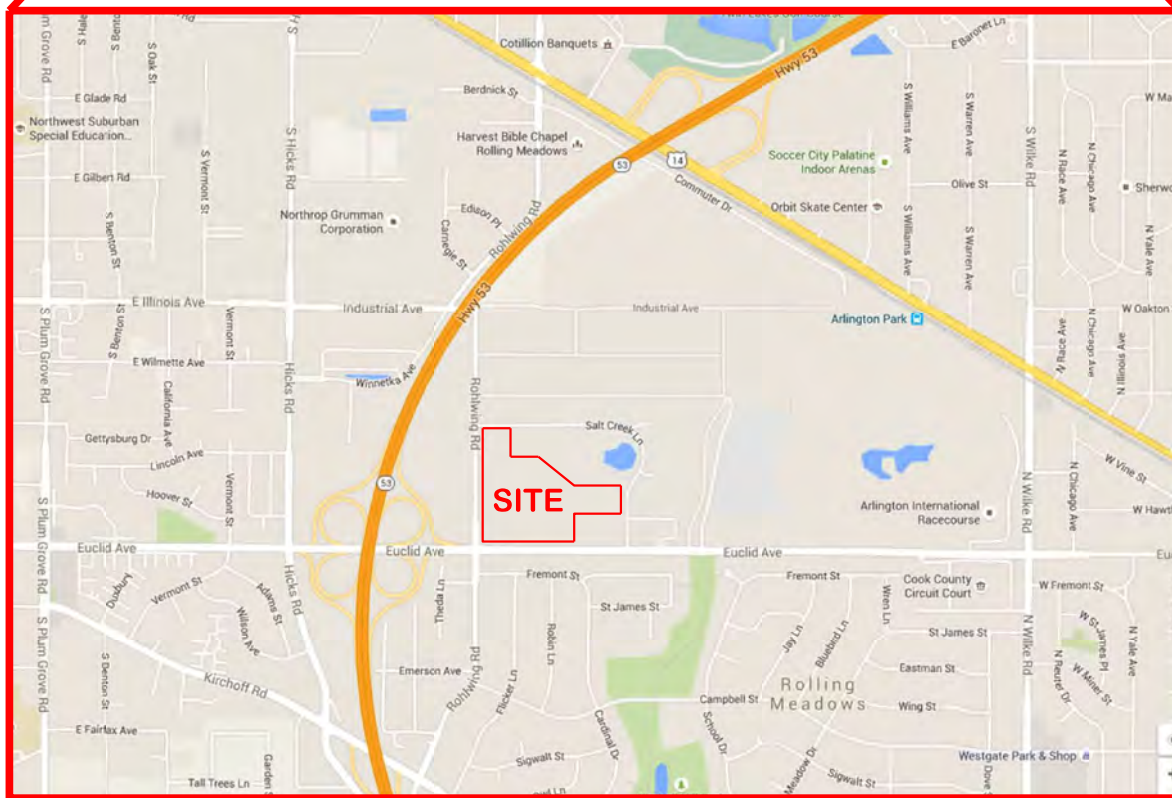
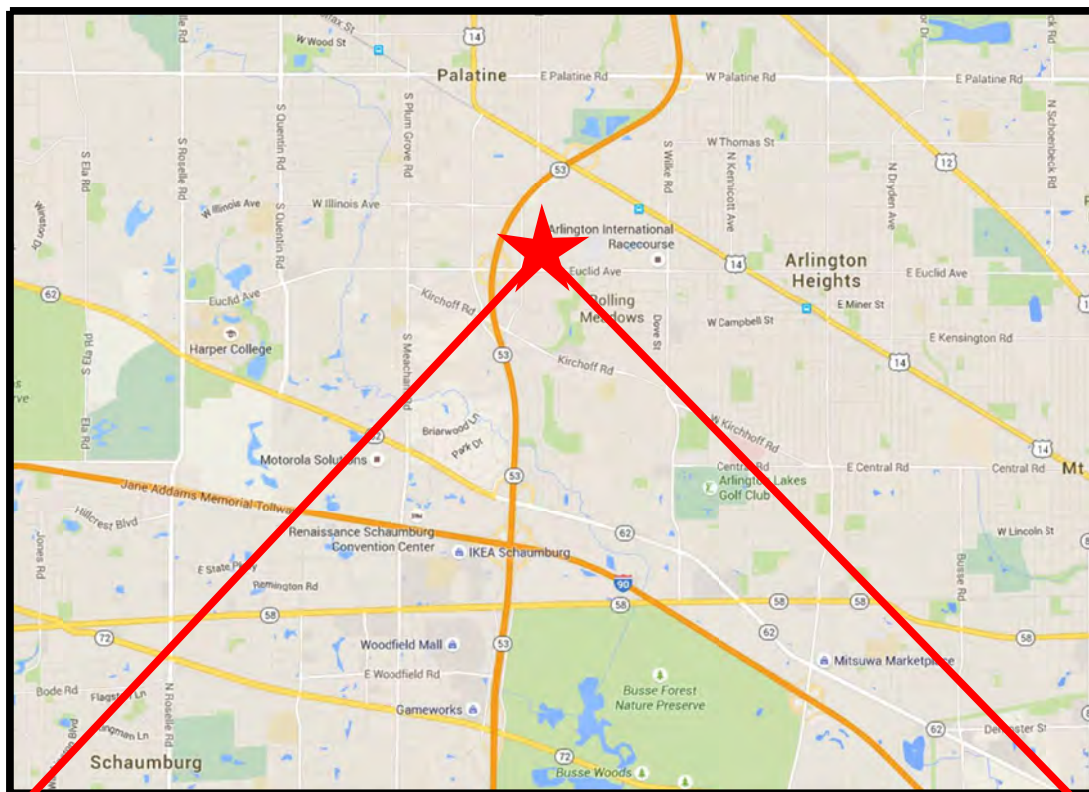
| LAND USE                                          | SIZE           |
|---------------------------------------------------|----------------|
| Apartment                                         | 656 units      |
| Hotel                                             | 161 rooms      |
| Day Care Center                                   | 90 students    |
| Office (Medical)                                  | 21,600 sq. ft. |
| Shopping Center                                   | 21,065 sq. ft. |
| Hair Salon                                        | 1,610 sq. ft.  |
| High-Turnover (Sit-Down) Restaurant               | 20,085 sq. ft. |
| Fast-Food Restaurant without Drive-Through Window | 3,770 sq. ft.  |
| Fast-Food Restaurant with Drive-Through Window    | 2,670 sq. ft.  |
| Special Use - Water Park and Family Entertainment | 1,160 occ.     |

The purpose of this traffic study is to evaluate the potential traffic impacts of Arlington Downs, which is expected to be fully built out by 2017. Traffic estimates are projected to 2022, which is five years beyond the projected build-out year of the project. The study area includes the following intersections:



- Euclid Avenue and Rohlwing Road
- Euclid Avenue and Arlington Downs Drive
- Euclid Avenue and Salt Creek Lane
- Salt Creek Lane and Site Driveway
- Rohlwing Road and Arlington Downs Drive
- Rohlwing Road and Salt Creek Lane

This report includes a description of existing conditions, data collection and capacity analysis, evaluation of data, and conclusions.



ARLINGTON DOWNS

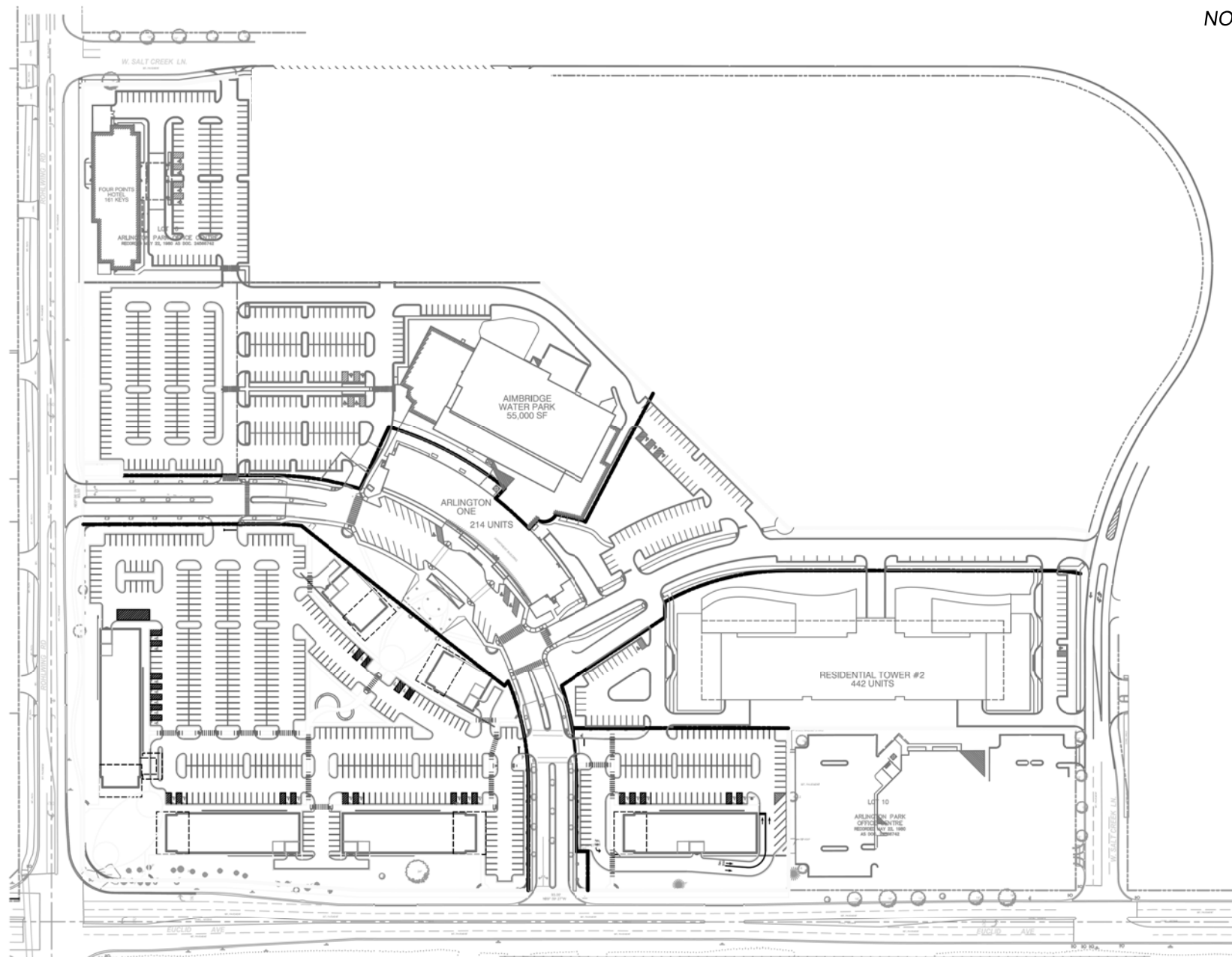
FIGURE 1  
LOCATION MAP

ARLINGTON HEIGHTS

ILLINOIS



NOT TO SCALE



ARLINGTON DOWNS

FIGURE 2  
CONCEPTUAL SITE PLAN

BARTLETT

ILLINOIS







## **II. PROJECT CONDITIONS**

### ***Land Uses***

A variety of land uses exist near the project site, including industrial, office, and residential uses. The surrounding land uses are illustrated in Figure 3.

### ***Roadway System***

The characteristics of the roadways in the vicinity of the site are presented below. The existing lane configuration in the study area is illustrated in Figure 4.

*Euclid Avenue* is an east-west collector roadway with two through lanes in each direction and a posted speed limit of 40 mph. Euclid Avenue widens to provide auxiliary turn lanes at the intersections of Rohlwing Road and Salt Creek Lane while a 6-foot median is provided between the intersections. At Rohlwing Road, the eastbound and westbound approaches on Euclid Avenue each consist of one left turn lane, two through lanes, and one right turn lane. At Salt Creek Lane, the eastbound approach includes a left turn lane. Euclid Avenue is a Cook County Department of Transportation and Highways (CCDOTH) roadway, County Route A59. There are no pedestrian facilities provided along Euclid Avenue adjacent to the proposed development.

*Rohlwing Road* is a north-south collector roadway with a posted speed limit of 40 mph to the north of Euclid Avenue and 30 mph to the south. Rohlwing Road typically consists of a three lane section with one through lane in each direction and a painted median that varies between dedicated left turn lanes and a two-way left turn lane. At the intersection with Euclid Avenue, the northbound and southbound approaches both consist of one left turn lane and one shared through/right turn lane. A dedicated left turn lane is also provided on the southbound approach to Arlington Downs Drive. There is a multi-use path along the west side of Rohlwing Road.

*Salt Creek Lane* is a local roadway that intersects Rohlwing Road in the west and curves to intersect Euclid Avenue to the south. There are a number of industrial/office driveways on Salt Creek Lane. Although there is no pavement marking along most of Salt Creek Lane, the 36-foot section allows for and typically operates as one travel lane in each direction with a two-way left turn lane. The southbound approach to Euclid Avenue widens to consist of one left turn lane, one right turn lane and two receiving lanes. The westbound approach to Rohlwing Road widens and operates as one left turn lane and one shared through/right turn lane. There are no pedestrian facilities along Salt Creek Lane with the exception of a sidewalk along the east side of the roadway for the office building just north of Euclid Avenue.

*Arlington Downs Drive* is an internal spine road that circulates traffic within the Arlington Downs development. Arlington Downs Drive consists of one 18 foot travel lane in each direction, typically separated by a landscaped median. There is no median in front of the existing residential tower, where angled parking is also provided. Arlington Downs Drive curves to



intersect both Euclid Avenue and Rohlwing Road, with the Arlington Downs Drive approaches consisting of one right turn lane and one left turn lane at both intersections. A two lane access road continues east from Arlington Downs Drive and intersects Salt Creek Lane. Sidewalks are generally provided along both sides of the roadway.



ARLINGTON DOWNS

FIGURE 3  
LAND USE MAP

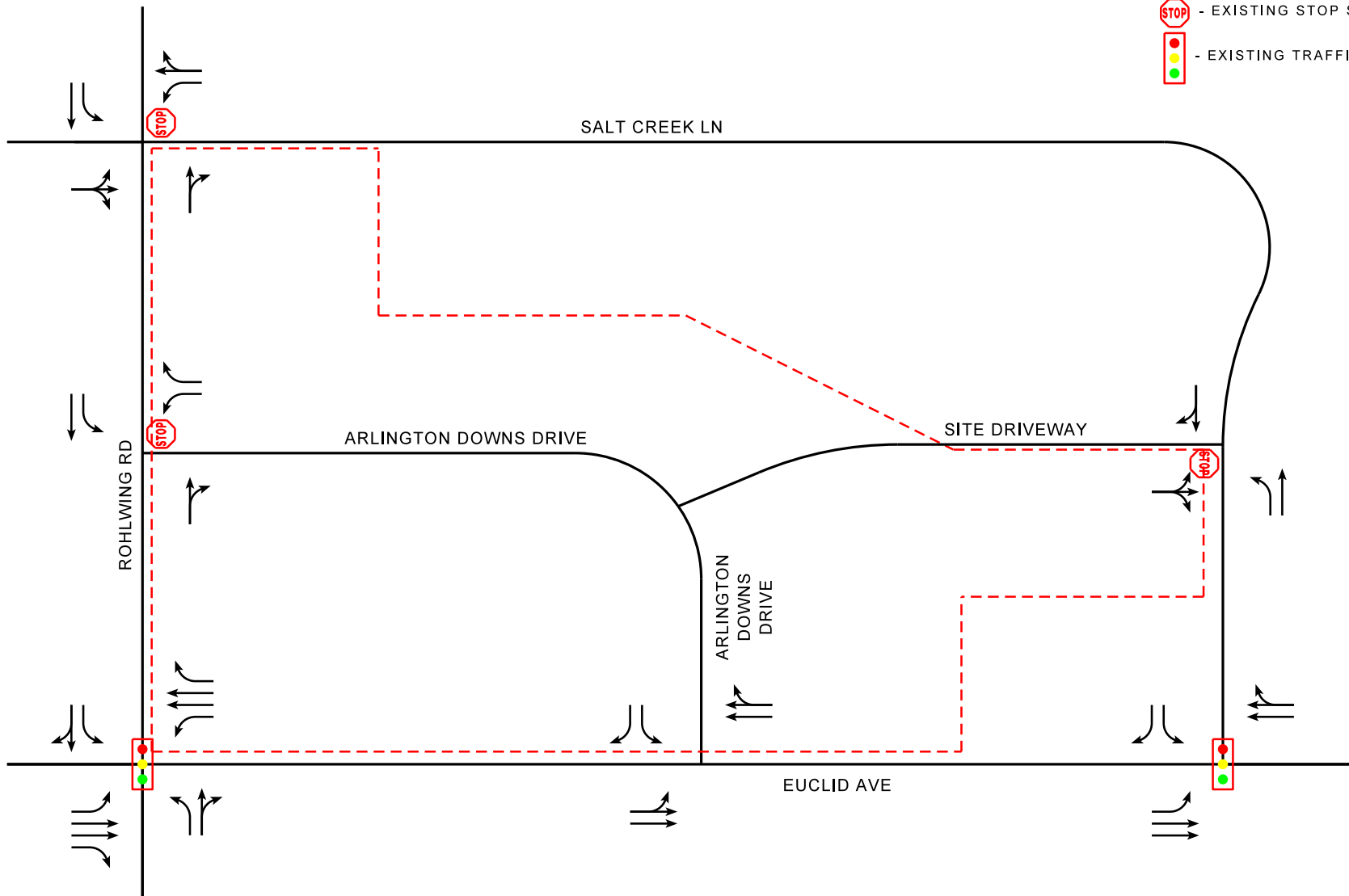
ARLINGTON HEIGHTS

ILLINOIS



# LEGEND

-  - EXISTING STOP SIGN
-  - EXISTING TRAFFIC SIGNAL



ARLINGTON DOWNS

## FIGURE 4 EXISTING LANE CONFIGURATION

ARLINGTON HEIGHTS

ILLINOIS







## ***Traffic Volumes***

Existing traffic counts were collected on Saturday, June 20<sup>th</sup>, 2015 and Tuesday, June 23<sup>rd</sup>, 2015 at the six study area intersections. Weekday peak hour traffic counts were collected from 7:00 am to 9:00 am and 4:00 pm to 6:00 pm. The Saturday peak hour count occurred from 11:00 am to 1:00 pm. The time periods of the traffic counts were selected to coincide with the typical peak hours of the local roadways like Euclid Avenue.

The weekday am, weekday pm and Saturday midday peak hours occur between 7:30 am - 8:30 am, 4:30 pm – 5:30 pm, and 12:00 pm – 1:00 pm, respectively. The existing peak hour volumes at the study area intersections are illustrated in Figure 5. A summary of the traffic volumes collected in fifteen minute increments is provided in Appendix A.

## ***Proposed Development***

### ***Land Use Development***

The area surrounding the Arlington Downs development is mostly developed. However, it is anticipated that the existing office building adjacent to the proposed hotel will be redeveloped in the future. This potential redevelopment is not part of the Arlington Downs PUD and has not been included in this traffic study.

The Arlington Heights Park District is also planning to construct several soccer fields on the undeveloped land to the northeast of the Arlington Downs site. However, it is unknown when the soccer fields will be open; therefore, the traffic impacts have not been included in this traffic study.

There are no other known proposed land development projects in the vicinity of the site that will impact the study area intersections within the study time frame.

### ***Roadway Development***

There are no planned roadway improvements in the vicinity of the site that will impact the study area intersections. While the conceptual site plan does not include any new access points on Euclid Avenue, Rohlwing Road, or Salt Creek Lane, there are several proposed modifications to the roadway network that are included with the Arlington Downs development.

Currently, Euclid Avenue consists of a four lane section at Arlington Downs Drive intersection, which widens to a five lane section at Rohlwing Road to the west and Salt Creek Lane to the east. As part of this development, Euclid Avenue will be widened to a consistent five lane section with two through lanes in each direction and a median. This will allow an eastbound left turn lane to be installed at Arlington Downs Drive. A traffic signal is warranted and proposed at Arlington Downs Drive, which is intended to be the primary access point to the site.

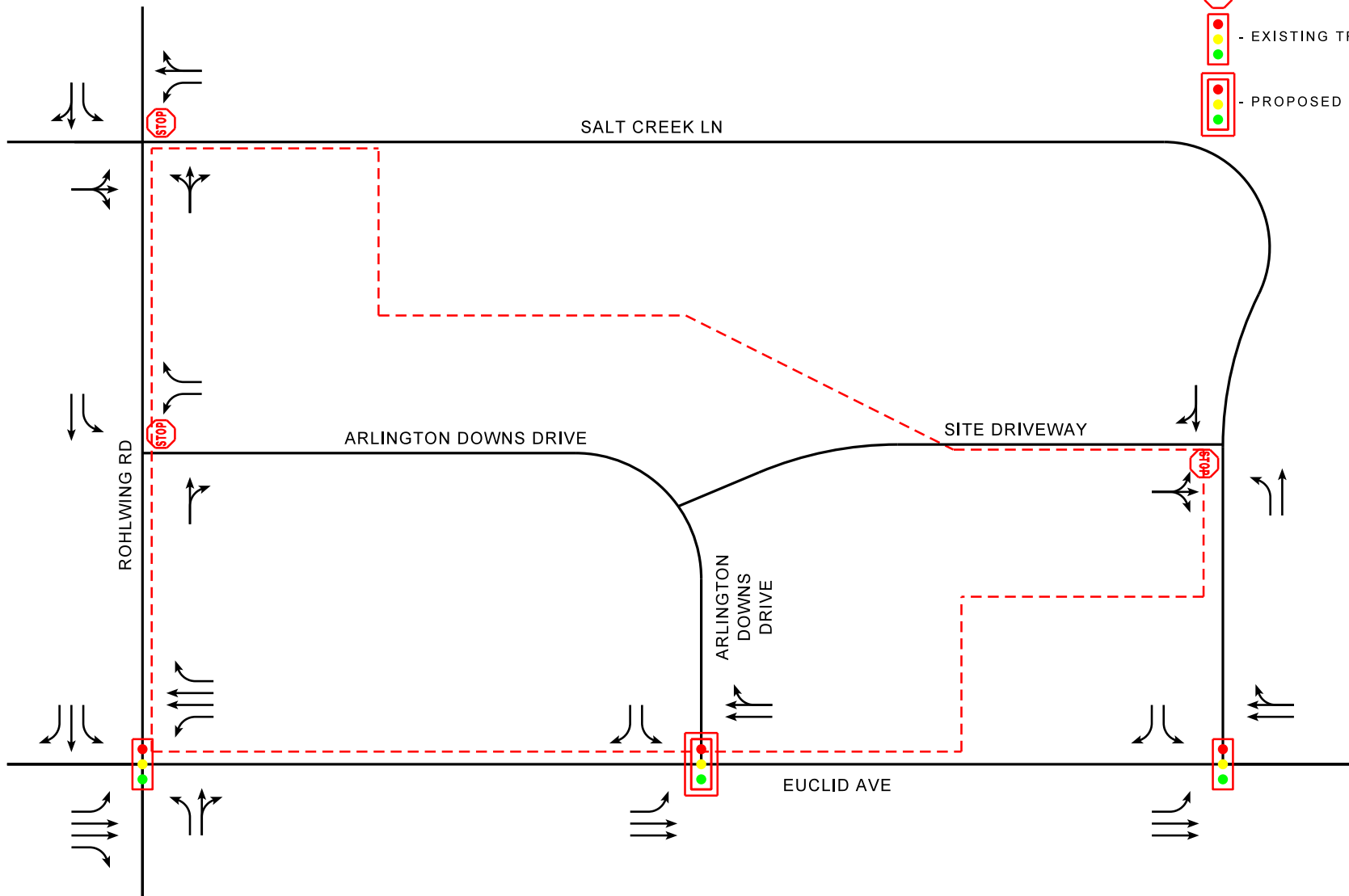


The PUD also includes constructing an exclusive southbound right turn lane on Rohlwing Road at Euclid Avenue. The existing lane configuration consists of a left turn lane and a shared through/right turn lane.

There are no other known roadway improvements in the area that will impact the study area intersections. The future lane configuration is illustrated in Figure 6.

# LEGEND

-  - EXISTING STOP SIGN
-  - EXISTING TRAFFIC SIGNAL
-  - PROPOSED TRAFFIC SIGNAL



ARLINGTON DOWNS

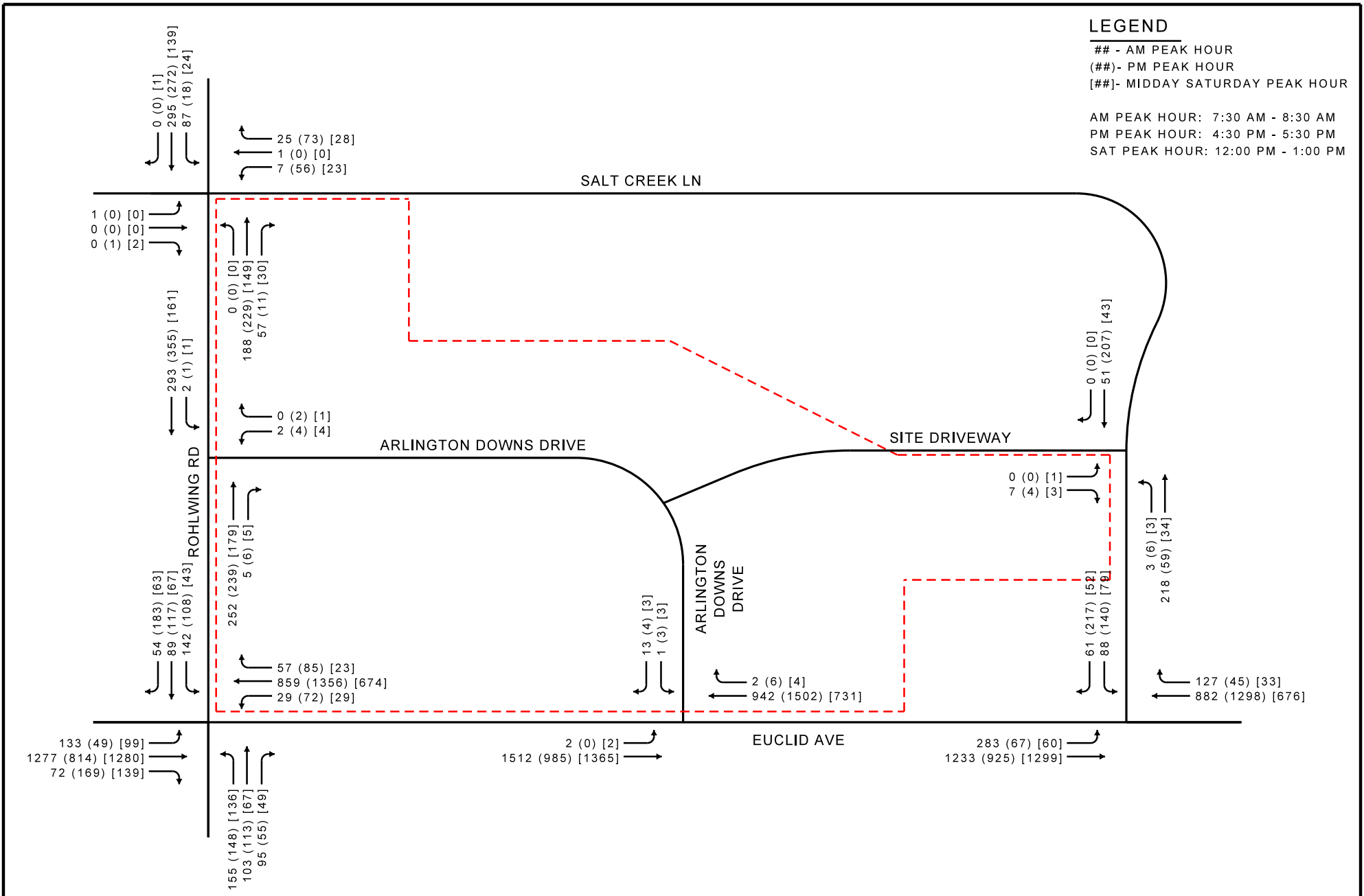
**FIGURE 5**  
**PROPOSED LANE CONFIGURATION**  
 ARLINGTON HEIGHTS  
 ILLINOIS



# LEGEND

## - AM PEAK HOUR  
 (##) - PM PEAK HOUR  
 [##] - MIDDAY SATURDAY PEAK HOUR

AM PEAK HOUR: 7:30 AM - 8:30 AM  
 PM PEAK HOUR: 4:30 PM - 5:30 PM  
 SAT PEAK HOUR: 12:00 PM - 1:00 PM



ARLINGTON DOWNS

**FIGURE 6**  
**EXISTING TRAFFIC VOLUME**

ARLINGTON HEIGHTS

ILLINOIS







### **III. TRAFFIC FORECASTS**

#### ***Project Traffic Volumes***

##### *Trip Generation Estimation*

The proposed development consists of a number of different land uses. Project traffic is estimated using the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9<sup>th</sup> Edition. The following land use categories are used to determine project traffic:

Apartment (220) – Apartments are rental dwelling units located within the same building with at least three other dwelling units, for example, quadrplexes and all types of apartment buildings.

Hotel (310) – Hotels are places of lodging that provide sleeping accommodations and supporting facilities such as restaurants, cocktail lounges, meeting and banquet rooms or convention facilities, limited recreational facilities (pool, fitness room), and/or other retail and service shops.

Day Care Center (595) – A day care center is a facility where care for pre-school age children is provided, normally during the daytime hours. Day care facilities generally include classrooms, offices, eating areas and playgrounds. Some centers also provide after-school care for school-age children.

Medical-Dental Office Building (720) – A medical-dental office building is a facility that provides diagnoses and outpatient care on a routine basis but is unable to provide prolonged in-house medical and surgical care. One or more private physicians or dentists generally operate this type of facility.

Shopping Center (820) – A shopping center is an integrated group of commercial establishments that is planned, developed, owned and managed as a unit. A shopping center's composition is related to its market area in terms of size, location and type of store. A shopping center also provides on-site parking facilities sufficient to serve its own parking demands.

Hair Salon (918) – Hair salons are facilities that specialize in cosmetic and beauty services including hair cutting and styling, skin and nail care, and massage therapy. Hair salons may also contain spa facilities.

High-Turnover (Sit-Down) Restaurant – This land use consists of sit-down, full-service eating establishments with typical duration of stay of approximately one hour. This type of restaurant is usually moderately priced and frequently belongs to a restaurant chain. Generally, these restaurants serve lunch and dinner; they may also be open for breakfast and are sometimes open 24 hours per day. These restaurants typically



do not take reservations. Patrons commonly wait to be seated, are served by a waiter/waitress, order from menus and pay for their meal after they eat. Some facilities contained within this land use may also contain a bar area for serving food and alcoholic drinks.

**Fast-Food Restaurant without Drive-Through Window (933)** – This land use includes fast-food restaurants without drive-through windows. This type of restaurant is characterized by a large carry-out clientele, long hours of service (some are open for breakfast, all are open for lunch and dinner, some are open late at night or 24 hours per day) and high turnover rates for eat-in customers. These limited-service eating establishments do not provide table service. Patrons generally order at a cash register and pay before they eat.

**Fast-Food Restaurant with Drive-Through Window (934)** – This land use includes fast-food restaurants with drive-through windows. This type of restaurant is characterized by a large carry-out clientele, long hours of service (some are open for breakfast, all are open for lunch and dinner, some are open late at night or 24 hours per day) and high turnover rates for eat-in customers. These limited-service eating establishments do not provide table service. Patrons generally order at a cash register and pay before they eat.

ITE [Trip Generation Manual](#) assigns trip generation rates for each land use based on peak period and an independent variable. The variables are specific to each land use, and include measures such as dwelling units, rooms, students, occupants and gross floor area.

#### *Trip Reduction – Internal Capture*

In a mixed use development with complimentary land uses, it is reasonable to assume that trip interaction will occur between the uses. To account for this interaction, the methodology for estimating internally captured trips in ITE's [Trip Generation Handbook](#) is used. Internally captured trips are those made within a mixed-use development that do not access the public roadways. This results in a reduction of external trips for the site.

In the case of Arlington Downs, there are two major potential sources of internally captured trips. First, it is likely that capture will occur between the residences (apartments and hotel), shopping center, and restaurants. A second source of internally captured trips involves the waterpark. Trips between the hotel and waterpark are likely to occur, while trips between the water park and the apartments are less likely. Likewise, trips between the water park and the fast food restaurants are probable. While there may likely be interaction between the water park and the sit down restaurants and retail stores, it is harder to predict and has therefore not been included with this analysis. Therefore, the internal capture for the waterpark includes the waterpark, hotel rooms, and fast food restaurants.



The total of the internal capture excluding the water park and the internal capture including the water park represents the total trip capture of the site. The supporting internal capture trip tables for the site excluding the water park is found in Appendix B and internal capture trip tables for the water park is found in Appendix C.

#### *Trip Reduction – Pass-by Trips*

As documented in the ITE Trip Generation Manual, 9<sup>th</sup> Edition, some land uses do not typically generate all new traffic on the roadway system. The total traffic generation is a combination of pass-by trips, or traffic drawn directly from the passing traffic flow on the adjacent streets, and primary trips, which represent new traffic drawn to the roadway network. In order to assess the pass-by trips, the data published in the ITE Trip Generation Handbook was utilized to estimate the pass-by percentages for the applicable land uses. It should be noted that pass-by trip reductions do not reduce the total number of trips into and out of the site, but decreased the number of new trips on the road network.

The ITE Trip Generation Handbook provides peak hour pass-by rates for several land uses proposed in Arlington Downs, including the shopping center, high-turnover (sit-down) restaurant, and fast-food restaurant with drive-through window. It is likely that other land uses generate some pass-by trips, such as fast-food restaurant without drive-through window, and for certain time periods, such as the Saturday peak hour. However, since the Trip Generation Handbook does not publish pass-by rates for these uses and times, all other land uses and time periods are assigned as new trips.

#### *Total Trip Generation*

The total trip generation for the site consists of the ITE trip generation with the internal capture and pass-by trip reductions applied. The total trip generation of the Arlington Downs site is summarized in Table 2.



**Table 2: Total Trip Generation**

| LUC                                     | LAND USE                                          | SIZE           | AM  |     |       | PM  |     |       | SAT  |      |       |
|-----------------------------------------|---------------------------------------------------|----------------|-----|-----|-------|-----|-----|-------|------|------|-------|
|                                         |                                                   |                | In  | Out | Total | In  | Out | Total | In   | Out  | Total |
| 220                                     | Apartment                                         | 656 units      | 67  | 267 | 334   | 264 | 143 | 407   | 171  | 170  | 341   |
|                                         | Less Internal Capture:                            |                | -18 | -18 | -36   | -24 | -24 | -48   | -17  | -17  | -34   |
|                                         | Less Pass-By:                                     |                | -   | -   | -     | -   | -   | -     | -    | -    | -     |
| 310                                     | Hotel                                             | 161 rooms      | 45  | 33  | 78    | 40  | 41  | 81    | 51   | 50   | 101   |
|                                         | Less Internal Capture:                            |                | -4  | -4  | -8    | -4  | -4  | -8    | -5   | -5   | -10   |
|                                         | Less Pass-By:                                     |                | -   | -   | -     | -   | -   | -     | -    | -    | -     |
| 565                                     | Day Care Center                                   | 90 students    | 38  | 34  | 72    | 34  | 39  | 73    | 0    | 0    | 0     |
|                                         | Less Internal Capture:                            |                | -   | -   | -     | -   | -   | -     | -    | -    | -     |
|                                         | Less Pass-By:                                     |                | -   | -   | -     | -   | -   | -     | -    | -    | -     |
| 720                                     | Office (Medical)                                  | 21,600 sq. ft. | 41  | 11  | 52    | 22  | 56  | 78    | 45   | 33   | 78    |
|                                         | Less Internal Capture:                            |                | -   | -   | -     | -   | -   | -     | -    | -    | -     |
|                                         | Less Pass-By:                                     |                | -   | -   | -     | -   | -   | -     | -    | -    | -     |
| 820                                     | Shopping Center                                   | 21,065 sq. ft. | 11  | 8   | 19    | 37  | 41  | 78    | 53   | 48   | 101   |
|                                         | Less Internal Capture:                            |                | -4  | -4  | -8    | -12 | -12 | -24   | -20  | -20  | -40   |
|                                         | Less Pass-By:                                     |                | -   | -   | -     | -9  | -9  | -18   | -8   | -8   | -16   |
| 918                                     | Hair Salon                                        | 1,610 sq. ft.  | 2   | 0   | 2     | 0   | 2   | 2     | 3    | 5    | 8     |
|                                         | Less Internal Capture:                            |                | -   | -   | -     | -   | -   | -     | -    | -    | -     |
|                                         | Less Pass-By:                                     |                | -   | -   | -     | -   | -   | -     | -    | -    | -     |
| 932                                     | High-Turnover (Sit-Down) Restaurant               | 20,085 sq. ft. | 102 | 84  | 186   | 99  | 68  | 167   | 77   | 68   | 145   |
|                                         | Less Internal Capture:                            |                | -11 | -11 | -22   | -19 | -19 | -38   | -19  | -19  | -38   |
|                                         | Less Pass-By:                                     |                | -   | -   | -     | -28 | -28 | -56   | -    | -    | -     |
| 933                                     | Fast-Food Restaurant without Drive-Through Window | 3,770 sq. ft.  | 60  | 57  | 117   | 44  | 40  | 84    | 78   | 74   | 152   |
|                                         | Less Internal Capture:                            |                | -7  | -7  | -14   | -9  | -9  | -18   | -19  | -19  | -38   |
|                                         | Less Pass-By:                                     |                | -   | -   | -     | -   | -   | -     | -    | -    | -     |
| 934                                     | Fast-Food Restaurant with Drive-Through Window    | 2,670 sq. ft.  | 70  | 47  | 117   | 36  | 34  | 70    | 72   | 74   | 146   |
|                                         | Less Internal Capture:                            |                | -6  | -6  | -12   | -8  | -8  | -16   | -19  | -19  | -38   |
|                                         | Less Pass-By:                                     |                | -26 | -26 | -52   | -14 | -14 | -28   | -    | -    | -     |
|                                         | Special Use - Water Park and Family Entertainment | 1,160 occ.     | 0   | 0   | 0     | 120 | 40  | 160   | 93   | 93   | 186   |
|                                         | Less Internal Capture:                            |                | -   | -   | -     | -20 | -20 | -40   | -34  | -34  | -68   |
|                                         | Less Pass-By:                                     |                | -   | -   | -     | -   | -   | -     | -    | -    | -     |
| Total Trip Generation:                  |                                                   |                | 436 | 541 | 977   | 696 | 504 | 1200  | 643  | 615  | 1258  |
| Less Internal Capture:                  |                                                   |                | -50 | -50 | -100  | -96 | -96 | -192  | -133 | -133 | -266  |
| Total External Trips                    |                                                   |                | 386 | 491 | 877   | 600 | 408 | 1008  | 510  | 482  | 992   |
| Less Pass-By:                           |                                                   |                | -26 | -26 | -52   | -51 | -51 | -102  | -8   | -8   | -16   |
| Total New Traffic Generated on Network: |                                                   |                | 360 | 465 | 825   | 549 | 357 | 906   | 502  | 474  | 976   |





### *Trip Distribution and Assignment*

The direction from which traffic approaches and departs a site is a function of numerous variables, including location of residences, location of employment centers, location of commercial/retail centers, available roadway systems, location and number of access points, and level of congestion on adjacent road systems. The directional distribution of traffic generated by the site is split between new trips on the roadway network and pass-by trips, as these two categories are expected to exhibit substantial different distributions.

The directional distribution of new trips is assigned based on existing traffic patterns in the area. The highest percentage of new trips is assigned to Euclid Avenue, which is categorized as an arterial roadway. A larger proportion of trips are assigned to the west of Rohlwing Road, as many trips are expected to be drawn through the IL 53 interchange to the west. A small proportion of trips are assigned to Rohlwing Road. While some trips will originate from the residential neighborhoods to the south and the industrial area to the north, the percentage of trips will be much smaller than on Euclid Avenue. The directional distributions and assignment of new project trips is illustrated in Figure 7.

It is assumed that all pass-by trips will originate from Euclid Avenue, since this is an arterial roadway carrying largely commuter traffic. Pass-by trips are assigned evenly from the east and west. The directional distribution and assignment of pass-by trips is illustrated in Figure 8.

The assignments of new project trips and pass-by trips are totaled to achieve the total project trips, which is illustrated in Figure 9

### ***Background Traffic Volumes***

Background traffic volumes are estimated for the year 2022. These volumes account for future non-project related growth in the area. A growth rate of 1.0 percent per year is applied to the existing traffic volumes to estimate the future peak hour traffic. The background traffic volumes are illustrated in Figure 10.

### ***Future Traffic Volumes***

The total project trips are added to the background volume to obtain the future traffic volume for the study intersections. Future with project traffic volumes are depicted in Figure 11.

# LEGEND

## - AM PEAK HOUR  
 (##) - PM PEAK HOUR  
 [##] - MIDDAY SATURDAY PEAK HOUR

AM PEAK HOUR: 7:30 AM - 8:30 AM  
 PM PEAK HOUR: 4:30 PM - 5:30 PM  
 SAT PEAK HOUR: 12:00 PM - 1:00 PM

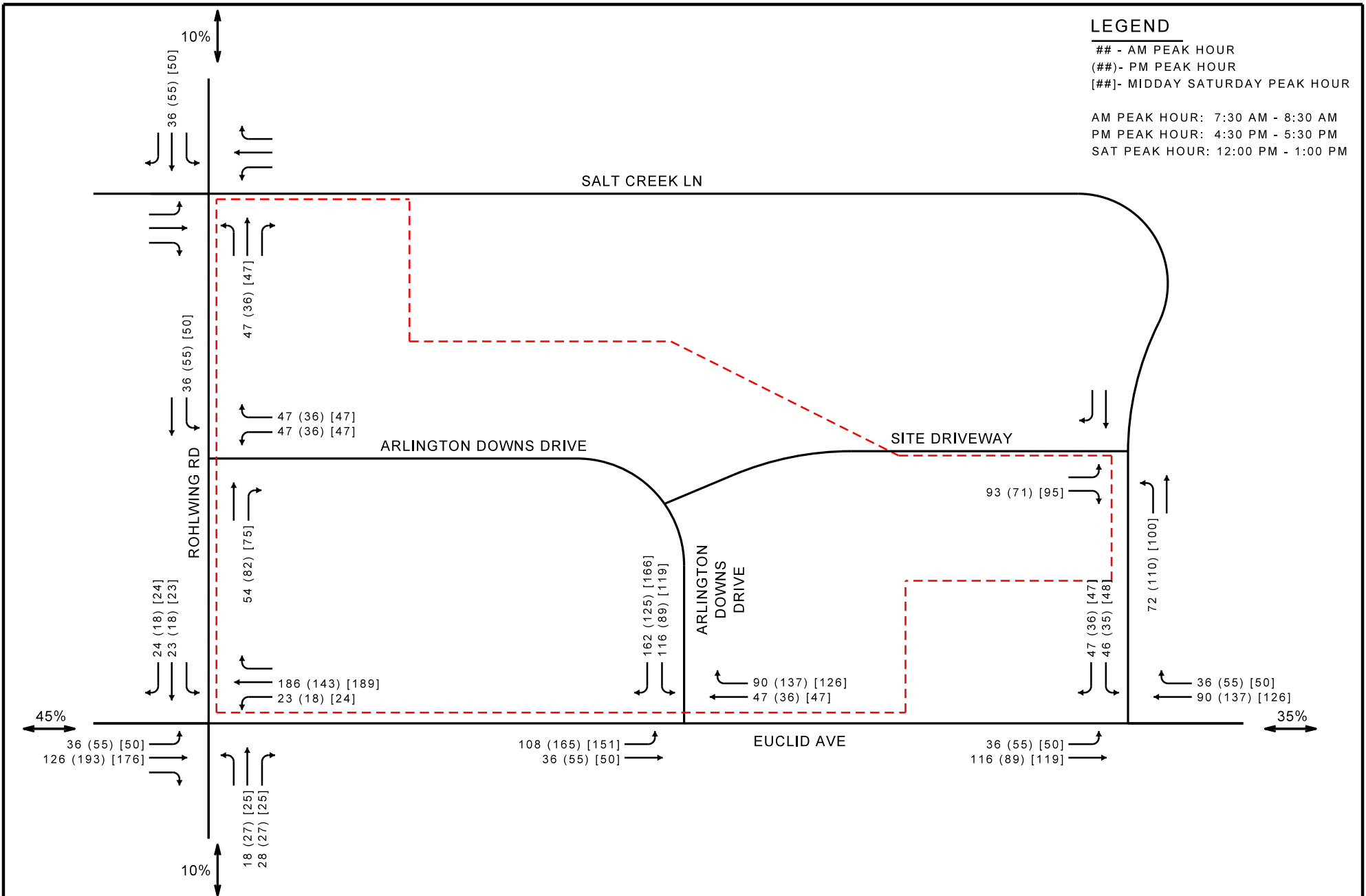


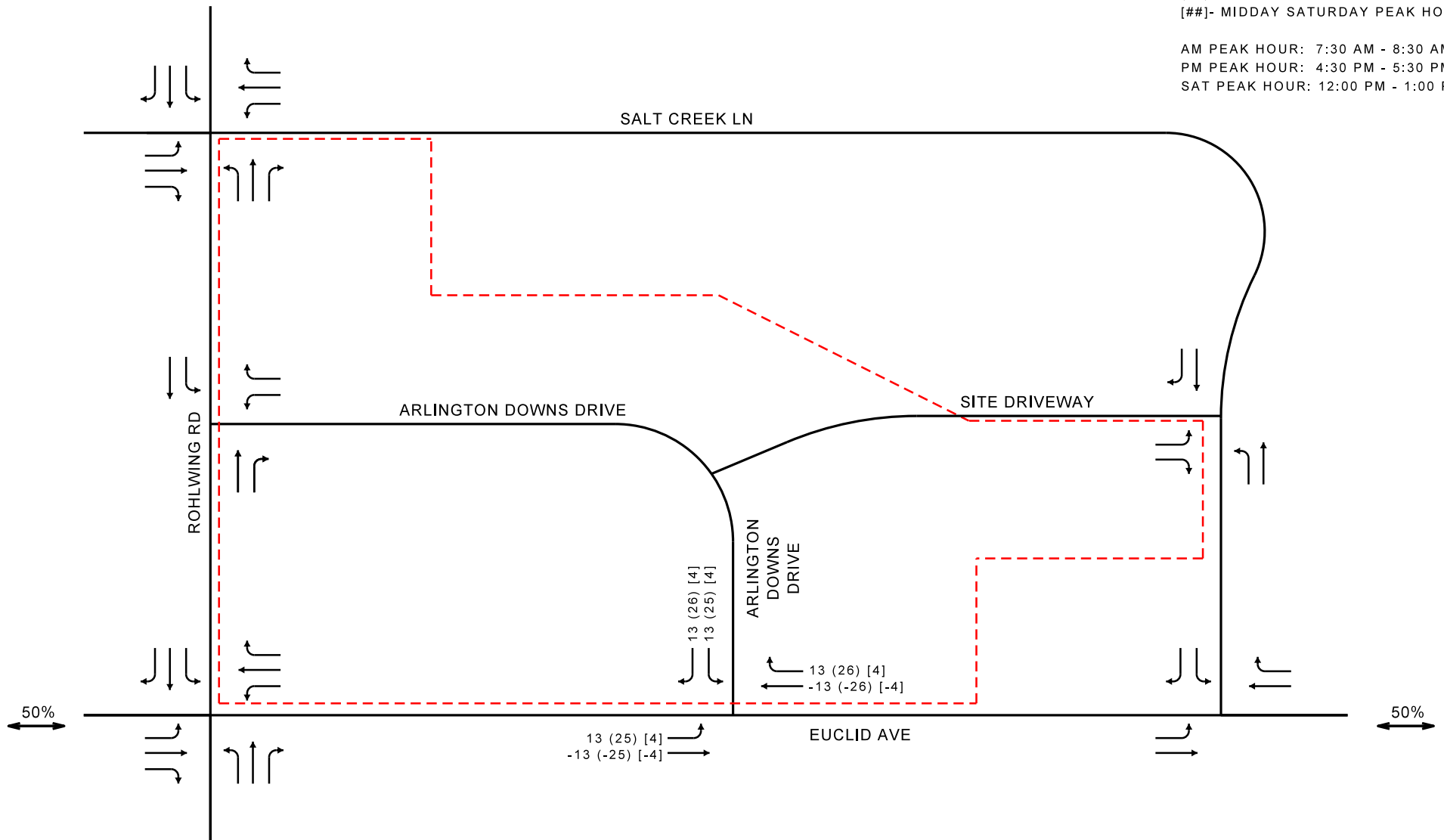
FIGURE 7  
 NEW PROJECT TRIPS



# LEGEND

## - AM PEAK HOUR  
 (##) - PM PEAK HOUR  
 [##] - MIDDAY SATURDAY PEAK HOUR

AM PEAK HOUR: 7:30 AM - 8:30 AM  
 PM PEAK HOUR: 4:30 PM - 5:30 PM  
 SAT PEAK HOUR: 12:00 PM - 1:00 PM



ARLINGTON DOWNS

FIGURE 8  
 PASS BY TRIPS

ARLINGTON HEIGHTS

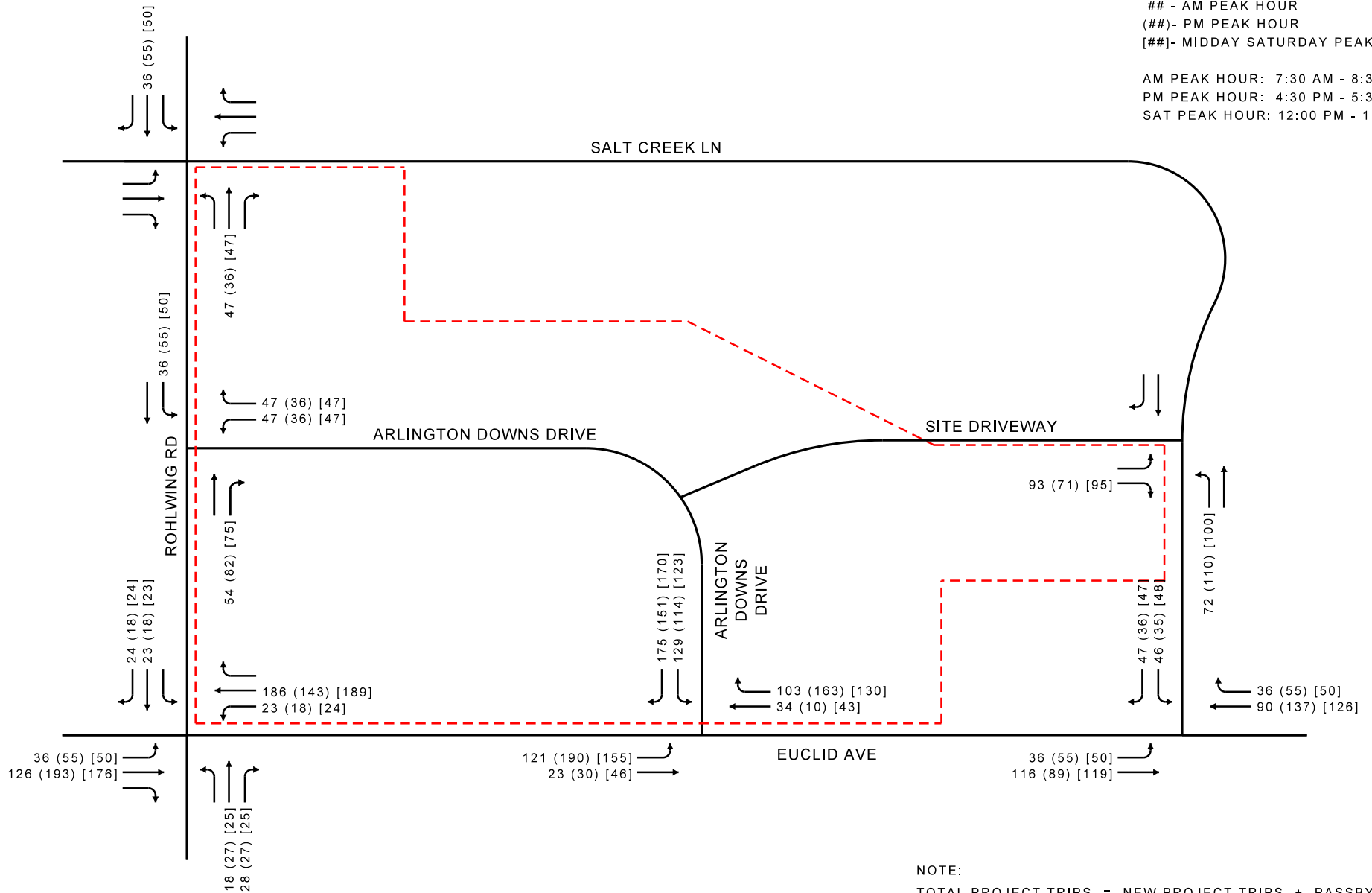
ILLINOIS



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 [##] - MIDDAY SATURDAY PEAK HOUR

AM PEAK HOUR: 7:30 AM - 8:30 AM  
 PM PEAK HOUR: 4:30 PM - 5:30 PM  
 SAT PEAK HOUR: 12:00 PM - 1:00 PM



NOTE:

TOTAL PROJECT TRIPS = NEW PROJECT TRIPS + PASSBY TRIPS  
 (FIGURE 7) (FIGURE 8)

ARLINGTON DOWNS

**FIGURE 9**  
**TOTAL PROJECT TRIPS**

ARLINGTON HEIGHTS

ILLINOIS





# LEGEND

## - AM PEAK HOUR  
 (##) - PM PEAK HOUR  
 [##] - MIDDAY SATURDAY PEAK HOUR

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 SAT PEAK HOUR: 12:00 PM - 1:00 PM

SALT CREEK LN

ARLINGTON DOWNS DRIVE

SITE DRIVEWAY

ARLINGTON DOWNS DRIVE

EUCLID AVE

## NOTE:

BACKGROUND TRAFFIC VOLUMES = EXISTING TRAFFIC VOLUMES + 1% GROWTH PER YEAR TO 2022  
 (FIGURE 6)

ARLINGTON DOWNS

FIGURE 10  
 BACKGROUND TRAFFIC VOLUME

ARLINGTON HEIGHTS

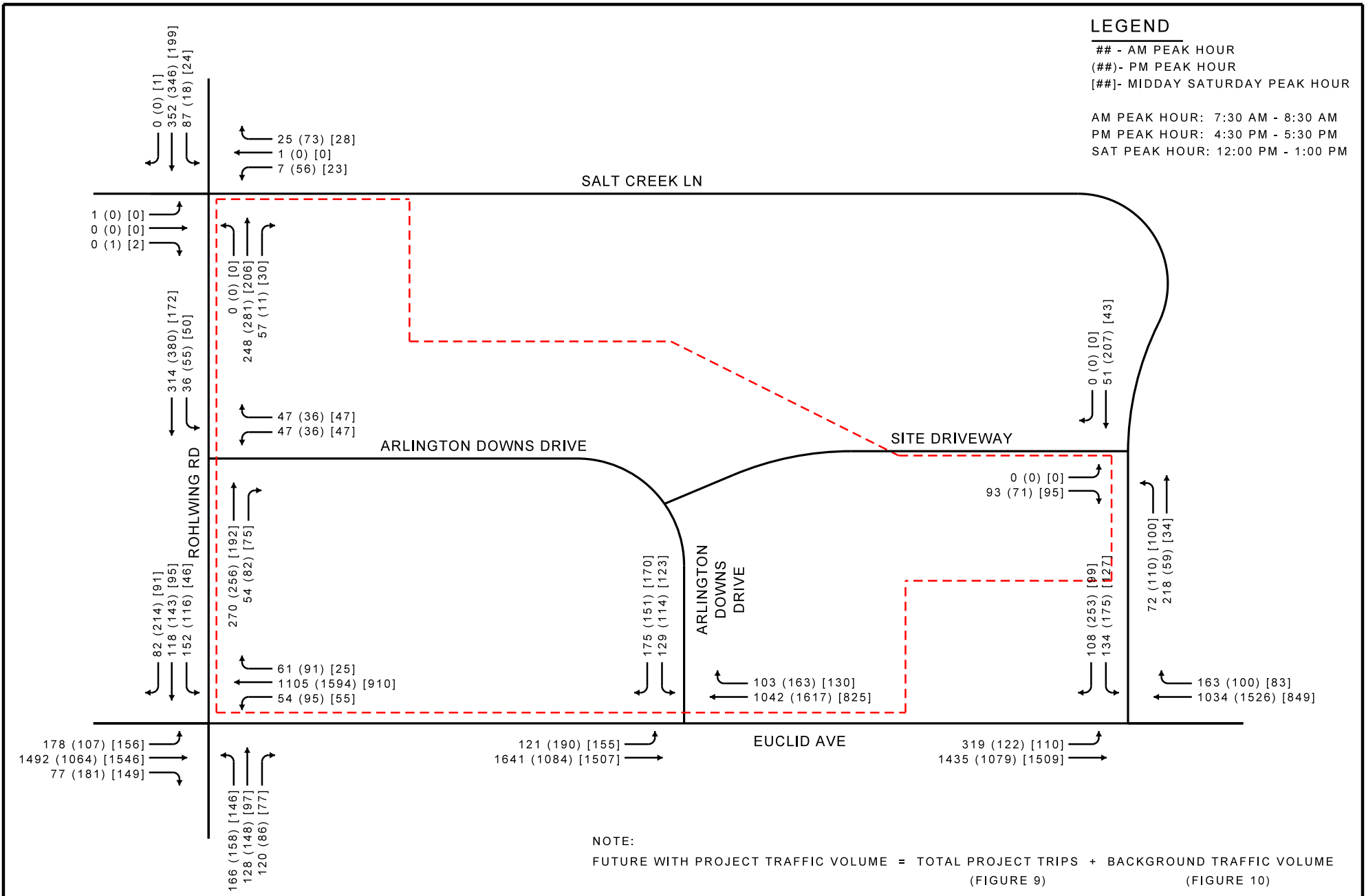
ILLINOIS



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**FIGURE 11**  
**FUTURE WITH PROJECT TRAFFIC VOLUME**  
**ARLINGTON HEIGHTS**  
**ILLINOIS**





## **IV. TRAFFIC ANALYSIS**

### ***Traffic Signal Warrant Analysis***

Based on the projected peak hour volumes at the intersection of Euclid Avenue at Arlington Downs Drive, a planning level traffic signal warrant analysis has been conducted. The warrant analysis follows the guidelines from the Manual on Uniform Traffic Control Devices (MUTCD) and the IDOT BDE Manual. IDOT typically requires that an intersection meet Warrant 1 – Eight Hour Vehicular Warrant to be considered for signalization. The IDOT procedure also requires a right turn reduction analysis to determine if right turn volumes should be decreased based on lane configuration and conflicting traffic volumes.

There are 265 southbound trips on Arlington Downs Drive during the future with project pm peak hour. Following the IDOT procedures for adjusting the right turn reduction results in a southbound volume of 190 vehicles per hour. The IDOT BDE Manual allows using a factor of 55 percent of the peak hour volumes to estimate the eighth highest hour of traffic, which results in a total major street volume of 1,680 and an adjusted minor street volume of 105. These projected volumes exceed the Warrant 1 – Condition B criteria. Therefore, a traffic signal meets warrants and is proposed at the intersection of Euclid Avenue and Arlington Downs Drive.

The supporting Signal Warrant Review Sheet and Right Turn Factorization Sheet are included in Appendix D.

### ***Capacity Analysis***

The operation of a facility is evaluated based on level of service (LOS) calculations obtained by analytical methods defined in the Transportation Research Board's Highway Capacity Manual (HCM), 2010 Edition. The concept of LOS is defined as a quality measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience.

There are six LOS letter designations, from A to F, with LOS A representing the best operating conditions and LOS F the worst.

The LOS of an intersection is based on the average control delay per vehicle. For a signalized intersection, the delay is calculated for each lane group and then aggregated for each approach and for the intersection as a whole. Generally, the LOS is reported for the intersection as a whole. For an unsignalized intersection, the delay is only calculated and reported for each minor movement. An overall intersection LOS is not calculated.

There are different LOS criteria for signalized and unsignalized intersections primarily due to driver perceptions of transportation facilities. The perception is that a signalized intersection is expected to carry higher traffic volumes and experience a greater average delay than an



unsignalized intersection. The LOS criteria for signalized and unsignalized intersections are provided in Table 3.

**Table 3: Level of Service Definitions for Signalized and Unsignalized Intersections**

| Level of Service | Signalized Intersection<br>Control Delay<br>(seconds/vehicle) | Unsignalized Intersection<br>Control Delay<br>(seconds/vehicle) |
|------------------|---------------------------------------------------------------|-----------------------------------------------------------------|
| A                | $\leq 10$                                                     | $\leq 10.0$                                                     |
| B                | $> 10.0$ and $\leq 20.0$                                      | $> 10.0$ and $\leq 15.0$                                        |
| C                | $> 20.0$ and $\leq 35.0$                                      | $> 15.0$ and $\leq 25.0$                                        |
| D                | $> 35.0$ and $\leq 55.0$                                      | $> 25.0$ and $\leq 35.0$                                        |
| E                | $> 55.0$ and $\leq 80.0$                                      | $> 35.0$ and $\leq 50.0$                                        |
| F                | $> 80.0$                                                      | $> 50.0$                                                        |

Source: Transportation Research Board, *Highway Capacity Manual 2010*, National Research Council, 2010.

Typically, various state and local governments adopt operating standards varying between LOS C and LOS E, depending on the area's size and roadway characteristics. Based on our past experience in Arlington Heights, LOS D or better has been the accepted operating standard.

The study area consists of the currently signalized intersections of Euclid Avenue/Rohlwing Road and Euclid Avenue/Salt Creek Lane, and the unsignalized intersections of Euclid Avenue/Arlington Downs Drive, Rohlwing Road/Arlington Downs Drive, Rohlwing Road/Salt Creek Lane, and Salt Creek Lane/Site Driveway. The intersection of Euclid Avenue at Arlington Downs Drive will also be signalized as part of this proposed development.

Capacity analysis is performed with Synchro 9 (build 902, revision 140), a macrosimulation tool based on methodologies found in the Highway Capacity Manual. Models are created for the weekday am, weekday pm, and Saturday midday peak hours for the existing, background, and future with project conditions. Results for the signalized intersections are summarized in Table 4. Results for the each unsignalized intersection are summarized in Tables 5 through 8. Supporting Synchro analysis worksheets for the existing, background and future with project traffic conditions are provided in Appendices E, F and G respectively.





**Table 4: Signalized LOS**

| Time Period           | Intersection                           | Scenario   | Eastbound                 |     | Westbound                 |     | Northbound       |     | Southbound                |     | Intersection              |     |
|-----------------------|----------------------------------------|------------|---------------------------|-----|---------------------------|-----|------------------|-----|---------------------------|-----|---------------------------|-----|
|                       |                                        |            | Delay                     | LOS | Delay                     | LOS | Delay            | LOS | Delay                     | LOS | Delay                     | LOS |
| Weekday AM Peak Hour  | Euclid Avenue at Rohlwing Road         | Existing   | 23.1                      | C   | 26.8                      | C   | 41.4             | D   | 32.1                      | C   | 27.2                      | C   |
|                       |                                        | Background | 24.3                      | C   | 25.4                      | C   | 42.5             | D   | 32.2                      | C   | 27.5                      | C   |
|                       |                                        | Future     | 31.1                      | C   | 31.9                      | C   | 43.3             | D   | 27.3                      | C   | 32.3                      | C   |
|                       | Euclid Avenue at Arlington Downs Drive | Existing   | Unsignalized <sup>1</sup> |     | Unsignalized <sup>1</sup> |     | N/A <sup>2</sup> |     | Unsignalized <sup>1</sup> |     | Unsignalized <sup>1</sup> |     |
|                       |                                        | Background |                           |     |                           |     |                  |     |                           |     |                           |     |
|                       |                                        | Future     | 4.1                       | A   | 2.5                       | A   |                  |     | 38.9                      | D   | 6.8                       | A   |
|                       | Euclid Avenue at Salt Creek Lane       | Existing   | 4.7                       | A   | 10.7                      | B   | N/A <sup>2</sup> |     | 40.5                      | D   | 9.0                       | A   |
|                       |                                        | Background | 5.9                       | A   | 11.9                      | B   |                  |     | 40.3                      | D   | 10.0                      | A   |
|                       |                                        | Future     | 10.4                      | B   | 18.6                      | B   |                  |     | 43.2                      | D   | 16.0                      | B   |
| Weekday PM Peak Hour  | Euclid Avenue at Rohlwing Road         | Existing   | 18.9                      | B   | 19.2                      | B   | 44.5             | D   | 39.1                      | D   | 24.0                      | C   |
|                       |                                        | Background | 19.9                      | B   | 22.7                      | C   | 47.0             | D   | 39.8                      | D   | 26.3                      | C   |
|                       |                                        | Future     | 24.3                      | C   | 25.4                      | C   | 42.8             | D   | 21.8                      | C   | 26.3                      | C   |
|                       | Euclid Avenue at Arlington Downs Drive | Existing   | Unsignalized <sup>1</sup> |     | Unsignalized <sup>1</sup> |     | N/A <sup>2</sup> |     | Unsignalized <sup>1</sup> |     | Unsignalized <sup>1</sup> |     |
|                       |                                        | Background |                           |     |                           |     |                  |     |                           |     |                           |     |
|                       |                                        | Future     | 11.3                      | B   | 11.5                      | B   |                  |     | 45.5                      | D   | 14.1                      | B   |
|                       | Euclid Avenue at Salt Creek Lane       | Existing   | 7.2                       | A   | 12.5                      | B   | N/A <sup>2</sup> |     | 45.2                      | D   | 14.9                      | B   |
|                       |                                        | Background | 6.2                       | A   | 13.7                      | B   |                  |     | 45.4                      | D   | 14.9                      | B   |
|                       |                                        | Future     | 9.3                       | A   | 18.5                      | B   |                  |     | 49.2                      | D   | 19.2                      | B   |
| Saturday MD Peak Hour | Euclid Avenue at Rohlwing Road         | Existing   | 17.7                      | B   | 15.1                      | B   | 37.5             | D   | 32.8                      | C   | 19.8                      | B   |
|                       |                                        | Background | 18.1                      | B   | 16.3                      | B   | 38.8             | D   | 33.8                      | C   | 20.6                      | C   |
|                       |                                        | Future     | 22.4                      | C   | 16.6                      | B   | 38.0             | D   | 26.7                      | C   | 22.5                      | C   |
|                       | Euclid Avenue at Arlington Downs Drive | Existing   | Unsignalized <sup>1</sup> |     | Unsignalized <sup>1</sup> |     | N/A <sup>2</sup> |     | Unsignalized <sup>1</sup> |     | Unsignalized <sup>1</sup> |     |
|                       |                                        | Background |                           |     |                           |     |                  |     |                           |     |                           |     |
|                       |                                        | Future     | 5.3                       | A   | 9.1                       | A   |                  |     | 34.6                      | C   | 9.5                       | A   |
|                       | Euclid Avenue at Salt Creek Lane       | Existing   | 2.8                       | A   | 5.8                       | A   | N/A <sup>2</sup> |     | 42.2                      | D   | 6.1                       | A   |
|                       |                                        | Background | 2.7                       | A   | 5.9                       | A   |                  |     | 42.2                      | D   | 6.0                       | A   |
|                       |                                        | Future     | 6.6                       | A   | 9.7                       | A   |                  |     | 31.7                      | C   | 9.7                       | A   |

1. See Table 5 for unsignalized delays

2. No northbound approach (three-leg intersection)

The existing and background models use signal timings based on field observations. While similar signal timings can be used in the future with project condition, it is necessary to interconnect and coordinate the signal corridor due to the addition of the closely spaced signal at Euclid Avenue and Arlington Downs Drive.

Based on analysis of existing, background and future with project models, all signalized approaches operate at an acceptable level of service for the am, pm, and midday Saturday peak hour periods. The highest delays tend to occur on the northbound approach at Euclid Avenue and Rohlwing Road and the southbound approach at Euclid Avenue and Salt Creek Lane. Both of these approaches operate at LOS D under existing conditions. Delay increases slightly in both the background and future with project models, but the level of service remains the same.

The proposed signal on Euclid Avenue and Arlington Downs Drive also operates at an acceptable level of service in the future with project condition, with the eastbound and



westbound approaches operating at LOS C or better and the southbound approach operating at LOS D.

**Table 5: Unsignalized LOS – Salt Creek Lane and Site Driveway**

| Time Period           | Scenario   | Eastbound |     | Northbound |     |
|-----------------------|------------|-----------|-----|------------|-----|
|                       |            | Approach  |     | Left       |     |
|                       |            | Delay     | LOS | Delay      | LOS |
| Weekday AM Peak Hour  | Existing   | 8.6       | A   | 7.3        | A   |
|                       | Background | 8.6       | A   | 7.3        | A   |
|                       | Future     | 8.9       | A   | 7.4        | A   |
| Weekday PM Peak Hour  | Existing   | 9.4       | A   | 7.7        | A   |
|                       | Background | 9.4       | A   | 7.7        | A   |
|                       | Future     | 9.8       | A   | 7.9        | A   |
| Saturday MD Peak Hour | Existing   | 8.6       | A   | 7.3        | A   |
|                       | Background | 8.6       | A   | 7.3        | A   |
|                       | Future     | 8.9       | A   | 7.5        | A   |

**Table 6: Unsignalized LOS – Euclid Avenue and Arlington Downs Drive**

| Time Period           | Scenario   | Eastbound        |     | Southbound |     | Southbound |     |
|-----------------------|------------|------------------|-----|------------|-----|------------|-----|
|                       |            | Left             |     | Left       |     | Right      |     |
|                       |            | Delay            | LOS | Delay      | LOS | Delay      | LOS |
| Weekday AM Peak Hour  | Existing   | 10.2             | B   | 57.2       | F   | 12.1       | B   |
|                       | Background | 10.5             | B   | 70.5       | F   | 12.5       | B   |
|                       | Future     | To Be Signalized |     |            |     |            |     |
| Weekday PM Peak Hour  | Existing   | 0.0              | A   | 93.1       | F   | 16.0       | C   |
|                       | Background | 0.0              | A   | 117.8      | F   | 17.0       | C   |
|                       | Future     | To Be Signalized |     |            |     |            |     |
| Saturday MD Peak Hour | Existing   | 9.3              | A   | 37.8       | E   | 10.9       | B   |
|                       | Background | 9.5              | A   | 44.2       | E   | 11.2       | B   |
|                       | Future     | To Be Signalized |     |            |     |            |     |

**Table 7: Unsignalized LOS – Rohlwing Road and Arlington Downs Drive**

| Time Period           | Scenario   | Westbound |     | Westbound |     | Southbound |     |
|-----------------------|------------|-----------|-----|-----------|-----|------------|-----|
|                       |            | Left      |     | Right     |     | Left       |     |
|                       |            | Delay     | LOS | Delay     | LOS | Delay      | LOS |
| Weekday AM Peak Hour  | Existing   | 12.6      | B   | 0.0       | A   | 7.8        | A   |
|                       | Background | 13.1      | B   | 0.0       | A   | 7.8        | A   |
|                       | Future     | 15.8      | C   | 10.3      | B   | 8.1        | A   |
| Weekday PM Peak Hour  | Existing   | 13.2      | B   | 9.6       | A   | 7.8        | A   |
|                       | Background | 13.7      | B   | 9.7       | A   | 7.8        | A   |
|                       | Future     | 17.6      | C   | 10.2      | B   | 8.1        | A   |
| Saturday MD Peak Hour | Existing   | 10.7      | B   | 9.2       | A   | 7.6        | A   |
|                       | Background | 10.9      | B   | 9.3       | A   | 7.6        | A   |
|                       | Future     | 13.2      | B   | 9.8       | A   | 7.9        | A   |



**Table 8: Unsignalized LOS – Rohlwing Road and Salt Creek Lane**

| Time Period              | Scenario   | Eastbound |     | Westbound |     | Westbound |     | Southbound |     |
|--------------------------|------------|-----------|-----|-----------|-----|-----------|-----|------------|-----|
|                          |            | Approach  |     | Left      |     | Right     |     | Left       |     |
|                          |            | Delay     | LOS | Delay     | LOS | Delay     | LOS | Delay      | LOS |
| Weekday AM<br>Peak Hour  | Existing   | 16.8      | C   | 16.4      | C   | 9.9       | A   | 8.0        | A   |
|                          | Background | 17.5      | C   | 17.1      | C   | 10.0      | A   | 8.0        | A   |
|                          | Future     | 19.4      | C   | 18.9      | C   | 10.3      | B   | 8.1        | A   |
| Weekday PM<br>Peak Hour  | Existing   | 9.8       | A   | 14.8      | B   | 10.0      | A   | 7.8        | A   |
|                          | Background | 9.9       | A   | 15.5      | C   | 10.2      | B   | 7.8        | A   |
|                          | Future     | 10.3      | B   | 17.5      | C   | 10.4      | B   | 7.9        | A   |
| Saturday MD<br>Peak Hour | Existing   | 9.0       | A   | 11.5      | B   | 9.3       | A   | 7.6        | A   |
|                          | Background | 9.1       | A   | 11.7      | B   | 9.3       | A   | 7.7        | A   |
|                          | Future     | 9.3       | A   | 13.0      | B   | 9.6       | A   | 7.8        | A   |

In the existing condition, all minor movements at the unsignalized intersections operate at LOS C or better with the exception of the southbound approach of Arlington Downs Drive to Euclid Avenue, which operates at LOS F during the am and pm weekday peak hours and LOS E during the Saturday peak hour. This intersection meets traffic signal warrants and is proposed to be signalized. Generally, delay increases somewhat on all minor movements in the background and future with project conditions. This results in the level of service decreasing on several minor movements. However, all unsignalized approaches are maintained at LOS C or better.

### **Queue Length Analysis**

The 95<sup>th</sup> percentile queue lengths have also been analyzed using the Synchro models. The left turn queue lengths for the am and pm peak hours are summarized in Table 8.

All left turn storage lengths where storage lanes are provided are adequate during the existing, background and future with project conditions, with the exception of the eastbound left turn on Euclid Avenue at Salt Creek Lane. The 264 foot queue that is expected in the future with project traffic scenario during the am peak hour exceeds the provided storage of 160 feet. It is recommended that this left turn lane is modified as part of the Euclid Avenue widening. The southbound approach at the same intersection also experiences a long queue with the future with project scenario during the weekday pm peak hour. The 213 foot queue may block the driveway which is approximately 190 feet from the stop bar. It may be necessary to install “Do Not Block Driveway” signs at this internal driveway.



**Table 9: Left-Turn 95<sup>th</sup> Percentile Queue Lengths**

| Intersection                           | Scenario         | Left Turn Queue by Approach, in Feet |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
|----------------------------------------|------------------|--------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|                                        |                  | Weekday am                           |                  |                  |                  | Weekday pm       |                  |                  |                  | Saturday Midday  |                  |                  |                  |
|                                        |                  | EB                                   | WB               | NB               | SB               | EB               | WB               | NB               | SB               | EB               | WB               | NB               | SB               |
| Euclid Avenue at Rohlwing Road         | Existing         | 102                                  | 13               | 113              | 104              | 45               | 39               | 109              | 82               | 79               | 30               | 101              | 39               |
|                                        | Background       | 108                                  | 16               | 121              | 112              | 47               | 59               | 115              | 88               | 84               | 33               | 108              | 41               |
|                                        | Future           | 170                                  | 71               | 121              | 112              | 108              | 76               | 115              | 88               | 118              | 59               | 108              | 41               |
|                                        | Existing Storage | 200                                  | 95               | 145              | 130              | 200              | 95               | 145              | 130              | 200              | 95               | 145              | 130              |
|                                        | Existing Taper   | 175                                  | 90               | 90               | 75               | 175              | 90               | 90               | 75               | 175              | 90               | 90               | 75               |
| Euclid Avenue at Arlington Downs Drive | Existing         | 0                                    | -                | -                | 3                | 0                | -                | -                | 5                | 0                | -                | -                | 3                |
|                                        | Background       | 0                                    | -                | -                | 3                | 0                | -                | -                | 5                | 0                | -                | -                | 3                |
|                                        | Future           | 15                                   | -                | -                | 162              | 177              | -                | -                | 153              | 42               | -                | -                | 155              |
|                                        | Existing Storage | N/A <sup>1</sup>                     | -                | -                | 190 <sup>2</sup> | N/A <sup>1</sup> | -                | -                | 190 <sup>2</sup> | N/A <sup>1</sup> | -                | -                | 190 <sup>2</sup> |
|                                        | Existing Taper   | N/A <sup>1</sup>                     | -                | -                | N/A <sup>2</sup> | N/A <sup>1</sup> | -                | -                | N/A <sup>2</sup> | N/A <sup>1</sup> | -                | -                | N/A <sup>2</sup> |
| Euclid Avenue at Salt Creek Lane       | Existing         | 78                                   | -                | -                | 121              | 58               | -                | -                | 171              | 2                | -                | -                | 112              |
|                                        | Background       | 39                                   | -                | -                | 121              | 57               | -                | -                | 163              | 2                | -                | -                | 112              |
|                                        | Future           | 264                                  | -                | -                | 170              | 83               | -                | -                | 213              | 33               | -                | -                | 135              |
|                                        | Existing Storage | 160                                  | -                | -                | 190 <sup>2</sup> | 160              | -                | -                | 190 <sup>2</sup> | 160              | -                | -                | 190 <sup>2</sup> |
|                                        | Existing Taper   | 140                                  | -                | -                | N/A <sup>2</sup> | 140              | -                | -                | N/A <sup>2</sup> | 140              | -                | -                | N/A <sup>2</sup> |
| Rohlwing Road at Arlington Downs Drive | Existing         | -                                    | 0                | -                | 0                | -                | 0                | -                | 0                | -                | 0                | -                | 0                |
|                                        | Background       | -                                    | 0                | -                | 0                | -                | 0                | -                | 0                | -                | 0                | -                | 0                |
|                                        | Future           | -                                    | 10               | -                | 3                | -                | 10               | -                | 5                | -                | 8                | -                | 3                |
|                                        | Existing Storage | -                                    | 190 <sup>2</sup> | -                | N/A <sup>3</sup> | -                | 190 <sup>2</sup> | -                | N/A <sup>3</sup> | -                | 190 <sup>2</sup> | -                | N/A <sup>3</sup> |
|                                        | Existing Taper   | -                                    | N/A <sup>2</sup> | -                | N/A <sup>3</sup> | -                | N/A <sup>2</sup> | -                | N/A <sup>3</sup> | -                | N/A <sup>2</sup> | -                | N/A <sup>3</sup> |
| Rohlwing Road at Salt Creek Lane       | Existing         | 0                                    | 3                | 0                | 5                | 0                | 13               | 0                | 0                | 0                | 3                | 0                | 3                |
|                                        | Background       | 0                                    | 3                | 0                | 5                | 0                | 13               | 0                | 0                | 0                | 3                | 0                | 3                |
|                                        | Future           | 0                                    | 3                | 0                | 5                | 0                | 15               | 0                | 0                | 0                | 5                | 0                | 3                |
|                                        | Existing Storage | -                                    | N/A <sup>4</sup> | -                | 125              | -                | N/A <sup>4</sup> | -                | 125              | -                | N/A <sup>4</sup> | -                | 125              |
|                                        | Existing Taper   | -                                    | N/A <sup>4</sup> | -                | 120              | -                | N/A <sup>4</sup> | -                | 120              | -                | N/A <sup>4</sup> | -                | 120              |
| Salt Creek Lane at Site Driveway       | Existing         | 0                                    | -                | 0                | -                | 0                | -                | 0                | -                | 0                | -                | 0                | -                |
|                                        | Background       | 0                                    | -                | 0                | -                | 0                | -                | 0                | -                | 0                | -                | 0                | -                |
|                                        | Future           | 8                                    | -                | 5                | -                | 8                | -                | 8                | -                | 5                | -                | 8                | -                |
|                                        | Existing Storage | N/A <sup>1</sup>                     | -                | N/A <sup>4</sup> | -                | N/A <sup>1</sup> | -                | N/A <sup>4</sup> | -                | N/A <sup>1</sup> | -                | N/A <sup>4</sup> | -                |
|                                        | Existing Taper   | N/A <sup>1</sup>                     | -                | N/A <sup>4</sup> | -                | N/A <sup>1</sup> | -                | N/A <sup>4</sup> | -                | N/A <sup>1</sup> | -                | N/A <sup>4</sup> | -                |

1. No turn lane provided.
2. 190 Feet of storage to first conflicting driveway
3. Currently a continuous two-way left turn lane.
4. No Lane Marking





## **V. CONCLUSIONS**

The purpose of this study is to evaluate the traffic impacts of the proposed Arlington Downs mixed use development located near the intersection of Euclid Avenue and Rohlwing Road in Arlington Heights, Illinois. The site, which has been undergoing redevelopment for several years, currently consists of a 214-unit high-rise apartment building that recently opened and is partially occupied. A 55,000 square foot indoor water park is attached to the apartment building but is currently no in operation. A 161-room hotel with a conference space has been approved and will be under construction soon. The proposed plan for the remaining portions of the site include re-opening the indoor water with an attached family entertainment center, a second residential tower with 442 units, and a mix of retail, restaurant, and medical office land uses. The site will be accessed via the existing driveways on Euclid Avenue, Rohlwing Road, and Salt Creek Lane.

The study area consists of the signalized intersections of Euclid Avenue/Rohlwing Road and Euclid Avenue/Salt Creek Lane, and the unsignalized intersections of Euclid Avenue/Arlington Downs Drive, Rohlwing Road/ Arlington Downs Drive, Rohlwing Road/Salt Creek Lane, and Salt Creek Lane/Site Driveway. The development includes signalizing the intersection of Euclid Avenue and Arlington Downs Drive and widening Euclid Avenue to provide a five lane section between Rohlwing Road and Salt Creek Lane with an eastbound left turn lane at Arlington Downs Drive.

Capacity analysis was conducted using Synchro 9 for existing, background, and future with project conditions during the weekday am and pm, and Saturday midday peak hours. Traffic was estimated to the year 2022, which is five years beyond the anticipated opening date.

Results of the capacity analysis indicate all signalized intersections operate at an acceptable level of service in the existing condition. Delay increases somewhat in the background and future with project conditions, but all approaches continue to operate at LOS D or better. This includes the new traffic signal at Euclid Road and Arlington Downs Drive. The southbound approach operates at LOS D, which is a significant improvement over the unsignalized performance in the background condition.

With the exception of the southbound approach on Arlington Downs Drive at Euclid Avenue, which is proposed to be signalized, all other approaches at unsignalized intersections operate at LOS C or better.

All left turn queue storage lengths are adequate with the exception of the eastbound and southbound approaches at the intersection of Euclid Avenue and Salt Creek Lane. On the eastbound approach, the projected 264 foot queue during the future with project traffic scenario



am peak hour exceeds the provided storage of 160 feet. It is recommended that this left turn lane is modified as part of the Euclid Avenue widening. On the southbound approach the 213 foot queue may block the driveway which is approximately 190 feet from the stop bar. It may be necessary to install “Do Not Block Driveway” signs at this location.



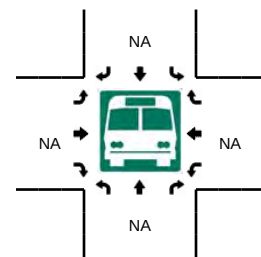
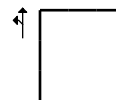
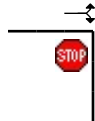
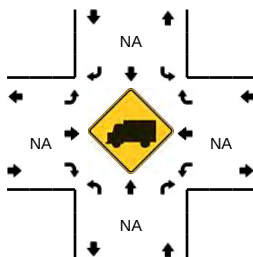
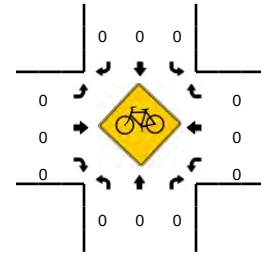
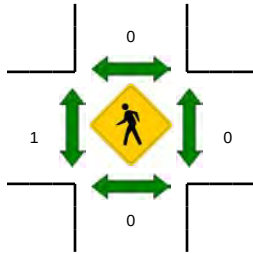
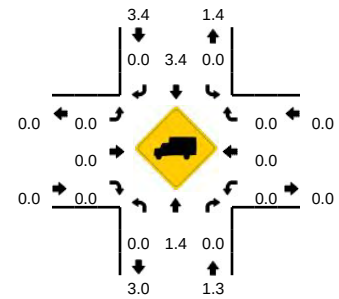
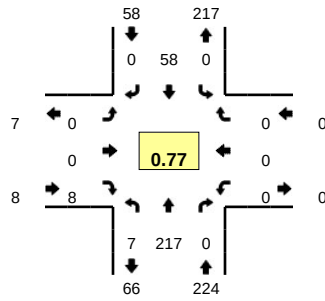
## **APPENDIX A**

### **EXISTING TRAFFIC COUNTS**

**LOCATION:** Salt Creek Ln -- Access Rd  
**CITY/STATE:** Arlington Heights, IL

**QC JOB #:** 13424401  
**DATE:** Tue, Jun 23 2015

**Peak-Hour: 7:45 AM -- 8:45 AM**  
**Peak 15-Min: 7:45 AM -- 8:00 AM**



| 15-Min Count Period Beginning At | Salt Creek Ln (Northbound) |      |       |   | Salt Creek Ln (Southbound) |      |       |   | Access Rd (Eastbound) |      |       |   | Access Rd (Westbound) |      |       |   | Total | Hourly Totals |
|----------------------------------|----------------------------|------|-------|---|----------------------------|------|-------|---|-----------------------|------|-------|---|-----------------------|------|-------|---|-------|---------------|
|                                  | Left                       | Thru | Right | U | Left                       | Thru | Right | U | Left                  | Thru | Right | U | Left                  | Thru | Right | U |       |               |
| 7:00 AM                          | 0                          | 36   | 0     | 0 | 0                          | 6    | 0     | 0 | 0                     | 0    | 3     | 0 | 0                     | 0    | 0     | 0 | 45    |               |
| 7:15 AM                          | 2                          | 39   | 0     | 0 | 0                          | 10   | 0     | 0 | 1                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 52    |               |
| 7:30 AM                          | 0                          | 43   | 0     | 0 | 0                          | 5    | 0     | 0 | 0                     | 0    | 3     | 0 | 0                     | 0    | 0     | 0 | 51    |               |
| 7:45 AM                          | 0                          | 75   | 0     | 0 | 0                          | 17   | 0     | 0 | 0                     | 0    | 2     | 0 | 0                     | 0    | 0     | 0 | 94    | 242           |
| 8:00 AM                          | 0                          | 56   | 0     | 0 | 0                          | 14   | 0     | 0 | 0                     | 0    | 2     | 0 | 0                     | 0    | 0     | 0 | 72    | 269           |
| 8:15 AM                          | 3                          | 44   | 0     | 0 | 0                          | 15   | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 62    | 279           |
| 8:30 AM                          | 4                          | 42   | 0     | 0 | 0                          | 12   | 0     | 0 | 0                     | 0    | 4     | 0 | 0                     | 0    | 0     | 0 | 62    | 290           |
| 8:45 AM                          | 0                          | 41   | 0     | 0 | 0                          | 12   | 0     | 0 | 0                     | 0    | 1     | 0 | 0                     | 0    | 0     | 0 | 54    | 250           |
|                                  |                            |      |       |   |                            |      |       |   |                       |      |       |   |                       |      |       |   |       |               |
| Peak 15-Min Flowrates            | Northbound                 |      |       |   | Southbound                 |      |       |   | Eastbound             |      |       |   | Westbound             |      |       |   | Total |               |
|                                  | Left                       | Thru | Right | U | Left                       | Thru | Right | U | Left                  | Thru | Right | U | Left                  | Thru | Right | U |       |               |
| All Vehicles                     | 0                          | 300  | 0     | 0 | 0                          | 68   | 0     | 0 | 0                     | 0    | 8     | 0 | 0                     | 0    | 0     | 0 | 376   |               |
| Heavy Trucks                     | 0                          | 8    | 0     | 0 | 0                          | 4    | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 12    |               |
| Pedestrians                      | 0                          | 0    | 0     | 0 | 0                          | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 0     |               |
| Bicycles                         | 0                          | 0    | 0     | 0 | 0                          | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 0     |               |
| Railroad                         | 0                          | 0    | 0     | 0 | 0                          | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 0     |               |
| Stopped Buses                    | 0                          | 0    | 0     | 0 | 0                          | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 0     |               |

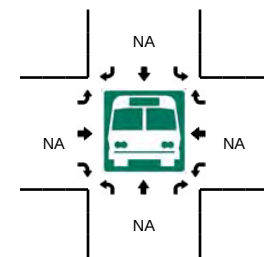
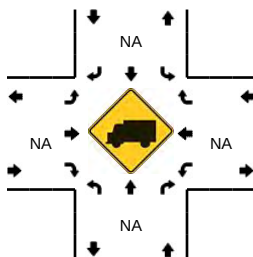
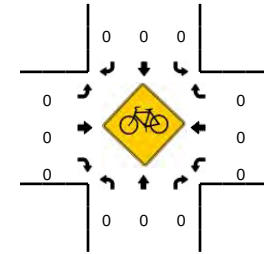
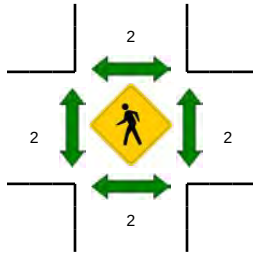
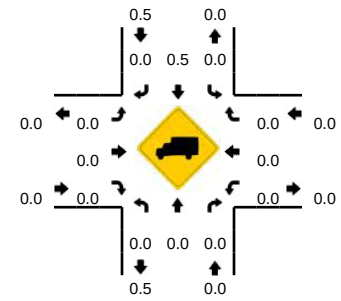
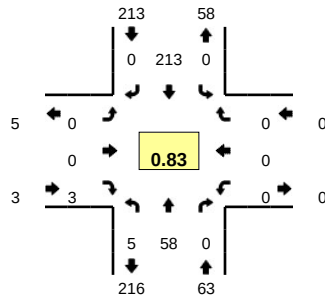
**Comments:**



**LOCATION:** Salt Creek Ln -- Access Rd  
**CITY/STATE:** Arlington Heights, IL

**QC JOB #:** 13424402  
**DATE:** Tue, Jun 23 2015

**Peak-Hour: 4:15 PM -- 5:15 PM**  
**Peak 15-Min: 5:00 PM -- 5:15 PM**



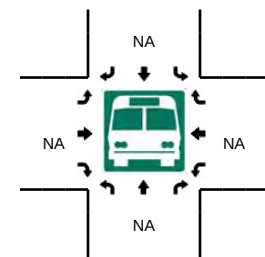
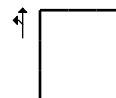
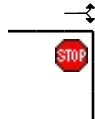
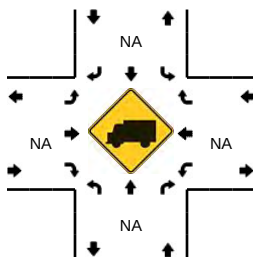
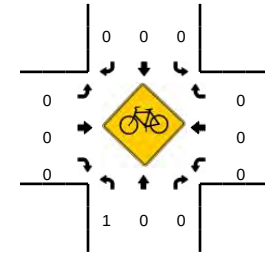
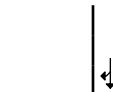
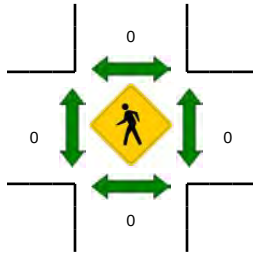
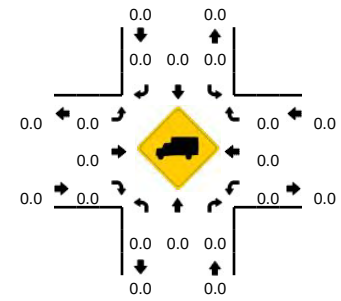
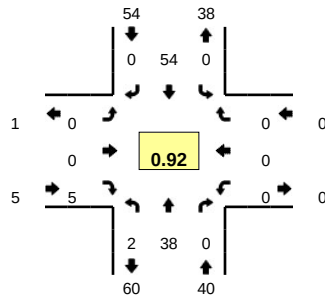
| 15-Min Count Period Beginning At | Salt Creek Ln (Northbound) |      |       |   | Salt Creek Ln (Southbound) |      |       |   | Access Rd (Eastbound) |      |       |    | Access Rd (Westbound) |      |       |   | Total | Hourly Totals |
|----------------------------------|----------------------------|------|-------|---|----------------------------|------|-------|---|-----------------------|------|-------|----|-----------------------|------|-------|---|-------|---------------|
|                                  | Left                       | Thru | Right | U | Left                       | Thru | Right | U | Left                  | Thru | Right | U  | Left                  | Thru | Right | U |       |               |
| 4:00 PM                          | 1                          | 16   | 0     | 0 | 0                          | 60   | 0     | 0 | 0                     | 0    | 0     | 0  | 0                     | 0    | 0     | 0 | 77    |               |
| 4:15 PM                          | 1                          | 10   | 0     | 0 | 0                          | 43   | 0     | 0 | 0                     | 0    | 0     | 0  | 0                     | 0    | 0     | 0 | 54    |               |
| 4:30 PM                          | 1                          | 18   | 0     | 0 | 0                          | 61   | 0     | 0 | 0                     | 0    | 0     | 0  | 0                     | 0    | 0     | 0 | 80    |               |
| 4:45 PM                          | 1                          | 15   | 0     | 0 | 0                          | 45   | 0     | 0 | 0                     | 0    | 0     | 0  | 0                     | 0    | 0     | 0 | 61    | 272           |
| 5:00 PM                          | 2                          | 15   | 0     | 0 | 0                          | 64   | 0     | 0 | 0                     | 0    | 0     | 3  | 0                     | 0    | 0     | 0 | 84    | 279           |
| 5:15 PM                          | 2                          | 11   | 0     | 0 | 0                          | 37   | 0     | 0 | 0                     | 0    | 0     | 1  | 0                     | 0    | 0     | 0 | 51    | 276           |
| 5:30 PM                          | 2                          | 5    | 0     | 0 | 0                          | 34   | 0     | 0 | 0                     | 0    | 0     | 1  | 0                     | 0    | 0     | 0 | 42    | 238           |
| 5:45 PM                          | 1                          | 9    | 0     | 0 | 0                          | 32   | 0     | 0 | 1                     | 0    | 0     | 3  | 0                     | 0    | 0     | 0 | 46    | 223           |
|                                  |                            |      |       |   |                            |      |       |   |                       |      |       |    |                       |      |       |   |       |               |
| Peak 15-Min Flowrates            | Northbound                 |      |       |   | Southbound                 |      |       |   | Eastbound             |      |       |    | Westbound             |      |       |   | Total |               |
|                                  | Left                       | Thru | Right | U | Left                       | Thru | Right | U | Left                  | Thru | Right | U  | Left                  | Thru | Right | U |       |               |
| All Vehicles                     | 8                          | 60   | 0     | 0 | 0                          | 256  | 0     | 0 | 0                     | 0    | 0     | 12 | 0                     | 0    | 0     | 0 | 336   |               |
| Heavy Trucks                     | 0                          | 0    | 0     | 0 | 0                          | 0    | 0     | 0 | 0                     | 0    | 0     | 0  | 0                     | 0    | 0     | 0 | 0     |               |
| Pedestrians                      | 0                          | 0    | 0     | 0 | 0                          | 0    | 0     | 0 | 0                     | 0    | 0     | 0  | 0                     | 0    | 0     | 0 | 0     |               |
| Bicycles                         | 0                          | 0    | 0     | 0 | 0                          | 0    | 0     | 0 | 0                     | 0    | 0     | 0  | 0                     | 0    | 0     | 0 | 0     |               |
| Railroad                         |                            |      |       |   |                            |      |       |   |                       |      |       |    |                       |      |       |   |       |               |
| Stopped Buses                    |                            |      |       |   |                            |      |       |   |                       |      |       |    |                       |      |       |   |       |               |

Comments:

**LOCATION:** Salt Creek Ln -- Access Rd  
**CITY/STATE:** Arlington Heights, IL

**QC JOB #:** 13424403  
**DATE:** Sat, Jun 20 2015

**Peak-Hour: 11:30 AM -- 12:30 PM**  
**Peak 15-Min: 12:15 PM -- 12:30 PM**

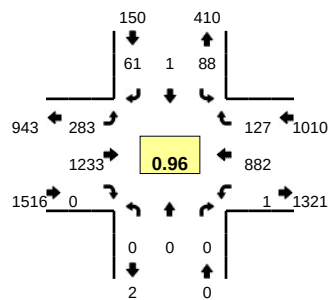


| 15-Min Count Period Beginning At | Salt Creek Ln (Northbound) |      |       |   | Salt Creek Ln (Southbound) |      |       |   | Access Rd (Eastbound) |      |       |   | Access Rd (Westbound) |      |       |   | Total | Hourly Totals |
|----------------------------------|----------------------------|------|-------|---|----------------------------|------|-------|---|-----------------------|------|-------|---|-----------------------|------|-------|---|-------|---------------|
|                                  | Left                       | Thru | Right | U | Left                       | Thru | Right | U | Left                  | Thru | Right | U | Left                  | Thru | Right | U |       |               |
| 11:00 AM                         | 0                          | 6    | 0     | 0 | 0                          | 12   | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 18    |               |
| 11:15 AM                         | 1                          | 14   | 0     | 0 | 0                          | 11   | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 26    |               |
| 11:30 AM                         | 1                          | 8    | 0     | 0 | 0                          | 12   | 0     | 0 | 0                     | 0    | 0     | 1 | 0                     | 0    | 0     | 0 | 22    |               |
| 11:45 AM                         | 0                          | 11   | 0     | 0 | 0                          | 14   | 0     | 0 | 0                     | 0    | 0     | 1 | 0                     | 0    | 0     | 0 | 26    | 92            |
| 12:00 PM                         | 0                          | 10   | 0     | 0 | 0                          | 12   | 0     | 0 | 0                     | 0    | 0     | 2 | 0                     | 0    | 0     | 0 | 24    | 98            |
| 12:15 PM                         | 0                          | 9    | 0     | 1 | 0                          | 16   | 0     | 0 | 0                     | 0    | 0     | 1 | 0                     | 0    | 0     | 0 | 27    | 99            |
| 12:30 PM                         | 0                          | 6    | 0     | 0 | 0                          | 8    | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 14    | 91            |
| 12:45 PM                         | 3                          | 9    | 0     | 0 | 0                          | 7    | 0     | 0 | 1                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 20    | 85            |
|                                  |                            |      |       |   |                            |      |       |   |                       |      |       |   |                       |      |       |   |       |               |
| Peak 15-Min Flowrates            | Northbound                 |      |       |   | Southbound                 |      |       |   | Eastbound             |      |       |   | Westbound             |      |       |   | Total |               |
|                                  | Left                       | Thru | Right | U | Left                       | Thru | Right | U | Left                  | Thru | Right | U | Left                  | Thru | Right | U |       |               |
| All Vehicles                     | 0                          | 36   | 0     | 4 | 0                          | 64   | 0     | 0 | 0                     | 0    | 4     | 0 | 0                     | 0    | 0     | 0 | 108   |               |
| Heavy Trucks                     | 0                          | 0    | 0     |   | 0                          | 0    | 0     |   | 0                     | 0    | 0     |   | 0                     | 0    | 0     |   | 0     |               |
| Pedestrians                      | 0                          |      |       |   | 0                          |      |       |   | 0                     |      |       |   | 0                     |      |       |   | 0     |               |
| Bicycles                         | 1                          | 0    | 0     |   | 0                          | 0    | 0     |   | 0                     | 0    | 0     |   | 0                     | 0    | 0     |   | 1     |               |
| Railroad                         |                            |      |       |   |                            |      |       |   |                       |      |       |   |                       |      |       |   |       |               |
| Stopped Buses                    |                            |      |       |   |                            |      |       |   |                       |      |       |   |                       |      |       |   |       |               |

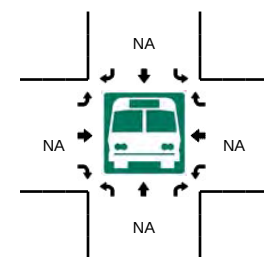
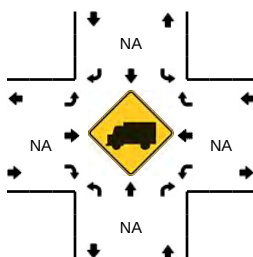
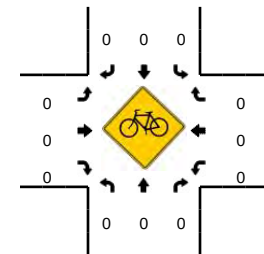
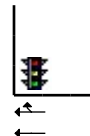
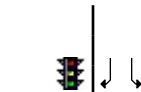
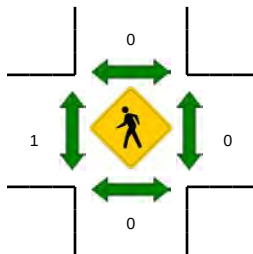
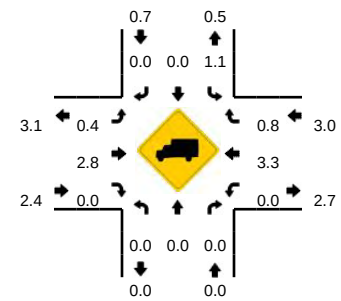
**Comments:**

**LOCATION:** Salt Creek Ln -- Euclid Ave  
**CITY/STATE:** Rolling Meadows, IL

**QC JOB #:** 13424404  
**DATE:** Tue, Jun 23 2015



**Peak-Hour: 7:30 AM -- 8:30 AM**  
**Peak 15-Min: 7:30 AM -- 7:45 AM**



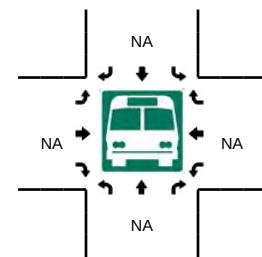
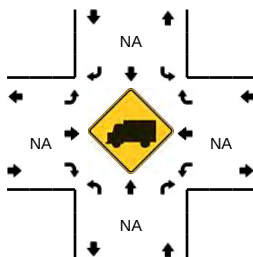
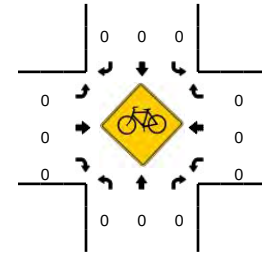
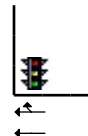
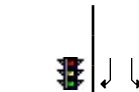
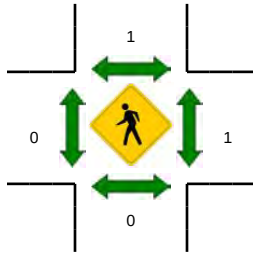
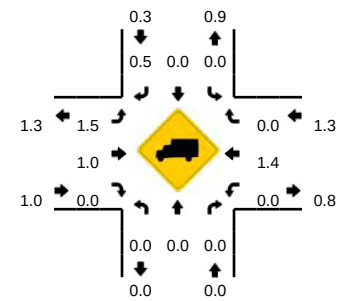
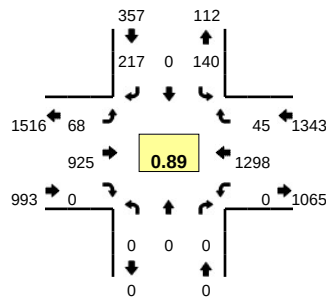
| 15-Min Count Period Beginning At | Salt Creek Ln (Northbound) |      |       |   | Salt Creek Ln (Southbound) |      |       |   | Euclid Ave (Eastbound) |      |       |   | Euclid Ave (Westbound) |      |       |   | Total | Hourly Totals |
|----------------------------------|----------------------------|------|-------|---|----------------------------|------|-------|---|------------------------|------|-------|---|------------------------|------|-------|---|-------|---------------|
|                                  | Left                       | Thru | Right | U | Left                       | Thru | Right | U | Left                   | Thru | Right | U | Left                   | Thru | Right | U |       |               |
| 7:00 AM                          | 0                          | 0    | 0     | 0 | 15                         | 0    | 13    | 0 | 68                     | 269  | 0     | 0 | 0                      | 160  | 13    | 0 | 538   |               |
| 7:15 AM                          | 0                          | 0    | 0     | 0 | 18                         | 0    | 20    | 0 | 64                     | 273  | 0     | 0 | 0                      | 203  | 21    | 0 | 599   |               |
| 7:30 AM                          | 0                          | 0    | 0     | 0 | 22                         | 1    | 15    | 0 | 70                     | 324  | 0     | 0 | 0                      | 249  | 18    | 0 | 699   |               |
| 7:45 AM                          | 0                          | 0    | 0     | 0 | 19                         | 0    | 11    | 0 | 75                     | 304  | 0     | 0 | 0                      | 229  | 49    | 0 | 687   | 2523          |
| 8:00 AM                          | 0                          | 0    | 0     | 0 | 27                         | 0    | 20    | 0 | 68                     | 300  | 0     | 0 | 1                      | 213  | 42    | 0 | 671   | 2656          |
| 8:15 AM                          | 0                          | 0    | 0     | 0 | 20                         | 0    | 15    | 0 | 70                     | 305  | 0     | 0 | 0                      | 191  | 18    | 0 | 619   | 2676          |
| 8:30 AM                          | 0                          | 0    | 0     | 0 | 23                         | 0    | 26    | 0 | 77                     | 319  | 0     | 1 | 0                      | 217  | 12    | 0 | 675   | 2652          |
| 8:45 AM                          | 0                          | 0    | 0     | 0 | 26                         | 0    | 17    | 0 | 60                     | 330  | 0     | 0 | 0                      | 145  | 23    | 0 | 601   | 2566          |
|                                  |                            |      |       |   |                            |      |       |   |                        |      |       |   |                        |      |       |   |       |               |
| Peak 15-Min Flowrates            | Northbound                 |      |       |   | Southbound                 |      |       |   | Eastbound              |      |       |   | Westbound              |      |       |   | Total |               |
|                                  | Left                       | Thru | Right | U | Left                       | Thru | Right | U | Left                   | Thru | Right | U | Left                   | Thru | Right | U |       |               |
| All Vehicles                     | 0                          | 0    | 0     | 0 | 88                         | 4    | 60    | 0 | 280                    | 1296 | 0     | 0 | 0                      | 996  | 72    | 0 | 2796  |               |
| Heavy Trucks                     | 0                          | 0    | 0     | 0 | 0                          | 0    | 0     | 0 | 0                      | 24   | 0     | 0 | 0                      | 24   | 0     | 0 | 48    |               |
| Pedestrians                      | 0                          | 0    | 0     | 0 | 0                          | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0     |               |
| Bicycles                         | 0                          | 0    | 0     | 0 | 0                          | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0     |               |
| Railroad                         | 0                          | 0    | 0     | 0 | 0                          | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0     |               |
| Stopped Buses                    | 0                          | 0    | 0     | 0 | 0                          | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0     |               |

**Comments:**

**LOCATION:** Salt Creek Ln -- Euclid Ave  
**CITY/STATE:** Rolling Meadows, IL

**QC JOB #:** 13424405  
**DATE:** Tue, Jun 23 2015

**Peak-Hour: 4:30 PM -- 5:30 PM**  
**Peak 15-Min: 4:30 PM -- 4:45 PM**



| 15-Min Count Period Beginning At | Salt Creek Ln (Northbound) |      |       |   | Salt Creek Ln (Southbound) |      |       |   | Euclid Ave (Eastbound) |      |       |   | Euclid Ave (Westbound) |      |       |   | Total | Hourly Totals |
|----------------------------------|----------------------------|------|-------|---|----------------------------|------|-------|---|------------------------|------|-------|---|------------------------|------|-------|---|-------|---------------|
|                                  | Left                       | Thru | Right | U | Left                       | Thru | Right | U | Left                   | Thru | Right | U | Left                   | Thru | Right | U |       |               |
| 4:00 PM                          | 0                          | 0    | 0     | 0 | 44                         | 0    | 77    | 0 | 19                     | 211  | 0     | 0 | 0                      | 298  | 9     | 0 | 658   |               |
| 4:15 PM                          | 0                          | 0    | 0     | 0 | 28                         | 0    | 55    | 0 | 17                     | 206  | 0     | 0 | 0                      | 281  | 6     | 0 | 593   |               |
| 4:30 PM                          | 0                          | 0    | 0     | 0 | 36                         | 0    | 61    | 0 | 19                     | 249  | 0     | 0 | 0                      | 376  | 13    | 0 | 754   |               |
| 4:45 PM                          | 0                          | 0    | 0     | 0 | 34                         | 0    | 50    | 0 | 19                     | 196  | 0     | 0 | 0                      | 288  | 10    | 0 | 597   | 2602          |
| 5:00 PM                          | 0                          | 0    | 0     | 0 | 41                         | 0    | 62    | 0 | 13                     | 231  | 0     | 0 | 0                      | 329  | 12    | 0 | 688   | 2632          |
| 5:15 PM                          | 0                          | 0    | 0     | 0 | 29                         | 0    | 44    | 0 | 16                     | 249  | 0     | 1 | 0                      | 305  | 10    | 0 | 654   | 2693          |
| 5:30 PM                          | 0                          | 0    | 0     | 0 | 25                         | 0    | 40    | 0 | 7                      | 231  | 0     | 0 | 0                      | 338  | 6     | 0 | 647   | 2586          |
| 5:45 PM                          | 0                          | 0    | 0     | 0 | 20                         | 0    | 29    | 0 | 10                     | 233  | 0     | 0 | 0                      | 330  | 8     | 0 | 630   | 2619          |
|                                  |                            |      |       |   |                            |      |       |   |                        |      |       |   |                        |      |       |   |       |               |
| Peak 15-Min Flowrates            | Northbound                 |      |       |   | Southbound                 |      |       |   | Eastbound              |      |       |   | Westbound              |      |       |   | Total |               |
|                                  | Left                       | Thru | Right | U | Left                       | Thru | Right | U | Left                   | Thru | Right | U | Left                   | Thru | Right | U |       |               |
| All Vehicles                     | 0                          | 0    | 0     | 0 | 144                        | 0    | 244   | 0 | 76                     | 996  | 0     | 0 | 0                      | 1504 | 52    | 0 | 3016  |               |
| Heavy Trucks                     | 0                          | 0    | 0     | 0 | 0                          | 0    | 4     | 0 | 0                      | 4    | 0     | 0 | 0                      | 36   | 0     | 0 | 44    |               |
| Pedestrians                      | 0                          | 0    | 0     | 0 | 0                          | 4    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 4    | 0     | 0 | 8     |               |
| Bicycles                         | 0                          | 0    | 0     | 0 | 0                          | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0     |               |
| Railroad                         | 0                          | 0    | 0     | 0 | 0                          | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0     |               |
| Stopped Buses                    | 0                          | 0    | 0     | 0 | 0                          | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0     |               |

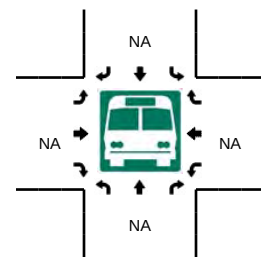
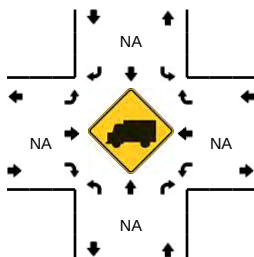
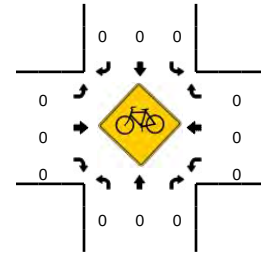
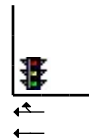
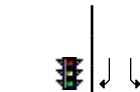
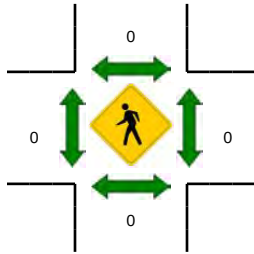
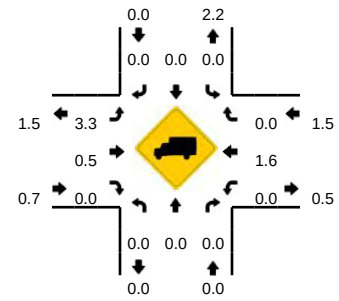
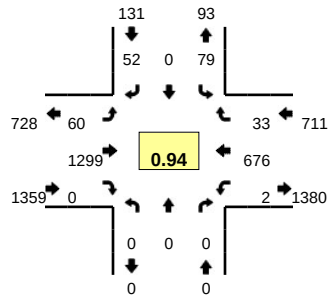
**Comments:**



**LOCATION:** Salt Creek Ln -- Euclid Ave  
**CITY/STATE:** Rolling Meadows, IL

**QC JOB #:** 13424406  
**DATE:** Sat, Jun 20 2015

**Peak-Hour: 12:00 PM -- 1:00 PM**  
**Peak 15-Min: 12:15 PM -- 12:30 PM**



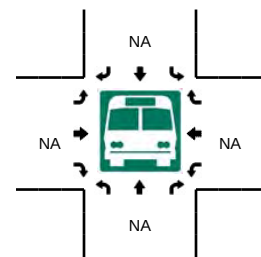
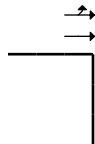
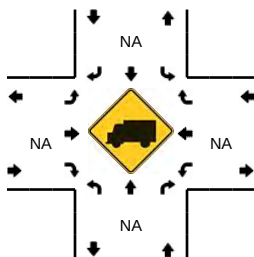
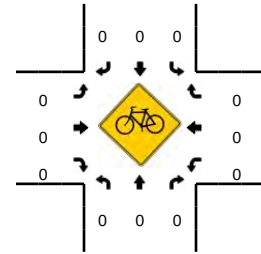
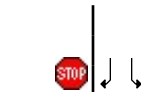
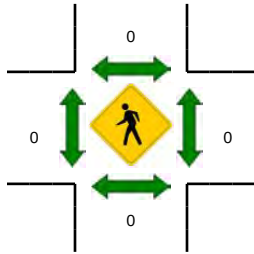
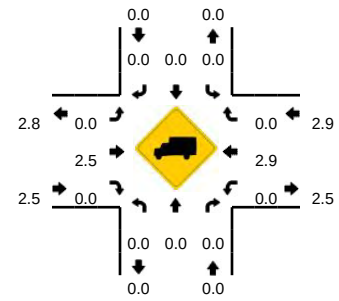
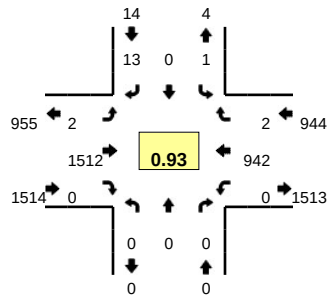
| 15-Min Count Period Beginning At | Salt Creek Ln (Northbound) |      |       |   | Salt Creek Ln (Southbound) |      |       |   | Euclid Ave (Eastbound) |      |       |   | Euclid Ave (Westbound) |      |       |   | Total | Hourly Totals |
|----------------------------------|----------------------------|------|-------|---|----------------------------|------|-------|---|------------------------|------|-------|---|------------------------|------|-------|---|-------|---------------|
|                                  | Left                       | Thru | Right | U | Left                       | Thru | Right | U | Left                   | Thru | Right | U | Left                   | Thru | Right | U |       |               |
| 11:00 AM                         | 0                          | 0    | 0     | 0 | 18                         | 0    | 11    | 0 | 15                     | 167  | 0     | 0 | 0                      | 157  | 6     | 0 | 374   | 1774          |
| 11:15 AM                         | 0                          | 0    | 0     | 0 | 19                         | 0    | 11    | 0 | 18                     | 200  | 0     | 0 | 0                      | 162  | 12    | 0 | 422   |               |
| 11:30 AM                         | 0                          | 0    | 0     | 0 | 30                         | 0    | 21    | 0 | 19                     | 228  | 0     | 0 | 0                      | 166  | 5     | 0 | 469   |               |
| 11:45 AM                         | 0                          | 0    | 0     | 0 | 22                         | 0    | 14    | 0 | 16                     | 285  | 0     | 0 | 0                      | 166  | 6     | 0 | 509   |               |
| 12:00 PM                         | 0                          | 0    | 0     | 0 | 19                         | 0    | 10    | 0 | 14                     | 272  | 0     | 0 | 0                      | 160  | 10    | 0 | 485   | 1885          |
| 12:15 PM                         | 0                          | 0    | 0     | 0 | 21                         | 0    | 18    | 0 | 16                     | 347  | 0     | 0 | 0                      | 178  | 7     | 1 | 588   | 2051          |
| 12:30 PM                         | 0                          | 0    | 0     | 0 | 23                         | 0    | 16    | 0 | 16                     | 336  | 0     | 0 | 0                      | 172  | 6     | 1 | 570   | 2152          |
| 12:45 PM                         | 0                          | 0    | 0     | 0 | 16                         | 0    | 8     | 0 | 14                     | 344  | 0     | 0 | 0                      | 166  | 10    | 0 | 558   | 2201          |
|                                  |                            |      |       |   |                            |      |       |   |                        |      |       |   |                        |      |       |   |       |               |
| Peak 15-Min Flowrates            | Northbound                 |      |       |   | Southbound                 |      |       |   | Eastbound              |      |       |   | Westbound              |      |       |   | Total |               |
|                                  | Left                       | Thru | Right | U | Left                       | Thru | Right | U | Left                   | Thru | Right | U | Left                   | Thru | Right | U |       |               |
| All Vehicles                     | 0                          | 0    | 0     | 0 | 84                         | 0    | 72    | 0 | 64                     | 1388 | 0     | 0 | 0                      | 712  | 28    | 4 | 2352  |               |
| Heavy Trucks                     | 0                          | 0    | 0     | 0 | 0                          | 0    | 0     | 0 | 0                      | 8    | 0     | 0 | 0                      | 16   | 0     | 0 | 24    |               |
| Pedestrians                      | 0                          | 0    | 0     | 0 | 0                          | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0     |               |
| Bicycles                         | 0                          | 0    | 0     | 0 | 0                          | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0     |               |
| Railroad                         |                            |      |       |   |                            |      |       |   |                        |      |       |   |                        |      |       |   |       |               |
| Stopped Buses                    |                            |      |       |   |                            |      |       |   |                        |      |       |   |                        |      |       |   |       |               |

Comments:

**LOCATION:** Access Rd -- Euclid Ave  
**CITY/STATE:** Rolling Meadows, IL

**QC JOB #:** 13424407  
**DATE:** Tue, Jun 23 2015

**Peak-Hour: 7:30 AM -- 8:30 AM**  
**Peak 15-Min: 7:30 AM -- 7:45 AM**



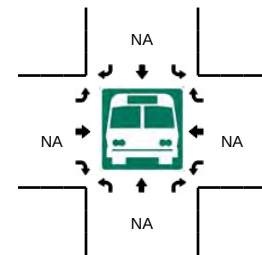
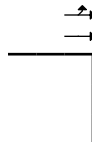
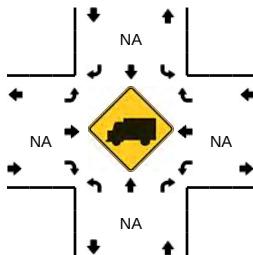
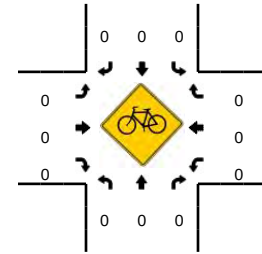
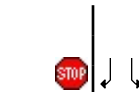
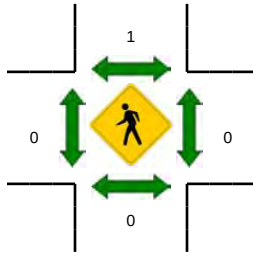
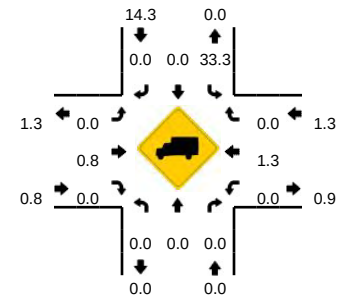
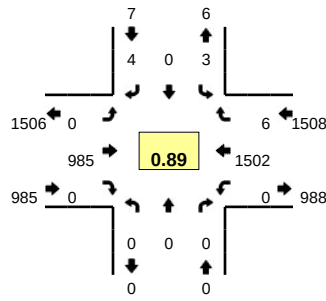
| 15-Min Count Period Beginning At | Access Rd (Northbound) |      |       |   | Access Rd (Southbound) |      |       |   | Euclid Ave (Eastbound) |      |       |   | Euclid Ave (Westbound) |      |       |   | Total | Hourly Totals |
|----------------------------------|------------------------|------|-------|---|------------------------|------|-------|---|------------------------|------|-------|---|------------------------|------|-------|---|-------|---------------|
|                                  | Left                   | Thru | Right | U | Left                   | Thru | Right | U | Left                   | Thru | Right | U | Left                   | Thru | Right | U |       |               |
| 7:00 AM                          | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 347  | 0     | 0 | 0                      | 168  | 2     | 0 | 517   |               |
| 7:15 AM                          | 0                      | 0    | 0     | 0 | 0                      | 0    | 4     | 0 | 0                      | 325  | 0     | 0 | 0                      | 219  | 0     | 0 | 548   |               |
| 7:30 AM                          | 0                      | 0    | 0     | 0 | 0                      | 0    | 2     | 0 | 1                      | 395  | 0     | 0 | 0                      | 267  | 0     | 0 | 665   |               |
| 7:45 AM                          | 0                      | 0    | 0     | 0 | 1                      | 0    | 5     | 0 | 0                      | 368  | 0     | 0 | 0                      | 245  | 1     | 0 | 620   | 2350          |
| 8:00 AM                          | 0                      | 0    | 0     | 0 | 0                      | 0    | 2     | 0 | 0                      | 370  | 0     | 0 | 0                      | 226  | 0     | 0 | 598   | 2431          |
| 8:15 AM                          | 0                      | 0    | 0     | 0 | 0                      | 0    | 4     | 0 | 1                      | 379  | 0     | 0 | 0                      | 204  | 1     | 0 | 589   | 2472          |
| 8:30 AM                          | 0                      | 0    | 0     | 0 | 0                      | 0    | 1     | 1 | 1                      | 402  | 0     | 0 | 0                      | 232  | 0     | 0 | 637   | 2444          |
| 8:45 AM                          | 0                      | 0    | 0     | 0 | 1                      | 0    | 1     | 0 | 1                      | 388  | 0     | 0 | 0                      | 168  | 1     | 0 | 560   | 2384          |
|                                  |                        |      |       |   |                        |      |       |   |                        |      |       |   |                        |      |       |   |       |               |
| Peak 15-Min Flowrates            | Northbound             |      |       |   | Southbound             |      |       |   | Eastbound              |      |       |   | Westbound              |      |       |   | Total |               |
|                                  | Left                   | Thru | Right | U | Left                   | Thru | Right | U | Left                   | Thru | Right | U | Left                   | Thru | Right | U |       |               |
| All Vehicles                     | 0                      | 0    | 0     | 0 | 0                      | 0    | 8     | 0 | 4                      | 1580 | 0     | 0 | 0                      | 1068 | 0     | 0 | 2660  |               |
| Heavy Trucks                     | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 28   | 0     | 0 | 0                      | 20   | 0     | 0 | 48    |               |
| Pedestrians                      | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0     |               |
| Bicycles                         | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0     |               |
| Railroad                         | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0     |               |
| Stopped Buses                    | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0     |               |

**Comments:**

**LOCATION:** Access Rd -- Euclid Ave  
**CITY/STATE:** Rolling Meadows, IL

**QC JOB #:** 13424408  
**DATE:** Tue, Jun 23 2015

**Peak-Hour: 4:30 PM -- 5:30 PM**  
**Peak 15-Min: 4:30 PM -- 4:45 PM**



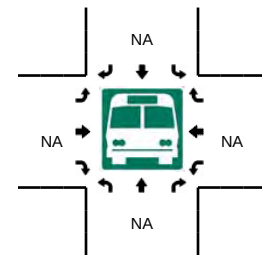
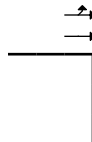
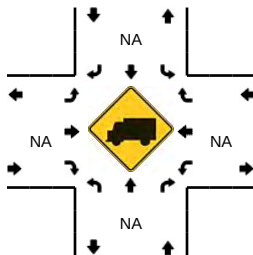
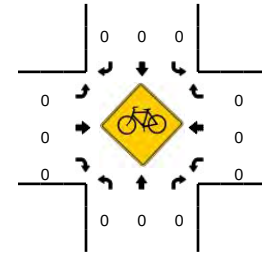
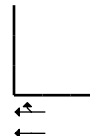
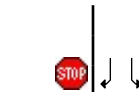
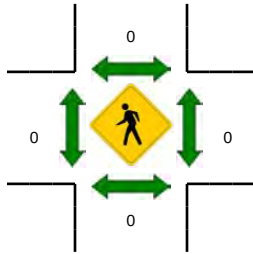
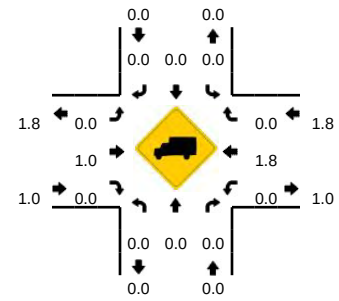
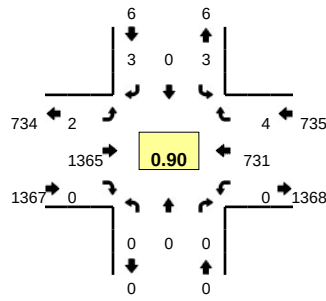
| 15-Min Count Period Beginning At | Access Rd (Northbound) |      |       |   | Access Rd (Southbound) |      |       |   | Euclid Ave (Eastbound) |      |       |   | Euclid Ave (Westbound) |      |       |   | Total | Hourly Totals |
|----------------------------------|------------------------|------|-------|---|------------------------|------|-------|---|------------------------|------|-------|---|------------------------|------|-------|---|-------|---------------|
|                                  | Left                   | Thru | Right | U | Left                   | Thru | Right | U | Left                   | Thru | Right | U | Left                   | Thru | Right | U |       |               |
| 4:00 PM                          | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 228  | 0     | 0 | 0                      | 368  | 0     | 0 | 596   |               |
| 4:15 PM                          | 0                      | 0    | 0     | 0 | 2                      | 0    | 0     | 0 | 0                      | 225  | 0     | 0 | 0                      | 343  | 2     | 0 | 572   |               |
| 4:30 PM                          | 0                      | 0    | 0     | 0 | 1                      | 0    | 1     | 0 | 0                      | 266  | 0     | 0 | 0                      | 429  | 3     | 0 | 700   |               |
| 4:45 PM                          | 0                      | 0    | 0     | 0 | 1                      | 0    | 1     | 0 | 0                      | 222  | 0     | 0 | 0                      | 339  | 1     | 0 | 564   | 2432          |
| 5:00 PM                          | 0                      | 0    | 0     | 0 | 1                      | 0    | 0     | 0 | 0                      | 229  | 0     | 0 | 0                      | 387  | 0     | 0 | 617   | 2453          |
| 5:15 PM                          | 0                      | 0    | 0     | 0 | 0                      | 0    | 2     | 0 | 0                      | 268  | 0     | 0 | 0                      | 347  | 2     | 0 | 619   | 2500          |
| 5:30 PM                          | 0                      | 0    | 0     | 0 | 0                      | 0    | 1     | 0 | 1                      | 231  | 0     | 0 | 0                      | 379  | 1     | 0 | 613   | 2413          |
| 5:45 PM                          | 0                      | 0    | 0     | 0 | 0                      | 0    | 1     | 0 | 2                      | 245  | 0     | 0 | 0                      | 357  | 1     | 0 | 606   | 2455          |
|                                  |                        |      |       |   |                        |      |       |   |                        |      |       |   |                        |      |       |   |       |               |
| Peak 15-Min Flowrates            | Northbound             |      |       |   | Southbound             |      |       |   | Eastbound              |      |       |   | Westbound              |      |       |   | Total |               |
|                                  | Left                   | Thru | Right | U | Left                   | Thru | Right | U | Left                   | Thru | Right | U | Left                   | Thru | Right | U |       |               |
| All Vehicles                     | 0                      | 0    | 0     | 0 | 4                      | 0    | 4     | 0 | 0                      | 1064 | 0     | 0 | 0                      | 1716 | 12    | 0 | 2800  |               |
| Heavy Trucks                     | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 36   | 0     | 0 | 36    |               |
| Pedestrians                      | 0                      | 0    | 0     | 0 | 0                      | 4    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 4     |               |
| Bicycles                         | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0     |               |
| Railroad                         | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0     |               |
| Stopped Buses                    | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0     |               |

**Comments:**

**LOCATION:** Access Rd -- Euclid Ave  
**CITY/STATE:** Rolling Meadows, IL

**QC JOB #:** 13424409  
**DATE:** Sat, Jun 20 2015

**Peak-Hour: 12:00 PM -- 1:00 PM**  
**Peak 15-Min: 12:15 PM -- 12:30 PM**



| 15-Min Count<br>Period<br>Beginning At | Access Rd<br>(Northbound) |      |       |   | Access Rd<br>(Southbound) |      |       |   | Euclid Ave<br>(Eastbound) |      |       |   | Euclid Ave<br>(Westbound) |      |       |   | Total | Hourly<br>Totals |
|----------------------------------------|---------------------------|------|-------|---|---------------------------|------|-------|---|---------------------------|------|-------|---|---------------------------|------|-------|---|-------|------------------|
|                                        | Left                      | Thru | Right | U | Left                      | Thru | Right | U | Left                      | Thru | Right | U | Left                      | Thru | Right | U |       |                  |
| 11:00 AM                               | 0                         | 0    | 0     | 0 | 0                         | 0    | 0     | 0 | 1                         | 189  | 0     | 0 | 0                         | 164  | 2     | 0 | 356   | 1650             |
| 11:15 AM                               | 0                         | 0    | 0     | 0 | 0                         | 0    | 2     | 0 | 0                         | 219  | 0     | 0 | 0                         | 171  | 1     | 0 | 393   |                  |
| 11:30 AM                               | 0                         | 0    | 0     | 0 | 0                         | 0    | 0     | 0 | 0                         | 235  | 0     | 0 | 0                         | 184  | 0     | 0 | 419   |                  |
| 11:45 AM                               | 0                         | 0    | 0     | 0 | 1                         | 0    | 1     | 0 | 0                         | 301  | 0     | 0 | 0                         | 177  | 2     | 0 | 482   |                  |
| 12:00 PM                               | 0                         | 0    | 0     | 0 | 0                         | 0    | 2     | 0 | 0                         | 291  | 0     | 0 | 0                         | 164  | 0     | 0 | 457   | 1751             |
| 12:15 PM                               | 0                         | 0    | 0     | 0 | 1                         | 0    | 1     | 0 | 2                         | 380  | 0     | 0 | 0                         | 198  | 3     | 0 | 585   | 1943             |
| 12:30 PM                               | 0                         | 0    | 0     | 0 | 2                         | 0    | 0     | 0 | 0                         | 351  | 0     | 0 | 0                         | 192  | 1     | 0 | 546   | 2070             |
| 12:45 PM                               | 0                         | 0    | 0     | 0 | 0                         | 0    | 0     | 0 | 0                         | 343  | 0     | 0 | 0                         | 177  | 0     | 0 | 520   | 2108             |
|                                        |                           |      |       |   |                           |      |       |   |                           |      |       |   |                           |      |       |   |       |                  |
| Peak 15-Min<br>Flowrates               | Northbound                |      |       |   | Southbound                |      |       |   | Eastbound                 |      |       |   | Westbound                 |      |       |   | Total |                  |
|                                        | Left                      | Thru | Right | U | Left                      | Thru | Right | U | Left                      | Thru | Right | U | Left                      | Thru | Right | U |       |                  |
| All Vehicles                           | 0                         | 0    | 0     | 0 | 4                         | 0    | 4     | 0 | 8                         | 1520 | 0     | 0 | 0                         | 792  | 12    | 0 | 2340  |                  |
| Heavy Trucks                           | 0                         | 0    | 0     | 0 | 0                         | 0    | 0     | 0 | 0                         | 12   | 0     | 0 | 0                         | 24   | 0     | 0 | 36    |                  |
| Pedestrians                            | 0                         | 0    | 0     | 0 | 0                         | 0    | 0     | 0 | 0                         | 0    | 0     | 0 | 0                         | 0    | 0     | 0 | 0     |                  |
| Bicycles                               | 0                         | 0    | 0     | 0 | 0                         | 0    | 0     | 0 | 0                         | 0    | 0     | 0 | 0                         | 0    | 0     | 0 | 0     |                  |
| Railroad                               |                           |      |       |   |                           |      |       |   |                           |      |       |   |                           |      |       |   |       |                  |
| Stopped Buses                          |                           |      |       |   |                           |      |       |   |                           |      |       |   |                           |      |       |   |       |                  |

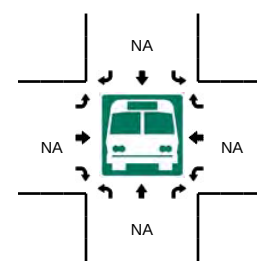
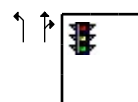
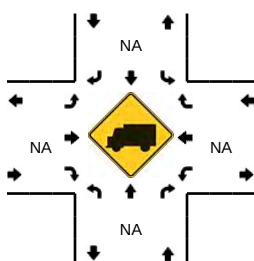
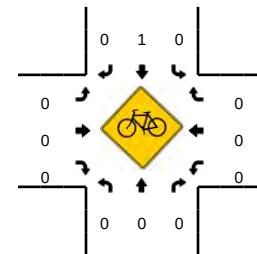
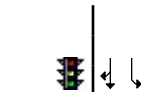
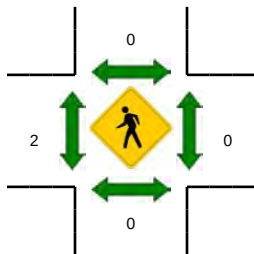
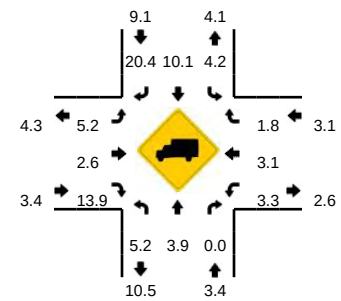
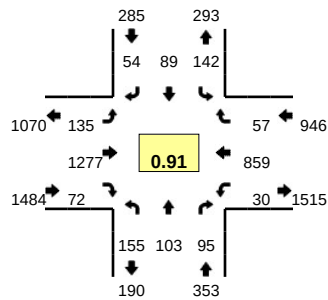
**Comments:**



**LOCATION:** Rohlwing Rd -- Euclid Ave  
**CITY/STATE:** Rolling Meadows, IL

**QC JOB #:** 13424410  
**DATE:** Tue, Jun 23 2015

**Peak-Hour: 7:30 AM -- 8:30 AM**  
**Peak 15-Min: 7:30 AM -- 7:45 AM**



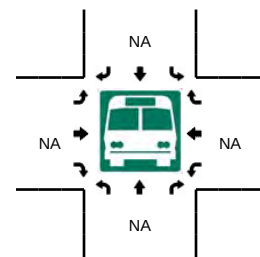
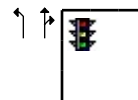
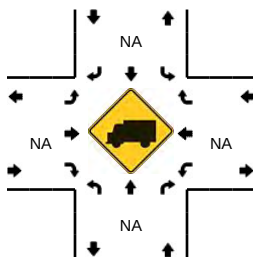
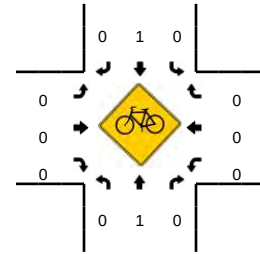
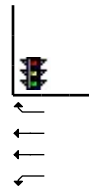
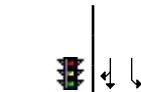
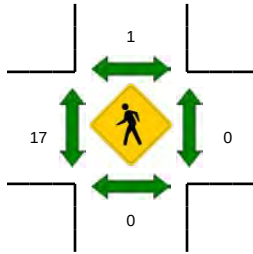
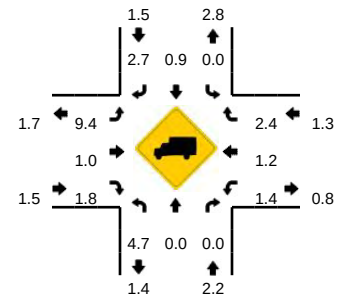
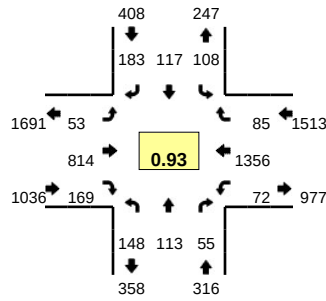
| 15-Min Count Period Beginning At | Rohlwing Rd (Northbound) |      |       |   | Rohlwing Rd (Southbound) |      |       |   | Euclid Ave (Eastbound) |      |       |   | Euclid Ave (Westbound) |      |       |   | Total | Hourly Totals |
|----------------------------------|--------------------------|------|-------|---|--------------------------|------|-------|---|------------------------|------|-------|---|------------------------|------|-------|---|-------|---------------|
|                                  | Left                     | Thru | Right | U | Left                     | Thru | Right | U | Left                   | Thru | Right | U | Left                   | Thru | Right | U |       |               |
| 7:00 AM                          | 35                       | 25   | 23    | 0 | 18                       | 18   | 10    | 0 | 34                     | 304  | 18    | 0 | 7                      | 148  | 14    | 0 | 654   |               |
| 7:15 AM                          | 45                       | 25   | 16    | 0 | 26                       | 31   | 6     | 0 | 39                     | 277  | 21    | 1 | 1                      | 194  | 18    | 0 | 700   |               |
| 7:30 AM                          | 54                       | 22   | 32    | 0 | 38                       | 31   | 16    | 0 | 30                     | 335  | 27    | 0 | 6                      | 241  | 13    | 0 | 845   |               |
| 7:45 AM                          | 28                       | 30   | 21    | 0 | 40                       | 18   | 12    | 0 | 38                     | 309  | 21    | 0 | 12                     | 226  | 24    | 0 | 779   | 2978          |
| 8:00 AM                          | 38                       | 22   | 18    | 0 | 29                       | 18   | 13    | 0 | 25                     | 317  | 10    | 1 | 6                      | 203  | 9     | 1 | 710   | 3034          |
| 8:15 AM                          | 35                       | 29   | 24    | 0 | 35                       | 22   | 13    | 0 | 40                     | 316  | 14    | 1 | 5                      | 189  | 11    | 0 | 734   | 3068          |
| 8:30 AM                          | 30                       | 20   | 15    | 0 | 26                       | 26   | 9     | 0 | 27                     | 355  | 18    | 0 | 5                      | 228  | 19    | 0 | 778   | 3001          |
| 8:45 AM                          | 34                       | 33   | 17    | 0 | 21                       | 28   | 22    | 0 | 38                     | 350  | 24    | 0 | 11                     | 154  | 7     | 0 | 739   | 2961          |
|                                  |                          |      |       |   |                          |      |       |   |                        |      |       |   |                        |      |       |   |       |               |
| Peak 15-Min Flowrates            | Northbound               |      |       |   | Southbound               |      |       |   | Eastbound              |      |       |   | Westbound              |      |       |   | Total |               |
|                                  | Left                     | Thru | Right | U | Left                     | Thru | Right | U | Left                   | Thru | Right | U | Left                   | Thru | Right | U |       |               |
| All Vehicles                     | 216                      | 88   | 128   | 0 | 152                      | 124  | 64    | 0 | 120                    | 1340 | 108   | 0 | 24                     | 964  | 52    | 0 | 3380  |               |
| Heavy Trucks                     | 8                        | 4    | 0     |   | 4                        | 12   | 12    |   | 8                      | 28   | 8     |   | 0                      | 20   | 4     |   | 108   |               |
| Pedestrians                      | 0                        |      |       |   | 0                        |      |       |   | 4                      |      |       |   | 0                      |      |       |   | 4     |               |
| Bicycles                         | 0                        | 0    | 0     |   | 0                        | 0    | 0     |   | 0                      | 0    | 0     |   | 0                      | 0    | 0     |   | 0     |               |
| Railroad                         |                          |      |       |   |                          |      |       |   |                        |      |       |   |                        |      |       |   |       |               |
| Stopped Buses                    |                          |      |       |   |                          |      |       |   |                        |      |       |   |                        |      |       |   |       |               |

Comments:

**LOCATION:** Rohlwing Rd -- Euclid Ave  
**CITY/STATE:** Rolling Meadows, IL

**QC JOB #:** 13424411  
**DATE:** Tue, Jun 23 2015

**Peak-Hour: 4:30 PM -- 5:30 PM**  
**Peak 15-Min: 4:30 PM -- 4:45 PM**



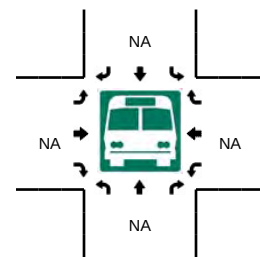
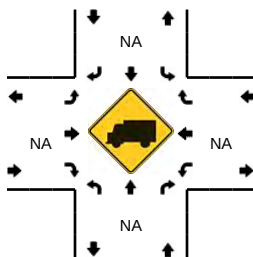
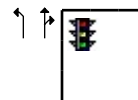
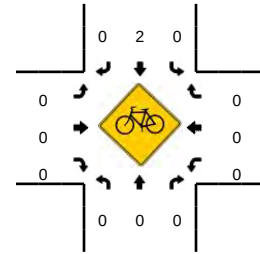
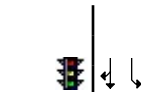
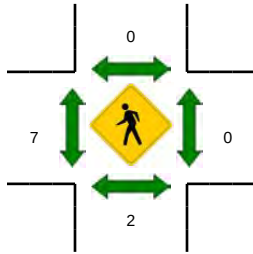
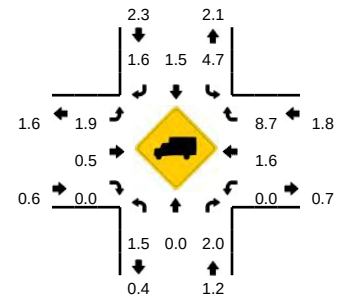
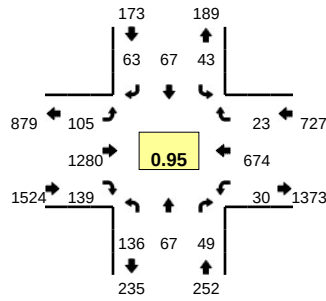
| 15-Min Count Period Beginning At | Rohlwing Rd (Northbound) |      |       |   | Rohlwing Rd (Southbound) |      |       |   | Euclid Ave (Eastbound) |      |       |   | Euclid Ave (Westbound) |      |       |   | Total | Hourly Totals |
|----------------------------------|--------------------------|------|-------|---|--------------------------|------|-------|---|------------------------|------|-------|---|------------------------|------|-------|---|-------|---------------|
|                                  | Left                     | Thru | Right | U | Left                     | Thru | Right | U | Left                   | Thru | Right | U | Left                   | Thru | Right | U |       |               |
| 4:00 PM                          | 39                       | 19   | 8     | 0 | 33                       | 26   | 60    | 0 | 15                     | 190  | 48    | 0 | 10                     | 324  | 27    | 0 | 799   |               |
| 4:15 PM                          | 30                       | 16   | 12    | 0 | 13                       | 20   | 31    | 0 | 12                     | 210  | 30    | 0 | 9                      | 321  | 16    | 0 | 720   |               |
| 4:30 PM                          | 32                       | 25   | 9     | 0 | 29                       | 21   | 50    | 0 | 14                     | 217  | 51    | 0 | 18                     | 393  | 20    | 0 | 879   |               |
| 4:45 PM                          | 36                       | 29   | 13    | 0 | 26                       | 33   | 48    | 0 | 11                     | 181  | 39    | 1 | 16                     | 306  | 16    | 0 | 755   | 3153          |
| 5:00 PM                          | 35                       | 38   | 13    | 0 | 29                       | 45   | 59    | 0 | 11                     | 187  | 34    | 2 | 15                     | 320  | 25    | 0 | 813   | 3167          |
| 5:15 PM                          | 45                       | 21   | 20    | 0 | 24                       | 18   | 26    | 0 | 13                     | 229  | 45    | 1 | 23                     | 337  | 24    | 0 | 826   | 3273          |
| 5:30 PM                          | 44                       | 26   | 11    | 0 | 31                       | 42   | 26    | 0 | 12                     | 188  | 40    | 2 | 19                     | 297  | 23    | 0 | 761   | 3155          |
| 5:45 PM                          | 39                       | 30   | 11    | 0 | 13                       | 29   | 26    | 0 | 8                      | 226  | 46    | 3 | 14                     | 343  | 32    | 1 | 821   | 3221          |
|                                  |                          |      |       |   |                          |      |       |   |                        |      |       |   |                        |      |       |   |       |               |
| Peak 15-Min Flowrates            | Northbound               |      |       |   | Southbound               |      |       |   | Eastbound              |      |       |   | Westbound              |      |       |   | Total |               |
|                                  | Left                     | Thru | Right | U | Left                     | Thru | Right | U | Left                   | Thru | Right | U | Left                   | Thru | Right | U |       |               |
| All Vehicles                     | 128                      | 100  | 36    | 0 | 116                      | 84   | 200   | 0 | 56                     | 868  | 204   | 0 | 72                     | 1572 | 80    | 0 | 3516  |               |
| Heavy Trucks                     | 0                        | 0    | 0     | 0 | 0                        | 0    | 4     | 0 | 4                      | 0    | 8     | 0 | 4                      | 28   | 4     | 0 | 52    |               |
| Pedestrians                      | 0                        | 0    | 0     | 0 | 0                        | 4    | 0     | 0 | 0                      | 4    | 0     | 0 | 0                      | 0    | 0     | 0 | 8     |               |
| Bicycles                         | 0                        | 0    | 0     | 0 | 0                        | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0     |               |
| Railroad                         | 0                        | 0    | 0     | 0 | 0                        | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0     |               |
| Stopped Buses                    | 0                        | 0    | 0     | 0 | 0                        | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0                      | 0    | 0     | 0 | 0     |               |

Comments:

**LOCATION:** Rohlwing Rd -- Euclid Ave  
**CITY/STATE:** Rolling Meadows, IL

**QC JOB #:** 13424412  
**DATE:** Sat, Jun 20 2015

**Peak-Hour: 12:00 PM -- 1:00 PM**  
**Peak 15-Min: 12:15 PM -- 12:30 PM**



| 15-Min Count Period Beginning At | Rohlwing Rd (Northbound) |      |       |   | Rohlwing Rd (Southbound) |      |       |   | Euclid Ave (Eastbound) |      |       |   | Euclid Ave (Westbound) |      |       |   | Total | Hourly Totals |
|----------------------------------|--------------------------|------|-------|---|--------------------------|------|-------|---|------------------------|------|-------|---|------------------------|------|-------|---|-------|---------------|
|                                  | Left                     | Thru | Right | U | Left                     | Thru | Right | U | Left                   | Thru | Right | U | Left                   | Thru | Right | U |       |               |
| 11:00 AM                         | 38                       | 12   | 8     | 0 | 11                       | 10   | 17    | 0 | 13                     | 170  | 31    | 0 | 10                     | 142  | 6     | 1 | 469   |               |
| 11:15 AM                         | 33                       | 14   | 7     | 0 | 17                       | 16   | 18    | 0 | 8                      | 196  | 33    | 2 | 9                      | 158  | 13    | 0 | 524   |               |
| 11:30 AM                         | 37                       | 10   | 13    | 0 | 9                        | 13   | 15    | 0 | 19                     | 220  | 32    | 1 | 9                      | 157  | 5     | 0 | 540   |               |
| 11:45 AM                         | 30                       | 19   | 11    | 0 | 14                       | 9    | 11    | 0 | 23                     | 282  | 37    | 3 | 5                      | 171  | 15    | 0 | 630   | 2163          |
| 12:00 PM                         | 40                       | 14   | 15    | 0 | 11                       | 19   | 14    | 0 | 21                     | 268  | 35    | 1 | 8                      | 150  | 8     | 1 | 605   | 2299          |
| 12:15 PM                         | 27                       | 11   | 16    | 0 | 11                       | 14   | 24    | 0 | 32                     | 341  | 36    | 1 | 6                      | 180  | 4     | 0 | 703   | 2478          |
| 12:30 PM                         | 29                       | 18   | 9     | 0 | 12                       | 15   | 16    | 0 | 21                     | 331  | 35    | 3 | 8                      | 183  | 5     | 0 | 685   | 2623          |
| 12:45 PM                         | 40                       | 24   | 9     | 0 | 9                        | 19   | 9     | 0 | 25                     | 340  | 33    | 1 | 7                      | 161  | 6     | 0 | 683   | 2676          |

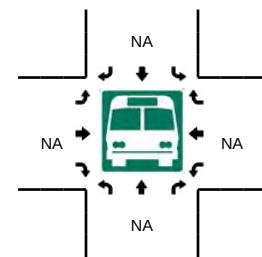
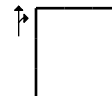
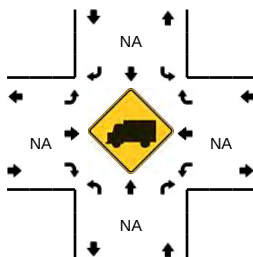
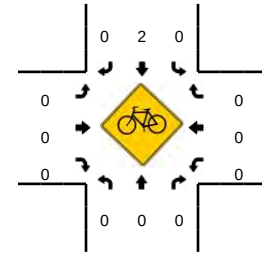
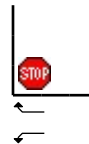
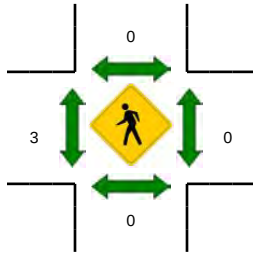
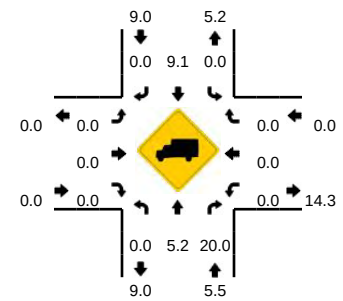
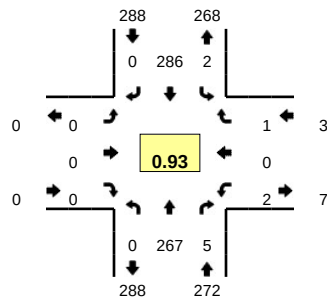
| Peak 15-Min Flowrates | Northbound |      |       |   | Southbound |      |       |   | Eastbound |      |       |   | Westbound |      |       |   | Total |
|-----------------------|------------|------|-------|---|------------|------|-------|---|-----------|------|-------|---|-----------|------|-------|---|-------|
|                       | Left       | Thru | Right | U | Left       | Thru | Right | U | Left      | Thru | Right | U | Left      | Thru | Right | U |       |
| All Vehicles          | 108        | 44   | 64    | 0 | 44         | 56   | 96    | 0 | 128       | 1364 | 144   | 4 | 24        | 720  | 16    | 0 | 2812  |
| Heavy Trucks          | 0          | 0    | 0     | 0 | 0          | 0    | 0     | 0 | 0         | 4    | 0     | 0 | 0         | 20   | 4     | 0 | 28    |
| Pedestrians           | 0          | 0    | 0     | 0 | 0          | 0    | 0     | 0 | 0         | 0    | 0     | 0 | 0         | 0    | 0     | 0 | 0     |
| Bicycles              | 0          | 0    | 0     | 0 | 0          | 1    | 0     | 0 | 0         | 0    | 0     | 0 | 0         | 0    | 0     | 0 | 1     |
| Railroad              |            |      |       |   |            |      |       |   |           |      |       |   |           |      |       |   |       |
| Stopped Buses         |            |      |       |   |            |      |       |   |           |      |       |   |           |      |       |   |       |

Comments:

**LOCATION:** Rohlwing Rd -- Access Rd  
**CITY/STATE:** Rolling Meadows, IL

**QC JOB #:** 13424413  
**DATE:** Tue, Jun 23 2015

**Peak-Hour: 7:15 AM -- 8:15 AM**  
**Peak 15-Min: 7:30 AM -- 7:45 AM**



| 15-Min Count Period Beginning At | Rohlwing Rd (Northbound) |      |       |   | Rohlwing Rd (Southbound) |      |       |   | Access Rd (Eastbound) |      |       |   | Access Rd (Westbound) |      |       |   | Total | Hourly Totals |
|----------------------------------|--------------------------|------|-------|---|--------------------------|------|-------|---|-----------------------|------|-------|---|-----------------------|------|-------|---|-------|---------------|
|                                  | Left                     | Thru | Right | U | Left                     | Thru | Right | U | Left                  | Thru | Right | U | Left                  | Thru | Right | U |       |               |
| 7:00 AM                          | 0                        | 65   | 0     | 0 | 0                        | 42   | 0     | 0 | 0                     | 0    | 0     | 0 | 1                     | 0    | 1     | 0 | 109   |               |
| 7:15 AM                          | 0                        | 79   | 2     | 0 | 0                        | 62   | 0     | 0 | 0                     | 0    | 0     | 0 | 1                     | 0    | 1     | 0 | 145   |               |
| 7:30 AM                          | 0                        | 59   | 0     | 0 | 0                        | 93   | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 152   |               |
| 7:45 AM                          | 0                        | 79   | 2     | 0 | 1                        | 69   | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 151   | 557           |
| 8:00 AM                          | 0                        | 50   | 1     | 0 | 1                        | 62   | 0     | 0 | 0                     | 0    | 0     | 0 | 1                     | 0    | 0     | 0 | 115   | 563           |
| 8:15 AM                          | 0                        | 64   | 2     | 0 | 0                        | 69   | 0     | 0 | 0                     | 0    | 0     | 0 | 1                     | 0    | 0     | 0 | 136   | 554           |
| 8:30 AM                          | 0                        | 57   | 2     | 0 | 0                        | 69   | 0     | 0 | 0                     | 0    | 0     | 0 | 2                     | 0    | 2     | 0 | 132   | 534           |
| 8:45 AM                          | 0                        | 69   | 0     | 0 | 1                        | 57   | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 2     | 0 | 129   | 512           |
|                                  |                          |      |       |   |                          |      |       |   |                       |      |       |   |                       |      |       |   |       |               |
| Peak 15-Min Flowrates            | Northbound               |      |       |   | Southbound               |      |       |   | Eastbound             |      |       |   | Westbound             |      |       |   | Total |               |
|                                  | Left                     | Thru | Right | U | Left                     | Thru | Right | U | Left                  | Thru | Right | U | Left                  | Thru | Right | U |       |               |
| All Vehicles                     | 0                        | 236  | 0     | 0 | 0                        | 372  | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 608   |               |
| Heavy Trucks                     | 0                        | 12   | 0     | 0 | 0                        | 24   | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 36    |               |
| Pedestrians                      | 0                        | 0    | 0     | 0 | 0                        | 0    | 0     | 0 | 0                     | 4    | 0     | 0 | 0                     | 0    | 0     | 0 | 4     |               |
| Bicycles                         | 0                        | 0    | 0     | 0 | 0                        | 1    | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 1     |               |
| Railroad                         |                          |      |       |   |                          |      |       |   |                       |      |       |   |                       |      |       |   |       |               |
| Stopped Buses                    |                          |      |       |   |                          |      |       |   |                       |      |       |   |                       |      |       |   |       |               |

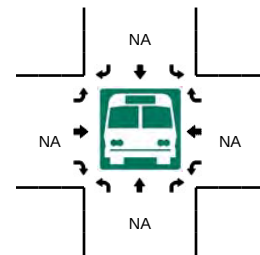
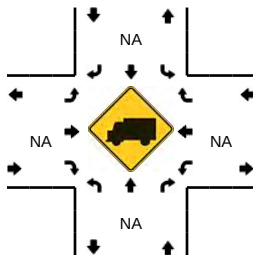
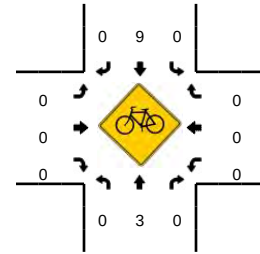
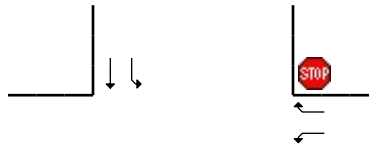
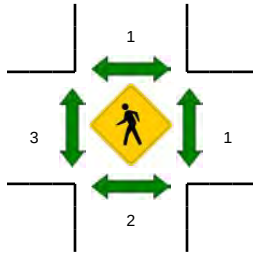
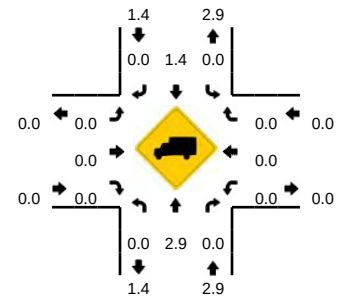
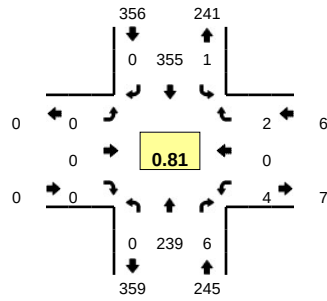
**Comments:**



**LOCATION:** Rohlwing Rd -- Access Rd  
**CITY/STATE:** Rolling Meadows, IL

**QC JOB #:** 13424414  
**DATE:** Tue, Jun 23 2015

**Peak-Hour: 4:30 PM -- 5:30 PM**  
**Peak 15-Min: 5:00 PM -- 5:15 PM**



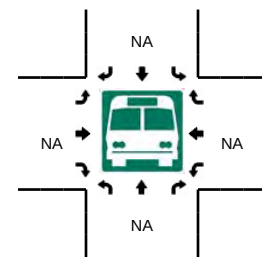
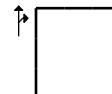
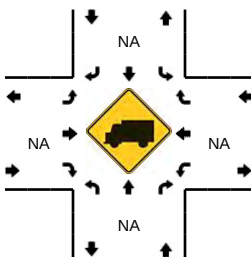
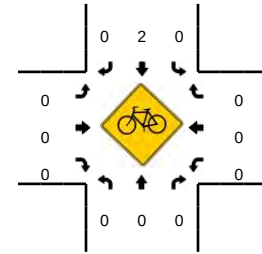
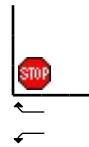
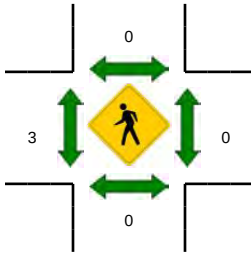
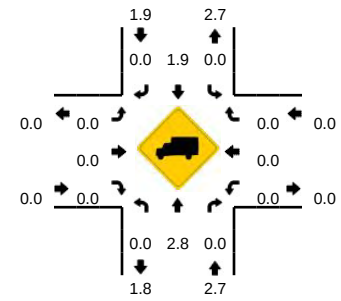
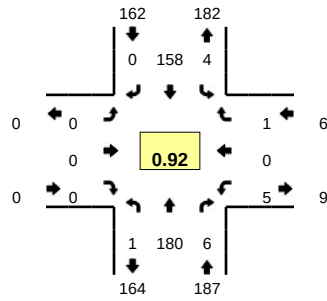
| 15-Min Count Period Beginning At | Rohlwing Rd (Northbound) |      |       |   | Rohlwing Rd (Southbound) |      |       |   | Access Rd (Eastbound) |      |       |   | Access Rd (Westbound) |      |       |   | Total | Hourly Totals |
|----------------------------------|--------------------------|------|-------|---|--------------------------|------|-------|---|-----------------------|------|-------|---|-----------------------|------|-------|---|-------|---------------|
|                                  | Left                     | Thru | Right | U | Left                     | Thru | Right | U | Left                  | Thru | Right | U | Left                  | Thru | Right | U |       |               |
| 4:00 PM                          | 0                        | 55   | 1     | 0 | 0                        | 110  | 0     | 1 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 167   |               |
| 4:15 PM                          | 0                        | 49   | 0     | 0 | 0                        | 64   | 0     | 0 | 0                     | 0    | 0     | 0 | 1                     | 0    | 0     | 0 | 114   |               |
| 4:30 PM                          | 0                        | 58   | 1     | 0 | 0                        | 92   | 0     | 0 | 0                     | 0    | 0     | 0 | 2                     | 0    | 0     | 0 | 153   |               |
| 4:45 PM                          | 0                        | 57   | 0     | 0 | 1                        | 91   | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 149   | 583           |
| 5:00 PM                          | 0                        | 72   | 3     | 0 | 0                        | 113  | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 188   | 604           |
| 5:15 PM                          | 0                        | 52   | 2     | 0 | 0                        | 59   | 0     | 0 | 0                     | 0    | 0     | 0 | 2                     | 0    | 2     | 0 | 117   | 607           |
| 5:30 PM                          | 0                        | 53   | 3     | 0 | 0                        | 92   | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 148   | 602           |
| 5:45 PM                          | 0                        | 64   | 4     | 0 | 0                        | 64   | 0     | 0 | 0                     | 0    | 0     | 0 | 2                     | 0    | 1     | 0 | 135   | 588           |
|                                  |                          |      |       |   |                          |      |       |   |                       |      |       |   |                       |      |       |   |       |               |
| Peak 15-Min Flowrates            | Northbound               |      |       |   | Southbound               |      |       |   | Eastbound             |      |       |   | Westbound             |      |       |   | Total |               |
|                                  | Left                     | Thru | Right | U | Left                     | Thru | Right | U | Left                  | Thru | Right | U | Left                  | Thru | Right | U |       |               |
| All Vehicles                     | 0                        | 288  | 12    | 0 | 0                        | 452  | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 752   |               |
| Heavy Trucks                     | 0                        | 12   | 0     | 0 | 0                        | 4    | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 16    |               |
| Pedestrians                      | 0                        | 0    | 0     | 0 | 0                        | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 0     |               |
| Bicycles                         | 0                        | 2    | 0     | 0 | 0                        | 7    | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 9     |               |
| Railroad                         |                          |      |       |   |                          |      |       |   |                       |      |       |   |                       |      |       |   |       |               |
| Stopped Buses                    |                          |      |       |   |                          |      |       |   |                       |      |       |   |                       |      |       |   |       |               |

Comments:

**LOCATION:** Rohlwing Rd -- Access Rd  
**CITY/STATE:** Rolling Meadows, IL

**QC JOB #:** 13424415  
**DATE:** Sat, Jun 20 2015

**Peak-Hour: 11:45 AM -- 12:45 PM**  
**Peak 15-Min: 12:15 PM -- 12:30 PM**



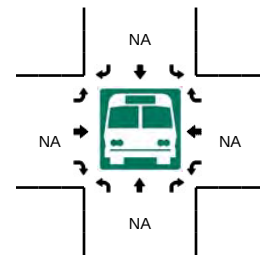
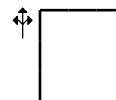
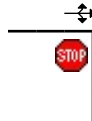
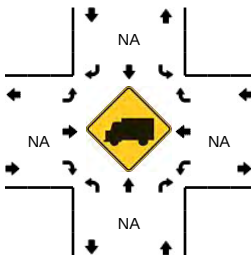
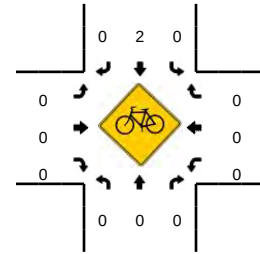
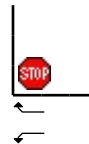
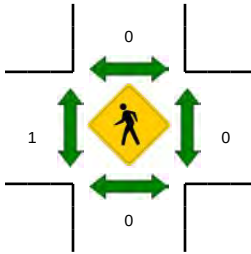
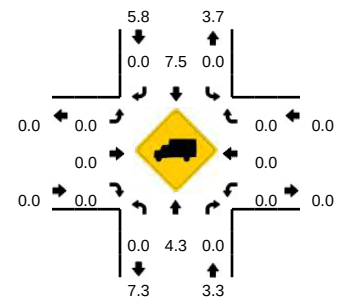
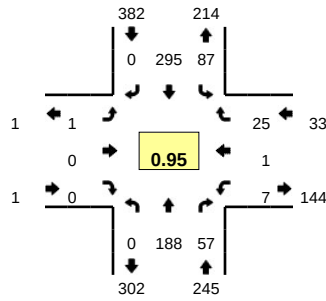
| 15-Min Count Period Beginning At | Rohlwing Rd (Northbound) |      |       |   | Rohlwing Rd (Southbound) |      |       |   | Access Rd (Eastbound) |      |       |   | Access Rd (Westbound) |      |       |   | Total | Hourly Totals |
|----------------------------------|--------------------------|------|-------|---|--------------------------|------|-------|---|-----------------------|------|-------|---|-----------------------|------|-------|---|-------|---------------|
|                                  | Left                     | Thru | Right | U | Left                     | Thru | Right | U | Left                  | Thru | Right | U | Left                  | Thru | Right | U |       |               |
| 11:00 AM                         | 0                        | 33   | 0     | 0 | 0                        | 37   | 0     | 0 | 0                     | 0    | 0     | 0 | 1                     | 0    | 0     | 0 | 71    |               |
| 11:15 AM                         | 0                        | 31   | 2     | 0 | 2                        | 47   | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 1     | 0 | 83    |               |
| 11:30 AM                         | 0                        | 32   | 1     | 0 | 1                        | 34   | 0     | 0 | 0                     | 0    | 0     | 0 | 1                     | 0    | 2     | 0 | 71    |               |
| 11:45 AM                         | 0                        | 56   | 2     | 0 | 2                        | 33   | 0     | 0 | 0                     | 0    | 0     | 0 | 1                     | 0    | 0     | 0 | 94    | 319           |
| 12:00 PM                         | 0                        | 41   | 0     | 0 | 0                        | 42   | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 83    | 331           |
| 12:15 PM                         | 0                        | 43   | 3     | 0 | 0                        | 46   | 0     | 1 | 0                     | 0    | 0     | 0 | 2                     | 0    | 1     | 0 | 96    | 344           |
| 12:30 PM                         | 0                        | 40   | 1     | 1 | 1                        | 37   | 0     | 0 | 0                     | 0    | 0     | 0 | 2                     | 0    | 0     | 0 | 82    | 355           |
| 12:45 PM                         | 0                        | 55   | 1     | 0 | 0                        | 36   | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 92    | 353           |
|                                  |                          |      |       |   |                          |      |       |   |                       |      |       |   |                       |      |       |   |       |               |
| Peak 15-Min Flowrates            | Northbound               |      |       |   | Southbound               |      |       |   | Eastbound             |      |       |   | Westbound             |      |       |   | Total |               |
|                                  | Left                     | Thru | Right | U | Left                     | Thru | Right | U | Left                  | Thru | Right | U | Left                  | Thru | Right | U |       |               |
| All Vehicles                     | 0                        | 172  | 12    | 0 | 0                        | 184  | 0     | 4 | 0                     | 0    | 0     | 0 | 8                     | 0    | 4     | 0 | 384   |               |
| Heavy Trucks                     | 0                        | 0    | 0     | 0 | 0                        | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 0     |               |
| Pedestrians                      | 0                        | 0    | 0     | 0 | 0                        | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 0     |               |
| Bicycles                         | 0                        | 0    | 0     | 0 | 0                        | 1    | 0     | 0 | 0                     | 0    | 0     | 0 | 0                     | 0    | 0     | 0 | 1     |               |
| Railroad                         |                          |      |       |   |                          |      |       |   |                       |      |       |   |                       |      |       |   |       |               |
| Stopped Buses                    |                          |      |       |   |                          |      |       |   |                       |      |       |   |                       |      |       |   |       |               |

**Comments:**

**LOCATION:** Rohlwing Rd -- Salt Creek Ln  
**CITY/STATE:** Rolling Meadows, IL

**QC JOB #:** 13424416  
**DATE:** Tue, Jun 23 2015

**Peak-Hour: 7:30 AM -- 8:30 AM**  
**Peak 15-Min: 7:30 AM -- 7:45 AM**



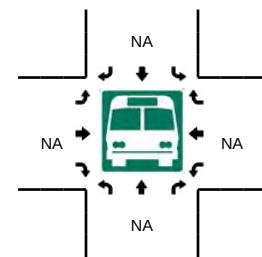
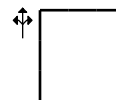
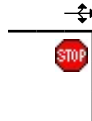
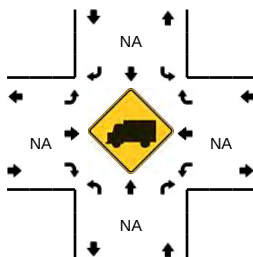
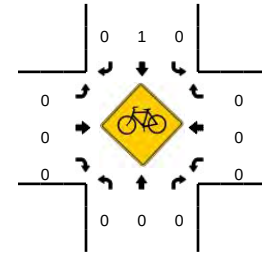
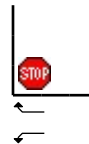
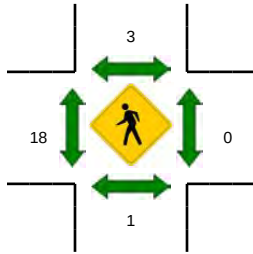
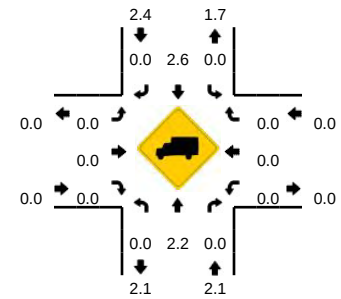
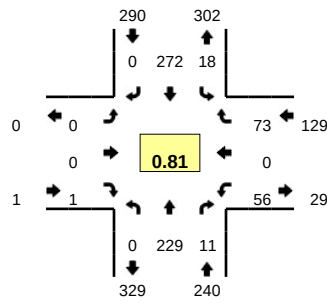
| 15-Min Count Period Beginning At | Rohlwing Rd (Northbound) |      |       |   | Rohlwing Rd (Southbound) |      |       |   | Salt Creek Ln (Eastbound) |      |       |   | Salt Creek Ln (Westbound) |      |       |   | Total | Hourly Totals |
|----------------------------------|--------------------------|------|-------|---|--------------------------|------|-------|---|---------------------------|------|-------|---|---------------------------|------|-------|---|-------|---------------|
|                                  | Left                     | Thru | Right | U | Left                     | Thru | Right | U | Left                      | Thru | Right | U | Left                      | Thru | Right | U |       |               |
| 7:00 AM                          | 0                        | 51   | 16    | 0 | 15                       | 45   | 0     | 0 | 0                         | 0    | 0     | 0 | 1                         | 0    | 2     | 0 | 130   |               |
| 7:15 AM                          | 0                        | 53   | 21    | 0 | 14                       | 58   | 0     | 0 | 0                         | 0    | 0     | 0 | 1                         | 0    | 4     | 0 | 151   |               |
| 7:30 AM                          | 0                        | 47   | 5     | 0 | 19                       | 95   | 0     | 0 | 0                         | 0    | 0     | 0 | 1                         | 0    | 7     | 0 | 174   |               |
| 7:45 AM                          | 0                        | 56   | 19    | 0 | 18                       | 69   | 0     | 0 | 0                         | 0    | 0     | 0 | 0                         | 0    | 10    | 0 | 172   | 627           |
| 8:00 AM                          | 0                        | 39   | 13    | 0 | 25                       | 58   | 0     | 0 | 0                         | 0    | 0     | 0 | 4                         | 0    | 8     | 0 | 147   | 644           |
| 8:15 AM                          | 0                        | 46   | 20    | 0 | 25                       | 73   | 0     | 0 | 1                         | 0    | 0     | 0 | 2                         | 1    | 0     | 0 | 168   | 661           |
| 8:30 AM                          | 0                        | 46   | 9     | 0 | 15                       | 71   | 0     | 0 | 0                         | 0    | 0     | 0 | 3                         | 0    | 1     | 0 | 145   | 632           |
| 8:45 AM                          | 1                        | 46   | 20    | 0 | 17                       | 56   | 0     | 0 | 0                         | 0    | 1     | 0 | 4                         | 0    | 2     | 0 | 147   | 607           |
|                                  |                          |      |       |   |                          |      |       |   |                           |      |       |   |                           |      |       |   |       |               |
| Peak 15-Min Flowrates            | Northbound               |      |       |   | Southbound               |      |       |   | Eastbound                 |      |       |   | Westbound                 |      |       |   | Total |               |
|                                  | Left                     | Thru | Right | U | Left                     | Thru | Right | U | Left                      | Thru | Right | U | Left                      | Thru | Right | U |       |               |
| All Vehicles                     | 0                        | 188  | 20    | 0 | 76                       | 380  | 0     | 0 | 0                         | 0    | 0     | 0 | 4                         | 0    | 28    | 0 | 696   |               |
| Heavy Trucks                     | 0                        | 12   | 0     |   | 0                        | 24   | 0     |   | 0                         | 0    | 0     |   | 0                         | 0    | 0     |   | 36    |               |
| Pedestrians                      | 0                        |      |       |   | 0                        |      |       |   | 4                         |      |       |   | 0                         |      |       |   | 4     |               |
| Bicycles                         | 0                        | 0    | 0     |   | 0                        | 1    | 0     |   | 0                         | 0    | 0     |   | 0                         | 0    | 0     |   | 1     |               |
| Railroad                         |                          |      |       |   |                          |      |       |   |                           |      |       |   |                           |      |       |   |       |               |
| Stopped Buses                    |                          |      |       |   |                          |      |       |   |                           |      |       |   |                           |      |       |   |       |               |

**Comments:**

**LOCATION:** Rohlwing Rd -- Salt Creek Ln  
**CITY/STATE:** Rolling Meadows, IL

**QC JOB #:** 13424417  
**DATE:** Tue, Jun 23 2015

**Peak-Hour: 4:30 PM -- 5:30 PM**  
**Peak 15-Min: 5:00 PM -- 5:15 PM**



| 15-Min Count Period Beginning At | Rohlwing Rd (Northbound) |      |       |   | Rohlwing Rd (Southbound) |      |       |   | Salt Creek Ln (Eastbound) |      |       |   | Salt Creek Ln (Westbound) |      |       |   | Total | Hourly Totals |
|----------------------------------|--------------------------|------|-------|---|--------------------------|------|-------|---|---------------------------|------|-------|---|---------------------------|------|-------|---|-------|---------------|
|                                  | Left                     | Thru | Right | U | Left                     | Thru | Right | U | Left                      | Thru | Right | U | Left                      | Thru | Right | U |       |               |
| 4:00 PM                          | 0                        | 50   | 3     | 0 | 6                        | 71   | 0     | 0 | 0                         | 0    | 3     | 0 | 16                        | 0    | 21    | 0 | 170   |               |
| 4:15 PM                          | 0                        | 39   | 4     | 0 | 4                        | 48   | 0     | 0 | 0                         | 0    | 1     | 0 | 12                        | 0    | 17    | 0 | 125   |               |
| 4:30 PM                          | 0                        | 56   | 4     | 0 | 7                        | 63   | 0     | 0 | 0                         | 0    | 0     | 0 | 18                        | 0    | 21    | 0 | 169   |               |
| 4:45 PM                          | 0                        | 49   | 3     | 0 | 3                        | 70   | 0     | 0 | 0                         | 0    | 0     | 0 | 12                        | 0    | 16    | 0 | 153   | 617           |
| 5:00 PM                          | 0                        | 72   | 2     | 0 | 4                        | 87   | 0     | 0 | 0                         | 0    | 0     | 0 | 16                        | 0    | 22    | 0 | 203   | 650           |
| 5:15 PM                          | 0                        | 52   | 2     | 0 | 4                        | 52   | 0     | 0 | 0                         | 0    | 1     | 0 | 10                        | 0    | 14    | 0 | 135   | 660           |
| 5:30 PM                          | 0                        | 49   | 3     | 0 | 4                        | 69   | 0     | 0 | 0                         | 0    | 0     | 0 | 6                         | 0    | 12    | 0 | 143   | 634           |
| 5:45 PM                          | 0                        | 65   | 2     | 0 | 7                        | 50   | 0     | 0 | 0                         | 0    | 0     | 0 | 12                        | 0    | 11    | 0 | 147   | 628           |
|                                  |                          |      |       |   |                          |      |       |   |                           |      |       |   |                           |      |       |   |       |               |
| Peak 15-Min Flowrates            | Northbound               |      |       |   | Southbound               |      |       |   | Eastbound                 |      |       |   | Westbound                 |      |       |   | Total |               |
|                                  | Left                     | Thru | Right | U | Left                     | Thru | Right | U | Left                      | Thru | Right | U | Left                      | Thru | Right | U |       |               |
| All Vehicles                     | 0                        | 288  | 8     | 0 | 16                       | 348  | 0     | 0 | 0                         | 0    | 0     | 0 | 64                        | 0    | 88    | 0 | 812   |               |
| Heavy Trucks                     | 0                        | 8    | 0     | 0 | 0                        | 4    | 0     | 0 | 0                         | 0    | 0     | 0 | 0                         | 0    | 0     | 0 | 12    |               |
| Pedestrians                      | 0                        | 0    | 0     | 0 | 0                        | 0    | 0     | 0 | 0                         | 40   | 0     | 0 | 0                         | 0    | 0     | 0 | 40    |               |
| Bicycles                         | 0                        | 0    | 0     | 0 | 0                        | 0    | 0     | 0 | 0                         | 0    | 0     | 0 | 0                         | 0    | 0     | 0 | 0     |               |
| Railroad                         |                          |      |       |   |                          |      |       |   |                           |      |       |   |                           |      |       |   |       |               |
| Stopped Buses                    |                          |      |       |   |                          |      |       |   |                           |      |       |   |                           |      |       |   |       |               |

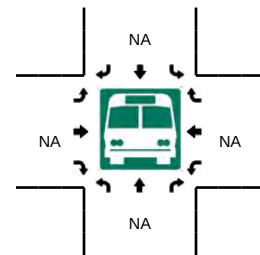
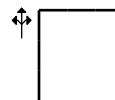
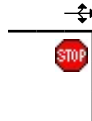
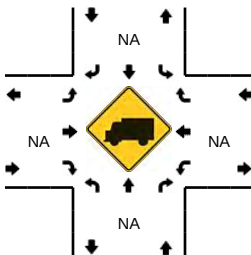
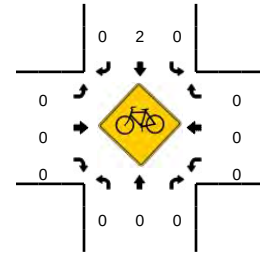
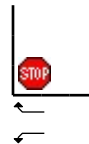
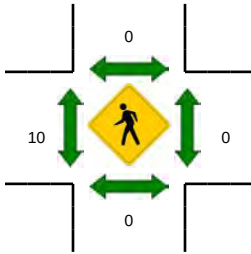
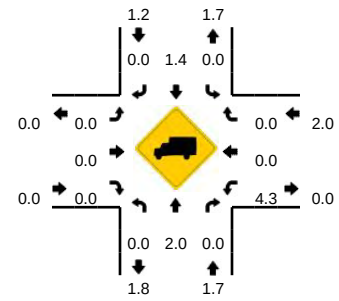
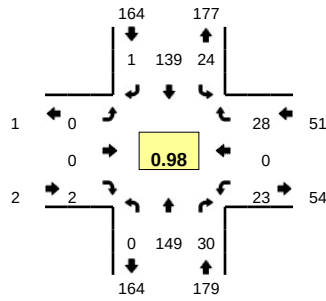
Comments:



**LOCATION:** Rohlwing Rd -- Salt Creek Ln  
**CITY/STATE:** Rolling Meadows, IL

**QC JOB #:** 13424418  
**DATE:** Sat, Jun 20 2015

**Peak-Hour: 12:00 PM -- 1:00 PM**  
**Peak 15-Min: 12:15 PM -- 12:30 PM**



| 15-Min Count Period Beginning At | Rohlwing Rd (Northbound) |      |       |   | Rohlwing Rd (Southbound) |      |       |   | Salt Creek Ln (Eastbound) |      |       |   | Salt Creek Ln (Westbound) |      |       |   | Total | Hourly Totals |
|----------------------------------|--------------------------|------|-------|---|--------------------------|------|-------|---|---------------------------|------|-------|---|---------------------------|------|-------|---|-------|---------------|
|                                  | Left                     | Thru | Right | U | Left                     | Thru | Right | U | Left                      | Thru | Right | U | Left                      | Thru | Right | U |       |               |
| 11:00 AM                         | 0                        | 28   | 3     | 0 | 6                        | 30   | 0     | 0 | 0                         | 0    | 0     | 0 | 6                         | 0    | 8     | 0 | 81    |               |
| 11:15 AM                         | 0                        | 26   | 6     | 0 | 6                        | 36   | 0     | 0 | 0                         | 0    | 1     | 0 | 9                         | 0    | 8     | 0 | 92    |               |
| 11:30 AM                         | 0                        | 23   | 9     | 0 | 6                        | 24   | 0     | 0 | 0                         | 0    | 0     | 0 | 11                        | 0    | 3     | 0 | 76    |               |
| 11:45 AM                         | 1                        | 46   | 7     | 0 | 5                        | 28   | 0     | 0 | 0                         | 0    | 2     | 0 | 3                         | 0    | 8     | 0 | 100   | 349           |
| 12:00 PM                         | 0                        | 37   | 5     | 0 | 5                        | 37   | 0     | 0 | 0                         | 0    | 2     | 0 | 4                         | 0    | 10    | 0 | 100   | 368           |
| 12:15 PM                         | 0                        | 36   | 8     | 0 | 9                        | 36   | 0     | 0 | 0                         | 0    | 0     | 0 | 9                         | 0    | 3     | 0 | 101   | 377           |
| 12:30 PM                         | 0                        | 33   | 6     | 0 | 8                        | 34   | 0     | 0 | 0                         | 0    | 0     | 0 | 5                         | 0    | 8     | 0 | 94    | 395           |
| 12:45 PM                         | 0                        | 43   | 11    | 0 | 2                        | 32   | 1     | 0 | 0                         | 0    | 0     | 0 | 5                         | 0    | 7     | 0 | 101   | 396           |

| Peak 15-Min Flowrates | Northbound |      |       |   | Southbound |      |       |   | Eastbound |      |       |   | Westbound |      |       |   | Total |
|-----------------------|------------|------|-------|---|------------|------|-------|---|-----------|------|-------|---|-----------|------|-------|---|-------|
|                       | Left       | Thru | Right | U | Left       | Thru | Right | U | Left      | Thru | Right | U | Left      | Thru | Right | U |       |
| All Vehicles          | 0          | 144  | 32    | 0 | 36         | 144  | 0     | 0 | 0         | 0    | 0     | 0 | 36        | 0    | 12    | 0 | 404   |
| Heavy Trucks          | 0          | 0    | 0     | 0 | 0          | 0    | 0     | 0 | 0         | 0    | 0     | 0 | 0         | 0    | 0     | 0 | 0     |
| Pedestrians           | 0          | 0    | 0     | 0 | 0          | 0    | 0     | 0 | 0         | 0    | 0     | 0 | 0         | 0    | 0     | 0 | 0     |
| Bicycles              | 0          | 0    | 0     | 0 | 0          | 1    | 0     | 0 | 0         | 0    | 0     | 0 | 0         | 0    | 0     | 0 | 1     |
| Railroad              |            |      |       |   |            |      |       |   |           |      |       |   |           |      |       |   |       |
| Stopped Buses         |            |      |       |   |            |      |       |   |           |      |       |   |           |      |       |   |       |

Comments:

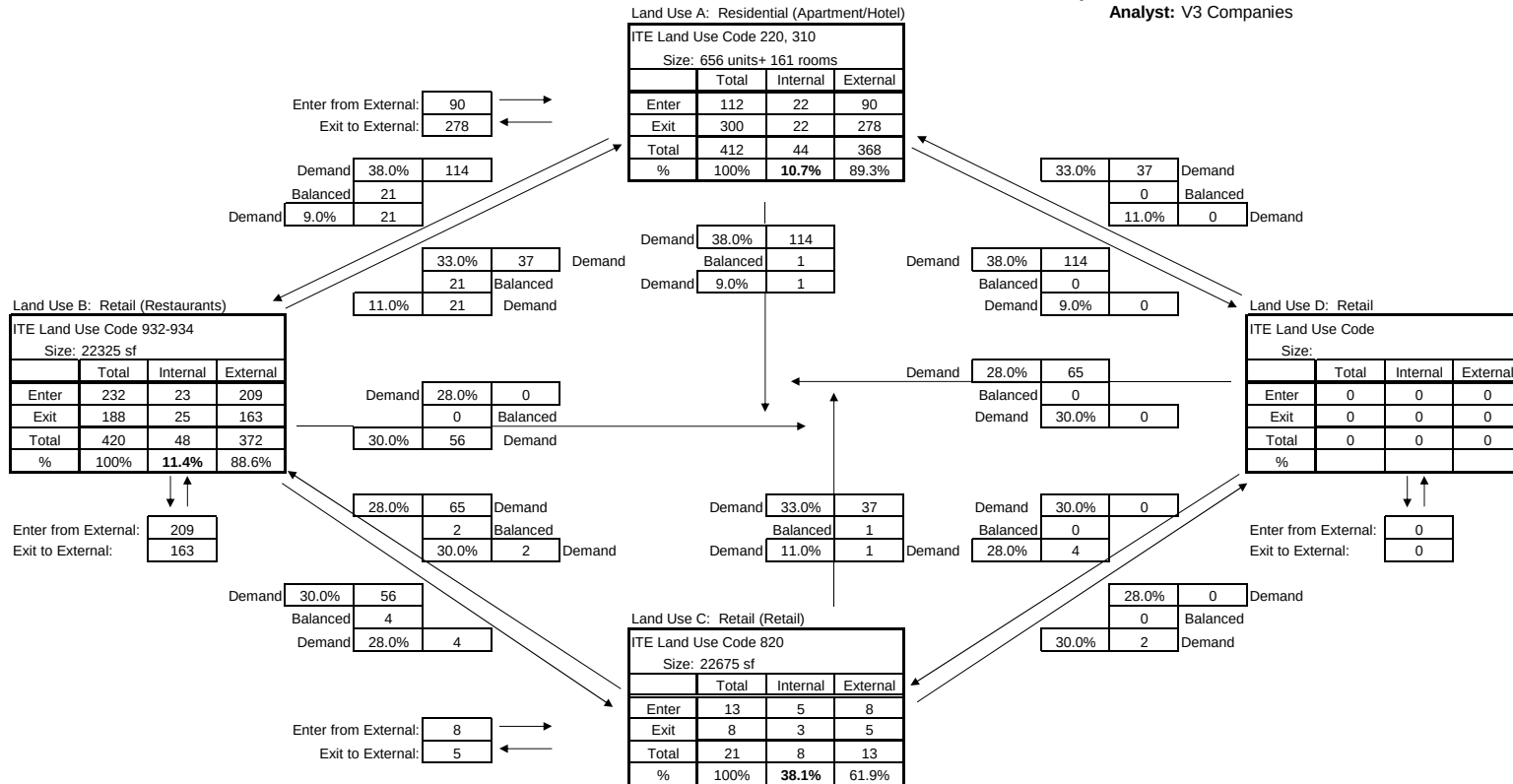


## **APPENDIX B**

### **INTERNAL CAPTURE WORKSHEETS – EXCLUDING WATERPARK**

**ITE MULTI-USE PROJECT INTERNAL CAPTURE WORKSHEET**  
(Source: Chapter 7, ITE Trip Generation Handbook)

Project Number: 000015126  
Project Name: Arlington Downs  
Scenario: Internal Capture - Excluding Water Park  
Analysis Period: AM Peak  
Analyst: V3 Companies

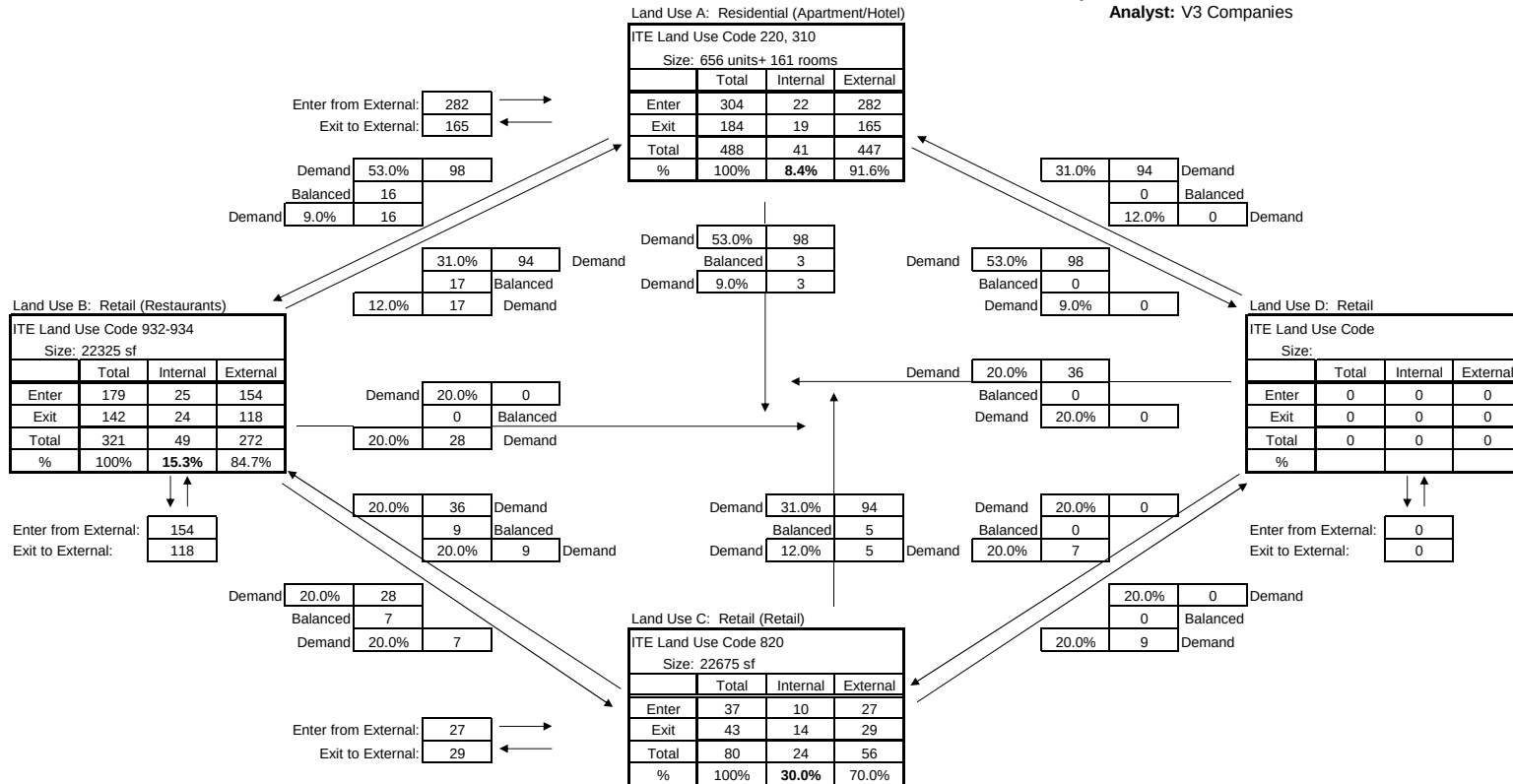


| NET EXTERNAL TRIPS FOR MULTI-USE DEVELOPMENT |          |     |    |   |       |
|----------------------------------------------|----------|-----|----|---|-------|
| Category                                     | Land Use |     |    |   | Total |
|                                              | A        | B   | C  | D |       |
| Enter                                        | 90       | 209 | 8  | 0 | 307   |
| Exit                                         | 278      | 163 | 5  | 0 | 446   |
| Total                                        | 368      | 372 | 13 | 0 | 753   |
| Single Use Trip Gen Estimate                 | 412      | 420 | 21 | 0 | 853   |

Overall Internal Capture = 11.72%

**ITE MULTI-USE PROJECT INTERNAL CAPTURE WORKSHEET**  
(Source: Chapter 7, ITE Trip Generation Handbook)

Project Number: 000015126  
Project Name: Arlington Downs  
Scenario: Internal Capture - Excluding Water Park  
Analysis Period: PM Peak  
Analyst: V3 Companies



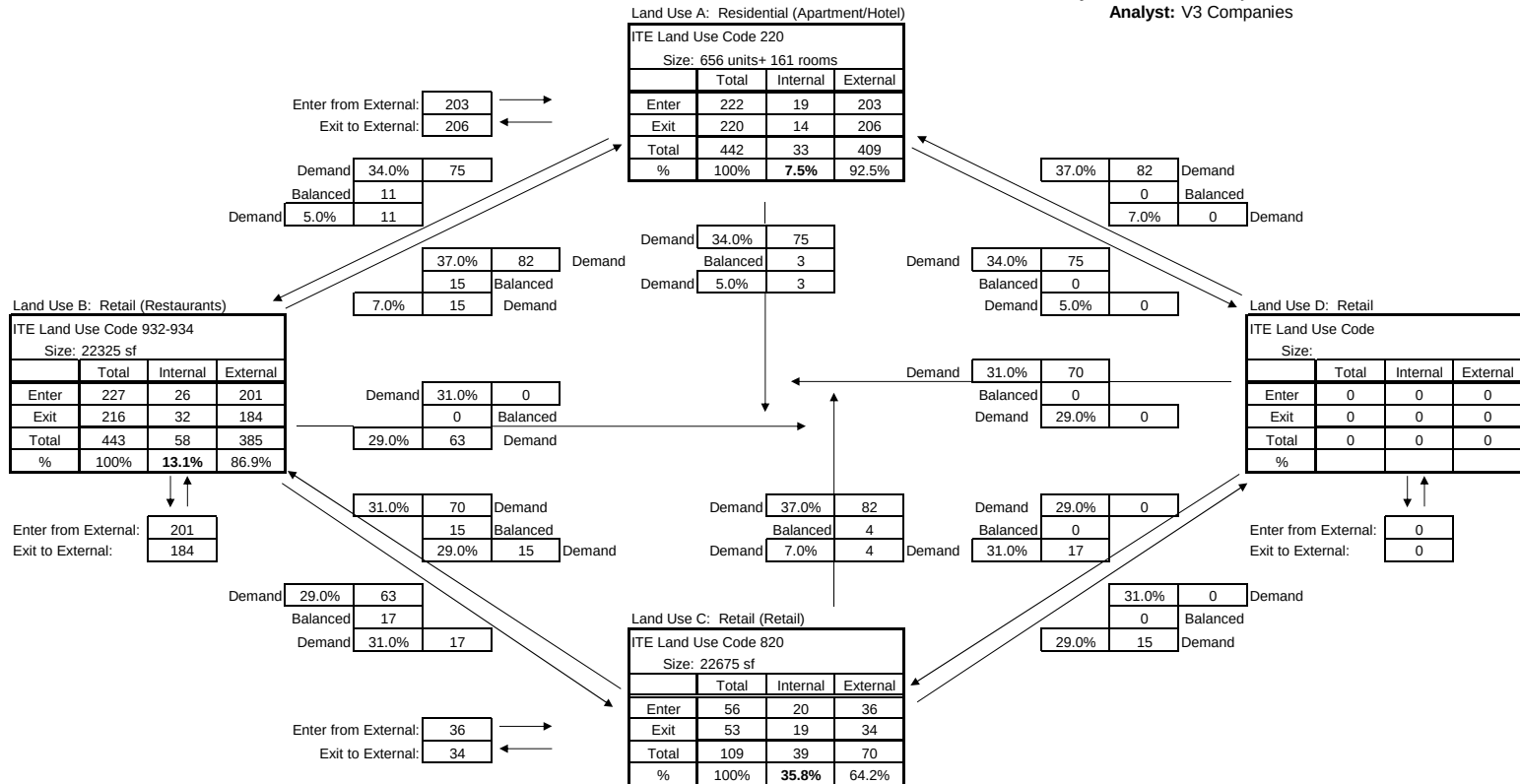
| NET EXTERNAL TRIPS FOR MULTI-USE DEVELOPMENT |          |     |    |   |       |
|----------------------------------------------|----------|-----|----|---|-------|
| Category                                     | Land Use |     |    |   | Total |
|                                              | A        | B   | C  | D |       |
| Enter                                        | 282      | 154 | 27 | 0 | 463   |
| Exit                                         | 165      | 118 | 29 | 0 | 312   |
| Total                                        | 447      | 272 | 56 | 0 | 775   |
| Single Use Trip Gen Estimate                 | 488      | 321 | 80 | 0 | 889   |

Overall Internal Capture = 12.82%



**ITE MULTI-USE PROJECT INTERNAL CAPTURE WORKSHEET**  
 (Source: Chapter 7, ITE Trip Generation Handbook, June 2004)

Project Number: 000015126  
 Project Name: Arlington Downs  
 Scenario: Internal Capture - Excluding Water Park  
 Analysis Period: Saturday Peak  
 Analyst: V3 Companies



| NET EXTERNAL TRIPS FOR MULTI-USE DEVELOPMENT |          |     |     |   |       |
|----------------------------------------------|----------|-----|-----|---|-------|
| Category                                     | Land Use |     |     |   | Total |
|                                              | A        | B   | C   | D |       |
| Enter                                        | 203      | 201 | 36  | 0 | 440   |
| Exit                                         | 206      | 184 | 34  | 0 | 424   |
| Total                                        | 409      | 385 | 70  | 0 | 864   |
| Single Use Trip Gen Estimate                 | 442      | 443 | 109 | 0 | 994   |

Overall Internal Capture = 13.08%

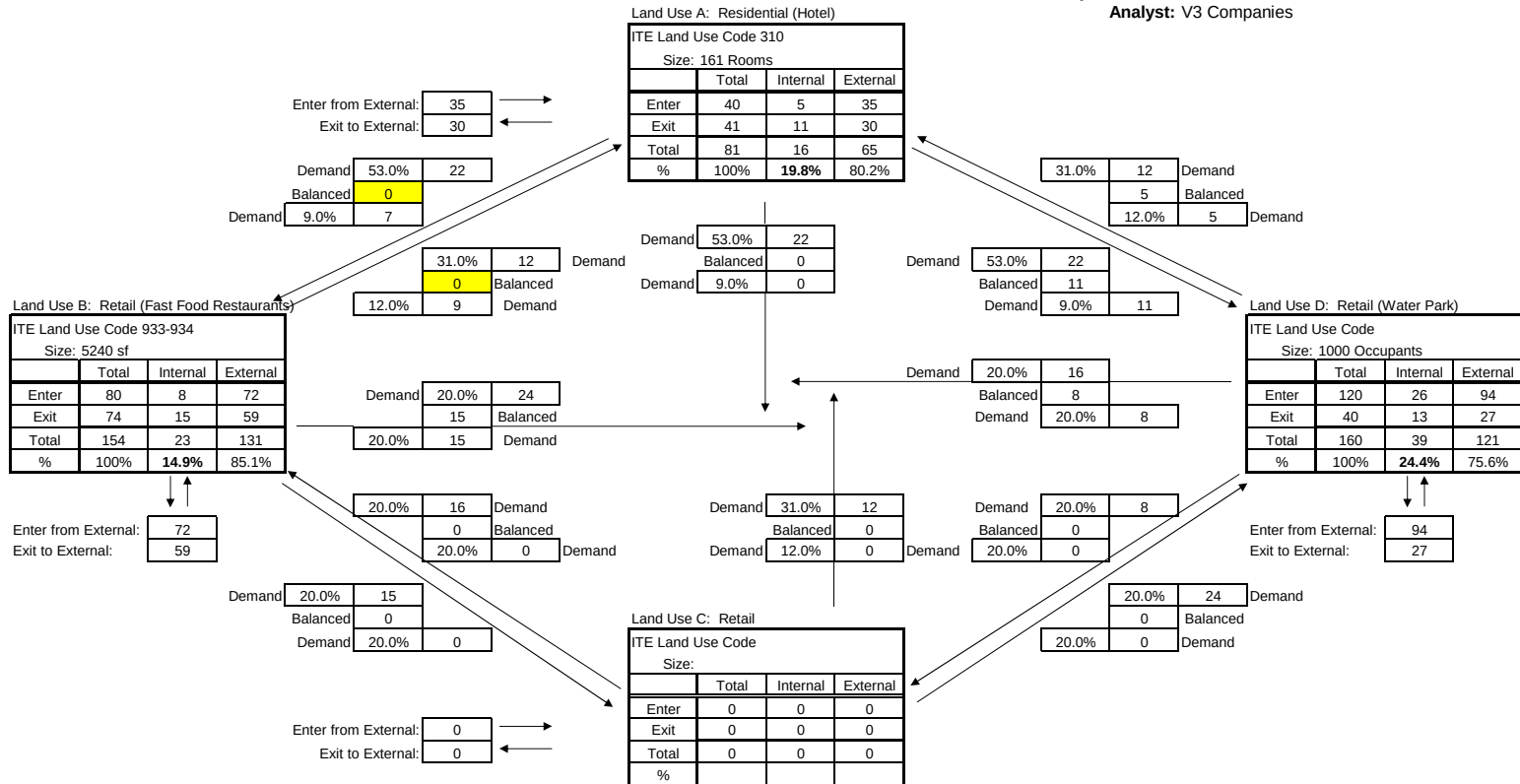


## **APPENDIX C**

### **INTERNAL CAPTURE WORKSHEETS – INCLUDING WATERPARK**

**ITE MULTI-USE PROJECT INTERNAL CAPTURE WORKSHEET**  
 (Source: Chapter 7, ITE Trip Generation Handbook)

Project Number: 000015126  
 Project Name: Arlington Downs  
 Scenario: Internal Capture - Water Park  
 Analysis Period: PM Peak  
 Analyst: V3 Companies

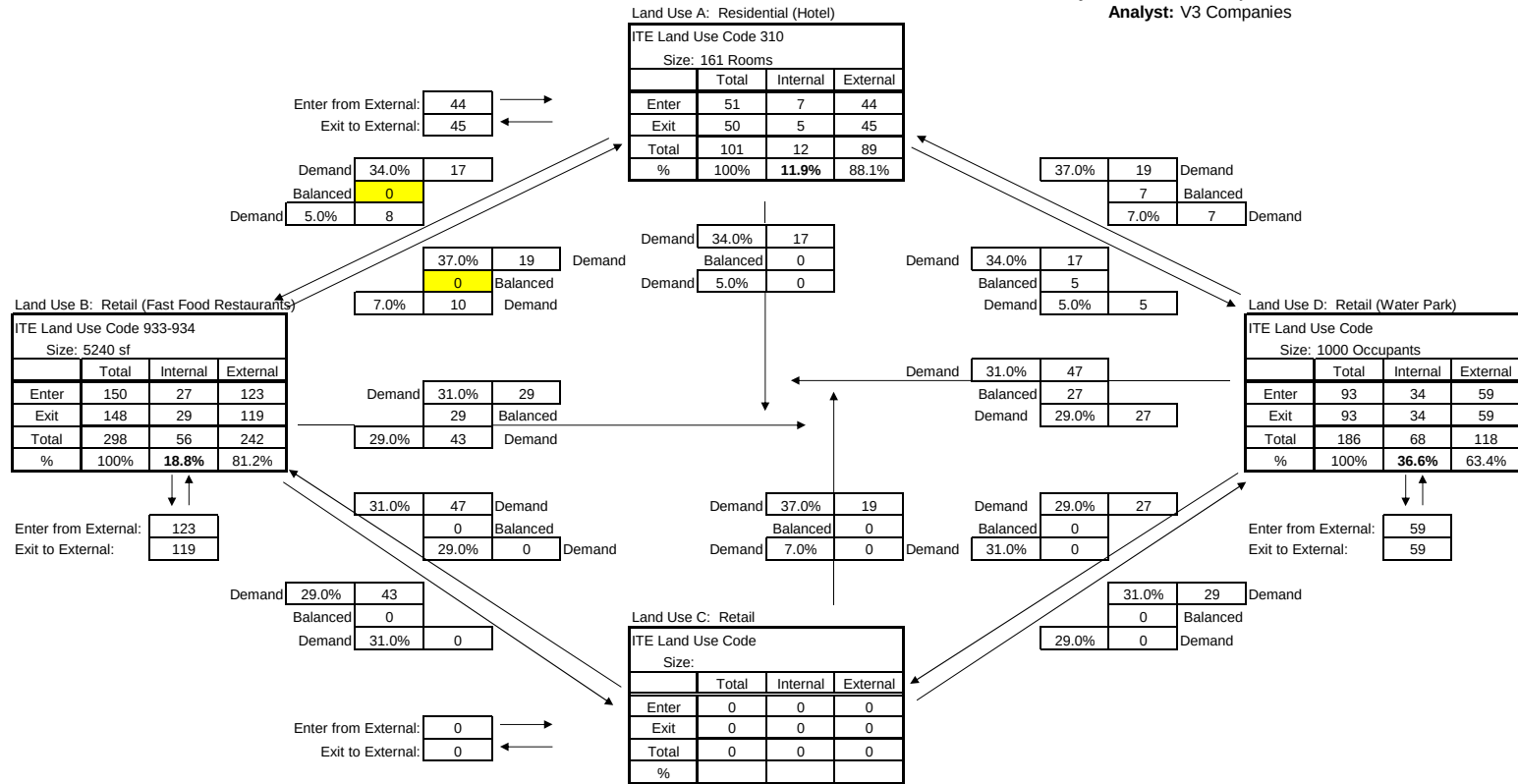


| NET EXTERNAL TRIPS FOR MULTI-USE DEVELOPMENT |          |     |   |     |       |
|----------------------------------------------|----------|-----|---|-----|-------|
| Category                                     | Land Use |     |   |     | Total |
|                                              | A        | B   | C | D   |       |
| Enter                                        | 35       | 72  | 0 | 94  | 201   |
| Exit                                         | 30       | 59  | 0 | 27  | 116   |
| Total                                        | 65       | 131 | 0 | 121 | 317   |
| Single Use Trip Gen Estimate                 | 81       | 154 | 0 | 160 | 395   |

Overall Internal Capture = 19.75%

**ITE MULTI-USE PROJECT INTERNAL CAPTURE WORKSHEET**  
 (Source: Chapter 7, ITE Trip Generation Handbook, June 2004)

Project Number: 000015126  
 Project Name: Arlington Downs  
 Scenario: Internal Capture - Water Park  
 Analysis Period: Saturday Peak  
 Analyst: V3 Companies



| NET EXTERNAL TRIPS FOR MULTI-USE DEVELOPMENT |          |     |   |     |       |
|----------------------------------------------|----------|-----|---|-----|-------|
| Category                                     | Land Use |     |   |     | Total |
|                                              | A        | B   | C | D   |       |
| Enter                                        | 44       | 123 | 0 | 59  | 226   |
| Exit                                         | 45       | 119 | 0 | 59  | 223   |
| Total                                        | 89       | 242 | 0 | 118 | 449   |
| Single Use Trip Gen Estimate                 | 101      | 298 | 0 | 186 | 585   |

Overall Internal Capture = 23.25%





## **APPENDIX D**

### **TRAFFIC SIGNAL WARRANT WORKSHEETS**

# SIGNAL WARRANT REVIEW SHEET

District #1

SRA:                       
 YES ☐ NO ☒

COUNTY: Lake

INTERSECTION: Euclid Avenue and Arlington Downs Drive  
 MUNICIPALITY: Arlington Heights, Illinois

Speed Limit of Major Route 40  
 Number of Lanes of Major Approach 2

Isolated Community with Population < 10,000 No  
 Number of Lanes of Minor Approach 2

| HOUR<br>BEGIN    | MAJOR<br>STREET<br>VOLUME<br>(both<br>approaches) | ADJ. MINOR<br>STREET<br>VOLUME<br>(higher volume<br>approaches) | Check any hours which meet the following Warrants |           |                                          |          |                  |
|------------------|---------------------------------------------------|-----------------------------------------------------------------|---------------------------------------------------|-----------|------------------------------------------|----------|------------------|
|                  |                                                   |                                                                 | WARRANT 1                                         |           | WARRANT 1: 8 hrs of one of the Following |          |                  |
|                  |                                                   |                                                                 | A<br>100%                                         | B<br>100% | WARRANT 1 A/B: 8<br>hrs of both          |          | 80% of Warrant 4 |
|                  |                                                   |                                                                 |                                                   |           | 80% of A                                 | 80% of B |                  |
| AM Peak Hour     | 2,907                                             | 190                                                             |                                                   | X         | X                                        | X        |                  |
| PM Peak Hour     | 3,054                                             | 190                                                             |                                                   | X         | X                                        | X        |                  |
| Sat MD Peak Hour | 2,617                                             | 174                                                             |                                                   | X         | X                                        | X        |                  |
|                  |                                                   |                                                                 |                                                   |           |                                          |          |                  |
|                  |                                                   |                                                                 |                                                   |           |                                          |          |                  |
| 8th Max. Hour*   | 1,680                                             | 105                                                             |                                                   | X         |                                          |          |                  |
|                  |                                                   |                                                                 |                                                   |           |                                          |          |                  |
|                  |                                                   |                                                                 |                                                   |           |                                          |          |                  |
|                  |                                                   |                                                                 |                                                   |           |                                          |          |                  |
|                  |                                                   |                                                                 |                                                   |           |                                          |          |                  |
|                  |                                                   |                                                                 |                                                   |           |                                          |          |                  |
|                  |                                                   |                                                                 |                                                   |           |                                          |          |                  |

\*Estimated by IDOT BDE Manual Method (55% of PM Peak Hour)

Hours Met:

Volume Requirements:

|        | 8th Hour |     |     |     |
|--------|----------|-----|-----|-----|
| MAJOR: | 600      | 900 | 480 | 720 |
| MINOR: | 200      | 100 | 160 | 80  |

## REVIEW INFORMATION

COUNTS USED: V3  
 COUNT DATE(S): 6/20/2015 & 6/23/2015  
 DATE REVIEWED: 8/20/2015  
 REVIEWED BY: CAS

## Comments

The intersection of Euclid Avenue and South Arlington Downs Driveway meets Warrant 1 for the assumed eighth hour volumes.

|                                                              |                                      |                                     |     |
|--------------------------------------------------------------|--------------------------------------|-------------------------------------|-----|
| <b>WARRANT 1</b>                                             | YES <input checked="" type="radio"/> | NO <input type="radio"/>            | N/A |
| Warrant 1 is met if any of the following Conditions are met: |                                      |                                     |     |
| • CONDITION A<br>Minimum Vehicular Volume                    | YES <input type="radio"/>            | NO <input checked="" type="radio"/> | N/A |
| • CONDITION B<br>Interruption of Continuous Traffic          | YES <input checked="" type="radio"/> | NO <input type="radio"/>            | N/A |
| • CONDITION A/B<br>Combination of Warrants                   | YES <input type="radio"/>            | NO <input checked="" type="radio"/> | N/A |
| <b>WARRANT 2</b><br>Four Hour Volume                         | YES <input type="radio"/>            | NO <input type="radio"/>            | N/A |
| <b>WARRANT 3</b><br>Peak Hour Volume                         | YES <input type="radio"/>            | NO <input type="radio"/>            | N/A |
| <b>WARRANT 4</b><br>Pedestrian Volume                        | YES <input type="radio"/>            | NO <input type="radio"/>            | N/A |
| <b>WARRANT 5</b><br>School Crossing                          | YES <input type="radio"/>            | NO <input type="radio"/>            | N/A |
| <b>WARRANT 6</b><br>Coordinated Signal System                | YES <input type="radio"/>            | NO <input type="radio"/>            | N/A |
| <b>WARRANT 7</b><br>Accidents Experience                     | YES <input type="radio"/>            | NO <input type="radio"/>            | N/A |
| <b>WARRANT 8</b><br>Roadway Network                          | YES <input type="radio"/>            | NO <input type="radio"/>            | N/A |
| <b>WARRANT 9</b><br>Intersection Near a Grade Crossing       | YES <input type="radio"/>            | NO <input type="radio"/>            | N/A |

## RIGHT TURN FACTORIZATION SHEET

INTERSECTION: Euclid Avenue and Arlington Downs Drive  
 MUNICIPALITY: Arlington Heights

COUNTY: Cook

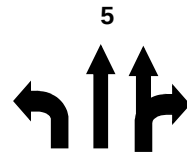
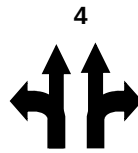
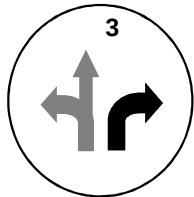
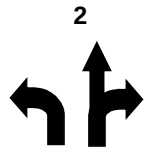
| DIR       | HOUR<br>BEGIN | MINOR STREET             |            |     |     | CRITICAL<br>MAINLINE<br>APPROACH<br>VOLUME<br>PER LANE | BASE RIGHT<br>TURN<br>REDUCTION<br>% | MAINLINE<br>CONGESTION<br>FACTOR<br>% | ADJUSTED<br>RIGHT TURN<br>REDUCTION<br>% | ADJUSTED<br>RIGHT<br>TURNS | ADJUSTED<br>MINOR<br>STREET<br>VOLUME |
|-----------|---------------|--------------------------|------------|-----|-----|--------------------------------------------------------|--------------------------------------|---------------------------------------|------------------------------------------|----------------------------|---------------------------------------|
|           |               | STREET NAME<br>CONFIG. # | Fisher Dr  |     |     |                                                        |                                      |                                       |                                          |                            |                                       |
|           |               |                          | 3          |     |     |                                                        |                                      |                                       |                                          |                            |                                       |
|           |               |                          | VOLUMES    |     |     |                                                        |                                      |                                       |                                          |                            |                                       |
| L<br>LEFT | T<br>THROUGH  | R<br>RIGHT               | A<br>TOTAL |     |     |                                                        |                                      |                                       |                                          |                            |                                       |
| SB        | AM            | 129                      | 0          | 175 | 304 | 572                                                    | 75%                                  | 10%                                   | 65%                                      | 61                         | 190                                   |
| SB        | PM            | 114                      | 0          | 151 | 265 | 890                                                    | 75%                                  | 25%                                   | 50%                                      | 76                         | 190                                   |
| SB        | Sat MD        | 123                      | 0          | 170 | 293 | 478                                                    | 75%                                  | 5%                                    | 70%                                      | 51                         | 174                                   |
|           |               |                          |            |     |     |                                                        |                                      |                                       |                                          |                            |                                       |
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|           |               |                          |            |     |     |                                                        |                                      |                                       |                                          |                            |                                       |
|           |               |                          |            |     |     |                                                        |                                      |                                       |                                          |                            |                                       |
|           |               |                          |            |     |     |                                                        |                                      |                                       |                                          |                            |                                       |
|           |               |                          |            |     |     |                                                        |                                      |                                       |                                          |                            |                                       |
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|           |               |                          |            |     |     |                                                        |                                      |                                       |                                          |                            |                                       |
|           |               |                          |            |     |     |                                                        |                                      |                                       |                                          |                            |                                       |
|           |               |                          |            |     |     |                                                        |                                      |                                       |                                          |                            |                                       |
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|           |               |                          |            |     |     |                                                        |                                      |                                       |                                          |                            |                                       |
|           |               |                          |            |     |     |                                                        |                                      |                                       |                                          |                            |                                       |
|           |               |                          |            |     |     |                                                        |                                      |                                       |                                          |                            |                                       |
|           |               |                          |            |     |     |                                                        |                                      |                                       |                                          |                            |                                       |
|           |               |                          |            |     |     |                                                        |                                      |                                       |                                          |                            |                                       |
|           |               |                          |            |     |     |                                                        |                                      |                                       |                                          |                            |                                       |
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|           |               |                          |            |     |     |                                                        |                                      |                                       |                                          |                            |                                       |
|           |               |                          |            |     |     |                                                        |                                      |                                       |                                          |                            |                                       |
|           |               |                          |            |     |     |                                                        | </                                   |                                       |                                          |                            |                                       |

| MAINLINE CONGESTION FACTORS |          |
|-----------------------------|----------|
| VOLUMES                     | FACTOR % |
| 0-399                       | 0        |
| 400-499                     | 5        |
| 500-599                     | 10       |
| 600-699                     | 15       |
| 700-799                     | 20       |
| 800-899                     | 25       |
| 900-999                     | 30       |
| 1000-1099                   | 35       |
| 1100-1199                   | 40       |
| 1200-1299                   | 45       |
| 1300-1399                   | 50       |
| 1400-1499                   | 55       |

### REVIEW INFORMATION

COUNTS USED: V3  
 COUNT DATE(S): 6/20/2015 & 6/23/2015  
 DATE REVIEWED: 8/20/2015  
 REVIEWED BY: CAS

1

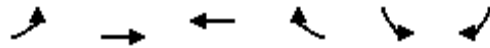
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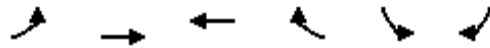


## **APPENDIX E**

### **CAPACITY ANALYSIS WORKSHEETS EXISTING**



| Lane Group                 | EBL   | EBT   | WBT   | WBR   | SBL   | SBR   |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations        |       |       |       |       |       |       |
| Volume (vph)               | 283   | 1233  | 882   | 127   | 88    | 61    |
| Ideal Flow (vphpl)         | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |
| Storage Length (ft)        | 150   |       |       | 0     | 200   | 0     |
| Storage Lanes              | 1     |       |       | 0     | 1     | 1     |
| Taper Length (ft)          | 25    |       |       |       | 25    |       |
| Lane Util. Factor          | 1.00  | 0.95  | 0.95  | 0.95  | 1.00  | 1.00  |
| Frt                        |       |       | 0.981 |       |       | 0.850 |
| Flt Protected              | 0.950 |       |       |       | 0.950 |       |
| Satd. Flow (prot)          | 1770  | 3539  | 3472  | 0     | 1770  | 1583  |
| Flt Permitted              | 0.224 |       |       |       | 0.950 |       |
| Satd. Flow (perm)          | 417   | 3539  | 3472  | 0     | 1770  | 1583  |
| Right Turn on Red          |       |       |       | Yes   |       | Yes   |
| Satd. Flow (RTOR)          |       |       | 18    |       |       | 64    |
| Link Speed (mph)           |       | 40    | 40    |       | 30    |       |
| Link Distance (ft)         |       | 842   | 459   |       | 580   |       |
| Travel Time (s)            |       | 14.4  | 7.8   |       | 13.2  |       |
| Peak Hour Factor           | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| Adj. Flow (vph)            | 298   | 1298  | 928   | 134   | 93    | 64    |
| Shared Lane Traffic (%)    |       |       |       |       |       |       |
| Lane Group Flow (vph)      | 298   | 1298  | 1062  | 0     | 93    | 64    |
| Enter Blocked Intersection | No    | No    | No    | No    | No    | No    |
| Lane Alignment             | Left  | Left  | Left  | Right | Left  | Right |
| Median Width(ft)           |       | 12    | 12    |       | 12    |       |
| Link Offset(ft)            |       | 0     | 0     |       | 0     |       |
| Crosswalk Width(ft)        |       | 16    | 16    |       | 16    |       |
| Two way Left Turn Lane     |       |       |       |       |       |       |
| Headway Factor             | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Turning Speed (mph)        | 15    |       |       | 9     | 15    | 9     |
| Turn Type                  | pm+pt | NA    | NA    |       | Prot  | pt+ov |
| Protected Phases           | 7     | 4     | 8     |       | 6     | 6 7   |
| Permitted Phases           | 4     |       |       |       |       |       |
| Detector Phase             | 7     | 4     | 8     |       | 6     | 6 7   |
| Switch Phase               |       |       |       |       |       |       |
| Minimum Initial (s)        | 5.0   | 5.0   | 5.0   |       | 5.0   |       |
| Minimum Split (s)          | 9.5   | 24.0  | 35.0  |       | 24.0  |       |
| Total Split (s)            | 32.0  | 96.0  | 64.0  |       | 24.0  |       |
| Total Split (%)            | 26.7% | 80.0% | 53.3% |       | 20.0% |       |
| Maximum Green (s)          | 29.0  | 90.0  | 58.0  |       | 18.0  |       |
| Yellow Time (s)            | 3.0   | 4.0   | 4.0   |       | 4.0   |       |
| All-Red Time (s)           | 0.0   | 2.0   | 2.0   |       | 2.0   |       |
| Lost Time Adjust (s)       | 0.0   | 0.0   | 0.0   |       | 0.0   |       |
| Total Lost Time (s)        | 3.0   | 6.0   | 6.0   |       | 6.0   |       |
| Lead/Lag                   | Lead  |       | Lag   |       |       |       |
| Lead-Lag Optimize?         | Yes   |       | Yes   |       |       |       |
| Vehicle Extension (s)      | 3.0   | 3.0   | 3.0   |       | 3.0   |       |
| Recall Mode                | None  | C-Min | C-Min |       | None  |       |
| Act Effct Green (s)        | 99.4  | 96.4  | 81.3  |       | 11.6  | 26.7  |
| Actuated g/C Ratio         | 0.83  | 0.80  | 0.68  |       | 0.10  | 0.22  |



| Lane Group              | EBL  | EBT   | WBT   | WBR | SBL  | SBR  |
|-------------------------|------|-------|-------|-----|------|------|
| v/c Ratio               | 0.62 | 0.46  | 0.45  |     | 0.54 | 0.16 |
| Control Delay           | 9.4  | 3.6   | 10.7  |     | 62.8 | 8.2  |
| Queue Delay             | 0.0  | 0.0   | 0.0   |     | 0.0  | 0.0  |
| Total Delay             | 9.4  | 3.6   | 10.7  |     | 62.8 | 8.2  |
| LOS                     | A    | A     | B     |     | E    | A    |
| Approach Delay          |      | 4.7   | 10.7  |     | 40.5 |      |
| Approach LOS            |      | A     | B     |     | D    |      |
| 90th %ile Green (s)     | 20.5 | 91.9  | 68.4  |     | 16.1 |      |
| 90th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 70th %ile Green (s)     | 14.2 | 94.5  | 77.3  |     | 13.5 |      |
| 70th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 50th %ile Green (s)     | 9.8  | 96.4  | 83.6  |     | 11.6 |      |
| 50th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 30th %ile Green (s)     | 8.5  | 98.2  | 86.7  |     | 9.8  |      |
| 30th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 10th %ile Green (s)     | 7.2  | 100.9 | 90.7  |     | 7.1  |      |
| 10th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| Queue Length 50th (ft)  | 29   | 6     | 166   |     | 70   | 0    |
| Queue Length 95th (ft)  | 78   | 10    | 308   |     | 121  | 31   |
| Internal Link Dist (ft) |      | 762   | 379   |     | 500  |      |
| Turn Bay Length (ft)    | 150  |       |       |     | 200  |      |
| Base Capacity (vph)     | 672  | 2842  | 2359  |     | 265  | 601  |
| Starvation Cap Reductn  | 0    | 0     | 0     |     | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0     | 0     |     | 0    | 0    |
| Storage Cap Reductn     | 0    | 0     | 0     |     | 0    | 0    |
| Reduced v/c Ratio       | 0.44 | 0.46  | 0.45  |     | 0.35 | 0.11 |

#### Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 80 (67%), Referenced to phase 4:EBTL and 8:WBT, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.62

Intersection Signal Delay: 9.0

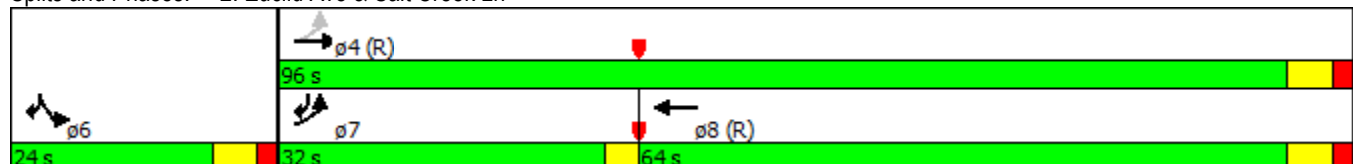
Intersection LOS: A

Intersection Capacity Utilization 62.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 2: Euclid Ave & Salt Creek Ln



2015 Existing  
4: Rohlwing Rd & Euclid Ave

Timing Plan: AM  
8/12/2015

|                            |  |  |  |  |  |  |   |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |  |  |  |                                                                                     |  |  |                                                                                     |
| Volume (vph)               | 133                                                                               | 1277                                                                              | 72                                                                                | 29                                                                                | 859                                                                               | 57                                                                                | 155                                                                                 | 103                                                                                 | 95                                                                                  | 142                                                                                 | 89                                                                                  | 54                                                                                  |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 200                                                                               |                                                                                   | 225                                                                               | 100                                                                               |                                                                                   | 200                                                                               | 145                                                                                 |                                                                                     | 0                                                                                   | 130                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                   |                                                                                     | 0                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                  |                                                                                     |                                                                                     | 25                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                     | 0.928                                                                               |                                                                                     |                                                                                     | 0.943                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3539                                                                              | 1583                                                                              | 1770                                                                              | 3539                                                                              | 1583                                                                              | 1770                                                                                | 1729                                                                                | 0                                                                                   | 1770                                                                                | 1757                                                                                | 0                                                                                   |
| Flt Permitted              | 0.222                                                                             |                                                                                   |                                                                                   | 0.120                                                                             |                                                                                   |                                                                                   | 0.661                                                                               |                                                                                     |                                                                                     | 0.353                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 414                                                                               | 3539                                                                              | 1583                                                                              | 224                                                                               | 3539                                                                              | 1583                                                                              | 1231                                                                                | 1729                                                                                | 0                                                                                   | 658                                                                                 | 1757                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 109                                                                               |                                                                                   |                                                                                   | 109                                                                               |                                                                                     | 37                                                                                  |                                                                                     |                                                                                     | 29                                                                                  |                                                                                     |
| Link Speed (mph)           |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 40                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 735                                                                               |                                                                                   |                                                                                   | 790                                                                               |                                                                                   |                                                                                     | 441                                                                                 |                                                                                     |                                                                                     | 644                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 12.5                                                                              |                                                                                   |                                                                                   | 13.5                                                                              |                                                                                   |                                                                                     | 10.0                                                                                |                                                                                     |                                                                                     | 11.0                                                                                |                                                                                     |
| Peak Hour Factor           | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Adj. Flow (vph)            | 140                                                                               | 1344                                                                              | 76                                                                                | 31                                                                                | 904                                                                               | 60                                                                                | 163                                                                                 | 108                                                                                 | 100                                                                                 | 149                                                                                 | 94                                                                                  | 57                                                                                  |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 140                                                                               | 1344                                                                              | 76                                                                                | 31                                                                                | 904                                                                               | 60                                                                                | 163                                                                                 | 208                                                                                 | 0                                                                                   | 149                                                                                 | 151                                                                                 | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 16                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 16                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases           | 4                                                                                 |                                                                                   | 4                                                                                 | 8                                                                                 |                                                                                   | 8                                                                                 | 2                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     |
| Detector Phase             | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Switch Phase               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)        | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                                 | 5.0                                                                                 |                                                                                     | 5.0                                                                                 | 5.0                                                                                 |                                                                                     |
| Minimum Split (s)          | 9.5                                                                               | 24.0                                                                              | 24.0                                                                              | 9.5                                                                               | 24.0                                                                              | 24.0                                                                              | 9.5                                                                                 | 24.0                                                                                |                                                                                     | 9.5                                                                                 | 51.0                                                                                |                                                                                     |
| Total Split (s)            | 16.0                                                                              | 43.0                                                                              | 43.0                                                                              | 16.0                                                                              | 43.0                                                                              | 43.0                                                                              | 10.0                                                                                | 37.0                                                                                |                                                                                     | 24.0                                                                                | 51.0                                                                                |                                                                                     |
| Total Split (%)            | 13.3%                                                                             | 35.8%                                                                             | 35.8%                                                                             | 13.3%                                                                             | 35.8%                                                                             | 35.8%                                                                             | 8.3%                                                                                | 30.8%                                                                               |                                                                                     | 20.0%                                                                               | 42.5%                                                                               |                                                                                     |
| Maximum Green (s)          | 13.0                                                                              | 37.0                                                                              | 37.0                                                                              | 13.0                                                                              | 37.0                                                                              | 37.0                                                                              | 7.0                                                                                 | 31.0                                                                                |                                                                                     | 21.0                                                                                | 45.0                                                                                |                                                                                     |
| Yellow Time (s)            | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                                 | 4.0                                                                                 |                                                                                     | 3.0                                                                                 | 4.0                                                                                 |                                                                                     |
| All-Red Time (s)           | 0.0                                                                               | 2.0                                                                               | 2.0                                                                               | 0.0                                                                               | 2.0                                                                               | 2.0                                                                               | 0.0                                                                                 | 2.0                                                                                 |                                                                                     | 0.0                                                                                 | 2.0                                                                                 |                                                                                     |
| Lost Time Adjust (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)        | 3.0                                                                               | 6.0                                                                               | 6.0                                                                               | 3.0                                                                               | 6.0                                                                               | 6.0                                                                               | 3.0                                                                                 | 6.0                                                                                 |                                                                                     | 3.0                                                                                 | 6.0                                                                                 |                                                                                     |
| Lead/Lag                   | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?         | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Vehicle Extension (s)      | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                                 | 3.0                                                                                 |                                                                                     | 3.0                                                                                 | 3.0                                                                                 |                                                                                     |
| Recall Mode                | None                                                                              | C-Min                                                                             | C-Min                                                                             | None                                                                              | C-Min                                                                             | C-Min                                                                             | None                                                                                | Min                                                                                 |                                                                                     | None                                                                                | Min                                                                                 |                                                                                     |
| Walk Time (s)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 7.0                                                                                 |
| Flash Dont Walk (s)        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 38.0                                                                                |



2015 Existing  
4: Rohlwing Rd & Euclid Ave

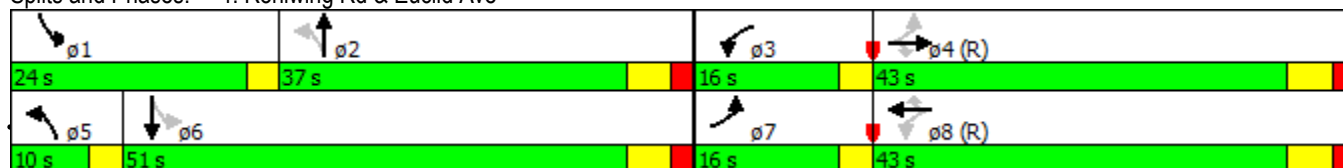
Timing Plan: AM  
8/12/2015

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Pedestrian Calls (#/hr) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 1                                                                                   |
| Act Effct Green (s)     | 75.2                                                                              | 66.2                                                                              | 66.2                                                                              | 69.2                                                                              | 59.8                                                                              | 59.8                                                                              | 30.0                                                                               | 20.0                                                                                |                                                                                     | 38.6                                                                                | 25.8                                                                                |                                                                                     |
| Actuated g/C Ratio      | 0.63                                                                              | 0.55                                                                              | 0.55                                                                              | 0.58                                                                              | 0.50                                                                              | 0.50                                                                              | 0.25                                                                               | 0.17                                                                                |                                                                                     | 0.32                                                                                | 0.22                                                                                |                                                                                     |
| v/c Ratio               | 0.38                                                                              | 0.69                                                                              | 0.08                                                                              | 0.15                                                                              | 0.51                                                                              | 0.07                                                                              | 0.48                                                                               | 0.65                                                                                |                                                                                     | 0.45                                                                                | 0.38                                                                                |                                                                                     |
| Control Delay           | 14.8                                                                              | 25.2                                                                              | 2.1                                                                               | 11.3                                                                              | 28.7                                                                              | 6.9                                                                               | 35.1                                                                               | 46.4                                                                                |                                                                                     | 32.1                                                                                | 32.2                                                                                |                                                                                     |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay             | 14.8                                                                              | 25.2                                                                              | 2.1                                                                               | 11.3                                                                              | 28.7                                                                              | 6.9                                                                               | 35.1                                                                               | 46.4                                                                                |                                                                                     | 32.1                                                                                | 32.2                                                                                |                                                                                     |
| LOS                     | B                                                                                 | C                                                                                 | A                                                                                 | B                                                                                 | C                                                                                 | A                                                                                 | D                                                                                  | D                                                                                   |                                                                                     | C                                                                                   | C                                                                                   |                                                                                     |
| Approach Delay          |                                                                                   | 23.1                                                                              |                                                                                   |                                                                                   | 26.9                                                                              |                                                                                   |                                                                                    | 41.4                                                                                |                                                                                     |                                                                                     | 32.1                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                    | D                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| 90th %ile Green (s)     | 13.0                                                                              | 41.9                                                                              | 41.9                                                                              | 8.1                                                                               | 37.0                                                                              | 37.0                                                                              | 7.0                                                                                | 37.1                                                                                |                                                                                     | 14.9                                                                                | 45.0                                                                                |                                                                                     |
| 90th %ile Term Code     | Max                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Gap                                                                                 | Ped                                                                                 |                                                                                     |
| 70th %ile Green (s)     | 10.6                                                                              | 59.9                                                                              | 59.9                                                                              | 6.7                                                                               | 56.0                                                                              | 56.0                                                                              | 7.0                                                                                | 20.3                                                                                |                                                                                     | 15.1                                                                                | 28.4                                                                                |                                                                                     |
| 70th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Gap                                                                                 |                                                                                     | Gap                                                                                 | Hold                                                                                |                                                                                     |
| 50th %ile Green (s)     | 9.1                                                                               | 64.8                                                                              | 64.8                                                                              | 6.2                                                                               | 61.9                                                                              | 61.9                                                                              | 7.0                                                                                | 17.5                                                                                |                                                                                     | 13.5                                                                                | 24.0                                                                                |                                                                                     |
| 50th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Gap                                                                                 |                                                                                     | Gap                                                                                 | Hold                                                                                |                                                                                     |
| 30th %ile Green (s)     | 7.9                                                                               | 78.7                                                                              | 78.7                                                                              | 0.0                                                                               | 67.8                                                                              | 67.8                                                                              | 7.0                                                                                | 14.6                                                                                |                                                                                     | 11.7                                                                                | 19.3                                                                                |                                                                                     |
| 30th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Skip                                                                              | Coord                                                                             | Coord                                                                             | Max                                                                                | Gap                                                                                 |                                                                                     | Gap                                                                                 | Hold                                                                                |                                                                                     |
| 10th %ile Green (s)     | 6.5                                                                               | 85.7                                                                              | 85.7                                                                              | 0.0                                                                               | 76.2                                                                              | 76.2                                                                              | 7.0                                                                                | 10.3                                                                                |                                                                                     | 9.0                                                                                 | 12.3                                                                                |                                                                                     |
| 10th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Skip                                                                              | Coord                                                                             | Coord                                                                             | Max                                                                                | Gap                                                                                 |                                                                                     | Gap                                                                                 | Hold                                                                                |                                                                                     |
| Queue Length 50th (ft)  | 39                                                                                | 390                                                                               | 0                                                                                 | 13                                                                                | 330                                                                               | 5                                                                                 | 96                                                                                 | 129                                                                                 |                                                                                     | 87                                                                                  | 82                                                                                  |                                                                                     |
| Queue Length 95th (ft)  | 102                                                                               | #754                                                                              | 16                                                                                | m25                                                                               | 456                                                                               | 39                                                                                | 113                                                                                | 171                                                                                 |                                                                                     | 104                                                                                 | 113                                                                                 |                                                                                     |
| Internal Link Dist (ft) |                                                                                   | 655                                                                               |                                                                                   |                                                                                   | 710                                                                               |                                                                                   |                                                                                    | 361                                                                                 |                                                                                     |                                                                                     | 564                                                                                 |                                                                                     |
| Turn Bay Length (ft)    | 200                                                                               |                                                                                   | 225                                                                               | 100                                                                               |                                                                                   | 200                                                                               | 145                                                                                |                                                                                     |                                                                                     | 130                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 406                                                                               | 1952                                                                              | 921                                                                               | 306                                                                               | 1763                                                                              | 843                                                                               | 338                                                                                | 491                                                                                 |                                                                                     | 407                                                                                 | 677                                                                                 |                                                                                     |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio       | 0.34                                                                              | 0.69                                                                              | 0.08                                                                              | 0.10                                                                              | 0.51                                                                              | 0.07                                                                              | 0.48                                                                               | 0.42                                                                                |                                                                                     | 0.37                                                                                | 0.22                                                                                |                                                                                     |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green, Master Intersection  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.69  
 Intersection Signal Delay: 27.2  
 Intersection LOS: C  
 Intersection Capacity Utilization 75.2%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Rohlwing Rd & Euclid Ave



| Intersection             |        |        |       |        |      |      |
|--------------------------|--------|--------|-------|--------|------|------|
| Int Delay, s/veh         | 0.3    |        |       |        |      |      |
| Movement                 | EBL    | EBR    | NBL   | NBT    | SBT  | SBR  |
| Vol, veh/h               | 0      | 7      | 3     | 218    | 51   | 0    |
| Conflicting Peds, #/hr   | 0      | 0      | 0     | 0      | 0    | 0    |
| Sign Control             | Stop   | Stop   | Free  | Free   | Free | Free |
| RT Channelized           | -      | None   | -     | None   | -    | None |
| Storage Length           | 0      | -      | -     | -      | -    | -    |
| Veh in Median Storage, # | 0      | -      | -     | 0      | 0    | -    |
| Grade, %                 | 0      | -      | -     | 0      | 0    | -    |
| Peak Hour Factor         | 95     | 95     | 95    | 95     | 95   | 95   |
| Heavy Vehicles, %        | 2      | 2      | 2     | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 7      | 3     | 229    | 54   | 0    |
| Major/Minor              | Minor2 | Major1 |       | Major2 |      |      |
| Conflicting Flow All     | 290    | 54     | 54    | 0      | -    | 0    |
| Stage 1                  | 54     | -      | -     | -      | -    | -    |
| Stage 2                  | 236    | -      | -     | -      | -    | -    |
| Critical Hdwy            | 6.42   | 6.22   | 4.12  | -      | -    | -    |
| Critical Hdwy Stg 1      | 5.42   | -      | -     | -      | -    | -    |
| Critical Hdwy Stg 2      | 5.42   | -      | -     | -      | -    | -    |
| Follow-up Hdwy           | 3.518  | 3.318  | 2.218 | -      | -    | -    |
| Pot Cap-1 Maneuver       | 701    | 1013   | 1551  | -      | -    | -    |
| Stage 1                  | 969    | -      | -     | -      | -    | -    |
| Stage 2                  | 803    | -      | -     | -      | -    | -    |
| Platoon blocked, %       |        |        |       | -      | -    | -    |
| Mov Cap-1 Maneuver       | 700    | 1013   | 1551  | -      | -    | -    |
| Mov Cap-2 Maneuver       | 700    | -      | -     | -      | -    | -    |
| Stage 1                  | 969    | -      | -     | -      | -    | -    |
| Stage 2                  | 801    | -      | -     | -      | -    | -    |
| Approach                 | EB     | NB     |       | SB     |      |      |
| HCM Control Delay, s     | 8.6    | 0.1    |       | 0      |      |      |
| HCM LOS                  | A      |        |       |        |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT    | EBLn1 | SBT    | SBR  |      |
| Capacity (veh/h)         | 1551   | -      | 1013  | -      | -    |      |
| HCM Lane V/C Ratio       | 0.002  | -      | 0.007 | -      | -    |      |
| HCM Control Delay (s)    | 7.3    | 0      | 8.6   | -      | -    |      |
| HCM Lane LOS             | A      | A      | A     | -      | -    |      |
| HCM 95th %tile Q(veh)    | 0      | -      | 0     | -      | -    |      |

| Intersection             |        |      |        |      |        |       |
|--------------------------|--------|------|--------|------|--------|-------|
| Int Delay, s/veh         | 0.1    |      |        |      |        |       |
| Movement                 | EBL    | EBT  | WBT    | WBR  | SBL    | SBR   |
| Vol, veh/h               | 2      | 1512 | 942    | 2    | 1      | 13    |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0    | 0      | 0     |
| Sign Control             | Free   | Free | Free   | Free | Stop   | Stop  |
| RT Channelized           | -      | None | -      | None | -      | None  |
| Storage Length           | -      | -    | -      | -    | 0      | 0     |
| Veh in Median Storage, # | -      | 0    | 0      | -    | 0      | -     |
| Grade, %                 | -      | 0    | 0      | -    | 0      | -     |
| Peak Hour Factor         | 95     | 95   | 95     | 95   | 95     | 95    |
| Heavy Vehicles, %        | 2      | 2    | 2      | 2    | 2      | 2     |
| Mvmt Flow                | 2      | 1592 | 992    | 2    | 1      | 14    |
| Major/Minor              | Major1 |      | Major2 |      | Minor2 |       |
| Conflicting Flow All     | 994    | 0    | -      | 0    | 1793   | 497   |
| Stage 1                  | -      | -    | -      | -    | 993    | -     |
| Stage 2                  | -      | -    | -      | -    | 800    | -     |
| Critical Hdwy            | 4.14   | -    | -      | -    | 6.84   | 6.94  |
| Critical Hdwy Stg 1      | -      | -    | -      | -    | 5.84   | -     |
| Critical Hdwy Stg 2      | -      | -    | -      | -    | 5.84   | -     |
| Follow-up Hdwy           | 2.22   | -    | -      | -    | 3.52   | 3.32  |
| Pot Cap-1 Maneuver       | 692    | -    | -      | -    | 72     | 519   |
| Stage 1                  | -      | -    | -      | -    | 319    | -     |
| Stage 2                  | -      | -    | -      | -    | 403    | -     |
| Platoon blocked, %       | -      | -    | -      | -    | -      | -     |
| Mov Cap-1 Maneuver       | 692    | -    | -      | -    | 70     | 519   |
| Mov Cap-2 Maneuver       | -      | -    | -      | -    | 70     | -     |
| Stage 1                  | -      | -    | -      | -    | 319    | -     |
| Stage 2                  | -      | -    | -      | -    | 393    | -     |
| Approach                 | EB     |      | WB     |      | SB     |       |
| HCM Control Delay, s     | 0.1    |      | 0      |      | 15.3   |       |
| HCM LOS                  |        |      |        |      | C      |       |
| Minor Lane/Major Mvmt    | EBL    | EBT  | WBT    | WBR  | SBLn1  | SBLn2 |
| Capacity (veh/h)         | 692    | -    | -      | -    | 70     | 519   |
| HCM Lane V/C Ratio       | 0.003  | -    | -      | -    | 0.015  | 0.026 |
| HCM Control Delay (s)    | 10.2   | 0.1  | -      | -    | 57.2   | 12.1  |
| HCM Lane LOS             | B      | A    | -      | -    | F      | B     |
| HCM 95th %tile Q(veh)    | 0      | -    | -      | -    | 0      | 0.1   |

| Intersection             |        |               |        |       |        |      |
|--------------------------|--------|---------------|--------|-------|--------|------|
| Int Delay, s/veh         | 0.1    |               |        |       |        |      |
|                          |        |               |        |       |        |      |
| Movement                 | WBL    | WBR           | NBT    | NBR   | SBL    | SBT  |
| Vol, veh/h               | 2      | 0             | 252    | 5     | 2      | 293  |
| Conflicting Peds, #/hr   | 0      | 0             | 0      | 0     | 0      | 0    |
| Sign Control             | Stop   | Stop          | Free   | Free  | Free   | Free |
| RT Channelized           | -      | None          | -      | None  | -      | None |
| Storage Length           | 0      | 0             | -      | -     | 200    | -    |
| Veh in Median Storage, # | 0      | -             | 0      | -     | -      | 0    |
| Grade, %                 | 0      | -             | 0      | -     | -      | 0    |
| Peak Hour Factor         | 95     | 95            | 95     | 95    | 95     | 95   |
| Heavy Vehicles, %        | 2      | 2             | 2      | 2     | 2      | 2    |
| Mvmt Flow                | 2      | 0             | 265    | 5     | 2      | 308  |
|                          |        |               |        |       |        |      |
| Major/Minor              | Minor1 |               | Major1 |       | Major2 |      |
| Conflicting Flow All     | 581    | 268           | 0      | 0     | 271    | 0    |
| Stage 1                  | 268    | -             | -      | -     | -      | -    |
| Stage 2                  | 313    | -             | -      | -     | -      | -    |
| Critical Hdwy            | 6.42   | 6.22          | -      | -     | 4.12   | -    |
| Critical Hdwy Stg 1      | 5.42   | -             | -      | -     | -      | -    |
| Critical Hdwy Stg 2      | 5.42   | -             | -      | -     | -      | -    |
| Follow-up Hdwy           | 3.518  | 3.318         | -      | -     | 2.218  | -    |
| Pot Cap-1 Maneuver       | 476    | 771           | -      | -     | 1292   | -    |
| Stage 1                  | 777    | -             | -      | -     | -      | -    |
| Stage 2                  | 741    | -             | -      | -     | -      | -    |
| Platoon blocked, %       |        |               | -      | -     |        | -    |
| Mov Cap-1 Maneuver       | 475    | 771           | -      | -     | 1292   | -    |
| Mov Cap-2 Maneuver       | 475    | -             | -      | -     | -      | -    |
| Stage 1                  | 777    | -             | -      | -     | -      | -    |
| Stage 2                  | 740    | -             | -      | -     | -      | -    |
|                          |        |               |        |       |        |      |
| Approach                 | WB     |               | NB     |       | SB     |      |
| HCM Control Delay, s     | 12.6   |               | 0      |       | 0.1    |      |
| HCM LOS                  | B      |               |        |       |        |      |
|                          |        |               |        |       |        |      |
| Minor Lane/Major Mvmt    | NBT    | NBRWBLn1WBLn2 | SBL    | SBT   |        |      |
| Capacity (veh/h)         | -      | - 475         | -      | 1292  | -      |      |
| HCM Lane V/C Ratio       | -      | - 0.004       | -      | 0.002 | -      |      |
| HCM Control Delay (s)    | -      | - 12.6        | 0      | 7.8   | -      |      |
| HCM Lane LOS             | -      | - B           | A      | A     | -      |      |
| HCM 95th %tile Q(veh)    | -      | - 0           | -      | 0     | -      |      |



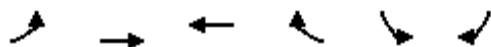
| Intersection     |     |  |  |  |  |  |  |  |  |  |  |  |
|------------------|-----|--|--|--|--|--|--|--|--|--|--|--|
| Int Delay, s/veh | 1.6 |  |  |  |  |  |  |  |  |  |  |  |

| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol, veh/h               | 1    | 0    | 0    | 7    | 1    | 25   | 0    | 188  | 57   | 87   | 295  | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | 175  | -    | -    | -    | -    | -    | 0    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 95   | 95   | 95   | 95   | 95   | 95   | 95   | 95   | 95   | 95   | 95   | 95   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 1    | 0    | 0    | 7    | 1    | 26   | 0    | 198  | 60   | 92   | 311  | 0    |

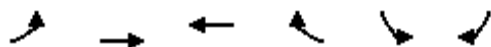
| Major/Minor          | Minor2 |       |       | Minor1 |       |       | Major1 |   |   | Major2 |   |   |
|----------------------|--------|-------|-------|--------|-------|-------|--------|---|---|--------|---|---|
| Conflicting Flow All | 736    | 752   | 311   | 722    | 722   | 228   | 311    | 0 | 0 | 258    | 0 | 0 |
| Stage 1              | 494    | 494   | -     | 228    | 228   | -     | -      | - | - | -      | - | - |
| Stage 2              | 242    | 258   | -     | 494    | 494   | -     | -      | - | - | -      | - | - |
| Critical Hdwy        | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  | 4.12   | - | - | 4.12   | - | - |
| Critical Hdwy Stg 1  | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     | -      | - | - | -      | - | - |
| Critical Hdwy Stg 2  | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     | -      | - | - | -      | - | - |
| Follow-up Hdwy       | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 | 2.218  | - | - | 2.218  | - | - |
| Pot Cap-1 Maneuver   | 335    | 339   | 729   | 342    | 353   | 811   | 1249   | - | - | 1307   | - | - |
| Stage 1              | 557    | 546   | -     | 775    | 715   | -     | -      | - | - | -      | - | - |
| Stage 2              | 762    | 694   | -     | 557    | 546   | -     | -      | - | - | -      | - | - |
| Platoon blocked, %   |        |       |       |        |       |       |        | - | - |        | - | - |
| Mov Cap-1 Maneuver   | 306    | 315   | 729   | 324    | 328   | 811   | 1249   | - | - | 1307   | - | - |
| Mov Cap-2 Maneuver   | 306    | 315   | -     | 324    | 328   | -     | -      | - | - | -      | - | - |
| Stage 1              | 557    | 508   | -     | 775    | 715   | -     | -      | - | - | -      | - | - |
| Stage 2              | 736    | 694   | -     | 518    | 508   | -     | -      | - | - | -      | - | - |

| Approach             | EB   | WB   | NB | SB  |
|----------------------|------|------|----|-----|
| HCM Control Delay, s | 16.8 | 11.3 | 0  | 1.8 |
| HCM LOS              | C    | B    |    |     |

| Minor Lane/Major Mvmt | NBL  | NBT | NBR | EBLn1 | WBLn1 | WBLn2 | SBL  | SBT | SBR |
|-----------------------|------|-----|-----|-------|-------|-------|------|-----|-----|
| Capacity (veh/h)      | 1249 | -   | -   | 306   | 324   | 768   | 1307 | -   | -   |
| HCM Lane V/C Ratio    | -    | -   | -   | 0.003 | 0.023 | 0.036 | 0.07 | -   | -   |
| HCM Control Delay (s) | 0    | -   | -   | 16.8  | 16.4  | 9.9   | 8    | -   | -   |
| HCM Lane LOS          | A    | -   | -   | C     | C     | A     | A    | -   | -   |
| HCM 95th %tile Q(veh) | 0    | -   | -   | 0     | 0.1   | 0.1   | 0.2  | -   | -   |



| Lane Group                 | EBL   | EBT   | WBT   | WBR   | SBL   | SBR   |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations        |       |       |       |       |       |       |
| Volume (vph)               | 67    | 925   | 1298  | 45    | 140   | 217   |
| Ideal Flow (vphpl)         | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |
| Storage Length (ft)        | 150   |       |       | 0     | 200   | 0     |
| Storage Lanes              | 1     |       |       | 0     | 1     | 1     |
| Taper Length (ft)          | 25    |       |       |       | 25    |       |
| Lane Util. Factor          | 1.00  | 0.95  | 0.95  | 0.95  | 1.00  | 1.00  |
| Frt                        |       |       | 0.995 |       |       | 0.850 |
| Flt Protected              | 0.950 |       |       |       | 0.950 |       |
| Satd. Flow (prot)          | 1770  | 3539  | 3522  | 0     | 1770  | 1583  |
| Flt Permitted              | 0.135 |       |       |       | 0.950 |       |
| Satd. Flow (perm)          | 251   | 3539  | 3522  | 0     | 1770  | 1583  |
| Right Turn on Red          |       |       |       | Yes   |       | Yes   |
| Satd. Flow (RTOR)          |       |       | 5     |       |       | 51    |
| Link Speed (mph)           |       | 40    | 40    |       | 30    |       |
| Link Distance (ft)         |       | 842   | 459   |       | 580   |       |
| Travel Time (s)            |       | 14.4  | 7.8   |       | 13.2  |       |
| Peak Hour Factor           | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| Adj. Flow (vph)            | 71    | 974   | 1366  | 47    | 147   | 228   |
| Shared Lane Traffic (%)    |       |       |       |       |       |       |
| Lane Group Flow (vph)      | 71    | 974   | 1413  | 0     | 147   | 228   |
| Enter Blocked Intersection | No    | No    | No    | No    | No    | No    |
| Lane Alignment             | Left  | Left  | Left  | Right | Left  | Right |
| Median Width(ft)           |       | 12    | 12    |       | 12    |       |
| Link Offset(ft)            |       | 0     | 0     |       | 0     |       |
| Crosswalk Width(ft)        |       | 16    | 16    |       | 16    |       |
| Two way Left Turn Lane     |       |       |       |       |       |       |
| Headway Factor             | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Turning Speed (mph)        | 15    |       |       | 9     | 15    | 9     |
| Turn Type                  | pm+pt | NA    | NA    |       | Prot  | pt+ov |
| Protected Phases           | 7     | 4     | 8     |       | 6     | 6 7   |
| Permitted Phases           | 4     |       |       |       |       |       |
| Detector Phase             | 7     | 4     | 8     |       | 6     | 6 7   |
| Switch Phase               |       |       |       |       |       |       |
| Minimum Initial (s)        | 5.0   | 5.0   | 5.0   |       | 5.0   |       |
| Minimum Split (s)          | 9.5   | 24.0  | 35.0  |       | 24.0  |       |
| Total Split (s)            | 16.0  | 94.0  | 78.0  |       | 26.0  |       |
| Total Split (%)            | 13.3% | 78.3% | 65.0% |       | 21.7% |       |
| Maximum Green (s)          | 13.0  | 88.0  | 72.0  |       | 20.0  |       |
| Yellow Time (s)            | 3.0   | 4.0   | 4.0   |       | 4.0   |       |
| All-Red Time (s)           | 0.0   | 2.0   | 2.0   |       | 2.0   |       |
| Lost Time Adjust (s)       | 0.0   | 0.0   | 0.0   |       | 0.0   |       |
| Total Lost Time (s)        | 3.0   | 6.0   | 6.0   |       | 6.0   |       |
| Lead/Lag                   | Lead  |       | Lag   |       |       |       |
| Lead-Lag Optimize?         | Yes   |       | Yes   |       |       |       |
| Vehicle Extension (s)      | 3.0   | 3.0   | 3.0   |       | 3.0   |       |
| Recall Mode                | None  | C-Min | C-Min |       | None  |       |
| Act Effct Green (s)        | 94.2  | 91.2  | 81.5  |       | 16.8  | 26.5  |
| Actuated g/C Ratio         | 0.78  | 0.76  | 0.68  |       | 0.14  | 0.22  |



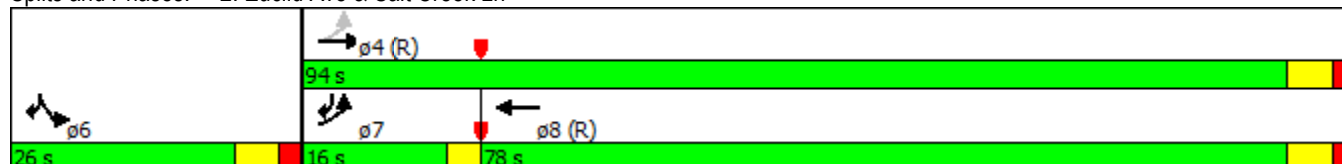
| Lane Group              | EBL  | EBT   | WBT   | WBR | SBL  | SBR  |
|-------------------------|------|-------|-------|-----|------|------|
| v/c Ratio               | 0.25 | 0.36  | 0.59  |     | 0.59 | 0.59 |
| Control Delay           | 10.1 | 7.0   | 12.5  |     | 57.3 | 37.4 |
| Queue Delay             | 0.0  | 0.0   | 0.0   |     | 0.0  | 0.0  |
| Total Delay             | 10.1 | 7.0   | 12.5  |     | 57.3 | 37.4 |
| LOS                     | B    | A     | B     |     | E    | D    |
| Approach Delay          |      | 7.2   | 12.5  |     | 45.2 |      |
| Approach LOS            |      | A     | B     |     | D    |      |
| 90th %ile Green (s)     | 8.1  | 83.4  | 72.3  |     | 24.6 |      |
| 90th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 70th %ile Green (s)     | 7.1  | 88.6  | 78.5  |     | 19.4 |      |
| 70th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 50th %ile Green (s)     | 6.5  | 91.6  | 82.1  |     | 16.4 |      |
| 50th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 30th %ile Green (s)     | 6.1  | 94.2  | 85.1  |     | 13.8 |      |
| 30th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 10th %ile Green (s)     | 5.7  | 98.1  | 89.4  |     | 9.9  |      |
| 10th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| Queue Length 50th (ft)  | 8    | 87    | 274   |     | 109  | 124  |
| Queue Length 95th (ft)  | 61   | 254   | 434   |     | 164  | 188  |
| Internal Link Dist (ft) |      | 762   | 379   |     | 500  |      |
| Turn Bay Length (ft)    | 150  |       |       |     | 200  |      |
| Base Capacity (vph)     | 361  | 2716  | 2393  |     | 308  | 450  |
| Starvation Cap Reductn  | 0    | 0     | 0     |     | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0     | 0     |     | 0    | 0    |
| Storage Cap Reductn     | 0    | 0     | 0     |     | 0    | 0    |
| Reduced v/c Ratio       | 0.20 | 0.36  | 0.59  |     | 0.48 | 0.51 |

#### Intersection Summary

Area Type: Other  
Cycle Length: 120  
Actuated Cycle Length: 120  
Offset: 109 (91%), Referenced to phase 4:EBTL and 8:WBT, Start of Green  
Natural Cycle: 70  
Control Type: Actuated-Coordinated  
Maximum v/c Ratio: 0.59  
Intersection Signal Delay: 14.9  
Intersection Capacity Utilization 62.6%  
Analysis Period (min) 15

Intersection LOS: B  
ICU Level of Service B

#### Splits and Phases: 2: Euclid Ave & Salt Creek Ln



2015 Existing  
4: Rohlwing Rd & Euclid Ave

Timing Plan: PM

8/12/2015

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |  |  |  |                                                                                     |  |  |                                                                                     |
| Volume (vph)               | 49                                                                                | 814                                                                               | 169                                                                               | 72                                                                                | 1356                                                                              | 85                                                                                | 148                                                                                | 113                                                                                 | 55                                                                                  | 108                                                                                 | 117                                                                                 | 183                                                                                 |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 200                                                                               |                                                                                   | 225                                                                               | 100                                                                               |                                                                                   | 200                                                                               | 145                                                                                |                                                                                     | 0                                                                                   | 130                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                  |                                                                                     | 0                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                 |                                                                                     |                                                                                     | 25                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                    | 0.951                                                                               |                                                                                     |                                                                                     | 0.908                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                              |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3539                                                                              | 1583                                                                              | 1770                                                                              | 3539                                                                              | 1583                                                                              | 1770                                                                               | 1771                                                                                | 0                                                                                   | 1770                                                                                | 1691                                                                                | 0                                                                                   |
| Flt Permitted              | 0.085                                                                             |                                                                                   |                                                                                   | 0.257                                                                             |                                                                                   |                                                                                   | 0.310                                                                              |                                                                                     |                                                                                     | 0.447                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 158                                                                               | 3539                                                                              | 1583                                                                              | 479                                                                               | 3539                                                                              | 1583                                                                              | 577                                                                                | 1771                                                                                | 0                                                                                   | 833                                                                                 | 1691                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                    |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 171                                                                               |                                                                                   |                                                                                   | 109                                                                               |                                                                                    | 22                                                                                  |                                                                                     |                                                                                     | 75                                                                                  |                                                                                     |
| Link Speed (mph)           |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                    | 30                                                                                  |                                                                                     |                                                                                     | 40                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 735                                                                               |                                                                                   |                                                                                   | 790                                                                               |                                                                                   |                                                                                    | 441                                                                                 |                                                                                     |                                                                                     | 644                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 12.5                                                                              |                                                                                   |                                                                                   | 13.5                                                                              |                                                                                   |                                                                                    | 10.0                                                                                |                                                                                     |                                                                                     | 11.0                                                                                |                                                                                     |
| Peak Hour Factor           | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                               | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Adj. Flow (vph)            | 52                                                                                | 857                                                                               | 178                                                                               | 76                                                                                | 1427                                                                              | 89                                                                                | 156                                                                                | 119                                                                                 | 58                                                                                  | 114                                                                                 | 123                                                                                 | 193                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 52                                                                                | 857                                                                               | 178                                                                               | 76                                                                                | 1427                                                                              | 89                                                                                | 156                                                                                | 177                                                                                 | 0                                                                                   | 114                                                                                 | 316                                                                                 | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                 | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                               | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                    | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                    | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 16                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                    | 16                                                                                  |                                                                                     |                                                                                     | 16                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                 |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                              | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                  | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases           | 4                                                                                 |                                                                                   | 4                                                                                 | 8                                                                                 |                                                                                   | 8                                                                                 | 2                                                                                  |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     |
| Detector Phase             | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                  | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Switch Phase               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)        | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                                | 5.0                                                                                 |                                                                                     | 5.0                                                                                 | 5.0                                                                                 |                                                                                     |
| Minimum Split (s)          | 9.5                                                                               | 24.0                                                                              | 24.0                                                                              | 9.5                                                                               | 24.0                                                                              | 24.0                                                                              | 9.5                                                                                | 24.0                                                                                |                                                                                     | 9.5                                                                                 | 51.0                                                                                |                                                                                     |
| Total Split (s)            | 16.0                                                                              | 43.0                                                                              | 43.0                                                                              | 16.0                                                                              | 43.0                                                                              | 43.0                                                                              | 10.0                                                                               | 45.0                                                                                |                                                                                     | 16.0                                                                                | 51.0                                                                                |                                                                                     |
| Total Split (%)            | 13.3%                                                                             | 35.8%                                                                             | 35.8%                                                                             | 13.3%                                                                             | 35.8%                                                                             | 35.8%                                                                             | 8.3%                                                                               | 37.5%                                                                               |                                                                                     | 13.3%                                                                               | 42.5%                                                                               |                                                                                     |
| Maximum Green (s)          | 13.0                                                                              | 37.0                                                                              | 37.0                                                                              | 13.0                                                                              | 37.0                                                                              | 37.0                                                                              | 7.0                                                                                | 39.0                                                                                |                                                                                     | 13.0                                                                                | 45.0                                                                                |                                                                                     |
| Yellow Time (s)            | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                                | 4.0                                                                                 |                                                                                     | 3.0                                                                                 | 4.0                                                                                 |                                                                                     |
| All-Red Time (s)           | 0.0                                                                               | 2.0                                                                               | 2.0                                                                               | 0.0                                                                               | 2.0                                                                               | 2.0                                                                               | 0.0                                                                                | 2.0                                                                                 |                                                                                     | 0.0                                                                                 | 2.0                                                                                 |                                                                                     |
| Lost Time Adjust (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)        | 3.0                                                                               | 6.0                                                                               | 6.0                                                                               | 3.0                                                                               | 6.0                                                                               | 6.0                                                                               | 3.0                                                                                | 6.0                                                                                 |                                                                                     | 3.0                                                                                 | 6.0                                                                                 |                                                                                     |
| Lead/Lag                   | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                               | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?         | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Vehicle Extension (s)      | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                                | 3.0                                                                                 |                                                                                     | 3.0                                                                                 | 3.0                                                                                 |                                                                                     |
| Recall Mode                | None                                                                              | C-Min                                                                             | C-Min                                                                             | None                                                                              | C-Min                                                                             | C-Min                                                                             | None                                                                               | Min                                                                                 |                                                                                     | None                                                                                | Min                                                                                 |                                                                                     |
| Walk Time (s)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 7.0                                                                                 |
| Flash Dont Walk (s)        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 38.0                                                                                |



2015 Existing  
4: Rohlwing Rd & Euclid Ave

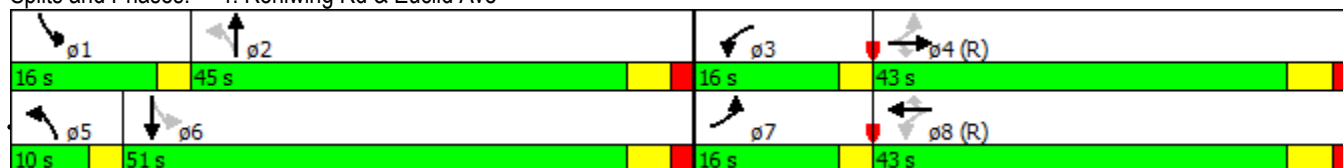
Timing Plan: PM  
8/12/2015

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Pedestrian Calls (#/hr) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 2                                                                                   |
| Act Effct Green (s)     | 72.0                                                                              | 63.0                                                                              | 63.0                                                                              | 73.3                                                                              | 63.7                                                                              | 63.7                                                                              | 32.0                                                                               | 22.0                                                                                |                                                                                     | 38.5                                                                                | 26.0                                                                                |                                                                                     |
| Actuated g/C Ratio      | 0.60                                                                              | 0.52                                                                              | 0.52                                                                              | 0.61                                                                              | 0.53                                                                              | 0.53                                                                              | 0.27                                                                               | 0.18                                                                                |                                                                                     | 0.32                                                                                | 0.22                                                                                |                                                                                     |
| v/c Ratio               | 0.28                                                                              | 0.46                                                                              | 0.20                                                                              | 0.20                                                                              | 0.76                                                                              | 0.10                                                                              | 0.70                                                                               | 0.52                                                                                |                                                                                     | 0.32                                                                                | 0.75                                                                                |                                                                                     |
| Control Delay           | 15.9                                                                              | 22.0                                                                              | 4.7                                                                               | 11.6                                                                              | 22.2                                                                              | 2.8                                                                               | 47.1                                                                               | 42.2                                                                                |                                                                                     | 29.2                                                                                | 42.7                                                                                |                                                                                     |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay             | 15.9                                                                              | 22.0                                                                              | 4.7                                                                               | 11.6                                                                              | 22.2                                                                              | 2.8                                                                               | 47.1                                                                               | 42.2                                                                                |                                                                                     | 29.2                                                                                | 42.7                                                                                |                                                                                     |
| LOS                     | B                                                                                 | C                                                                                 | A                                                                                 | B                                                                                 | C                                                                                 | A                                                                                 | D                                                                                  | D                                                                                   |                                                                                     | C                                                                                   | D                                                                                   |                                                                                     |
| Approach Delay          |                                                                                   | 18.9                                                                              |                                                                                   |                                                                                   | 20.6                                                                              |                                                                                   |                                                                                    | 44.5                                                                                |                                                                                     |                                                                                     | 39.1                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | B                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                    | D                                                                                   |                                                                                     |                                                                                     | D                                                                                   |                                                                                     |
| 90th %ile Green (s)     | 9.4                                                                               | 39.2                                                                              | 39.2                                                                              | 10.8                                                                              | 40.6                                                                              | 40.6                                                                              | 7.0                                                                                | 39.1                                                                                |                                                                                     | 12.9                                                                                | 45.0                                                                                |                                                                                     |
| 90th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Gap                                                                                 | Ped                                                                                 |                                                                                     |
| 70th %ile Green (s)     | 7.5                                                                               | 59.2                                                                              | 59.2                                                                              | 8.3                                                                               | 60.0                                                                              | 60.0                                                                              | 7.0                                                                                | 21.5                                                                                |                                                                                     | 13.0                                                                                | 27.5                                                                                |                                                                                     |
| 70th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Max                                                                                 | Gap                                                                                 |                                                                                     |
| 50th %ile Green (s)     | 6.7                                                                               | 64.0                                                                              | 64.0                                                                              | 7.4                                                                               | 64.7                                                                              | 64.7                                                                              | 7.0                                                                                | 19.1                                                                                |                                                                                     | 11.5                                                                                | 23.6                                                                                |                                                                                     |
| 50th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Gap                                                                                 | Gap                                                                                 |                                                                                     |
| 30th %ile Green (s)     | 6.1                                                                               | 68.7                                                                              | 68.7                                                                              | 6.6                                                                               | 69.2                                                                              | 69.2                                                                              | 7.0                                                                                | 16.8                                                                                |                                                                                     | 9.9                                                                                 | 19.7                                                                                |                                                                                     |
| 30th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Gap                                                                                 | Gap                                                                                 |                                                                                     |
| 10th %ile Green (s)     | 0.0                                                                               | 84.0                                                                              | 84.0                                                                              | 0.0                                                                               | 84.0                                                                              | 84.0                                                                              | 7.0                                                                                | 13.4                                                                                |                                                                                     | 7.6                                                                                 | 14.0                                                                                |                                                                                     |
| 10th %ile Term Code     | Skip                                                                              | Coord                                                                             | Coord                                                                             | Skip                                                                              | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Gap                                                                                 | Gap                                                                                 |                                                                                     |
| Queue Length 50th (ft)  | 14                                                                                | 206                                                                               | 2                                                                                 | 16                                                                                | 284                                                                               | 0                                                                                 | 92                                                                                 | 113                                                                                 |                                                                                     | 66                                                                                  | 182                                                                                 |                                                                                     |
| Queue Length 95th (ft)  | 45                                                                                | 385                                                                               | 54                                                                                | m47                                                                               | #828                                                                              | m16                                                                               | 109                                                                                | 149                                                                                 |                                                                                     | 82                                                                                  | 222                                                                                 |                                                                                     |
| Internal Link Dist (ft) |                                                                                   | 655                                                                               |                                                                                   |                                                                                   | 710                                                                               |                                                                                   |                                                                                    | 361                                                                                 |                                                                                     |                                                                                     | 564                                                                                 |                                                                                     |
| Turn Bay Length (ft)    | 200                                                                               |                                                                                   | 225                                                                               | 100                                                                               |                                                                                   | 200                                                                               | 145                                                                                |                                                                                     |                                                                                     | 130                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 273                                                                               | 1858                                                                              | 912                                                                               | 439                                                                               | 1878                                                                              | 891                                                                               | 223                                                                                | 590                                                                                 |                                                                                     | 371                                                                                 | 681                                                                                 |                                                                                     |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio       | 0.19                                                                              | 0.46                                                                              | 0.20                                                                              | 0.17                                                                              | 0.76                                                                              | 0.10                                                                              | 0.70                                                                               | 0.30                                                                                |                                                                                     | 0.31                                                                                | 0.46                                                                                |                                                                                     |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green, Master Intersection  
 Natural Cycle: 125  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 24.7  
 Intersection LOS: C  
 Intersection Capacity Utilization 83.9%  
 ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Rohlwing Rd & Euclid Ave



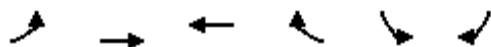
| Intersection             |        |        |       |        |      |      |
|--------------------------|--------|--------|-------|--------|------|------|
| Int Delay, s/veh         | 0.3    |        |       |        |      |      |
| Movement                 | EBL    | EBR    | NBL   | NBT    | SBT  | SBR  |
| Vol, veh/h               | 0      | 4      | 6     | 59     | 207  | 0    |
| Conflicting Peds, #/hr   | 0      | 0      | 0     | 0      | 0    | 0    |
| Sign Control             | Stop   | Stop   | Free  | Free   | Free | Free |
| RT Channelized           | -      | None   | -     | None   | -    | None |
| Storage Length           | 0      | -      | -     | -      | -    | -    |
| Veh in Median Storage, # | 0      | -      | -     | 0      | 0    | -    |
| Grade, %                 | 0      | -      | -     | 0      | 0    | -    |
| Peak Hour Factor         | 95     | 95     | 95    | 95     | 95   | 95   |
| Heavy Vehicles, %        | 2      | 2      | 2     | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 4      | 6     | 62     | 218  | 0    |
| Major/Minor              | Minor2 | Major1 |       | Major2 |      |      |
| Conflicting Flow All     | 293    | 218    | 218   | 0      | -    | 0    |
| Stage 1                  | 218    | -      | -     | -      | -    | -    |
| Stage 2                  | 75     | -      | -     | -      | -    | -    |
| Critical Hdwy            | 6.42   | 6.22   | 4.12  | -      | -    | -    |
| Critical Hdwy Stg 1      | 5.42   | -      | -     | -      | -    | -    |
| Critical Hdwy Stg 2      | 5.42   | -      | -     | -      | -    | -    |
| Follow-up Hdwy           | 3.518  | 3.318  | 2.218 | -      | -    | -    |
| Pot Cap-1 Maneuver       | 698    | 822    | 1352  | -      | -    | -    |
| Stage 1                  | 818    | -      | -     | -      | -    | -    |
| Stage 2                  | 948    | -      | -     | -      | -    | -    |
| Platoon blocked, %       |        |        |       | -      | -    | -    |
| Mov Cap-1 Maneuver       | 695    | 822    | 1352  | -      | -    | -    |
| Mov Cap-2 Maneuver       | 695    | -      | -     | -      | -    | -    |
| Stage 1                  | 818    | -      | -     | -      | -    | -    |
| Stage 2                  | 943    | -      | -     | -      | -    | -    |
| Approach                 | EB     | NB     |       | SB     |      |      |
| HCM Control Delay, s     | 9.4    | 0.7    |       | 0      |      |      |
| HCM LOS                  | A      |        |       |        |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT    | EBLn1 | SBT    | SBR  |      |
| Capacity (veh/h)         | 1352   | -      | 822   | -      | -    |      |
| HCM Lane V/C Ratio       | 0.005  | -      | 0.005 | -      | -    |      |
| HCM Control Delay (s)    | 7.7    | 0      | 9.4   | -      | -    |      |
| HCM Lane LOS             | A      | A      | A     | -      | -    |      |
| HCM 95th %tile Q(veh)    | 0      | -      | 0     | -      | -    |      |

| Intersection             |        |      |        |      |        |       |
|--------------------------|--------|------|--------|------|--------|-------|
| Int Delay, s/veh         | 0.1    |      |        |      |        |       |
| Movement                 | EBL    | EBT  | WBT    | WBR  | SBL    | SBR   |
| Vol, veh/h               | 0      | 985  | 1502   | 6    | 3      | 4     |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0    | 0      | 0     |
| Sign Control             | Free   | Free | Free   | Free | Stop   | Stop  |
| RT Channelized           | -      | None | -      | None | -      | None  |
| Storage Length           | -      | -    | -      | -    | 0      | 0     |
| Veh in Median Storage, # | -      | 0    | 0      | -    | 0      | -     |
| Grade, %                 | -      | 0    | 0      | -    | 0      | -     |
| Peak Hour Factor         | 95     | 95   | 95     | 95   | 95     | 95    |
| Heavy Vehicles, %        | 2      | 2    | 2      | 2    | 2      | 2     |
| Mvmt Flow                | 0      | 1037 | 1581   | 6    | 3      | 4     |
| Major/Minor              | Major1 |      | Major2 |      | Minor2 |       |
| Conflicting Flow All     | 1587   | 0    | -      | 0    | 2102   | 794   |
| Stage 1                  | -      | -    | -      | -    | 1584   | -     |
| Stage 2                  | -      | -    | -      | -    | 518    | -     |
| Critical Hdwy            | 4.14   | -    | -      | -    | 6.84   | 6.94  |
| Critical Hdwy Stg 1      | -      | -    | -      | -    | 5.84   | -     |
| Critical Hdwy Stg 2      | -      | -    | -      | -    | 5.84   | -     |
| Follow-up Hdwy           | 2.22   | -    | -      | -    | 3.52   | 3.32  |
| Pot Cap-1 Maneuver       | 410    | -    | -      | -    | 44     | 331   |
| Stage 1                  | -      | -    | -      | -    | 154    | -     |
| Stage 2                  | -      | -    | -      | -    | 563    | -     |
| Platoon blocked, %       | -      | -    | -      | -    | -      | -     |
| Mov Cap-1 Maneuver       | 410    | -    | -      | -    | 44     | 331   |
| Mov Cap-2 Maneuver       | -      | -    | -      | -    | 44     | -     |
| Stage 1                  | -      | -    | -      | -    | 154    | -     |
| Stage 2                  | -      | -    | -      | -    | 563    | -     |
| Approach                 | EB     |      | WB     |      | SB     |       |
| HCM Control Delay, s     | 0      |      | 0      |      | 49     |       |
| HCM LOS                  |        |      |        |      | E      |       |
| Minor Lane/Major Mvmt    | EBL    | EBT  | WBT    | WBR  | SBLn1  | SBLn2 |
| Capacity (veh/h)         | 410    | -    | -      | -    | 44     | 331   |
| HCM Lane V/C Ratio       | -      | -    | -      | -    | 0.072  | 0.013 |
| HCM Control Delay (s)    | 0      | -    | -      | -    | 93.1   | 16    |
| HCM Lane LOS             | A      | -    | -      | -    | F      | C     |
| HCM 95th %tile Q(veh)    | 0      | -    | -      | -    | 0.2    | 0     |

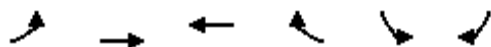
| Intersection             |        |       |        |       |        |           |
|--------------------------|--------|-------|--------|-------|--------|-----------|
| Int Delay, s/veh         | 0.1    |       |        |       |        |           |
|                          |        |       |        |       |        |           |
| Movement                 | WBL    | WBR   |        | NBT   | NBR    | SBL SBT   |
| Vol, veh/h               | 4      | 2     |        | 239   | 6      | 1 355     |
| Conflicting Peds, #/hr   | 0      | 0     |        | 0     | 0      | 0 0       |
| Sign Control             | Stop   | Stop  |        | Free  | Free   | Free Free |
| RT Channelized           | -      | None  |        | -     | None   | - None    |
| Storage Length           | 0      | 0     |        | -     | -      | 200 -     |
| Veh in Median Storage, # | 0      | -     |        | 0     | -      | - 0       |
| Grade, %                 | 0      | -     |        | 0     | -      | - 0       |
| Peak Hour Factor         | 95     | 95    |        | 95    | 95     | 95 95     |
| Heavy Vehicles, %        | 2      | 2     |        | 2     | 2      | 2 2       |
| Mvmt Flow                | 4      | 2     |        | 252   | 6      | 1 374     |
|                          |        |       |        |       |        |           |
| Major/Minor              | Minor1 |       | Major1 |       | Major2 |           |
| Conflicting Flow All     | 631    | 255   |        | 0     | 0      | 258 0     |
| Stage 1                  | 255    | -     |        | -     | -      | - -       |
| Stage 2                  | 376    | -     |        | -     | -      | - -       |
| Critical Hdwy            | 6.42   | 6.22  |        | -     | -      | 4.12 -    |
| Critical Hdwy Stg 1      | 5.42   | -     |        | -     | -      | - -       |
| Critical Hdwy Stg 2      | 5.42   | -     |        | -     | -      | - -       |
| Follow-up Hdwy           | 3.518  | 3.318 |        | -     | -      | 2.218 -   |
| Pot Cap-1 Maneuver       | 445    | 784   |        | -     | -      | 1307 -    |
| Stage 1                  | 788    | -     |        | -     | -      | - -       |
| Stage 2                  | 694    | -     |        | -     | -      | - -       |
| Platoon blocked, %       |        |       |        | -     | -      | -         |
| Mov Cap-1 Maneuver       | 445    | 784   |        | -     | -      | 1307 -    |
| Mov Cap-2 Maneuver       | 445    | -     |        | -     | -      | - -       |
| Stage 1                  | 788    | -     |        | -     | -      | - -       |
| Stage 2                  | 693    | -     |        | -     | -      | - -       |
|                          |        |       |        |       |        |           |
| Approach                 | WB     |       | NB     |       | SB     |           |
| HCM Control Delay, s     | 12     |       | 0      |       | 0      |           |
| HCM LOS                  | B      |       |        |       |        |           |
|                          |        |       |        |       |        |           |
| Minor Lane/Major Mvmt    | NBT    | NBR   | WBLn1  | WBLn2 | SBL    | SBT       |
| Capacity (veh/h)         | -      | -     | 445    | 784   | 1307   | -         |
| HCM Lane V/C Ratio       | -      | -     | 0.009  | 0.003 | 0.001  | -         |
| HCM Control Delay (s)    | -      | -     | 13.2   | 9.6   | 7.8    | -         |
| HCM Lane LOS             | -      | -     | B      | A     | A      | -         |
| HCM 95th %tile Q(veh)    | -      | -     | 0      | 0     | 0      | -         |



| Intersection             |        |       |       |        |       |       |        |      |      |        |      |      |
|--------------------------|--------|-------|-------|--------|-------|-------|--------|------|------|--------|------|------|
| Int Delay, s/veh         | 2.6    |       |       |        |       |       |        |      |      |        |      |      |
| Movement                 | EBL    | EBT   | EBR   | WBL    | WBT   | WBR   | NBL    | NBT  | NBR  | SBL    | SBT  | SBR  |
| Vol, veh/h               | 0      | 0     | 1     | 56     | 0     | 73    | 0      | 229  | 11   | 18     | 272  | 0    |
| Conflicting Peds, #/hr   | 0      | 0     | 0     | 0      | 0     | 0     | 0      | 0    | 0    | 0      | 0    | 0    |
| Sign Control             | Stop   | Stop  | Stop  | Stop   | Stop  | Stop  | Free   | Free | Free | Free   | Free | Free |
| RT Channelized           | -      | -     | None  | -      | -     | None  | -      | -    | None | -      | -    | None |
| Storage Length           | -      | -     | -     | 175    | -     | -     | -      | -    | -    | 0      | -    | -    |
| Veh in Median Storage, # | -      | 0     | -     | -      | 0     | -     | -      | 0    | -    | -      | 0    | -    |
| Grade, %                 | -      | 0     | -     | -      | 0     | -     | -      | 0    | -    | -      | 0    | -    |
| Peak Hour Factor         | 95     | 95    | 95    | 95     | 95    | 95    | 95     | 95   | 95   | 95     | 95   | 95   |
| Heavy Vehicles, %        | 2      | 2     | 2     | 2      | 2     | 2     | 2      | 2    | 2    | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 0     | 1     | 59     | 0     | 77    | 0      | 241  | 12   | 19     | 286  | 0    |
| Major/Minor              | Minor2 |       |       | Minor1 |       |       | Major1 |      |      | Major2 |      |      |
| Conflicting Flow All     | 609    | 577   | 286   | 572    | 571   | 247   | 286    | 0    | 0    | 253    | 0    | 0    |
| Stage 1                  | 324    | 324   | -     | 247    | 247   | -     | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 285    | 253   | -     | 325    | 324   | -     | -      | -    | -    | -      | -    | -    |
| Critical Hdwy            | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  | 4.12   | -    | -    | 4.12   | -    | -    |
| Critical Hdwy Stg 1      | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     | -      | -    | -    | -      | -    | -    |
| Critical Hdwy Stg 2      | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     | -      | -    | -    | -      | -    | -    |
| Follow-up Hdwy           | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 | 2.218  | -    | -    | 2.218  | -    | -    |
| Pot Cap-1 Maneuver       | 407    | 427   | 753   | 431    | 431   | 792   | 1276   | -    | -    | 1312   | -    | -    |
| Stage 1                  | 688    | 650   | -     | 757    | 702   | -     | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 722    | 698   | -     | 687    | 650   | -     | -      | -    | -    | -      | -    | -    |
| Platoon blocked, %       | -      | -     | -     | -      | -     | -     | -      | -    | -    | -      | -    | -    |
| Mov Cap-1 Maneuver       | 363    | 421   | 753   | 426    | 425   | 792   | 1276   | -    | -    | 1312   | -    | -    |
| Mov Cap-2 Maneuver       | 363    | 421   | -     | 426    | 425   | -     | -      | -    | -    | -      | -    | -    |
| Stage 1                  | 688    | 641   | -     | 757    | 702   | -     | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 652    | 698   | -     | 676    | 641   | -     | -      | -    | -    | -      | -    | -    |
| Approach                 | EB     |       |       | WB     |       |       | NB     |      |      | SB     |      |      |
| HCM Control Delay, s     | 9.8    |       |       | 12.1   |       |       | 0      |      |      | 0.5    |      |      |
| HCM LOS                  | A      |       |       | B      |       |       |        |      |      |        |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT   | NBR   | EBLn1  | WBLn1 | WBLn2 | SBL    | SBT  | SBR  |        |      |      |
| Capacity (veh/h)         | 1276   | -     | -     | 753    | 426   | 792   | 1312   | -    | -    |        |      |      |
| HCM Lane V/C Ratio       | -      | -     | -     | 0.001  | 0.138 | 0.097 | 0.014  | -    | -    |        |      |      |
| HCM Control Delay (s)    | 0      | -     | -     | 9.8    | 14.8  | 10    | 7.8    | -    | -    |        |      |      |
| HCM Lane LOS             | A      | -     | -     | A      | B     | B     | A      | -    | -    |        |      |      |
| HCM 95th %tile Q(veh)    | 0      | -     | -     | 0      | 0.5   | 0.3   | 0      | -    | -    |        |      |      |



| Lane Group                 | EBL   | EBT   | WBT   | WBR   | SBL   | SBR   |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations        |       |       |       |       |       |       |
| Volume (vph)               | 60    | 1299  | 676   | 33    | 79    | 52    |
| Ideal Flow (vphpl)         | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |
| Storage Length (ft)        | 150   |       |       | 0     | 200   | 0     |
| Storage Lanes              | 1     |       |       | 0     | 1     | 1     |
| Taper Length (ft)          | 25    |       |       |       | 25    |       |
| Lane Util. Factor          | 1.00  | 0.95  | 0.95  | 0.95  | 1.00  | 1.00  |
| Frt                        |       |       | 0.993 |       |       | 0.850 |
| Flt Protected              | 0.950 |       |       |       | 0.950 |       |
| Satd. Flow (prot)          | 1770  | 3539  | 3514  | 0     | 1770  | 1583  |
| Flt Permitted              | 0.345 |       |       |       | 0.950 |       |
| Satd. Flow (perm)          | 643   | 3539  | 3514  | 0     | 1770  | 1583  |
| Right Turn on Red          |       |       |       | Yes   |       | Yes   |
| Satd. Flow (RTOR)          |       |       | 7     |       |       | 55    |
| Link Speed (mph)           |       | 40    | 40    |       | 30    |       |
| Link Distance (ft)         |       | 842   | 459   |       | 580   |       |
| Travel Time (s)            |       | 14.4  | 7.8   |       | 13.2  |       |
| Peak Hour Factor           | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| Adj. Flow (vph)            | 63    | 1367  | 712   | 35    | 83    | 55    |
| Shared Lane Traffic (%)    |       |       |       |       |       |       |
| Lane Group Flow (vph)      | 63    | 1367  | 747   | 0     | 83    | 55    |
| Enter Blocked Intersection | No    | No    | No    | No    | No    | No    |
| Lane Alignment             | Left  | Left  | Left  | Right | Left  | Right |
| Median Width(ft)           |       | 12    | 12    |       | 12    |       |
| Link Offset(ft)            |       | 0     | 0     |       | 0     |       |
| Crosswalk Width(ft)        |       | 16    | 16    |       | 16    |       |
| Two way Left Turn Lane     |       |       |       |       |       |       |
| Headway Factor             | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Turning Speed (mph)        | 15    |       |       | 9     | 15    | 9     |
| Turn Type                  | pm+pt | NA    | NA    |       | Prot  | pt+ov |
| Protected Phases           | 7     | 4     | 8     |       | 6     | 6 7   |
| Permitted Phases           | 4     |       |       |       |       |       |
| Detector Phase             | 7     | 4     | 8     |       | 6     | 6 7   |
| Switch Phase               |       |       |       |       |       |       |
| Minimum Initial (s)        | 5.0   | 5.0   | 5.0   |       | 5.0   |       |
| Minimum Split (s)          | 9.5   | 24.0  | 35.0  |       | 24.0  |       |
| Total Split (s)            | 14.0  | 92.0  | 78.0  |       | 28.0  |       |
| Total Split (%)            | 11.7% | 76.7% | 65.0% |       | 23.3% |       |
| Maximum Green (s)          | 11.0  | 86.0  | 72.0  |       | 22.0  |       |
| Yellow Time (s)            | 3.0   | 4.0   | 4.0   |       | 4.0   |       |
| All-Red Time (s)           | 0.0   | 2.0   | 2.0   |       | 2.0   |       |
| Lost Time Adjust (s)       | 0.0   | 0.0   | 0.0   |       | 0.0   |       |
| Total Lost Time (s)        | 3.0   | 6.0   | 6.0   |       | 6.0   |       |
| Lead/Lag                   | Lead  |       | Lag   |       |       |       |
| Lead-Lag Optimize?         | Yes   |       | Yes   |       |       |       |
| Vehicle Extension (s)      | 3.0   | 3.0   | 3.0   |       | 3.0   |       |
| Recall Mode                | None  | C-Min | C-Min |       | None  |       |
| Act Effct Green (s)        | 100.0 | 97.0  | 89.5  |       | 11.0  | 20.2  |
| Actuated g/C Ratio         | 0.83  | 0.81  | 0.75  |       | 0.09  | 0.17  |



| Lane Group              | EBL  | EBT   | WBT   | WBR | SBL  | SBR  |
|-------------------------|------|-------|-------|-----|------|------|
| v/c Ratio               | 0.11 | 0.48  | 0.29  |     | 0.52 | 0.18 |
| Control Delay           | 0.8  | 2.9   | 5.8   |     | 62.5 | 11.6 |
| Queue Delay             | 0.0  | 0.0   | 0.0   |     | 0.0  | 0.0  |
| Total Delay             | 0.8  | 2.9   | 5.8   |     | 62.5 | 11.6 |
| LOS                     | A    | A     | A     |     | E    | B    |
| Approach Delay          |      | 2.8   | 5.8   |     | 42.2 |      |
| Approach LOS            |      | A     | A     |     | D    |      |
| 90th %ile Green (s)     | 7.2  | 92.8  | 82.6  |     | 15.2 |      |
| 90th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 70th %ile Green (s)     | 6.6  | 95.3  | 85.7  |     | 12.7 |      |
| 70th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 50th %ile Green (s)     | 6.2  | 97.0  | 87.8  |     | 11.0 |      |
| 50th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 30th %ile Green (s)     | 5.9  | 98.8  | 89.9  |     | 9.2  |      |
| 30th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 10th %ile Green (s)     | 0.0  | 101.3 | 101.3 |     | 6.7  |      |
| 10th %ile Term Code     | Skip | Coord | Coord |     | Gap  |      |
| Queue Length 50th (ft)  | 2    | 33    | 90    |     | 62   | 0    |
| Queue Length 95th (ft)  | m2   | 85    | 136   |     | 112  | 35   |
| Internal Link Dist (ft) |      | 762   | 379   |     | 500  |      |
| Turn Bay Length (ft)    | 150  |       |       |     | 200  |      |
| Base Capacity (vph)     | 639  | 2861  | 2621  |     | 324  | 376  |
| Starvation Cap Reductn  | 0    | 0     | 0     |     | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0     | 0     |     | 0    | 0    |
| Storage Cap Reductn     | 0    | 0     | 0     |     | 0    | 0    |
| Reduced v/c Ratio       | 0.10 | 0.48  | 0.29  |     | 0.26 | 0.15 |

#### Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 50 (42%), Referenced to phase 4:EBTL and 8:WBT, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 6.1

Intersection LOS: A

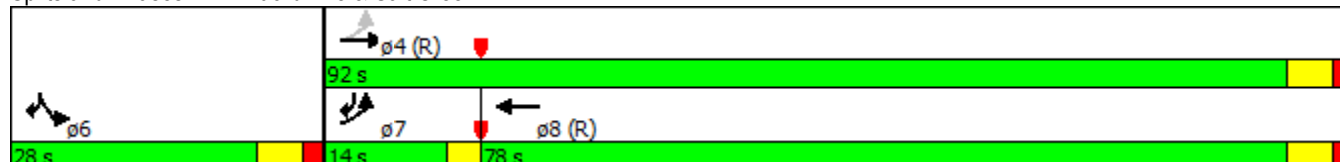
Intersection Capacity Utilization 50.3%

ICU Level of Service A

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Euclid Ave & Salt Creek Ln



2015 Existing  
4: Rohlwing Rd & Euclid Ave

Timing Plan: MD Sat  
8/12/2015

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |  |  |  |                                                                                     |  |  |                                                                                     |
| Volume (vph)               | 99                                                                                | 1280                                                                              | 139                                                                               | 29                                                                                | 674                                                                               | 23                                                                                | 136                                                                                 | 67                                                                                  | 49                                                                                  | 43                                                                                  | 67                                                                                  | 63                                                                                  |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 200                                                                               |                                                                                   | 225                                                                               | 100                                                                               |                                                                                   | 200                                                                               | 145                                                                                 |                                                                                     | 0                                                                                   | 130                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                   |                                                                                     | 0                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                  |                                                                                     |                                                                                     | 25                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                     | 0.937                                                                               |                                                                                     |                                                                                     | 0.928                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3539                                                                              | 1583                                                                              | 1770                                                                              | 3539                                                                              | 1583                                                                              | 1770                                                                                | 1745                                                                                | 0                                                                                   | 1770                                                                                | 1729                                                                                | 0                                                                                   |
| Flt Permitted              | 0.327                                                                             |                                                                                   |                                                                                   | 0.142                                                                             |                                                                                   |                                                                                   | 0.538                                                                               |                                                                                     |                                                                                     | 0.678                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 609                                                                               | 3539                                                                              | 1583                                                                              | 265                                                                               | 3539                                                                              | 1583                                                                              | 1002                                                                                | 1745                                                                                | 0                                                                                   | 1263                                                                                | 1729                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 89                                                                                |                                                                                   |                                                                                   | 82                                                                                |                                                                                     | 35                                                                                  |                                                                                     |                                                                                     | 45                                                                                  |                                                                                     |
| Link Speed (mph)           |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 40                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 735                                                                               |                                                                                   |                                                                                   | 790                                                                               |                                                                                   |                                                                                     | 441                                                                                 |                                                                                     |                                                                                     | 644                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 12.5                                                                              |                                                                                   |                                                                                   | 13.5                                                                              |                                                                                   |                                                                                     | 10.0                                                                                |                                                                                     |                                                                                     | 11.0                                                                                |                                                                                     |
| Peak Hour Factor           | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Adj. Flow (vph)            | 104                                                                               | 1347                                                                              | 146                                                                               | 31                                                                                | 709                                                                               | 24                                                                                | 143                                                                                 | 71                                                                                  | 52                                                                                  | 45                                                                                  | 71                                                                                  | 66                                                                                  |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 104                                                                               | 1347                                                                              | 146                                                                               | 31                                                                                | 709                                                                               | 24                                                                                | 143                                                                                 | 123                                                                                 | 0                                                                                   | 45                                                                                  | 137                                                                                 | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 16                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 16                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases           | 4                                                                                 |                                                                                   | 4                                                                                 | 8                                                                                 |                                                                                   | 8                                                                                 | 2                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     |
| Detector Phase             | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Switch Phase               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)        | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                                 | 5.0                                                                                 |                                                                                     | 5.0                                                                                 | 5.0                                                                                 |                                                                                     |
| Minimum Split (s)          | 9.5                                                                               | 24.0                                                                              | 24.0                                                                              | 9.5                                                                               | 24.0                                                                              | 24.0                                                                              | 9.5                                                                                 | 24.0                                                                                |                                                                                     | 9.5                                                                                 | 51.0                                                                                |                                                                                     |
| Total Split (s)            | 16.0                                                                              | 43.0                                                                              | 43.0                                                                              | 16.0                                                                              | 43.0                                                                              | 43.0                                                                              | 10.0                                                                                | 51.0                                                                                |                                                                                     | 10.0                                                                                | 51.0                                                                                |                                                                                     |
| Total Split (%)            | 13.3%                                                                             | 35.8%                                                                             | 35.8%                                                                             | 13.3%                                                                             | 35.8%                                                                             | 35.8%                                                                             | 8.3%                                                                                | 42.5%                                                                               |                                                                                     | 8.3%                                                                                | 42.5%                                                                               |                                                                                     |
| Maximum Green (s)          | 13.0                                                                              | 37.0                                                                              | 37.0                                                                              | 13.0                                                                              | 37.0                                                                              | 37.0                                                                              | 7.0                                                                                 | 45.0                                                                                |                                                                                     | 7.0                                                                                 | 45.0                                                                                |                                                                                     |
| Yellow Time (s)            | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                                 | 4.0                                                                                 |                                                                                     | 3.0                                                                                 | 4.0                                                                                 |                                                                                     |
| All-Red Time (s)           | 0.0                                                                               | 2.0                                                                               | 2.0                                                                               | 0.0                                                                               | 2.0                                                                               | 2.0                                                                               | 0.0                                                                                 | 2.0                                                                                 |                                                                                     | 0.0                                                                                 | 2.0                                                                                 |                                                                                     |
| Lost Time Adjust (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)        | 3.0                                                                               | 6.0                                                                               | 6.0                                                                               | 3.0                                                                               | 6.0                                                                               | 6.0                                                                               | 3.0                                                                                 | 6.0                                                                                 |                                                                                     | 3.0                                                                                 | 6.0                                                                                 |                                                                                     |
| Lead/Lag                   | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?         | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Vehicle Extension (s)      | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                                 | 3.0                                                                                 |                                                                                     | 3.0                                                                                 | 3.0                                                                                 |                                                                                     |
| Recall Mode                | None                                                                              | C-Min                                                                             | C-Min                                                                             | None                                                                              | C-Min                                                                             | C-Min                                                                             | None                                                                                | Min                                                                                 |                                                                                     | None                                                                                | Min                                                                                 |                                                                                     |
| Walk Time (s)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 7.0                                                                                 |
| Flash Dont Walk (s)        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 38.0                                                                                |

2015 Existing  
4: Rohlwing Rd & Euclid Ave

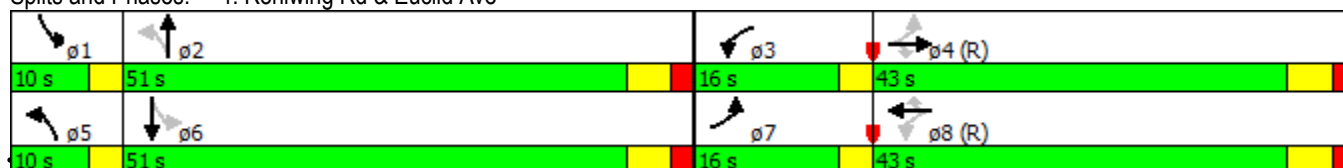
Timing Plan: MD Sat  
8/12/2015

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Pedestrian Calls (#/hr) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 2                                                                                   |
| Act Effct Green (s)     | 83.0                                                                              | 74.7                                                                              | 74.7                                                                              | 78.8                                                                              | 69.5                                                                              | 69.5                                                                              | 28.0                                                                               | 19.4                                                                                |                                                                                     | 27.1                                                                                | 17.4                                                                                |                                                                                     |
| Actuated g/C Ratio      | 0.69                                                                              | 0.62                                                                              | 0.62                                                                              | 0.66                                                                              | 0.58                                                                              | 0.58                                                                              | 0.23                                                                               | 0.16                                                                                |                                                                                     | 0.23                                                                                | 0.14                                                                                |                                                                                     |
| v/c Ratio               | 0.21                                                                              | 0.61                                                                              | 0.14                                                                              | 0.12                                                                              | 0.35                                                                              | 0.03                                                                              | 0.51                                                                               | 0.40                                                                                |                                                                                     | 0.14                                                                                | 0.47                                                                                |                                                                                     |
| Control Delay           | 10.2                                                                              | 19.4                                                                              | 7.7                                                                               | 11.1                                                                              | 15.8                                                                              | 0.0                                                                               | 41.2                                                                               | 33.3                                                                                |                                                                                     | 30.5                                                                                | 33.5                                                                                |                                                                                     |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay             | 10.2                                                                              | 19.4                                                                              | 7.7                                                                               | 11.1                                                                              | 15.8                                                                              | 0.0                                                                               | 41.2                                                                               | 33.3                                                                                |                                                                                     | 30.5                                                                                | 33.5                                                                                |                                                                                     |
| LOS                     | B                                                                                 | B                                                                                 | A                                                                                 | B                                                                                 | B                                                                                 | A                                                                                 | D                                                                                  | C                                                                                   |                                                                                     | C                                                                                   | C                                                                                   |                                                                                     |
| Approach Delay          |                                                                                   | 17.7                                                                              |                                                                                   |                                                                                   | 15.1                                                                              |                                                                                   |                                                                                    | 37.5                                                                                |                                                                                     |                                                                                     | 32.8                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | B                                                                                 |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                    | D                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| 90th %ile Green (s)     | 12.5                                                                              | 41.9                                                                              | 41.9                                                                              | 8.1                                                                               | 37.5                                                                              | 37.5                                                                              | 7.0                                                                                | 45.0                                                                                |                                                                                     | 7.0                                                                                 | 45.0                                                                                |                                                                                     |
| 90th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Max                                                                                 | Ped                                                                                 |                                                                                     |
| 70th %ile Green (s)     | 8.2                                                                               | 74.2                                                                              | 74.2                                                                              | 6.4                                                                               | 72.4                                                                              | 72.4                                                                              | 7.0                                                                                | 14.4                                                                                |                                                                                     | 7.0                                                                                 | 14.4                                                                                |                                                                                     |
| 70th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Max                                                                                 | Gap                                                                                 |                                                                                     |
| 50th %ile Green (s)     | 7.4                                                                               | 77.0                                                                              | 77.0                                                                              | 6.0                                                                               | 75.6                                                                              | 75.6                                                                              | 7.0                                                                                | 12.0                                                                                |                                                                                     | 7.0                                                                                 | 12.0                                                                                |                                                                                     |
| 50th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Max                                                                                 | Gap                                                                                 |                                                                                     |
| 30th %ile Green (s)     | 6.7                                                                               | 88.5                                                                              | 88.5                                                                              | 0.0                                                                               | 78.8                                                                              | 78.8                                                                              | 7.0                                                                                | 9.6                                                                                 |                                                                                     | 6.9                                                                                 | 9.5                                                                                 |                                                                                     |
| 30th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Skip                                                                              | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Gap                                                                                 | Gap                                                                                 |                                                                                     |
| 10th %ile Green (s)     | 5.9                                                                               | 91.9                                                                              | 91.9                                                                              | 0.0                                                                               | 83.0                                                                              | 83.0                                                                              | 7.0                                                                                | 16.1                                                                                |                                                                                     | 0.0                                                                                 | 6.1                                                                                 |                                                                                     |
| 10th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Skip                                                                              | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Skip                                                                                | Gap                                                                                 |                                                                                     |
| Queue Length 50th (ft)  | 19                                                                                | 294                                                                               | 15                                                                                | 5                                                                                 | 124                                                                               | 0                                                                                 | 96                                                                                 | 66                                                                                  |                                                                                     | 29                                                                                  | 69                                                                                  |                                                                                     |
| Queue Length 95th (ft)  | 79                                                                                | #756                                                                              | 78                                                                                | 30                                                                                | 222                                                                               | 0                                                                                 | 101                                                                                | 88                                                                                  |                                                                                     | 39                                                                                  | 93                                                                                  |                                                                                     |
| Internal Link Dist (ft) |                                                                                   | 655                                                                               |                                                                                   |                                                                                   | 710                                                                               |                                                                                   |                                                                                    | 361                                                                                 |                                                                                     |                                                                                     | 564                                                                                 |                                                                                     |
| Turn Bay Length (ft)    | 200                                                                               |                                                                                   | 225                                                                               | 100                                                                               |                                                                                   | 200                                                                               | 145                                                                                |                                                                                     |                                                                                     | 130                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 550                                                                               | 2203                                                                              | 1018                                                                              | 346                                                                               | 2048                                                                              | 950                                                                               | 278                                                                                | 676                                                                                 |                                                                                     | 318                                                                                 | 676                                                                                 |                                                                                     |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio       | 0.19                                                                              | 0.61                                                                              | 0.14                                                                              | 0.09                                                                              | 0.35                                                                              | 0.03                                                                              | 0.51                                                                               | 0.18                                                                                |                                                                                     | 0.14                                                                                | 0.20                                                                                |                                                                                     |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green, Master Intersection  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.61  
 Intersection Signal Delay: 19.8 Intersection LOS: B  
 Intersection Capacity Utilization 71.1% ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 4: Rohlwing Rd & Euclid Ave





| Intersection             |        |        |       |        |      |      |
|--------------------------|--------|--------|-------|--------|------|------|
| Int Delay, s/veh         | 0.7    |        |       |        |      |      |
| Movement                 | EBL    | EBR    | NBL   | NBT    | SBT  | SBR  |
| Vol, veh/h               | 1      | 3      | 3     | 34     | 43   | 0    |
| Conflicting Peds, #/hr   | 0      | 0      | 0     | 0      | 0    | 0    |
| Sign Control             | Stop   | Stop   | Free  | Free   | Free | Free |
| RT Channelized           | -      | None   | -     | None   | -    | None |
| Storage Length           | 0      | -      | -     | -      | -    | -    |
| Veh in Median Storage, # | 0      | -      | -     | 0      | 0    | -    |
| Grade, %                 | 0      | -      | -     | 0      | 0    | -    |
| Peak Hour Factor         | 95     | 95     | 95    | 95     | 95   | 95   |
| Heavy Vehicles, %        | 2      | 2      | 2     | 2      | 2    | 2    |
| Mvmt Flow                | 1      | 3      | 3     | 36     | 45   | 0    |
| Major/Minor              | Minor2 | Major1 |       | Major2 |      |      |
| Conflicting Flow All     | 87     | 45     | 45    | 0      | -    | 0    |
| Stage 1                  | 45     | -      | -     | -      | -    | -    |
| Stage 2                  | 42     | -      | -     | -      | -    | -    |
| Critical Hdwy            | 6.42   | 6.22   | 4.12  | -      | -    | -    |
| Critical Hdwy Stg 1      | 5.42   | -      | -     | -      | -    | -    |
| Critical Hdwy Stg 2      | 5.42   | -      | -     | -      | -    | -    |
| Follow-up Hdwy           | 3.518  | 3.318  | 2.218 | -      | -    | -    |
| Pot Cap-1 Maneuver       | 914    | 1025   | 1563  | -      | -    | -    |
| Stage 1                  | 977    | -      | -     | -      | -    | -    |
| Stage 2                  | 980    | -      | -     | -      | -    | -    |
| Platoon blocked, %       |        |        |       | -      | -    | -    |
| Mov Cap-1 Maneuver       | 912    | 1025   | 1563  | -      | -    | -    |
| Mov Cap-2 Maneuver       | 912    | -      | -     | -      | -    | -    |
| Stage 1                  | 977    | -      | -     | -      | -    | -    |
| Stage 2                  | 978    | -      | -     | -      | -    | -    |
| Approach                 | EB     | NB     |       | SB     |      |      |
| HCM Control Delay, s     | 8.6    | 0.6    |       | 0      |      |      |
| HCM LOS                  | A      |        |       |        |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT    | EBLn1 | SBT    | SBR  |      |
| Capacity (veh/h)         | 1563   | -      | 994   | -      | -    |      |
| HCM Lane V/C Ratio       | 0.002  | -      | 0.004 | -      | -    |      |
| HCM Control Delay (s)    | 7.3    | 0      | 8.6   | -      | -    |      |
| HCM Lane LOS             | A      | A      | A     | -      | -    |      |
| HCM 95th %tile Q(veh)    | 0      | -      | 0     | -      | -    |      |

| Intersection             |        |      |        |      |        |       |
|--------------------------|--------|------|--------|------|--------|-------|
| Int Delay, s/veh         | 0.1    |      |        |      |        |       |
| Movement                 | EBL    | EBT  | WBT    | WBR  | SBL    | SBR   |
| Vol, veh/h               | 2      | 1365 | 731    | 4    | 3      | 3     |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0    | 0      | 0     |
| Sign Control             | Free   | Free | Free   | Free | Stop   | Stop  |
| RT Channelized           | -      | None | -      | None | -      | None  |
| Storage Length           | -      | -    | -      | -    | 0      | 0     |
| Veh in Median Storage, # | -      | 0    | 0      | -    | 0      | -     |
| Grade, %                 | -      | 0    | 0      | -    | 0      | -     |
| Peak Hour Factor         | 95     | 95   | 95     | 95   | 95     | 95    |
| Heavy Vehicles, %        | 2      | 2    | 2      | 2    | 2      | 2     |
| Mvmt Flow                | 2      | 1437 | 769    | 4    | 3      | 3     |
| Major/Minor              | Major1 |      | Major2 |      | Minor2 |       |
| Conflicting Flow All     | 774    | 0    | -      | 0    | 1495   | 387   |
| Stage 1                  | -      | -    | -      | -    | 772    | -     |
| Stage 2                  | -      | -    | -      | -    | 723    | -     |
| Critical Hdwy            | 4.14   | -    | -      | -    | 6.84   | 6.94  |
| Critical Hdwy Stg 1      | -      | -    | -      | -    | 5.84   | -     |
| Critical Hdwy Stg 2      | -      | -    | -      | -    | 5.84   | -     |
| Follow-up Hdwy           | 2.22   | -    | -      | -    | 3.52   | 3.32  |
| Pot Cap-1 Maneuver       | 837    | -    | -      | -    | 114    | 611   |
| Stage 1                  | -      | -    | -      | -    | 416    | -     |
| Stage 2                  | -      | -    | -      | -    | 441    | -     |
| Platoon blocked, %       | -      | -    | -      | -    | -      | -     |
| Mov Cap-1 Maneuver       | 837    | -    | -      | -    | 113    | 611   |
| Mov Cap-2 Maneuver       | -      | -    | -      | -    | 113    | -     |
| Stage 1                  | -      | -    | -      | -    | 416    | -     |
| Stage 2                  | -      | -    | -      | -    | 436    | -     |
| Approach                 | EB     |      | WB     |      | SB     |       |
| HCM Control Delay, s     | 0.1    |      | 0      |      | 24.4   |       |
| HCM LOS                  |        |      |        |      | C      |       |
| Minor Lane/Major Mvmt    | EBL    | EBT  | WBT    | WBR  | SBLn1  | SBLn2 |
| Capacity (veh/h)         | 837    | -    | -      | -    | 113    | 611   |
| HCM Lane V/C Ratio       | 0.003  | -    | -      | -    | 0.028  | 0.005 |
| HCM Control Delay (s)    | 9.3    | 0.1  | -      | -    | 37.8   | 10.9  |
| HCM Lane LOS             | A      | A    | -      | -    | E      | B     |
| HCM 95th %tile Q(veh)    | 0      | -    | -      | -    | 0.1    | 0     |

| Intersection             |        |       |        |       |        |           |
|--------------------------|--------|-------|--------|-------|--------|-----------|
| Int Delay, s/veh         | 0.1    |       |        |       |        |           |
|                          |        |       |        |       |        |           |
| Movement                 | WBL    | WBR   |        | NBT   | NBR    | SBL SBT   |
| Vol, veh/h               | 4      | 1     |        | 179   | 5      | 1 161     |
| Conflicting Peds, #/hr   | 0      | 0     |        | 0     | 0      | 0 0       |
| Sign Control             | Stop   | Stop  |        | Free  | Free   | Free Free |
| RT Channelized           | -      | None  |        | -     | None   | - None    |
| Storage Length           | 0      | 0     |        | -     | -      | 200 -     |
| Veh in Median Storage, # | 0      | -     |        | 0     | -      | - 0       |
| Grade, %                 | 0      | -     |        | 0     | -      | - 0       |
| Peak Hour Factor         | 95     | 95    |        | 95    | 95     | 95 95     |
| Heavy Vehicles, %        | 2      | 2     |        | 2     | 2      | 2 2       |
| Mvmt Flow                | 4      | 1     |        | 188   | 5      | 1 169     |
|                          |        |       |        |       |        |           |
| Major/Minor              | Minor1 |       | Major1 |       | Major2 |           |
| Conflicting Flow All     | 363    | 191   |        | 0     | 0      | 194 0     |
| Stage 1                  | 191    | -     |        | -     | -      | - -       |
| Stage 2                  | 172    | -     |        | -     | -      | - -       |
| Critical Hdwy            | 6.42   | 6.22  |        | -     | -      | 4.12 -    |
| Critical Hdwy Stg 1      | 5.42   | -     |        | -     | -      | - -       |
| Critical Hdwy Stg 2      | 5.42   | -     |        | -     | -      | - -       |
| Follow-up Hdwy           | 3.518  | 3.318 |        | -     | -      | 2.218 -   |
| Pot Cap-1 Maneuver       | 636    | 851   |        | -     | -      | 1379 -    |
| Stage 1                  | 841    | -     |        | -     | -      | - -       |
| Stage 2                  | 858    | -     |        | -     | -      | - -       |
| Platoon blocked, %       |        |       |        | -     | -      | -         |
| Mov Cap-1 Maneuver       | 636    | 851   |        | -     | -      | 1379 -    |
| Mov Cap-2 Maneuver       | 636    | -     |        | -     | -      | - -       |
| Stage 1                  | 841    | -     |        | -     | -      | - -       |
| Stage 2                  | 857    | -     |        | -     | -      | - -       |
|                          |        |       |        |       |        |           |
| Approach                 | WB     |       | NB     |       | SB     |           |
| HCM Control Delay, s     | 10.4   |       | 0      |       | 0      |           |
| HCM LOS                  | B      |       |        |       |        |           |
|                          |        |       |        |       |        |           |
| Minor Lane/Major Mvmt    | NBT    | NBR   | WBLn1  | WBLn2 | SBL    | SBT       |
| Capacity (veh/h)         | -      | -     | 636    | 851   | 1379   | -         |
| HCM Lane V/C Ratio       | -      | -     | 0.007  | 0.001 | 0.001  | -         |
| HCM Control Delay (s)    | -      | -     | 10.7   | 9.2   | 7.6    | -         |
| HCM Lane LOS             | -      | -     | B      | A     | A      | -         |
| HCM 95th %tile Q(veh)    | -      | -     | 0      | 0     | 0      | -         |

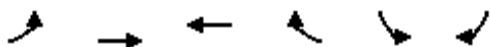
| Intersection             |        |       |       |        |       |       |        |      |      |        |      |      |
|--------------------------|--------|-------|-------|--------|-------|-------|--------|------|------|--------|------|------|
| Int Delay, s/veh         | 1.8    |       |       |        |       |       |        |      |      |        |      |      |
| Movement                 | EBL    | EBT   | EBR   | WBL    | WBT   | WBR   | NBL    | NBT  | NBR  | SBL    | SBT  | SBR  |
| Vol, veh/h               | 0      | 0     | 2     | 23     | 0     | 28    | 0      | 149  | 30   | 24     | 139  | 1    |
| Conflicting Peds, #/hr   | 0      | 0     | 0     | 0      | 0     | 0     | 0      | 0    | 0    | 0      | 0    | 0    |
| Sign Control             | Stop   | Stop  | Stop  | Stop   | Stop  | Stop  | Free   | Free | Free | Free   | Free | Free |
| RT Channelized           | -      | -     | None  | -      | -     | None  | -      | -    | None | -      | -    | None |
| Storage Length           | -      | -     | -     | 175    | -     | -     | -      | -    | -    | 0      | -    | -    |
| Veh in Median Storage, # | -      | 0     | -     | -      | 0     | -     | -      | 0    | -    | -      | 0    | -    |
| Grade, %                 | -      | 0     | -     | -      | 0     | -     | -      | 0    | -    | -      | 0    | -    |
| Peak Hour Factor         | 95     | 95    | 95    | 95     | 95    | 95    | 95     | 95   | 95   | 95     | 95   | 95   |
| Heavy Vehicles, %        | 2      | 2     | 2     | 2      | 2     | 2     | 2      | 2    | 2    | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 0     | 2     | 24     | 0     | 29    | 0      | 157  | 32   | 25     | 146  | 1    |
| Major/Minor              | Minor2 |       |       | Minor1 |       |       | Major1 |      |      | Major2 |      |      |
| Conflicting Flow All     | 384    | 385   | 147   | 371    | 371   | 173   | 147    | 0    | 0    | 188    | 0    | 0    |
| Stage 1                  | 197    | 197   | -     | 173    | 173   | -     | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 187    | 188   | -     | 198    | 198   | -     | -      | -    | -    | -      | -    | -    |
| Critical Hdwy            | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  | 4.12   | -    | -    | 4.12   | -    | -    |
| Critical Hdwy Stg 1      | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     | -      | -    | -    | -      | -    | -    |
| Critical Hdwy Stg 2      | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     | -      | -    | -    | -      | -    | -    |
| Follow-up Hdwy           | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 | 2.218  | -    | -    | 2.218  | -    | -    |
| Pot Cap-1 Maneuver       | 574    | 549   | 900   | 586    | 559   | 871   | 1435   | -    | -    | 1386   | -    | -    |
| Stage 1                  | 805    | 738   | -     | 829    | 756   | -     | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 815    | 745   | -     | 804    | 737   | -     | -      | -    | -    | -      | -    | -    |
| Platoon blocked, %       | -      | -     | -     | -      | -     | -     | -      | -    | -    | -      | -    | -    |
| Mov Cap-1 Maneuver       | 547    | 539   | 900   | 577    | 549   | 871   | 1435   | -    | -    | 1386   | -    | -    |
| Mov Cap-2 Maneuver       | 547    | 539   | -     | 577    | 549   | -     | -      | -    | -    | -      | -    | -    |
| Stage 1                  | 805    | 725   | -     | 829    | 756   | -     | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 787    | 745   | -     | 788    | 724   | -     | -      | -    | -    | -      | -    | -    |
| Approach                 | EB     |       |       | WB     |       |       | NB     |      |      | SB     |      |      |
| HCM Control Delay, s     | 9      |       |       | 10.3   |       |       | 0      |      |      | 1.1    |      |      |
| HCM LOS                  | A      |       |       | B      |       |       |        |      |      |        |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT   | NBR   | EBLn1  | WBLn1 | WBLn2 | SBL    | SBT  | SBR  |        |      |      |
| Capacity (veh/h)         | 1435   | -     | -     | 900    | 577   | 871   | 1386   | -    | -    |        |      |      |
| HCM Lane V/C Ratio       | -      | -     | -     | 0.002  | 0.042 | 0.034 | 0.018  | -    | -    |        |      |      |
| HCM Control Delay (s)    | 0      | -     | -     | 9      | 11.5  | 9.3   | 7.6    | -    | -    |        |      |      |
| HCM Lane LOS             | A      | -     | -     | A      | B     | A     | A      | -    | -    |        |      |      |
| HCM 95th %tile Q(veh)    | 0      | -     | -     | 0      | 0.1   | 0.1   | 0.1    | -    | -    |        |      |      |



## **APPENDIX F**

### **CAPACITY ANALYSIS WORKSHEETS BACKGROUND**

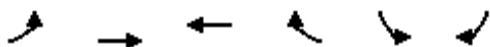




| Lane Group                 | EBL   | EBT   | WBT   | WBR   | SBL   | SBR   |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations        |       |       |       |       |       |       |
| Volume (vph)               | 283   | 1319  | 944   | 127   | 88    | 61    |
| Ideal Flow (vphpl)         | 1900  | 2000  | 1900  | 1900  | 1900  | 1900  |
| Storage Length (ft)        | 150   |       |       | 0     | 200   | 0     |
| Storage Lanes              | 1     |       |       | 0     | 1     | 1     |
| Taper Length (ft)          | 25    |       |       |       | 25    |       |
| Lane Util. Factor          | 1.00  | 0.95  | 0.95  | 0.95  | 1.00  | 1.00  |
| Frt                        |       |       | 0.982 |       |       | 0.850 |
| Flt Protected              | 0.950 |       |       |       | 0.950 |       |
| Satd. Flow (prot)          | 1770  | 3725  | 3476  | 0     | 1770  | 1583  |
| Flt Permitted              | 0.202 |       |       |       | 0.950 |       |
| Satd. Flow (perm)          | 376   | 3725  | 3476  | 0     | 1770  | 1583  |
| Right Turn on Red          |       |       |       | Yes   |       | Yes   |
| Satd. Flow (RTOR)          |       |       | 17    |       |       | 64    |
| Link Speed (mph)           |       | 40    | 40    |       | 30    |       |
| Link Distance (ft)         |       | 842   | 459   |       | 580   |       |
| Travel Time (s)            |       | 14.4  | 7.8   |       | 13.2  |       |
| Peak Hour Factor           | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| Adj. Flow (vph)            | 298   | 1388  | 994   | 134   | 93    | 64    |
| Shared Lane Traffic (%)    |       |       |       |       |       |       |
| Lane Group Flow (vph)      | 298   | 1388  | 1128  | 0     | 93    | 64    |
| Enter Blocked Intersection | No    | No    | No    | No    | No    | No    |
| Lane Alignment             | Left  | Left  | Left  | Right | Left  | Right |
| Median Width(ft)           |       | 12    | 12    |       | 12    |       |
| Link Offset(ft)            |       | 0     | 0     |       | 0     |       |
| Crosswalk Width(ft)        |       | 16    | 16    |       | 16    |       |
| Two way Left Turn Lane     |       |       |       |       | Yes   |       |
| Headway Factor             | 1.00  | 0.94  | 1.00  | 1.00  | 1.00  | 1.00  |
| Turning Speed (mph)        | 15    |       |       | 9     | 15    | 9     |
| Turn Type                  | pm+pt | NA    | NA    |       | Prot  | pt+ov |
| Protected Phases           | 7     | 4     | 8     |       | 6     | 6 7   |
| Permitted Phases           | 4     |       |       |       |       |       |
| Detector Phase             | 7     | 4     | 8     |       | 6     | 6 7   |
| Switch Phase               |       |       |       |       |       |       |
| Minimum Initial (s)        | 5.0   | 5.0   | 5.0   |       | 5.0   |       |
| Minimum Split (s)          | 9.5   | 24.0  | 24.0  |       | 24.0  |       |
| Total Split (s)            | 32.0  | 96.0  | 64.0  |       | 24.0  |       |
| Total Split (%)            | 26.7% | 80.0% | 53.3% |       | 20.0% |       |
| Maximum Green (s)          | 29.0  | 90.0  | 58.0  |       | 18.0  |       |
| Yellow Time (s)            | 3.0   | 4.0   | 4.0   |       | 4.0   |       |
| All-Red Time (s)           | 0.0   | 2.0   | 2.0   |       | 2.0   |       |
| Lost Time Adjust (s)       | 0.0   | 0.0   | 0.0   |       | 0.0   |       |
| Total Lost Time (s)        | 3.0   | 6.0   | 6.0   |       | 6.0   |       |
| Lead/Lag                   | Lead  |       | Lag   |       |       |       |
| Lead-Lag Optimize?         | Yes   |       | Yes   |       |       |       |
| Vehicle Extension (s)      | 3.0   | 3.0   | 3.0   |       | 3.0   |       |
| Recall Mode                | None  | C-Min | C-Min |       | None  |       |
| Act Effct Green (s)        | 99.4  | 96.4  | 80.0  |       | 11.6  | 28.0  |
| Actuated g/C Ratio         | 0.83  | 0.80  | 0.67  |       | 0.10  | 0.23  |

2022 Background  
2: Euclid Ave & Salt Creek Ln

Timing Plan: AM  
8/11/2015



| Lane Group              | EBL  | EBT   | WBT   | WBR | SBL  | SBR  |
|-------------------------|------|-------|-------|-----|------|------|
| v/c Ratio               | 0.64 | 0.46  | 0.49  |     | 0.54 | 0.15 |
| Control Delay           | 9.3  | 5.1   | 11.9  |     | 62.8 | 7.7  |
| Queue Delay             | 0.0  | 0.0   | 0.0   |     | 0.0  | 0.0  |
| Total Delay             | 9.3  | 5.1   | 11.9  |     | 62.8 | 7.7  |
| LOS                     | A    | A     | B     |     | E    | A    |
| Approach Delay          |      | 5.9   | 11.9  |     | 40.3 |      |
| Approach LOS            |      | A     | B     |     | D    |      |
| 90th %ile Green (s)     | 22.4 | 91.9  | 66.5  |     | 16.1 |      |
| 90th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 70th %ile Green (s)     | 16.5 | 94.5  | 75.0  |     | 13.5 |      |
| 70th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 50th %ile Green (s)     | 12.2 | 96.4  | 81.2  |     | 11.6 |      |
| 50th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 30th %ile Green (s)     | 8.5  | 98.2  | 86.7  |     | 9.8  |      |
| 30th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 10th %ile Green (s)     | 7.2  | 100.9 | 90.7  |     | 7.1  |      |
| 10th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| Queue Length 50th (ft)  | 30   | 5     | 196   |     | 70   | 0    |
| Queue Length 95th (ft)  | 39   | 581   | 350   |     | 121  | 30   |
| Internal Link Dist (ft) |      | 762   | 379   |     | 500  |      |
| Turn Bay Length (ft)    | 150  |       |       |     | 200  |      |
| Base Capacity (vph)     | 648  | 2991  | 2323  |     | 265  | 601  |
| Starvation Cap Reductn  | 0    | 0     | 0     |     | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0     | 0     |     | 0    | 0    |
| Storage Cap Reductn     | 0    | 0     | 0     |     | 0    | 0    |
| Reduced v/c Ratio       | 0.46 | 0.46  | 0.49  |     | 0.35 | 0.11 |

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 80 (67%), Referenced to phase 4:EBTL and 8:WBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 10.0

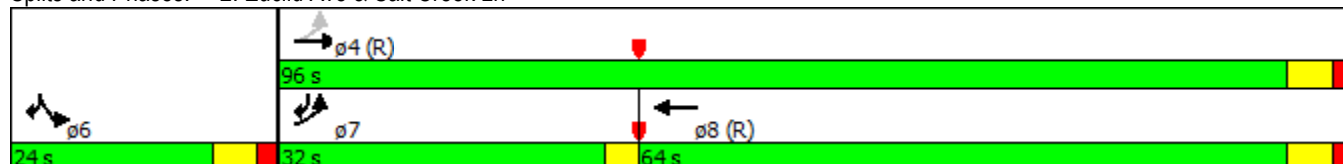
Intersection LOS: A

Intersection Capacity Utilization 64.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 2: Euclid Ave & Salt Creek Ln



2022 Background  
4: Rohlwing Rd & Euclid Ave

Timing Plan: AM  
8/11/2015

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |  |  |  |                                                                                     |  |  |                                                                                     |
| Volume (vph)               | 142                                                                               | 1366                                                                              | 77                                                                                | 31                                                                                | 919                                                                               | 61                                                                                | 166                                                                                 | 110                                                                                 | 102                                                                                 | 152                                                                                 | 95                                                                                  | 58                                                                                  |
| Ideal Flow (vphpl)         | 1900                                                                              | 2000                                                                              | 1900                                                                              | 1900                                                                              | 2000                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 200                                                                               |                                                                                   | 225                                                                               | 100                                                                               |                                                                                   | 200                                                                               | 145                                                                                 |                                                                                     | 0                                                                                   | 130                                                                                 |                                                                                     | 130                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                   |                                                                                     | 0                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                  |                                                                                     |                                                                                     | 25                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                     | 0.928                                                                               |                                                                                     |                                                                                     | 0.943                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3725                                                                              | 1583                                                                              | 1770                                                                              | 3725                                                                              | 1583                                                                              | 1770                                                                                | 1729                                                                                | 0                                                                                   | 1770                                                                                | 1757                                                                                | 0                                                                                   |
| Flt Permitted              | 0.193                                                                             |                                                                                   |                                                                                   | 0.091                                                                             |                                                                                   |                                                                                   | 0.655                                                                               |                                                                                     |                                                                                     | 0.329                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 360                                                                               | 3725                                                                              | 1583                                                                              | 170                                                                               | 3725                                                                              | 1583                                                                              | 1220                                                                                | 1729                                                                                | 0                                                                                   | 613                                                                                 | 1757                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 109                                                                               |                                                                                   |                                                                                   | 109                                                                               |                                                                                     | 37                                                                                  |                                                                                     |                                                                                     | 29                                                                                  |                                                                                     |
| Link Speed (mph)           |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 40                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 735                                                                               |                                                                                   |                                                                                   | 790                                                                               |                                                                                   |                                                                                     | 441                                                                                 |                                                                                     |                                                                                     | 644                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 12.5                                                                              |                                                                                   |                                                                                   | 13.5                                                                              |                                                                                   |                                                                                     | 10.0                                                                                |                                                                                     |                                                                                     | 11.0                                                                                |                                                                                     |
| Peak Hour Factor           | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Adj. Flow (vph)            | 149                                                                               | 1438                                                                              | 81                                                                                | 33                                                                                | 967                                                                               | 64                                                                                | 175                                                                                 | 116                                                                                 | 107                                                                                 | 160                                                                                 | 100                                                                                 | 61                                                                                  |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 149                                                                               | 1438                                                                              | 81                                                                                | 33                                                                                | 967                                                                               | 64                                                                                | 175                                                                                 | 223                                                                                 | 0                                                                                   | 160                                                                                 | 161                                                                                 | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 16                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 16                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 0.94                                                                              | 1.00                                                                              | 1.00                                                                              | 0.94                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases           | 4                                                                                 |                                                                                   | 4                                                                                 | 8                                                                                 |                                                                                   | 8                                                                                 | 2                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     |
| Detector Phase             | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Switch Phase               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)        | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                                 | 5.0                                                                                 |                                                                                     | 5.0                                                                                 | 5.0                                                                                 |                                                                                     |
| Minimum Split (s)          | 9.5                                                                               | 24.0                                                                              | 24.0                                                                              | 9.5                                                                               | 24.0                                                                              | 24.0                                                                              | 9.5                                                                                 | 24.0                                                                                |                                                                                     | 9.5                                                                                 | 51.0                                                                                |                                                                                     |
| Total Split (s)            | 16.0                                                                              | 43.0                                                                              | 43.0                                                                              | 16.0                                                                              | 43.0                                                                              | 43.0                                                                              | 10.0                                                                                | 37.0                                                                                |                                                                                     | 24.0                                                                                | 51.0                                                                                |                                                                                     |
| Total Split (%)            | 13.3%                                                                             | 35.8%                                                                             | 35.8%                                                                             | 13.3%                                                                             | 35.8%                                                                             | 35.8%                                                                             | 8.3%                                                                                | 30.8%                                                                               |                                                                                     | 20.0%                                                                               | 42.5%                                                                               |                                                                                     |
| Maximum Green (s)          | 13.0                                                                              | 37.0                                                                              | 37.0                                                                              | 13.0                                                                              | 37.0                                                                              | 37.0                                                                              | 7.0                                                                                 | 31.0                                                                                |                                                                                     | 21.0                                                                                | 45.0                                                                                |                                                                                     |
| Yellow Time (s)            | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                                 | 4.0                                                                                 |                                                                                     | 3.0                                                                                 | 4.0                                                                                 |                                                                                     |
| All-Red Time (s)           | 0.0                                                                               | 2.0                                                                               | 2.0                                                                               | 0.0                                                                               | 2.0                                                                               | 2.0                                                                               | 0.0                                                                                 | 2.0                                                                                 |                                                                                     | 0.0                                                                                 | 2.0                                                                                 |                                                                                     |
| Lost Time Adjust (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)        | 3.0                                                                               | 6.0                                                                               | 6.0                                                                               | 3.0                                                                               | 6.0                                                                               | 6.0                                                                               | 3.0                                                                                 | 6.0                                                                                 |                                                                                     | 3.0                                                                                 | 6.0                                                                                 |                                                                                     |
| Lead/Lag                   | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?         | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Vehicle Extension (s)      | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                                 | 3.0                                                                                 |                                                                                     | 3.0                                                                                 | 3.0                                                                                 |                                                                                     |
| Recall Mode                | None                                                                              | C-Min                                                                             | C-Min                                                                             | None                                                                              | C-Min                                                                             | C-Min                                                                             | None                                                                                | Min                                                                                 |                                                                                     | None                                                                                | Min                                                                                 |                                                                                     |
| Walk Time (s)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 7.0                                                                                 |
| Flash Dont Walk (s)        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 38.0                                                                                |

2022 Background  
4: Rohlwing Rd & Euclid Ave

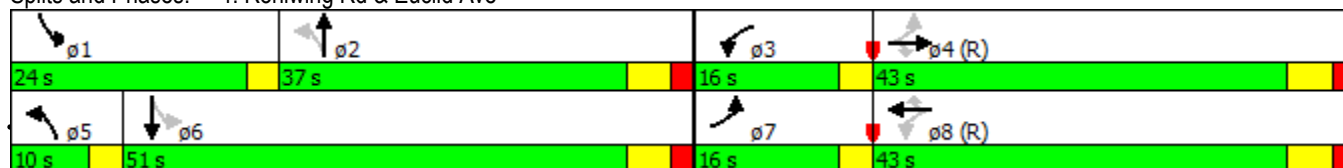
Timing Plan: AM  
8/11/2015

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Pedestrian Calls (#/hr) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 1                                                                                   |
| Act Effct Green (s)     | 74.0                                                                              | 65.0                                                                              | 65.0                                                                              | 67.9                                                                              | 58.3                                                                              | 58.3                                                                              | 30.6                                                                               | 20.6                                                                                |                                                                                     | 39.9                                                                                | 27.0                                                                                |                                                                                     |
| Actuated g/C Ratio      | 0.62                                                                              | 0.54                                                                              | 0.54                                                                              | 0.57                                                                              | 0.49                                                                              | 0.49                                                                              | 0.26                                                                               | 0.17                                                                                |                                                                                     | 0.33                                                                                | 0.22                                                                                |                                                                                     |
| v/c Ratio               | 0.44                                                                              | 0.71                                                                              | 0.09                                                                              | 0.18                                                                              | 0.53                                                                              | 0.08                                                                              | 0.51                                                                               | 0.68                                                                                |                                                                                     | 0.48                                                                                | 0.39                                                                                |                                                                                     |
| Control Delay           | 16.4                                                                              | 26.3                                                                              | 2.5                                                                               | 10.5                                                                              | 27.2                                                                              | 5.8                                                                               | 35.6                                                                               | 47.9                                                                                |                                                                                     | 32.2                                                                                | 32.2                                                                                |                                                                                     |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay             | 16.4                                                                              | 26.3                                                                              | 2.5                                                                               | 10.5                                                                              | 27.2                                                                              | 5.8                                                                               | 35.6                                                                               | 47.9                                                                                |                                                                                     | 32.2                                                                                | 32.2                                                                                |                                                                                     |
| LOS                     | B                                                                                 | C                                                                                 | A                                                                                 | B                                                                                 | C                                                                                 | A                                                                                 | D                                                                                  | D                                                                                   |                                                                                     | C                                                                                   | C                                                                                   |                                                                                     |
| Approach Delay          |                                                                                   | 24.3                                                                              |                                                                                   |                                                                                   | 25.4                                                                              |                                                                                   |                                                                                    | 42.5                                                                                |                                                                                     |                                                                                     | 32.2                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                    | D                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| 90th %ile Green (s)     | 13.0                                                                              | 41.8                                                                              | 41.8                                                                              | 8.2                                                                               | 37.0                                                                              | 37.0                                                                              | 7.0                                                                                | 36.4                                                                                |                                                                                     | 15.6                                                                                | 45.0                                                                                |                                                                                     |
| 90th %ile Term Code     | Max                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Gap                                                                                 | Ped                                                                                 |                                                                                     |
| 70th %ile Green (s)     | 11.1                                                                              | 58.1                                                                              | 58.1                                                                              | 6.9                                                                               | 53.9                                                                              | 53.9                                                                              | 7.0                                                                                | 21.5                                                                                |                                                                                     | 15.5                                                                                | 30.0                                                                                |                                                                                     |
| 70th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Gap                                                                                 |                                                                                     | Gap                                                                                 | Hold                                                                                |                                                                                     |
| 50th %ile Green (s)     | 9.5                                                                               | 63.2                                                                              | 63.2                                                                              | 6.3                                                                               | 60.0                                                                              | 60.0                                                                              | 7.0                                                                                | 18.5                                                                                |                                                                                     | 14.0                                                                                | 25.5                                                                                |                                                                                     |
| 50th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Gap                                                                                 |                                                                                     | Gap                                                                                 | Hold                                                                                |                                                                                     |
| 30th %ile Green (s)     | 8.2                                                                               | 77.3                                                                              | 77.3                                                                              | 0.0                                                                               | 66.1                                                                              | 66.1                                                                              | 7.0                                                                                | 15.5                                                                                |                                                                                     | 12.2                                                                                | 20.7                                                                                |                                                                                     |
| 30th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Skip                                                                              | Coord                                                                             | Coord                                                                             | Max                                                                                | Gap                                                                                 |                                                                                     | Gap                                                                                 | Hold                                                                                |                                                                                     |
| 10th %ile Green (s)     | 6.7                                                                               | 84.4                                                                              | 84.4                                                                              | 0.0                                                                               | 74.7                                                                              | 74.7                                                                              | 7.0                                                                                | 11.1                                                                                |                                                                                     | 9.5                                                                                 | 13.6                                                                                |                                                                                     |
| 10th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Skip                                                                              | Coord                                                                             | Coord                                                                             | Max                                                                                | Gap                                                                                 |                                                                                     | Gap                                                                                 | Hold                                                                                |                                                                                     |
| Queue Length 50th (ft)  | 44                                                                                | 434                                                                               | 0                                                                                 | 14                                                                                | 353                                                                               | 7                                                                                 | 102                                                                                | 140                                                                                 |                                                                                     | 92                                                                                  | 88                                                                                  |                                                                                     |
| Queue Length 95th (ft)  | 108                                                                               | #808                                                                              | 19                                                                                | m16                                                                               | 466                                                                               | 37                                                                                | 121                                                                                | 187                                                                                 |                                                                                     | 112                                                                                 | 121                                                                                 |                                                                                     |
| Internal Link Dist (ft) |                                                                                   | 655                                                                               |                                                                                   |                                                                                   | 710                                                                               |                                                                                   |                                                                                    | 361                                                                                 |                                                                                     |                                                                                     | 564                                                                                 |                                                                                     |
| Turn Bay Length (ft)    | 200                                                                               |                                                                                   | 225                                                                               | 100                                                                               |                                                                                   | 200                                                                               | 145                                                                                |                                                                                     |                                                                                     | 130                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 374                                                                               | 2016                                                                              | 906                                                                               | 277                                                                               | 1810                                                                              | 825                                                                               | 343                                                                                | 489                                                                                 |                                                                                     | 406                                                                                 | 677                                                                                 |                                                                                     |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio       | 0.40                                                                              | 0.71                                                                              | 0.09                                                                              | 0.12                                                                              | 0.53                                                                              | 0.08                                                                              | 0.51                                                                               | 0.46                                                                                |                                                                                     | 0.39                                                                                | 0.24                                                                                |                                                                                     |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green, Master Intersection  
 Natural Cycle: 125  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.71  
 Intersection Signal Delay: 27.5  
 Intersection LOS: C  
 Intersection Capacity Utilization 77.2%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Rohlwing Rd & Euclid Ave



| Intersection             |        |        |       |        |      |      |
|--------------------------|--------|--------|-------|--------|------|------|
| Int Delay, s/veh         | 0.3    |        |       |        |      |      |
| Movement                 | EBL    | EBR    | NBL   | NBT    | SBT  | SBR  |
| Vol, veh/h               | 0      | 7      | 3     | 218    | 51   | 0    |
| Conflicting Peds, #/hr   | 0      | 0      | 0     | 0      | 0    | 0    |
| Sign Control             | Stop   | Stop   | Free  | Free   | Free | Free |
| RT Channelized           | -      | None   | -     | None   | -    | None |
| Storage Length           | 0      | -      | -     | -      | -    | -    |
| Veh in Median Storage, # | 0      | -      | -     | 0      | 0    | -    |
| Grade, %                 | 0      | -      | -     | 0      | 0    | -    |
| Peak Hour Factor         | 95     | 95     | 95    | 95     | 95   | 95   |
| Heavy Vehicles, %        | 2      | 2      | 2     | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 7      | 3     | 229    | 54   | 0    |
| Major/Minor              | Minor2 | Major1 |       | Major2 |      |      |
| Conflicting Flow All     | 290    | 54     | 54    | 0      | -    | 0    |
| Stage 1                  | 54     | -      | -     | -      | -    | -    |
| Stage 2                  | 236    | -      | -     | -      | -    | -    |
| Critical Hdwy            | 6.42   | 6.22   | 4.12  | -      | -    | -    |
| Critical Hdwy Stg 1      | 5.42   | -      | -     | -      | -    | -    |
| Critical Hdwy Stg 2      | 5.42   | -      | -     | -      | -    | -    |
| Follow-up Hdwy           | 3.518  | 3.318  | 2.218 | -      | -    | -    |
| Pot Cap-1 Maneuver       | 701    | 1013   | 1551  | -      | -    | -    |
| Stage 1                  | 969    | -      | -     | -      | -    | -    |
| Stage 2                  | 803    | -      | -     | -      | -    | -    |
| Platoon blocked, %       |        |        |       | -      | -    | -    |
| Mov Cap-1 Maneuver       | 700    | 1013   | 1551  | -      | -    | -    |
| Mov Cap-2 Maneuver       | 700    | -      | -     | -      | -    | -    |
| Stage 1                  | 969    | -      | -     | -      | -    | -    |
| Stage 2                  | 801    | -      | -     | -      | -    | -    |
| Approach                 | EB     | NB     |       | SB     |      |      |
| HCM Control Delay, s     | 8.6    | 0.1    |       | 0      |      |      |
| HCM LOS                  | A      |        |       |        |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT    | EBLn1 | SBT    | SBR  |      |
| Capacity (veh/h)         | 1551   | -      | 1013  | -      | -    |      |
| HCM Lane V/C Ratio       | 0.002  | -      | 0.007 | -      | -    |      |
| HCM Control Delay (s)    | 7.3    | 0      | 8.6   | -      | -    |      |
| HCM Lane LOS             | A      | A      | A     | -      | -    |      |
| HCM 95th %tile Q(veh)    | 0      | -      | 0     | -      | -    |      |



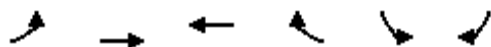
| Intersection             |        |      |        |      |        |       |
|--------------------------|--------|------|--------|------|--------|-------|
| Int Delay, s/veh         | 0.3    |      |        |      |        |       |
| Movement                 | EBL    | EBT  | WBT    | WBR  | SBL    | SBR   |
| Vol, veh/h               | 2      | 1618 | 1008   | 2    | 1      | 13    |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0    | 0      | 0     |
| Sign Control             | Free   | Free | Free   | Free | Stop   | Stop  |
| RT Channelized           | -      | None | -      | None | -      | None  |
| Storage Length           | -      | -    | -      | -    | 0      | 0     |
| Veh in Median Storage, # | -      | 0    | 0      | -    | 0      | -     |
| Grade, %                 | -      | 0    | 0      | -    | 0      | -     |
| Peak Hour Factor         | 95     | 95   | 95     | 95   | 95     | 95    |
| Heavy Vehicles, %        | 2      | 2    | 2      | 2    | 2      | 2     |
| Mvmt Flow                | 2      | 1703 | 1061   | 2    | 1      | 14    |
| Major/Minor              | Major1 |      | Major2 |      | Minor2 |       |
| Conflicting Flow All     | 1063   | 0    | -      | 0    | 1918   | 532   |
| Stage 1                  | -      | -    | -      | -    | 1062   | -     |
| Stage 2                  | -      | -    | -      | -    | 856    | -     |
| Critical Hdwy            | 4.14   | -    | -      | -    | 6.84   | 6.94  |
| Critical Hdwy Stg 1      | -      | -    | -      | -    | 5.84   | -     |
| Critical Hdwy Stg 2      | -      | -    | -      | -    | 5.84   | -     |
| Follow-up Hdwy           | 2.22   | -    | -      | -    | 3.52   | 3.32  |
| Pot Cap-1 Maneuver       | 651    | -    | -      | -    | 59     | 492   |
| Stage 1                  | -      | -    | -      | -    | 294    | -     |
| Stage 2                  | -      | -    | -      | -    | 377    | -     |
| Platoon blocked, %       | -      | -    | -      | -    | -      | -     |
| Mov Cap-1 Maneuver       | 651    | -    | -      | -    | 56     | 492   |
| Mov Cap-2 Maneuver       | -      | -    | -      | -    | 56     | -     |
| Stage 1                  | -      | -    | -      | -    | 294    | -     |
| Stage 2                  | -      | -    | -      | -    | 356    | -     |
| Approach                 | EB     |      | WB     |      | SB     |       |
| HCM Control Delay, s     | 0.3    |      | 0      |      | 16.6   |       |
| HCM LOS                  |        |      |        |      | C      |       |
| Minor Lane/Major Mvmt    | EBL    | EBT  | WBT    | WBR  | SBLn1  | SBLn2 |
| Capacity (veh/h)         | 651    | -    | -      | -    | 56     | 492   |
| HCM Lane V/C Ratio       | 0.003  | -    | -      | -    | 0.019  | 0.028 |
| HCM Control Delay (s)    | 10.5   | 0.3  | -      | -    | 70.5   | 12.5  |
| HCM Lane LOS             | B      | A    | -      | -    | F      | B     |
| HCM 95th %tile Q(veh)    | 0      | -    | -      | -    | 0.1    | 0.1   |

| Intersection             |        |       |        |       |        |      |
|--------------------------|--------|-------|--------|-------|--------|------|
| Int Delay, s/veh         | 0      |       |        |       |        |      |
|                          |        |       |        |       |        |      |
| Movement                 | WBL    | WBR   | NBT    | NBR   | SBL    | SBT  |
| Vol, veh/h               | 2      | 0     | 270    | 5     | 2      | 314  |
| Conflicting Peds, #/hr   | 0      | 0     | 0      | 0     | 0      | 0    |
| Sign Control             | Stop   | Stop  | Free   | Free  | Free   | Free |
| RT Channelized           | -      | None  | -      | None  | -      | None |
| Storage Length           | 0      | 0     | -      | -     | 200    | -    |
| Veh in Median Storage, # | 0      | -     | 0      | -     | -      | 0    |
| Grade, %                 | 0      | -     | 0      | -     | -      | 0    |
| Peak Hour Factor         | 95     | 95    | 95     | 95    | 95     | 95   |
| Heavy Vehicles, %        | 2      | 2     | 2      | 2     | 2      | 2    |
| Mvmt Flow                | 2      | 0     | 284    | 5     | 2      | 331  |
|                          |        |       |        |       |        |      |
| Major/Minor              | Minor1 |       | Major1 |       | Major2 |      |
| Conflicting Flow All     | 622    | 287   | 0      | 0     | 289    | 0    |
| Stage 1                  | 287    | -     | -      | -     | -      | -    |
| Stage 2                  | 335    | -     | -      | -     | -      | -    |
| Critical Hdwy            | 6.42   | 6.22  | -      | -     | 4.12   | -    |
| Critical Hdwy Stg 1      | 5.42   | -     | -      | -     | -      | -    |
| Critical Hdwy Stg 2      | 5.42   | -     | -      | -     | -      | -    |
| Follow-up Hdwy           | 3.518  | 3.318 | -      | -     | 2.218  | -    |
| Pot Cap-1 Maneuver       | 450    | 752   | -      | -     | 1273   | -    |
| Stage 1                  | 762    | -     | -      | -     | -      | -    |
| Stage 2                  | 725    | -     | -      | -     | -      | -    |
| Platoon blocked, %       |        |       | -      | -     |        | -    |
| Mov Cap-1 Maneuver       | 449    | 752   | -      | -     | 1273   | -    |
| Mov Cap-2 Maneuver       | 449    | -     | -      | -     | -      | -    |
| Stage 1                  | 762    | -     | -      | -     | -      | -    |
| Stage 2                  | 724    | -     | -      | -     | -      | -    |
|                          |        |       |        |       |        |      |
| Approach                 | WB     |       | NB     |       | SB     |      |
| HCM Control Delay, s     | 13.1   |       | 0      |       | 0      |      |
| HCM LOS                  | B      |       |        |       |        |      |
|                          |        |       |        |       |        |      |
| Minor Lane/Major Mvmt    | NBT    | NBR   | WBLn1  | WBLn2 | SBL    | SBT  |
| Capacity (veh/h)         | -      | -     | 449    | -     | 1273   | -    |
| HCM Lane V/C Ratio       | -      | -     | 0.005  | -     | 0.002  | -    |
| HCM Control Delay (s)    | -      | -     | 13.1   | 0     | 7.8    | -    |
| HCM Lane LOS             | -      | -     | B      | A     | A      | -    |
| HCM 95th %tile Q(veh)    | -      | -     | 0      | -     | 0      | -    |

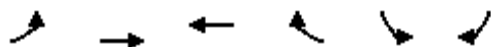
| Intersection             |        |       |       |        |       |       |        |      |      |        |      |      |
|--------------------------|--------|-------|-------|--------|-------|-------|--------|------|------|--------|------|------|
| Int Delay, s/veh         | 1.6    |       |       |        |       |       |        |      |      |        |      |      |
| Movement                 | EBL    | EBT   | EBR   | WBL    | WBT   | WBR   | NBL    | NBT  | NBR  | SBL    | SBT  | SBR  |
| Vol, veh/h               | 1      | 0     | 0     | 7      | 1     | 25    | 0      | 201  | 57   | 87     | 316  | 0    |
| Conflicting Peds, #/hr   | 0      | 0     | 0     | 0      | 0     | 0     | 0      | 0    | 0    | 0      | 0    | 0    |
| Sign Control             | Stop   | Stop  | Stop  | Stop   | Stop  | Stop  | Free   | Free | Free | Free   | Free | Free |
| RT Channelized           | -      | -     | None  | -      | -     | None  | -      | -    | None | -      | -    | None |
| Storage Length           | -      | -     | -     | 175    | -     | -     | -      | -    | -    | 0      | -    | -    |
| Veh in Median Storage, # | -      | 0     | -     | -      | 0     | -     | -      | 0    | -    | -      | 0    | -    |
| Grade, %                 | -      | 0     | -     | -      | 0     | -     | -      | 0    | -    | -      | 0    | -    |
| Peak Hour Factor         | 95     | 95    | 95    | 95     | 95    | 95    | 95     | 95   | 95   | 95     | 95   | 95   |
| Heavy Vehicles, %        | 2      | 2     | 2     | 2      | 2     | 2     | 2      | 2    | 2    | 2      | 2    | 2    |
| Mvmt Flow                | 1      | 0     | 0     | 7      | 1     | 26    | 0      | 212  | 60   | 92     | 333  | 0    |
| Major/Minor              | Minor2 |       |       | Minor1 |       |       | Major1 |      |      | Major2 |      |      |
| Conflicting Flow All     | 771    | 788   | 333   | 758    | 758   | 242   | 333    | 0    | 0    | 272    | 0    | 0    |
| Stage 1                  | 516    | 516   | -     | 242    | 242   | -     | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 255    | 272   | -     | 516    | 516   | -     | -      | -    | -    | -      | -    | -    |
| Critical Hdwy            | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  | 4.12   | -    | -    | 4.12   | -    | -    |
| Critical Hdwy Stg 1      | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     | -      | -    | -    | -      | -    | -    |
| Critical Hdwy Stg 2      | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     | -      | -    | -    | -      | -    | -    |
| Follow-up Hdwy           | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 | 2.218  | -    | -    | 2.218  | -    | -    |
| Pot Cap-1 Maneuver       | 317    | 323   | 709   | 324    | 336   | 797   | 1226   | -    | -    | 1291   | -    | -    |
| Stage 1                  | 542    | 534   | -     | 762    | 705   | -     | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 749    | 685   | -     | 542    | 534   | -     | -      | -    | -    | -      | -    | -    |
| Platoon blocked, %       | -      | -     | -     | -      | -     | -     | -      | -    | -    | -      | -    | -    |
| Mov Cap-1 Maneuver       | 289    | 300   | 709   | 306    | 312   | 797   | 1226   | -    | -    | 1291   | -    | -    |
| Mov Cap-2 Maneuver       | 289    | 300   | -     | 306    | 312   | -     | -      | -    | -    | -      | -    | -    |
| Stage 1                  | 542    | 496   | -     | 762    | 705   | -     | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 723    | 685   | -     | 503    | 496   | -     | -      | -    | -    | -      | -    | -    |
| Approach                 | EB     |       |       | WB     |       |       | NB     |      |      | SB     |      |      |
| HCM Control Delay, s     | 17.5   |       |       | 11.5   |       |       | 0      |      |      | 1.7    |      |      |
| HCM LOS                  | C      |       |       | B      |       |       |        |      |      |        |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT   | NBR   | EBLn1  | WBLn1 | WBLn2 | SBL    | SBT  | SBR  |        |      |      |
| Capacity (veh/h)         | 1226   | -     | -     | 289    | 306   | 752   | 1291   | -    | -    |        |      |      |
| HCM Lane V/C Ratio       | -      | -     | -     | 0.004  | 0.024 | 0.036 | 0.071  | -    | -    |        |      |      |
| HCM Control Delay (s)    | 0      | -     | -     | 17.5   | 17.1  | 10    | 8      | -    | -    |        |      |      |
| HCM Lane LOS             | A      | -     | -     | C      | C     | B     | A      | -    | -    |        |      |      |
| HCM 95th %tile Q(veh)    | 0      | -     | -     | 0      | 0.1   | 0.1   | 0.2    | -    | -    |        |      |      |

2022 Background  
2: Euclid Ave & Salt Creek Ln

Timing Plan: PM  
8/11/2015



| Lane Group                 | EBL   | EBT   | WBT   | WBR   | SBL   | SBR   |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations        |       |       |       |       |       |       |
| Volume (vph)               | 67    | 990   | 1389  | 45    | 140   | 217   |
| Ideal Flow (vphpl)         | 1900  | 2000  | 1900  | 1900  | 1900  | 1900  |
| Storage Length (ft)        | 150   |       |       | 0     | 200   | 0     |
| Storage Lanes              | 1     |       |       | 0     | 1     | 1     |
| Taper Length (ft)          | 25    |       |       |       | 25    |       |
| Lane Util. Factor          | 1.00  | 0.95  | 0.95  | 0.95  | 1.00  | 1.00  |
| Frt                        |       |       | 0.995 |       |       | 0.850 |
| Flt Protected              | 0.950 |       |       |       | 0.950 |       |
| Satd. Flow (prot)          | 1770  | 3725  | 3522  | 0     | 1770  | 1583  |
| Flt Permitted              | 0.114 |       |       |       | 0.950 |       |
| Satd. Flow (perm)          | 212   | 3725  | 3522  | 0     | 1770  | 1583  |
| Right Turn on Red          |       |       |       | Yes   |       | Yes   |
| Satd. Flow (RTOR)          |       |       | 5     |       |       | 41    |
| Link Speed (mph)           |       | 40    | 40    |       | 30    |       |
| Link Distance (ft)         |       | 842   | 459   |       | 580   |       |
| Travel Time (s)            |       | 14.4  | 7.8   |       | 13.2  |       |
| Peak Hour Factor           | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| Adj. Flow (vph)            | 71    | 1042  | 1462  | 47    | 147   | 228   |
| Shared Lane Traffic (%)    |       |       |       |       |       |       |
| Lane Group Flow (vph)      | 71    | 1042  | 1509  | 0     | 147   | 228   |
| Enter Blocked Intersection | No    | No    | No    | No    | No    | No    |
| Lane Alignment             | Left  | Left  | Left  | Right | Left  | Right |
| Median Width(ft)           |       | 12    | 12    |       | 12    |       |
| Link Offset(ft)            |       | 0     | 0     |       | 0     |       |
| Crosswalk Width(ft)        |       | 16    | 16    |       | 16    |       |
| Two way Left Turn Lane     |       |       |       |       | Yes   |       |
| Headway Factor             | 1.00  | 0.94  | 1.00  | 1.00  | 1.00  | 1.00  |
| Turning Speed (mph)        | 15    |       |       | 9     | 15    | 9     |
| Turn Type                  | pm+pt | NA    | NA    |       | Prot  | pt+ov |
| Protected Phases           | 7     | 4     | 8     |       | 6     | 6 7   |
| Permitted Phases           | 4     |       |       |       |       |       |
| Detector Phase             | 7     | 4     | 8     |       | 6     | 6 7   |
| Switch Phase               |       |       |       |       |       |       |
| Minimum Initial (s)        | 5.0   | 5.0   | 5.0   |       | 5.0   |       |
| Minimum Split (s)          | 9.5   | 24.0  | 24.0  |       | 24.0  |       |
| Total Split (s)            | 16.0  | 94.0  | 78.0  |       | 26.0  |       |
| Total Split (%)            | 13.3% | 78.3% | 65.0% |       | 21.7% |       |
| Maximum Green (s)          | 13.0  | 88.0  | 72.0  |       | 20.0  |       |
| Yellow Time (s)            | 3.0   | 4.0   | 4.0   |       | 4.0   |       |
| All-Red Time (s)           | 0.0   | 2.0   | 2.0   |       | 2.0   |       |
| Lost Time Adjust (s)       | 0.0   | 0.0   | 0.0   |       | 0.0   |       |
| Total Lost Time (s)        | 3.0   | 6.0   | 6.0   |       | 6.0   |       |
| Lead/Lag                   | Lead  |       | Lag   |       |       |       |
| Lead-Lag Optimize?         | Yes   |       | Yes   |       |       |       |
| Vehicle Extension (s)      | 3.0   | 3.0   | 3.0   |       | 3.0   |       |
| Recall Mode                | None  | C-Min | C-Min |       | None  |       |
| Act Effct Green (s)        | 93.5  | 90.5  | 80.8  |       | 17.5  | 27.2  |
| Actuated g/C Ratio         | 0.78  | 0.75  | 0.67  |       | 0.15  | 0.23  |



| Lane Group              | EBL  | EBT   | WBT   | WBR | SBL  | SBR  |
|-------------------------|------|-------|-------|-----|------|------|
| v/c Ratio               | 0.28 | 0.37  | 0.64  |     | 0.57 | 0.58 |
| Control Delay           | 12.7 | 5.8   | 13.7  |     | 55.6 | 38.8 |
| Queue Delay             | 0.0  | 0.0   | 0.0   |     | 0.0  | 0.0  |
| Total Delay             | 12.7 | 5.8   | 13.7  |     | 55.6 | 38.8 |
| LOS                     | B    | A     | B     |     | E    | D    |
| Approach Delay          |      | 6.2   | 13.7  |     | 45.4 |      |
| Approach LOS            |      | A     | B     |     | D    |      |
| 90th %ile Green (s)     | 8.2  | 82.8  | 71.6  |     | 25.2 |      |
| 90th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 70th %ile Green (s)     | 7.1  | 87.7  | 77.6  |     | 20.3 |      |
| 70th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 50th %ile Green (s)     | 6.5  | 91.0  | 81.5  |     | 17.0 |      |
| 50th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 30th %ile Green (s)     | 6.1  | 93.7  | 84.6  |     | 14.3 |      |
| 30th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 10th %ile Green (s)     | 5.8  | 97.5  | 88.7  |     | 10.5 |      |
| 10th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| Queue Length 50th (ft)  | 9    | 90    | 312   |     | 108  | 131  |
| Queue Length 95th (ft)  | 57   | 193   | 492   |     | 163  | 193  |
| Internal Link Dist (ft) |      | 762   | 379   |     | 500  |      |
| Turn Bay Length (ft)    | 150  |       |       |     | 200  |      |
| Base Capacity (vph)     | 334  | 2844  | 2375  |     | 311  | 462  |
| Starvation Cap Reductn  | 0    | 0     | 0     |     | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0     | 0     |     | 0    | 0    |
| Storage Cap Reductn     | 0    | 0     | 0     |     | 0    | 0    |
| Reduced v/c Ratio       | 0.21 | 0.37  | 0.64  |     | 0.47 | 0.49 |

#### Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 109 (91%), Referenced to phase 4:EBTL and 8:WBT, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 14.9

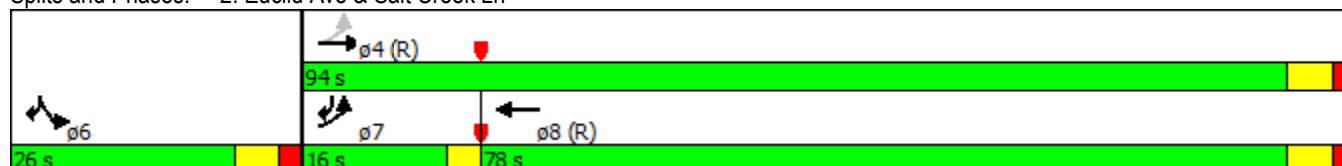
Intersection LOS: B

Intersection Capacity Utilization 65.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 2: Euclid Ave & Salt Creek Ln





2022 Background  
4: Rohlwing Rd & Euclid Ave

Timing Plan: PM  
8/11/2015

|                            |  |  |  |  |  |  |   |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |  |  |  |  |  |  |  |
| Volume (vph)               | 52                                                                                | 871                                                                               | 181                                                                               | 77                                                                                | 1451                                                                              | 91                                                                                | 158                                                                                 | 121                                                                                 | 59                                                                                  | 116                                                                                 | 125                                                                                 | 196                                                                                 |
| Ideal Flow (vphpl)         | 1900                                                                              | 2000                                                                              | 1900                                                                              | 1900                                                                              | 2000                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 200                                                                               |                                                                                   | 225                                                                               | 100                                                                               |                                                                                   | 200                                                                               | 145                                                                                 |                                                                                     | 0                                                                                   | 130                                                                                 |                                                                                     | 130                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                   |                                                                                     | 0                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                  |                                                                                     |                                                                                     | 25                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                     | 0.951                                                                               |                                                                                     |                                                                                     | 0.909                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3725                                                                              | 1583                                                                              | 1770                                                                              | 3725                                                                              | 1583                                                                              | 1770                                                                                | 1771                                                                                | 0                                                                                   | 1770                                                                                | 1693                                                                                | 0                                                                                   |
| Flt Permitted              | 0.066                                                                             |                                                                                   |                                                                                   | 0.229                                                                             |                                                                                   |                                                                                   | 0.285                                                                               |                                                                                     |                                                                                     | 0.433                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 123                                                                               | 3725                                                                              | 1583                                                                              | 427                                                                               | 3725                                                                              | 1583                                                                              | 531                                                                                 | 1771                                                                                | 0                                                                                   | 807                                                                                 | 1693                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 172                                                                               |                                                                                   |                                                                                   | 109                                                                               |                                                                                     | 22                                                                                  |                                                                                     |                                                                                     | 75                                                                                  |                                                                                     |
| Link Speed (mph)           |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 40                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 735                                                                               |                                                                                   |                                                                                   | 790                                                                               |                                                                                   |                                                                                     | 441                                                                                 |                                                                                     |                                                                                     | 644                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 12.5                                                                              |                                                                                   |                                                                                   | 13.5                                                                              |                                                                                   |                                                                                     | 10.0                                                                                |                                                                                     |                                                                                     | 11.0                                                                                |                                                                                     |
| Peak Hour Factor           | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Adj. Flow (vph)            | 55                                                                                | 917                                                                               | 191                                                                               | 81                                                                                | 1527                                                                              | 96                                                                                | 166                                                                                 | 127                                                                                 | 62                                                                                  | 122                                                                                 | 132                                                                                 | 206                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 55                                                                                | 917                                                                               | 191                                                                               | 81                                                                                | 1527                                                                              | 96                                                                                | 166                                                                                 | 189                                                                                 | 0                                                                                   | 122                                                                                 | 338                                                                                 | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 16                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 16                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 0.94                                                                              | 1.00                                                                              | 1.00                                                                              | 0.94                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases           | 4                                                                                 |                                                                                   | 4                                                                                 | 8                                                                                 |                                                                                   | 8                                                                                 | 2                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     |
| Detector Phase             | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Switch Phase               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)        | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                                 | 5.0                                                                                 |                                                                                     | 5.0                                                                                 | 5.0                                                                                 |                                                                                     |
| Minimum Split (s)          | 9.5                                                                               | 24.0                                                                              | 24.0                                                                              | 9.5                                                                               | 24.0                                                                              | 24.0                                                                              | 9.5                                                                                 | 24.0                                                                                |                                                                                     | 9.5                                                                                 | 51.0                                                                                |                                                                                     |
| Total Split (s)            | 16.0                                                                              | 43.0                                                                              | 43.0                                                                              | 16.0                                                                              | 43.0                                                                              | 43.0                                                                              | 10.0                                                                                | 45.0                                                                                |                                                                                     | 16.0                                                                                | 51.0                                                                                |                                                                                     |
| Total Split (%)            | 13.3%                                                                             | 35.8%                                                                             | 35.8%                                                                             | 13.3%                                                                             | 35.8%                                                                             | 35.8%                                                                             | 8.3%                                                                                | 37.5%                                                                               |                                                                                     | 13.3%                                                                               | 42.5%                                                                               |                                                                                     |
| Maximum Green (s)          | 13.0                                                                              | 37.0                                                                              | 37.0                                                                              | 13.0                                                                              | 37.0                                                                              | 37.0                                                                              | 7.0                                                                                 | 39.0                                                                                |                                                                                     | 13.0                                                                                | 45.0                                                                                |                                                                                     |
| Yellow Time (s)            | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                                 | 4.0                                                                                 |                                                                                     | 3.0                                                                                 | 4.0                                                                                 |                                                                                     |
| All-Red Time (s)           | 0.0                                                                               | 2.0                                                                               | 2.0                                                                               | 0.0                                                                               | 2.0                                                                               | 2.0                                                                               | 0.0                                                                                 | 2.0                                                                                 |                                                                                     | 0.0                                                                                 | 2.0                                                                                 |                                                                                     |
| Lost Time Adjust (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)        | 3.0                                                                               | 6.0                                                                               | 6.0                                                                               | 3.0                                                                               | 6.0                                                                               | 6.0                                                                               | 3.0                                                                                 | 6.0                                                                                 |                                                                                     | 3.0                                                                                 | 6.0                                                                                 |                                                                                     |
| Lead/Lag                   | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?         | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Vehicle Extension (s)      | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                                 | 3.0                                                                                 |                                                                                     | 3.0                                                                                 | 3.0                                                                                 |                                                                                     |
| Recall Mode                | None                                                                              | C-Min                                                                             | C-Min                                                                             | None                                                                              | C-Min                                                                             | C-Min                                                                             | None                                                                                | Min                                                                                 |                                                                                     | None                                                                                | Min                                                                                 |                                                                                     |
| Walk Time (s)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 7.0                                                                                 |
| Flash Dont Walk (s)        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 38.0                                                                                |

2022 Background  
4: Rohlwing Rd & Euclid Ave

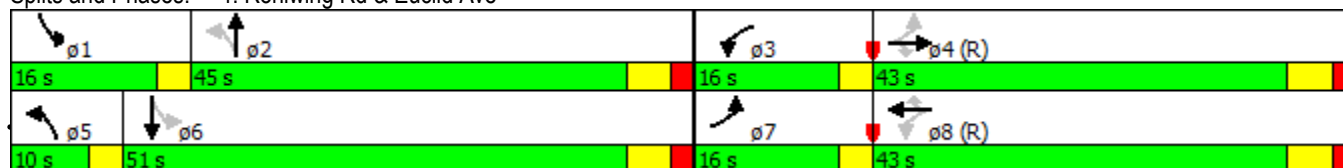
Timing Plan: PM  
8/11/2015

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Pedestrian Calls (#/hr) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 2                                                                                   |
| Act Effct Green (s)     | 70.6                                                                              | 61.6                                                                              | 61.6                                                                              | 72.1                                                                              | 62.3                                                                              | 62.3                                                                              | 33.0                                                                               | 23.0                                                                                |                                                                                     | 39.8                                                                                | 27.2                                                                                |                                                                                     |
| Actuated g/C Ratio      | 0.59                                                                              | 0.51                                                                              | 0.51                                                                              | 0.60                                                                              | 0.52                                                                              | 0.52                                                                              | 0.28                                                                               | 0.19                                                                                |                                                                                     | 0.33                                                                                | 0.23                                                                                |                                                                                     |
| v/c Ratio               | 0.32                                                                              | 0.48                                                                              | 0.21                                                                              | 0.23                                                                              | 0.79                                                                              | 0.11                                                                              | 0.76                                                                               | 0.53                                                                                |                                                                                     | 0.34                                                                                | 0.77                                                                                |                                                                                     |
| Control Delay           | 17.8                                                                              | 23.0                                                                              | 5.5                                                                               | 14.3                                                                              | 24.2                                                                              | 5.6                                                                               | 52.4                                                                               | 42.2                                                                                |                                                                                     | 28.8                                                                                | 43.8                                                                                |                                                                                     |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay             | 17.8                                                                              | 23.0                                                                              | 5.5                                                                               | 14.3                                                                              | 24.2                                                                              | 5.6                                                                               | 52.4                                                                               | 42.2                                                                                |                                                                                     | 28.8                                                                                | 43.8                                                                                |                                                                                     |
| LOS                     | B                                                                                 | C                                                                                 | A                                                                                 | B                                                                                 | C                                                                                 | A                                                                                 | D                                                                                  | D                                                                                   |                                                                                     | C                                                                                   | D                                                                                   |                                                                                     |
| Approach Delay          |                                                                                   | 19.9                                                                              |                                                                                   |                                                                                   | 22.7                                                                              |                                                                                   |                                                                                    | 47.0                                                                                |                                                                                     |                                                                                     | 39.8                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | B                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                    | D                                                                                   |                                                                                     |                                                                                     | D                                                                                   |                                                                                     |
| 90th %ile Green (s)     | 9.6                                                                               | 38.9                                                                              | 38.9                                                                              | 11.1                                                                              | 40.4                                                                              | 40.4                                                                              | 7.0                                                                                | 39.0                                                                                |                                                                                     | 13.0                                                                                | 45.0                                                                                |                                                                                     |
| 90th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Max                                                                                 | Ped                                                                                 |                                                                                     |
| 70th %ile Green (s)     | 7.6                                                                               | 57.1                                                                              | 57.1                                                                              | 8.6                                                                               | 58.1                                                                              | 58.1                                                                              | 7.0                                                                                | 23.3                                                                                |                                                                                     | 13.0                                                                                | 29.3                                                                                |                                                                                     |
| 70th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Max                                                                                 | Gap                                                                                 |                                                                                     |
| 50th %ile Green (s)     | 6.9                                                                               | 62.2                                                                              | 62.2                                                                              | 7.6                                                                               | 62.9                                                                              | 62.9                                                                              | 7.0                                                                                | 20.3                                                                                |                                                                                     | 11.9                                                                                | 25.2                                                                                |                                                                                     |
| 50th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Gap                                                                                 | Gap                                                                                 |                                                                                     |
| 30th %ile Green (s)     | 6.2                                                                               | 67.1                                                                              | 67.1                                                                              | 6.7                                                                               | 67.6                                                                              | 67.6                                                                              | 7.0                                                                                | 17.9                                                                                |                                                                                     | 10.3                                                                                | 21.2                                                                                |                                                                                     |
| 30th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Gap                                                                                 | Gap                                                                                 |                                                                                     |
| 10th %ile Green (s)     | 0.0                                                                               | 82.6                                                                              | 82.6                                                                              | 0.0                                                                               | 82.6                                                                              | 82.6                                                                              | 7.0                                                                                | 14.5                                                                                |                                                                                     | 7.9                                                                                 | 15.4                                                                                |                                                                                     |
| 10th %ile Term Code     | Skip                                                                              | Coord                                                                             | Coord                                                                             | Skip                                                                              | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Gap                                                                                 | Gap                                                                                 |                                                                                     |
| Queue Length 50th (ft)  | 15                                                                                | 230                                                                               | 7                                                                                 | 17                                                                                | 241                                                                               | 0                                                                                 | 96                                                                                 | 121                                                                                 |                                                                                     | 69                                                                                  | 199                                                                                 |                                                                                     |
| Queue Length 95th (ft)  | 47                                                                                | 412                                                                               | 63                                                                                | m59                                                                               | #892                                                                              | m30                                                                               | 115                                                                                | 160                                                                                 |                                                                                     | 88                                                                                  | 244                                                                                 |                                                                                     |
| Internal Link Dist (ft) |                                                                                   | 655                                                                               |                                                                                   |                                                                                   | 710                                                                               |                                                                                   |                                                                                    | 361                                                                                 |                                                                                     |                                                                                     | 564                                                                                 |                                                                                     |
| Turn Bay Length (ft)    | 200                                                                               |                                                                                   | 225                                                                               | 100                                                                               |                                                                                   | 200                                                                               | 145                                                                                |                                                                                     |                                                                                     | 130                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 253                                                                               | 1911                                                                              | 896                                                                               | 408                                                                               | 1934                                                                              | 874                                                                               | 218                                                                                | 590                                                                                 |                                                                                     | 374                                                                                 | 681                                                                                 |                                                                                     |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio       | 0.22                                                                              | 0.48                                                                              | 0.21                                                                              | 0.20                                                                              | 0.79                                                                              | 0.11                                                                              | 0.76                                                                               | 0.32                                                                                |                                                                                     | 0.33                                                                                | 0.50                                                                                |                                                                                     |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green, Master Intersection  
 Natural Cycle: 125  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 26.3  
 Intersection LOS: C  
 Intersection Capacity Utilization 86.3%  
 ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Rohlwing Rd & Euclid Ave



| Intersection             |        |        |       |        |      |      |
|--------------------------|--------|--------|-------|--------|------|------|
| Int Delay, s/veh         | 0.3    |        |       |        |      |      |
| Movement                 | EBL    | EBR    | NBL   | NBT    | SBT  | SBR  |
| Vol, veh/h               | 0      | 4      | 6     | 59     | 207  | 0    |
| Conflicting Peds, #/hr   | 0      | 0      | 0     | 0      | 0    | 0    |
| Sign Control             | Stop   | Stop   | Free  | Free   | Free | Free |
| RT Channelized           | -      | None   | -     | None   | -    | None |
| Storage Length           | 0      | -      | -     | -      | -    | -    |
| Veh in Median Storage, # | 0      | -      | -     | 0      | 0    | -    |
| Grade, %                 | 0      | -      | -     | 0      | 0    | -    |
| Peak Hour Factor         | 95     | 95     | 95    | 95     | 95   | 95   |
| Heavy Vehicles, %        | 2      | 2      | 2     | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 4      | 6     | 62     | 218  | 0    |
| Major/Minor              | Minor2 | Major1 |       | Major2 |      |      |
| Conflicting Flow All     | 293    | 218    | 218   | 0      | -    | 0    |
| Stage 1                  | 218    | -      | -     | -      | -    | -    |
| Stage 2                  | 75     | -      | -     | -      | -    | -    |
| Critical Hdwy            | 6.42   | 6.22   | 4.12  | -      | -    | -    |
| Critical Hdwy Stg 1      | 5.42   | -      | -     | -      | -    | -    |
| Critical Hdwy Stg 2      | 5.42   | -      | -     | -      | -    | -    |
| Follow-up Hdwy           | 3.518  | 3.318  | 2.218 | -      | -    | -    |
| Pot Cap-1 Maneuver       | 698    | 822    | 1352  | -      | -    | -    |
| Stage 1                  | 818    | -      | -     | -      | -    | -    |
| Stage 2                  | 948    | -      | -     | -      | -    | -    |
| Platoon blocked, %       |        |        |       | -      | -    | -    |
| Mov Cap-1 Maneuver       | 695    | 822    | 1352  | -      | -    | -    |
| Mov Cap-2 Maneuver       | 695    | -      | -     | -      | -    | -    |
| Stage 1                  | 818    | -      | -     | -      | -    | -    |
| Stage 2                  | 943    | -      | -     | -      | -    | -    |
| Approach                 | EB     | NB     |       | SB     |      |      |
| HCM Control Delay, s     | 9.4    | 0.7    |       | 0      |      |      |
| HCM LOS                  | A      |        |       |        |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT    | EBLn1 | SBT    | SBR  |      |
| Capacity (veh/h)         | 1352   | -      | 822   | -      | -    |      |
| HCM Lane V/C Ratio       | 0.005  | -      | 0.005 | -      | -    |      |
| HCM Control Delay (s)    | 7.7    | 0      | 9.4   | -      | -    |      |
| HCM Lane LOS             | A      | A      | A     | -      | -    |      |
| HCM 95th %tile Q(veh)    | 0      | -      | 0     | -      | -    |      |

| Intersection             |        |      |        |      |        |       |
|--------------------------|--------|------|--------|------|--------|-------|
| Int Delay, s/veh         | 0.2    |      |        |      |        |       |
| Movement                 | EBL    | EBT  | WBT    | WBR  | SBL    | SBR   |
| Vol, veh/h               | 0      | 1054 | 1607   | 6    | 3      | 4     |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0    | 0      | 0     |
| Sign Control             | Free   | Free | Free   | Free | Stop   | Stop  |
| RT Channelized           | -      | None | -      | None | -      | None  |
| Storage Length           | -      | -    | -      | -    | 0      | 0     |
| Veh in Median Storage, # | -      | 0    | 0      | -    | 0      | -     |
| Grade, %                 | -      | 0    | 0      | -    | 0      | -     |
| Peak Hour Factor         | 95     | 95   | 95     | 95   | 95     | 95    |
| Heavy Vehicles, %        | 2      | 2    | 2      | 2    | 2      | 2     |
| Mvmt Flow                | 0      | 1109 | 1692   | 6    | 3      | 4     |
| Major/Minor              | Major1 |      | Major2 |      | Minor2 |       |
| Conflicting Flow All     | 1698   | 0    | -      | 0    | 2250   | 849   |
| Stage 1                  | -      | -    | -      | -    | 1695   | -     |
| Stage 2                  | -      | -    | -      | -    | 555    | -     |
| Critical Hdwy            | 4.14   | -    | -      | -    | 6.84   | 6.94  |
| Critical Hdwy Stg 1      | -      | -    | -      | -    | 5.84   | -     |
| Critical Hdwy Stg 2      | -      | -    | -      | -    | 5.84   | -     |
| Follow-up Hdwy           | 2.22   | -    | -      | -    | 3.52   | 3.32  |
| Pot Cap-1 Maneuver       | 371    | -    | -      | -    | 35     | 304   |
| Stage 1                  | -      | -    | -      | -    | 134    | -     |
| Stage 2                  | -      | -    | -      | -    | 539    | -     |
| Platoon blocked, %       | -      | -    | -      | -    | -      | -     |
| Mov Cap-1 Maneuver       | 371    | -    | -      | -    | 35     | 304   |
| Mov Cap-2 Maneuver       | -      | -    | -      | -    | 35     | -     |
| Stage 1                  | -      | -    | -      | -    | 134    | -     |
| Stage 2                  | -      | -    | -      | -    | 539    | -     |
| Approach                 | EB     |      | WB     |      | SB     |       |
| HCM Control Delay, s     | 0      |      | 0      |      | 60.2   |       |
| HCM LOS                  |        |      |        |      | F      |       |
| Minor Lane/Major Mvmt    | EBL    | EBT  | WBT    | WBR  | SBLn1  | SBLn2 |
| Capacity (veh/h)         | 371    | -    | -      | -    | 35     | 304   |
| HCM Lane V/C Ratio       | -      | -    | -      | -    | 0.09   | 0.014 |
| HCM Control Delay (s)    | 0      | -    | -      | -    | 117.8  | 17    |
| HCM Lane LOS             | A      | -    | -      | -    | F      | C     |
| HCM 95th %tile Q(veh)    | 0      | -    | -      | -    | 0.3    | 0     |

| Intersection             |        |       |        |       |        |           |
|--------------------------|--------|-------|--------|-------|--------|-----------|
| Int Delay, s/veh         | 0.1    |       |        |       |        |           |
|                          |        |       |        |       |        |           |
| Movement                 | WBL    | WBR   |        | NBT   | NBR    | SBL SBT   |
| Vol, veh/h               | 4      | 2     |        | 256   | 6      | 1 380     |
| Conflicting Peds, #/hr   | 0      | 0     |        | 0     | 0      | 0 0       |
| Sign Control             | Stop   | Stop  |        | Free  | Free   | Free Free |
| RT Channelized           | -      | None  |        | -     | None   | - None    |
| Storage Length           | 0      | 0     |        | -     | -      | 200 -     |
| Veh in Median Storage, # | 0      | -     |        | 0     | -      | - 0       |
| Grade, %                 | 0      | -     |        | 0     | -      | - 0       |
| Peak Hour Factor         | 95     | 95    |        | 95    | 95     | 95 95     |
| Heavy Vehicles, %        | 2      | 2     |        | 2     | 2      | 2 2       |
| Mvmt Flow                | 4      | 2     |        | 269   | 6      | 1 400     |
|                          |        |       |        |       |        |           |
| Major/Minor              | Minor1 |       | Major1 |       | Major2 |           |
| Conflicting Flow All     | 675    | 273   |        | 0     | 0      | 276 0     |
| Stage 1                  | 273    | -     |        | -     | -      | - -       |
| Stage 2                  | 402    | -     |        | -     | -      | - -       |
| Critical Hdwy            | 6.42   | 6.22  |        | -     | -      | 4.12 -    |
| Critical Hdwy Stg 1      | 5.42   | -     |        | -     | -      | - -       |
| Critical Hdwy Stg 2      | 5.42   | -     |        | -     | -      | - -       |
| Follow-up Hdwy           | 3.518  | 3.318 |        | -     | -      | 2.218 -   |
| Pot Cap-1 Maneuver       | 419    | 766   |        | -     | -      | 1287 -    |
| Stage 1                  | 773    | -     |        | -     | -      | - -       |
| Stage 2                  | 676    | -     |        | -     | -      | - -       |
| Platoon blocked, %       |        |       |        | -     | -      | -         |
| Mov Cap-1 Maneuver       | 419    | 766   |        | -     | -      | 1287 -    |
| Mov Cap-2 Maneuver       | 419    | -     |        | -     | -      | - -       |
| Stage 1                  | 773    | -     |        | -     | -      | - -       |
| Stage 2                  | 675    | -     |        | -     | -      | - -       |
|                          |        |       |        |       |        |           |
| Approach                 | WB     |       | NB     |       | SB     |           |
| HCM Control Delay, s     | 12.4   |       | 0      |       | 0      |           |
| HCM LOS                  | B      |       |        |       |        |           |
|                          |        |       |        |       |        |           |
| Minor Lane/Major Mvmt    | NBT    | NBR   | WBLn1  | WBLn2 | SBL    | SBT       |
| Capacity (veh/h)         | -      | -     | 419    | 766   | 1287   | -         |
| HCM Lane V/C Ratio       | -      | -     | 0.01   | 0.003 | 0.001  | -         |
| HCM Control Delay (s)    | -      | -     | 13.7   | 9.7   | 7.8    | -         |
| HCM Lane LOS             | -      | -     | B      | A     | A      | -         |
| HCM 95th %tile Q(veh)    | -      | -     | 0      | 0     | 0      | -         |



| Intersection     |     |  |  |  |  |  |  |  |  |  |  |  |
|------------------|-----|--|--|--|--|--|--|--|--|--|--|--|
| Int Delay, s/veh | 2.6 |  |  |  |  |  |  |  |  |  |  |  |

| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol, veh/h               | 0    | 0    | 1    | 56   | 0    | 73   | 0    | 245  | 11   | 18   | 291  | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | 175  | -    | -    | -    | -    | -    | 0    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 95   | 95   | 95   | 95   | 95   | 95   | 95   | 95   | 95   | 95   | 95   | 95   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 0    | 1    | 59   | 0    | 77   | 0    | 258  | 12   | 19   | 306  | 0    |

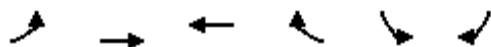
| Major/Minor          | Minor2 |       |       | Minor1 |       |       | Major1 |   |   | Major2 |   |   |
|----------------------|--------|-------|-------|--------|-------|-------|--------|---|---|--------|---|---|
| Conflicting Flow All | 646    | 613   | 306   | 609    | 608   | 264   | 306    | 0 | 0 | 269    | 0 | 0 |
| Stage 1              | 344    | 344   | -     | 264    | 264   | -     | -      | - | - | -      | - | - |
| Stage 2              | 302    | 269   | -     | 345    | 344   | -     | -      | - | - | -      | - | - |
| Critical Hdwy        | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  | 4.12   | - | - | 4.12   | - | - |
| Critical Hdwy Stg 1  | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     | -      | - | - | -      | - | - |
| Critical Hdwy Stg 2  | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     | -      | - | - | -      | - | - |
| Follow-up Hdwy       | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 | 2.218  | - | - | 2.218  | - | - |
| Pot Cap-1 Maneuver   | 385    | 408   | 734   | 407    | 410   | 775   | 1255   | - | - | 1295   | - | - |
| Stage 1              | 671    | 637   | -     | 741    | 690   | -     | -      | - | - | -      | - | - |
| Stage 2              | 707    | 687   | -     | 671    | 637   | -     | -      | - | - | -      | - | - |
| Platoon blocked, %   |        |       |       |        |       |       | -      | - | - | -      | - | - |
| Mov Cap-1 Maneuver   | 343    | 402   | 734   | 402    | 404   | 775   | 1255   | - | - | 1295   | - | - |
| Mov Cap-2 Maneuver   | 343    | 402   | -     | 402    | 404   | -     | -      | - | - | -      | - | - |
| Stage 1              | 671    | 628   | -     | 741    | 690   | -     | -      | - | - | -      | - | - |
| Stage 2              | 637    | 687   | -     | 660    | 628   | -     | -      | - | - | -      | - | - |

| Approach             | EB  | WB   | NB | SB  |
|----------------------|-----|------|----|-----|
| HCM Control Delay, s | 9.9 | 12.5 | 0  | 0.5 |
| HCM LOS              | A   | B    |    |     |

| Minor Lane/Major Mvmt | NBL  | NBT | NBR | EBLn1 | WBLn1 | WBLn2 | SBL   | SBT | SBR |
|-----------------------|------|-----|-----|-------|-------|-------|-------|-----|-----|
| Capacity (veh/h)      | 1255 | -   | -   | 734   | 402   | 775   | 1295  | -   | -   |
| HCM Lane V/C Ratio    | -    | -   | -   | 0.001 | 0.147 | 0.099 | 0.015 | -   | -   |
| HCM Control Delay (s) | 0    | -   | -   | 9.9   | 15.5  | 10.2  | 7.8   | -   | -   |
| HCM Lane LOS          | A    | -   | -   | A     | C     | B     | A     | -   | -   |
| HCM 95th %tile Q(veh) | 0    | -   | -   | 0     | 0.5   | 0.3   | 0     | -   | -   |

2022 Background  
2: Euclid Ave & Salt Creek Ln

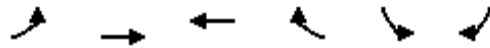
Timing Plan: MD Sat  
8/11/2015



| Lane Group                 | EBL   | EBT   | WBT   | WBR   | SBL   | SBR   |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations        |       |       |       |       |       |       |
| Volume (vph)               | 60    | 1390  | 723   | 33    | 79    | 52    |
| Ideal Flow (vphpl)         | 1900  | 2000  | 1900  | 1900  | 1900  | 1900  |
| Storage Length (ft)        | 150   |       |       | 0     | 200   | 0     |
| Storage Lanes              | 1     |       |       | 0     | 1     | 1     |
| Taper Length (ft)          | 25    |       |       |       | 25    |       |
| Lane Util. Factor          | 1.00  | 0.95  | 0.95  | 0.95  | 1.00  | 1.00  |
| Frt                        |       |       | 0.993 |       |       | 0.850 |
| Flt Protected              | 0.950 |       |       |       | 0.950 |       |
| Satd. Flow (prot)          | 1770  | 3725  | 3514  | 0     | 1770  | 1583  |
| Flt Permitted              | 0.326 |       |       |       | 0.950 |       |
| Satd. Flow (perm)          | 607   | 3725  | 3514  | 0     | 1770  | 1583  |
| Right Turn on Red          |       |       |       | Yes   |       | Yes   |
| Satd. Flow (RTOR)          |       |       | 7     |       |       | 55    |
| Link Speed (mph)           |       | 40    | 40    |       | 30    |       |
| Link Distance (ft)         |       | 842   | 459   |       | 580   |       |
| Travel Time (s)            |       | 14.4  | 7.8   |       | 13.2  |       |
| Peak Hour Factor           | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| Adj. Flow (vph)            | 63    | 1463  | 761   | 35    | 83    | 55    |
| Shared Lane Traffic (%)    |       |       |       |       |       |       |
| Lane Group Flow (vph)      | 63    | 1463  | 796   | 0     | 83    | 55    |
| Enter Blocked Intersection | No    | No    | No    | No    | No    | No    |
| Lane Alignment             | Left  | Left  | Left  | Right | Left  | Right |
| Median Width(ft)           |       | 12    | 12    |       | 12    |       |
| Link Offset(ft)            |       | 0     | 0     |       | 0     |       |
| Crosswalk Width(ft)        |       | 16    | 16    |       | 16    |       |
| Two way Left Turn Lane     |       |       |       |       | Yes   |       |
| Headway Factor             | 1.00  | 0.94  | 1.00  | 1.00  | 1.00  | 1.00  |
| Turning Speed (mph)        | 15    |       |       | 9     | 15    | 9     |
| Turn Type                  | pm+pt | NA    | NA    |       | Prot  | pt+ov |
| Protected Phases           | 7     | 4     | 8     |       | 6     | 6 7   |
| Permitted Phases           | 4     |       |       |       |       |       |
| Detector Phase             | 7     | 4     | 8     |       | 6     | 6 7   |
| Switch Phase               |       |       |       |       |       |       |
| Minimum Initial (s)        | 5.0   | 5.0   | 5.0   |       | 5.0   |       |
| Minimum Split (s)          | 9.5   | 24.0  | 24.0  |       | 24.0  |       |
| Total Split (s)            | 14.0  | 92.0  | 78.0  |       | 28.0  |       |
| Total Split (%)            | 11.7% | 76.7% | 65.0% |       | 23.3% |       |
| Maximum Green (s)          | 11.0  | 86.0  | 72.0  |       | 22.0  |       |
| Yellow Time (s)            | 3.0   | 4.0   | 4.0   |       | 4.0   |       |
| All-Red Time (s)           | 0.0   | 2.0   | 2.0   |       | 2.0   |       |
| Lost Time Adjust (s)       | 0.0   | 0.0   | 0.0   |       | 0.0   |       |
| Total Lost Time (s)        | 3.0   | 6.0   | 6.0   |       | 6.0   |       |
| Lead/Lag                   | Lead  |       | Lag   |       |       |       |
| Lead-Lag Optimize?         | Yes   |       | Yes   |       |       |       |
| Vehicle Extension (s)      | 3.0   | 3.0   | 3.0   |       | 3.0   |       |
| Recall Mode                | None  | C-Min | C-Min |       | None  |       |
| Act Effct Green (s)        | 100.0 | 97.0  | 89.5  |       | 11.0  | 20.2  |
| Actuated g/C Ratio         | 0.83  | 0.81  | 0.75  |       | 0.09  | 0.17  |

2022 Background  
2: Euclid Ave & Salt Creek Ln

Timing Plan: MD Sat  
8/11/2015



| Lane Group              | EBL  | EBT   | WBT   | WBR | SBL  | SBR  |
|-------------------------|------|-------|-------|-----|------|------|
| v/c Ratio               | 0.11 | 0.49  | 0.30  |     | 0.52 | 0.18 |
| Control Delay           | 0.8  | 2.8   | 5.9   |     | 62.5 | 11.6 |
| Queue Delay             | 0.0  | 0.0   | 0.0   |     | 0.0  | 0.0  |
| Total Delay             | 0.8  | 2.8   | 5.9   |     | 62.5 | 11.6 |
| LOS                     | A    | A     | A     |     | E    | B    |
| Approach Delay          |      | 2.7   | 5.9   |     | 42.2 |      |
| Approach LOS            |      | A     | A     |     | D    |      |
| 90th %ile Green (s)     | 7.2  | 92.8  | 82.6  |     | 15.2 |      |
| 90th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 70th %ile Green (s)     | 6.6  | 95.3  | 85.7  |     | 12.7 |      |
| 70th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 50th %ile Green (s)     | 6.2  | 97.0  | 87.8  |     | 11.0 |      |
| 50th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 30th %ile Green (s)     | 5.9  | 98.8  | 89.9  |     | 9.2  |      |
| 30th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 10th %ile Green (s)     | 0.0  | 101.3 | 101.3 |     | 6.7  |      |
| 10th %ile Term Code     | Skip | Coord | Coord |     | Gap  |      |
| Queue Length 50th (ft)  | 2    | 33    | 97    |     | 62   | 0    |
| Queue Length 95th (ft)  | m2   | 97    | 146   |     | 112  | 35   |
| Internal Link Dist (ft) |      | 762   | 379   |     | 500  |      |
| Turn Bay Length (ft)    | 150  |       |       |     | 200  |      |
| Base Capacity (vph)     | 612  | 3012  | 2621  |     | 324  | 376  |
| Starvation Cap Reductn  | 0    | 0     | 0     |     | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0     | 0     |     | 0    | 0    |
| Storage Cap Reductn     | 0    | 0     | 0     |     | 0    | 0    |
| Reduced v/c Ratio       | 0.10 | 0.49  | 0.30  |     | 0.26 | 0.15 |

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 50 (42%), Referenced to phase 4:EBTL and 8:WBT, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 6.0

Intersection LOS: A

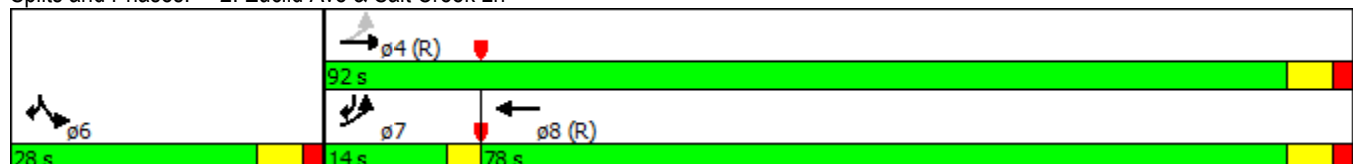
Intersection Capacity Utilization 50.9%

ICU Level of Service A

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Euclid Ave & Salt Creek Ln



2022 Background  
4: Rohlwing Rd & Euclid Ave

Timing Plan: MD Sat  
8/11/2015

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |  |  |  |                                                                                     |  |  |                                                                                     |
| Volume (vph)               | 106                                                                               | 1370                                                                              | 149                                                                               | 31                                                                                | 721                                                                               | 25                                                                                | 146                                                                                | 72                                                                                  | 52                                                                                  | 46                                                                                  | 72                                                                                  | 67                                                                                  |
| Ideal Flow (vphpl)         | 1900                                                                              | 2000                                                                              | 1900                                                                              | 1900                                                                              | 2000                                                                              | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 200                                                                               |                                                                                   | 225                                                                               | 100                                                                               |                                                                                   | 200                                                                               | 145                                                                                |                                                                                     | 0                                                                                   | 130                                                                                 |                                                                                     | 130                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                  |                                                                                     | 0                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                 |                                                                                     |                                                                                     | 25                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                    | 0.937                                                                               |                                                                                     |                                                                                     | 0.928                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                              |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3725                                                                              | 1583                                                                              | 1770                                                                              | 3725                                                                              | 1583                                                                              | 1770                                                                               | 1745                                                                                | 0                                                                                   | 1770                                                                                | 1729                                                                                | 0                                                                                   |
| Flt Permitted              | 0.303                                                                             |                                                                                   |                                                                                   | 0.118                                                                             |                                                                                   |                                                                                   | 0.516                                                                              |                                                                                     |                                                                                     | 0.657                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 564                                                                               | 3725                                                                              | 1583                                                                              | 220                                                                               | 3725                                                                              | 1583                                                                              | 961                                                                                | 1745                                                                                | 0                                                                                   | 1224                                                                                | 1729                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                    |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 82                                                                                |                                                                                    | 35                                                                                  |                                                                                     |                                                                                     | 45                                                                                  |                                                                                     |
| Link Speed (mph)           |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                    | 30                                                                                  |                                                                                     |                                                                                     | 40                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 735                                                                               |                                                                                   |                                                                                   | 790                                                                               |                                                                                   |                                                                                    | 441                                                                                 |                                                                                     |                                                                                     | 644                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 12.5                                                                              |                                                                                   |                                                                                   | 13.5                                                                              |                                                                                   |                                                                                    | 10.0                                                                                |                                                                                     |                                                                                     | 11.0                                                                                |                                                                                     |
| Peak Hour Factor           | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                               | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Adj. Flow (vph)            | 112                                                                               | 1442                                                                              | 157                                                                               | 33                                                                                | 759                                                                               | 26                                                                                | 154                                                                                | 76                                                                                  | 55                                                                                  | 48                                                                                  | 76                                                                                  | 71                                                                                  |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 112                                                                               | 1442                                                                              | 157                                                                               | 33                                                                                | 759                                                                               | 26                                                                                | 154                                                                                | 131                                                                                 | 0                                                                                   | 48                                                                                  | 147                                                                                 | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                 | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                               | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                    | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                    | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 16                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                    | 16                                                                                  |                                                                                     |                                                                                     | 16                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 0.94                                                                              | 1.00                                                                              | 1.00                                                                              | 0.94                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                 |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                              | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                  | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases           | 4                                                                                 |                                                                                   | 4                                                                                 | 8                                                                                 |                                                                                   | 8                                                                                 | 2                                                                                  |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     |
| Detector Phase             | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                  | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Switch Phase               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)        | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                                | 5.0                                                                                 |                                                                                     | 5.0                                                                                 | 5.0                                                                                 |                                                                                     |
| Minimum Split (s)          | 9.5                                                                               | 24.0                                                                              | 24.0                                                                              | 9.5                                                                               | 24.0                                                                              | 24.0                                                                              | 9.5                                                                                | 24.0                                                                                |                                                                                     | 9.5                                                                                 | 51.0                                                                                |                                                                                     |
| Total Split (s)            | 16.0                                                                              | 43.0                                                                              | 43.0                                                                              | 16.0                                                                              | 43.0                                                                              | 43.0                                                                              | 10.0                                                                               | 51.0                                                                                |                                                                                     | 10.0                                                                                | 51.0                                                                                |                                                                                     |
| Total Split (%)            | 13.3%                                                                             | 35.8%                                                                             | 35.8%                                                                             | 13.3%                                                                             | 35.8%                                                                             | 35.8%                                                                             | 8.3%                                                                               | 42.5%                                                                               |                                                                                     | 8.3%                                                                                | 42.5%                                                                               |                                                                                     |
| Maximum Green (s)          | 13.0                                                                              | 37.0                                                                              | 37.0                                                                              | 13.0                                                                              | 37.0                                                                              | 37.0                                                                              | 7.0                                                                                | 45.0                                                                                |                                                                                     | 7.0                                                                                 | 45.0                                                                                |                                                                                     |
| Yellow Time (s)            | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                                | 4.0                                                                                 |                                                                                     | 3.0                                                                                 | 4.0                                                                                 |                                                                                     |
| All-Red Time (s)           | 0.0                                                                               | 2.0                                                                               | 2.0                                                                               | 0.0                                                                               | 2.0                                                                               | 2.0                                                                               | 0.0                                                                                | 2.0                                                                                 |                                                                                     | 0.0                                                                                 | 2.0                                                                                 |                                                                                     |
| Lost Time Adjust (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)        | 3.0                                                                               | 6.0                                                                               | 6.0                                                                               | 3.0                                                                               | 6.0                                                                               | 6.0                                                                               | 3.0                                                                                | 6.0                                                                                 |                                                                                     | 3.0                                                                                 | 6.0                                                                                 |                                                                                     |
| Lead/Lag                   | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                               | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?         | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Vehicle Extension (s)      | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                                | 3.0                                                                                 |                                                                                     | 3.0                                                                                 | 3.0                                                                                 |                                                                                     |
| Recall Mode                | None                                                                              | C-Min                                                                             | C-Min                                                                             | None                                                                              | C-Min                                                                             | C-Min                                                                             | None                                                                               | Min                                                                                 |                                                                                     | None                                                                                | Min                                                                                 |                                                                                     |
| Walk Time (s)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 7.0                                                                                 |
| Flash Dont Walk (s)        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 38.0                                                                                |

2022 Background  
4: Rohlwing Rd & Euclid Ave

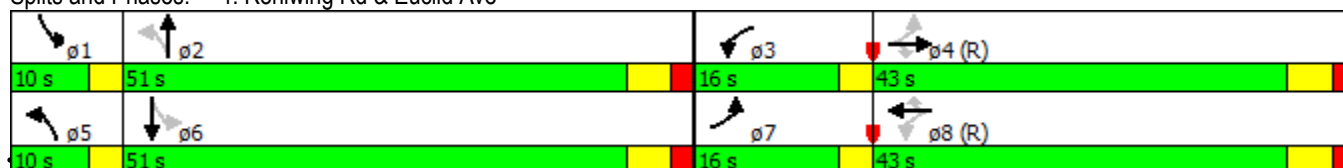
Timing Plan: MD Sat  
8/11/2015

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Pedestrian Calls (#/hr) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 2                                                                                   |
| Act Effct Green (s)     | 82.6                                                                              | 74.1                                                                              | 74.1                                                                              | 78.1                                                                              | 68.7                                                                              | 68.7                                                                              | 28.5                                                                               | 19.9                                                                                |                                                                                     | 27.6                                                                                | 17.9                                                                                |                                                                                     |
| Actuated g/C Ratio      | 0.69                                                                              | 0.62                                                                              | 0.62                                                                              | 0.65                                                                              | 0.57                                                                              | 0.57                                                                              | 0.24                                                                               | 0.17                                                                                |                                                                                     | 0.23                                                                                | 0.15                                                                                |                                                                                     |
| v/c Ratio               | 0.24                                                                              | 0.63                                                                              | 0.16                                                                              | 0.15                                                                              | 0.36                                                                              | 0.03                                                                              | 0.56                                                                               | 0.41                                                                                |                                                                                     | 0.15                                                                                | 0.50                                                                                |                                                                                     |
| Control Delay           | 10.5                                                                              | 19.8                                                                              | 8.1                                                                               | 11.9                                                                              | 17.1                                                                              | 0.1                                                                               | 42.7                                                                               | 34.2                                                                                |                                                                                     | 30.4                                                                                | 34.9                                                                                |                                                                                     |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay             | 10.5                                                                              | 19.8                                                                              | 8.1                                                                               | 11.9                                                                              | 17.1                                                                              | 0.1                                                                               | 42.7                                                                               | 34.2                                                                                |                                                                                     | 30.4                                                                                | 34.9                                                                                |                                                                                     |
| LOS                     | B                                                                                 | B                                                                                 | A                                                                                 | B                                                                                 | B                                                                                 | A                                                                                 | D                                                                                  | C                                                                                   |                                                                                     | C                                                                                   | C                                                                                   |                                                                                     |
| Approach Delay          |                                                                                   | 18.1                                                                              |                                                                                   |                                                                                   | 16.3                                                                              |                                                                                   |                                                                                    | 38.8                                                                                |                                                                                     |                                                                                     | 33.8                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | B                                                                                 |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                    | D                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| 90th %ile Green (s)     | 13.0                                                                              | 41.8                                                                              | 41.8                                                                              | 8.2                                                                               | 37.0                                                                              | 37.0                                                                              | 7.0                                                                                | 45.0                                                                                |                                                                                     | 7.0                                                                                 | 45.0                                                                                |                                                                                     |
| 90th %ile Term Code     | Max                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Max                                                                                 | Ped                                                                                 |                                                                                     |
| 70th %ile Green (s)     | 8.4                                                                               | 73.4                                                                              | 73.4                                                                              | 6.4                                                                               | 71.4                                                                              | 71.4                                                                              | 7.0                                                                                | 15.2                                                                                |                                                                                     | 7.0                                                                                 | 15.2                                                                                |                                                                                     |
| 70th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Max                                                                                 | Gap                                                                                 |                                                                                     |
| 50th %ile Green (s)     | 7.6                                                                               | 76.2                                                                              | 76.2                                                                              | 6.1                                                                               | 74.7                                                                              | 74.7                                                                              | 7.0                                                                                | 12.7                                                                                |                                                                                     | 7.0                                                                                 | 12.7                                                                                |                                                                                     |
| 50th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Max                                                                                 | Gap                                                                                 |                                                                                     |
| 30th %ile Green (s)     | 6.9                                                                               | 87.8                                                                              | 87.8                                                                              | 0.0                                                                               | 77.9                                                                              | 77.9                                                                              | 7.0                                                                                | 10.2                                                                                |                                                                                     | 7.0                                                                                 | 10.2                                                                                |                                                                                     |
| 30th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Skip                                                                              | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Max                                                                                 | Gap                                                                                 |                                                                                     |
| 10th %ile Green (s)     | 6.0                                                                               | 91.4                                                                              | 91.4                                                                              | 0.0                                                                               | 82.4                                                                              | 82.4                                                                              | 7.0                                                                                | 16.6                                                                                |                                                                                     | 0.0                                                                                 | 6.6                                                                                 |                                                                                     |
| 10th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Skip                                                                              | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Skip                                                                                | Gap                                                                                 |                                                                                     |
| Queue Length 50th (ft)  | 21                                                                                | 324                                                                               | 18                                                                                | 6                                                                                 | 137                                                                               | 0                                                                                 | 103                                                                                | 71                                                                                  |                                                                                     | 30                                                                                  | 77                                                                                  |                                                                                     |
| Queue Length 95th (ft)  | 84                                                                                | #812                                                                              | 86                                                                                | 33                                                                                | 253                                                                               | 0                                                                                 | 108                                                                                | 94                                                                                  |                                                                                     | 41                                                                                  | 100                                                                                 |                                                                                     |
| Internal Link Dist (ft) |                                                                                   | 655                                                                               |                                                                                   |                                                                                   | 710                                                                               |                                                                                   |                                                                                    | 361                                                                                 |                                                                                     |                                                                                     | 564                                                                                 |                                                                                     |
| Turn Bay Length (ft)    | 200                                                                               |                                                                                   | 225                                                                               | 100                                                                               |                                                                                   | 200                                                                               | 145                                                                                |                                                                                     |                                                                                     | 130                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 520                                                                               | 2300                                                                              | 1012                                                                              | 319                                                                               | 2131                                                                              | 941                                                                               | 275                                                                                | 676                                                                                 |                                                                                     | 316                                                                                 | 676                                                                                 |                                                                                     |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio       | 0.22                                                                              | 0.63                                                                              | 0.16                                                                              | 0.10                                                                              | 0.36                                                                              | 0.03                                                                              | 0.56                                                                               | 0.19                                                                                |                                                                                     | 0.15                                                                                | 0.22                                                                                |                                                                                     |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green, Master Intersection  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.63  
 Intersection Signal Delay: 20.6  
 Intersection LOS: C  
 Intersection Capacity Utilization 72.8%  
 ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 4: Rohlwing Rd & Euclid Ave





| Intersection             |        |        |       |        |      |      |
|--------------------------|--------|--------|-------|--------|------|------|
| Int Delay, s/veh         | 0.7    |        |       |        |      |      |
| Movement                 | EBL    | EBR    | NBL   | NBT    | SBT  | SBR  |
| Vol, veh/h               | 1      | 3      | 3     | 34     | 43   | 0    |
| Conflicting Peds, #/hr   | 0      | 0      | 0     | 0      | 0    | 0    |
| Sign Control             | Stop   | Stop   | Free  | Free   | Free | Free |
| RT Channelized           | -      | None   | -     | None   | -    | None |
| Storage Length           | 0      | -      | -     | -      | -    | -    |
| Veh in Median Storage, # | 0      | -      | -     | 0      | 0    | -    |
| Grade, %                 | 0      | -      | -     | 0      | 0    | -    |
| Peak Hour Factor         | 95     | 95     | 95    | 95     | 95   | 95   |
| Heavy Vehicles, %        | 2      | 2      | 2     | 2      | 2    | 2    |
| Mvmt Flow                | 1      | 3      | 3     | 36     | 45   | 0    |
| Major/Minor              | Minor2 | Major1 |       | Major2 |      |      |
| Conflicting Flow All     | 87     | 45     | 45    | 0      | -    | 0    |
| Stage 1                  | 45     | -      | -     | -      | -    | -    |
| Stage 2                  | 42     | -      | -     | -      | -    | -    |
| Critical Hdwy            | 6.42   | 6.22   | 4.12  | -      | -    | -    |
| Critical Hdwy Stg 1      | 5.42   | -      | -     | -      | -    | -    |
| Critical Hdwy Stg 2      | 5.42   | -      | -     | -      | -    | -    |
| Follow-up Hdwy           | 3.518  | 3.318  | 2.218 | -      | -    | -    |
| Pot Cap-1 Maneuver       | 914    | 1025   | 1563  | -      | -    | -    |
| Stage 1                  | 977    | -      | -     | -      | -    | -    |
| Stage 2                  | 980    | -      | -     | -      | -    | -    |
| Platoon blocked, %       |        |        |       | -      | -    | -    |
| Mov Cap-1 Maneuver       | 912    | 1025   | 1563  | -      | -    | -    |
| Mov Cap-2 Maneuver       | 912    | -      | -     | -      | -    | -    |
| Stage 1                  | 977    | -      | -     | -      | -    | -    |
| Stage 2                  | 978    | -      | -     | -      | -    | -    |
| Approach                 | EB     | NB     |       | SB     |      |      |
| HCM Control Delay, s     | 8.6    | 0.6    |       | 0      |      |      |
| HCM LOS                  | A      |        |       |        |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT    | EBLn1 | SBT    | SBR  |      |
| Capacity (veh/h)         | 1563   | -      | 994   | -      | -    |      |
| HCM Lane V/C Ratio       | 0.002  | -      | 0.004 | -      | -    |      |
| HCM Control Delay (s)    | 7.3    | 0      | 8.6   | -      | -    |      |
| HCM Lane LOS             | A      | A      | A     | -      | -    |      |
| HCM 95th %tile Q(veh)    | 0      | -      | 0     | -      | -    |      |

| Intersection             |        |      |        |      |        |       |
|--------------------------|--------|------|--------|------|--------|-------|
| Int Delay, s/veh         | 0.1    |      |        |      |        |       |
| Movement                 | EBL    | EBT  | WBT    | WBR  | SBL    | SBR   |
| Vol, veh/h               | 2      | 1461 | 782    | 4    | 3      | 3     |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0    | 0      | 0     |
| Sign Control             | Free   | Free | Free   | Free | Stop   | Stop  |
| RT Channelized           | -      | None | -      | None | -      | None  |
| Storage Length           | -      | -    | -      | -    | 0      | 0     |
| Veh in Median Storage, # | -      | 0    | 0      | -    | 0      | -     |
| Grade, %                 | -      | 0    | 0      | -    | 0      | -     |
| Peak Hour Factor         | 95     | 95   | 95     | 95   | 95     | 95    |
| Heavy Vehicles, %        | 2      | 2    | 2      | 2    | 2      | 2     |
| Mvmt Flow                | 2      | 1538 | 823    | 4    | 3      | 3     |
| Major/Minor              | Major1 |      | Major2 |      | Minor2 |       |
| Conflicting Flow All     | 827    | 0    | -      | 0    | 1598   | 414   |
| Stage 1                  | -      | -    | -      | -    | 825    | -     |
| Stage 2                  | -      | -    | -      | -    | 773    | -     |
| Critical Hdwy            | 4.14   | -    | -      | -    | 6.84   | 6.94  |
| Critical Hdwy Stg 1      | -      | -    | -      | -    | 5.84   | -     |
| Critical Hdwy Stg 2      | -      | -    | -      | -    | 5.84   | -     |
| Follow-up Hdwy           | 2.22   | -    | -      | -    | 3.52   | 3.32  |
| Pot Cap-1 Maneuver       | 800    | -    | -      | -    | 97     | 587   |
| Stage 1                  | -      | -    | -      | -    | 391    | -     |
| Stage 2                  | -      | -    | -      | -    | 416    | -     |
| Platoon blocked, %       | -      | -    | -      | -    | -      | -     |
| Mov Cap-1 Maneuver       | 800    | -    | -      | -    | 95     | 587   |
| Mov Cap-2 Maneuver       | -      | -    | -      | -    | 95     | -     |
| Stage 1                  | -      | -    | -      | -    | 391    | -     |
| Stage 2                  | -      | -    | -      | -    | 409    | -     |
| Approach                 | EB     |      | WB     |      | SB     |       |
| HCM Control Delay, s     | 0.1    |      | 0      |      | 27.7   |       |
| HCM LOS                  |        |      |        |      | D      |       |
| Minor Lane/Major Mvmt    | EBL    | EBT  | WBT    | WBR  | SBLn1  | SBLn2 |
| Capacity (veh/h)         | 800    | -    | -      | -    | 95     | 587   |
| HCM Lane V/C Ratio       | 0.003  | -    | -      | -    | 0.033  | 0.005 |
| HCM Control Delay (s)    | 9.5    | 0.1  | -      | -    | 44.2   | 11.2  |
| HCM Lane LOS             | A      | A    | -      | -    | E      | B     |
| HCM 95th %tile Q(veh)    | 0      | -    | -      | -    | 0.1    | 0     |

| Intersection             |        |       |        |       |        |           |
|--------------------------|--------|-------|--------|-------|--------|-----------|
| Int Delay, s/veh         | 0.1    |       |        |       |        |           |
|                          |        |       |        |       |        |           |
| Movement                 | WBL    | WBR   |        | NBT   | NBR    | SBL SBT   |
| Vol, veh/h               | 4      | 1     |        | 192   | 5      | 1 172     |
| Conflicting Peds, #/hr   | 0      | 0     |        | 0     | 0      | 0 0       |
| Sign Control             | Stop   | Stop  |        | Free  | Free   | Free Free |
| RT Channelized           | -      | None  |        | -     | None   | - None    |
| Storage Length           | 0      | 0     |        | -     | -      | 200 -     |
| Veh in Median Storage, # | 0      | -     |        | 0     | -      | - 0       |
| Grade, %                 | 0      | -     |        | 0     | -      | - 0       |
| Peak Hour Factor         | 95     | 95    |        | 95    | 95     | 95 95     |
| Heavy Vehicles, %        | 2      | 2     |        | 2     | 2      | 2 2       |
| Mvmt Flow                | 4      | 1     |        | 202   | 5      | 1 181     |
|                          |        |       |        |       |        |           |
| Major/Minor              | Minor1 |       | Major1 |       | Major2 |           |
| Conflicting Flow All     | 388    | 205   |        | 0     | 0      | 207 0     |
| Stage 1                  | 205    | -     |        | -     | -      | - -       |
| Stage 2                  | 183    | -     |        | -     | -      | - -       |
| Critical Hdwy            | 6.42   | 6.22  |        | -     | -      | 4.12 -    |
| Critical Hdwy Stg 1      | 5.42   | -     |        | -     | -      | - -       |
| Critical Hdwy Stg 2      | 5.42   | -     |        | -     | -      | - -       |
| Follow-up Hdwy           | 3.518  | 3.318 |        | -     | -      | 2.218 -   |
| Pot Cap-1 Maneuver       | 616    | 836   |        | -     | -      | 1364 -    |
| Stage 1                  | 829    | -     |        | -     | -      | - -       |
| Stage 2                  | 848    | -     |        | -     | -      | - -       |
| Platoon blocked, %       |        |       |        | -     | -      | -         |
| Mov Cap-1 Maneuver       | 616    | 836   |        | -     | -      | 1364 -    |
| Mov Cap-2 Maneuver       | 616    | -     |        | -     | -      | - -       |
| Stage 1                  | 829    | -     |        | -     | -      | - -       |
| Stage 2                  | 847    | -     |        | -     | -      | - -       |
|                          |        |       |        |       |        |           |
| Approach                 | WB     |       | NB     |       | SB     |           |
| HCM Control Delay, s     | 10.6   |       | 0      |       | 0      |           |
| HCM LOS                  | B      |       |        |       |        |           |
|                          |        |       |        |       |        |           |
| Minor Lane/Major Mvmt    | NBT    | NBR   | WBLn1  | WBLn2 | SBL    | SBT       |
| Capacity (veh/h)         | -      | -     | 616    | 836   | 1364   | -         |
| HCM Lane V/C Ratio       | -      | -     | 0.007  | 0.001 | 0.001  | -         |
| HCM Control Delay (s)    | -      | -     | 10.9   | 9.3   | 7.6    | -         |
| HCM Lane LOS             | -      | -     | B      | A     | A      | -         |
| HCM 95th %tile Q(veh)    | -      | -     | 0      | 0     | 0      | -         |

| Intersection             |        |       |       |        |       |       |        |      |      |        |      |      |
|--------------------------|--------|-------|-------|--------|-------|-------|--------|------|------|--------|------|------|
| Int Delay, s/veh         | 1.8    |       |       |        |       |       |        |      |      |        |      |      |
| Movement                 | EBL    | EBT   | EBR   | WBL    | WBT   | WBR   | NBL    | NBT  | NBR  | SBL    | SBT  | SBR  |
| Vol, veh/h               | 0      | 0     | 2     | 23     | 0     | 28    | 0      | 159  | 30   | 24     | 149  | 1    |
| Conflicting Peds, #/hr   | 0      | 0     | 0     | 0      | 0     | 0     | 0      | 0    | 0    | 0      | 0    | 0    |
| Sign Control             | Stop   | Stop  | Stop  | Stop   | Stop  | Stop  | Free   | Free | Free | Free   | Free | Free |
| RT Channelized           | -      | -     | None  | -      | -     | None  | -      | -    | None | -      | -    | None |
| Storage Length           | -      | -     | -     | 175    | -     | -     | -      | -    | -    | 0      | -    | -    |
| Veh in Median Storage, # | -      | 0     | -     | -      | 0     | -     | -      | 0    | -    | -      | 0    | -    |
| Grade, %                 | -      | 0     | -     | -      | 0     | -     | -      | 0    | -    | -      | 0    | -    |
| Peak Hour Factor         | 95     | 95    | 95    | 95     | 95    | 95    | 95     | 95   | 95   | 95     | 95   | 95   |
| Heavy Vehicles, %        | 2      | 2     | 2     | 2      | 2     | 2     | 2      | 2    | 2    | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 0     | 2     | 24     | 0     | 29    | 0      | 167  | 32   | 25     | 157  | 1    |
| Major/Minor              | Minor2 |       |       | Minor1 |       |       | Major1 |      |      | Major2 |      |      |
| Conflicting Flow All     | 406    | 407   | 157   | 392    | 391   | 183   | 158    | 0    | 0    | 199    | 0    | 0    |
| Stage 1                  | 208    | 208   | -     | 183    | 183   | -     | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 198    | 199   | -     | 209    | 208   | -     | -      | -    | -    | -      | -    | -    |
| Critical Hdwy            | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  | 4.12   | -    | -    | 4.12   | -    | -    |
| Critical Hdwy Stg 1      | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     | -      | -    | -    | -      | -    | -    |
| Critical Hdwy Stg 2      | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     | -      | -    | -    | -      | -    | -    |
| Follow-up Hdwy           | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 | 2.218  | -    | -    | 2.218  | -    | -    |
| Pot Cap-1 Maneuver       | 555    | 533   | 889   | 567    | 545   | 859   | 1422   | -    | -    | 1373   | -    | -    |
| Stage 1                  | 794    | 730   | -     | 819    | 748   | -     | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 804    | 736   | -     | 793    | 730   | -     | -      | -    | -    | -      | -    | -    |
| Platoon blocked, %       | -      | -     | -     | -      | -     | -     | -      | -    | -    | -      | -    | -    |
| Mov Cap-1 Maneuver       | 529    | 523   | 889   | 558    | 535   | 859   | 1422   | -    | -    | 1373   | -    | -    |
| Mov Cap-2 Maneuver       | 529    | 523   | -     | 558    | 535   | -     | -      | -    | -    | -      | -    | -    |
| Stage 1                  | 794    | 717   | -     | 819    | 748   | -     | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 776    | 736   | -     | 777    | 717   | -     | -      | -    | -    | -      | -    | -    |
| Approach                 | EB     |       |       | WB     |       |       | NB     |      |      | SB     |      |      |
| HCM Control Delay, s     | 9.1    |       |       | 10.4   |       |       | 0      |      |      | 1.1    |      |      |
| HCM LOS                  | A      |       |       | B      |       |       |        |      |      |        |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT   | NBR   | EBLn1  | WBLn1 | WBLn2 | SBL    | SBT  | SBR  |        |      |      |
| Capacity (veh/h)         | 1422   | -     | -     | 889    | 558   | 859   | 1373   | -    | -    |        |      |      |
| HCM Lane V/C Ratio       | -      | -     | -     | 0.002  | 0.043 | 0.034 | 0.018  | -    | -    |        |      |      |
| HCM Control Delay (s)    | 0      | -     | -     | 9.1    | 11.7  | 9.3   | 7.7    | -    | -    |        |      |      |
| HCM Lane LOS             | A      | -     | -     | A      | B     | A     | A      | -    | -    |        |      |      |
| HCM 95th %tile Q(veh)    | 0      | -     | -     | 0      | 0.1   | 0.1   | 0.1    | -    | -    |        |      |      |



## **APPENDIX G**

### **CAPACITY ANALYSIS WORKSHEETS FUTURE WITH PROJECT**

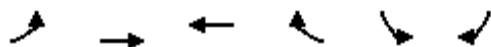


2022 Future with Project  
2: Euclid Ave & Salt Creek Ln

Timing Plan: AM  
8/12/2015



| Lane Group                 | EBL   | EBT   | WBT   | WBR   | SBL   | SBR   |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations        |       |       |       |       |       |       |
| Volume (vph)               | 319   | 1435  | 1034  | 163   | 134   | 108   |
| Ideal Flow (vphpl)         | 1900  | 2000  | 1900  | 1900  | 1900  | 1900  |
| Storage Length (ft)        | 150   |       |       | 0     | 200   | 0     |
| Storage Lanes              | 1     |       |       | 0     | 1     | 1     |
| Taper Length (ft)          | 25    |       |       |       | 25    |       |
| Lane Util. Factor          | 1.00  | 0.95  | 0.95  | 0.95  | 1.00  | 1.00  |
| Frt                        |       |       | 0.980 |       |       | 0.850 |
| Flt Protected              | 0.950 |       |       |       | 0.950 |       |
| Satd. Flow (prot)          | 1770  | 3725  | 3468  | 0     | 1770  | 1583  |
| Flt Permitted              | 0.146 |       |       |       | 0.950 |       |
| Satd. Flow (perm)          | 272   | 3725  | 3468  | 0     | 1770  | 1583  |
| Right Turn on Red          |       |       |       | Yes   |       | Yes   |
| Satd. Flow (RTOR)          |       |       | 20    |       |       | 53    |
| Link Speed (mph)           |       | 40    | 40    |       | 30    |       |
| Link Distance (ft)         |       | 842   | 459   |       | 580   |       |
| Travel Time (s)            |       | 14.4  | 7.8   |       | 13.2  |       |
| Peak Hour Factor           | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| Adj. Flow (vph)            | 336   | 1511  | 1088  | 172   | 141   | 114   |
| Shared Lane Traffic (%)    |       |       |       |       |       |       |
| Lane Group Flow (vph)      | 336   | 1511  | 1260  | 0     | 141   | 114   |
| Enter Blocked Intersection | No    | No    | No    | No    | No    | No    |
| Lane Alignment             | Left  | Left  | Left  | Right | Left  | Right |
| Median Width(ft)           |       | 12    | 12    |       | 12    |       |
| Link Offset(ft)            |       | 0     | 0     |       | 0     |       |
| Crosswalk Width(ft)        |       | 16    | 16    |       | 16    |       |
| Two way Left Turn Lane     |       |       |       |       | Yes   |       |
| Headway Factor             | 1.00  | 0.94  | 1.00  | 1.00  | 1.00  | 1.00  |
| Turning Speed (mph)        | 15    |       |       | 9     | 15    | 9     |
| Turn Type                  | pm+pt | NA    | NA    |       | Prot  | pt+ov |
| Protected Phases           | 7     | 4     | 8     |       | 6     | 6 7   |
| Permitted Phases           | 4     |       |       |       |       |       |
| Detector Phase             | 7     | 4     | 8     |       | 6     | 6 7   |
| Switch Phase               |       |       |       |       |       |       |
| Minimum Initial (s)        | 5.0   | 5.0   | 5.0   |       | 4.0   |       |
| Minimum Split (s)          | 9.5   | 24.0  | 35.0  |       | 24.0  |       |
| Total Split (s)            | 32.0  | 96.0  | 64.0  |       | 24.0  |       |
| Total Split (%)            | 26.7% | 80.0% | 53.3% |       | 20.0% |       |
| Maximum Green (s)          | 29.0  | 90.0  | 58.0  |       | 18.0  |       |
| Yellow Time (s)            | 3.0   | 4.0   | 4.0   |       | 4.0   |       |
| All-Red Time (s)           | 0.0   | 2.0   | 2.0   |       | 2.0   |       |
| Lost Time Adjust (s)       | 0.0   | 0.0   | 0.0   |       | 0.0   |       |
| Total Lost Time (s)        | 3.0   | 6.0   | 6.0   |       | 6.0   |       |
| Lead/Lag                   | Lead  |       | Lag   |       |       |       |
| Lead-Lag Optimize?         | Yes   |       | Yes   |       |       |       |
| Vehicle Extension (s)      | 3.0   | 3.0   | 3.0   |       | 3.0   |       |
| Recall Mode                | None  | C-Max | C-Max |       | Min   |       |
| Walk Time (s)              |       |       | 7.0   |       |       |       |
| Flash Dont Walk (s)        |       |       | 22.0  |       |       |       |

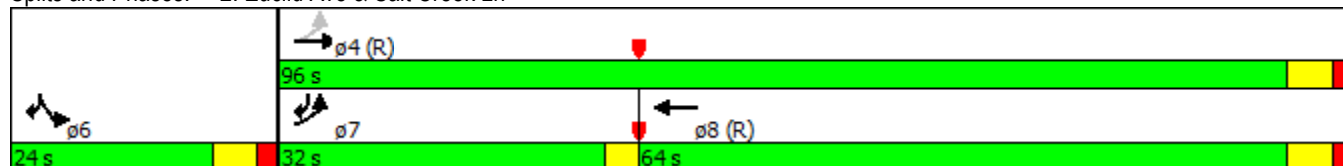


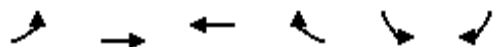
| Lane Group              | EBL  | EBT   | WBT   | WBR | SBL  | SBR  |
|-------------------------|------|-------|-------|-----|------|------|
| Pedestrian Calls (#/hr) |      |       | 0     |     |      |      |
| Act Effct Green (s)     | 96.7 | 93.7  | 71.5  |     | 14.3 | 36.5 |
| Actuated g/C Ratio      | 0.81 | 0.78  | 0.60  |     | 0.12 | 0.30 |
| v/c Ratio               | 0.73 | 0.52  | 0.61  |     | 0.67 | 0.22 |
| Control Delay           | 26.9 | 8.8   | 18.6  |     | 65.7 | 15.5 |
| Queue Delay             | 0.0  | 0.1   | 0.0   |     | 0.0  | 0.0  |
| Total Delay             | 26.9 | 8.8   | 18.6  |     | 65.7 | 15.5 |
| LOS                     | C    | A     | B     |     | E    | B    |
| Approach Delay          |      | 12.1  | 18.6  |     | 43.2 |      |
| Approach LOS            |      | B     | B     |     | D    |      |
| 90th %ile Green (s)     | 29.0 | 90.0  | 58.0  |     | 18.0 |      |
| 90th %ile Term Code     | Max  | Coord | Coord |     | Max  |      |
| 70th %ile Green (s)     | 23.5 | 91.0  | 64.5  |     | 17.0 |      |
| 70th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 50th %ile Green (s)     | 19.3 | 93.2  | 70.9  |     | 14.8 |      |
| 50th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 30th %ile Green (s)     | 15.1 | 95.5  | 77.4  |     | 12.5 |      |
| 30th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 10th %ile Green (s)     | 9.0  | 98.7  | 86.7  |     | 9.3  |      |
| 10th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| Queue Length 50th (ft)  | 153  | 183   | 306   |     | 106  | 34   |
| Queue Length 95th (ft)  | 265  | 475   | 485   |     | 170  | 66   |
| Internal Link Dist (ft) |      | 762   | 379   |     | 500  |      |
| Turn Bay Length (ft)    | 150  |       |       |     | 200  |      |
| Base Capacity (vph)     | 581  | 2907  | 2074  |     | 265  | 622  |
| Starvation Cap Reductn  | 0    | 197   | 0     |     | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0     | 0     |     | 0    | 0    |
| Storage Cap Reductn     | 0    | 0     | 0     |     | 0    | 0    |
| Reduced v/c Ratio       | 0.58 | 0.56  | 0.61  |     | 0.53 | 0.18 |

#### Intersection Summary

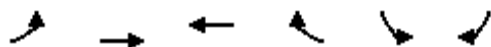
Area Type: Other  
Cycle Length: 120  
Actuated Cycle Length: 120  
Offset: 106 (88%), Referenced to phase 4:EBTL and 8:WBT, Start of Green  
Natural Cycle: 80  
Control Type: Actuated-Coordinated  
Maximum v/c Ratio: 0.73  
Intersection Signal Delay: 16.9  
Intersection LOS: B  
Intersection Capacity Utilization 72.2%  
ICU Level of Service C  
Analysis Period (min) 15

Splits and Phases: 2: Euclid Ave & Salt Creek Ln





| Lane Group                 | EBL   | EBT   | WBT   | WBR   | SBL   | SBR   |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations        |       |       |       |       |       |       |
| Volume (vph)               | 121   | 1641  | 1043  | 102   | 129   | 174   |
| Ideal Flow (vphpl)         | 1900  | 2000  | 1900  | 1900  | 1900  | 1900  |
| Storage Length (ft)        | 250   |       |       | 0     | 0     | 0     |
| Storage Lanes              | 1     |       |       | 0     | 1     | 1     |
| Taper Length (ft)          | 25    |       |       |       | 25    |       |
| Lane Util. Factor          | 1.00  | 0.95  | 0.95  | 0.95  | 1.00  | 1.00  |
| Frt                        |       |       | 0.987 |       |       | 0.850 |
| Flt Protected              | 0.950 |       |       |       | 0.950 |       |
| Satd. Flow (prot)          | 1770  | 3725  | 3493  | 0     | 1770  | 1583  |
| Flt Permitted              | 0.187 |       |       |       | 0.950 |       |
| Satd. Flow (perm)          | 348   | 3725  | 3493  | 0     | 1770  | 1583  |
| Right Turn on Red          |       |       |       | Yes   |       | Yes   |
| Satd. Flow (RTOR)          |       |       | 15    |       |       | 93    |
| Link Speed (mph)           |       | 30    | 40    |       | 40    |       |
| Link Distance (ft)         |       | 790   | 842   |       | 369   |       |
| Travel Time (s)            |       | 18.0  | 14.4  |       | 6.3   |       |
| Peak Hour Factor           | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| Adj. Flow (vph)            | 127   | 1727  | 1098  | 107   | 136   | 183   |
| Shared Lane Traffic (%)    |       |       |       |       |       |       |
| Lane Group Flow (vph)      | 127   | 1727  | 1205  | 0     | 136   | 183   |
| Enter Blocked Intersection | No    | No    | No    | No    | No    | No    |
| Lane Alignment             | Left  | Left  | Left  | Right | Left  | Right |
| Median Width(ft)           |       | 12    | 12    |       | 12    |       |
| Link Offset(ft)            |       | 0     | 0     |       | 0     |       |
| Crosswalk Width(ft)        |       | 16    | 16    |       | 16    |       |
| Two way Left Turn Lane     |       |       |       |       |       |       |
| Headway Factor             | 1.00  | 0.94  | 1.00  | 1.00  | 1.00  | 1.00  |
| Turning Speed (mph)        | 15    |       |       | 9     | 15    | 9     |
| Turn Type                  | pm+pt | NA    | NA    |       | Prot  | pm+ov |
| Protected Phases           | 7     | 4     | 8     |       | 6     | 7     |
| Permitted Phases           | 4     |       |       |       |       | 6     |
| Detector Phase             | 7     | 4     | 8     |       | 6     | 7     |
| Switch Phase               |       |       |       |       |       |       |
| Minimum Initial (s)        | 5.0   | 5.0   | 5.0   |       | 5.0   | 5.0   |
| Minimum Split (s)          | 9.5   | 24.0  | 24.0  |       | 24.0  | 9.5   |
| Total Split (s)            | 15.0  | 92.0  | 77.0  |       | 28.0  | 15.0  |
| Total Split (%)            | 12.5% | 76.7% | 64.2% |       | 23.3% | 12.5% |
| Maximum Green (s)          | 12.0  | 86.0  | 71.0  |       | 22.0  | 12.0  |
| Yellow Time (s)            | 3.0   | 4.0   | 4.0   |       | 4.0   | 3.0   |
| All-Red Time (s)           | 0.0   | 2.0   | 2.0   |       | 2.0   | 0.0   |
| Lost Time Adjust (s)       | 0.0   | 0.0   | 0.0   |       | 0.0   | 0.0   |
| Total Lost Time (s)        | 3.0   | 6.0   | 6.0   |       | 6.0   | 3.0   |
| Lead/Lag                   | Lead  |       | Lag   |       |       | Lead  |
| Lead-Lag Optimize?         | Yes   |       | Yes   |       |       | Yes   |
| Vehicle Extension (s)      | 3.0   | 3.0   | 3.0   |       | 3.0   | 3.0   |
| Recall Mode                | None  | C-Max | C-Max |       | Min   | None  |
| Walk Time (s)              |       |       | 7.0   |       |       |       |
| Flash Dont Walk (s)        |       |       | 11.0  |       |       |       |

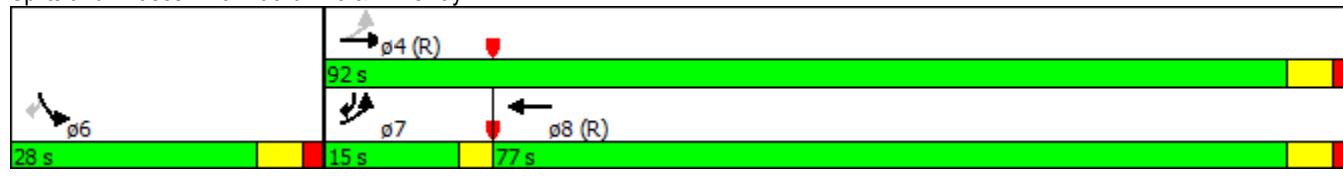


| Lane Group              | EBL  | EBT   | WBT   | WBR | SBL  | SBR  |
|-------------------------|------|-------|-------|-----|------|------|
| Pedestrian Calls (#/hr) |      |       | 0     |     |      |      |
| Act Effct Green (s)     | 96.5 | 93.5  | 83.1  |     | 14.5 | 27.9 |
| Actuated g/C Ratio      | 0.80 | 0.78  | 0.69  |     | 0.12 | 0.23 |
| v/c Ratio               | 0.35 | 0.59  | 0.50  |     | 0.64 | 0.42 |
| Control Delay           | 6.1  | 3.7   | 2.1   |     | 63.3 | 20.8 |
| Queue Delay             | 0.0  | 0.2   | 0.0   |     | 0.0  | 0.0  |
| Total Delay             | 6.1  | 3.9   | 2.1   |     | 63.3 | 20.8 |
| LOS                     | A    | A     | A     |     | E    | C    |
| Approach Delay          |      | 4.1   | 2.1   |     | 38.9 |      |
| Approach LOS            |      | A     | A     |     | D    |      |
| 90th %ile Green (s)     | 9.3  | 88.1  | 75.8  |     | 19.9 | 9.3  |
| 90th %ile Term Code     | Gap  | Coord | Coord |     | Gap  | Gap  |
| 70th %ile Green (s)     | 8.0  | 91.2  | 80.2  |     | 16.8 | 8.0  |
| 70th %ile Term Code     | Gap  | Coord | Coord |     | Gap  | Gap  |
| 50th %ile Green (s)     | 7.3  | 93.5  | 83.2  |     | 14.5 | 7.3  |
| 50th %ile Term Code     | Gap  | Coord | Coord |     | Gap  | Gap  |
| 30th %ile Green (s)     | 6.7  | 95.8  | 86.1  |     | 12.2 | 6.7  |
| 30th %ile Term Code     | Gap  | Coord | Coord |     | Gap  | Gap  |
| 10th %ile Green (s)     | 6.0  | 99.0  | 90.0  |     | 9.0  | 6.0  |
| 10th %ile Term Code     | Gap  | Coord | Coord |     | Gap  | Gap  |
| Queue Length 50th (ft)  | 7    | 57    | 13    |     | 102  | 57   |
| Queue Length 95th (ft)  | m15  | 155   | 20    |     | 162  | 116  |
| Internal Link Dist (ft) |      | 710   | 762   |     | 289  |      |
| Turn Bay Length (ft)    | 250  |       |       |     |      |      |
| Base Capacity (vph)     | 422  | 2903  | 2422  |     | 324  | 496  |
| Starvation Cap Reductn  | 0    | 405   | 0     |     | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0     | 0     |     | 0    | 0    |
| Storage Cap Reductn     | 0    | 0     | 0     |     | 0    | 0    |
| Reduced v/c Ratio       | 0.30 | 0.69  | 0.50  |     | 0.42 | 0.37 |

#### Intersection Summary

Area Type: Other  
Cycle Length: 120  
Actuated Cycle Length: 120  
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green  
Natural Cycle: 60  
Control Type: Actuated-Coordinated  
Maximum v/c Ratio: 0.64  
Intersection Signal Delay: 6.7  
Intersection LOS: A  
Intersection Capacity Utilization 60.2%  
ICU Level of Service B  
Analysis Period (min) 15  
m Volume for 95th percentile queue is metered by upstream signal.

#### Splits and Phases: 3: Euclid Ave & Driveway



2022 Future with Project  
4: Rohlwing Rd & Euclid Ave

Timing Plan: AM

8/12/2015

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |  |  |  |                                                                                     |  |  |  |
| Volume (vph)               | 178                                                                               | 1492                                                                              | 77                                                                                | 54                                                                                | 1105                                                                              | 61                                                                                | 166                                                                                 | 128                                                                                 | 120                                                                                 | 152                                                                                 | 118                                                                                 | 82                                                                                  |
| Ideal Flow (vphpl)         | 1900                                                                              | 2000                                                                              | 1900                                                                              | 1900                                                                              | 2000                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 200                                                                               |                                                                                   | 225                                                                               | 100                                                                               |                                                                                   | 200                                                                               | 145                                                                                 |                                                                                     | 0                                                                                   | 130                                                                                 |                                                                                     | 130                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                   |                                                                                     | 0                                                                                   | 1                                                                                   |                                                                                     | 1                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                  |                                                                                     |                                                                                     | 25                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                     | 0.928                                                                               |                                                                                     |                                                                                     |                                                                                     | 0.850                                                                               |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3725                                                                              | 1583                                                                              | 1770                                                                              | 3725                                                                              | 1583                                                                              | 1770                                                                                | 1729                                                                                | 0                                                                                   | 1770                                                                                | 1863                                                                                | 1583                                                                                |
| Flt Permitted              | 0.116                                                                             |                                                                                   |                                                                                   | 0.073                                                                             |                                                                                   |                                                                                   | 0.677                                                                               |                                                                                     |                                                                                     | 0.282                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 216                                                                               | 3725                                                                              | 1583                                                                              | 136                                                                               | 3725                                                                              | 1583                                                                              | 1261                                                                                | 1729                                                                                | 0                                                                                   | 525                                                                                 | 1863                                                                                | 1583                                                                                |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 109                                                                               |                                                                                   |                                                                                   | 109                                                                               |                                                                                     | 38                                                                                  |                                                                                     |                                                                                     |                                                                                     | 86                                                                                  |
| Link Speed (mph)           |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 40                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 735                                                                               |                                                                                   |                                                                                   | 790                                                                               |                                                                                   |                                                                                     | 441                                                                                 |                                                                                     |                                                                                     | 644                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 12.5                                                                              |                                                                                   |                                                                                   | 13.5                                                                              |                                                                                   |                                                                                     | 10.0                                                                                |                                                                                     |                                                                                     | 11.0                                                                                |                                                                                     |
| Peak Hour Factor           | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Adj. Flow (vph)            | 187                                                                               | 1571                                                                              | 81                                                                                | 57                                                                                | 1163                                                                              | 64                                                                                | 175                                                                                 | 135                                                                                 | 126                                                                                 | 160                                                                                 | 124                                                                                 | 86                                                                                  |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 187                                                                               | 1571                                                                              | 81                                                                                | 57                                                                                | 1163                                                                              | 64                                                                                | 175                                                                                 | 261                                                                                 | 0                                                                                   | 160                                                                                 | 124                                                                                 | 86                                                                                  |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 16                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 16                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 0.94                                                                              | 1.00                                                                              | 1.00                                                                              | 0.94                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  | Perm                                                                                |
| Protected Phases           | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases           | 4                                                                                 |                                                                                   | 4                                                                                 | 8                                                                                 |                                                                                   | 8                                                                                 | 2                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     | 6                                                                                   |
| Detector Phase             | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   | 6                                                                                   |
| Switch Phase               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)        | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                                 | 5.0                                                                                 |                                                                                     | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 |
| Minimum Split (s)          | 9.5                                                                               | 24.0                                                                              | 24.0                                                                              | 9.5                                                                               | 35.0                                                                              | 35.0                                                                              | 9.5                                                                                 | 24.0                                                                                |                                                                                     | 9.5                                                                                 | 51.0                                                                                | 51.0                                                                                |
| Total Split (s)            | 17.0                                                                              | 42.0                                                                              | 42.0                                                                              | 17.0                                                                              | 42.0                                                                              | 42.0                                                                              | 10.0                                                                                | 37.0                                                                                |                                                                                     | 24.0                                                                                | 51.0                                                                                | 51.0                                                                                |
| Total Split (%)            | 14.2%                                                                             | 35.0%                                                                             | 35.0%                                                                             | 14.2%                                                                             | 35.0%                                                                             | 35.0%                                                                             | 8.3%                                                                                | 30.8%                                                                               |                                                                                     | 20.0%                                                                               | 42.5%                                                                               | 42.5%                                                                               |
| Maximum Green (s)          | 14.0                                                                              | 36.0                                                                              | 36.0                                                                              | 14.0                                                                              | 36.0                                                                              | 36.0                                                                              | 7.0                                                                                 | 31.0                                                                                |                                                                                     | 21.0                                                                                | 45.0                                                                                | 45.0                                                                                |
| Yellow Time (s)            | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                                 | 4.0                                                                                 |                                                                                     | 3.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| All-Red Time (s)           | 0.0                                                                               | 2.0                                                                               | 2.0                                                                               | 0.0                                                                               | 2.0                                                                               | 2.0                                                                               | 0.0                                                                                 | 2.0                                                                                 |                                                                                     | 0.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 |
| Lost Time Adjust (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)        | 3.0                                                                               | 6.0                                                                               | 6.0                                                                               | 3.0                                                                               | 6.0                                                                               | 6.0                                                                               | 3.0                                                                                 | 6.0                                                                                 |                                                                                     | 3.0                                                                                 | 6.0                                                                                 | 6.0                                                                                 |
| Lead/Lag                   | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?         | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Vehicle Extension (s)      | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                                 | 3.0                                                                                 |                                                                                     | 3.0                                                                                 | 3.0                                                                                 | 3.0                                                                                 |
| Recall Mode                | None                                                                              | C-Max                                                                             | C-Max                                                                             | None                                                                              | C-Max                                                                             | C-Max                                                                             | None                                                                                | Min                                                                                 |                                                                                     | None                                                                                | Min                                                                                 | Min                                                                                 |
| Walk Time (s)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 7.0                                                                               | 7.0                                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 7.0                                                                                 | 7.0                                                                                 |
| Flash Dont Walk (s)        |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 22.0                                                                              | 22.0                                                                              |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 38.0                                                                                | 38.0                                                                                |



2022 Future with Project  
4: Rohlwing Rd & Euclid Ave

Timing Plan: AM  
8/12/2015

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Pedestrian Calls (#/hr) |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 1                                                                                 | 1                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 1                                                                                   | 1                                                                                   |
| Act Effct Green (s)     | 72.2                                                                              | 60.6                                                                              | 60.6                                                                              | 65.3                                                                              | 55.0                                                                              | 55.0                                                                              | 32.6                                                                                | 22.6                                                                                |                                                                                     | 41.7                                                                                | 28.8                                                                                | 28.8                                                                                |
| Actuated g/C Ratio      | 0.60                                                                              | 0.50                                                                              | 0.50                                                                              | 0.54                                                                              | 0.46                                                                              | 0.46                                                                              | 0.27                                                                                | 0.19                                                                                |                                                                                     | 0.35                                                                                | 0.24                                                                                | 0.24                                                                                |
| v/c Ratio               | 0.68                                                                              | 0.83                                                                              | 0.09                                                                              | 0.33                                                                              | 0.68                                                                              | 0.08                                                                              | 0.47                                                                                | 0.73                                                                                |                                                                                     | 0.50                                                                                | 0.28                                                                                | 0.19                                                                                |
| Control Delay           | 28.7                                                                              | 32.8                                                                              | 2.6                                                                               | 24.8                                                                              | 25.7                                                                              | 3.2                                                                               | 33.0                                                                                | 50.2                                                                                |                                                                                     | 31.6                                                                                | 36.0                                                                                | 6.7                                                                                 |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Delay             | 28.7                                                                              | 32.8                                                                              | 2.6                                                                               | 24.8                                                                              | 25.7                                                                              | 3.2                                                                               | 33.0                                                                                | 50.2                                                                                |                                                                                     | 31.6                                                                                | 36.0                                                                                | 6.7                                                                                 |
| LOS                     | C                                                                                 | C                                                                                 | A                                                                                 | C                                                                                 | C                                                                                 | A                                                                                 | C                                                                                   | D                                                                                   |                                                                                     | C                                                                                   | D                                                                                   | A                                                                                   |
| Approach Delay          |                                                                                   | 31.1                                                                              |                                                                                   |                                                                                   | 24.5                                                                              |                                                                                   |                                                                                     | 43.3                                                                                |                                                                                     |                                                                                     | 27.3                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                     | D                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| 90th %ile Green (s)     | 14.0                                                                              | 40.3                                                                              | 40.3                                                                              | 9.7                                                                               | 36.0                                                                              | 36.0                                                                              | 7.0                                                                                 | 36.4                                                                                |                                                                                     | 15.6                                                                                | 45.0                                                                                | 45.0                                                                                |
| 90th %ile Term Code     | Max                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                 | Hold                                                                                |                                                                                     | Gap                                                                                 | Ped                                                                                 | Ped                                                                                 |
| 70th %ile Green (s)     | 13.9                                                                              | 54.6                                                                              | 54.6                                                                              | 7.9                                                                               | 48.6                                                                              | 48.6                                                                              | 7.0                                                                                 | 24.3                                                                                |                                                                                     | 15.2                                                                                | 32.5                                                                                | 32.5                                                                                |
| 70th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                 | Gap                                                                                 |                                                                                     | Gap                                                                                 | Hold                                                                                | Hold                                                                                |
| 50th %ile Green (s)     | 11.2                                                                              | 60.2                                                                              | 60.2                                                                              | 7.0                                                                               | 56.0                                                                              | 56.0                                                                              | 7.0                                                                                 | 21.1                                                                                |                                                                                     | 13.7                                                                                | 27.8                                                                                | 27.8                                                                                |
| 50th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                 | Gap                                                                                 |                                                                                     | Gap                                                                                 | Hold                                                                                | Hold                                                                                |
| 30th %ile Green (s)     | 9.5                                                                               | 65.7                                                                              | 65.7                                                                              | 6.3                                                                               | 62.5                                                                              | 62.5                                                                              | 7.0                                                                                 | 17.9                                                                                |                                                                                     | 12.1                                                                                | 23.0                                                                                | 23.0                                                                                |
| 30th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                 | Gap                                                                                 |                                                                                     | Gap                                                                                 | Hold                                                                                | Hold                                                                                |
| 10th %ile Green (s)     | 7.5                                                                               | 82.4                                                                              | 82.4                                                                              | 0.0                                                                               | 71.9                                                                              | 71.9                                                                              | 7.0                                                                                 | 13.2                                                                                |                                                                                     | 9.4                                                                                 | 15.6                                                                                | 15.6                                                                                |
| 10th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Skip                                                                              | Coord                                                                             | Coord                                                                             | Max                                                                                 | Gap                                                                                 |                                                                                     | Gap                                                                                 | Hold                                                                                | Hold                                                                                |
| Queue Length 50th (ft)  | 59                                                                                | 534                                                                               | 0                                                                                 | 13                                                                                | 194                                                                               | 0                                                                                 | 99                                                                                  | 168                                                                                 |                                                                                     | 89                                                                                  | 80                                                                                  | 0                                                                                   |
| Queue Length 95th (ft)  | 155                                                                               | #941                                                                              | 19                                                                                | 62                                                                                | #635                                                                              | 15                                                                                | 121                                                                                 | 222                                                                                 |                                                                                     | 112                                                                                 | 109                                                                                 | 34                                                                                  |
| Internal Link Dist (ft) |                                                                                   | 655                                                                               |                                                                                   |                                                                                   | 710                                                                               |                                                                                   |                                                                                     | 361                                                                                 |                                                                                     |                                                                                     | 564                                                                                 |                                                                                     |
| Turn Bay Length (ft)    | 200                                                                               |                                                                                   | 225                                                                               | 100                                                                               |                                                                                   | 200                                                                               | 145                                                                                 |                                                                                     |                                                                                     | 130                                                                                 |                                                                                     | 130                                                                                 |
| Base Capacity (vph)     | 311                                                                               | 1882                                                                              | 854                                                                               | 271                                                                               | 1707                                                                              | 784                                                                               | 372                                                                                 | 489                                                                                 |                                                                                     | 400                                                                                 | 698                                                                                 | 647                                                                                 |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Reduced v/c Ratio       | 0.60                                                                              | 0.83                                                                              | 0.09                                                                              | 0.21                                                                              | 0.68                                                                              | 0.08                                                                              | 0.47                                                                                | 0.53                                                                                |                                                                                     | 0.40                                                                                | 0.18                                                                                | 0.13                                                                                |

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 2 (2%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Natural Cycle: 125

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 29.9

Intersection LOS: C

Intersection Capacity Utilization 82.5%

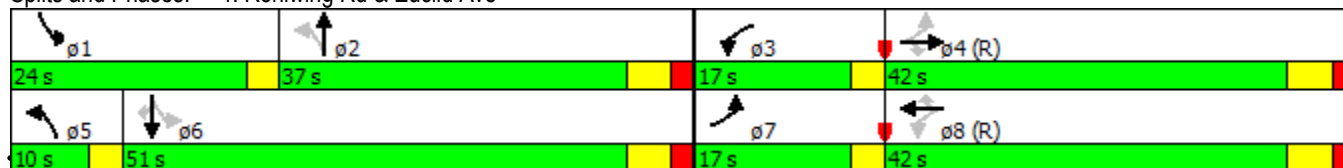
ICU Level of Service E

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

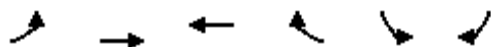
Splits and Phases: 4: Rohlwing Rd & Euclid Ave



| Intersection             |        |        |       |        |      |      |
|--------------------------|--------|--------|-------|--------|------|------|
| Int Delay, s/veh         | 3.1    |        |       |        |      |      |
| Movement                 | EBL    | EBR    | NBL   | NBT    | SBT  | SBR  |
| Vol, veh/h               | 0      | 93     | 72    | 218    | 51   | 0    |
| Conflicting Peds, #/hr   | 0      | 0      | 0     | 0      | 0    | 0    |
| Sign Control             | Stop   | Stop   | Free  | Free   | Free | Free |
| RT Channelized           | -      | None   | -     | None   | -    | None |
| Storage Length           | 0      | -      | -     | -      | -    | -    |
| Veh in Median Storage, # | 0      | -      | -     | 0      | 0    | -    |
| Grade, %                 | 0      | -      | -     | 0      | 0    | -    |
| Peak Hour Factor         | 95     | 95     | 95    | 95     | 95   | 95   |
| Heavy Vehicles, %        | 2      | 2      | 2     | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 98     | 76    | 229    | 54   | 0    |
| Major/Minor              | Minor2 | Major1 |       | Major2 |      |      |
| Conflicting Flow All     | 435    | 54     | 54    | 0      | -    | 0    |
| Stage 1                  | 54     | -      | -     | -      | -    | -    |
| Stage 2                  | 381    | -      | -     | -      | -    | -    |
| Critical Hdwy            | 6.42   | 6.22   | 4.12  | -      | -    | -    |
| Critical Hdwy Stg 1      | 5.42   | -      | -     | -      | -    | -    |
| Critical Hdwy Stg 2      | 5.42   | -      | -     | -      | -    | -    |
| Follow-up Hdwy           | 3.518  | 3.318  | 2.218 | -      | -    | -    |
| Pot Cap-1 Maneuver       | 578    | 1013   | 1551  | -      | -    | -    |
| Stage 1                  | 969    | -      | -     | -      | -    | -    |
| Stage 2                  | 691    | -      | -     | -      | -    | -    |
| Platoon blocked, %       |        |        |       | -      | -    | -    |
| Mov Cap-1 Maneuver       | 546    | 1013   | 1551  | -      | -    | -    |
| Mov Cap-2 Maneuver       | 546    | -      | -     | -      | -    | -    |
| Stage 1                  | 969    | -      | -     | -      | -    | -    |
| Stage 2                  | 652    | -      | -     | -      | -    | -    |
| Approach                 | EB     | NB     |       | SB     |      |      |
| HCM Control Delay, s     | 8.9    | 1.8    |       | 0      |      |      |
| HCM LOS                  | A      |        |       |        |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT    | EBLn1 | SBT    | SBR  |      |
| Capacity (veh/h)         | 1551   | -      | 1013  | -      | -    |      |
| HCM Lane V/C Ratio       | 0.049  | -      | 0.097 | -      | -    |      |
| HCM Control Delay (s)    | 7.4    | 0      | 8.9   | -      | -    |      |
| HCM Lane LOS             | A      | A      | A     | -      | -    |      |
| HCM 95th %tile Q(veh)    | 0.2    | -      | 0.3   | -      | -    |      |

| Intersection             |        |       |        |       |        |           |
|--------------------------|--------|-------|--------|-------|--------|-----------|
| Int Delay, s/veh         | 2      |       |        |       |        |           |
|                          |        |       |        |       |        |           |
| Movement                 | WBL    | WBR   |        | NBT   | NBR    | SBL SBT   |
| Vol, veh/h               | 47     | 47    |        | 270   | 54     | 36 314    |
| Conflicting Peds, #/hr   | 0      | 0     |        | 0     | 0      | 0 0       |
| Sign Control             | Stop   | Stop  |        | Free  | Free   | Free Free |
| RT Channelized           | -      | None  |        | -     | None   | - None    |
| Storage Length           | 0      | 0     |        | -     | -      | 200 -     |
| Veh in Median Storage, # | 0      | -     |        | 0     | -      | - 0       |
| Grade, %                 | 0      | -     |        | 0     | -      | - 0       |
| Peak Hour Factor         | 95     | 95    |        | 95    | 95     | 95 95     |
| Heavy Vehicles, %        | 2      | 2     |        | 2     | 2      | 2 2       |
| Mvmt Flow                | 49     | 49    |        | 284   | 57     | 38 331    |
|                          |        |       |        |       |        |           |
| Major/Minor              | Minor1 |       | Major1 |       | Major2 |           |
| Conflicting Flow All     | 719    | 313   |        | 0     | 0      | 341 0     |
| Stage 1                  | 313    | -     |        | -     | -      | - -       |
| Stage 2                  | 406    | -     |        | -     | -      | - -       |
| Critical Hdwy            | 6.42   | 6.22  |        | -     | -      | 4.12 -    |
| Critical Hdwy Stg 1      | 5.42   | -     |        | -     | -      | - -       |
| Critical Hdwy Stg 2      | 5.42   | -     |        | -     | -      | - -       |
| Follow-up Hdwy           | 3.518  | 3.318 |        | -     | -      | 2.218 -   |
| Pot Cap-1 Maneuver       | 395    | 727   |        | -     | -      | 1218 -    |
| Stage 1                  | 741    | -     |        | -     | -      | - -       |
| Stage 2                  | 673    | -     |        | -     | -      | - -       |
| Platoon blocked, %       |        |       |        | -     | -      | -         |
| Mov Cap-1 Maneuver       | 383    | 727   |        | -     | -      | 1218 -    |
| Mov Cap-2 Maneuver       | 383    | -     |        | -     | -      | - -       |
| Stage 1                  | 741    | -     |        | -     | -      | - -       |
| Stage 2                  | 652    | -     |        | -     | -      | - -       |
|                          |        |       |        |       |        |           |
| Approach                 | WB     |       | NB     |       | SB     |           |
| HCM Control Delay, s     | 13.1   |       | 0      |       | 0.8    |           |
| HCM LOS                  | B      |       |        |       |        |           |
|                          |        |       |        |       |        |           |
| Minor Lane/Major Mvmt    | NBT    | NBR   | WBLn1  | WBLn2 | SBL    | SBT       |
| Capacity (veh/h)         | -      | -     | 383    | 727   | 1218   | -         |
| HCM Lane V/C Ratio       | -      | -     | 0.129  | 0.068 | 0.031  | -         |
| HCM Control Delay (s)    | -      | -     | 15.8   | 10.3  | 8.1    | -         |
| HCM Lane LOS             | -      | -     | C      | B     | A      | -         |
| HCM 95th %tile Q(veh)    | -      | -     | 0.4    | 0.2   | 0.1    | -         |

| Intersection             |        |       |       |        |       |       |        |      |      |        |      |      |
|--------------------------|--------|-------|-------|--------|-------|-------|--------|------|------|--------|------|------|
| Int Delay, s/veh         | 1.4    |       |       |        |       |       |        |      |      |        |      |      |
| Movement                 | EBL    | EBT   | EBR   | WBL    | WBT   | WBR   | NBL    | NBT  | NBR  | SBL    | SBT  | SBR  |
| Vol, veh/h               | 1      | 0     | 0     | 7      | 1     | 25    | 0      | 248  | 57   | 87     | 352  | 0    |
| Conflicting Peds, #/hr   | 0      | 0     | 0     | 0      | 0     | 0     | 0      | 0    | 0    | 0      | 0    | 0    |
| Sign Control             | Stop   | Stop  | Stop  | Stop   | Stop  | Stop  | Free   | Free | Free | Free   | Free | Free |
| RT Channelized           | -      | -     | None  | -      | -     | None  | -      | -    | None | -      | -    | None |
| Storage Length           | -      | -     | -     | 175    | -     | -     | -      | -    | -    | 0      | -    | -    |
| Veh in Median Storage, # | -      | 0     | -     | -      | 0     | -     | -      | 0    | -    | -      | 0    | -    |
| Grade, %                 | -      | 0     | -     | -      | 0     | -     | -      | 0    | -    | -      | 0    | -    |
| Peak Hour Factor         | 95     | 95    | 95    | 95     | 95    | 95    | 95     | 95   | 95   | 95     | 95   | 95   |
| Heavy Vehicles, %        | 2      | 2     | 2     | 2      | 2     | 2     | 2      | 2    | 2    | 2      | 2    | 2    |
| Mvmt Flow                | 1      | 0     | 0     | 7      | 1     | 26    | 0      | 261  | 60   | 92     | 371  | 0    |
| Major/Minor              | Minor2 |       |       | Minor1 |       |       | Major1 |      |      | Major2 |      |      |
| Conflicting Flow All     | 859    | 875   | 371   | 845    | 845   | 291   | 371    | 0    | 0    | 321    | 0    | 0    |
| Stage 1                  | 554    | 554   | -     | 291    | 291   | -     | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 305    | 321   | -     | 554    | 554   | -     | -      | -    | -    | -      | -    | -    |
| Critical Hdwy            | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  | 4.12   | -    | -    | 4.12   | -    | -    |
| Critical Hdwy Stg 1      | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     | -      | -    | -    | -      | -    | -    |
| Critical Hdwy Stg 2      | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     | -      | -    | -    | -      | -    | -    |
| Follow-up Hdwy           | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 | 2.218  | -    | -    | 2.218  | -    | -    |
| Pot Cap-1 Maneuver       | 277    | 288   | 675   | 283    | 300   | 748   | 1188   | -    | -    | 1239   | -    | -    |
| Stage 1                  | 517    | 514   | -     | 717    | 672   | -     | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 705    | 652   | -     | 517    | 514   | -     | -      | -    | -    | -      | -    | -    |
| Platoon blocked, %       | -      | -     | -     | -      | -     | -     | -      | -    | -    | -      | -    | -    |
| Mov Cap-1 Maneuver       | 251    | 267   | 675   | 267    | 278   | 748   | 1188   | -    | -    | 1239   | -    | -    |
| Mov Cap-2 Maneuver       | 251    | 267   | -     | 267    | 278   | -     | -      | -    | -    | -      | -    | -    |
| Stage 1                  | 517    | 476   | -     | 717    | 672   | -     | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 679    | 652   | -     | 479    | 476   | -     | -      | -    | -    | -      | -    | -    |
| Approach                 | EB     |       |       | WB     |       |       | NB     |      |      | SB     |      |      |
| HCM Control Delay, s     | 19.4   |       |       | 12.1   |       |       | 0      |      |      | 1.6    |      |      |
| HCM LOS                  | C      |       |       | B      |       |       |        |      |      |        |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT   | NBR   | EBLn1  | WBLn1 | WBLn2 | SBL    | SBT  | SBR  |        |      |      |
| Capacity (veh/h)         | 1188   | -     | -     | 251    | 267   | 702   | 1239   | -    | -    |        |      |      |
| HCM Lane V/C Ratio       | -      | -     | -     | 0.004  | 0.028 | 0.039 | 0.074  | -    | -    |        |      |      |
| HCM Control Delay (s)    | 0      | -     | -     | 19.4   | 18.9  | 10.3  | 8.1    | -    | -    |        |      |      |
| HCM Lane LOS             | A      | -     | -     | C      | C     | B     | A      | -    | -    |        |      |      |
| HCM 95th %tile Q(veh)    | 0      | -     | -     | 0      | 0.1   | 0.1   | 0.2    | -    | -    |        |      |      |



| Lane Group                 | EBL   | EBT   | WBT   | WBR   | SBL   | SBR   |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations        |       |       |       |       |       |       |
| Volume (vph)               | 122   | 1079  | 1526  | 100   | 175   | 253   |
| Ideal Flow (vphpl)         | 1900  | 2000  | 1900  | 1900  | 1900  | 1900  |
| Storage Length (ft)        | 150   |       |       | 0     | 200   | 0     |
| Storage Lanes              | 1     |       |       | 0     | 1     | 1     |
| Taper Length (ft)          | 25    |       |       |       | 25    |       |
| Lane Util. Factor          | 1.00  | 0.95  | 0.95  | 0.95  | 1.00  | 1.00  |
| Frt                        |       |       | 0.991 |       |       | 0.850 |
| Flt Protected              | 0.950 |       |       |       | 0.950 |       |
| Satd. Flow (prot)          | 1770  | 3725  | 3507  | 0     | 1770  | 1583  |
| Flt Permitted              | 0.071 |       |       |       | 0.950 |       |
| Satd. Flow (perm)          | 132   | 3725  | 3507  | 0     | 1770  | 1583  |
| Right Turn on Red          |       |       |       | Yes   |       | Yes   |
| Satd. Flow (RTOR)          |       |       | 10    |       |       | 29    |
| Link Speed (mph)           |       | 40    | 40    |       | 30    |       |
| Link Distance (ft)         |       | 842   | 459   |       | 580   |       |
| Travel Time (s)            |       | 14.4  | 7.8   |       | 13.2  |       |
| Peak Hour Factor           | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| Adj. Flow (vph)            | 128   | 1136  | 1606  | 105   | 184   | 266   |
| Shared Lane Traffic (%)    |       |       |       |       |       |       |
| Lane Group Flow (vph)      | 128   | 1136  | 1711  | 0     | 184   | 266   |
| Enter Blocked Intersection | No    | No    | No    | No    | No    | No    |
| Lane Alignment             | Left  | Left  | Left  | Right | Left  | Right |
| Median Width(ft)           |       | 12    | 12    |       | 12    |       |
| Link Offset(ft)            |       | 0     | 0     |       | 0     |       |
| Crosswalk Width(ft)        |       | 16    | 16    |       | 16    |       |
| Two way Left Turn Lane     |       |       |       |       | Yes   |       |
| Headway Factor             | 1.00  | 0.94  | 1.00  | 1.00  | 1.00  | 1.00  |
| Turning Speed (mph)        | 15    |       |       | 9     | 15    | 9     |
| Turn Type                  | pm+pt | NA    | NA    |       | Prot  | pt+ov |
| Protected Phases           | 7     | 4     | 8     |       | 6     | 6 7   |
| Permitted Phases           | 4     |       |       |       |       |       |
| Detector Phase             | 7     | 4     | 8     |       | 6     | 6 7   |
| Switch Phase               |       |       |       |       |       |       |
| Minimum Initial (s)        | 5.0   | 5.0   | 5.0   |       | 5.0   |       |
| Minimum Split (s)          | 9.5   | 24.0  | 35.0  |       | 24.0  |       |
| Total Split (s)            | 16.0  | 94.0  | 78.0  |       | 26.0  |       |
| Total Split (%)            | 13.3% | 78.3% | 65.0% |       | 21.7% |       |
| Maximum Green (s)          | 13.0  | 88.0  | 72.0  |       | 20.0  |       |
| Yellow Time (s)            | 3.0   | 4.0   | 4.0   |       | 4.0   |       |
| All-Red Time (s)           | 0.0   | 2.0   | 2.0   |       | 2.0   |       |
| Lost Time Adjust (s)       | 0.0   | 0.0   | 0.0   |       | 0.0   |       |
| Total Lost Time (s)        | 3.0   | 6.0   | 6.0   |       | 6.0   |       |
| Lead/Lag                   | Lead  |       | Lag   |       |       |       |
| Lead-Lag Optimize?         | Yes   |       | Yes   |       |       |       |
| Vehicle Extension (s)      | 3.0   | 3.0   | 3.0   |       | 3.0   |       |
| Recall Mode                | None  | C-Max | C-Max |       | Min   |       |
| Walk Time (s)              |       |       | 7.0   |       |       |       |
| Flash Dont Walk (s)        |       |       | 22.0  |       |       |       |





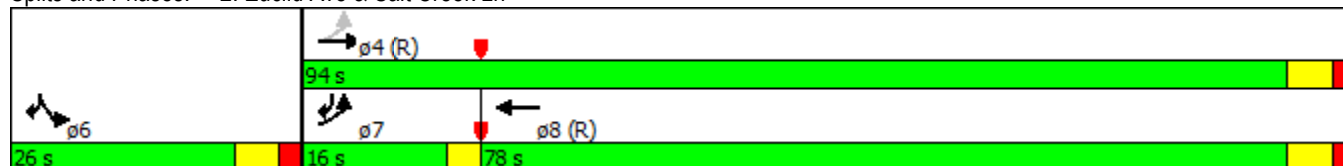
| Lane Group              | EBL  | EBT   | WBT   | WBR | SBL  | SBR  |
|-------------------------|------|-------|-------|-----|------|------|
| Pedestrian Calls (#/hr) |      |       | 2     |     |      |      |
| Act Effct Green (s)     | 92.6 | 89.6  | 77.3  |     | 18.4 | 30.7 |
| Actuated g/C Ratio      | 0.77 | 0.75  | 0.64  |     | 0.15 | 0.26 |
| v/c Ratio               | 0.56 | 0.41  | 0.76  |     | 0.68 | 0.62 |
| Control Delay           | 28.2 | 7.2   | 18.4  |     | 60.8 | 41.2 |
| Queue Delay             | 0.0  | 0.0   | 0.2   |     | 0.0  | 0.0  |
| Total Delay             | 28.2 | 7.2   | 18.5  |     | 60.8 | 41.2 |
| LOS                     | C    | A     | B     |     | E    | D    |
| Approach Delay          |      | 9.3   | 18.5  |     | 49.2 |      |
| Approach LOS            |      | A     | B     |     | D    |      |
| 90th %ile Green (s)     | 13.0 | 88.0  | 72.0  |     | 20.0 |      |
| 90th %ile Term Code     | Max  | Coord | Coord |     | Max  |      |
| 70th %ile Green (s)     | 11.3 | 88.0  | 73.7  |     | 20.0 |      |
| 70th %ile Term Code     | Gap  | Coord | Coord |     | Max  |      |
| 50th %ile Green (s)     | 8.9  | 88.0  | 76.1  |     | 20.0 |      |
| 50th %ile Term Code     | Gap  | Coord | Coord |     | Max  |      |
| 30th %ile Green (s)     | 7.0  | 89.6  | 79.6  |     | 18.4 |      |
| 30th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 10th %ile Green (s)     | 6.1  | 94.2  | 85.1  |     | 13.8 |      |
| 10th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| Queue Length 50th (ft)  | 48   | 108   | 460   |     | 134  | 161  |
| Queue Length 95th (ft)  | 99   | 276   | 616   |     | 213  | 241  |
| Internal Link Dist (ft) |      | 762   | 379   |     | 500  |      |
| Turn Bay Length (ft)    | 150  |       |       |     | 200  |      |
| Base Capacity (vph)     | 279  | 2780  | 2262  |     | 295  | 463  |
| Starvation Cap Reductn  | 0    | 0     | 0     |     | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0     | 89    |     | 0    | 0    |
| Storage Cap Reductn     | 0    | 0     | 0     |     | 0    | 0    |
| Reduced v/c Ratio       | 0.46 | 0.41  | 0.79  |     | 0.62 | 0.57 |

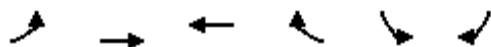
#### Intersection Summary

Area Type: Other  
Cycle Length: 120  
Actuated Cycle Length: 120  
Offset: 89 (74%), Referenced to phase 4:EBTL and 8:WBT, Start of Green  
Natural Cycle: 80  
Control Type: Actuated-Coordinated  
Maximum v/c Ratio: 0.76  
Intersection Signal Delay: 19.2  
Intersection Capacity Utilization 75.2%  
Analysis Period (min) 15

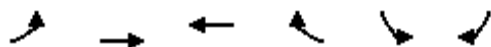
Intersection LOS: B  
ICU Level of Service D

Splits and Phases: 2: Euclid Ave & Salt Creek Ln





| Lane Group                 | EBL   | EBT   | WBT   | WBR   | SBL   | SBR   |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations        |       |       |       |       |       |       |
| Volume (vph)               | 191   | 1083  | 1617  | 163   | 115   | 151   |
| Ideal Flow (vphpl)         | 1900  | 2000  | 1900  | 1900  | 1900  | 1900  |
| Storage Length (ft)        | 250   |       |       | 0     | 0     | 0     |
| Storage Lanes              | 1     |       |       | 0     | 1     | 1     |
| Taper Length (ft)          | 25    |       |       |       | 25    |       |
| Lane Util. Factor          | 1.00  | 0.95  | 0.95  | 0.95  | 1.00  | 1.00  |
| Frt                        |       |       | 0.986 |       |       | 0.850 |
| Flt Protected              | 0.950 |       |       |       | 0.950 |       |
| Satd. Flow (prot)          | 1770  | 3725  | 3490  | 0     | 1770  | 1583  |
| Flt Permitted              | 0.049 |       |       |       | 0.950 |       |
| Satd. Flow (perm)          | 91    | 3725  | 3490  | 0     | 1770  | 1583  |
| Right Turn on Red          |       |       |       | Yes   |       | Yes   |
| Satd. Flow (RTOR)          |       |       | 14    |       |       | 16    |
| Link Speed (mph)           |       | 30    | 40    |       | 40    |       |
| Link Distance (ft)         |       | 790   | 842   |       | 369   |       |
| Travel Time (s)            |       | 18.0  | 14.4  |       | 6.3   |       |
| Peak Hour Factor           | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| Adj. Flow (vph)            | 201   | 1140  | 1702  | 172   | 121   | 159   |
| Shared Lane Traffic (%)    |       |       |       |       |       |       |
| Lane Group Flow (vph)      | 201   | 1140  | 1874  | 0     | 121   | 159   |
| Enter Blocked Intersection | No    | No    | No    | No    | No    | No    |
| Lane Alignment             | Left  | Left  | Left  | Right | Left  | Right |
| Median Width(ft)           |       | 12    | 12    |       | 12    |       |
| Link Offset(ft)            |       | 0     | 0     |       | 0     |       |
| Crosswalk Width(ft)        |       | 16    | 16    |       | 16    |       |
| Two way Left Turn Lane     |       |       |       |       |       |       |
| Headway Factor             | 1.00  | 0.94  | 1.00  | 1.00  | 1.00  | 1.00  |
| Turning Speed (mph)        | 15    |       |       | 9     | 15    | 9     |
| Turn Type                  | pm+pt | NA    | NA    |       | Prot  | pm+ov |
| Protected Phases           | 7     | 4     | 8     |       | 6     | 7     |
| Permitted Phases           | 4     |       |       |       |       | 6     |
| Detector Phase             | 7     | 4     | 8     |       | 6     | 7     |
| Switch Phase               |       |       |       |       |       |       |
| Minimum Initial (s)        | 5.0   | 5.0   | 5.0   |       | 5.0   | 5.0   |
| Minimum Split (s)          | 9.5   | 24.0  | 35.0  |       | 24.0  | 9.5   |
| Total Split (s)            | 24.0  | 96.0  | 72.0  |       | 24.0  | 24.0  |
| Total Split (%)            | 20.0% | 80.0% | 60.0% |       | 20.0% | 20.0% |
| Maximum Green (s)          | 21.0  | 90.0  | 66.0  |       | 18.0  | 21.0  |
| Yellow Time (s)            | 3.0   | 4.0   | 4.0   |       | 4.0   | 3.0   |
| All-Red Time (s)           | 0.0   | 2.0   | 2.0   |       | 2.0   | 0.0   |
| Lost Time Adjust (s)       | 0.0   | 0.0   | 0.0   |       | 0.0   | 0.0   |
| Total Lost Time (s)        | 3.0   | 6.0   | 6.0   |       | 6.0   | 3.0   |
| Lead/Lag                   | Lead  |       | Lag   |       |       | Lead  |
| Lead-Lag Optimize?         | Yes   |       | Yes   |       |       | Yes   |
| Vehicle Extension (s)      | 3.0   | 3.0   | 3.0   |       | 3.0   | 3.0   |
| Recall Mode                | None  | C-Max | C-Max |       | Min   | None  |
| Walk Time (s)              |       |       | 7.0   |       |       |       |
| Flash Dont Walk (s)        |       |       | 22.0  |       |       |       |

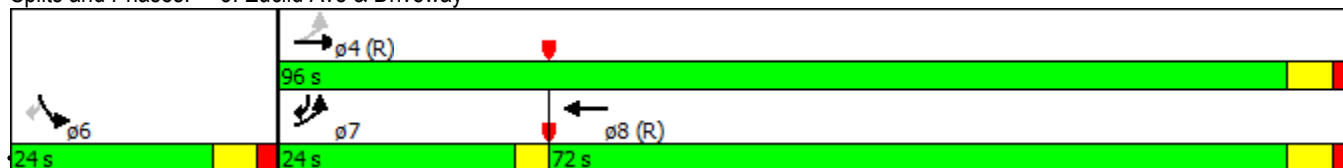


| Lane Group              | EBL  | EBT   | WBT   | WBR | SBL  | SBR  |
|-------------------------|------|-------|-------|-----|------|------|
| Pedestrian Calls (#/hr) |      |       | 2     |     |      |      |
| Act Effct Green (s)     | 97.6 | 94.6  | 78.1  |     | 13.4 | 32.9 |
| Actuated g/C Ratio      | 0.81 | 0.79  | 0.65  |     | 0.11 | 0.27 |
| v/c Ratio               | 0.76 | 0.39  | 0.82  |     | 0.61 | 0.36 |
| Control Delay           | 54.1 | 3.7   | 11.4  |     | 63.7 | 31.6 |
| Queue Delay             | 0.0  | 0.0   | 0.1   |     | 0.0  | 0.0  |
| Total Delay             | 54.1 | 3.7   | 11.5  |     | 63.7 | 31.6 |
| LOS                     | D    | A     | B     |     | E    | C    |
| Approach Delay          |      | 11.3  | 11.5  |     | 45.5 |      |
| Approach LOS            |      | B     | B     |     | D    |      |
| 90th %ile Green (s)     | 20.8 | 90.0  | 66.2  |     | 18.0 | 20.8 |
| 90th %ile Term Code     | Gap  | Coord | Coord |     | Max  | Gap  |
| 70th %ile Green (s)     | 16.5 | 92.4  | 72.9  |     | 15.6 | 16.5 |
| 70th %ile Term Code     | Gap  | Coord | Coord |     | Gap  | Gap  |
| 50th %ile Green (s)     | 13.5 | 94.5  | 78.0  |     | 13.5 | 13.5 |
| 50th %ile Term Code     | Gap  | Coord | Coord |     | Gap  | Gap  |
| 30th %ile Green (s)     | 10.4 | 96.6  | 83.2  |     | 11.4 | 10.4 |
| 30th %ile Term Code     | Gap  | Coord | Coord |     | Gap  | Gap  |
| 10th %ile Green (s)     | 6.5  | 99.6  | 90.1  |     | 8.4  | 6.5  |
| 10th %ile Term Code     | Gap  | Coord | Coord |     | Gap  | Gap  |
| Queue Length 50th (ft)  | 118  | 67    | 164   |     | 91   | 89   |
| Queue Length 95th (ft)  | 211  | 157   | #893  |     | 149  | 130  |
| Internal Link Dist (ft) |      | 710   | 762   |     | 289  |      |
| Turn Bay Length (ft)    | 250  |       |       |     |      |      |
| Base Capacity (vph)     | 367  | 2937  | 2275  |     | 265  | 543  |
| Starvation Cap Reductn  | 0    | 0     | 17    |     | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0     | 0     |     | 0    | 0    |
| Storage Cap Reductn     | 0    | 0     | 0     |     | 0    | 0    |
| Reduced v/c Ratio       | 0.55 | 0.39  | 0.83  |     | 0.46 | 0.29 |

#### Intersection Summary

Area Type: Other  
Cycle Length: 120  
Actuated Cycle Length: 120  
Offset: 100 (83%), Referenced to phase 4:EBTL and 8:WBT, Start of Green  
Natural Cycle: 90  
Control Type: Actuated-Coordinated  
Maximum v/c Ratio: 0.82  
Intersection Signal Delay: 14.1  
Intersection LOS: B  
Intersection Capacity Utilization 80.2%  
ICU Level of Service D  
Analysis Period (min) 15  
# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

#### Splits and Phases: 3: Euclid Ave & Driveway



2022 Future with Project  
4: Rohlwing Rd & Euclid Ave

Timing Plan: PM

8/12/2015

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |  |  |  |                                                                                     |  |  |  |
| Volume (vph)               | 107                                                                               | 1064                                                                              | 181                                                                               | 95                                                                                | 1594                                                                              | 91                                                                                | 158                                                                                 | 148                                                                                 | 86                                                                                  | 116                                                                                 | 143                                                                                 | 214                                                                                 |
| Ideal Flow (vphpl)         | 1900                                                                              | 2000                                                                              | 1900                                                                              | 1900                                                                              | 2000                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 2000                                                                                | 1900                                                                                |
| Storage Length (ft)        | 200                                                                               |                                                                                   | 225                                                                               | 100                                                                               |                                                                                   | 200                                                                               | 145                                                                                 |                                                                                     | 0                                                                                   | 130                                                                                 |                                                                                     | 130                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                   |                                                                                     | 0                                                                                   | 1                                                                                   |                                                                                     | 1                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                  |                                                                                     |                                                                                     | 25                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                     | 0.945                                                                               |                                                                                     |                                                                                     |                                                                                     | 0.850                                                                               |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3725                                                                              | 1583                                                                              | 1770                                                                              | 3725                                                                              | 1583                                                                              | 1770                                                                                | 1760                                                                                | 0                                                                                   | 1770                                                                                | 1961                                                                                | 1583                                                                                |
| Flt Permitted              | 0.067                                                                             |                                                                                   |                                                                                   | 0.154                                                                             |                                                                                   |                                                                                   | 0.661                                                                               |                                                                                     |                                                                                     | 0.315                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 125                                                                               | 3725                                                                              | 1583                                                                              | 287                                                                               | 3725                                                                              | 1583                                                                              | 1231                                                                                | 1760                                                                                | 0                                                                                   | 587                                                                                 | 1961                                                                                | 1583                                                                                |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 141                                                                               |                                                                                   |                                                                                   | 109                                                                               |                                                                                     | 26                                                                                  |                                                                                     |                                                                                     |                                                                                     | 225                                                                                 |
| Link Speed (mph)           |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 40                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 735                                                                               |                                                                                   |                                                                                   | 790                                                                               |                                                                                   |                                                                                     | 441                                                                                 |                                                                                     |                                                                                     | 644                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 12.5                                                                              |                                                                                   |                                                                                   | 13.5                                                                              |                                                                                   |                                                                                     | 10.0                                                                                |                                                                                     |                                                                                     | 11.0                                                                                |                                                                                     |
| Peak Hour Factor           | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Adj. Flow (vph)            | 113                                                                               | 1120                                                                              | 191                                                                               | 100                                                                               | 1678                                                                              | 96                                                                                | 166                                                                                 | 156                                                                                 | 91                                                                                  | 122                                                                                 | 151                                                                                 | 225                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 113                                                                               | 1120                                                                              | 191                                                                               | 100                                                                               | 1678                                                                              | 96                                                                                | 166                                                                                 | 247                                                                                 | 0                                                                                   | 122                                                                                 | 151                                                                                 | 225                                                                                 |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 16                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 16                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 0.94                                                                              | 1.00                                                                              | 1.00                                                                              | 0.94                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 0.94                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  | Perm                                                                                |
| Protected Phases           | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases           | 4                                                                                 |                                                                                   | 4                                                                                 | 8                                                                                 |                                                                                   | 8                                                                                 | 2                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     | 6                                                                                   |
| Detector Phase             | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   | 6                                                                                   |
| Switch Phase               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)        | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                                 | 5.0                                                                                 |                                                                                     | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 |
| Minimum Split (s)          | 9.5                                                                               | 24.0                                                                              | 24.0                                                                              | 9.5                                                                               | 35.0                                                                              | 35.0                                                                              | 9.5                                                                                 | 24.0                                                                                |                                                                                     | 9.5                                                                                 | 51.0                                                                                | 51.0                                                                                |
| Total Split (s)            | 16.0                                                                              | 43.0                                                                              | 43.0                                                                              | 16.0                                                                              | 43.0                                                                              | 43.0                                                                              | 10.0                                                                                | 45.0                                                                                |                                                                                     | 16.0                                                                                | 51.0                                                                                | 51.0                                                                                |
| Total Split (%)            | 13.3%                                                                             | 35.8%                                                                             | 35.8%                                                                             | 13.3%                                                                             | 35.8%                                                                             | 35.8%                                                                             | 8.3%                                                                                | 37.5%                                                                               |                                                                                     | 13.3%                                                                               | 42.5%                                                                               | 42.5%                                                                               |
| Maximum Green (s)          | 13.0                                                                              | 37.0                                                                              | 37.0                                                                              | 13.0                                                                              | 37.0                                                                              | 37.0                                                                              | 7.0                                                                                 | 39.0                                                                                |                                                                                     | 13.0                                                                                | 45.0                                                                                | 45.0                                                                                |
| Yellow Time (s)            | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                                 | 4.0                                                                                 |                                                                                     | 3.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| All-Red Time (s)           | 0.0                                                                               | 2.0                                                                               | 2.0                                                                               | 0.0                                                                               | 2.0                                                                               | 2.0                                                                               | 0.0                                                                                 | 2.0                                                                                 |                                                                                     | 0.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 |
| Lost Time Adjust (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)        | 3.0                                                                               | 6.0                                                                               | 6.0                                                                               | 3.0                                                                               | 6.0                                                                               | 6.0                                                                               | 3.0                                                                                 | 6.0                                                                                 |                                                                                     | 3.0                                                                                 | 6.0                                                                                 | 6.0                                                                                 |
| Lead/Lag                   | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?         | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Vehicle Extension (s)      | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                                 | 3.0                                                                                 |                                                                                     | 3.0                                                                                 | 3.0                                                                                 | 3.0                                                                                 |
| Recall Mode                | None                                                                              | C-Max                                                                             | C-Max                                                                             | None                                                                              | C-Max                                                                             | C-Max                                                                             | None                                                                                | Min                                                                                 |                                                                                     | None                                                                                | Min                                                                                 | Min                                                                                 |
| Walk Time (s)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 7.0                                                                               | 7.0                                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 7.0                                                                                 | 7.0                                                                                 |
| Flash Dont Walk (s)        |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 22.0                                                                              | 22.0                                                                              |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 38.0                                                                                | 38.0                                                                                |

2022 Future with Project  
4: Rohlwing Rd & Euclid Ave

Timing Plan: PM  
8/12/2015

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Pedestrian Calls (#/hr) |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 2                                                                                 | 2                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     | 2                                                                                   | 2                                                                                   |
| Act Effct Green (s)     | 71.3                                                                              | 59.3                                                                              | 59.3                                                                              | 70.5                                                                              | 58.9                                                                              | 58.9                                                                              | 32.9                                                                               | 22.9                                                                                |                                                                                     | 39.7                                                                                | 27.1                                                                                | 27.1                                                                                |
| Actuated g/C Ratio      | 0.59                                                                              | 0.49                                                                              | 0.49                                                                              | 0.59                                                                              | 0.49                                                                              | 0.49                                                                              | 0.27                                                                               | 0.19                                                                                |                                                                                     | 0.33                                                                                | 0.23                                                                                | 0.23                                                                                |
| v/c Ratio               | 0.57                                                                              | 0.61                                                                              | 0.22                                                                              | 0.36                                                                              | 0.92                                                                              | 0.12                                                                              | 0.45                                                                               | 0.69                                                                                |                                                                                     | 0.40                                                                                | 0.34                                                                                | 0.42                                                                                |
| Control Delay           | 30.1                                                                              | 26.4                                                                              | 8.1                                                                               | 14.4                                                                              | 27.4                                                                              | 3.2                                                                               | 33.0                                                                               | 49.4                                                                                |                                                                                     | 30.1                                                                                | 38.6                                                                                | 6.2                                                                                 |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Delay             | 30.1                                                                              | 26.4                                                                              | 8.1                                                                               | 14.4                                                                              | 27.4                                                                              | 3.2                                                                               | 33.0                                                                               | 49.4                                                                                |                                                                                     | 30.1                                                                                | 38.6                                                                                | 6.2                                                                                 |
| LOS                     | C                                                                                 | C                                                                                 | A                                                                                 | B                                                                                 | C                                                                                 | A                                                                                 | C                                                                                  | D                                                                                   |                                                                                     | C                                                                                   | D                                                                                   | A                                                                                   |
| Approach Delay          |                                                                                   | 24.3                                                                              |                                                                                   |                                                                                   | 25.4                                                                              |                                                                                   |                                                                                    | 42.8                                                                                |                                                                                     |                                                                                     | 21.8                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                    | D                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| 90th %ile Green (s)     | 13.0                                                                              | 37.7                                                                              | 37.7                                                                              | 12.3                                                                              | 37.0                                                                              | 37.0                                                                              | 7.0                                                                                | 39.0                                                                                |                                                                                     | 13.0                                                                                | 45.0                                                                                | 45.0                                                                                |
| 90th %ile Term Code     | Max                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Max                                                                                 | Ped                                                                                 | Ped                                                                                 |
| 70th %ile Green (s)     | 9.8                                                                               | 55.6                                                                              | 55.6                                                                              | 9.5                                                                               | 55.3                                                                              | 55.3                                                                              | 7.0                                                                                | 23.9                                                                                |                                                                                     | 13.0                                                                                | 29.9                                                                                | 29.9                                                                                |
| 70th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Gap                                                                                 |                                                                                     | Max                                                                                 | Hold                                                                                | Hold                                                                                |
| 50th %ile Green (s)     | 8.5                                                                               | 61.3                                                                              | 61.3                                                                              | 8.1                                                                               | 60.9                                                                              | 60.9                                                                              | 7.0                                                                                | 20.8                                                                                |                                                                                     | 11.8                                                                                | 25.6                                                                                | 25.6                                                                                |
| 50th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Gap                                                                                 |                                                                                     | Gap                                                                                 | Hold                                                                                | Hold                                                                                |
| 30th %ile Green (s)     | 7.4                                                                               | 67.0                                                                              | 67.0                                                                              | 7.1                                                                               | 66.7                                                                              | 66.7                                                                              | 7.0                                                                                | 17.6                                                                                |                                                                                     | 10.3                                                                                | 20.9                                                                                | 20.9                                                                                |
| 30th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Gap                                                                                 |                                                                                     | Gap                                                                                 | Hold                                                                                | Hold                                                                                |
| 10th %ile Green (s)     | 6.2                                                                               | 75.0                                                                              | 75.0                                                                              | 6.0                                                                               | 74.8                                                                              | 74.8                                                                              | 7.0                                                                                | 13.1                                                                                |                                                                                     | 7.9                                                                                 | 14.0                                                                                | 14.0                                                                                |
| 10th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Gap                                                                                 |                                                                                     | Gap                                                                                 | Hold                                                                                | Hold                                                                                |
| Queue Length 50th (ft)  | 32                                                                                | 308                                                                               | 19                                                                                | 17                                                                                | 239                                                                               | 0                                                                                 | 96                                                                                 | 165                                                                                 |                                                                                     | 69                                                                                  | 100                                                                                 | 0                                                                                   |
| Queue Length 95th (ft)  | 108                                                                               | #589                                                                              | 85                                                                                | m37                                                                               | #1068                                                                             | m11                                                                               | 115                                                                                | 209                                                                                 |                                                                                     | 88                                                                                  | 129                                                                                 | 51                                                                                  |
| Internal Link Dist (ft) |                                                                                   | 655                                                                               |                                                                                   |                                                                                   | 710                                                                               |                                                                                   |                                                                                    | 361                                                                                 |                                                                                     |                                                                                     | 564                                                                                 |                                                                                     |
| Turn Bay Length (ft)    | 200                                                                               |                                                                                   | 225                                                                               | 100                                                                               |                                                                                   | 200                                                                               | 145                                                                                |                                                                                     |                                                                                     | 130                                                                                 |                                                                                     | 130                                                                                 |
| Base Capacity (vph)     | 254                                                                               | 1841                                                                              | 854                                                                               | 335                                                                               | 1829                                                                              | 833                                                                               | 368                                                                                | 589                                                                                 |                                                                                     | 324                                                                                 | 735                                                                                 | 734                                                                                 |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Reduced v/c Ratio       | 0.44                                                                              | 0.61                                                                              | 0.22                                                                              | 0.30                                                                              | 0.92                                                                              | 0.12                                                                              | 0.45                                                                               | 0.42                                                                                |                                                                                     | 0.38                                                                                | 0.21                                                                                | 0.31                                                                                |

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green, Master Intersection

Natural Cycle: 135

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 26.3

Intersection LOS: C

Intersection Capacity Utilization 83.9%

ICU Level of Service E

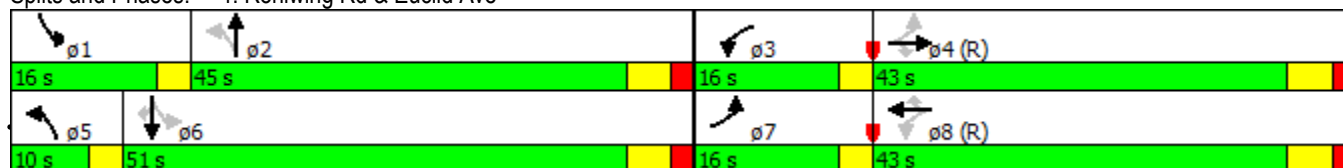
Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Rohlwing Rd & Euclid Ave

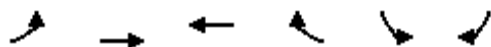




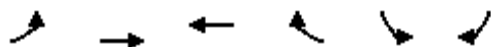
| Intersection             |        |        |       |        |      |      |
|--------------------------|--------|--------|-------|--------|------|------|
| Int Delay, s/veh         | 3.5    |        |       |        |      |      |
| Movement                 | EBL    | EBR    | NBL   | NBT    | SBT  | SBR  |
| Vol, veh/h               | 0      | 71     | 110   | 59     | 207  | 0    |
| Conflicting Peds, #/hr   | 0      | 0      | 0     | 0      | 0    | 0    |
| Sign Control             | Stop   | Stop   | Free  | Free   | Free | Free |
| RT Channelized           | -      | None   | -     | None   | -    | None |
| Storage Length           | 0      | -      | -     | -      | -    | -    |
| Veh in Median Storage, # | 0      | -      | -     | 0      | 0    | -    |
| Grade, %                 | 0      | -      | -     | 0      | 0    | -    |
| Peak Hour Factor         | 95     | 95     | 95    | 95     | 95   | 95   |
| Heavy Vehicles, %        | 2      | 2      | 2     | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 75     | 116   | 62     | 218  | 0    |
| Major/Minor              | Minor2 | Major1 |       | Major2 |      |      |
| Conflicting Flow All     | 512    | 218    | 218   | 0      | -    | 0    |
| Stage 1                  | 218    | -      | -     | -      | -    | -    |
| Stage 2                  | 294    | -      | -     | -      | -    | -    |
| Critical Hdwy            | 6.42   | 6.22   | 4.12  | -      | -    | -    |
| Critical Hdwy Stg 1      | 5.42   | -      | -     | -      | -    | -    |
| Critical Hdwy Stg 2      | 5.42   | -      | -     | -      | -    | -    |
| Follow-up Hdwy           | 3.518  | 3.318  | 2.218 | -      | -    | -    |
| Pot Cap-1 Maneuver       | 522    | 822    | 1352  | -      | -    | -    |
| Stage 1                  | 818    | -      | -     | -      | -    | -    |
| Stage 2                  | 756    | -      | -     | -      | -    | -    |
| Platoon blocked, %       |        |        |       | -      | -    | -    |
| Mov Cap-1 Maneuver       | 476    | 822    | 1352  | -      | -    | -    |
| Mov Cap-2 Maneuver       | 476    | -      | -     | -      | -    | -    |
| Stage 1                  | 818    | -      | -     | -      | -    | -    |
| Stage 2                  | 689    | -      | -     | -      | -    | -    |
| Approach                 | EB     | NB     |       | SB     |      |      |
| HCM Control Delay, s     | 9.8    | 5.1    |       | 0      |      |      |
| HCM LOS                  | A      |        |       |        |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT    | EBLn1 | SBT    | SBR  |      |
| Capacity (veh/h)         | 1352   | -      | 822   | -      | -    |      |
| HCM Lane V/C Ratio       | 0.086  | -      | 0.091 | -      | -    |      |
| HCM Control Delay (s)    | 7.9    | 0      | 9.8   | -      | -    |      |
| HCM Lane LOS             | A      | A      | A     | -      | -    |      |
| HCM 95th %tile Q(veh)    | 0.3    | -      | 0.3   | -      | -    |      |

| Intersection             |        |       |        |       |        |           |
|--------------------------|--------|-------|--------|-------|--------|-----------|
| Int Delay, s/veh         | 1.7    |       |        |       |        |           |
|                          |        |       |        |       |        |           |
| Movement                 | WBL    | WBR   |        | NBT   | NBR    | SBL SBT   |
| Vol, veh/h               | 36     | 36    |        | 256   | 82     | 55 380    |
| Conflicting Peds, #/hr   | 0      | 0     |        | 0     | 0      | 0 0       |
| Sign Control             | Stop   | Stop  |        | Free  | Free   | Free Free |
| RT Channelized           | -      | None  |        | -     | None   | - None    |
| Storage Length           | 0      | 0     |        | -     | -      | 200 -     |
| Veh in Median Storage, # | 0      | -     |        | 0     | -      | - 0       |
| Grade, %                 | 0      | -     |        | 0     | -      | - 0       |
| Peak Hour Factor         | 95     | 95    |        | 95    | 95     | 95 95     |
| Heavy Vehicles, %        | 2      | 2     |        | 2     | 2      | 2 2       |
| Mvmt Flow                | 38     | 38    |        | 269   | 86     | 58 400    |
|                          |        |       |        |       |        |           |
| Major/Minor              | Minor1 |       | Major1 |       | Major2 |           |
| Conflicting Flow All     | 829    | 313   |        | 0     | 0      | 356 0     |
| Stage 1                  | 313    | -     |        | -     | -      | - -       |
| Stage 2                  | 516    | -     |        | -     | -      | - -       |
| Critical Hdwy            | 6.42   | 6.22  |        | -     | -      | 4.12 -    |
| Critical Hdwy Stg 1      | 5.42   | -     |        | -     | -      | - -       |
| Critical Hdwy Stg 2      | 5.42   | -     |        | -     | -      | - -       |
| Follow-up Hdwy           | 3.518  | 3.318 |        | -     | -      | 2.218 -   |
| Pot Cap-1 Maneuver       | 340    | 727   |        | -     | -      | 1203 -    |
| Stage 1                  | 741    | -     |        | -     | -      | - -       |
| Stage 2                  | 599    | -     |        | -     | -      | - -       |
| Platoon blocked, %       |        |       |        | -     | -      | -         |
| Mov Cap-1 Maneuver       | 324    | 727   |        | -     | -      | 1203 -    |
| Mov Cap-2 Maneuver       | 324    | -     |        | -     | -      | - -       |
| Stage 1                  | 741    | -     |        | -     | -      | - -       |
| Stage 2                  | 570    | -     |        | -     | -      | - -       |
|                          |        |       |        |       |        |           |
| Approach                 | WB     |       | NB     |       | SB     |           |
| HCM Control Delay, s     | 13.9   |       | 0      |       | 1      |           |
| HCM LOS                  | B      |       |        |       |        |           |
|                          |        |       |        |       |        |           |
| Minor Lane/Major Mvmt    | NBT    | NBR   | WBLn1  | WBLn2 | SBL    | SBT       |
| Capacity (veh/h)         | -      | -     | 324    | 727   | 1203   | -         |
| HCM Lane V/C Ratio       | -      | -     | 0.117  | 0.052 | 0.048  | -         |
| HCM Control Delay (s)    | -      | -     | 17.6   | 10.2  | 8.1    | -         |
| HCM Lane LOS             | -      | -     | C      | B     | A      | -         |
| HCM 95th %tile Q(veh)    | -      | -     | 0.4    | 0.2   | 0.2    | -         |

| Intersection             |        |       |       |        |       |       |        |      |      |        |      |      |
|--------------------------|--------|-------|-------|--------|-------|-------|--------|------|------|--------|------|------|
| Int Delay, s/veh         | 2.4    |       |       |        |       |       |        |      |      |        |      |      |
| Movement                 | EBL    | EBT   | EBR   | WBL    | WBT   | WBR   | NBL    | NBT  | NBR  | SBL    | SBT  | SBR  |
| Vol, veh/h               | 0      | 0     | 1     | 56     | 0     | 73    | 0      | 281  | 11   | 18     | 346  | 0    |
| Conflicting Peds, #/hr   | 0      | 0     | 0     | 0      | 0     | 0     | 0      | 0    | 0    | 0      | 0    | 0    |
| Sign Control             | Stop   | Stop  | Stop  | Stop   | Stop  | Stop  | Free   | Free | Free | Free   | Free | Free |
| RT Channelized           | -      | -     | None  | -      | -     | None  | -      | -    | None | -      | -    | None |
| Storage Length           | -      | -     | -     | 175    | -     | -     | -      | -    | -    | 0      | -    | -    |
| Veh in Median Storage, # | -      | 0     | -     | -      | 0     | -     | -      | 0    | -    | -      | 0    | -    |
| Grade, %                 | -      | 0     | -     | -      | 0     | -     | -      | 0    | -    | -      | 0    | -    |
| Peak Hour Factor         | 95     | 95    | 95    | 95     | 95    | 95    | 95     | 95   | 95   | 95     | 95   | 95   |
| Heavy Vehicles, %        | 2      | 2     | 2     | 2      | 2     | 2     | 2      | 2    | 2    | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 0     | 1     | 59     | 0     | 77    | 0      | 296  | 12   | 19     | 364  | 0    |
| Major/Minor              | Minor2 |       |       | Minor1 |       |       | Major1 |      |      | Major2 |      |      |
| Conflicting Flow All     | 742    | 709   | 364   | 705    | 704   | 302   | 364    | 0    | 0    | 307    | 0    | 0    |
| Stage 1                  | 402    | 402   | -     | 302    | 302   | -     | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 340    | 307   | -     | 403    | 402   | -     | -      | -    | -    | -      | -    | -    |
| Critical Hdwy            | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  | 4.12   | -    | -    | 4.12   | -    | -    |
| Critical Hdwy Stg 1      | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     | -      | -    | -    | -      | -    | -    |
| Critical Hdwy Stg 2      | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     | -      | -    | -    | -      | -    | -    |
| Follow-up Hdwy           | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 | 2.218  | -    | -    | 2.218  | -    | -    |
| Pot Cap-1 Maneuver       | 332    | 359   | 681   | 351    | 361   | 738   | 1195   | -    | -    | 1254   | -    | -    |
| Stage 1                  | 625    | 600   | -     | 707    | 664   | -     | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 675    | 661   | -     | 624    | 600   | -     | -      | -    | -    | -      | -    | -    |
| Platoon blocked, %       |        |       |       |        |       |       |        | -    | -    |        | -    | -    |
| Mov Cap-1 Maneuver       | 294    | 354   | 681   | 346    | 356   | 738   | 1195   | -    | -    | 1254   | -    | -    |
| Mov Cap-2 Maneuver       | 294    | 354   | -     | 346    | 356   | -     | -      | -    | -    | -      | -    | -    |
| Stage 1                  | 625    | 591   | -     | 707    | 664   | -     | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 605    | 661   | -     | 614    | 591   | -     | -      | -    | -    | -      | -    | -    |
| Approach                 | EB     |       |       | WB     |       |       | NB     |      |      | SB     |      |      |
| HCM Control Delay, s     | 10.3   |       |       | 13.5   |       |       | 0      |      |      | 0.4    |      |      |
| HCM LOS                  | B      |       |       | B      |       |       |        |      |      |        |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT   | NBR   | EBLn1  | WBLn1 | WBLn2 | SBL    | SBT  | SBR  |        |      |      |
| Capacity (veh/h)         | 1195   | -     | -     | 681    | 346   | 738   | 1254   | -    | -    |        |      |      |
| HCM Lane V/C Ratio       | -      | -     | -     | 0.002  | 0.17  | 0.104 | 0.015  | -    | -    |        |      |      |
| HCM Control Delay (s)    | 0      | -     | -     | 10.3   | 17.5  | 10.4  | 7.9    | -    | -    |        |      |      |
| HCM Lane LOS             | A      | -     | -     | B      | C     | B     | A      | -    | -    |        |      |      |
| HCM 95th %tile Q(veh)    | 0      | -     | -     | 0      | 0.6   | 0.3   | 0      | -    | -    |        |      |      |



| Lane Group                 | EBL   | EBT   | WBT   | WBR   | SBL   | SBR   |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations        |       |       |       |       |       |       |
| Volume (vph)               | 110   | 1509  | 849   | 83    | 127   | 99    |
| Ideal Flow (vphpl)         | 1900  | 2000  | 1900  | 1900  | 1900  | 1900  |
| Storage Length (ft)        | 150   |       |       | 0     | 200   | 0     |
| Storage Lanes              | 1     |       |       | 0     | 1     | 1     |
| Taper Length (ft)          | 25    |       |       |       | 25    |       |
| Lane Util. Factor          | 1.00  | 0.95  | 0.95  | 0.95  | 1.00  | 1.00  |
| Frt                        |       |       | 0.987 |       |       | 0.850 |
| Flt Protected              | 0.950 |       |       |       | 0.950 |       |
| Satd. Flow (prot)          | 1770  | 3725  | 3493  | 0     | 1770  | 1583  |
| Flt Permitted              | 0.244 |       |       |       | 0.950 |       |
| Satd. Flow (perm)          | 455   | 3725  | 3493  | 0     | 1770  | 1583  |
| Right Turn on Red          |       |       |       | Yes   |       | Yes   |
| Satd. Flow (RTOR)          |       |       | 15    |       |       | 104   |
| Link Speed (mph)           |       | 40    | 40    |       | 30    |       |
| Link Distance (ft)         |       | 842   | 459   |       | 580   |       |
| Travel Time (s)            |       | 14.4  | 7.8   |       | 13.2  |       |
| Peak Hour Factor           | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| Adj. Flow (vph)            | 116   | 1588  | 894   | 87    | 134   | 104   |
| Shared Lane Traffic (%)    |       |       |       |       |       |       |
| Lane Group Flow (vph)      | 116   | 1588  | 981   | 0     | 134   | 104   |
| Enter Blocked Intersection | No    | No    | No    | No    | No    | No    |
| Lane Alignment             | Left  | Left  | Left  | Right | Left  | Right |
| Median Width(ft)           |       | 12    | 12    |       | 12    |       |
| Link Offset(ft)            |       | 0     | 0     |       | 0     |       |
| Crosswalk Width(ft)        |       | 16    | 16    |       | 16    |       |
| Two way Left Turn Lane     |       |       |       |       | Yes   |       |
| Headway Factor             | 1.00  | 0.94  | 1.00  | 1.00  | 1.00  | 1.00  |
| Turning Speed (mph)        | 15    |       |       | 9     | 15    | 9     |
| Turn Type                  | pm+pt | NA    | NA    |       | Prot  | pt+ov |
| Protected Phases           | 7     | 4     | 8     |       | 6     | 6 7   |
| Permitted Phases           | 4     |       |       |       |       |       |
| Detector Phase             | 7     | 4     | 8     |       | 6     | 6 7   |
| Switch Phase               |       |       |       |       |       |       |
| Minimum Initial (s)        | 5.0   | 5.0   | 5.0   |       | 5.0   |       |
| Minimum Split (s)          | 9.5   | 24.0  | 35.0  |       | 24.0  |       |
| Total Split (s)            | 14.0  | 72.0  | 58.0  |       | 28.0  |       |
| Total Split (%)            | 14.0% | 72.0% | 58.0% |       | 28.0% |       |
| Maximum Green (s)          | 11.0  | 66.0  | 52.0  |       | 22.0  |       |
| Yellow Time (s)            | 3.0   | 4.0   | 4.0   |       | 4.0   |       |
| All-Red Time (s)           | 0.0   | 2.0   | 2.0   |       | 2.0   |       |
| Lost Time Adjust (s)       | 0.0   | 0.0   | 0.0   |       | 0.0   |       |
| Total Lost Time (s)        | 3.0   | 6.0   | 6.0   |       | 6.0   |       |
| Lead/Lag                   | Lead  |       | Lag   |       |       |       |
| Lead-Lag Optimize?         | Yes   |       | Yes   |       |       |       |
| Vehicle Extension (s)      | 3.0   | 3.0   | 3.0   |       | 3.0   |       |
| Recall Mode                | None  | C-Max | C-Max |       | Min   |       |
| Walk Time (s)              |       |       | 7.0   |       |       |       |
| Flash Dont Walk (s)        |       |       | 22.0  |       |       |       |

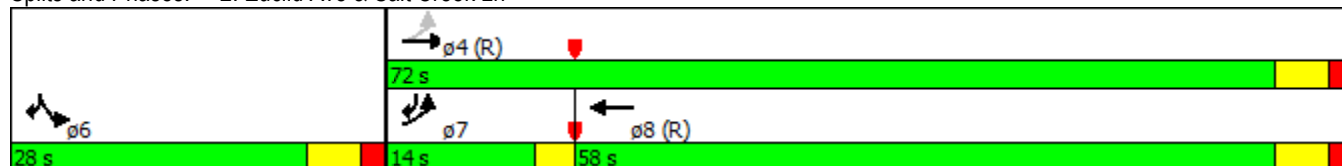


| Lane Group              | EBL  | EBT   | WBT   | WBR | SBL  | SBR  |
|-------------------------|------|-------|-------|-----|------|------|
| Pedestrian Calls (#/hr) |      |       | 2     |     |      |      |
| Act Effct Green (s)     | 78.1 | 75.1  | 65.0  |     | 12.9 | 23.0 |
| Actuated g/C Ratio      | 0.78 | 0.75  | 0.65  |     | 0.13 | 0.23 |
| v/c Ratio               | 0.26 | 0.57  | 0.43  |     | 0.59 | 0.23 |
| Control Delay           | 4.5  | 6.8   | 9.7   |     | 51.0 | 6.9  |
| Queue Delay             | 0.0  | 0.0   | 0.0   |     | 0.0  | 0.0  |
| Total Delay             | 4.5  | 6.8   | 9.7   |     | 51.0 | 6.9  |
| LOS                     | A    | A     | A     |     | D    | A    |
| Approach Delay          |      | 6.6   | 9.7   |     | 31.7 |      |
| Approach LOS            |      | A     | A     |     | C    |      |
| 90th %ile Green (s)     | 8.8  | 70.2  | 58.4  |     | 17.8 |      |
| 90th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 70th %ile Green (s)     | 7.7  | 73.1  | 62.4  |     | 14.9 |      |
| 70th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 50th %ile Green (s)     | 7.0  | 75.1  | 65.1  |     | 12.9 |      |
| 50th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 30th %ile Green (s)     | 6.4  | 77.1  | 67.7  |     | 10.9 |      |
| 30th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 10th %ile Green (s)     | 5.8  | 80.1  | 71.3  |     | 7.9  |      |
| 10th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| Queue Length 50th (ft)  | 14   | 192   | 141   |     | 82   | 0    |
| Queue Length 95th (ft)  | 33   | 297   | 223   |     | 135  | 38   |
| Internal Link Dist (ft) |      | 762   | 379   |     | 500  |      |
| Turn Bay Length (ft)    | 150  |       |       |     | 200  |      |
| Base Capacity (vph)     | 500  | 2797  | 2275  |     | 389  | 496  |
| Starvation Cap Reductn  | 0    | 0     | 0     |     | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0     | 0     |     | 0    | 0    |
| Storage Cap Reductn     | 0    | 0     | 0     |     | 0    | 0    |
| Reduced v/c Ratio       | 0.23 | 0.57  | 0.43  |     | 0.34 | 0.21 |

#### Intersection Summary

Area Type: Other  
Cycle Length: 100  
Actuated Cycle Length: 100  
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green  
Natural Cycle: 70  
Control Type: Actuated-Coordinated  
Maximum v/c Ratio: 0.59  
Intersection Signal Delay: 9.7  
Intersection LOS: A  
Intersection Capacity Utilization 56.7%  
ICU Level of Service B  
Analysis Period (min) 15

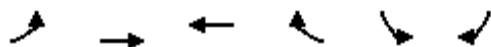
Splits and Phases: 2: Euclid Ave & Salt Creek Ln







| Lane Group                 | EBL   | EBT   | WBT   | WBR   | SBL   | SBR   |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations        | ←     | ↑↑    | ↑↑    |       | ←     | →     |
| Volume (vph)               | 155   | 1507  | 825   | 130   | 123   | 170   |
| Ideal Flow (vphpl)         | 1900  | 2000  | 1900  | 1900  | 1900  | 1900  |
| Storage Length (ft)        | 250   |       |       | 0     | 0     | 0     |
| Storage Lanes              | 1     |       |       | 0     | 1     | 1     |
| Taper Length (ft)          | 25    |       |       |       | 25    |       |
| Lane Util. Factor          | 1.00  | 0.95  | 0.95  | 0.95  | 1.00  | 1.00  |
| Frt                        |       |       | 0.980 |       |       | 0.850 |
| Flt Protected              | 0.950 |       |       |       | 0.950 |       |
| Satd. Flow (prot)          | 1770  | 3725  | 3468  | 0     | 1770  | 1583  |
| Flt Permitted              | 0.244 |       |       |       | 0.950 |       |
| Satd. Flow (perm)          | 455   | 3725  | 3468  | 0     | 1770  | 1583  |
| Right Turn on Red          |       |       |       | Yes   |       | Yes   |
| Satd. Flow (RTOR)          |       |       | 22    |       |       | 127   |
| Link Speed (mph)           |       | 30    | 40    |       | 40    |       |
| Link Distance (ft)         |       | 790   | 842   |       | 369   |       |
| Travel Time (s)            |       | 18.0  | 14.4  |       | 6.3   |       |
| Peak Hour Factor           | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| Adj. Flow (vph)            | 163   | 1586  | 868   | 137   | 129   | 179   |
| Shared Lane Traffic (%)    |       |       |       |       |       |       |
| Lane Group Flow (vph)      | 163   | 1586  | 1005  | 0     | 129   | 179   |
| Enter Blocked Intersection | No    | No    | No    | No    | No    | No    |
| Lane Alignment             | Left  | Left  | Left  | Right | Left  | Right |
| Median Width(ft)           |       | 12    | 12    |       | 12    |       |
| Link Offset(ft)            |       | 0     | 0     |       | 0     |       |
| Crosswalk Width(ft)        |       | 16    | 16    |       | 16    |       |
| Two way Left Turn Lane     |       |       |       |       |       |       |
| Headway Factor             | 1.00  | 0.94  | 1.00  | 1.00  | 1.00  | 1.00  |
| Turning Speed (mph)        | 15    |       |       | 9     | 15    | 9     |
| Turn Type                  | pm+pt | NA    | NA    |       | Prot  | pm+ov |
| Protected Phases           | 7     | 4     | 8     |       | 6     | 7     |
| Permitted Phases           | 4     |       |       |       |       | 6     |
| Detector Phase             | 7     | 4     | 8     |       | 6     | 7     |
| Switch Phase               |       |       |       |       |       |       |
| Minimum Initial (s)        | 5.0   | 5.0   | 5.0   |       | 5.0   | 5.0   |
| Minimum Split (s)          | 9.5   | 24.0  | 35.0  |       | 24.0  | 9.5   |
| Total Split (s)            | 20.0  | 90.0  | 70.0  |       | 30.0  | 20.0  |
| Total Split (%)            | 16.7% | 75.0% | 58.3% |       | 25.0% | 16.7% |
| Maximum Green (s)          | 17.0  | 84.0  | 64.0  |       | 24.0  | 17.0  |
| Yellow Time (s)            | 3.0   | 4.0   | 4.0   |       | 4.0   | 3.0   |
| All-Red Time (s)           | 0.0   | 2.0   | 2.0   |       | 2.0   | 0.0   |
| Lost Time Adjust (s)       | 0.0   | 0.0   | 0.0   |       | 0.0   | 0.0   |
| Total Lost Time (s)        | 3.0   | 6.0   | 6.0   |       | 6.0   | 3.0   |
| Lead/Lag                   | Lead  |       | Lag   |       |       | Lead  |
| Lead-Lag Optimize?         | Yes   |       | Yes   |       |       | Yes   |
| Vehicle Extension (s)      | 3.0   | 3.0   | 3.0   |       | 3.0   | 3.0   |
| Recall Mode                | None  | C-Max | C-Max |       | Min   | None  |
| Walk Time (s)              |       |       | 7.0   |       |       |       |
| Flash Dont Walk (s)        |       |       | 22.0  |       |       |       |

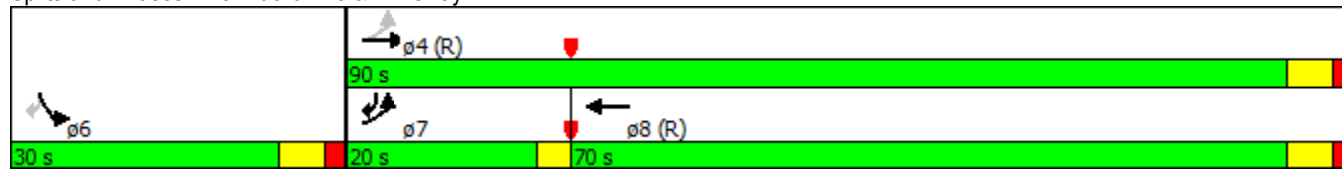


| Lane Group              | EBL  | EBT   | WBT   | WBR | SBL  | SBR  |
|-------------------------|------|-------|-------|-----|------|------|
| Pedestrian Calls (#/hr) |      |       | 2     |     |      |      |
| Act Effct Green (s)     | 97.0 | 94.0  | 83.0  |     | 14.0 | 28.0 |
| Actuated g/C Ratio      | 0.81 | 0.78  | 0.69  |     | 0.12 | 0.23 |
| v/c Ratio               | 0.36 | 0.54  | 0.42  |     | 0.63 | 0.38 |
| Control Delay           | 7.3  | 5.0   | 9.1   |     | 63.2 | 14.0 |
| Queue Delay             | 0.0  | 0.0   | 0.0   |     | 0.0  | 0.0  |
| Total Delay             | 7.3  | 5.1   | 9.1   |     | 63.2 | 14.0 |
| LOS                     | A    | A     | A     |     | E    | B    |
| Approach Delay          |      | 5.3   | 9.1   |     | 34.6 |      |
| Approach LOS            |      | A     | A     |     | C    |      |
| 90th %ile Green (s)     | 10.2 | 88.6  | 75.4  |     | 19.4 | 10.2 |
| 90th %ile Term Code     | Gap  | Coord | Coord |     | Gap  | Gap  |
| 70th %ile Green (s)     | 8.7  | 91.8  | 80.1  |     | 16.2 | 8.7  |
| 70th %ile Term Code     | Gap  | Coord | Coord |     | Gap  | Gap  |
| 50th %ile Green (s)     | 7.8  | 94.0  | 83.2  |     | 14.0 | 7.8  |
| 50th %ile Term Code     | Gap  | Coord | Coord |     | Gap  | Gap  |
| 30th %ile Green (s)     | 7.0  | 96.2  | 86.2  |     | 11.8 | 7.0  |
| 30th %ile Term Code     | Gap  | Coord | Coord |     | Gap  | Gap  |
| 10th %ile Green (s)     | 6.2  | 99.3  | 90.1  |     | 8.7  | 6.2  |
| 10th %ile Term Code     | Gap  | Coord | Coord |     | Gap  | Gap  |
| Queue Length 50th (ft)  | 6    | 35    | 155   |     | 97   | 32   |
| Queue Length 95th (ft)  | m42  | 208   | 241   |     | 155  | 87   |
| Internal Link Dist (ft) |      | 710   | 762   |     | 289  |      |
| Turn Bay Length (ft)    | 250  |       |       |     |      |      |
| Base Capacity (vph)     | 554  | 2917  | 2405  |     | 354  | 576  |
| Starvation Cap Reductn  | 0    | 109   | 0     |     | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0     | 0     |     | 0    | 0    |
| Storage Cap Reductn     | 0    | 0     | 0     |     | 0    | 0    |
| Reduced v/c Ratio       | 0.29 | 0.56  | 0.42  |     | 0.36 | 0.31 |

#### Intersection Summary

Area Type: Other  
Cycle Length: 120  
Actuated Cycle Length: 120  
Offset: 111 (93%), Referenced to phase 4:EBTL and 8:WBT, Start of Green  
Natural Cycle: 70  
Control Type: Actuated-Coordinated  
Maximum v/c Ratio: 0.63  
Intersection Signal Delay: 9.5  
Intersection LOS: A  
Intersection Capacity Utilization 56.4%  
ICU Level of Service B  
Analysis Period (min) 15  
m Volume for 95th percentile queue is metered by upstream signal.

#### Splits and Phases: 3: Euclid Ave & Driveway



2022 Future with Project  
4: Rohlwing Rd & Euclid Ave

Timing Plan: MD Sat  
8/11/2015

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |  |  |  |                                                                                     |  |  |  |
| Volume (vph)               | 156                                                                               | 1546                                                                              | 149                                                                               | 55                                                                                | 910                                                                               | 25                                                                                | 146                                                                                 | 97                                                                                  | 77                                                                                  | 46                                                                                  | 95                                                                                  | 91                                                                                  |
| Ideal Flow (vphpl)         | 1900                                                                              | 2000                                                                              | 1900                                                                              | 1900                                                                              | 2000                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 200                                                                               |                                                                                   | 225                                                                               | 100                                                                               |                                                                                   | 200                                                                               | 145                                                                                 |                                                                                     | 0                                                                                   | 130                                                                                 |                                                                                     | 130                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                   |                                                                                     | 0                                                                                   | 1                                                                                   |                                                                                     | 1                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                  |                                                                                     |                                                                                     | 25                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                     | 0.934                                                                               |                                                                                     |                                                                                     |                                                                                     | 0.850                                                                               |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3725                                                                              | 1583                                                                              | 1770                                                                              | 3725                                                                              | 1583                                                                              | 1770                                                                                | 1740                                                                                | 0                                                                                   | 1770                                                                                | 1863                                                                                | 1583                                                                                |
| Flt Permitted              | 0.218                                                                             |                                                                                   |                                                                                   | 0.065                                                                             |                                                                                   |                                                                                   | 0.648                                                                               |                                                                                     |                                                                                     | 0.526                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 406                                                                               | 3725                                                                              | 1583                                                                              | 121                                                                               | 3725                                                                              | 1583                                                                              | 1207                                                                                | 1740                                                                                | 0                                                                                   | 980                                                                                 | 1863                                                                                | 1583                                                                                |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 82                                                                                |                                                                                   |                                                                                   | 82                                                                                |                                                                                     | 38                                                                                  |                                                                                     |                                                                                     |                                                                                     | 96                                                                                  |
| Link Speed (mph)           |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 40                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 735                                                                               |                                                                                   |                                                                                   | 790                                                                               |                                                                                   |                                                                                     | 441                                                                                 |                                                                                     |                                                                                     | 644                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 12.5                                                                              |                                                                                   |                                                                                   | 13.5                                                                              |                                                                                   |                                                                                     | 10.0                                                                                |                                                                                     |                                                                                     | 11.0                                                                                |                                                                                     |
| Peak Hour Factor           | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Adj. Flow (vph)            | 164                                                                               | 1627                                                                              | 157                                                                               | 58                                                                                | 958                                                                               | 26                                                                                | 154                                                                                 | 102                                                                                 | 81                                                                                  | 48                                                                                  | 100                                                                                 | 96                                                                                  |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 164                                                                               | 1627                                                                              | 157                                                                               | 58                                                                                | 958                                                                               | 26                                                                                | 154                                                                                 | 183                                                                                 | 0                                                                                   | 48                                                                                  | 100                                                                                 | 96                                                                                  |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 16                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 16                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 0.94                                                                              | 1.00                                                                              | 1.00                                                                              | 0.94                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  | Perm                                                                                |
| Protected Phases           | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases           | 4                                                                                 |                                                                                   | 4                                                                                 | 8                                                                                 |                                                                                   | 8                                                                                 | 2                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     | 6                                                                                   |
| Detector Phase             | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   | 6                                                                                   |
| Switch Phase               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)        | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                                 | 5.0                                                                                 |                                                                                     | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 |
| Minimum Split (s)          | 9.5                                                                               | 24.0                                                                              | 24.0                                                                              | 9.5                                                                               | 35.0                                                                              | 35.0                                                                              | 9.5                                                                                 | 24.0                                                                                |                                                                                     | 9.5                                                                                 | 51.0                                                                                | 51.0                                                                                |
| Total Split (s)            | 16.0                                                                              | 43.0                                                                              | 43.0                                                                              | 16.0                                                                              | 43.0                                                                              | 43.0                                                                              | 10.0                                                                                | 51.0                                                                                |                                                                                     | 10.0                                                                                | 51.0                                                                                | 51.0                                                                                |
| Total Split (%)            | 13.3%                                                                             | 35.8%                                                                             | 35.8%                                                                             | 13.3%                                                                             | 35.8%                                                                             | 35.8%                                                                             | 8.3%                                                                                | 42.5%                                                                               |                                                                                     | 8.3%                                                                                | 42.5%                                                                               | 42.5%                                                                               |
| Maximum Green (s)          | 13.0                                                                              | 37.0                                                                              | 37.0                                                                              | 13.0                                                                              | 37.0                                                                              | 37.0                                                                              | 7.0                                                                                 | 45.0                                                                                |                                                                                     | 7.0                                                                                 | 45.0                                                                                | 45.0                                                                                |
| Yellow Time (s)            | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                                 | 4.0                                                                                 |                                                                                     | 3.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| All-Red Time (s)           | 0.0                                                                               | 2.0                                                                               | 2.0                                                                               | 0.0                                                                               | 2.0                                                                               | 2.0                                                                               | 0.0                                                                                 | 2.0                                                                                 |                                                                                     | 0.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 |
| Lost Time Adjust (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)        | 3.0                                                                               | 6.0                                                                               | 6.0                                                                               | 3.0                                                                               | 6.0                                                                               | 6.0                                                                               | 3.0                                                                                 | 6.0                                                                                 |                                                                                     | 3.0                                                                                 | 6.0                                                                                 | 6.0                                                                                 |
| Lead/Lag                   | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?         | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Vehicle Extension (s)      | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                                 | 3.0                                                                                 |                                                                                     | 3.0                                                                                 | 3.0                                                                                 | 3.0                                                                                 |
| Recall Mode                | None                                                                              | C-Max                                                                             | C-Max                                                                             | None                                                                              | C-Max                                                                             | C-Max                                                                             | None                                                                                | Min                                                                                 |                                                                                     | None                                                                                | Min                                                                                 | Min                                                                                 |
| Walk Time (s)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 7.0                                                                               | 7.0                                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 7.0                                                                                 | 7.0                                                                                 |
| Flash Dont Walk (s)        |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 22.0                                                                              | 22.0                                                                              |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 38.0                                                                                | 38.0                                                                                |

2022 Future with Project  
4: Rohlwing Rd & Euclid Ave

Timing Plan: MD Sat  
8/11/2015

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Pedestrian Calls (#/hr) |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 2                                                                                 | 2                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     | 2                                                                                   | 2                                                                                   |
| Act Effct Green (s)     | 80.8                                                                              | 69.8                                                                              | 69.8                                                                              | 75.8                                                                              | 65.8                                                                              | 65.8                                                                              | 30.5                                                                               | 21.9                                                                                |                                                                                     | 29.6                                                                                | 19.9                                                                                | 19.9                                                                                |
| Actuated g/C Ratio      | 0.67                                                                              | 0.58                                                                              | 0.58                                                                              | 0.63                                                                              | 0.55                                                                              | 0.55                                                                              | 0.25                                                                               | 0.18                                                                                |                                                                                     | 0.25                                                                                | 0.17                                                                                | 0.17                                                                                |
| v/c Ratio               | 0.43                                                                              | 0.75                                                                              | 0.16                                                                              | 0.34                                                                              | 0.47                                                                              | 0.03                                                                              | 0.45                                                                               | 0.53                                                                                |                                                                                     | 0.17                                                                                | 0.32                                                                                | 0.28                                                                                |
| Control Delay           | 13.4                                                                              | 24.5                                                                              | 9.5                                                                               | 26.7                                                                              | 16.4                                                                              | 0.2                                                                               | 37.2                                                                               | 38.7                                                                                |                                                                                     | 29.2                                                                                | 43.3                                                                                | 8.1                                                                                 |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Delay             | 13.4                                                                              | 24.5                                                                              | 9.5                                                                               | 26.7                                                                              | 16.4                                                                              | 0.2                                                                               | 37.2                                                                               | 38.7                                                                                |                                                                                     | 29.2                                                                                | 43.3                                                                                | 8.1                                                                                 |
| LOS                     | B                                                                                 | C                                                                                 | A                                                                                 | C                                                                                 | B                                                                                 | A                                                                                 | D                                                                                  | D                                                                                   |                                                                                     | C                                                                                   | D                                                                                   | A                                                                                   |
| Approach Delay          |                                                                                   | 22.4                                                                              |                                                                                   |                                                                                   | 16.6                                                                              |                                                                                   |                                                                                    | 38.0                                                                                |                                                                                     |                                                                                     | 26.7                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                    | D                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| 90th %ile Green (s)     | 13.0                                                                              | 40.3                                                                              | 40.3                                                                              | 9.7                                                                               | 37.0                                                                              | 37.0                                                                              | 7.0                                                                                | 45.0                                                                                |                                                                                     | 7.0                                                                                 | 45.0                                                                                | 45.0                                                                                |
| 90th %ile Term Code     | Max                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Max                                                                                 | Ped                                                                                 | Ped                                                                                 |
| 70th %ile Green (s)     | 10.3                                                                              | 69.3                                                                              | 69.3                                                                              | 7.2                                                                               | 66.2                                                                              | 66.2                                                                              | 7.0                                                                                | 18.5                                                                                |                                                                                     | 7.0                                                                                 | 18.5                                                                                | 18.5                                                                                |
| 70th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Gap                                                                                 |                                                                                     | Max                                                                                 | Hold                                                                                | Hold                                                                                |
| 50th %ile Green (s)     | 9.0                                                                               | 72.7                                                                              | 72.7                                                                              | 6.6                                                                               | 70.3                                                                              | 70.3                                                                              | 7.0                                                                                | 15.7                                                                                |                                                                                     | 7.0                                                                                 | 15.7                                                                                | 15.7                                                                                |
| 50th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Gap                                                                                 |                                                                                     | Max                                                                                 | Hold                                                                                | Hold                                                                                |
| 30th %ile Green (s)     | 7.9                                                                               | 76.0                                                                              | 76.0                                                                              | 6.1                                                                               | 74.2                                                                              | 74.2                                                                              | 7.0                                                                                | 12.9                                                                                |                                                                                     | 7.0                                                                                 | 12.9                                                                                | 12.9                                                                                |
| 30th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Gap                                                                                 |                                                                                     | Max                                                                                 | Hold                                                                                | Hold                                                                                |
| 10th %ile Green (s)     | 6.6                                                                               | 90.7                                                                              | 90.7                                                                              | 0.0                                                                               | 81.1                                                                              | 81.1                                                                              | 7.0                                                                                | 17.3                                                                                |                                                                                     | 0.0                                                                                 | 7.3                                                                                 | 7.3                                                                                 |
| 10th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Skip                                                                              | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Skip                                                                                | Gap                                                                                 | Gap                                                                                 |
| Queue Length 50th (ft)  | 36                                                                                | 436                                                                               | 23                                                                                | 11                                                                                | 134                                                                               | 0                                                                                 | 100                                                                                | 109                                                                                 |                                                                                     | 29                                                                                  | 72                                                                                  | 0                                                                                   |
| Queue Length 95th (ft)  | 118                                                                               | #988                                                                              | 93                                                                                | 59                                                                                | 452                                                                               | m1                                                                                | 108                                                                                | 133                                                                                 |                                                                                     | 41                                                                                  | 90                                                                                  | 35                                                                                  |
| Internal Link Dist (ft) |                                                                                   | 655                                                                               |                                                                                   |                                                                                   | 710                                                                               |                                                                                   |                                                                                    | 361                                                                                 |                                                                                     |                                                                                     | 564                                                                                 |                                                                                     |
| Turn Bay Length (ft)    | 200                                                                               |                                                                                   | 225                                                                               | 100                                                                               |                                                                                   | 200                                                                               | 145                                                                                |                                                                                     |                                                                                     | 130                                                                                 |                                                                                     | 130                                                                                 |
| Base Capacity (vph)     | 422                                                                               | 2166                                                                              | 955                                                                               | 259                                                                               | 2041                                                                              | 904                                                                               | 339                                                                                | 676                                                                                 |                                                                                     | 290                                                                                 | 698                                                                                 | 653                                                                                 |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Reduced v/c Ratio       | 0.39                                                                              | 0.75                                                                              | 0.16                                                                              | 0.22                                                                              | 0.47                                                                              | 0.03                                                                              | 0.45                                                                               | 0.27                                                                                |                                                                                     | 0.17                                                                                | 0.14                                                                                | 0.15                                                                                |

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Natural Cycle: 135

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 22.5

Intersection LOS: C

Intersection Capacity Utilization 75.4%

ICU Level of Service D

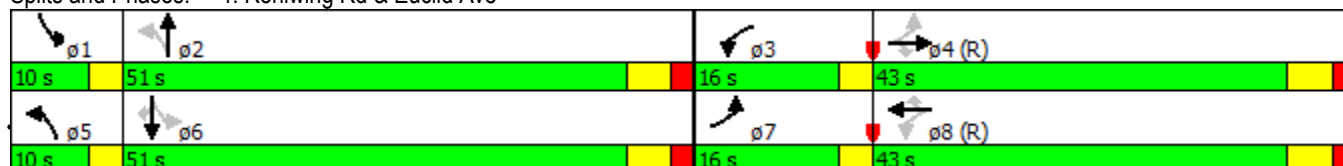
Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Rohlwing Rd & Euclid Ave



| Intersection             |        |        |       |        |      |      |
|--------------------------|--------|--------|-------|--------|------|------|
| Int Delay, s/veh         | 5.9    |        |       |        |      |      |
| Movement                 | EBL    | EBR    | NBL   | NBT    | SBT  | SBR  |
| Vol, veh/h               | 0      | 95     | 100   | 34     | 43   | 0    |
| Conflicting Peds, #/hr   | 0      | 0      | 0     | 0      | 0    | 0    |
| Sign Control             | Stop   | Stop   | Free  | Free   | Free | Free |
| RT Channelized           | -      | None   | -     | None   | -    | None |
| Storage Length           | 0      | -      | -     | -      | -    | -    |
| Veh in Median Storage, # | 0      | -      | -     | 0      | 0    | -    |
| Grade, %                 | 0      | -      | -     | 0      | 0    | -    |
| Peak Hour Factor         | 95     | 95     | 95    | 95     | 95   | 95   |
| Heavy Vehicles, %        | 2      | 2      | 2     | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 100    | 105   | 36     | 45   | 0    |
| Major/Minor              | Minor2 | Major1 |       | Major2 |      |      |
| Conflicting Flow All     | 291    | 45     | 45    | 0      | -    | 0    |
| Stage 1                  | 45     | -      | -     | -      | -    | -    |
| Stage 2                  | 246    | -      | -     | -      | -    | -    |
| Critical Hdwy            | 6.42   | 6.22   | 4.12  | -      | -    | -    |
| Critical Hdwy Stg 1      | 5.42   | -      | -     | -      | -    | -    |
| Critical Hdwy Stg 2      | 5.42   | -      | -     | -      | -    | -    |
| Follow-up Hdwy           | 3.518  | 3.318  | 2.218 | -      | -    | -    |
| Pot Cap-1 Maneuver       | 700    | 1025   | 1563  | -      | -    | -    |
| Stage 1                  | 977    | -      | -     | -      | -    | -    |
| Stage 2                  | 795    | -      | -     | -      | -    | -    |
| Platoon blocked, %       |        |        |       | -      | -    | -    |
| Mov Cap-1 Maneuver       | 652    | 1025   | 1563  | -      | -    | -    |
| Mov Cap-2 Maneuver       | 652    | -      | -     | -      | -    | -    |
| Stage 1                  | 977    | -      | -     | -      | -    | -    |
| Stage 2                  | 740    | -      | -     | -      | -    | -    |
| Approach                 | EB     | NB     |       | SB     |      |      |
| HCM Control Delay, s     | 8.9    | 5.6    |       | 0      |      |      |
| HCM LOS                  | A      |        |       |        |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT    | EBLn1 | SBT    | SBR  |      |
| Capacity (veh/h)         | 1563   | -      | 1025  | -      | -    |      |
| HCM Lane V/C Ratio       | 0.067  | -      | 0.098 | -      | -    |      |
| HCM Control Delay (s)    | 7.5    | 0      | 8.9   | -      | -    |      |
| HCM Lane LOS             | A      | A      | A     | -      | -    |      |
| HCM 95th %tile Q(veh)    | 0.2    | -      | 0.3   | -      | -    |      |



| Intersection             |        |       |        |       |        |           |
|--------------------------|--------|-------|--------|-------|--------|-----------|
| Int Delay, s/veh         | 2.5    |       |        |       |        |           |
|                          |        |       |        |       |        |           |
| Movement                 | WBL    | WBR   |        | NBT   | NBR    | SBL SBT   |
| Vol, veh/h               | 47     | 47    |        | 192   | 75     | 50 172    |
| Conflicting Peds, #/hr   | 0      | 0     |        | 0     | 0      | 0 0       |
| Sign Control             | Stop   | Stop  |        | Free  | Free   | Free Free |
| RT Channelized           | -      | None  |        | -     | None   | - None    |
| Storage Length           | 0      | 0     |        | -     | -      | 200 -     |
| Veh in Median Storage, # | 0      | -     |        | 0     | -      | - 0       |
| Grade, %                 | 0      | -     |        | 0     | -      | - 0       |
| Peak Hour Factor         | 95     | 95    |        | 95    | 95     | 95 95     |
| Heavy Vehicles, %        | 2      | 2     |        | 2     | 2      | 2 2       |
| Mvmt Flow                | 49     | 49    |        | 202   | 79     | 53 181    |
|                          |        |       |        |       |        |           |
| Major/Minor              | Minor1 |       | Major1 |       | Major2 |           |
| Conflicting Flow All     | 528    | 242   |        | 0     | 0      | 281 0     |
| Stage 1                  | 242    | -     |        | -     | -      | - -       |
| Stage 2                  | 286    | -     |        | -     | -      | - -       |
| Critical Hdwy            | 6.42   | 6.22  |        | -     | -      | 4.12 -    |
| Critical Hdwy Stg 1      | 5.42   | -     |        | -     | -      | - -       |
| Critical Hdwy Stg 2      | 5.42   | -     |        | -     | -      | - -       |
| Follow-up Hdwy           | 3.518  | 3.318 |        | -     | -      | 2.218 -   |
| Pot Cap-1 Maneuver       | 511    | 797   |        | -     | -      | 1282 -    |
| Stage 1                  | 798    | -     |        | -     | -      | - -       |
| Stage 2                  | 763    | -     |        | -     | -      | - -       |
| Platoon blocked, %       |        |       |        | -     | -      | -         |
| Mov Cap-1 Maneuver       | 490    | 797   |        | -     | -      | 1282 -    |
| Mov Cap-2 Maneuver       | 490    | -     |        | -     | -      | - -       |
| Stage 1                  | 798    | -     |        | -     | -      | - -       |
| Stage 2                  | 731    | -     |        | -     | -      | - -       |
|                          |        |       |        |       |        |           |
| Approach                 | WB     |       | NB     |       | SB     |           |
| HCM Control Delay, s     | 11.5   |       | 0      |       | 1.8    |           |
| HCM LOS                  | B      |       |        |       |        |           |
|                          |        |       |        |       |        |           |
| Minor Lane/Major Mvmt    | NBT    | NBR   | WBLn1  | WBLn2 | SBL    | SBT       |
| Capacity (veh/h)         | -      | -     | 490    | 797   | 1282   | -         |
| HCM Lane V/C Ratio       | -      | -     | 0.101  | 0.062 | 0.041  | -         |
| HCM Control Delay (s)    | -      | -     | 13.2   | 9.8   | 7.9    | -         |
| HCM Lane LOS             | -      | -     | B      | A     | A      | -         |
| HCM 95th %tile Q(veh)    | -      | -     | 0.3    | 0.2   | 0.1    | -         |

| Intersection             |        |       |       |        |       |       |        |      |      |        |      |      |
|--------------------------|--------|-------|-------|--------|-------|-------|--------|------|------|--------|------|------|
| Int Delay, s/veh         | 1.5    |       |       |        |       |       |        |      |      |        |      |      |
| Movement                 | EBL    | EBT   | EBR   | WBL    | WBT   | WBR   | NBL    | NBT  | NBR  | SBL    | SBT  | SBR  |
| Vol, veh/h               | 0      | 0     | 2     | 23     | 0     | 28    | 0      | 206  | 30   | 24     | 199  | 1    |
| Conflicting Peds, #/hr   | 0      | 0     | 0     | 0      | 0     | 0     | 0      | 0    | 0    | 0      | 0    | 0    |
| Sign Control             | Stop   | Stop  | Stop  | Stop   | Stop  | Stop  | Free   | Free | Free | Free   | Free | Free |
| RT Channelized           | -      | -     | None  | -      | -     | None  | -      | -    | None | -      | -    | None |
| Storage Length           | -      | -     | -     | 175    | -     | -     | -      | -    | -    | 0      | -    | -    |
| Veh in Median Storage, # | -      | 0     | -     | -      | 0     | -     | -      | 0    | -    | -      | 0    | -    |
| Grade, %                 | -      | 0     | -     | -      | 0     | -     | -      | 0    | -    | -      | 0    | -    |
| Peak Hour Factor         | 95     | 95    | 95    | 95     | 95    | 95    | 95     | 95   | 95   | 95     | 95   | 95   |
| Heavy Vehicles, %        | 2      | 2     | 2     | 2      | 2     | 2     | 2      | 2    | 2    | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 0     | 2     | 24     | 0     | 29    | 0      | 217  | 32   | 25     | 209  | 1    |
| Major/Minor              | Minor2 |       |       | Minor1 |       |       | Major1 |      |      | Major2 |      |      |
| Conflicting Flow All     | 508    | 509   | 210   | 495    | 494   | 233   | 211    | 0    | 0    | 248    | 0    | 0    |
| Stage 1                  | 261    | 261   | -     | 233    | 233   | -     | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 247    | 248   | -     | 262    | 261   | -     | -      | -    | -    | -      | -    | -    |
| Critical Hdwy            | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  | 4.12   | -    | -    | 4.12   | -    | -    |
| Critical Hdwy Stg 1      | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     | -      | -    | -    | -      | -    | -    |
| Critical Hdwy Stg 2      | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     | -      | -    | -    | -      | -    | -    |
| Follow-up Hdwy           | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 | 2.218  | -    | -    | 2.218  | -    | -    |
| Pot Cap-1 Maneuver       | 475    | 467   | 830   | 485    | 476   | 806   | 1360   | -    | -    | 1318   | -    | -    |
| Stage 1                  | 744    | 692   | -     | 770    | 712   | -     | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 757    | 701   | -     | 743    | 692   | -     | -      | -    | -    | -      | -    | -    |
| Platoon blocked, %       | -      | -     | -     | -      | -     | -     | -      | -    | -    | -      | -    | -    |
| Mov Cap-1 Maneuver       | 451    | 458   | 830   | 477    | 467   | 806   | 1360   | -    | -    | 1318   | -    | -    |
| Mov Cap-2 Maneuver       | 451    | 458   | -     | 477    | 467   | -     | -      | -    | -    | -      | -    | -    |
| Stage 1                  | 744    | 679   | -     | 770    | 712   | -     | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 729    | 701   | -     | 727    | 679   | -     | -      | -    | -    | -      | -    | -    |
| Approach                 | EB     |       |       | WB     |       |       | NB     |      |      | SB     |      |      |
| HCM Control Delay, s     | 9.3    |       |       | 11.1   |       |       | 0      |      |      | 0.8    |      |      |
| HCM LOS                  | A      |       |       | B      |       |       |        |      |      |        |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT   | NBR   | EBLn1  | WBLn1 | WBLn2 | SBL    | SBT  | SBR  |        |      |      |
| Capacity (veh/h)         | 1360   | -     | -     | 830    | 477   | 806   | 1318   | -    | -    |        |      |      |
| HCM Lane V/C Ratio       | -      | -     | -     | 0.003  | 0.051 | 0.037 | 0.019  | -    | -    |        |      |      |
| HCM Control Delay (s)    | 0      | -     | -     | 9.3    | 13    | 9.6   | 7.8    | -    | -    |        |      |      |
| HCM Lane LOS             | A      | -     | -     | A      | B     | A     | A      | -    | -    |        |      |      |
| HCM 95th %tile Q(veh)    | 0      | -     | -     | 0      | 0.2   | 0.1   | 0.1    | -    | -    |        |      |      |



## ARLINGTON DOWNS TRAFFIC MEMORANDUM

DATE: October 7, 2015

TO: Jeffrey Funke, Funke Architects  
Vince Bertucci, ChiArc

FROM: Peter Reinhofer, P.E.

RE: Arlington Downs Traffic Memorandum  
Euclid Avenue and Rohlwing Road Proposed Intersection Improvements  
Arlington Heights, Illinois

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V3 Companies has prepared this traffic memorandum to present the conclusions of the capacity analysis conducted at the signalized intersection of Euclid Avenue and Rohlwing Road as part of the traffic analysis for the mixed-use Arlington Downs development. Arlington Downs, located at the northeast corner of Rohlwing Road and Euclid Avenue in Arlington Heights, Illinois, is a mixed use project that will include residential, restaurant, hotel, retail, and entertainment land uses.

It is our understanding that as part of the approved Planned Unit Development (PUD), a southbound right turn lane has been required at the signalized intersection of Euclid Avenue and Rohlwing Road. This requirement was likely determined to be needed based on the previously approved traffic study for the PUD that had a different site plan than currently proposed. V3 does not have the previously approved traffic study.

As part of the PUD update for Arlington Downs, V3 submitted a Traffic Impact Study (TIS) dated August 20, 2015 to the Village of Arlington Heights. The TIS included the southbound right turn lane for the 2022 future plus project scenario, which projects weekday am, weekday pm, and Saturday peak hour volumes for the study area intersections, including Euclid Avenue and Rohlwing Road.

The intersection of Euclid Avenue and Rohlwing Road is currently signalized. The eastbound and westbound approaches on Euclid Avenue each consist of one left turn lane, two through lanes, and one right turn lane. The northbound and southbound approaches on Rohlwing Road both consist of one left turn lane and one shared through/right turn lane.



As part of the August 20, 2015 TIS, V3 collected weekday am, weekday pm, and Saturday peak hour volumes at the study area intersections, including Euclid Avenue and Rohlwing Road. V3 also projected the same peak hour volumes for 2022 at the study area intersections, which is five years after Arlington Downs is anticipated to be built out. The projected am, pm, and Saturday peak hour volumes for the southbound right turn are 58, 196, and 67 vehicles, respectively. The TIS then calculated the number of vehicle trips that Arlington Downs will generate and distributed those trips to the site driveways and surrounding roadway network. During the am peak hour, the pm peak hour, and the Saturday peak hour, the Arlington Downs redevelopment will add 24, 18, and 24 vehicle trips to the southbound right turn movement, respectively.

As part of the TIS completed, a capacity analysis was conducted at the intersection for the existing, 2022 background, and 2022 future with project traffic volumes. The capacity analysis was performed using Synchro 9 (build 902, revision 140), a macrosimulation tool based on the methodologies found in the Highway Capacity Manual. Models were created for the weekday am, weekday pm, and Saturday midday peak hours for the existing, background, and future with project conditions. The 2022 future with project scenario assumed the construction of the southbound right turn lane at the intersection. Table 1 provides a summary of the results for the capacity analysis conducted at Euclid Avenue and Rohlwing Road, as reported in the TIS.

**Table 1 – Euclid Avenue and Rohlwing Road Capacity Analysis Results from TIS**

| Time Period           | Scenario           | Eastbound |     | Westbound |     | Northbound |     | Southbound |     | Intersection |     |
|-----------------------|--------------------|-----------|-----|-----------|-----|------------|-----|------------|-----|--------------|-----|
|                       |                    | Delay     | LOS | Delay     | LOS | Delay      | LOS | Delay      | LOS | Delay        | LOS |
| Weekday AM Peak Hour  | Existing           | 23.1      | C   | 26.8      | C   | 41.4       | D   | 32.1       | C   | 27.2         | C   |
|                       | Background         | 24.3      | C   | 25.4      | C   | 42.5       | D   | 32.2       | C   | 27.5         | C   |
|                       | Future with SB RTL | 31.1      | C   | 31.9      | C   | 43.3       | D   | 27.3       | C   | 32.3         | C   |
| Weekday PM Peak Hour  | Existing           | 18.9      | B   | 19.2      | B   | 44.5       | D   | 39.1       | D   | 24.0         | C   |
|                       | Background         | 19.9      | B   | 22.7      | C   | 47.0       | D   | 39.8       | D   | 26.3         | C   |
|                       | Future with SB RTL | 24.3      | C   | 25.4      | C   | 42.8       | D   | 21.8       | C   | 26.3         | C   |
| Saturday MD Peak Hour | Existing           | 17.7      | B   | 15.1      | B   | 37.5       | D   | 32.8       | C   | 19.8         | B   |
|                       | Background         | 18.1      | B   | 16.3      | B   | 38.8       | D   | 33.8       | C   | 20.6         | C   |
|                       | Future with SB RTL | 22.4      | C   | 16.6      | B   | 38.0       | D   | 26.7       | C   | 22.5         | C   |

As illustrated, the overall intersection currently operates at LOS C for the weekday am and weekday pm peak hours and LOS B for the Saturday peak hour. Each of the approaches also operates at LOS D or better for all peak hours. For the future 2022 background condition, which takes into account future non-project related growth in the area, the average delays slightly increase but the overall intersection is projected to operate at LOS C for the weekday am, weekday pm, and Saturday peak hours.

The TIS analyzed the 2022 future with project scenario with the construction of the southbound right turn lane, which generally results in reduced average delays for the northbound and southbound approaches but still results in higher delays for the overall intersection when compared to the background scenario. During the am peak hour, the overall intersection continues to operate at LOS C with a higher average delay. Each approach continues to



operate at the same LOS as the background scenario. During the pm peak hour, the overall average delay time is unchanged and will operate at LOS C. The eastbound and westbound approach delays increase with the eastbound approach changing to LOS C. The northbound and southbound approaches will experience a reduction in average delay with the southbound approach operating at LOS C. During the Saturday peak hour, the overall intersection continues to operate at LOS C with a higher average delay. Each approach continues to operate at the same LOS as the background scenario with the exception of the eastbound approach will operates at LOS C.

After reviewing the limited improvements to the capacity analysis results, V3 analyzed another future with project scenario that used the existing intersection lane configuration. Results of the capacity analysis are illustrated in Table 2, labeled “Future No Improvements” in the table and will be compared to the background and the future with southbound right turn lane scenarios.

**Table 2 – Euclid Avenue and Rohlwing Road Capacity Analysis with New Scenario**

| Time Period           | Scenario               | Eastbound |     | Westbound |     | Northbound |     | Southbound |     | Intersection |     |
|-----------------------|------------------------|-----------|-----|-----------|-----|------------|-----|------------|-----|--------------|-----|
|                       |                        | Delay     | LOS | Delay     | LOS | Delay      | LOS | Delay      | LOS | Delay        | LOS |
| Weekday AM Peak Hour  | Existing               | 23.1      | C   | 26.8      | C   | 41.4       | D   | 32.1       | C   | 27.2         | C   |
|                       | Background             | 24.3      | C   | 25.4      | C   | 42.5       | D   | 32.2       | C   | 27.5         | C   |
|                       | Future with SB RTL     | 31.1      | C   | 31.9      | C   | 43.3       | D   | 27.3       | C   | 32.3         | C   |
|                       | Future No Improvements | 31.1      | C   | 31.9      | C   | 43.6       | D   | 33.0       | C   | 32.9         | C   |
| Weekday PM Peak Hour  | Existing               | 18.9      | B   | 19.2      | B   | 44.5       | D   | 39.1       | D   | 24.0         | C   |
|                       | Background             | 19.9      | B   | 22.7      | C   | 47.0       | D   | 39.8       | D   | 26.3         | C   |
|                       | Future with SB RTL     | 24.3      | C   | 25.4      | C   | 42.8       | D   | 21.8       | C   | 26.3         | C   |
|                       | Future No Improvements | 25.2      | C   | 28.4      | C   | 51.7       | D   | 40.8       | D   | 31.0         | C   |
| Saturday MD Peak Hour | Existing               | 17.7      | B   | 15.1      | B   | 37.5       | D   | 32.8       | C   | 19.8         | B   |
|                       | Background             | 18.1      | B   | 16.3      | B   | 38.8       | D   | 33.8       | C   | 20.6         | C   |
|                       | Future with SB RTL     | 22.4      | C   | 16.6      | B   | 38.0       | D   | 26.7       | C   | 22.5         | C   |
|                       | Future No Improvements | 22.8      | C   | 16.9      | B   | 39.8       | D   | 37.5       | D   | 23.7         | C   |

When analyzing the intersection with the existing geometry, the delays slightly increase for each approach and for the overall intersection during each of the peak hours. The overall intersection still projects to operate at LOS C for the weekday am, weekday pm, and Saturday peak hours. When compared to the scenario with the construction of the southbound right turn lane, the am peak hour, pm peak hour, and Saturday peak hour average delay increases by 0.6 seconds, 4.7 seconds, and 1.2 seconds, respectively.

When compared to the background scenario, the average delays for each approach and the overall intersection slightly increase for each peak hour and the overall intersection LOS does not change and will continue to operate at LOS C. The LOS for each approach during each peak hour remains the same with the exception of the eastbound approach during the pm peak hour (LOS B to LOS C), the eastbound approach during the Saturday peak hour (LOS B to LOS C) and the southbound approach during the Saturday peak hour (LOS C to LOS D).





Based on the low volumes that the Arlington Downs redevelopment will be adding to the southbound right turn at Euclid Avenue and Rohlwing Road, and that the capacity analysis assuming the existing intersection configuration results in the intersection operating at LOS C during each peak hour and each approach operating at LOS D or better, we are requesting that the Village of Arlington Heights reconsider the requirement of the construction of the southbound right turn lane.

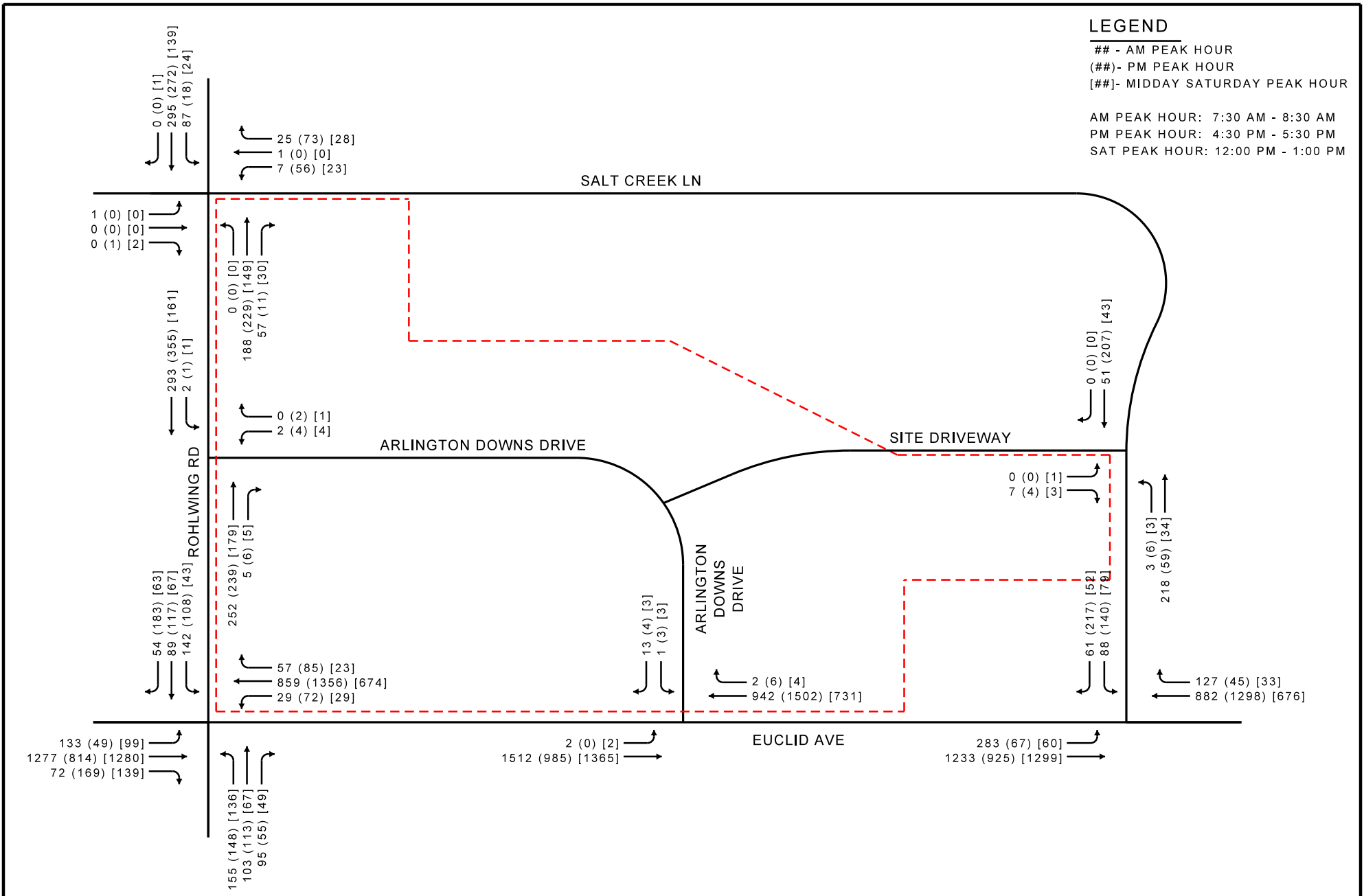
Attachments:

- Existing Traffic Volume (Figure 6 from August 20, 2015 TIS)
- Total Project Trips (Figure 9 from August 20, 2015 TIS)
- Background Traffic Volume (Figure 10 from August 20, 2015 TIS)
- Future with Project Traffic Volume (Figure 11 from August 20, 2015 TIS)
- Capacity Analysis Results at Euclid Avenue/Rohlwing Road for Future with Project scenario with no intersection improvements

# LEGEND

## - AM PEAK HOUR  
 (##) - PM PEAK HOUR  
 [##] - MIDDAY SATURDAY PEAK HOUR

AM PEAK HOUR: 7:30 AM - 8:30 AM  
 PM PEAK HOUR: 4:30 PM - 5:30 PM  
 SAT PEAK HOUR: 12:00 PM - 1:00 PM



ARLINGTON DOWNS

**FIGURE 6**  
**EXISTING TRAFFIC VOLUME**

ARLINGTON HEIGHTS

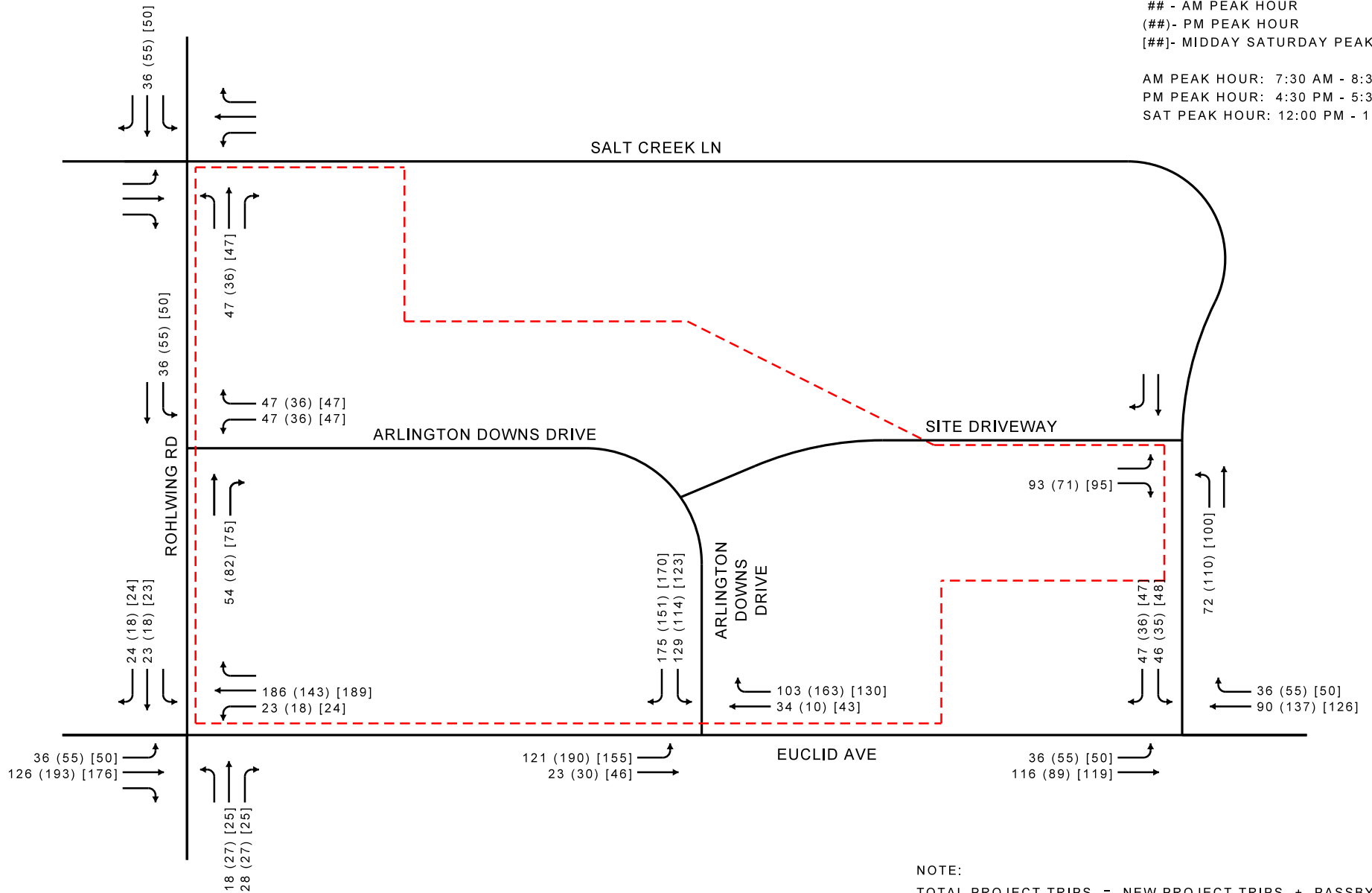
ILLINOIS



# LEGEND

## - AM PEAK HOUR  
 (##) - PM PEAK HOUR  
 [##] - MIDDAY SATURDAY PEAK HOUR

AM PEAK HOUR: 7:30 AM - 8:30 AM  
 PM PEAK HOUR: 4:30 PM - 5:30 PM  
 SAT PEAK HOUR: 12:00 PM - 1:00 PM



NOTE:

TOTAL PROJECT TRIPS = NEW PROJECT TRIPS + PASSBY TRIPS  
 (FIGURE 7) (FIGURE 8)

ARLINGTON DOWNS

**FIGURE 9**  
**TOTAL PROJECT TRIPS**

ARLINGTON HEIGHTS

ILLINOIS



# LEGEND

## - AM PEAK HOUR  
 (##) - PM PEAK HOUR  
 [##] - MIDDAY SATURDAY PEAK HOUR

AM PEAK HOUR: 7:30 AM - 8:30 AM  
 PM PEAK HOUR: 4:30 PM - 5:30 PM  
 SAT PEAK HOUR: 12:00 PM - 1:00 PM

SALT CREEK LN

ARLINGTON DOWNS DRIVE

SITE DRIVEWAY

ARLINGTON  
DOWNS  
DRIVE

EUCLID AVE

## NOTE:

BACKGROUND TRAFFIC VOLUMES = EXISTING TRAFFIC VOLUMES + 1% GROWTH PER YEAR TO 2022  
 (FIGURE 6)

ARLINGTON DOWNS

FIGURE 10  
 BACKGROUND TRAFFIC VOLUME

ARLINGTON HEIGHTS

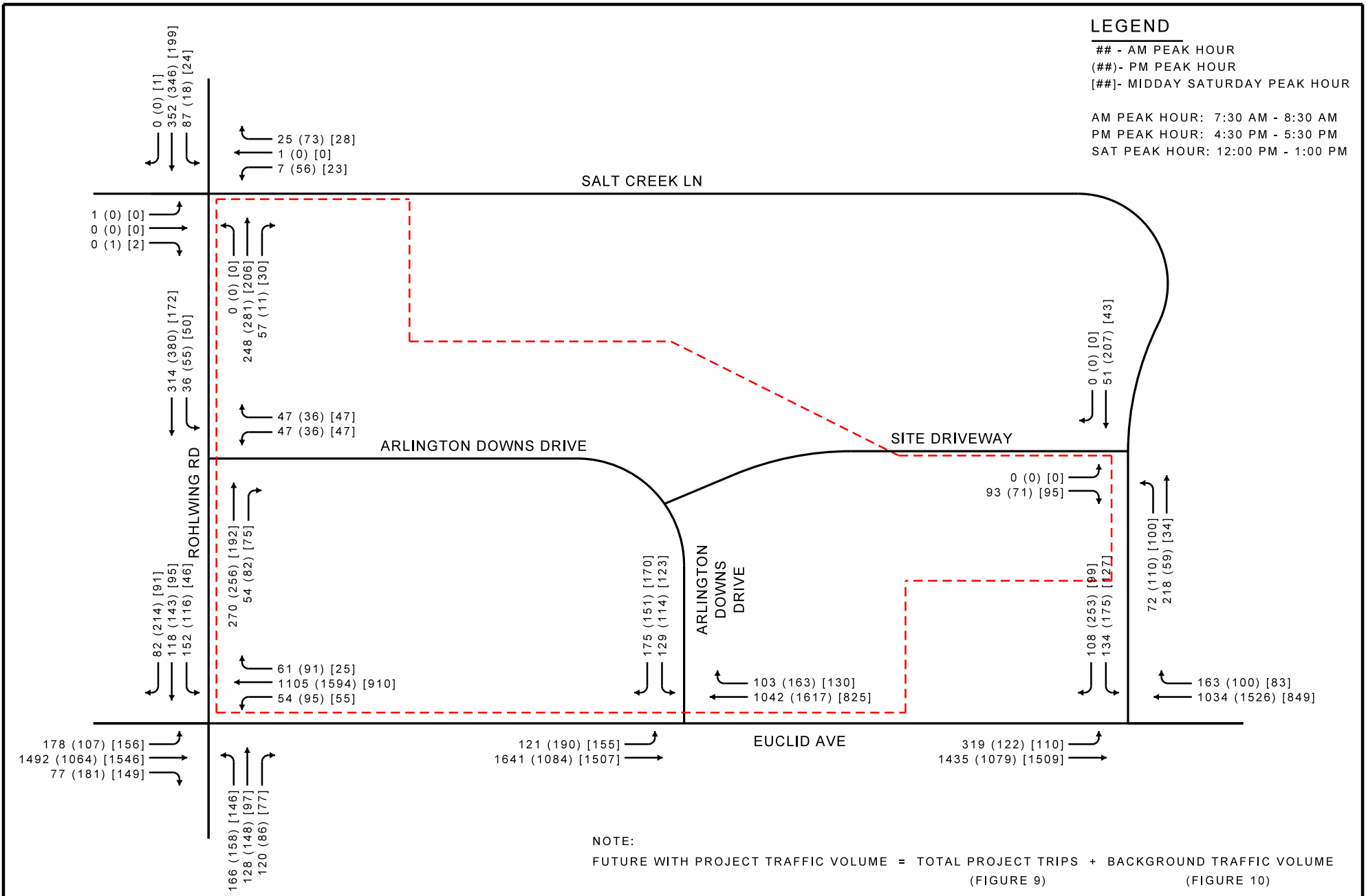
ILLINOIS



# LEGEND

## - AM PEAK HOUR  
 (##) - PM PEAK HOUR  
 [##] - MIDDAY SATURDAY PEAK HOUR

AM PEAK HOUR: 7:30 AM - 8:30 AM  
 PM PEAK HOUR: 4:30 PM - 5:30 PM  
 SAT PEAK HOUR: 12:00 PM - 1:00 PM



ARLINGTON DOWNS

**FIGURE 11**  
**FUTURE WITH PROJECT TRAFFIC VOLUME**  
 ARLINGTON HEIGHTS  
 ILLINOIS





2022 Future with Project - No Right Turn Lane  
4: Rohlwing Rd & Euclid Ave

Timing Plan: AM

8/12/2015

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |  |  |  |                                                                                     |  |  |                                                                                     |
| Volume (vph)               | 178                                                                               | 1492                                                                              | 77                                                                                | 54                                                                                | 1105                                                                              | 61                                                                                | 166                                                                                 | 128                                                                                 | 120                                                                                 | 152                                                                                 | 118                                                                                 | 82                                                                                  |
| Ideal Flow (vphpl)         | 1900                                                                              | 2000                                                                              | 1900                                                                              | 1900                                                                              | 2000                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 200                                                                               |                                                                                   | 225                                                                               | 100                                                                               |                                                                                   | 200                                                                               | 145                                                                                 |                                                                                     | 0                                                                                   | 130                                                                                 |                                                                                     | 130                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                   |                                                                                     | 0                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                  |                                                                                     |                                                                                     | 25                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                     | 0.928                                                                               |                                                                                     |                                                                                     | 0.939                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3725                                                                              | 1583                                                                              | 1770                                                                              | 3725                                                                              | 1583                                                                              | 1770                                                                                | 1729                                                                                | 0                                                                                   | 1770                                                                                | 1749                                                                                | 0                                                                                   |
| Flt Permitted              | 0.115                                                                             |                                                                                   |                                                                                   | 0.073                                                                             |                                                                                   |                                                                                   | 0.626                                                                               |                                                                                     |                                                                                     | 0.282                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 214                                                                               | 3725                                                                              | 1583                                                                              | 136                                                                               | 3725                                                                              | 1583                                                                              | 1166                                                                                | 1729                                                                                | 0                                                                                   | 525                                                                                 | 1749                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 109                                                                               |                                                                                   |                                                                                   | 109                                                                               |                                                                                     | 38                                                                                  |                                                                                     |                                                                                     | 33                                                                                  |                                                                                     |
| Link Speed (mph)           |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 40                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 735                                                                               |                                                                                   |                                                                                   | 790                                                                               |                                                                                   |                                                                                     | 441                                                                                 |                                                                                     |                                                                                     | 644                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 12.5                                                                              |                                                                                   |                                                                                   | 13.5                                                                              |                                                                                   |                                                                                     | 10.0                                                                                |                                                                                     |                                                                                     | 11.0                                                                                |                                                                                     |
| Peak Hour Factor           | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Adj. Flow (vph)            | 187                                                                               | 1571                                                                              | 81                                                                                | 57                                                                                | 1163                                                                              | 64                                                                                | 175                                                                                 | 135                                                                                 | 126                                                                                 | 160                                                                                 | 124                                                                                 | 86                                                                                  |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 187                                                                               | 1571                                                                              | 81                                                                                | 57                                                                                | 1163                                                                              | 64                                                                                | 175                                                                                 | 261                                                                                 | 0                                                                                   | 160                                                                                 | 210                                                                                 | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 16                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 16                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 0.94                                                                              | 1.00                                                                              | 1.00                                                                              | 0.94                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases           | 4                                                                                 |                                                                                   | 4                                                                                 | 8                                                                                 |                                                                                   | 8                                                                                 | 2                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     |
| Detector Phase             | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Switch Phase               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)        | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                                 | 5.0                                                                                 |                                                                                     | 5.0                                                                                 | 5.0                                                                                 |                                                                                     |
| Minimum Split (s)          | 9.5                                                                               | 24.0                                                                              | 24.0                                                                              | 9.5                                                                               | 35.0                                                                              | 35.0                                                                              | 9.5                                                                                 | 24.0                                                                                |                                                                                     | 9.5                                                                                 | 51.0                                                                                |                                                                                     |
| Total Split (s)            | 16.0                                                                              | 43.0                                                                              | 43.0                                                                              | 16.0                                                                              | 43.0                                                                              | 43.0                                                                              | 10.0                                                                                | 37.0                                                                                |                                                                                     | 24.0                                                                                | 51.0                                                                                |                                                                                     |
| Total Split (%)            | 13.3%                                                                             | 35.8%                                                                             | 35.8%                                                                             | 13.3%                                                                             | 35.8%                                                                             | 35.8%                                                                             | 8.3%                                                                                | 30.8%                                                                               |                                                                                     | 20.0%                                                                               | 42.5%                                                                               |                                                                                     |
| Maximum Green (s)          | 13.0                                                                              | 37.0                                                                              | 37.0                                                                              | 13.0                                                                              | 37.0                                                                              | 37.0                                                                              | 7.0                                                                                 | 31.0                                                                                |                                                                                     | 21.0                                                                                | 45.0                                                                                |                                                                                     |
| Yellow Time (s)            | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                                 | 4.0                                                                                 |                                                                                     | 3.0                                                                                 | 4.0                                                                                 |                                                                                     |
| All-Red Time (s)           | 0.0                                                                               | 2.0                                                                               | 2.0                                                                               | 0.0                                                                               | 2.0                                                                               | 2.0                                                                               | 0.0                                                                                 | 2.0                                                                                 |                                                                                     | 0.0                                                                                 | 2.0                                                                                 |                                                                                     |
| Lost Time Adjust (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)        | 3.0                                                                               | 6.0                                                                               | 6.0                                                                               | 3.0                                                                               | 6.0                                                                               | 6.0                                                                               | 3.0                                                                                 | 6.0                                                                                 |                                                                                     | 3.0                                                                                 | 6.0                                                                                 |                                                                                     |
| Lead/Lag                   | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?         | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Vehicle Extension (s)      | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                                 | 3.0                                                                                 |                                                                                     | 3.0                                                                                 | 3.0                                                                                 |                                                                                     |
| Recall Mode                | None                                                                              | C-Max                                                                             | C-Max                                                                             | None                                                                              | C-Max                                                                             | C-Max                                                                             | None                                                                                | Min                                                                                 |                                                                                     | None                                                                                | Min                                                                                 |                                                                                     |
| Walk Time (s)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 7.0                                                                               | 7.0                                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 7.0                                                                                 |                                                                                     |
| Flash Dont Walk (s)        |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 22.0                                                                              | 22.0                                                                              |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 38.0                                                                                |                                                                                     |

2022 Future with Project - No Right Turn Lane  
4: Rohlwing Rd & Euclid Ave

Timing Plan: AM  
8/12/2015

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Pedestrian Calls (#/hr) |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 1                                                                                 | 1                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 1                                                                                   |                                                                                     |
| Act Effct Green (s)     | 72.2                                                                              | 60.6                                                                              | 60.6                                                                              | 65.2                                                                              | 54.9                                                                              | 54.9                                                                              | 32.6                                                                                | 22.6                                                                                |                                                                                     | 41.7                                                                                | 28.8                                                                                |                                                                                     |
| Actuated g/C Ratio      | 0.60                                                                              | 0.50                                                                              | 0.50                                                                              | 0.54                                                                              | 0.46                                                                              | 0.46                                                                              | 0.27                                                                                | 0.19                                                                                |                                                                                     | 0.35                                                                                | 0.24                                                                                |                                                                                     |
| v/c Ratio               | 0.68                                                                              | 0.83                                                                              | 0.09                                                                              | 0.33                                                                              | 0.68                                                                              | 0.08                                                                              | 0.50                                                                                | 0.73                                                                                |                                                                                     | 0.50                                                                                | 0.47                                                                                |                                                                                     |
| Control Delay           | 29.0                                                                              | 32.8                                                                              | 2.6                                                                               | 26.5                                                                              | 33.5                                                                              | 7.5                                                                               | 33.9                                                                                | 50.2                                                                                |                                                                                     | 31.6                                                                                | 34.2                                                                                |                                                                                     |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay             | 29.0                                                                              | 32.8                                                                              | 2.6                                                                               | 26.5                                                                              | 33.5                                                                              | 7.5                                                                               | 33.9                                                                                | 50.2                                                                                |                                                                                     | 31.6                                                                                | 34.2                                                                                |                                                                                     |
| LOS                     | C                                                                                 | C                                                                                 | A                                                                                 | C                                                                                 | C                                                                                 | A                                                                                 | C                                                                                   | D                                                                                   |                                                                                     | C                                                                                   | C                                                                                   |                                                                                     |
| Approach Delay          |                                                                                   | 31.1                                                                              |                                                                                   |                                                                                   | 31.9                                                                              |                                                                                   |                                                                                     | 43.6                                                                                |                                                                                     |                                                                                     | 33.0                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                     | D                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| 90th %ile Green (s)     | 13.0                                                                              | 40.3                                                                              | 40.3                                                                              | 9.7                                                                               | 37.0                                                                              | 37.0                                                                              | 7.0                                                                                 | 36.4                                                                                |                                                                                     | 15.6                                                                                | 45.0                                                                                |                                                                                     |
| 90th %ile Term Code     | Max                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                 | Hold                                                                                |                                                                                     | Gap                                                                                 | Ped                                                                                 |                                                                                     |
| 70th %ile Green (s)     | 14.4                                                                              | 54.6                                                                              | 54.6                                                                              | 7.9                                                                               | 48.1                                                                              | 48.1                                                                              | 7.0                                                                                 | 24.3                                                                                |                                                                                     | 15.2                                                                                | 32.5                                                                                |                                                                                     |
| 70th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                 | Gap                                                                                 |                                                                                     | Gap                                                                                 | Hold                                                                                |                                                                                     |
| 50th %ile Green (s)     | 11.5                                                                              | 60.2                                                                              | 60.2                                                                              | 7.0                                                                               | 55.7                                                                              | 55.7                                                                              | 7.0                                                                                 | 21.1                                                                                |                                                                                     | 13.7                                                                                | 27.8                                                                                |                                                                                     |
| 50th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                 | Gap                                                                                 |                                                                                     | Gap                                                                                 | Hold                                                                                |                                                                                     |
| 30th %ile Green (s)     | 9.7                                                                               | 65.7                                                                              | 65.7                                                                              | 6.3                                                                               | 62.3                                                                              | 62.3                                                                              | 7.0                                                                                 | 17.9                                                                                |                                                                                     | 12.1                                                                                | 23.0                                                                                |                                                                                     |
| 30th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                 | Gap                                                                                 |                                                                                     | Gap                                                                                 | Hold                                                                                |                                                                                     |
| 10th %ile Green (s)     | 7.8                                                                               | 82.4                                                                              | 82.4                                                                              | 0.0                                                                               | 71.6                                                                              | 71.6                                                                              | 7.0                                                                                 | 13.2                                                                                |                                                                                     | 9.4                                                                                 | 15.6                                                                                |                                                                                     |
| 10th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Skip                                                                              | Coord                                                                             | Coord                                                                             | Max                                                                                 | Gap                                                                                 |                                                                                     | Gap                                                                                 | Hold                                                                                |                                                                                     |
| Queue Length 50th (ft)  | 59                                                                                | 534                                                                               | 0                                                                                 | 16                                                                                | 256                                                                               | 0                                                                                 | 99                                                                                  | 168                                                                                 |                                                                                     | 89                                                                                  | 119                                                                                 |                                                                                     |
| Queue Length 95th (ft)  | #170                                                                              | #941                                                                              | 19                                                                                | 71                                                                                | #622                                                                              | 28                                                                                | 121                                                                                 | 222                                                                                 |                                                                                     | 112                                                                                 | 158                                                                                 |                                                                                     |
| Internal Link Dist (ft) |                                                                                   | 655                                                                               |                                                                                   |                                                                                   | 710                                                                               |                                                                                   |                                                                                     | 361                                                                                 |                                                                                     |                                                                                     | 564                                                                                 |                                                                                     |
| Turn Bay Length (ft)    | 200                                                                               |                                                                                   | 225                                                                               | 100                                                                               |                                                                                   | 200                                                                               | 145                                                                                 |                                                                                     |                                                                                     | 130                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 300                                                                               | 1882                                                                              | 854                                                                               | 256                                                                               | 1705                                                                              | 783                                                                               | 351                                                                                 | 489                                                                                 |                                                                                     | 400                                                                                 | 676                                                                                 |                                                                                     |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio       | 0.62                                                                              | 0.83                                                                              | 0.09                                                                              | 0.22                                                                              | 0.68                                                                              | 0.08                                                                              | 0.50                                                                                | 0.53                                                                                |                                                                                     | 0.40                                                                                | 0.31                                                                                |                                                                                     |

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Natural Cycle: 125

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 32.9

Intersection LOS: C

Intersection Capacity Utilization 82.5%

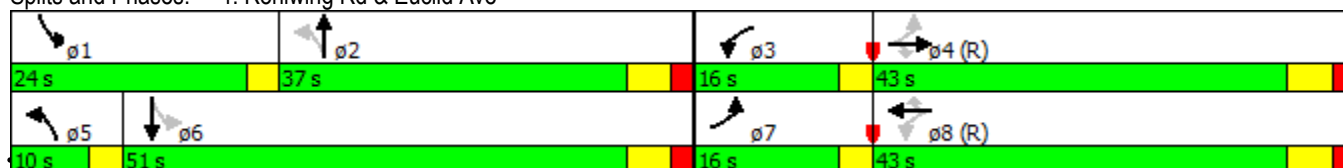
ICU Level of Service E

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

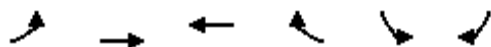
Queue shown is maximum after two cycles.

Splits and Phases: 4: Rohlwing Rd & Euclid Ave



2022 Future with Project - No Right Turn Lane  
2: Euclid Ave & Salt Creek Ln

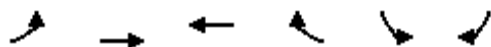
Timing Plan: PM  
8/13/2015



| Lane Group                 | EBL   | EBT   | WBT   | WBR   | SBL   | SBR   |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations        |       |       |       |       |       |       |
| Volume (vph)               | 122   | 1079  | 1526  | 100   | 175   | 253   |
| Ideal Flow (vphpl)         | 1900  | 2000  | 1900  | 1900  | 1900  | 1900  |
| Storage Length (ft)        | 150   |       |       | 0     | 200   | 0     |
| Storage Lanes              | 1     |       |       | 0     | 1     | 1     |
| Taper Length (ft)          | 25    |       |       |       | 25    |       |
| Lane Util. Factor          | 1.00  | 0.95  | 0.95  | 0.95  | 1.00  | 1.00  |
| Frt                        |       |       | 0.991 |       |       | 0.850 |
| Flt Protected              | 0.950 |       |       |       | 0.950 |       |
| Satd. Flow (prot)          | 1770  | 3725  | 3507  | 0     | 1770  | 1583  |
| Flt Permitted              | 0.071 |       |       |       | 0.950 |       |
| Satd. Flow (perm)          | 132   | 3725  | 3507  | 0     | 1770  | 1583  |
| Right Turn on Red          |       |       |       | Yes   |       | Yes   |
| Satd. Flow (RTOR)          |       |       | 10    |       |       | 29    |
| Link Speed (mph)           |       | 40    | 40    |       | 30    |       |
| Link Distance (ft)         |       | 842   | 459   |       | 580   |       |
| Travel Time (s)            |       | 14.4  | 7.8   |       | 13.2  |       |
| Peak Hour Factor           | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| Adj. Flow (vph)            | 128   | 1136  | 1606  | 105   | 184   | 266   |
| Shared Lane Traffic (%)    |       |       |       |       |       |       |
| Lane Group Flow (vph)      | 128   | 1136  | 1711  | 0     | 184   | 266   |
| Enter Blocked Intersection | No    | No    | No    | No    | No    | No    |
| Lane Alignment             | Left  | Left  | Left  | Right | Left  | Right |
| Median Width(ft)           |       | 12    | 12    |       | 12    |       |
| Link Offset(ft)            |       | 0     | 0     |       | 0     |       |
| Crosswalk Width(ft)        |       | 16    | 16    |       | 16    |       |
| Two way Left Turn Lane     |       |       |       |       | Yes   |       |
| Headway Factor             | 1.00  | 0.94  | 1.00  | 1.00  | 1.00  | 1.00  |
| Turning Speed (mph)        | 15    |       |       | 9     | 15    | 9     |
| Turn Type                  | pm+pt | NA    | NA    |       | Prot  | pt+ov |
| Protected Phases           | 7     | 4     | 8     |       | 6     | 6 7   |
| Permitted Phases           | 4     |       |       |       |       |       |
| Detector Phase             | 7     | 4     | 8     |       | 6     | 6 7   |
| Switch Phase               |       |       |       |       |       |       |
| Minimum Initial (s)        | 5.0   | 5.0   | 5.0   |       | 5.0   |       |
| Minimum Split (s)          | 9.5   | 24.0  | 35.0  |       | 24.0  |       |
| Total Split (s)            | 16.0  | 94.0  | 78.0  |       | 26.0  |       |
| Total Split (%)            | 13.3% | 78.3% | 65.0% |       | 21.7% |       |
| Maximum Green (s)          | 13.0  | 88.0  | 72.0  |       | 20.0  |       |
| Yellow Time (s)            | 3.0   | 4.0   | 4.0   |       | 4.0   |       |
| All-Red Time (s)           | 0.0   | 2.0   | 2.0   |       | 2.0   |       |
| Lost Time Adjust (s)       | 0.0   | 0.0   | 0.0   |       | 0.0   |       |
| Total Lost Time (s)        | 3.0   | 6.0   | 6.0   |       | 6.0   |       |
| Lead/Lag                   | Lead  |       | Lag   |       |       |       |
| Lead-Lag Optimize?         | Yes   |       | Yes   |       |       |       |
| Vehicle Extension (s)      | 3.0   | 3.0   | 3.0   |       | 3.0   |       |
| Recall Mode                | None  | C-Max | C-Max |       | Min   |       |
| Walk Time (s)              |       |       | 7.0   |       |       |       |
| Flash Dont Walk (s)        |       |       | 22.0  |       |       |       |

2022 Future with Project - No Right Turn Lane  
2: Euclid Ave & Salt Creek Ln

Timing Plan: PM  
8/13/2015

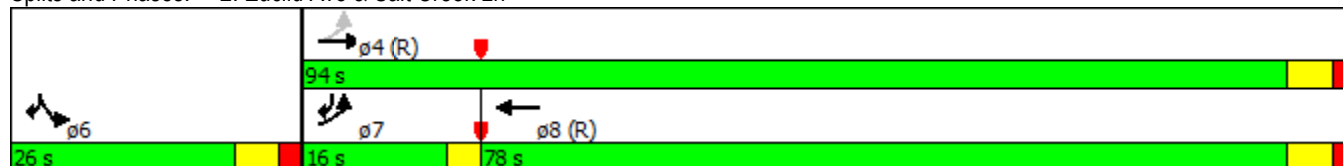


| Lane Group              | EBL  | EBT   | WBT   | WBR | SBL  | SBR  |
|-------------------------|------|-------|-------|-----|------|------|
| Pedestrian Calls (#/hr) |      |       | 2     |     |      |      |
| Act Effct Green (s)     | 92.6 | 89.6  | 77.3  |     | 18.4 | 30.7 |
| Actuated g/C Ratio      | 0.77 | 0.75  | 0.64  |     | 0.15 | 0.26 |
| v/c Ratio               | 0.56 | 0.41  | 0.76  |     | 0.68 | 0.62 |
| Control Delay           | 28.4 | 7.4   | 18.4  |     | 60.8 | 41.2 |
| Queue Delay             | 0.0  | 0.0   | 0.2   |     | 0.0  | 0.0  |
| Total Delay             | 28.4 | 7.4   | 18.5  |     | 60.8 | 41.2 |
| LOS                     | C    | A     | B     |     | E    | D    |
| Approach Delay          |      | 9.6   | 18.5  |     | 49.2 |      |
| Approach LOS            |      | A     | B     |     | D    |      |
| 90th %ile Green (s)     | 13.0 | 88.0  | 72.0  |     | 20.0 |      |
| 90th %ile Term Code     | Max  | Coord | Coord |     | Max  |      |
| 70th %ile Green (s)     | 11.3 | 88.0  | 73.7  |     | 20.0 |      |
| 70th %ile Term Code     | Gap  | Coord | Coord |     | Max  |      |
| 50th %ile Green (s)     | 8.9  | 88.0  | 76.1  |     | 20.0 |      |
| 50th %ile Term Code     | Gap  | Coord | Coord |     | Max  |      |
| 30th %ile Green (s)     | 7.0  | 89.6  | 79.6  |     | 18.4 |      |
| 30th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| 10th %ile Green (s)     | 6.1  | 94.2  | 85.1  |     | 13.8 |      |
| 10th %ile Term Code     | Gap  | Coord | Coord |     | Gap  |      |
| Queue Length 50th (ft)  | 50   | 108   | 460   |     | 134  | 161  |
| Queue Length 95th (ft)  | 102  | 276   | 616   |     | 213  | 241  |
| Internal Link Dist (ft) |      | 762   | 379   |     | 500  |      |
| Turn Bay Length (ft)    | 150  |       |       |     | 200  |      |
| Base Capacity (vph)     | 279  | 2780  | 2262  |     | 295  | 463  |
| Starvation Cap Reductn  | 0    | 0     | 0     |     | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0     | 89    |     | 0    | 0    |
| Storage Cap Reductn     | 0    | 0     | 0     |     | 0    | 0    |
| Reduced v/c Ratio       | 0.46 | 0.41  | 0.79  |     | 0.62 | 0.57 |

Intersection Summary

Area Type: Other  
Cycle Length: 120  
Actuated Cycle Length: 120  
Offset: 90 (75%), Referenced to phase 4:EBTL and 8:WBT, Start of Green  
Natural Cycle: 80  
Control Type: Actuated-Coordinated  
Maximum v/c Ratio: 0.76  
Intersection Signal Delay: 19.3  
Intersection Capacity Utilization 75.2%  
Analysis Period (min) 15  
Intersection LOS: B  
ICU Level of Service D

Splits and Phases: 2: Euclid Ave & Salt Creek Ln



2022 Future with Project - No Right Turn Lane  
4: Rohlwing Rd & Euclid Ave

Timing Plan: MD Sat  
10/7/2015

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |  |  |  |                                                                                     |  |  |                                                                                     |
| Traffic Volume (vph)       | 156                                                                               | 1546                                                                              | 149                                                                               | 55                                                                                | 910                                                                               | 25                                                                                | 146                                                                                 | 97                                                                                  | 77                                                                                  | 46                                                                                  | 95                                                                                  | 91                                                                                  |
| Future Volume (vph)        | 156                                                                               | 1546                                                                              | 149                                                                               | 55                                                                                | 910                                                                               | 25                                                                                | 146                                                                                 | 97                                                                                  | 77                                                                                  | 46                                                                                  | 95                                                                                  | 91                                                                                  |
| Ideal Flow (vphpl)         | 1900                                                                              | 2000                                                                              | 1900                                                                              | 1900                                                                              | 2000                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 200                                                                               |                                                                                   | 225                                                                               | 100                                                                               |                                                                                   | 200                                                                               | 145                                                                                 |                                                                                     | 0                                                                                   | 130                                                                                 |                                                                                     | 130                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                   |                                                                                     | 0                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                  |                                                                                     |                                                                                     | 25                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                     | 0.934                                                                               |                                                                                     |                                                                                     | 0.927                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3725                                                                              | 1583                                                                              | 1770                                                                              | 3725                                                                              | 1583                                                                              | 1770                                                                                | 1740                                                                                | 0                                                                                   | 1770                                                                                | 1727                                                                                | 0                                                                                   |
| Flt Permitted              | 0.216                                                                             |                                                                                   |                                                                                   | 0.063                                                                             |                                                                                   |                                                                                   | 0.423                                                                               |                                                                                     |                                                                                     | 0.531                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 402                                                                               | 3725                                                                              | 1583                                                                              | 117                                                                               | 3725                                                                              | 1583                                                                              | 788                                                                                 | 1740                                                                                | 0                                                                                   | 989                                                                                 | 1727                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 82                                                                                |                                                                                   |                                                                                   | 82                                                                                |                                                                                     | 38                                                                                  |                                                                                     |                                                                                     | 46                                                                                  |                                                                                     |
| Link Speed (mph)           |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 40                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 735                                                                               |                                                                                   |                                                                                   | 790                                                                               |                                                                                   |                                                                                     | 441                                                                                 |                                                                                     |                                                                                     | 644                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 12.5                                                                              |                                                                                   |                                                                                   | 13.5                                                                              |                                                                                   |                                                                                     | 10.0                                                                                |                                                                                     |                                                                                     | 11.0                                                                                |                                                                                     |
| Peak Hour Factor           | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Adj. Flow (vph)            | 164                                                                               | 1627                                                                              | 157                                                                               | 58                                                                                | 958                                                                               | 26                                                                                | 154                                                                                 | 102                                                                                 | 81                                                                                  | 48                                                                                  | 100                                                                                 | 96                                                                                  |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 164                                                                               | 1627                                                                              | 157                                                                               | 58                                                                                | 958                                                                               | 26                                                                                | 154                                                                                 | 183                                                                                 | 0                                                                                   | 48                                                                                  | 196                                                                                 | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 16                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 16                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 0.94                                                                              | 1.00                                                                              | 1.00                                                                              | 0.94                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases           | 4                                                                                 |                                                                                   | 4                                                                                 | 8                                                                                 |                                                                                   | 8                                                                                 | 2                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     |
| Detector Phase             | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Switch Phase               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)        | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                               | 5.0                                                                                 | 5.0                                                                                 |                                                                                     | 5.0                                                                                 | 5.0                                                                                 |                                                                                     |
| Minimum Split (s)          | 9.5                                                                               | 24.0                                                                              | 24.0                                                                              | 9.5                                                                               | 35.0                                                                              | 35.0                                                                              | 9.5                                                                                 | 24.0                                                                                |                                                                                     | 9.5                                                                                 | 51.0                                                                                |                                                                                     |
| Total Split (s)            | 16.0                                                                              | 43.0                                                                              | 43.0                                                                              | 16.0                                                                              | 43.0                                                                              | 43.0                                                                              | 10.0                                                                                | 51.0                                                                                |                                                                                     | 10.0                                                                                | 51.0                                                                                |                                                                                     |
| Total Split (%)            | 13.3%                                                                             | 35.8%                                                                             | 35.8%                                                                             | 13.3%                                                                             | 35.8%                                                                             | 35.8%                                                                             | 8.3%                                                                                | 42.5%                                                                               |                                                                                     | 8.3%                                                                                | 42.5%                                                                               |                                                                                     |
| Maximum Green (s)          | 13.0                                                                              | 37.0                                                                              | 37.0                                                                              | 13.0                                                                              | 37.0                                                                              | 37.0                                                                              | 7.0                                                                                 | 45.0                                                                                |                                                                                     | 7.0                                                                                 | 45.0                                                                                |                                                                                     |
| Yellow Time (s)            | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                                 | 4.0                                                                                 |                                                                                     | 3.0                                                                                 | 4.0                                                                                 |                                                                                     |
| All-Red Time (s)           | 0.0                                                                               | 2.0                                                                               | 2.0                                                                               | 0.0                                                                               | 2.0                                                                               | 2.0                                                                               | 0.0                                                                                 | 2.0                                                                                 |                                                                                     | 0.0                                                                                 | 2.0                                                                                 |                                                                                     |
| Lost Time Adjust (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)        | 3.0                                                                               | 6.0                                                                               | 6.0                                                                               | 3.0                                                                               | 6.0                                                                               | 6.0                                                                               | 3.0                                                                                 | 6.0                                                                                 |                                                                                     | 3.0                                                                                 | 6.0                                                                                 |                                                                                     |
| Lead/Lag                   | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?         | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Vehicle Extension (s)      | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                               | 3.0                                                                                 | 3.0                                                                                 |                                                                                     | 3.0                                                                                 | 3.0                                                                                 |                                                                                     |
| Recall Mode                | None                                                                              | C-Max                                                                             | C-Max                                                                             | None                                                                              | C-Max                                                                             | C-Max                                                                             | None                                                                                | Min                                                                                 |                                                                                     | None                                                                                | Min                                                                                 |                                                                                     |
| Walk Time (s)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 7.0                                                                               | 7.0                                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 7.0                                                                                 |



2022 Future with Project - No Right Turn Lane  
4: Rohlwing Rd & Euclid Ave

Timing Plan: MD Sat  
10/7/2015

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Flash Dont Walk (s)     |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 22.0                                                                              | 22.0                                                                              |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 38.0                                                                                |
| Pedestrian Calls (#/hr) |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 2                                                                                 | 2                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 2                                                                                   |
| Act Effct Green (s)     | 80.1                                                                              | 69.1                                                                              | 69.1                                                                              | 75.1                                                                              | 65.1                                                                              | 65.1                                                                              | 31.1                                                                               | 22.5                                                                                |                                                                                     | 30.2                                                                                | 20.5                                                                                |                                                                                     |
| Actuated g/C Ratio      | 0.67                                                                              | 0.58                                                                              | 0.58                                                                              | 0.63                                                                              | 0.54                                                                              | 0.54                                                                              | 0.26                                                                               | 0.19                                                                                |                                                                                     | 0.25                                                                                | 0.17                                                                                |                                                                                     |
| v/c Ratio               | 0.44                                                                              | 0.76                                                                              | 0.17                                                                              | 0.34                                                                              | 0.47                                                                              | 0.03                                                                              | 0.59                                                                               | 0.51                                                                                |                                                                                     | 0.16                                                                                | 0.59                                                                                |                                                                                     |
| Control Delay           | 13.7                                                                              | 25.0                                                                              | 9.6                                                                               | 27.9                                                                              | 16.6                                                                              | 0.2                                                                               | 42.2                                                                               | 37.9                                                                                |                                                                                     | 28.8                                                                                | 39.7                                                                                |                                                                                     |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay             | 13.7                                                                              | 25.0                                                                              | 9.6                                                                               | 27.9                                                                              | 16.6                                                                              | 0.2                                                                               | 42.2                                                                               | 37.9                                                                                |                                                                                     | 28.8                                                                                | 39.7                                                                                |                                                                                     |
| LOS                     | B                                                                                 | C                                                                                 | A                                                                                 | C                                                                                 | B                                                                                 | A                                                                                 | D                                                                                  | D                                                                                   |                                                                                     | C                                                                                   | D                                                                                   |                                                                                     |
| Approach Delay          |                                                                                   | 22.8                                                                              |                                                                                   |                                                                                   | 16.9                                                                              |                                                                                   |                                                                                    | 39.8                                                                                |                                                                                     |                                                                                     | 37.5                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                    | D                                                                                   |                                                                                     |                                                                                     | D                                                                                   |                                                                                     |
| 90th %ile Green (s)     | 13.0                                                                              | 40.3                                                                              | 40.3                                                                              | 9.7                                                                               | 37.0                                                                              | 37.0                                                                              | 7.0                                                                                | 45.0                                                                                |                                                                                     | 7.0                                                                                 | 45.0                                                                                |                                                                                     |
| 90th %ile Term Code     | Max                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Max                                                                                 | Ped                                                                                 |                                                                                     |
| 70th %ile Green (s)     | 10.3                                                                              | 68.6                                                                              | 68.6                                                                              | 7.3                                                                               | 65.6                                                                              | 65.6                                                                              | 7.0                                                                                | 19.1                                                                                |                                                                                     | 7.0                                                                                 | 19.1                                                                                |                                                                                     |
| 70th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Max                                                                                 | Gap                                                                                 |                                                                                     |
| 50th %ile Green (s)     | 9.0                                                                               | 72.2                                                                              | 72.2                                                                              | 6.6                                                                               | 69.8                                                                              | 69.8                                                                              | 7.0                                                                                | 16.2                                                                                |                                                                                     | 7.0                                                                                 | 16.2                                                                                |                                                                                     |
| 50th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Max                                                                                 | Gap                                                                                 |                                                                                     |
| 30th %ile Green (s)     | 7.9                                                                               | 75.6                                                                              | 75.6                                                                              | 6.1                                                                               | 73.8                                                                              | 73.8                                                                              | 7.0                                                                                | 13.3                                                                                |                                                                                     | 7.0                                                                                 | 13.3                                                                                |                                                                                     |
| 30th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Gap                                                                               | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Max                                                                                 | Gap                                                                                 |                                                                                     |
| 10th %ile Green (s)     | 6.7                                                                               | 88.9                                                                              | 88.9                                                                              | 0.0                                                                               | 79.2                                                                              | 79.2                                                                              | 7.0                                                                                | 19.1                                                                                |                                                                                     | 0.0                                                                                 | 9.1                                                                                 |                                                                                     |
| 10th %ile Term Code     | Gap                                                                               | Coord                                                                             | Coord                                                                             | Skip                                                                              | Coord                                                                             | Coord                                                                             | Max                                                                                | Hold                                                                                |                                                                                     | Skip                                                                                | Gap                                                                                 |                                                                                     |
| Queue Length 50th (ft)  | 37                                                                                | 441                                                                               | 23                                                                                | 11                                                                                | 135                                                                               | 0                                                                                 | 99                                                                                 | 108                                                                                 |                                                                                     | 29                                                                                  | 113                                                                                 |                                                                                     |
| Queue Length 95th (ft)  | 118                                                                               | #988                                                                              | 93                                                                                | 60                                                                                | 452                                                                               | m1                                                                                | 108                                                                                | 133                                                                                 |                                                                                     | 41                                                                                  | 138                                                                                 |                                                                                     |
| Internal Link Dist (ft) |                                                                                   | 655                                                                               |                                                                                   |                                                                                   | 710                                                                               |                                                                                   |                                                                                    | 361                                                                                 |                                                                                     |                                                                                     | 564                                                                                 |                                                                                     |
| Turn Bay Length (ft)    | 200                                                                               |                                                                                   | 225                                                                               | 100                                                                               |                                                                                   | 200                                                                               | 145                                                                                |                                                                                     |                                                                                     | 130                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 417                                                                               | 2145                                                                              | 946                                                                               | 256                                                                               | 2020                                                                              | 896                                                                               | 261                                                                                | 676                                                                                 |                                                                                     | 297                                                                                 | 676                                                                                 |                                                                                     |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio       | 0.39                                                                              | 0.76                                                                              | 0.17                                                                              | 0.23                                                                              | 0.47                                                                              | 0.03                                                                              | 0.59                                                                               | 0.27                                                                                |                                                                                     | 0.16                                                                                | 0.29                                                                                |                                                                                     |

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Natural Cycle: 135

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 23.7

Intersection LOS: C

Intersection Capacity Utilization 80.1%

ICU Level of Service D

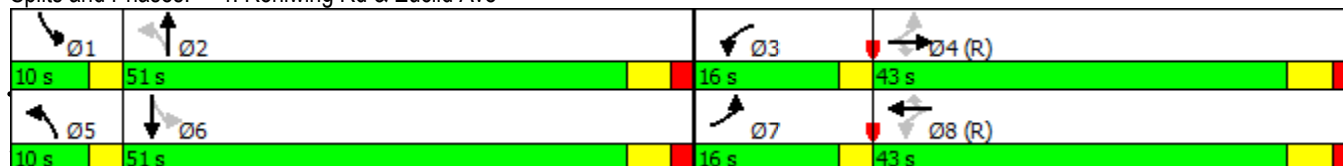
Analysis Period (min) 15

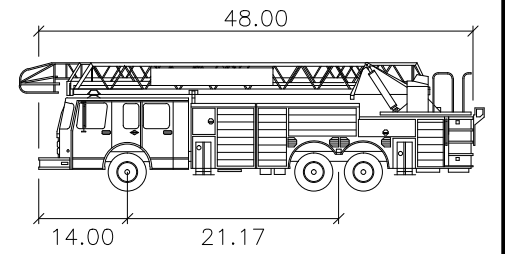
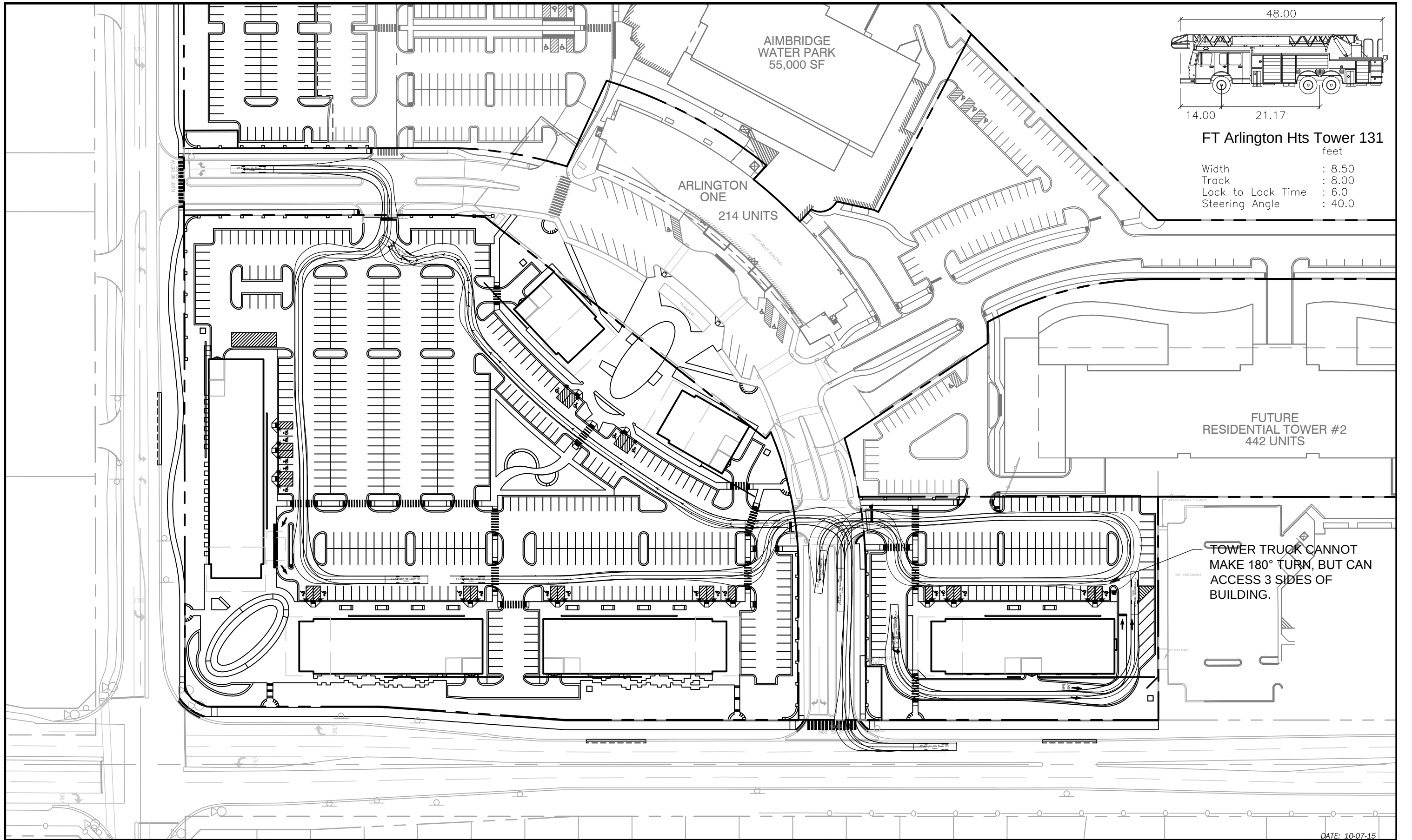
# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Rohlwing Rd & Euclid Ave





**FT Arlington Hts Tower 131**  
feet

|                   |        |
|-------------------|--------|
| Width             | : 8.50 |
| Track             | : 8.00 |
| Lock to Lock Time | : 6.0  |
| Steering Angle    | : 40.0 |



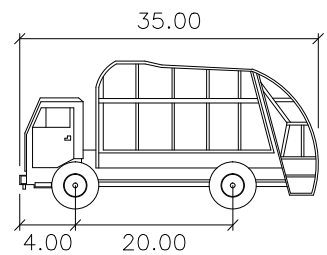
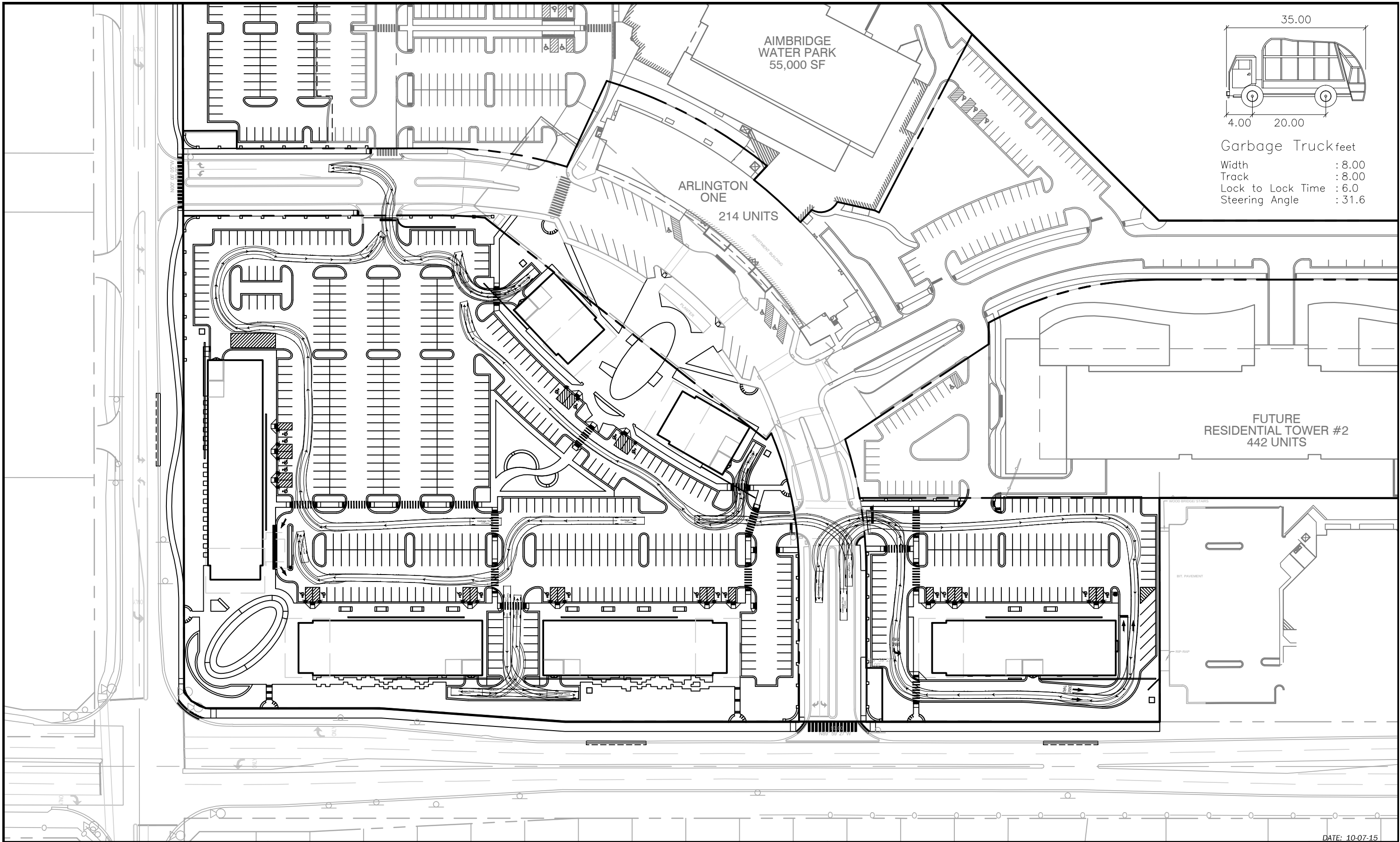
V3 Companies  
7325 Janes Avenue  
Woodridge, IL 60517  
630.724.9200 phone  
630.724.9202 fax  
www.v3co.com

# ARLINGTON DOWNS II - RETAIL

ARLINGTON HEIGHTS ILLINOIS

# FIRE TRUCK TURNING EXHIBIT





Garbage Truck feet  
 Width : 8.00  
 Track : 8.00  
 Lock to Lock Time : 6.0  
 Steering Angle : 31.6

V3 Companies  
 7325 Janes Avenue  
 Woodridge, IL 60517  
 630.724.9200 phone  
 630.724.9202 fax  
 www.v3co.com

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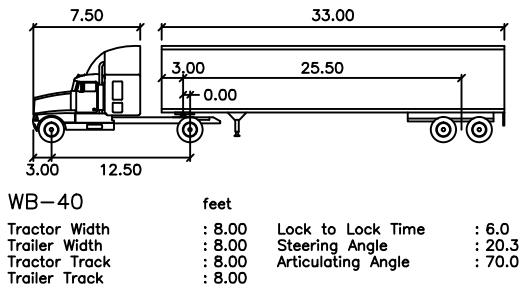
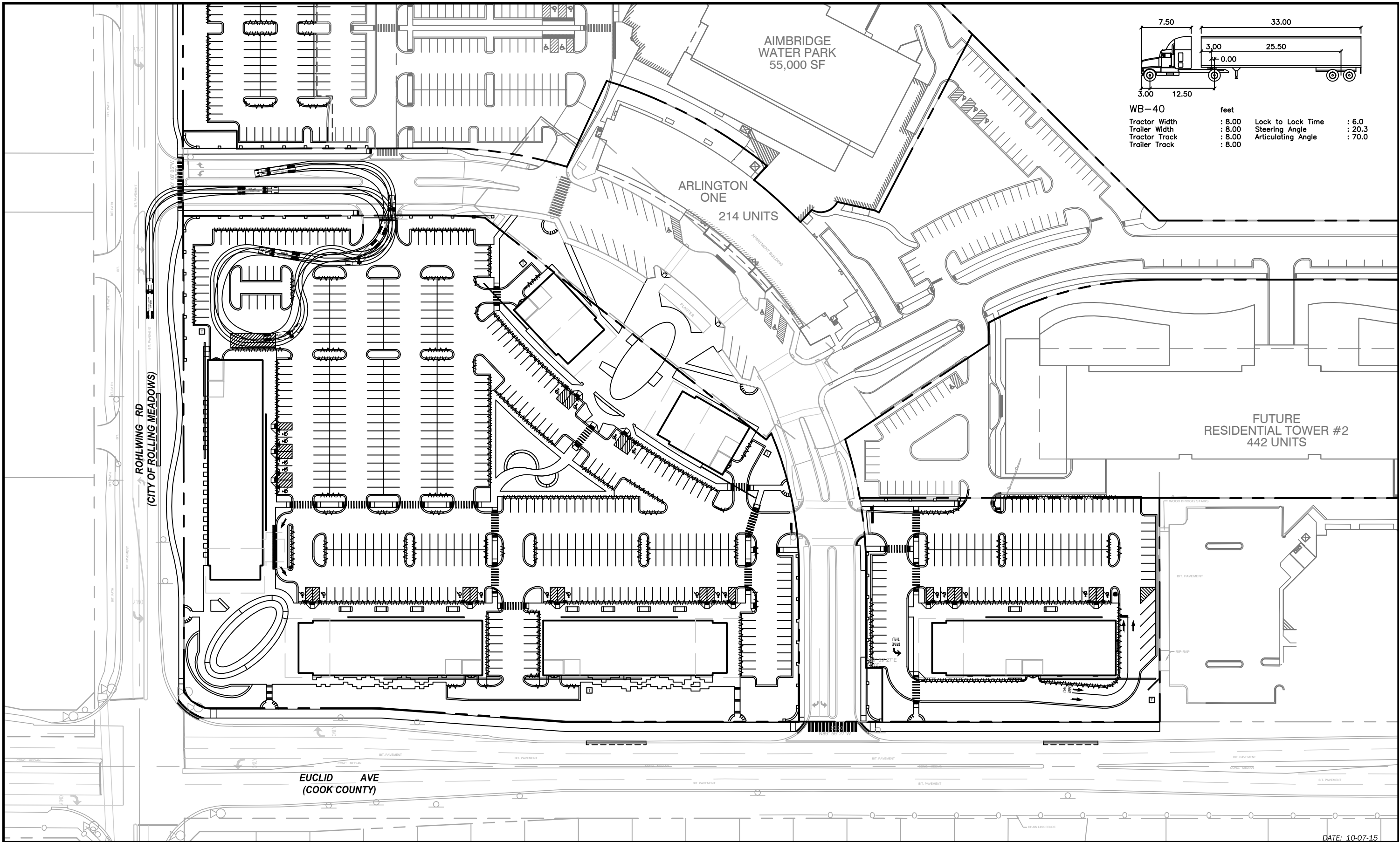
# ARLINGTON DOWNS II - RETAIL

ARLINGTON HEIGHTS

ILLINOIS

# GARBAGE TRUCK TURNING EXHIBIT

SCALE: 1" = 100'



**V3**

V3 Companies  
7325 Janes Avenue  
Woodridge, IL 60517  
630.724.9200 phone  
630.724.9202 fax  
www.v3co.com

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# ARLINGTON DOWNS II - RETAIL

ARLINGTON HEIGHTS ILLINOIS

# WB40 TRUCK TURNING EXHIBIT

**N**  
**V**  
**E**

SCALE: 1" = 100'

# BUILDING DEPARTMENT

1

## PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

Petition #: P.C. 15-020  
 Petitioner: Jeffrey Funke  
515 Lincoln Avenue  
Winnetka, IL 60093  
 Owner: Arlington Downs WPH, LLC;  
Arlington Downs Commercial, LLC;  
Arlington Downs Commercial, LLC;  
 Contact Person: Vince Bertucci  
 Address: 515 Lincoln Avenue  
Winnetka, IL 60093  
 Phone #: 312.451.5103  
 Fax #: N/A  
 E-Mail: vbortucci@chiarc.net

P.I.N.# 02-25-100-037&039 and 02-26-201-206&027  
 Location: 3400 W. Euclid Avenue  
 Rezoning:        Current:        Proposed:         
 Subdivision:         
 # of Lots:        Current:        Proposed:         
 PUD: ✓ For:         
 Special Use:        For:         
 Land Use Variation:        For:         
 Land Use:        Current:         
Proposed:         
 Site Gross Area: 500,000 SF / 11.5 acres  
 # of Units Total:         
 1BR:        2BR:        3BR:        4BR:       

(Petitioner: Please do not write below this line.)

DO EXISTING STRUCTURES, IF ANY, MEET MINIMUM REQUIREMENTS OF THE FOLLOWING:

YES      NO

1.               VILLAGE      BUILDING CODE
2.               PRESENT      ZONING USE
3.               REQUESTED      ZONING USE
4.               SUBDIVISION      REQUIRED
5.               SIGN      CODE

6. GENERAL COMMENTS:

NO COMMENTS

Deb Pierce      9-8-15  
 Director PLAN REVIEWER      Date



## BUILDING DEPARTMENT

1A

## PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

Petition #: P.C. 15-020  
Petitioner: Jeffrey Funke  
515 Lincoln Avenue  
Winnetka, IL 60093  
Owner: Arlington Downs WPH, LLC;  
Arlington Downs Commercial, LLC;  
Arlington Downs Commercial, LLC;  
Contact Person: Vince Bertucci  
Address: 515 Lincoln Avenue  
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Phone #: 312.451.5103  
Fax #: N/A  
E-Mail: vbertucci@chiarc.net

P.I.N.# 02-25-100-037&039 and 02-26-201-206&027  
Location: 3400 W. Euclid Avenue  
Rezoning:          Current:          Proposed:           
Subdivision:           
# of Lots:          Current:          Proposed:           
PUD:          ☒ For:           
Special Use:          For:           
Land Use Variation:          For:           
  
Land Use:          Current:           
         Proposed:           
Site Gross Area: 500,000 SF / 11.5 acres  
# of Units Total:           
1BR:          2BR:          3BR:          4BR:         

(Petitioner: Please do not write below this line.)

INSPECTIONAL SERVICES

*No Comments*

*P.D.*

*9/8/15*

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PLANNING & COMMUNITY  
DEVELOPMENT DEPARTMENT

Director

Date

## PUBLIC WORKS DEPARTMENT

2

## PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

Petition #: P.C. 15-060  
 Petitioner: Jeffrey Funke  
515 Lincoln Avenue  
Winnetka, IL 60093  
 Owner: Arlington Downs WPH, LLC;  
Arlington Downs Commercial, LLC;  
Arlington Downs Commercial, LLC;  
 Contact Person: Vince Bertucci  
 Address: 515 Lincoln Avenue  
Winnetka, IL 60093  
 Phone #: 312.451.5103  
 Fax #: N/A  
 E-Mail: vbortucci@chiarc.net

P.I.N.# 02-25-100-037&039 and 02-26-201-206&027  
 Location: 3400 W. Euclid Avenue  
 Rezoning:        Current:        Proposed:         
 Subdivision:         
 # of Lots:        Current:        Proposed:         
 PUD:        ✓ For:         
 Special Use:        For:         
 Land Use Variation:        For:         
 Land Use:        Current:         
Proposed:         
 Site Gross Area: 500,000 SF / 11.5 acres  
 # of Units Total:         
 1BR:        2BR:        3BR:        4BR:       

(Petitioner: Please do not write below this line.)

|                 | EXISTING<br>IMPROVEMENT | REQUIRED<br>IMPROVEMENT | COMMENTS               |
|-----------------|-------------------------|-------------------------|------------------------|
| 1. UTILITIES:   |                         |                         |                        |
| Water           | <u>      </u>           | <u>      </u> /         | <u>See Memo 9-9-15</u> |
| Metering        | <u>      </u>           | <u>      </u>           | <u>      </u>          |
| Backflow        | <u>      </u>           | <u>      </u> /         | <u>See memo 9-9-15</u> |
| Sanitary Sewer  | <u>      </u>           | <u>      </u> /         | <u>" " 9-9-15</u>      |
| Storm Sewer     | <u>      </u>           | <u>      </u> /         | <u>" " 9-9-15</u>      |
| 2. SURFACE:     |                         |                         |                        |
| Pavement        | <u>      </u>           | <u>      </u>           | <u>      </u>          |
| Curb & Gutter   | <u>      </u>           | <u>      </u>           | <u>      </u>          |
| Sidewalks       | <u>      </u>           | <u>      </u>           | <u>      </u>          |
| Street Lighting | <u>      </u>           | <u>      </u>           | <u>      </u>          |

## 3. GENERAL COMMENTS:

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PLANNING & COMMUNITY  
DEVELOPMENT DEPARTMENT

Asst. Director [Signature] 9-24-15 Date  
 SEE memo 9-9-15

Village of Arlington Heights  
Public Works Department

## Memorandum

To: Cris Papierniak, Assistant Director of Public Works

From: Jeff Musinski, Utilities Superintendent

Date: September 9, 2015

Subject: 3400 W. Euclid, P.C. #15-020 PUD Amendment Round 1

---

With regard to the PUD Amendment, I have the following comments:

- 1) All materials and methods of construction must adhere to the most recent version of "A Manual of Practice for The Design of Public & Private Improvements"
- 2) Separation must be maintained between water, sanitary and storm in accordance with IEPA Standards. When separation cannot be maintained, methods of construction as outlined by the IEPA must be followed.
- 3) Upon review of the submitted half sheets, I cannot see that any hydrants are proposed with this construction. Please adhere to fire protection standards with regard to the placement of hydrants.
- 4) Approved RPZ devices must be installed in all new buildings to protect the domestic and fire service.
- 5) Grease traps must be installed for all buildings where the potential exists that grease can enter into the sewer system.

If you have any questions, please feel free to contact me.

C. file

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SEP 25 2015  
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DEVELOPMENT DEPARTMENT

## PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

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P.I.N.# 02-25-100-037&039 and 02-26-201-206&027  
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 PUD: ☒ For: \_\_\_\_\_  
 Special Use: \_\_\_\_\_ For: \_\_\_\_\_  
 Land Use Variation: \_\_\_\_\_ For: \_\_\_\_\_  
 Land Use: \_\_\_\_\_ Current: \_\_\_\_\_  
 Proposed: \_\_\_\_\_  
 Site Gross Area: 500.000 SF / 11.5 acres  
 # of Units Total: \_\_\_\_\_  
 1BR: \_\_\_\_\_ 2BR: \_\_\_\_\_ 3BR: \_\_\_\_\_ 4BR: \_\_\_\_\_

(Petitioner: Please do not write below this line.)

## 1. PUBLIC IMPROVEMENTS

REQUIRED: \_\_\_\_\_ YES NO COMMENTS

## a. Underground Utilities

Water \_\_\_\_\_ X

Sanitary Sewer \_\_\_\_\_ X

Storm Sewer \_\_\_\_\_ X

## b. Surface Improvement

Pavement \_\_\_\_\_ X

Curb & Gutter \_\_\_\_\_ X

Sidewalks \_\_\_\_\_ X

Street Lighting \_\_\_\_\_ X

## c. Easements

Utility & Drainage \_\_\_\_\_ X

Access \_\_\_\_\_ X

## 2. PERMITS REQUIRED OTHER THAN VILLAGE:

a. MWRDGC X

b. IDOT \_\_\_\_\_

c. ARMY CORP \_\_\_\_\_

d. IEPA X

e. CCHD X

f. CoRM X

3. R.O.W. DEDICATIONS? \_\_\_\_\_  
 4. SITE PLAN ACCEPTABLE? \_\_\_\_\_  
 5. PRELIMINARY PLAT ACCEPTABLE? \_\_\_\_\_  
 6. TRAFFIC STUDY ACCEPTABLE? \_\_\_\_\_  
 7. STORM WATER DETENTION REQUIRED? X  
 8. CONTRIBUTION ORDINANCE EXISTING? X  
 9. FLOOD PLAIN OR FLOODWAY EXISTING? X  
 10. WETLAND EXISTING? X

YES NO COMMENTS

\_\_\_\_\_ X

\_\_\_\_\_ X

\_\_\_\_\_ X

\_\_\_\_\_ X

\_\_\_\_\_ X

\_\_\_\_\_ X

\_\_\_\_\_ X

\_\_\_\_\_ X

SEE COMMENTS

N/A

GENERAL COMMENTS ATTACHED

PLANS PREPARED BY: V3 COMPANIES

DATE OF PLANS: 9-3-2015

James J. Mull 10/2/15  
 Director Date

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OCT - 2 2015

PLANNING & COMMUNITY  
 DEVELOPMENT DEPARTMENT

PER PHASE 2  
PER CITY OF ROLLING MEADOWS

MODIFY EXISTING  
AS NECESSARY

**PLAN COMMISSION PC #15-020**  
**Arlington Downs Phase 3**  
**3400 W. Euclid Ave.**  
**PUD Amendment**  
**Round 1**

11. The petitioner is notified that these comments are being provided to ensure that the project meets the requirements for submittal to the Plan Commission. Approval by the Plan Commission is not an endorsement or approval of these documents to obtain the required building permits, engineering approval, or permits required by other government or permitting agencies for construction. Detailed plan review with associated comments will be provided upon submittal of plans for a building permit. The petitioner shall acknowledge that they accept this understanding.
12. Final engineering plans shall be georeferenced by using State Plane Coordinate System – Illinois East. Below are details about projection:

|                               |                                                  |
|-------------------------------|--------------------------------------------------|
| Projected Coordinate System:  | NAD_1983_StatePlane_Illinois_East_FIPS_1201_Feet |
| Projection:                   | Transverse_Mercator                              |
| False_Easting:                | 984250.00000000                                  |
| False_Northing:               | 0.00000000                                       |
| Central_Meridian:             | -88.33333333                                     |
| Scale_Factor:                 | 0.99997500                                       |
| Latitude_Of_Origin:           | 36.66666667                                      |
| Linear Unit:                  | Foot_US                                          |
| Geographic Coordinate System: | GCS_North_American_1983                          |
| Datum:                        | D_North_American_1983                            |
| Prime Meridian:               | Greenwich                                        |
| Angular Unit:                 | Degree                                           |

13. Final approval will require final engineering plans including detention calculations showing HWL, storage required, storage provided, and restrictor sizing calculations. Any detention storage system located under pavement must be designed to AASHTO HS-25 loading standard.
14. Include calculations in the Stormwater Management Report showing the provided storage in the proposed vault and additional pipes. Similarly, include calculations for the volume control storage.
15. Provide an exhibit to engineering scale showing the turning path of the Fire Department's responding vehicle, in this case the tower truck. Exhibit must show front and rear wheel paths and the extent of the front and rear overhangs, as provided in an "Autoturn" exhibit. The vehicle shall be shown maneuvering through the site in all possible directions of travel. Attached are the specifications for the tower apparatus.
16. Fire lanes adjacent to buildings must have a minimum pavement width as directed by the Fire Department. Fire lanes require a heavy duty pavement section. Asphalt pavement section to consist of: 2" Surface, 2-1/4" N-50 Binder, 5" N-30 Binder, and 4" CA-6 Stone Subbase. Concrete driveway apron to be 8" thick.
17. Consider including bicycle racks in development plan to encourage alternate modes of transportation for employees and patrons.
18. The plans do not reflect the required Phase 2 widening of Euclid Avenue. The Euclid Avenue widening is required to be completed prior to the approval of occupancy for the Four Points Sheraton Hotel and the



Waterpark. Also required as part of the PUD approval is the completion of the required improvements at the intersection of Euclid Avenue and Rohlwing Road. Both these items require approval from the Cook County Department of Highways and the City of Rolling Meadows.

19. The City of Rolling Meadows, working as the lead agency along with the Village of Arlington Heights, has obtained Federal funding for a bike path project that includes the section of Euclid Avenue adjacent to the proposed Phase 3 development. Christopher B. Burke Engineering, Ltd. is the consultant under contract with Rolling Meadows to design the proposed path. The 10' bike path must have 2' clear zones on both sides. Some clarification on the clear zone from the designers of the proposed path:
  - a. 2' clear zone CAN be part of 5' offset from back of curb.
  - b. North edge of 2' clear zone CAN be on the ROW line provided there are no physical obstructions within 3' of edge of path
  - c. Clear zone slope restricted to 6:1 (desirable) with 4:1 (minimum).We will help coordinate the design overlap between V3 and CBBEL in any way possible.
20. Properly reflect curb cuts and striping for 10 ft. bike path crossings at the Arlington Downs driveway and at Rohlwing Road.
21. Sheet A-3: The Subject Property Map shows the elimination of the regional basin in favor of five (5) football/soccer fields. This has significant implications to the ultimate stormwater management system which, if this scenario is anticipated, should be resolved now.
22. Sheet C-3.1: The heavy duty pavement must be in the drive aisle closest to the buildings along Euclid Avenue. This applies to Zones D and E. The north driveway from Zone E to Zone C will also ultimately be a fire lane and must be heavy duty pavement.
23. Sheet C-3.1: The proposed sidewalk along Rohlwing Road will require a permit from the City of Rolling Meadows. Street lighting along this section of Rohlwing Road is also a requirement.
24. Sheet C-5.1: Stormwater runoff (downspouts) from the buildings along Euclid Avenue must be conveyed to the site detention system and not allowed to freely flow onto the Euclid Avenue ROW. Clearly show this on the site plan.
25. We now have two different Traffic Impact Studies and there needs to be a comparison and identification of differences highlighted between these two reports for both trip generation and parking.
26. The analysis for left turn storage bay length suggests constraints for the Euclid and Salt Creek signal, but the plans do not reflect the pavement and striping revisions necessary to implement these requirements. Please define signal timing and geometric recommendations.
27. The future traffic signal shown at Euclid Avenue and the Arlington Downs driveway would be private benefit. The current PUD discusses the breakdown of cost responsibilities.
28. All perimeter parking stalls on the site plans can be reduced to 16.5 ft. with 1.5 ft. overhang to reduce pavement and increase green space. Only applicable to parking stalls facing grass/landscaping.
29. Please provide a turning exhibit for the truck delivery areas behind buildings D2 & D3, and adjacent to buildings D4 & D5.
30. Provide a plan that shows the details for all proposed internal traffic control signage and paint striping.

31. The placement of site parking lot lighting within islands having two landscaping trees may adversely affect site lighting photometrics. Consider alternative pole layout away from trees.
32. Provide site photometric lighting plans and catalogue cuts for all exterior pole and exterior building mounted fixtures. All fixtures must be flat bottom, sharp cut-off, and no wall pack style fixtures will be permitted.
33. Please indicate where the mesh fences and vine walls are being placed on the property, as well as any other landscaping features which may block motorists' sight distance.

 10/2/15  
James J. Massarelli, P.E. Date  
Director of Engineering

Attachments:

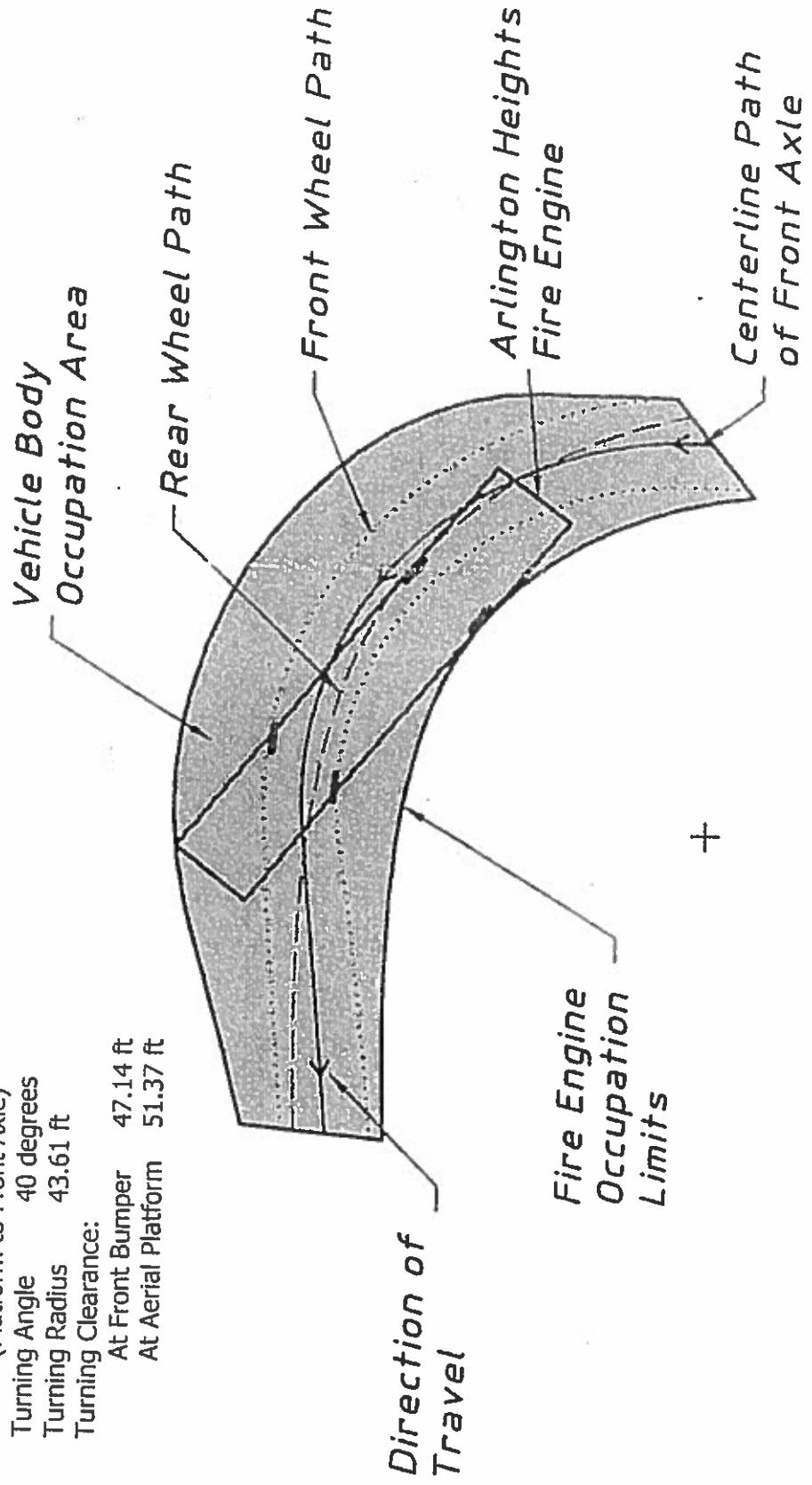
Fire Apparatus Tower 131 Specifications (1 page)

# FIRE ENGINE TURNING TEMPLATE

Village of Arlington Heights Tower 131

Scale: 1"=15'

|                          |              |
|--------------------------|--------------|
| Overall Height           | 11 ft - 8 in |
| Overall Length           | 48 ft - 0 in |
| Overall Width            | 8 ft - 6 in  |
| Overall Wheelbase        | 21 ft - 2 in |
| Front Overhang           | 14 ft - 0 in |
| (Platform to Front Axle) |              |
| Turning Angle            | 40 degrees   |
| Turning Radius           | 43.61 ft     |
| Turning Clearance:       |              |
| At Front Bumper          | 47.14 ft     |
| At Aerial Platform       | 51.37 ft     |



# ARLINGTON HEIGHTS POLICE DEPARTMENT

## Community Services Bureau

---

### DEPARTMENT PLAN REVIEW SUMMARY

**Arlington Downs**  
**3400 W. Euclid Ave.**

#### Round 1 Review Comments

**09/28/2015**

**1. Character of use:**

This multiple use apartment, hotel, water park, restaurant and retail development appears to be consistent with the existing use and the surrounding area on a larger scale.

**2. Are lighting requirements adequate?**

This is a new project and all lighting should be up to code. Special attention should be given to illuminating parking and other common areas.

**3. Present traffic problems?**

There are no traffic problems at this location.

**4. Traffic accidents at particular location?**

This is not a problem area in relation to traffic accidents.

**5. Traffic problems that may be created by the development.**

This development will create an increase in traffic volume. This increase is unlikely to cause any problems since there will be vehicle access off Rohlwing Rd (3), Euclid Ave (2) and Salt Creek Ln (1).

**6. General comments:**

Use of anti-skateboarding technology is recommended to avoid future problems with unwanted juvenile activity on the property. Special attention given to ramps, railings and curbs in more secluded or hidden areas.

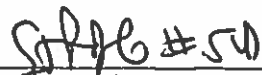
The use of benches with a middle arm rest, thorny landscaping and purposely placed lighting will help prevent homeless issues from developing.

Signage regulating unwanted conduct is recommended throughout the development with special attention given to the hotels, apartment buildings, common areas and parking areas.

Agent contact information must be provided to the Arlington Heights Police Department during all construction phases. Emergency contact cards can be filled out at the Village of Arlington Heights website (vah.com). This allows police department personnel to contact an agent during emergency situations or for suspicious/criminal activity on the property during all hours.

  
BRANDI ROMAG, Crime Prevention Officer  
Community Services Bureau

Approved by:

  
Supervisor's Signature

## HEALTH SERVICES DEPARTMENT

6

## PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

Petition #: P.C. 15-02-0  
Petitioner: Jeffrey Funke  
515 Lincoln Avenue  
Winnetka, IL 60093  
Owner: Arlington Downs WPH, LLC;  
Arlington Downs Commercial, LLC;  
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Contact Person: Vince Bertucci  
Address: 515 Lincoln Avenue  
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Phone #: 312.451.5103  
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P.I.N.# 02-25-100-037&039 and 02-26-201-206&027  
Location: 3400 W. Euclid Avenue  
Rezoning:        Current:        Proposed:         
Subdivision:         
# of Lots:        Current:        Proposed:         
PUD:        ✓ For:         
Special Use:        For:         
Land Use Variation:        For:         
  
Land Use:        Current:         
       Proposed:         
Site Gross Area: 500,000 SF / 11.5 acres  
# of Units Total:         
1BR:        2BR:        3BR:        4BR:       

*(Petitioner: Please do not write below this line.)*

1. GENERAL COMMENTS:

It is recommended to install common sewer lines connected to an outdoor grease trap for the buildings where food service establishments are located.

Refer comments from the Disability Services Coordinator.

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SEP 18 2015

PLANNING & COMMUNITY  
DEVELOPMENT DEPARTMENT

Jeff Bohner 9/18/15  
Environmental Health Officer Date

James McCalister 9/18/15  
Director Date



## Plan Review

Address: Arlington Downs  
3400 West Euclid Avenue  
Planned Unit Development  
P.C. #15-020  
Round 1

Submitted to: Latika Bhide, Planning and Community Development

Submitted by: David Robb, Disability Services Coordinator  
(847) 368-5793



Date: September 18, 2015

Re: Illinois Accessibility Code (IAC), Effective April 1997  
<https://www.illinois.gov/cdb/business/codes/Pages/IllinoisAccessibilityCode.aspx>

---

### Sheets C3.0 – C5.2 and A.3, A0.01

- 1) Petitioner shall comply with all requirements of the Illinois Accessibility Code (IAC). This includes all public buildings and exterior pedestrian routes on the site.
- 2) Pedestrian curb ramps shall be provided at all locations where a sidewalk crosses a curb. See IAC Section 400.310(d)(1).

### Sheet C4.1

- 3) Reserved Accessible Parking Spaces and access aisles shall be level with surface slopes not exceeding 1:50 (2%) in all directions. See IAC Section 400.310(c)(3).

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PLANNING & COMMUNITY  
DEVELOPMENT DEPARTMENT

P.C. # 15-020

# PLANNING & COMMUNITY DEVELOPMENT DEPARTMENT

7

## PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

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 Petitioner: Jeffrey Funke  
515 Lincoln Avenue  
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P.I.N.# 02-25-100-037&039 and 02-26-201-206&027  
 Location: 3400 W. Euclid Avenue  
 Rezoning:        Current:        Proposed:         
 Subdivision:         
 # of Lots:        Current:        Proposed:         
 PUD:        ☒ For:         
 Special Use:        For:         
 Land Use Variation:        For:         
 Land Use:        Current:         
 Proposed:         
 Site Gross Area: 500,000 SF / 11.5 acres  
 # of Units Total:         
 1BR:        2BR:        3BR:        4BR:       

(Petitioner: Please do not write below this line.)

- |    | <u>YES</u>    | <u>NO</u>     |                                                                 |
|----|---------------|---------------|-----------------------------------------------------------------|
| 1. | <u>X</u>      | <u>      </u> | COMPLIES WITH COMPREHENSIVE PLAN?                               |
| 2. | <u>X</u>      | <u>      </u> | COMPLIES WITH THOROUGHFARE PLAN?                                |
| 3. | <u>X</u>      | <u>      </u> | VARIATIONS NEEDED FROM ZONING REGULATIONS?<br>(See below.)      |
| 4. | <u>      </u> | <u>X</u>      | VARIATIONS NEEDED FROM SUBDIVISION REGULATIONS?<br>(See below.) |
| 5. | <u>      </u> | <u>NA</u>     | SUBDIVISION REQUIRED?                                           |
| 6. | <u>      </u> | <u>X</u>      | SCHOOL/PARK DISTRICT CONTRIBUTIONS REQUIRED?<br>(See below.)    |

Comments: attached

B. M. E. / A 9.24.15 Date

## **Arlington Downs PC 15-020**

### **Planning and Community Development Department**

#### **Round 1 Comments**

1. A parking variation to Chapter 28, Section 11.4 is required to allow 2,032 parking spaces where 2,453 is required, a variation of 421 spaces. If the 11 parking stalls are removed as indicated in comments 2 and 3 below then the variation supply of parking will decrease to 2,021 and the variation increase to 432 spaces. Staff supports the variation based on the parking study provided. Please provide a justification based on the hardship criteria below.

2. Please eliminate 8 parking stalls in Zone D to the southeast of building D3 and provide landscaping consistent with PUD approvals as this is a gateway entrance to the development.

3. Please eliminate 3 parking stalls southeast of building D5 as they are at the intersection of the main access from the ring road into the Zone D parking area.

4. The parking stalls along Rohlwing Road in Zone D will require a variation to the PUD and Chapter 28, Section 5.1-22.1 which requires a setback of 15 feet. Provide a justification for said variation. Staff supports said variation but a justification pursuant to the variation criteria is required.

5. Criteria for variations:

- The property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in that zone;

- The plight of the owner is due to unique circumstances; and

- The variation, if granted, will not alter the essential character of the locality.

6. Staff will recommend that no more than 15,000 sf of medical office is permitted in Zone D and no more than 21,600 sf of medical office is permitted for all zones.

7. Staff will recommend that no more than 20,590 sf of non-sales/food and beverage tax generators shall be allowed in Zones D and E combined.

8. An easement along Euclid Avenue may be necessary for portions of the bike path.

9. Staff supports conceptual approval of three restaurants in Zone E, however it should be noted that the parking supply in this zone does not meet code for the proposed building with three restaurants. Each restaurant will require a separate Special Use approval, therefore parking in Zone E will be evaluated at that time once the floor plans and outdoor seating is known, as well as the tenants.

Arlington Downs

P.C. 15-020

September 16, 2015

- 1) Must provide screening for service areas/drive aisles along Euclid and Rohlwing Road. The service area must be fully screened and consist of walls and/or landscaping. In Zone 'E' for the building east of the entry drive, provide additional landscaping to buffer the drive through lane.
- 2) Per the approved design guidelines, the project entries are to be planted and heavily landscaped. In the northwest corner of the entry off of Euclid it is primarily parking. The parking should be reduced in this area and an abundance of landscaping provided.
- 3) Per the approved design guidelines the crosswalks and entries must consist of special paving. The crosswalks installed in Zone 'A' are striped pavement and special paving must be provided. There are no details of the special paving for the crosswalks for Zones D and E. Specialty paving is required at major building entries, pedestrian crosswalks, and to unify the retail uses.
- 4) Along Euclid and Rohlwing 'Long Grass' and shade trees are proposed. Incorporate additional landscaping that consists of a mix of trees, shrubs and perennials. Per the Design Guidelines, 'the foundation areas around the buildings will be planted with a mixture of trees, shrubs and perennials to complement the architecture.
- 5) Site furnishings are required on the parking side of all retail buildings. Site furnishing plans are required with manufacturer cut sheets for all proposed site furnishings.
- 6) Provide shade trees along the widened pedestrian storefront walks.
- 7) The gabion basket features are proposed to be filled with crushed concrete. It is recommended that a stone with a variety of warmer colors to complement the building material palette be used.
- 8) The proposed ground sign states "Arlington Downs" and "Village of Arlington Heights" should be incorporated into this feature.
- 9) The renderings indicate detailed plazas with intricate paving patterns, planters, and fountains. Detailed site plans are required to clarify the design intent for the plazas.
- 10) Per the approved Design Guidelines, pedestrian poles and bollard lighting is required along the retail building storefronts. Additional pedestrian poles and bollard lights must be added to the proposed plans.
- 11) Along Euclid, the width of the parkway that includes 'mown grass' is very limited and there is concern with the proximity of the parkway tree from the back of curb.
- 12) Detailed landscape plans are required with actual plans materials specified.
- 13) All mechanical units and service areas must be fully screened

**PLAN COMMISSION**  
**RESPONSE TO REVIEW COMMENTS**  
**Arlington Downs Retail Development**  
**10.07.15 *(Revised 10.22.15)***

**PETITIONER:** Jeffrey Funke / Funke Architects  
**PREPARER:** Vince Bertucci / ChiArC

**DISTRIBUTION:** William Enright / VAH Deputy Director Planning & Community Development  
Charles Witherington-Perkins / VAH Director Planning & Community Development  
Jeff Funke / Spring Bank Real Estate Group

**REGARDING:** The following is a narrative response to the Village of Arlington Heights, internal department review comments based on the application submitted on 09.03.15 for a request to amend the PUD of the Arlington Downs Retail Development. Review comments were received on 09.21.15 and 09.22.15.

**1. BUILDINGS – PLAN REVIEW**

1. No Comments

**1A. BUILDINGS - INSPECTION SERVICES**

1. No Comments

**2. PUBLIC WORKS**

**1. COMMENT:**

All materials and methods of construction must adhere to the most recent version of "A Manual of Practice for The Design of Public & Private Improvements"

**1. RESPONSE:**

All materials and methods of construction shall adhere to the Village of Arlington Heights, "A Manual of Practice for The Design of Public & Private Improvements" dated, April 25, 1997 which has been confirmed to be the latest version by Mike Pagonis, Deputy Director of Engineering for The Village of Arlington Heights.

**2. COMMENT:**

Separation must be maintained between water, sanitary and storm in accordance with IEPA Standards. When separation cannot be maintained, methods of construction as outlined by the IEPA must be followed.

**2. RESPONSE:**

Vertical and horizontal separation requirements between water and sewers as outlined by the IEPA will be maintained.

**3. COMMENT:**

Upon review of the submitted half sheets, I cannot see that any hydrants are proposed with this construction. Please adhere to fire protection standards with regard to the placement of hydrants.

**3. RESPONSE:**

Fire hydrant locations will be provided in final engineering. Fire hydrant spacing and locations will be in accordance with the Village's fire protection standards.

**4. COMMENT:**

Approved RPZ devices must be installed in all new buildings to protect the domestic and fire service.

**4. RESPONSE:**

Double detector check assemblies are shown on detail 2/P4.01 for the fire protection service. If RPZ protection is required on fire protection service please advise. Conversation with Lou Soest with the Arlington Heights Plumbing department indicated that RPZ's for the domestic service is required only at individual fixtures requiring protection. These will be shown on the plans when the tenant spaces are developed. **See attached for;**

- 07.07.15 Phone Conversation Memo with VAH Plumbing Inspector and
- 10.05.15 Phone Conversation Memo with VAH Utilities Department.



5. COMMENT:

Grease traps must be installed for all buildings where the potential exists that grease can enter into the sewer system.

5. RESPONSE:

All buildings have grease interceptors indicated to be installed with grease waste lines shown in the buildings for future connection.

**3. ENGINEERING**

11. COMMENT:

The petitioner is notified that these comments are being provided to ensure that the project meets the requirements for submittal to the Plan Commission. Approval by the Plan Commission is not an endorsement or approval of these documents to obtain the required building permits, engineering approval, or permits required by other government or permitting agencies for construction. Detailed plan review with associated comments will be provided upon submittal of plans for a building permit. The petitioner shall acknowledge that they accept this understanding.

11. RESPONSE:

Understood

12. COMMENT:

Final engineering plans shall be georeferenced by using State Plane Coordinate System – Illinois East. Below are details about projection:

|                               |                                                   |
|-------------------------------|---------------------------------------------------|
| Projected Coordinate System:  | NAD 1983 State Plane Illinois East FIPS 1201 Feet |
| Projection:                   | Transverse Mercator                               |
| False Easting:                | 984250.00000000                                   |
| False Northing:               | 0.00000000                                        |
| Central Meridian:             | -88.33333333                                      |
| Scale Factor:                 | 0.99997500                                        |
| Latitude Of Origin:           | 36.66666667                                       |
| Linear Unit:                  | Foot US                                           |
| Geographic Coordinate System: | GCS North American 1983                           |
| Datum:                        | D North American 1983                             |
| Prime Meridian:               | Greenwich                                         |
| Angular Unit:                 | Degree                                            |

12. RESPONSE:

The basis of bearing for the final engineering plans is the Illinois state plane system – East Zone (NAD 83).

13. COMMENT:

Final approval will require final engineering plans including detention calculations showing HWL, storage required, storage provided, and restrictor sizing calculations. Any detention storage system located under pavement must be designed to AASHTO HS-25 loading standard.

13. RESPONSE:

Detailed detention calculations and storm water vault plans will be provided as a part of the final engineering submittal.

14. COMMENT:

Include calculations in the Storm water Management Report showing the provided storage in the proposed vault and additional pipes. Similarly, include calculations for the volume control storage.

14. RESPONSE:

Detention storage calculations, including pipe storage calculations, will be included in the final storm water management report.

15. COMMENT:

Provide an exhibit to engineering scale showing the turning path of the Fire Department's responding vehicle, in this case the tower truck. Exhibit must show front and rear wheel paths and the extent of the front and rear overhangs, as provided in an "Auto turn" exhibit. The vehicle shall be shown maneuvering through the site in all possible directions of travel. Attached are the specifications for the tower apparatus.

## 15. RESPONSE:

An Auto turn exhibit showing the turning path of the tower truck has been enclosed. **See attached for;**

- Fire Truck Turning Exhibit 10.07.15
- Garbage Truck Turning Exhibit 10.07.15
- WB40 Truck Turning Exhibit 10.07.15

## 16. COMMENT:

Fire lanes adjacent to buildings must have a minimum pavement width as directed by the Fire Department. Fire lanes require a heavy duty pavement section. Asphalt pavement section to consist of: 2" Surface, 2-1/4" N-50 Binder, 5" N-30 Binder, and 4" CA-6 Stone Subbase. Concrete driveway apron to be 8" thick.

## 16. RESPONSE:

The heavy duty pavement section has been revised as noted on sheets C3.1 & C3.2

## 17. COMMENT:

Consider including bicycle racks in development plan to encourage alternate modes of transportation for employees and patrons.

## 17. RESPONSE:

Bicycle racks are included as part of the development and are indicated on Civil, Landscape & Architectural drawings as follows;

- Three (3) bicycle rack stations on property along Euclid Avenue
- One (1) bicycle rack station on property along Rohlwing Road
- Three (3) bicycle rack stations on property along internal access road
- Each bicycle rack station allows for four (4) bicycle racks

## 18. COMMENT:

The plans do not reflect the required Phase 2 widening of Euclid Avenue. The Euclid Avenue widening is required to be completed prior to the approval of occupancy for the Four Points Sheraton Hotel and the Waterpark. Also required as part of the PUD approval is the completion of the required improvements at the intersection of Euclid Avenue and Rohlwing Road. Both these items require approval from the Cook County Department of Highways and the City of Rolling Meadows.

18. RESPONSE: *(Response revised 10.22.15)*

*It is our intention to develop documents for the off-site roadway and public improvements as required by the PUD for the Arlington Downs Development as per the following;*

- *New public sidewalk along the east side of Rohlwing Road from Euclid Avenue to Salt Creek Lane.*
- *New southbound right turn lane on Rohlwing Road to westbound Euclid Avenue.*
- *New southbound left turn lane on Rohlwing Road at the west access road entry onto the Arlington Downs site. Note, site plan has been modified since original PUD; only one access road onto site to be provided off of Rohlwing Road.*
- *New crosswalk and pedestrian activated signal for the north leg of the signalized intersection of Rohlwing Road and Euclid Avenue.*
- *New eastbound left turn lane on Euclid Avenue at the south access road entry onto the Arlington Downs site.*
- *New crosswalk and pedestrian activated signal for the east leg of the signalized intersection of Rohlwing Road and Euclid Avenue when the City of Rolling Meadows constructs a new sidewalk along the east of Rohlwing Road from Cardinal Avenue to Euclid Avenue.*

**Please see attached for;**

- V3 Companies, Civil Engineering Traffic Memorandum dated, 10.07.15

*The above referenced Traffic Memorandum is based on the V3 Companies, Traffic Impact Study dated, 08.20.15 and summarizes the operation and capacity analysis results for the intersection of Rohlwing Road and Euclid Avenue during future project traffic scenarios in the year 2022 assuming the full Arlington Downs Development and a general increase in background traffic. The memorandum evaluates three future scenarios regarding the existing geometry and future traffic;*

1. *Without the development of the site.*
2. *Development of the site without the southbound Rohlwing Road right turn lane onto westbound Euclid Avenue.*
3. *Development of the site with the southbound Rohlwing Road right turn lane onto westbound Euclid Avenue.*

*The analysis shows that scenario 2, the existing geometry with the development of the site can accommodate the future traffic demand without the addition of the southbound right turn lane on Rohlwing Road onto westbound Euclid Avenue.*

*The petitioner intends to meet the requirements of the off-site public improvements as set forth in the PUD and described above but intends to pursue relief for the construction of the southbound right turn lane on Rohlwing Road onto Euclid Avenue.*

19. COMMENT:

The City of Rolling Meadows, working as the lead agency along with the Village of Arlington Heights, has obtained Federal funding for a bike path project that includes the section of Euclid Avenue adjacent to the proposed Phase 3 development. Christopher B. Burke Engineering, Ltd. is the consultant under contract with Rolling Meadows to design the proposed path. The 10' bike path must have 2' clear zones on both sides. Some clarification on the clear zone from the designers of the proposed path:

- a. 2' clear zone CAN be part of 5' offset from back of curb.
- b. North edge of 2' clear zone CAN be on the ROW line provided there are no physical obstructions within 3' of edge of path
- c. Clear zone slope restricted to 6:1 (desirable) with 4:1 (minimum).

We will help coordinate the design overlap between V3 and CBBEL in any way possible.

19. RESPONSE:

We shall coordinate with CBBEL to ensure that the bike path is coordinated between all

- a. Parkway edge along south side of bike path has a 2' clear zone with mown grass.
- b. North edge of bike path has a 2' clear zone and there are no physical obstructions within 3' of the proposed bike path.
- c. Clear zone slope restricted to 6:1 typical with 4:1 slope minimum.

20. COMMENT:

Properly reflect curb cuts and striping for 10 ft. bike path crossings at the Arlington Downs driveway and at Rohlwing Road.

20. RESPONSE:

Curb cuts and striping for the bike path have been added to the site plan. See sheet C3.1 for details.

21. COMMENT:

Sheet A-3: The Subject Property Map shows the elimination of the regional basin in favor of five (5) football/soccer fields. This has significant implications to the ultimate storm water management system which, if this scenario is anticipated, should be resolved now.

21. RESPONSE:

The proposed football/soccer fields were shown as a possible future phase and were shown for reference only. No impacts to the regional basin are anticipated.

22. COMMENT:

Sheet C-3.1: The heavy duty pavement must be in the drive aisle closest to the buildings along Euclid Avenue. This applies to Zones D and E. The north driveway from Zone E to Zone C will also ultimately be a fire lane and must be heavy duty pavement. See sheets C3.1 & C3.2

22. RESPONSE:

Heavy duty pavement zones have been updated to include the drive aisles closest to the buildings. The driveway from Zone E to C has been revised to be heavy duty pavement.

23. COMMENT:

Sheet C-3.1: The proposed sidewalk along Rohlwing Road will require a permit from the City of Rolling Meadows. Street lighting along this section of Rohlwing Road is also a requirement.

23. RESPONSE:

Understood

24. COMMENT:

Sheet C-5.1: Storm water runoff (downspouts) from the buildings along Euclid Avenue must be conveyed to the site detention system and not allowed to freely flow onto the Euclid Avenue ROW. Clearly show this on the site plan.

24. RESPONSE:

Storm drain connections have been added to sheet C5.1 for all of the proposed buildings. All building storm drainage will be routed to the onsite storm water detention facility.

25. COMMENT:

We now have two different Traffic Impact Studies and there needs to be a comparison and identification of differences highlighted between these two reports for both trip generation and parking.

## 25. RESPONSE:

The current consulting civil engineer for the Arlington Downs Retail project, V3 does not have the previous traffic studies conducted for the site by others. However, the August 20, 2015 Traffic Impact Study was based on the latest site plan at that time. The study also uses the latest data from the ITE Trip Generation Manual, 9<sup>th</sup> Edition, which was updated and published in September 2012. The Arlington Downs Parking Assessment has also been updated with the latest site plan information and utilized parking rates from the Village of Arlington Heights municipal code and the previously approved parking rates from the PUD.

**See attached for;**

- V3 Civil Engineer Traffic Memorandum dated, 10.07.15

## 26. COMMENT:

The analysis for left turn storage bay length suggests constraints for the Euclid and Salt Creek signal, but the plans do not reflect the pavement and striping revisions necessary to implement these requirements. Please define signal timing and geometric recommendations.

## 26. RESPONSE:

As part of the Euclid Avenue improvement plans from Rohlwing Road to Salt Creek Lane, a continuous median will be proposed between the intersections. As part of these plans, it is proposed to re-stripe the eastbound left turn to accommodate the proposed 95<sup>th</sup> percentile queue length. No other geometric recommendations are proposed at this intersection. The signal timings at the signalized intersections remain unchanged from the existing timings during the weekday am and pm peak hours. The Saturday midday signal timing was slightly modified to reduce the delay for one travel movement from LOS E to LOS D.

## 27. COMMENT:

The future traffic signal shown at Euclid Avenue and the Arlington Downs driveway would be private benefit. The current PUD discusses the breakdown of cost responsibilities.

## 27. RESPONSE:

Since the development warrants the traffic signal, it would be the responsibility of the development to pay for the signal. The signal would cost around \$250-300k.

## 28. COMMENT:

All perimeter parking stalls on the site plans can be reduced to 16.5 ft. with 1.5 ft. overhang to reduce pavement and increase green space. Only applicable to parking stalls facing grass/landscaping.

## 28. RESPONSE:

Per the Municipal Code of Arlington Heights, Zoning Regulations Chapter 28, 11.2-7 Size:; " ...The Length of a parking space can be reduced to sixteen and one half feet including wheel stop if additional space of one and one half feet in length is provided for car overhang. At least three feet, excluding any car overhang space, must be provided for any planting screen...."

At all perimeter parking stall locations where we have indicated the parking stall depth to be reduced from the required 18 feet, we are providing a minimum of 17 feet of depth and have provided a minimum of 1.5 feet in length of clear area beyond the curb for car overhang and at all landscaped overhang areas have provided a minimum of 1.5 feet plus 3 feet clear of planting zone.

## 29. COMMENT:

Please provide a turning exhibit for the truck delivery areas behind buildings D2 & D3, and adjacent to buildings D4 & D5.

## 29. RESPONSE:

Truck turning templates have been enclosed for all trash and delivery areas on-site. **See attached for;**

- Garbage Truck Turning Exhibit 10.07.15
- WB40 Truck Turning Exhibit 10.07.15

## 30. COMMENT:

Provide a plan that shows the details for all proposed internal traffic control signage and paint striping.

## 30. RESPONSE:

All internal traffic control striping and signage has been detailed on sheets C3.1 & C3.2.

## 31. COMMENT:

The placement of site parking lot lighting within islands having two landscaping trees may adversely affect site lighting photometric. Consider alternative pole layout away from trees.

## 31. RESPONSE:

The proposed trees for the parking islands are selected for their anticipated mature canopy shape. An upright tree form limits any effect of the tall pole mounted fixtures. Furthermore trees will be placed towards the outer edges of the island without impediment to the adjacent drive aisles.

32. COMMENT:

Provide site photometric lighting plans and catalogue cuts for all exterior pole and exterior building mounted fixtures. All fixtures must be flat bottom, sharp cut-off, and no wall pack style fixtures will be permitted.

32. RESPONSE:

Site photometric are in the process of being executed and shall be provided presently under separate cover when completed.

33. COMMENT:

Please indicate where the mesh fences and vine walls are being placed on the property, as well as any other landscaping features which may block motorists' sight distance.

33. RESPONSE:

Mesh fences with vines growing upon them for screening purposes are located along the parking lot boundaries which directly border Rohlwing Road in Zone D and the internal development access road. The landscape plans and details show the placement and typical construction detail of these fences.

A 12'x12' Vehicular visibility triangle is shown on the landscape plans at parking lot vehicular entry points.

Planting, signs, fencing or any other obstruction will be no greater than 30" in height within this area.

**4. FIRE**

1. Did Not Receive Comments

**5. POLICE**

1. Did Not Receive Comments

**6. HEALTH SERVICES**

1. COMMENT:

It is recommended to install common sewer lines connected to an outdoor grease trap for the buildings where food service establishments are located.

1. RESPONSE:

A common sewer line is shown connecting to an outdoor grease interceptor located beneath the slab of the exterior refuse area for each building.

**7. PLANNING – DISABILITY SERVICES**

(Planning review comments 1 & 2 pertain to sheets C3.0-C5.2 and A3, A0.01 of the application document)

1. COMMENT:

Petitioner shall comply with all requirements of Illinois Accessibility Code (IAC). This includes all public buildings and exterior pedestrian routes on the site.

1. RESPONSE:

All designs, pedestrian routes, travel paths, etc. shall comply with the requirements of the IAC.

- The finished floor elevation of the building's interior and the elevation of the adjacent public entry walkway to be no greater than a ¼ inch of vertical rise and ½ inch of 1:2 diagonal rise.
- All transitions between the parking lot and pedestrian sidewalks to have a delineated sloped transition.
- Additional detail to delineate on-site accessible routes to be provided in final engineering.

2. COMMENT:

Pedestrian curb ramps shall be provided at all locations where a sidewalk crosses a curb. See IAC Section 400.310(d)(1).

2. RESPONSE:

A pedestrian curb ramp has been provided at all locations where a sidewalk crosses a curb intended as a public route. All curb ramps will be designed to meet IAC guidelines. Additional detail delineating design slopes to be addressed in final engineering.

(Planning review comment 3 pertains to sheet C4.1 of the application document)

3. COMMENT:

Reserved Accessible Parking Spaces and access aisles shall be level with surface slopes not exceeding 1:50 (2%) in all directions. See IAC Section 400.310(c)(3).

3. RESPONSE:

All accessible parking spaces will be designed to meet IAC guidelines. Additional detail delineating design slopes to be addressed in final engineering.



## 7. PLANNING & COMMUNITY DEVELOPMENT

### 1. COMMENT:

A parking variation to Chapter 28, Section 11.4 is required to allow 2,032 parking spaces where 2,453 is required, a variation of 421 spaces. If 11 parking stalls are removed as indicated in comments 2 and 3 below then the variation supply of parking will decrease to 2,021 and the variation increases to 432 spaces. Staff supports the variation based on parking study provided. Please provide a justification based on hardship criteria.

### 1. RESPONSE:

A variation request for providing fewer parking spaces than would be required based on the parking assessment dated 09.02.15 and amended on, 10.09.15 shall be provided as a separate document based on the Village of Arlington Heights, hardship criteria. **See Attached for;**

- Revised Parking Assessment 10.09.15

### 2. COMMENT:

Please eliminate 8 parking stalls in Zone D to the southeast of building D3 and provide landscaping consistent with PUD approvals as this is a gateway entrance to the development.

### 2. RESPONSE:

Buildings D2, D3 & E1 are located 5'-9" further south than initially proposed providing a full 20 foot wide pedestrian walkway on the north side of these buildings. Parking spaces located southeast of building D3 as well as parking spaces between buildings D2 & D3 have been pulled back to align with the south facades of these buildings. Due to the relocation of these buildings 5'-9" to the south, only six (6) parking spaces southeast of D3 and six (6) parking spaces between building D2 & D3 are eliminated to maintain alignment. Area south- east of building D3 and west of the Euclid Avenue access road to be provided with additional landscaping to complement the plantings on the east side of this entry.

### 3. COMMENT:

Please eliminate 3 parking stalls southeast of building D5 as they are at the intersection of the main access from the ring road into the Zone D parking area.

### 3. RESPONSE:

Three (3) parking spaces initially planned southeast of building D5 are eliminated and additional landscaping provided.

### 4. COMMENT:

The parking stalls along Rohlwing Road in Zone D will require a variation to the PUD and Chapter 28, Section 5.1-22.1 which requires a setback of 15 feet. Provide a justification for said variation. Staff supports said variation but a justification pursuant to the variation criteria is required.

### 4. RESPONSE:

Far west side of the proposed parking lot layout in Zone D as designed is located approximately 10 feet from Face of curb to the property line. We are requesting a variation from the required 15 foot set back to 10 feet for a 90 foot length of parking stalls for the following reasons;

1. The property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in that zone; Moving the proposed curb location to the required 15 foot set back would eliminate three (3) parking spaces, effect the route and turning radius of the longer delivery truck necessary for Building D1 and the length of the loading zone for this delivery truck on the north side of building D1.

2. The plight of the owner is due to unique circumstances; The far west curb in question had been identified on past civil engineering documents as an existing installation and it is assumed constructed as such and therefore is an existing encroachment.

3. The variation, if granted, will not alter the essential character of the locality; there is an existing paved parking lot at this location to be replaced with a new paved parking lot at the same location.

### 5. COMMENT:

Criteria for variations:

- \*The property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in that zone;
- \*The plight of the owner is due to unique circumstances; and
- \*The variation, if granted, will not alter the essential character of the locality.

### 5. RESPONSE:

See Response to Item 4, above.

6. COMMENT:

Staff will recommend that no more than 15,000 sf of medical office is permitted in Zone D and no more than 21,600 sf of medical office is permitted for all zones.

6. RESPONSE: *(Response provided 10.22.15)*

**Understood**

7. COMMENT:

Staff will recommend that no more than 20,590 sf of non-sales/food and beverage tax generators shall be allowed in Zones D and E combined.

7. RESPONSE: *(Response provided 10.22.15)*

*As per phone conversation with Bill Enright, 10.20.15, non-sales/food and beverage tax generators are entities such as medical facilities or other non-sales tax entities. Therefore, the restriction of 20,590 sf of non-sales/food and beverage tax generators allowed in Zone D & E combined is understood as not pertaining to typical public restaurants. Response to comment; **Understood.***

8. COMMENT:

An easement along Euclid Avenue may be necessary for portions of the bike path.

8. RESPONSE:

Moving the proposed bike path north to create a wider parkway (a minimum of 8' parkway width for parkway tree planting) combined with the shifting of the originally proposed locations of buildings D2, D3 & E1, 5'-9" south would impact the width of the buffer yard landscape along Euclid Avenue. The buffer yard landscape utilizes low berming, long grass, and grouped shrub plantings to create a balance of screening of vehicular areas with open views to the buildings beyond. Furthermore proposed linear tree planting along the buffer yard creates a parkway-like corridor along this section of Euclid. The petitioner would like to maintain the bike path within the R.O.W.

9. COMMENT:

Staff supports conceptual approval of three restaurants in Zone E, however it should be noted that the parking supply in this zone does not meet code for the proposed building with three restaurants. Each restaurant will require a separate Special Use approval; therefore parking in Zone E will be evaluated at that time once the floor plans and outdoor seating is known, as well as the tenants.

9. RESPONSE:

**Understood**

*The following Comment and Responses are based on email correspondences with Deputy Director Bill Enright and are included here for continuity;*

10. COMMENT *(per email received 10.21.15):*

*The parking study by V3 has some numbers wrong. On page 4, they list child care in Zone A, but I thought that you were not looking to do that? Also they show a restaurant in Zone A which I didn't think was happening? The previous parking study dated Sept 2, 2015 does not include those uses in Zone A, so which is correct*

10. RESPONSE *(email response 10.21.15)*

*Prior to the 09.02.15 parking study, we mistakenly directed V3 to consider the existing vacant space on the first floor of the residential tower in Zone A as private building tenant use. During the comment and response period we were made aware by Ownership of our mistake and asked V3 to include public use for day care and restaurant within the residential tower in Zone A.*

11. COMMENT *(per email received 10.21.15)*

*On page 7 of the parking provided in Zone B is listed in Table 5 as 453 spaces but V3's site plan indicates 414 spaces. I counted to verify and its 414. Table 5 total parking provided they have 2,028 but its 1,989.*

11. RESPONSE:

*The difference in parking is due to the additional parking spaces being constructed in the existing parking lot east of the water park. As summarized on page 2 of the parking study, Zone B includes the construction of 414 parking spaces. In addition, the east lot is being expanded from 32 spaces to 71 spaces, a difference of 39 spaces. That is the same difference between 414 and 453 for Zone B and 2,028 and 1,989 for the overall site.*

12. COMMENT *(email received 10.22.15):*

*The traffic study does not indicate any square feet for medical office in Zone C (first floor of the future tower). Previously this had 6,000 sf for medical but V3 parking study says no commercial/office space in this Zone?*

**12. RESPONSE:**

*There are currently no plans of providing a medical office in Zone C, future residential tower. However, we do want to maintain the current staff recommended limitations as per, 7. Planning and Community Development, Comment #6, of no more than 15,000 sf of medical office in Zone D and no more than 21,600 sf of medical office is permitted for all zones.*

**7A. LANDSCAPING**

**1. COMMENT:**

Must provide screening for service areas/drive aisles along Euclid and Rohlwing Road. The service area must be fully screened and consist of walls and/or landscaping. In Zone 'E' for the building east of the entry drive, provide additional landscaping to buffer the drive through lane.

**1. RESPONSE:**

In lieu of screen walls, low height topographical, "berming" to be indicated along the "buffer yards" of Euclid Avenue and Rohlwing Road at 18 inch to 30 inch in height as a supplement to landscaping which includes, long grass, shrub groupings, shade tree 'lines' and ornamental trees (orchards).

**2. COMMENT:**

Per the approved design guidelines, the project entries are to be planted and heavily landscaped. In the northwest corner of the entry off of Euclid it is primarily parking. The parking should be reduced in this area and an abundance of landscaping provided.

**2. RESPONSE:**

Parking spaces initially shown south and east of building D3 and west of Euclid Avenue access road have been eliminated in order to create additional landscaped area to complement the plantings on the east side of this entry.

**3. COMMENT:**

Per the approved design guidelines the crosswalks and entries must consist of special paving. The crosswalks installed in Zone 'A' are striped pavement and special paving must be provided. There are no details of the special paving for the crosswalks for Zones D and E. Specialty paving is required at major building entries, pedestrian crosswalks, and to unify the retail uses.

**3. RESPONSE:**

A typical Crosswalk paving design with either pavers or stamped asphalt has been developed. A detail for this has been prepared. In addition, accent/enhanced paving has been shown to define plaza spaces, complement building architecture and pedestrian walks.

**4. COMMENT:**

Along Euclid Avenue and Rohlwing Road 'Long Grass' and shade trees are proposed. Incorporate additional landscaping that consists of a mix of trees, shrubs and perennials. Per the Design Guidelines, 'the foundation areas around the buildings will be planted with a mixture of trees, shrubs and perennials to complement the architecture.

**4. RESPONSE:**

Additional shrub groupings have been added to the 'buffer yards' along Euclid Avenue and Rohlwing Road. Buildings D2, D3 & E1 are located 5'-9" further south than initially proposed providing a full 20 foot wide pedestrian walkway on the north side of these buildings. In-ground planters and planting are added to the north and south side of buildings D-2 & D-3; and the north side of E-1 to enhance the pedestrian experience. These will be planted with low shrubs, ornamental grasses and perennials.

**5. COMMENT:**

Site furnishings are required on the parking side of all retail buildings. Site furnishing plans are required with manufacturer cut sheets for all proposed site furnishings.

**5. RESPONSE:**

Benches (both proprietary & custom gabion seat walls), trash/recycling receptacles and bike racks are shown on the site plan including the retail side of the buildings. A manufacturer and model have been selected. Cut sheets to be provided.

**6. COMMENT:**

Provide shade trees along the widened pedestrian storefront walks.

**6. RESPONSE:**

In lieu of shade trees (due to visually compromising storefront and merchant signage) and as per response to Item 4 above, in-ground planters and planting along with seating have been added to the widened pedestrian walkway.

7. COMMENT:

The gabion basket features are proposed to be filled with crushed concrete. It is recommended that a stone with a variety of warmer colors to complement the building material palette be used.

7. RESPONSE:

The gabions may have a core of crushed concrete as a means of recycling demolished existing site construction but will have an exposed face of decorative stone to all visible sides meeting aesthetic recommendations.

8. COMMENT:

The proposed ground sign states "Arlington Downs" and "Village of Arlington Heights" should be incorporated into this feature.

8. RESPONSE:

The words, "Village of Arlington Heights" added to the monument sign located on the corner of Euclid Avenue and Rohlwing Road.

9. COMMENT:

The renderings indicate detailed plazas with intricate paving patterns, planters, and fountains. Detailed site plans are required to clarify the design intent for the plazas.

9. RESPONSE:

Detailed Plans for the plazas have been prepared.

10. COMMENT:

Per the approved Design Guidelines, pedestrian poles and bollard lighting is required along the retail building storefronts. Additional pedestrian poles and bollard lights must be added to the proposed plans.

10. RESPONSE:

Additional pedestrian light poles have been added to the retail side of building storefronts. Specification cut sheets shall be provided along with photometric as described in 3. Engineering, Response 32.

11. COMMENT:

Along Euclid, the width of the parkway that includes 'mown grass' is very limited and there is concern with the proximity of the parkway tree from the back of curb.

11. RESPONSE:

The parkway width is very limited due to the 10' wide bike path. 4'-6" south of Buildings 'D3' and 'E1'. Having trees near to the bike path may create a hazard as well as overhanging the adjacent roadway lane. The parkway widens from 8 feet to 11 feet south of Building 'D2'. Parkway trees will be located along this stretch that does get less than 8 feet in width. This wider length is around 250 feet, allowing (7) shade trees to be planted at 40 feet on center.

12. COMMENT:

Detailed landscape plans are required with actual plans materials specified.

12. RESPONSE:

Planting Plans with associated schedules of plant name (common & botanical), sizes, planted spacing and quantities have been prepared.

13. COMMENT:

All mechanical units and service areas must be fully screened.

13. RESPONSE:

As per diagram provided on revised sheet A4.2, the roof-top equipment is fully screened from public view by the height of the surrounding parapet walls.

END of RESPONSES