Village of Arlington Heights
Plan Commission
Board Room
Arlington Heights Village Hall
33 S. Arlington Heights Road
Arlington Heights, IL 60005
March 14, 2018
7:30 PM

I. CALL TO ORDER

II. ROLL CALL

IIIAPPROVAL OF MINUTES

A. 703-709, 715-723 W. Algonquin Rd. - 2/28/18

B. Hearts Place - 2/28/18

C. Sigwalt Apartments/CA Ventures - 2/28/18

IV.PUBLIC HEARINGS

A. 703-709, 715-723 W. Algonquin Rd. - PC#17-013
PUD, Preliminary Plat of Subdivision

B. Olympic Park Swim Center - 660 N. Ridge Ave. - PC#18-002
PUD Amendment, Parking Variation

C. South Arlington Heights Road Corridor Plan - PC#18-004

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: 703-709, 715-723 W. Algonquin Rd. - 2/28/18

Department: Planning & Community Development

ATTACHMENTS:

Description	Type
703-709, 715-723 W. Algonquin Rd. - 2/28/18	Minutes

PLAN
_____
_____
_____

COMMISSION

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

RE: 703-709, 715-723 WEST ALGONQUIN ROAD - PC#17-013
PUD, PRELIMINARY PLAT OF SUBDIVISION

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 28th day of February, 2018 at the hour of 7:00 p.m.

MEMBERS PRESENT:

TERRY ENNES, Chairman
LYNN JENSEN
MARY JO WARSKOW
JOE LORENZINI
BRUCE GREEN
GEORGE DROST
SUSAN DAWSON
JOHN SIGALOS
JAY CHERWIN

ALSO PRESENT:

SAM HUBBARD, Community Development Planner
BILL ENRIGHT, Community Development Deputy Director

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CHAIRMAN ENNES: This meeting of the Arlington Heights Plan Commission is called to order. I would like to ask you all to please rise and join us in the pledge of allegiance.

(Pledge of allegiance recited.)

CHAIRMAN ENNES: Thank you. Sam, would you please call the roll?

MR. HUBBARD: Commissioner Cherwin.

COMMISSIONER CHERWIN: Here.

MR. HUBBARD: Commissioner Dawson.

COMMISSIONER DAWSON: Here.

MR. HUBBARD: Commissioner Drost.

(No response.)

MR. HUBBARD: Commissioner Green.

COMMISSIONER GREEN: Here.

MR. HUBBARD: Commissioner Jensen.

COMMISSIONER JENSEN: Here.

MR. HUBBARD: Commissioner Lorenzini.

COMMISSIONER LORENZINI: Here.

MR. HUBBARD: Commissioner Sigalos.

COMMISSIONER SIGALOS: Here.

MR. HUBBARD: Commissioner Warskow.

COMMISSIONER WARSKOW: Here.

MR. HUBBARD: Chairman Ennes.

CHAIRMAN ENNES: Here. Sam, have all the notices been sent out regarding the meeting?

MR. HUBBARD: For the first project on the agenda, it's just a continuation of the previous project and all the notifications were sent out when they first appeared before the Plan Commission.

CHAIRMAN ENNES: Okay, and for the other two, were they also done for those two as long as we're doing them all?

MR. HUBBARD: For the other two, yes. I mean there are some other items to discuss when they come up, so maybe we can just go and make sure --

CHAIRMAN ENNES: Okay. I see Commissioner Drost has joined us if you'd like to add him.

COMMISSIONER DROST: Yes.

MR. HUBBARD: Yes.

CHAIRMAN ENNES: Okay, we have a Petitioner that is not here this evening. Can I have a motion for continuance to March 14th?

COMMISSIONER DAWSON: So moved.

COMMISSIONER GREEN: Second.

CHAIRMAN ENNES: All in favor?

(Chorus of ayes.)

CHAIRMAN ENNES: Any opposed?

(No response.)

CHAIRMAN ENNES: We also have minutes from our last meeting, PC#17-013, 703-723 West Algonquin Road. Can we have a motion to approve those minutes?

MR. HUBBARD: I think the minutes are on Para Residence from 2/14/18.

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CHAIRMAN ENNES: I'm sorry? Oh, I'm sorry, the Para Residence.
MR. HUBBARD: Correct.
CHAIRMAN ENNES: You're right. Can I have a motion?
COMMISSIONER JENSEN: I'll move acceptance of the minutes.
COMMISSIONER GREEN: I'll second that.
CHAIRMAN ENNES: All in favor?
(Chorus of ayes.)
CHAIRMAN ENNES: Any opposed?
(No response.)
CHAIRMAN ENNES: Was anybody not here?
COMMISSIONER WARSKOW: I was not here.
(Whereupon, the above-mentioned petition was continued at 7:03 p.m.)

DRAFT

Item: Hearts Place - 2/28/18

Department: Planning & Community Development

ATTACHMENTS:

Description	Type
Hearts Place - 2/28/18	Minutes

PLAN
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_____
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COMMISSION

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

RE: HEARTS PLACE - 120-122 EAST BOEGER DRIVE - PC#17-014
PUD AMENDMENT, VARIATIONS

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 28th day of February, 2018 at the hour of 7:03 p.m.

MEMBERS PRESENT:

TERRY ENNES, Chairman
LYNN JENSEN
MARY JO WARSKOW
JOE LORENZINI
BRUCE GREEN
GEORGE DROST
SUSAN DAWSON
JOHN SIGALOS
JAY CHERWIN

ALSO PRESENT:

SAM HUBBARD, Community Development Planner
BILL ENRIGHT, Community Development Deputy Director

DRAFT

CHAIRMAN ENNES: So, our first hearing will be Hearts Place, PC#17-014. Is the Petitioner present? Would you please introduce yourself, spell your first and last name for the court reporter?

MR. KOENIG: Yes. Good evening. My name is Richard Koenig, K-o-e-n-i-g. I'm the executive director of Housing Opportunity Development Corporation, and we are the owner and developer of the property located at 120 Boeger Road called Hearts Place. I'm going to start my presentation by saying I'm sorry I'm back.

CHAIRMAN ENNES: Well, Richard, welcome for being back, and I would like to swear you in.

MR. KOENIG: Oh, sure, absolutely.

(Witness sworn.)

CHAIRMAN ENNES: Please proceed.

MR. KOENIG: I presented to you last summer, and the recommendation was made by the Commission to the Board of Trustees. The Board did approve the proposal for us to build 16 supportive housing units for people with disabilities located at this property. With that approval, we were able to move forward with the project to submit financing to the state agency called the Illinois Housing Development Authority or IHDA. I'll refer to IHDA several times throughout this presentation and that's a state agency that provides the funding for most of the development costs.

We were approved by IHDA for financing. They have approved the funding for the project. They are excited about it and it will be a great project for the community and have fully approved the funding for it. As we were going through discussions with them about the financing for the property, let me know if you have any questions, I'm not sure if you remember all the projects or the details. I'm sure you've seen nothing else interesting since then so I'm happy to go back over any details that you're interested about the project and we can talk more about that. But the important part for this evening is that we're asking for a small modification, and that modification really comes from the funders at IHDA.

In reviewing the proposal, they were interested in the project. They have agreed, we've gone to the board of directors and have fully funded the project, but have asked us to make a few modifications. We had originally asked for 16 two-bedroom units, and through discussions with the staff there, they recommended that it would be more advantageous if we added some additional one-bedroom units and wondered if that was a possibility. It helps with some of the way that the numbers work. I worked with some of however the math works, they believe it worked better with some of the vouchers. They believe based on their experience with other tenants and other types of developments that provide supportive housing that having a slightly different unit mix would be advantageous and asked if there was any way that we could do that.

We said, well, we're happy to do that but it does mean going back to the Board and asking for permission to make a modification. So, we've been working with Staff over the past couple of months to find out what that modification would look like, and they have recommended that we come back to you. We would have had to come back to you for a final PUD approval anyway. So, we are asking for a modification from the original proposal that was recommended and was approved by the Board. When your funder asks you to do something, we are of course willing to do that and see if that's a possibility. Again we're approved by the Board, we can go forward as we are. We have the money available to do it but we think that it would actually make the project better and they would be much happier and hopefully fund

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future projects that we would do by changing that unit mix.

So, just real quickly. Things were approved, the financing approved, we've moved forward. We've been actively working with our architects to design the project going full speed ahead. We are hoping to close probably in May on the financing and start construction in June or July, so things are progressing and we're ready to move forward but with the modification and change in the unit mix.

The exterior will not change at all. The site plan is exactly the same. The Staff had made some recommendation about moving where the air conditioners are located, and that's going to happen. But essentially, the site plan is exactly the same as you saw before. I think one window had to move a little bit because the wall moved a little bit, but essentially, the site plan is 99.9 percent exactly what you saw previously.

This is the floor plan that you saw, and through the magic of technology, if I flip back and forth between the previous plan and the first plan, this is the revised plan and this is the original plan. You can see that the bottom half stays exactly the same. If you look at the top part of the plan, if you look at the four units up in the top, those four units now become five units. This is fun sitting with my computer flipping back and forth. This is lining this up so that you can sort of see all of the -- oh, I broke it now. Sorry, Sam, I flipped too much.

So, that is our request tonight is if we could have permission to, we need to go back to the Council's part of our final PUD would be to move some interior walls and change the unit mix slightly. The units are still the same size. The rental income stays essentially exactly the same. We're trading four two-bedrooms for five one-bedrooms. The rents all stayed the same, the income stays the same. We moved a couple of walls on the inside, the exterior stays the same.

So, with that, we are asking for that permission to make that change.

CHAIRMAN ENNES: Okay, thank you, Mr. Koenig. You have a seat, we'll have the Staff report.

MR. HUBBARD: As I pull it up on the computer, I will certify that the public notice for this project was met. All obligations on the Petitioner's part and Staff's part were met.

So, the property is at 120-122 East Boeger Drive. When the project originally came before the Plan Commission last year, they asked for a rezoning into the Institutional District. That zoning was granted along with the preliminary PUD at that time and several variations. As you've heard, they would like to increase the number of units from 16 units to 18 units and alter the unit mix.

Based on the density regulations in the I District, you're only allowed 16 units on this property. So, the increase in units to 18 units triggers a required variation. Additionally, they had only provided 33 parking spaces the first time around and that met the code requirements for 16 units. As they have increased the number of units, that increases the parking requirements to 37 spaces. But as you've heard, the site is going to stay the same, so it will keep the 33 spaces which also triggers the need for a variation.

So, here you can see the site. Currently, it's mostly vacant. It has a small utility building. There used to be an antenna on the site and the building is vacant currently. The site will be consolidated into one lot as part of the development with a plat of subdivision. They had originally received a preliminary plat of subdivision when they came before the Plan Commission and the Village Board last year. They would still need to provide a final plat of subdivision in order to effectuate final approval of this project.

So, we focused in, in our review, primarily on the density variation

and the parking variation. So, relative to density, you can see with the 16-unit development, they were proposing 16 two-bedroom apartments which correlated to 32 bedrooms. With the 18 units and the change in the unit mix, that only translates to 26 units. So, they're actually, although they're increasing the density of units, they are decreasing the overall number of bedrooms. When you apply the building codes to that, it actually decreases the overall allowable density in this project despite the density increase by code.

So, when we evaluated it, we took that into consideration. We also determined that the site is going to remain the same. It's going to remain essentially unchanged. The only changes are going to be really on the interior of the building. The building bulk, mass, setbacks, and the height are going to remain unchanged as well. So, the density increase really doesn't affect the appearance of the property.

We also felt that the density would not increase traffic by a substantial amount. Supportive living facilities do not have the same traffic generation as a normal standard apartment building as the residents traditionally don't have as many cars. So, the density increase is not going to cause any traffic problems either.

We also asked the developer to look into average occupancy in their units based on some of the other projects in their portfolio. They've done this and they determined that under the 16-unit two-bedroom development, they would anticipate on average around 49 residents in the overall development. The increase in units by two to 18 given the change to 10 one-bedroom units and eight two-bedroom units correlates to around only 35 residents. So, again using practical numbers that they have in other developments of a similar nature, we actually expect this to be a less dense development given the increase in units and Staff is supportive of the density variation.

Relative to parking, again as I've mentioned, supportive housing developments are unique. They don't have the same parking requirements when compared to a standard residential rental multifamily apartment facility. Even so, we've asked the developer to look into some of the other developments in their portfolio, and they did and they provided us with some data. In PhilHaven which has 49 occupied units, there are only 18 units that own a vehicle, that's 37 percent. Myers Place, it was 38 occupied units, 14 with a vehicle, again 37 percent. Axley Place with 13 occupied units, only seven households with a vehicle, so that's 54 percent. Hearts Place will provide at least one parking space for 100 percent of the units, so we don't anticipate a parking problem at all.

Again, relative to the variation criteria, we didn't feel this would alter the essential character of the locality. As all residents, caseworkers, property management staff, and visitors are expected to be accommodated within the parking lot site, parking will not overflow onto the street and will not impact the essential character of the locality.

So, that being said, Staff is recommending approval of the PUD amendment and associated variations subject to five conditions as outlined in the Staff report. I'm happy to go into detail if the Plan Commission would like, but that concludes the Staff report this evening.

CHAIRMAN ENNES: Okay, thank you. Can we have a motion to approve the Staff report?

COMMISSIONER DROST: I'll make that motion.

CHAIRMAN ENNES: And a second?

COMMISSIONER CHERWIN: Second.

CHAIRMAN ENNES: All in favor?

(Chorus of ayes.)

CHAIRMAN ENNES: Any opposed?

(No response.)

CHAIRMAN ENNES: So, do the Commissioners have questions?

COMMISSIONER JENSEN: I just have a general question of Staff. Since this has already been approved in one format by the Board, what is the charge to the Commission? I assume we're not looking at this whole thing de novo. Are we mainly dealing with just the changes that they're requesting?

MR. HUBBARD: Right. The essential characteristics of the PUD as approved before relative the use stay the same. So, really we're just focusing in on the two variations requested.

COMMISSIONER JENSEN: Okay, great. Well, then I don't have any questions at this point.

CHAIRMAN ENNES: Okay, and since we've already heard this, does anybody else have any questions? Is there anyone in the audience that wanted to comment on this project?

MR. MARK EVERDING: Yes.

CHAIRMAN ENNES: Yes. Would you like to come forward please? Please state your name and spell it for our court reporter.

MR. MARK EVERDING: Sure. My name is Mark Everding spelled M-a-r-k E-v-e-r-d-i-n-g.

CHAIRMAN ENNES: Okay, please go ahead.

MR. MARK EVERDING: Yes, so, I'm sorry to be here again myself. I don't know if you remember but I've spent a few late nights here about this project.

My mother owns the day school that's right next to the proposed Hearts Place project. Last time we were here, this Board did not approve, did not recommend this to go forward. I don't know if you remember that. It was a tie vote and it was not recommended to go forward despite what was just said. So, I don't know what the legalese is about what can be examined and what can't be examined in light of that.

One of the questions this Board asked of the gentleman that was just up here was we had big concerns about the gazebo being a smoking area that pulls right up next to the children's school playground. You guys asked him could you consider moving that, and he said yes, we could. Do you want to take a look at where that is right now? It's in the exact same place. It's in the exact same place, so I don't know what forum I have, I don't know what can be done. But you guys didn't recommend this to move forward. It continues to be too big of a building on too small of a lot. That's what it is, and it's right next to a day school.

So, Ms. Warskow, you were the person who asked that person. I would be offended if I were you. They told you they were going to look at moving it. Two days after the meeting, they told me we're not going to move it. I don't know, we've been through this before. You know, as I understand the law and the municipal code, Chapter 28 zoning regulations, that what has to take place here is that the Board, only when the Board is satisfied that a granting of such variation will not merely serve as a convenience to the applicant but will alleviate some demonstrable and unusual hardship or difficulty so great as to warrant a variation from the Comprehensive Plan as established by this ordinance. At the same time, the surrounding property will be properly protected. Properly protected.

We're not being properly protected. The value of that land, our land,

my mom's land, will go down. It's her sole income, 82 years old. That's what's going to happen. It happened once before when we came before this Board eight years ago, and it's going to happen again. I think you guys have a responsibility to that.

So, I just want to make it real clear that we're asking the Committee that you would stick by what you said last time and that you would not make a recommendation to move this project forward. We will be negatively impacted. My family will be negatively impacted, the property value will be negatively impacted. That's all I have to say. Do you have any questions for me?

CHAIRMAN ENNES: We considered it, and as you said we had a tied vote. It went on to the Village Board and they made a decision from that point. But thank you for your comments.

Is there anyone else? Seeing none --

MR. HOROWITZ: No, I have a comment.

CHAIRMAN ENNES: Oh, I'm sorry.

MR. HOROWITZ: Thank you.

CHAIRMAN ENNES: Would you please state your name and spell it for the reporter?

MR. HOROWITZ: Craig Horowitz, 883 Stone Ridge Lane. In 2011, the city after careful consideration voted to protect an existing school and the Everdings by denying the rezoning of these two lots discussed tonight. Then it was called Boeger Place. However, weeks after that, their tenant KinderCare during that discussion expressed a deep concern about this impending rezoning, chose not to re-lease, leaving this property vacant for several years. During that time, property taxes had to be paid, maintenance had to be paid in spite of the fact that they had no revenue on that property.

For almost three years that property laid vacant. Finally, after spending thousands of dollars renovating the property, the Everdings found a tenant to be in that school that lay empty for so many years. In doing that, they had to make rent concessions so that that school could build a business. Finally, it has come to pass that it's a going concern, only in April of last year for this nightmare to happen once again. Last April, this Commission held another public hearing. Hearts Place was a project then and you voted a tie. One of the Commissioners wasn't here that night, Commissioner Drost. I think you're here tonight, right?

COMMISSIONER DROST: I am.

MR. HOROWITZ: Congratulations. The Everdings then submitted a written protest against the amendment which is within their rights. For some odd reason, when you read the minutes of the vote in June, it was never mentioned. Apparently, the reason for the two-thirds super majority was because of your tie, never mentioning the Everdings' protest which bothers me. It should bother you, too.

The project now is now 18 units. It's still being built on less than two acres. I was kind of curious, how many other villages for institutional have a two-acre recommendation? Wheeling, Palatine, Skokie, Wilmette, Park Ridge, Niles. There must be some reason for the two-acre minimum. This project is still next to a school put out of business for several years.

The parking survey, I was kind of interested in it. One of the things it said was that PhilHaven would have an average of 14 cars. So, last night at 1:00 in the morning, I kind of figured everybody would be in the place that lives there. I counted 30 cars and a van. So, how accurate the parking survey is, I don't know. I'm not a parking survey expert but I know

what I saw last night and I know what the parking survey said was supposed to be there.

In April and June of 2017, the project Hearts Place had a nice document that showed the square footage of every apartment then all two units. Yet now, the nice document which is now 10 one-bedrooms and eight two-bedrooms doesn't say anything about the square footage. Now, I tried to get that information from the architect today, they wouldn't give it to me. I tried to get that information from the Village. They say that it's noted in here that it meets the minimum of one-bedroom which is 550 square feet and two-bedroom. Now, again I'm not an architect, I just did some basic calculations. But I would think before you vote on this thing for sure, you should know at least whether yet another variance doesn't exist.

Tonight, Commissioners, is your chance to vote not to recommend these latest variations and with comment to vote that this project is the wrong one for this site. We hope tonight that maybe you'll live up to your city of good neighbors. Thank you.

CHAIRMAN ENNES: Thank you, Mr. Horowitz. Was there anyone else? Please state your name and spell it.

MR. BRADY: Good evening. My name is Hugh Brady, and I am the co-president of the Housing Task Force which is the community group that is supporting this project. I would just like to make a couple of comments about the previous two speakers.

First of all, next to Myers Place or around the corner from Myers Place, there's a daycare center. Previous to the April meetings, the folks at Myers Place actually went over and talked to the people at the daycare center around the corner which actually, around the corner but the back of the lot of the daycare center actually backs up against the lot of Myers Place. The daycare people didn't even know that Myers Place was supportive housing. They thought it was just another apartment building and they had not seen any noticeable decline or change at all in their number of students.

Secondly, with regard to the parking, at Myers Place, half of the first floor is a community drop-in mental health center operated by the Kenneth Young Center. So, during the day when that drop-in center is open, then you know, people that are visiting the drop-in center and the clients and the staff are occupying many of the parking places. So, in my experience talking to the staff and the residents of Myers Place, that figure of, you know, around 13-14 people having cars is accurate.

Finally, if I understood correctly, the only question tonight is not to approve the project but to approve the changes. Did I understand correctly?

MR. HUBBARD: Address the Board and then they can answer.

MR. BRADY: Oh, did I understand correctly?

CHAIRMAN ENNES: That is our main goal.

MR. HUBBARD: Yes. So, this, I would think, would make the previous two speakers happy because there are going to be fewer residents than under the original plan. So, thank you.

CHAIRMAN ENNES: Thank you. Yes, sir? Again, if we can have your name and please spell it?

MR. BRUCE EVERDING: Yes, it's Bruce Everding, E-v-e-r-d-i-n-g. This is my mom's building, it's her only source of income. Not to reiterate everything but I just did want to clarify that I talked to the tenants today and they have never been and are not supportive of this project. They are very deeply concerned and I just wanted to make sure that you knew that.

I also want to let you know that we have filed a formal protest against this project due to the negative effects that it will have on my mom's property. I mean again, this

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is her only source of income. It's the wrong building, the wrong project for this place. We're supportive at the right location, this is not it.

This building is not designed for this lot. The orientation is wrong. It's overlooking a daycare, it's not orientated to the front of the street. We want, we just want it to be known that this is going to drastically, negatively impact our values. Thank you.

CHAIRMAN ENNES: Thank you. Is there anyone else? Okay, why don't we start it down with you? Please state your name and spell it.

MR. GOULD: Good evening. Arlin Gould, 502 East Burr Oak, resident of North Gate for 30-some odd years.

Just a couple of facts. First of all, to insinuate that KinderCare left because hypothetically at some point in the future a supportive care facility would be built there is ludicrous and you know it. Number two --

MR. HOROWITZ: I have to comment --

MR. GOULD: You had your time.

MR. HOROWITZ: I have a comment. Let me know, no problem.

MR. GOULD: I'm sure you do. Number two, why don't you come and visit one of the other facilities that's operating right now? PhilHaven in Wheeling, we brought the police chief there a week ago and his staff. Their report back to me was they are thrilled with how it's operated, their staff loves it because when they go there, if there's an issue they know what they're dealing with and it has worked very, very well. That's a quote from the police chief of Wheeling. If you go to the facility in Mount Prospect, same thing. The mayor and the team there, they're very supportive. There have been no major issues.

The fact of the matter is the individuals who will populate this facility as with PhilHaven already live in our community. They're your neighbors, they are your uncles, they're your sisters, they're your children. I have friends of mine whose kids are 35-40 years old and still living at home because there is no place they can go to get the supportive care which they would get in one of these facilities.

I will tell you another story, and I'm really tired of hearing from people we support this program, just not near us. A friend of mine, some of you may know her, very active in Illinois politics, lived in Arlington Heights with her mother in a condo. She had a full-time job. Her mother passed away. She lost the condo, she wound up on the streets. She could have called me, she could have called you, she could have called Mark Kirk, she could have called Bob Dolan. She knew everybody in the state but was so embarrassed that hard times had fallen on her that she chose not to. Fortunately for her and society, Thresholds found her and got her into a facility, where are you?

AUDIENCE MEMBER: Woodstock.

MR. GOULD: In Woodstock, and bent a few rules, got her back in a program, got her back on her meds. She's now working full time. She has a boyfriend/fiancé. She's a productive member of society. That's what this program does.

So, it's time to open the door and understand that those who come before you and say I support this program but it should be someplace else simply don't support care for those who have mental and physical disabilities.

AUDIENCE MEMBER: That's the wrong thing to say. That's a mean, nasty thing to say.

MR. GOULD: I'm sorry. I understand --

CHAIRMAN ENNES: Please, excuse me. Excuse me, there's going to be

no comments from the audience. If you want to speak, you can come up. We'll hear everybody.

MR. GOULD: So, these individuals are not a threat to society. That's why they're there. I hope you support the changes.

CHAIRMAN ENNES: Thank you, Mr. Gould. Yes?

MR. HOROWITZ: May I put this in the public record?

CHAIRMAN ENNES: Would you come up?

MR. HOROWITZ: I'd just like to get it part of the public record. During the vote on May 17th, 2010 for Boeger Place, Todd Rowden of Thompson Coburn who was the attorney for KinderCare, this is from your minutes:

KinderCare objects to this development for two reasons. First, this is really a zoning mess. This would be spot zoning. It does not conform with the surrounding properties and it does not conform with the Village plan. Also, the hodgepodge of variances that the developer has requested establishes just how out of use the suggested use is with the surrounding uses. There was not an effective notice to the property owners. We respectfully ask you to deny this petition.

That's from the attorney of KinderCare. Thank you.

CHAIRMAN ENNES: Thank you. Just for the record, that was Mr. Horowitz again, correct?

MR. HOROWITZ: Yes.

CHAIRMAN ENNES: Does anybody else want to make a comment? Again, please state your name.

MR. MARK EVERDING: My name is Mark Everding, I spoke earlier. I just need to put it on the public record, I care deeply for disadvantaged people. I would be willing to bet that I've given more money for disadvantaged people than most people in this room, probably all. I donate my time to disadvantaged people, and what was just said is mean and cruel. It's wrong. It's wrong, because we disagree that it shouldn't be next to my mom's daycare center, that is her sole income, is not a reason to stand and put in the public record that I don't care about those people and that I'm misleading you. So, I just need to say that, thank you.

CHAIRMAN ENNES: Thank you. Is there anyone else? Okay, I'm going to close the public portion and come back to the Commissioners.

COMMISSIONER JENSEN: The only thing I want to say is we had a long discussion when it's gone before us before about the reduction in the property value due to this development that we proposed. But we have to realize that that would have put it in 2009 or '10, and I remember the discussion quite well, that was sort of the bottom of the housing market. The housing market had collapsed. It's a little hard to tie property values and other things to a specific thing such as a facility being placed there. So, I think it's somewhat inconclusive that this would reduce the property values and I just want to get that back in the record because it was in an earlier discussion.

CHAIRMAN ENNES: Mary Jo, do you have any comments?

COMMISSIONER WARSKOW: No, I have no comments.

CHAIRMAN ENNES: Joe?

COMMISSIONER LORENZINI: No, nothing.

CHAIRMAN ENNES: Mr. Green?

COMMISSIONER GREEN: I have some comments that I'd like to get out there. I was waiting for the public response before I said anything. I can say that Mr. Gould, I resent everything you just said. We're here as a Plan Commission to discuss zoning, not the

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touchy-feely stories of how good this is or how bad this is. There is no argument on how good this is. I just think, as I said before when I voted no for this project, that it would be just as good at another location. It would be better at another location for all concerned.

We have a daycare next door that went out of business. Regardless of whose fault it was, this seemed to be the catalyst that drove them out of business at that time. So, they have a history of it. So, property values, whatever you're saying now doesn't really fall into what happened to the Everding family in 2010.

So, my other comment is as a zoning issue, this would be better served on a bigger lot. That's why we have zoning ordinances. And a question for Staff, in these minutes was brought up the 2010 project and the difference in the variations. So, my simple question is when we add two more variations of density and parking to this, how is this any different than the project in 2010? Bill, maybe you can answer.

MR. ENRIGHT: It's a lot different. The project in 2010 which was denied by the Village Board and recommended for denial by the Plan Commission, we subsequently got sued and prevailed. That project was twice the density allowance. They were asking for 30 units where 15, or 32 where 16 was allowed. Therefore, the PUD that's been approved already for this project, this iteration of the Hearts Place, they met code for density. Now, they're coming back looking for an increase of two units whereas before in 2010 it was twice the amount of units that were allowed.

In addition, they were seeking back then a pretty significant parking variation as well because they had, I forgot the exact numbers but it was significantly less than they were required to have whereas this project is just a couple short. But as shown by the other projects, and even if you take 31 units of PhilHaven, they have 31 spaces at PhilHaven, if you take into account the counts that Mr. Horowitz took, they have 49 units there. That's still less than one per unit. This project has close to two per unit.

So, those are two of the biggest variations at the time in 2010 for density which is twice as much and the parking.

COMMISSIONER GREEN: So, it's a degree of variation.

MR. ENRIGHT: Yes.

COMMISSIONER GREEN: So, it's to a degree but it's still a variation.

MR. ENRIGHT: Correct.

COMMISSIONER GREEN: So, okay. I think that, like I say, I take this project as a whole because I can't pick little pieces out of it, because if there was, you just asked me for two more variations and to me that's going in the wrong direction. So, anyway that's all I have to say for now. I'm going to hold back any other comments.

CHAIRMAN ENNES: Commissioner Cherwin?

COMMISSIONER CHERWIN: Thank you. Commissioner Jensen at the beginning brought up the question of sort of what we're focusing in on here, and I thought it was a good question and maybe the most relevant for me. I saw this in the, you know, this additional variation in the Conceptual Review Committee. The way I view this is regardless of what the prior vote was at this Commission, the issues that were discussed at that time, the matter went on and was approved by the Board. Currently, Mr. Koenig's group is in a position, if they so chose and they had their financing maybe rearranged a bit, to build consistent with the existing approvals. What they're coming and asking for us tonight is, while it may consist of these variations, I think in a practical sense it's making the site less intense and potentially mitigating some of the issues that some of the folks who are concerned about this site may have.

So, from a practical matter, that's how I'm looking at it and I'm in general support of it.

CHAIRMAN ENNES: Commissioner Sigalos?

COMMISSIONER SIGALOS: I just had a question. Since 2010, I know you've constructed three or four other similar facilities and you mentioned Mount Prospect and Wheeling and Palatine. Are those all at 100 percent capacity?

MR. KOENIG: Yes, all four properties that are listed on that list, I know PhilHaven, Myers Place, Axley, the other one, they are all full. They are fully occupied and completely operating, yes.

COMMISSIONER SIGALOS: Again, my concern before and my concern now were the variations and would have been with of course this parking. I understand that your residents get a lot of subsidy from the state, correct? We know what a financial mess we are in the state. What would happen if this, let's say closed for whatever reason? Now we have a building, whether it would be converted to apartments or condos, whatever, and it doesn't meet our parking requirements?

MR. KOENIG: So, you're asking if it were a worst case scenario, the project completely went away and we just converted from supportive housing to just a rental building?

COMMISSIONER SIGALOS: Right, right.

MR. KOENIG: Right. So, the parking rate is right around 1.75, so it's just about two spaces per unit. So, it's very, very close to that, so it's just assuming that a couple of places wouldn't have parking. It's not too dissimilar from where we are now with 16 to 33 spaces, so that's just over two spaces. With 18 but smaller, so smaller or fewer number of people. Really with the comment about the decreasing amount of density, there are just going to be fewer people there. So, I think that went back to parking positively also. So, there are fewer people, fewer cars, less impact, less density, less need for parking spaces.

COMMISSIONER SIGALOS: Okay, I don't have anything further.

CHAIRMAN ENNES: Commissioner Dawson?

COMMISSIONER DAWSON: Along the lines of what Commissioner Cherwin said, that's been my view of this. Could you clarify, there's approval for the project already as exists, correct?

MR. HUBBARD: Approval for 16 units --

COMMISSIONER DAWSON: And if we were to deny today, they could move forward with the current approval?

MR. HUBBARD: Once they got final plat of subdivision approval, yes.

COMMISSIONER DAWSON: So, our focus is whether or not the amendment is appropriate. I wasn't supportive of the project in the first place, I'll go back on the record for that. This is less dense. So, I am supportive of the amendment.

CHAIRMAN ENNES: Commissioner Drost?

COMMISSIONER DROST: Yes, I have no comment.

CHAIRMAN ENNES: Okay. If the Petitioner would come up, I have a couple of questions. You provided us with an extensive packet of information and I went through a bunch of it. Something caught my eye in particular. One thing in regard to the parking, the street parking in that area is pretty intense during the daytime. Have you noticed that when you're in the area?

MR. KOENIG: There are businesses there and there are other uses along there, sure.

CHAIRMAN ENNES: Their parking. Sam, do you know, there is public parking there during the day?

MR. HUBBARD: Correct, yes, there is street parking.

CHAIRMAN ENNES: How about in the evening?

MR. HUBBARD: I don't know the particulars but the Village has a no parking from 2:00 a.m. to 5:00 a.m. I believe on the residential streets.

CHAIRMAN ENNES: I noticed in your tenant manual, and in your comments you indicate that there's no anticipated need to use street parking. Yet in your tenant manual you indicate that there is parking available for the tenants and guests on the street. Is that just because this is a manual you use with all your locations? It needs to be customized?

MR. KOENIG: Yes, that's the standard manual that we have for all of our properties. We don't do a special one for each building. We have a number of properties we manage and that's just generic language used for that.

CHAIRMAN ENNES: Also in that manual, one other thing I noticed, it indicated it's a drug-free building, I have an office building, and a lot of other conditions that it's interesting that you put in those. I have a business in the immediate area, I have an office there, and all over the building it's marked this is a gun-free zone. Is your facility, is it a gun-free zone? I didn't see anything mentioned about that.

MR. KOENIG: We don't have any language regarding that. I don't know if there's any standard for that with this type of housing. I'm not aware of any standard from HUD or from the state.

CHAIRMAN ENNES: Do you see any reason, with what's going on, do you see any reason why that wouldn't be part of your manual as a requirement?

MR. KOENIG: I would have to find out if we can do that from HUD and from IDOT, if that would, I just, that's not something that has been addressed before.

CHAIRMAN ENNES: You tell tenants that they can't have gasoline or flammable liquids in their apartment, why couldn't you tell them that?

MR. KOENIG: I'm not familiar with the gun laws. I don't know what is and what isn't allowed. I know there are gun laws in Chicago and other communities in the northern suburbs that if we tried to restrict folks from having guns in their homes, so we have to follow what those rules are. I just don't have enough information on that.

CHAIRMAN ENNES: Okay, well, I mean, I don't know, this is supportive housing, right?

MR. KOENIG: Correct.

CHAIRMAN ENNES: So, you set the rules in a lot of cases, you tell them they can't have gasoline. That was one of the things I noticed. So, why, you're next to a --

MR. KOENIG: What --

CHAIRMAN ENNES: Let me finish my question, let me finish my question.

MR. KOENIG: Sure.

CHAIRMAN ENNES: You're adjacent to a preschool and you're across the street from a high school. Why wouldn't you make that a requirement?

MR. KOENIG: If we're allowed to, we will absolutely.

CHAIRMAN ENNES: You will, okay.

MR. KOENIG: Sure, yes.

CHAIRMAN ENNES: That's the only question that I have.

COMMISSIONER LORENZINI: Terry, I do have one.

CHAIRMAN ENNES: Yes, Joe.

COMMISSIONER LORENZINI: So, I'm just looking at the landscape plans. So, there's a six-foot high fence between your property and the daycare next door?

MR. KOENIG: There's a six-foot high fence all the way around, correct. It's between the daycare and it's all the way around.

COMMISSIONER LORENZINI: Okay, thank you.

CHAIRMAN ENNES: Does anyone want to make a motion? Any further questions?

COMMISSIONER LORENZINI: I'll make a motion.

A motion to recommend to the Village Board of Trustees <u>approval</u> of PC#17-014, an amendment to Preliminary Planned Unit Development (PUD) Ordinance #17-028 to allow the construction of a two-story, 18-unit supportive housing development, which amendment will constitute final PUD approval and the following variations:

1. **Chapter 28, Section 5.1-8.4, *Minimum Lot Size*, to allow a reduction to the minimum required lot size from 43,200 square feet to 40,435 square feet.**
2. **Chapter 28, Section 11.4-1, *Residential Uses*, to reduce the off-street parking requirements from 37 spaces to 33 parking spaces.**

This approval shall be subject to the following conditions:

1. **Final plat of subdivision approval shall be required.**
2. **The fire lane connection from the subject property to the parking lot located on the Popeye's property (7 W. Dundee Rd.) must be completed prior to final certificate occupancy of the subject property.**
3. **The air conditioning units placed in the side yard near the front facade shall be relocated behind the building (if feasible) and, at a minimum, must be pushed back so that they are behind the gazebo and screened with additional landscaping.**
4. **The final landscape plan will be subject to Staff review and approval. Additional modifications and/or plantings may be required to achieve compliance with code.**
5. **The Petitioner shall comply with all applicable federal, state, and Village codes, regulations and policies.**

CHAIRMAN ENNES: Is there a second?

COMMISSIONER JENSEN: Second.

CHAIRMAN ENNES: Any discussion? All in favor? Could we have a roll call vote?

MR. HUBBARD: Commissioner Cherwin.

COMMISSIONER CHERWIN: Yes.

MR. HUBBARD: Commissioner Dawson.

COMMISSIONER DAWSON: Yes.

MR. HUBBARD: Commissioner Drost.

COMMISSIONER DROST: Aye.

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MR. HUBBARD: Commissioner Green.
COMMISSIONER GREEN: No.
MR. HUBBARD: Commissioner Sigalos.
COMMISSIONER SIGALOS: No.
MR. HUBBARD: Commissioner Warskow.
COMMISSIONER WARSKOW: Yes.
MR. HUBBARD: Chairman Ennes.
CHAIRMAN ENNES: Yes, with comment. I would strongly recommend --
MR. HUBBARD: Commissioner Jensen.
COMMISSIONER JENSEN: Yes.
MR. HUBBARD: Commissioner Lorenzini.
COMMISSIONER LORENZINI: Yes.
CHAIRMAN ENNES: Did we get everybody?
MR. HUBBARD: That's everyone.
CHAIRMAN ENNES: Okay, I would just strongly recommend to the Village Board that they consider the fact that that building should be a gun-free zone and that we have the commitment from Mr. Koenig to look into that.
MR. KOENIG: We will look into that.
CHAIRMAN ENNES: Okay, you have approval from the Plan Commission to take your motion for these modifications to the Village Board. Is there a date?
MR. HUBBARD: We're tentatively looking at the second meeting in March 19th.
CHAIRMAN ENNES: Okay, thank you.
MR. KOENIG: Thank you for your time, I appreciate it.
(Whereupon, the above-mentioned petition was adjourned at 7:50 p.m.)

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Item: Sigwalt Apartments/CA Ventures - 2/28/18

Department: Planning & Community Development

ATTACHMENTS:

Description	Type
Sigwalt Apartments - 2/28/18	Minutes

PLAN
_____
_____
_____

COMMISSION

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

RE: SIGWALT APARTMENTS/CA VENTURE - 45 S. CHESTNUT AVENUE - PC#17-016
PUD, PRELIMINARY & FINAL PLAT OF SUBDIVISION, REZONING, VARIATIONS

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 28th day of February, 2018 at the hour of 7:00 p.m.

MEMBERS PRESENT:

TERRY ENNES, Chairman
LYNN JENSEN
MARY JO WARSKOW
JOE LORENZINI
BRUCE GREEN
GEORGE DROST
SUSAN DAWSON
JOHN SIGALOS
JAY CHERWIN

ALSO PRESENT:

SAM HUBBARD, Community Development Planner
BILL ENRIGHT, Community Development Deputy Director

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CHAIRMAN ENNES: Okay, we're going to move on to our second petition. Seeing as the rest of you didn't talk, I think we're going to have a lot of public comment. But is the Petitioner here?

MR. FIRSEL: Yes.

CHAIRMAN ENNES: Would you please come forward?

MR. FIRSEL: Sure.

CHAIRMAN ENNES: State your name and spell it for our court reporter.

MR. FIRSEL: Good evening. My name is Mike Firsel, law firm of Firsel Ross, F-i-r-s-e-l, the spelling of my last name.

CHAIRMAN ENNES: Mr. Firsel, I'm going to swear you in.

MR. FIRSEL: Sure.

(Witness sworn.)

CHAIRMAN ENNES: Please tell us about your project.

MR. FIRSEL: Thank you. As I'm sure you are aware, this matter has been before you in the past. I was not representing the Petitioner at that time. As you, I am sure, also are aware, the Village Board did not recommend approval of this project as presented, notwithstanding the approval of the close vote of the Plan Commission. So, in playing catch-up over the last few months, I have been able to read all of the transcripts, I appreciate the Village making them available, and we have gone back to the drawing board on several very important matters related to the process.

When you do a project of this nature, having done zoning both on your side of the table and on this side, we start with what the Village ordinance is saying in this particular case and what the Downtown Master Plan calls for. The Downtown Master Plan specifically points out this particular Block 425, and very specifically states that the plan for this block and this corridor of this block is a recommendation for R-7 zoning. That plan also recommends that the remainder of this block be B-5 zoning. In addition, the AT&T building to the east is under a B-5 zoning district. Between Arlington Heights Road and Chestnut on the north side of Sigwalt, this is the only parcel that is not zoned B-5, for a good reason. It is a transitional location, and so those who worked on and approved the master plan felt that the amount of density, height, and other allowances contained in the B-5 district, and specifically retail on the first floor required in the B-5 zoning district would not be appropriate at this location directly across the street from residences.

So, we started with what the Village was looking for on this site, and of course it recommended four to six-story building within the R-7 zoning district. To build a four to six-story building on this site and not request a variance, any variances for this property, is virtually impossible to do, because in the R-7 district, it covers many different types of locations and there are other examples which are set forth in your Staff reports. But there were some very important comments made both at the Plan Commission level and at the Village Board which I believe, and happen to agree, caused controversy and issues, having been a resident of the Village for 25 years. There is a parking problem in Downtown Arlington Heights, I don't think it's something to be hidden, and we needed 1.5 to one parking for this project.

The prior petition wanted to use 22 spaces in an already crowded parking deck. The plan before you tonight complies with the 1.5 to one. How does it do that? Not only did we increase the parking spaces, we decreased the number of units that were previously approved by the Plan Commission from 88 to 80 units. We are now providing 120

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parking spaces. Of those 120 parking spaces, 30 of them are what we call tandem spaces. Tandem, as you are certainly aware, one car parks in front of the other, therefore, blocking the car that may be up against the wall. Why do we feel tandem spaces would be able to be used? Well, 30 tandem spaces in our belief translates to 15 units. We strongly believe that at least 15 of the 80 apartments we are proposing will have two cars. In fact, in discussing the matter with other downtown property managers, many people in downtown apartment buildings have two cars. Maybe that's part of the parking problem, people not needing two cars but they have them. So, parking, in the discussions regarding parking in my view should be off the table because we comply.

Number two, the height. In this district, 60 feet is the height limitation. Now, it took a lot of convincing and it took a lot of hard work and the expertise of our incredible architects who have worked in this Village for many, many years, that relates to Mark Hopkins, we now are, there is no seeking of any height variation on this building. It's 60 feet at its highest point, and directly across from the residences it is somewhere around 57.5 to 58 feet, not 60.

So, one question is the boxiness of the building and the units, where did we take the units from. We took the units, as you can tell by the packet I'm sure you've all reviewed, we reduced the unit count on the fifth floor by eight units, thereby setting back the top floor and putting fewer units on that floor. There are depictions from the ground level, and Mark Hopkins, our architect, will be going through our specific plans with you, but we believe that this is a major, major upgrade to this property.

One of the other major items happen to be deliveries. They were taking two spaces on Highland, and what the plan in front of you shows in generalities is we have spaces on Sigwalt now where there will be delivery parking. Most of the deliveries, FedEx, UPS, and now all the restaurants who deliver food now, there will be parking not on the street. There will not be any blockage of Sigwalt Street by these delivery vehicles because we have moved the area in front of the building, which Mark will go into greater detail, farther back or farther to the north to accommodate several parking places for parking as well as deliveries along Sigwalt Street.

I do want to touch on what I know is going to be an issue, and these are some of the variances. In the prior plan, there was a request for 15 variances. The request today has been reduced from 15 to 11, not 12, because we since, over the last two or three weeks, were able to reduce the height. So, we are not asking for a height variation. So, what is the nature of the variations? Well, you've seen them all.

In the B-5 district, were this building built as zoned in the B-5 district, many of these variations would not be necessary, because in the B-5 district you have higher densities and you have less ground coverage, more FAR, et cetera. So, it would be physically, almost physically impossible to build a four to six-story unit and satisfy the coverage requirement or the pervious or impervious surface requirement of this building. It's just not physically possible to do. So, were we to propose something other than what's called for in the master plan, we could then be criticized for not following the master plan. So, we're between a rock and a hard place as far as that is concerned. So, what we had attempted to do is minimize and improve the requested variances, and when I say improve, make them less.

Last time, not last time but when we started looking at this project, we were unaware that there is an additional eight-foot dedication on both, or setback in both

Chestnut and Highland. Those eight-foot setbacks that are in addition to the existing, were those not present, the variances we are requesting for setbacks would be very, very minimal. To not have a setback on the north side, to have a large setback on the north side of this property when it's going to abut B-5 development really makes no practical sense. So, what we have done is we have shifted the building to I believe four or five feet to the east, so the setback along Chestnut is bigger. As you will see on some of the slides that Mark goes through, the front of the building or the south side of this building, I shouldn't say that because there are two fronts neither of which is on Sigwalt, but the front of the building, we call the front building or the main entrance to the building, it's not a flat wall at all. There's a lot of design features and the like all the way around this building.

Finally, I wanted to point out that there's been a lot of talk about the nature of the, and a lot of goings on in the Village internally regarding how do you approve design, if the Design Commission without going to the Plan Commission first? Or do you go to the Plan Commission first and then go to Design Commission? To us, what we want to do is build the best possible project that fits in with the Village. Hence, you will see, just for informational purposes, a new design of the exterior of this building. When we present this to the Village Board, we will present it either with the newer design or with the option of doing either, because to us we want to do, we can still adjust, we want to do what fits in best with this Village.

With that said, I want to point out that I believe and have always believed that the process in this Village works. The process of when we came to you with a plan you will see the progression of how this building has morphed from a five-story square building with dark colors on the top to what you have in front of you and what was presented tonight. Without the input of Staff, without the input of the neighbors, without the input of the Plan Commission as well as the Village Board, we wouldn't be where we are. So, we are happy to work within the process, continue to work within the process, and we believe that what you have been presented tonight without me going through each and every item simply is the best.

My last comment relates to why can't we make this a three or a four-story building? Why does it have to be as large as it is? This goes to the very essence of what is required on an economic basis to justify variances, that's part of your code as we know. There are a few attributes to this building that other buildings in downtown don't have. One of them is that this building will have its own self-contained underground water storage, or storm sewage system. That is a very costly item. In addition to that, other buildings downtown other than the newest one that was approved and is now under construction were not required to pay low income housing money in lieu of providing use.

One might think that if you build fewer units, that there will be a pro rata reduction in the cost of building that building, therefore, if you build fewer units your cost goes down commensurately. Well, that is simply not the case. You still have to buy the land and the land is the same price whether you build 40, 50 or 80 units. We still have to put in the underground storage system. We still have to build a roof. We still have to do the same landscape. We still have to do the same improvements off site and onsite for this project regardless. The bottom line is that I've gone through the numbers with the client, I've seen people say that, you know, it's going to affect the housing prices with, I've seen no evidence of that. But these are very, very expensive units.

The rental in these units is going to be, hopefully, somewhere at

least $2.50 a foot. So, if you have a one-bedroom apartment that's 750 square feet, you're well over $1,500, $1,800 for a one-bedroom per month. If we were to reduce the number of units, the cost of building this building could not go down commensurately. Therefore, we have reached a threshold of 80 units, pushing as hard as we could to satisfy the economic requirements of a reasonable, certainly not huge, return for this project by probably the currently most prolific developer in the Chicagoland area, CA Ventures. They're just knocking the cover off the ball wherever they go. So, you've got a phenomenal developer who has the wherewithal to build this building, and you have a phenomenal building. We comply with the requirements of your master plan, and I believe the variances which are very well covered in the report of the Staff and in the letter submitted by my client, we go variance by variance, more than justify the requirements for the granting of the variance we have this evening.

With that, I'd like to call on Mark Hopkins, more affectionately known as Hoppy, who I'm sure if you don't know him I'd be shocked, but he's going to run through this with you. Since you have seen this many times, we're not going to reinvent the wheel, we're going to stick with the modifications to what you've seen before.

CHAIRMAN ENNES: Mr. Firsel, before you leave the podium?

MR. FIRSEL: Sure.

CHAIRMAN ENNES: Do you expect anyone else from your group to be testifying?

MR. FIRSEL: Not unless questions are asked that Mark nor I are able to answer. But if you want to swear in the --

CHAIRMAN ENNES: If there's anybody else that might testify, I would like to swear them in at this time.

MR. FIRSEL: No, it's just the dynamic duo.

CHAIRMAN ENNES: So, we go on to your architect. I would ask for you to please spell your name.

MR. HOPKINS: H-o-p-k-i-n-s, Mark. Our address is 43 South Vail.

CHAIRMAN ENNES: Can I swear you in?

(Witness sworn.)

CHAIRMAN ENNES: Thank you.

MR. HOPKINS: I think Mike was very nice and he said keep it short. So, what I'm going to do is I'm going to focus on the major adjustments that have been made according to the comments that we've made in all the different rounds of interactions that we had with the appointed and elected bodies, with Staff, and with the neighborhood. I think it all points to the importance of this position in the downtown and how important it is to the Village as a whole, how important it is to the neighborhood, and I think all of this iteration has made the project the beneficiary. So, it has improved, at least in my eyes, over the course of this even though it's been quite a process.

I'd like to start and highlight some of the site plan modifications that you see in the exhibit that's on your screens and in your packet. I won't belabor most of them, but what we have is a net gain of five cars. On the street, currently, there is no parking on this parkway along Sigwalt. These stalls that you see along Sigwalt at the bottom edge of the sheet, those are burrowed into the parkways so that those curbs that you see that kind of embrace those lay-by parking spaces, the southernmost extent of those curbs is the current curb line on Sigwalt. So, we're not imposing onto Sigwalt at all in order to gain those spaces. The ones with

the kind of brown bar between them in the sidewalk, that's a paver mark, and those are parking spaces for vehicles. Then the other space that doesn't have that feature is a lay-by loading for short-term, as Mike said, for the FedEx guy or the UPS guy, or if we get panels right there, it actually fits in there for some move-in and move-out. That's the kind of thing that can happen there so that those vehicles will be not imposing on cross traffic on Sigwalt. Otherwise, we have some knuckle type parallel parking spaces also on Highland, and you can see that the overhead door access there on Highland remains where it was before.

The Staff report shows that the building was shifted a little bit to the east to increase the setback on Chestnut. There are some bumps in the facade that were removed in order to eliminate the variation off of Sigwalt so that we achieve 20 feet there. In the course of getting this building to comply with the 60-foot height requirement, the entire building in the first floor was pressed down in the earth a little bit more. So, if you take a look at the lobby entry, compared to the way it was laid out before, you'll see there's less steps leading up to the first floor lobby there in the center of the south facade, even though technically it fronts around Chestnut and Highland, we're entering the building there in the center where you see the amenity courtyard there portrayed over the lobby.

As I mentioned last time, as you'll see in the civil engineering drawings, there is a three-foot cross slope on the building from the high point at the northwest corner of the site and to the low point on the southeast corner of the site. Obviously that remains the same now. Because we pressed the building down, our average height for approval purposes which is measured on our lower facade, the center of our lower facade at the sidewalk to along Highland is 60 feet. But because the site slopes up towards Chestnut, that number as Mike said is more like 57.5 feet.

The big change on the building, obviously the reduced to 80 units and get the parking to comply in that reorchestration of the building, and parking, internal parking has to do what you see in the diagram which is set back in the fifth floor. You can see that with that darker area, you can see the outline of the four stories there, and a more C-shaped rectangular building in the lighter color roof there is the fifth floor roof. So, we're 10 feet set back on Highland and Chestnut, about 13 feet set back on Sigwalt. I can advance this or do you want to?

MR. HUBBARD: You can if you press the down button.

MR. HOPKINS: The down button. So, this is different than the style of building that we showed you before. It has to do with the input that we're receiving from various quarters. Mike says that we're keeping this revised design in our hip pocket when we're saying these are two different ways to treat that building. The first time we came in here was with a more modern and crisp building, one that was less ornamented. This one has to do with making the connection to the more historic allegory or the history of the mercantile architecture of the remainder of downtown. It's a different style, same building, but the big change obviously is what's happening on the fifth floor with the setbacks that I just described. Also, because the building has been pressed down into the site, we have then less need for those retaining walls that Sam mentioned in the Staff report and we have reduced those in the height and reduced them in breadth and instead we've introduced an ornamental metal fence interrupted by these down-on-the-ground -- the corner site walls.

This one is looking from the southwest towards the northeast. You can see Dunton Tower over to the right. This one is looking towards the northwest. The building

is symmetrical. Mike mentioned that over the course of our interaction with the Design Commission, that they had us create these recessed balcony areas so the building has less broad wall surfaces. That remains in this design and is visible when you look at the elevations, the pure elevations that are in your packet. You'll see that those are operating around all four sides of the building. The four sides of the building are all treated as fronts, there is no difference in the quality of materials and the detailing on any of the sides of the building.

This is the entry, and what we've done is we've registered our garden architecture, our pergola there towards the center of the building out towards the street, all in an effort of this, one of the goals of this effort in redesign and the various iterations of the redesign is to make the building softer and make it more of a transitional building to get from the B-5 zoning district to the north and to the east of this building, and then down towards the southwest as we get to the residential neighborhood. So, what you're seeing there is a more traditional treatment on the building. We've got stone surrounds around clusters of windows, spandrel panels treated like some of the other buildings downtown like Metropolis Place, 44 North Vail, all have the same kind of treatments. We've got projecting cornice, traditional cornice in this design with a dental trim. So, this is much more traditional in nature and kind of a softer approach to the architecture.

So, let me just go to the north facade since that's the one that never seems to appear in the perspective renderings, but what you see is that same architecture there. Then the recessed balconies operate this facade up into panels of two or three rooms in width and then the change in material in the superstructure.

With that, I think I should start being quiet. So, where do I go from here, Mr. Chairman?

CHAIRMAN ENNES: You can have a seat after your report.

MR. HOPKINS: Thank you kindly.

CHAIRMAN ENNES: Before we go to the Staff report, if I can ask the attorney for the Petitioner from the topic?

MR. FIRSEL: Sure.

CHAIRMAN ENNES: I'm not sure if I heard you wrong, and I didn't ask you at the beginning of your presentation if you were aware of the, is it eight or nine conditions? Either conditions.

MR. FIRSEL: I'm glad you mentioned that, Mr. Chairman. We agreed and agree to comply with all of the conditions recommended by Staff. My apologies for failing to volunteer that in my presentation.

CHAIRMAN ENNES: No, my mistake. But one of your comments, and I'm not sure if I heard you correctly or not, but the way I understood one of your comments in the presentation was in regards to the low income housing, I thought you said that you're not paying a fee?

MR. FIRSEL: No, I didn't say that. I said we will be paying a fee, that affects our economics of building the building.

CHAIRMAN ENNES: Absolutely, absolutely. That is one of your conditions, so I just wanted to clarify.

MR. FIRSEL: We can try but I've already told and that's not going to work. So, thank you.

CHAIRMAN ENNES: So, Sam, if we can go to the Staff report?

MR. HUBBARD: Absolutely. As I pull up the slide show, I do want to mention that all of the public notice obligations on the Petitioner and the Staff side have been met. I will say that we are aware that some residents have indicated they have not received public notification letters. We checked the list provided by the Petitioner of all the addresses of property owners where public notice need to be sent, and then we checked again, and it did include all of the necessary properties within 250 feet of the subject property as required by code, which does not include right of ways. The Petitioner has provided their affidavit certifying that they sent a letter to all the property owners on the list, so they have fulfilled their public notice obligations relative to mailings.

Relative to the signage on the site, the Petitioner did put up the signage as required by code. We have been made aware of at least six instances where the sign has either fallen down or been vandalized and knocked down. The Petitioner has promptly reinstalled those signs as soon as they've been made aware of these instances. So, they have met their obligations for public signage as well.

So, as I get into my presentation here, the property is currently zoned R-3. It is at the southwest corner of downtown in what is part of Block 425 bounded by Campbell, Sigwalt, Chestnut and Highland. So, as being zoned R-3, the Petitioner is required to rezone the property into the R-7 district. Additionally, all developments within the R-7 district are required by code to develop as a PUD, so they're requesting PUD approval. Finally, the property exists currently as six lots of record, so in order to accommodate for the development, they will be consolidating the lots into one lot and they need preliminary and final plat of subdivision approval which they are requesting this evening. They are required to obtain 11 variations and I'll be touching in detail on some of them in this presentation. The totality of all the variations relative to the criteria of approval was outlined in detail in the Staff report.

So, as you've heard and as you're aware, the proposed development appeared before the Plan Commission in September of 2017 and received a positive recommendation with a four-three vote, and went on to the Village Board and was subsequently denied. So, the Petitioner has revised their plans. You've heard some of the changes, I'll outline some of them quickly here:

They have recessed the fifth floor so that when viewed from certain angles it will appear as a four-story building. They have reduced the height of the building to conform to the R-7 requirements. They have reduced the density of the development from 88 units to 80 which is close to a 10 percent reduction. They have increased the amount of onsite parking to comply with parking regulations. They have altered the setbacks pushing the building a little bit to the east to preserve more of an open area to the single-family homes to the west. They have modified the retaining walls in the front which helps to soften the appearance of the building as viewed from the south. They have reduced the overall number of bedrooms and they've changed the bedroom mix. They have increased the size of some of the parking stalls to comply with code requirements, and they've provided additional on-street parking spaces on the north side of Sigwalt. They've shifted the location of the loading zone to Sigwalt Street in an effort to address some of the concerns over deliveries and loading.

So, here you can see the original 15 variations that were requested back in September of 2017. The variations that are stricken through with red have been eliminated based on the revised proposal. That would be the variation to parking, the variation to decrease the parking stall widths, the height variation was also eliminated, and the exterior

side yard variation to the south was eliminated as well. Some of the other variations have reduced in extent, most notably the setback variations and density variation.

They have taken a number of actions that brought them to this point this evening. They have presented their revised concept to the Village Board on December 4th of 2017, and the Village Board did encourage them to move forward with that revision. Originally, they had met with the Housing Commission on August 15th, they are still complying with the motion Housing Commission to provide an affordable housing fee-in-lieu of $25,000 per unit not provided. Their reduction in density in this revised proposal has reduced the number of required affordable units by one, so they will be making now a $300,000 donation to comply with the affordable housing regulations.

The Petitioner held two neighborhood meetings to discuss the revised proposal. The first one was on December 20th and that was mostly with the single-family neighborhood located to the west and to the south. At that meeting, it was discussed that some of the neighboring condo buildings in the downtown area, which are located just outside of the notice area to where invitations to the neighborhood meeting were sent, were not included in that invitation but were still in close proximity and would be affected by this development. So, the developer sent out a second invitation for a second neighborhood meeting with just a few of the condo buildings in downtown and that occurred on January 25th of 2018.

They appeared before the Conceptual Plan Review Committee on January 24th of this year. The Conceptual Plan Review Committee was generally supportive of the changes, and I'll summarize that they thought that the now compliant parking was an enhancement to the plan.

Finally, the Petitioner met with the Design Commission on January 9th which resulted in a recommendation of denial. At that meeting, the Design Commission expressed general support for the design and aesthetic of the building, but they voted for the denial due to their concerns over the compatibility of the development, the variations and compliance to the Comprehensive Plan and codes of the Village. Since that meeting, in-house counsel Robin Ward discussed with the Design Commission what their role was relative to projects that appear both before the Design Commission and the Plan Commission and clarified for them that when a project is appearing before both the Design Commission and the Plan Commission, the Design Commission's role is really to review just the building architecture and the aesthetic of the building. Concerns over compatibility, variations, compliance with the Comprehensive Plan is really more of the purview of the Plan Commission.

So, on January 23rd, the Design Commission made a motion to reconsider the project and ultimately ended with a favorable recommendation of approval four to one, which included some minor recommendations on certain aspects of the architecture. But in their motion, they urged the Plan Commission and Village Board to take into consideration the harmony and compatibility aspect of this development. To clarify, the review of the architecture of the structure is the purview of the Design Commission. You've seen the revised design this evening, but that's really not, you know, for discussion here with the Plan Commission. Ultimately, as you've heard, that may go to the Village Board as an alternative, the Village Board will review that and may think favorably of it and recommend approval of it, they may decide that it needs to go back to the Design Commission, but it's, you know, not for discussion by the Plan Commission, it’s more a Design Commission issue.

So, in our analysis of the proposed rezoning, we considered the

Comprehensive Plan of the Village which was recently updated about three years ago in 2015. So, here you can see the subject property at the bottom left-hand side of the screen outlined in red. The areas above and to the right of the subject property are shaded blue. Those are portions of our downtown that are appropriate for B-5 zoning. The areas to the left and below the subject property are shaded orange and are suitable per our Comprehensive Plan for moderate density multi-family. Then the areas directly southwest are shaded yellow, they are suitable for more single-family uses.

The subject property is dark brown, that's suitable for high density multi-family per our Comprehensive Plan. That correlates directly with R-7 zoning. So, the proposed rezoning to the R-7 district is consistent with the designation of the Comprehensive Plan.

I just want to point out, there is an area here outlined in blue. This is a strip of high density, multi-family designated property along the Sigwalt Street corridor. One of the variations needed was for a reduction in the minimum zoning district size. The minimum requirement is two acres, the rezoning would yield an area of land that's 1.39 acres, below the minimum requirement here. So, a variation is needed for the minimum zoning district size. As you can see, once this strip that's outlined in blue is eventually rezoned and if the Comprehensive Plan is eventually realized, the subject property will be just one portion of a larger R-7 zone down here, and at that point it will comply with the minimum zoning district size. So, in light of this, Staff is supportive of this variation.

We also considered the Comprehensive Plan in evaluating the rezoning. As mentioned, this is part of Block 425, so you can kind of see that on the bottom left corner of the screen, the subject property is outlined in red there. The Downtown Master Plan outlines specific recommendations for the redevelopment of Block 425, one of which being that the bottom third, which is the subject property, is appropriate for development with a building four to six stories. So, as a five-story development, it is compliant and consistent with the Downtown Master Plan. The plan always kind of envisioned this site as a transition zone between the higher density areas of downtown and the lower density and lower intensity uses to the south and the west. So, again this is a transitional property and it is consistent with the Downtown Master Plan.

So, I'm going to show you an aerial here of the subject property. This kind of shows you how it relates to the downtown area. As you can see, the areas in blue located to the north and to the east of the subject property are suitable for high density, B-5 downtown zoning district uses. The areas to the south and west of the property are single-family zoned properties or existing family homes. You can see where the subject property sits in relation to those, it's kind of right in the center and this illustrates the relationship of it being a transitional property from the higher density, higher intensity downtown uses to the north and east, to the less intense single-family uses to the south and to the west.

One of the variations requested relates to density, specifically the request was made to allow an approximately 39,000 square-foot lot where code requires a minimum of 61,500 square-feet in lot size. So, when we analyzed this, we took into account our density regulations and we did some research on average household size in the United States. So, the density regulations for the R-7 zone were last amended in 1972. As you can see on the chart on the left-hand side of the screen, in 1970, the average household size in the United States was about 3.14 persons per household. As time has elapsed, the average household

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size in the United States has steadily decreased as you can see in the chart. But we also checked on some of the statistics for Arlington Heights in particular. We wanted to make sure that this trend was also mirrored in our municipality, and again, you can see here that it was. The data isolated just to Arlington Heights was only available post 1990 but you can still see the falling household sizes within the Village.

I would also note that you'll see the average renter household size is much smaller than the average homeowner household size. This being a rental development, we expect the households to be much smaller than if it was a condo development.

So, given the statistics, we were supportive of a change in density. We think that our density regulations could also be amended as well, they're not as applicable to today's traditional household size. I would further note that the subject property is the only high density property on the north side of Sigwalt within the Sigwalt Street corridor as designated on the Comprehensive Plan. Most of the other R-7 properties along this corridor are on the south side of the street and within the single-family neighborhood. Given that this is the only one on the north side of the street and separated from other developments, other single-family homes by a street, we felt that in combination with the decline in household sizes and the transitional nature of the property, that the density variation wouldn't alter the essential character of the locality, and we are supportive of the proposed density variation.

One of the other crucial variations that we analyzed was relative to the setbacks. So, there are required variations to the east, north and west setbacks. In consideration of these variations, we took into account that in order to conform to engineering standards, the subject property had to dedicate eight feet of land on both the east and west side of the property. So, you'll see that shaded in red there. These dedications reduced the setback of the building from a technical standpoint, but for all intents and purposes, this dedicated land will likely remain as open space certainly for the near future and potentially for the long-term future. So, while they don't count towards the setback distances on paper and are not included in the variation, for all intents and purposes they will function just like part of the yard for the property. Again, this was something we took into consideration in evaluating the setbacks.

We also took into consideration the unique aspect of the lot with frontage on three sides which is not typical for most R-7 properties. It was a factor in determining their required setbacks by code. These streets also provided natural separation between the subject property and the single-family areas to the south and west, and they act as a buffer between the development and those single-family homes. Specifically to the west, the building will be no less than approximately 95 feet from the nearest home; to the southwest, approximately 145 feet; to the south, no less than approximately 93 feet. Then when we consider also the distance of the building to the curb, that provides about 40 feet of distance separation, to the south just about 36 feet, and to the east it's about 20 feet. So, given the natural street separation with frontage on three streets, this property is certainly unique.

We also considered and studied similar multi-family residential properties adjacent to the downtown area to evaluate if the proposed setbacks are consistent with the character of the area. Most of the properties south of Sigwalt are immediately abutting single-family homes. I'm sorry, most of the multi-family properties south of Sigwalt are immediately abutting single-family homes. Here you can see two examples. We evaluated the setbacks of these buildings relative to the proposed development. The front yard setback on the west side of the proposed development is 20 feet, and 6.8 feet on the east side where it's

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adjacent to B-5 zoning. So, we felt this was consistent relative to the front yard setbacks. Relative to side yard setbacks, it's about five feet to the north but that's just for the ramp bumpout. The remainder of the building is closer to 18 feet which again was consistent with what we're seeing in similar multi-family structures in R-7 district. Again, the exterior side yard setback to the south on the subject property is 20 feet, and again it's somewhat consistent with what we're seeing in the existing neighborhood. So, in comparison to similar multi-family properties in the area, the proposed setbacks were within the general character of the area.

So, here is just the visual of what some of these setbacks and building relationships look like. On the top here are two properties in the R-7 district on the northeast side of downtown. You can see there, they directly abut single-family homes. The two developments on the bottom portion of the slide are on the south side of Sigwalt and immediately abut single-family homes.

In analyzing other R-7 properties around the downtown area, we found the subject property to be atypical in that it was separated from adjacent single-family homes by a street where most properties in the R-7 district around the downtown area directly abut single-family homes. So, again here is the subject property outlined in red, and these shaded areas are other developments within the R-7 district around downtown. These yellow areas are single-family homes that directly abut these R-7 properties. So, most of the R-7 properties directly abut single-family homes. The subject property is unique in that it's separated by streets.

So, in summary, we felt the subject property had a unique layout fronting three streets. We took into consideration the eight-foot right-of-way dedication on both the east and west side. We felt it was similar and compatible to other R-7 developments and that it was a unique R-7 location because it didn't directly abut any single-family residential. To the south, east and west, the property is bounded by streets which provides a further separation and buffer. These reduced setbacks we don't believe are going to adversely impact or impair the flow of air and natural light to neighboring properties. So, we are supportive of the setback variations.

I want to touch briefly on traffic and parking. As you've heard, the Petitioner added additional parking spaces and decreased the number of units to a point where they now comply with code requirements. They're required 120 parking spaces, 1.5 per unit. They provide 120 parking spaces on site.

Relative to traffic, the graphic at the bottom left of the screen shows the estimated distribution of vehicles that would be coming and going from the site during peak a.m. and p.m. times. 80 percent of this traffic will use Sigwalt Street and Campbell Street to arrive at the property and then take Highland in to access the garage. 20 percent will come up from Highland to access the garage. So, when that distribution for trips is applied to the expected traffic to be generated by this development as based on the use, that translates to seven additional cars during the morning peak at the South Street and Highland Street intersection and additional nine cars during the evening peak hour.

Given these statistics, we don't believe that the development will have a detrimental impact on traffic within the vicinity. We believe that the existing roadway network is capable of handling the traffic to be generated by the subject property. Therefore, we are recommending approval of this application subject to the conditions as outlined within the Staff report. I don't want to belabor these conditions. I'd be happy to get into them in detail if the

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Plan Commission would like. At that point, I will conclude my presentation. I don't know if Bill has anything to add or if the Plan Commission has anything to ask.

CHAIRMAN ENNES: Sam, thank you for a very comprehensive report.

MR. HUBBARD: Sure.

CHAIRMAN ENNES: Can we have a motion to approve?

COMMISSIONER JENSEN: So moved.

COMMISSIONER GREEN: Second.

CHAIRMAN ENNES: Second. Can we have a roll call vote, Sam?

MR. HUBBARD: It would just be a voice vote.

CHAIRMAN ENNES: Voice vote?

MR. HUBBARD: Yes.

CHAIRMAN ENNES: So, all in favor?

(Chorus of ayes.)

CHAIRMAN ENNES: Anybody opposed?

(No response.)

CHAIRMAN ENNES: Commissioners? Let's start again at this end if you have any questions for the Petitioner?

COMMISSIONER CHERWIN: You know, I saw the, obviously we heard the project before and saw the changes or, you know, the revisions in the Conceptual Review Committee. So, I'm kind of comfortable with where it stands. I'll defer to public comments and pass it along.

CHAIRMAN ENNES: Okay, thanks, Jay. John?

COMMISSIONER SIGALOS: My previous concern with the previous proposal was the parking shortage and you've certainly addressed that. The massing of the building, I like this a lot better, that it's set back, and we don't have the flatness in the elevations that you had before. So, I think this is a great improvement on what we saw previously.

CHAIRMAN ENNES: Thank you. Sue?

COMMISSIONER DAWSON: I'll hold questions after public commentary.

CHAIRMAN ENNES: George?

COMMISSIONER DROST: Yes, I just have an initial economic question. Maybe Attorney Firsel could address this. In the marketing study, the average of rental and it's sort of spread out, it sort of --

MR. FIRSEL: Right.

COMMISSIONER DROST: It's $1.50 basically where the market is right now. This unit, this proposed development is going to go up to the $2.50 mark, that's about --

MR. FIRSEL: $2.25 to $2.50.

COMMISSIONER DROST: Yes, it could be up to $2.50, I think you made mention of that. But it's 50 to 67 percent over the average or mean in the region. What was the consideration to go apartment versus, let's say a condominium based on that rental value and then what your construction costs are and getting a condominium development in that place?

MR. FIRSEL: A couple of responses if I may. First of all, the condominium craze in the suburbs has just simply not come in. Resales are very low. In addition, you've pointed out, Commissioner Drost, that the average is $1.91. This is not average. This building is going to be what we hope would be the crown jewel of the downtown. Very high quality amenities, higher quality interior finishes, appliances, and the like.

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The consideration of building condos and selling out was a concern about the resale value and whether or not there was a strong enough belief that the owned housing market in suburban downtown areas has come back. Our belief is that, my client's belief is that it has not. I'm not sure that there are too many suburban condominium buildings being built in the northwest suburbs today, although I can't swear to it, I do keep tabs with the other projects not only in Arlington Heights but elsewhere in the northwest suburbs, I don't know why, that's being developed as a condo. Doesn't mean there aren't any, but I've looked at a lot of these higher quality neighborhoods which I would certainly consider Arlington Heights right in.

In addition, the per square foot cost of this unit, or cost of building this unit versus what you could sell this unit at would be way above the market. I wanted to point out as you have pointed out that CA Ventures is a long-term hold. They are not merchant builders. They intend to build this building and hold it. So, they're willing to take a little lower return over a longer period of time than try to build a building and take a big pot when they sell it. That's why they're willing to spend the money, they're willing to build this building at the cost and push the rents where they think they should be.

So, CA Ventures can be your neighbor or in town for a long time.

COMMISSIONER DROST: To your point, there is, and I kind of understand the demographics, you know, you're basically dumbing down the age of the user or occupant, and there is more of a transitory nature to that. But today, just anecdotally, I was listening to one of the major homebuilders on Bloomberg, and she said that there is an increasing demand for individual ownership and that the principal problem is finding the labor to build it. Again, this is Bloomberg, this is national, this isn't specific to Arlington Heights, but you know, basically it's just trying to keep up with the trends, and that was a question. Then the point there is that you build these units and will they fill? Looking at Arlington Downs, what's our latest temperature taking --

MR. ENRIGHT: They're doing great. They're like 96 percent occupied.

COMMISSIONER DROST: How long did that take?

MR. ENRIGHT: I don't know exactly how long it took but, you know, they had some issues with getting the building finished because they were ordering windows and the timing of it was that they couldn't put them in until, you know, over the winter months. That's the way with these things with factors of construction. But other than that, it leased out they had the building done fairly quickly.

COMMISSIONER DROST: Yes, wasn't that our premier building in Arlington Heights?

MR. FIRSEL: Pardon me?

COMMISSIONER DROST: The premier rental building.

MR. FIRSEL: I represent Arlington Downs, that's why I do all their legal work.

COMMISSIONER DROST: No, I'm just asking you, I mean you know. How do you place that against the statement that you made which is that 45 Chestnut is going to be the premier building in Arlington Heights.

MR. FIRSEL: In Downtown Arlington Heights.

COMMISSIONER DROST: Okay, good point. Downtown.

MR. FIRSEL: They're not downtown.

COMMISSIONER DROST: From a marketing standpoint, why didn't you use the Sigwalt address as opposed to Chestnut address?

MR. FIRSEL: Pardon me?

COMMISSIONER DROST: Why is it called 45 Chestnut?

MR. FIRSEL: That is not going to be the name of the, it's a placeholder for now. Is that correct? Yes. It will be something much more appropriate for the quality of the development. Sigwalt Apartments, although Sigwalt is a nice name, doesn't have much pop to it. So, I'm sure the creative folks at CA will come up with a more creative name for this project.

COMMISSIONER DROST: Now, for disclosure purposes, too, I think I should let you know that I agree with you that Mark Hopkins is the premier downtown real estate architect. No offense to other architects out there. But we are happily at one of his --

MR. FIRSEL: I know a Village Board member that may disagree with you, but okay.

COMMISSIONER DROST: I know, but despite that, I just wanted to put that piece into my comments.

MR. FIRSEL: Thank you, Commissioner. Have I answered your question?

COMMISSIONER DROST: Yes, you have, and I'm like the other Commissioners, we're going to defer to --

MR. FIRSEL: Thank you.

COMMISSIONER DROST: But I'm sort of the economist in the middle, and over there on the other end you're going to get another economist.

MR. FIRSEL: Okay, thank you.

CHAIRMAN ENNES: Well, let's go to other economist. Lynn?

COMMISSIONER JENSEN: Well, I was in the Conceptual Plan Review and you addressed all the issues that I had there. I do want to take a moment to commend the Staff as well as the Petitioner. These are the best set of documents that I've seen done before the Plan Commission. The analysis that Staff did is remarkable. The documents you've prepared and presented to them were top drawer. I think it's a great project. I think you've documented everything exceedingly well.

CHAIRMAN ENNES: Thanks, Lynn. Mary Jo?

COMMISSIONER WARSKOW: I don't have any questions or comments. Just to piggyback on what Commissioner Jensen just said, I'm amazed, Sam, at your ability to speak to all of that without having to refer to notes really often. So, good job.

MR. HUBBARD: Thank you both.

CHAIRMAN ENNES: Joe?

COMMISSIONER LORENZINI: As long as we're speaking of architects, I think we've got a pretty good one on this Commission, too. Sam, I've got several questions. The attorney mentioned that the other building being built is not paying for low cost housing credits?

MR. HUBBARD: You're talking about Park View Apartments?

COMMISSIONER LORENZINI: Yes.

MR. HUBBARD: They are providing those within the building.

COMMISSIONER LORENZINI: Okay, so they are required. So, just curious on the parking, some of it's what I call stack parking, so there's no code or regulations really one way or the other on that I assume?

MR. HUBBARD: No, it is allowed.

COMMISSIONER LORENZINI: Then also as mentioned about the Design

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Commission, you mentioned the Design Commission comments, but did they ultimately approve the design or no?

MR. HUBBARD: In their last meeting, they did approve it by a four-to-one vote recommendation of approval with some minor.

COMMISSIONER LORENZINI: What was their objection to fitting in? I mean it does meet the Comprehensive Plan, right? But they say it didn't?

MR. HUBBARD: I believe they were specifically referencing that it didn't meet the regulations relative to the number of variations.

COMMISSIONER LORENZINI: Okay, and in the B-5, this neighboring property that's B-5, how tall can the buildings be in those districts? Up to 90 feet?

MR. HUBBARD: 90 feet up to 140 feet.

COMMISSIONER LORENZINI: The density we're talking about is based on the number of units I assume?

MR. HUBBARD: Based on the number of units, correct.

COMMISSIONER LORENZINI: For the Petitioner, really for the architect, I have a question about the parking spots in front of the building. How is that going to be regulated? Is there going to be signs out there, parking for residents only?

MR. HOPKINS: Well, the regular parking spaces. Those ones with the pavers next to them, those are just like all the other street spaces down in town.

COMMISSIONER LORENZINI: So, anybody can use it?

MR. HOPKINS: Right.

COMMISSIONER LORENZINI: Okay, and the storm, it was mentioned that there's going to be drainage under the building?

MR. HOPKINS: Yes, there's a detention basin that wraps to the northwest corner of the building. So, the project is self sufficient in terms of underground detention, it's a vault.

COMMISSIONER LORENZINI: Okay, thank you. Sam, one more question. All the multi-story buildings that you had shown examples of in the area, I assume those all went through some type of variances also --

MR. HUBBARD: I'm sure some of them did, but you know, they were developed at a time when the regulations may not have applied in the same way that they do today. As an example, a PUD was not required in the R-7 until somewhat more recently, and these developments were, you know, occurred before that.

COMMISSIONER LORENZINI: All right, thank you. That's all I have for now.

CHAIRMAN ENNES: Okay, thanks, Joe. The architect please.

COMMISSIONER GREEN: I don't know what the architect is supposed to do here, but I just want to say my concern was parking and, Hoppy, you've figured that one out. Thank you. But I could take either elevation here. I think they're both very well done. The changes to the building, bringing the top floor back is really topnotch. It's a great job and I just wanted to say good job.

CHAIRMAN ENNES: Is that it?

COMMISSIONER GREEN: That is it.

CHAIRMAN ENNES: Okay, we're going to move on to the public comment section. Can I see a show of hands of how many people are making comments?

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I'm going to, we want to hear from everybody that's here that wants to make a comment. I should have made the last hearing a little bit more organized and so we didn't have people popping up all over the place. I'm going to lay out some parameters that I hope will help you just along the way. We'll start back in one of the corners and go row by row and let everybody speak. When it's your turn to speak, please come up to the podium, state your name, and spell it. If you want to give your address, you can. That may be helpful to us but you're not required to.

Testimony should include facts that are pertinent to the hearing here. We have, if you've written a letter or you've commented at one of the public hearings, we have access to that and we're familiar if you want to restate it again. But I think out of courtesy to your neighbors and the rest of the audience here, or if somebody has already made the comment, if you could just indicate that you agree or disagree with that person, that would help move things along. But we do want to hear from everybody that's here, so let's start with that.

In the back row, was there anyone that wanted to speak? Sir, will you come up?

MR. GREIFENSTEIN: Lou Greifenstein, L-o-u G-r-e-i-f-e-n-s-t-e-i-n. I live at 38 South Chestnut with my wife and five daughters, not up with your statistics up there. We've been there for about 13 years and then about seven or eight years ago we acquired the property just north of that, too. So, we have a front row seat to what's happening here.

Out of respect for your comments and the time we have, I'll be just brief, too. But you know, I wanted to thank all of you for your volunteerism and you are our voice to the Village Board as we approach this topic. So, you know, we appreciate you being our voice and we appreciate your time and dedication to what we have to say.

So, this project, I've been at all the meetings, almost all of them, and it's been filled with quite a bit of emotion so I'll keep to the facts as far as we can tell what they are. So, I think most of what we want to speak to is at our time when we put this together, there were 12 variances. One has been adjusted to our knowledge and that was actually the only one that we didn't have a problem with was the height of the building. So, we just want to make sure these were stated and they were reflected in the minutes accordingly, just as residents, what we were most concerned with with this project.

So, as we take through this here, in Chapter 28, Section 5.1-7.3, Minimum Area for Zoning District, the code requires a minimum of two acres for the requested R-7 zoning change. Their site is only 1.39 acres including the shared right-of-way. So, the Petitioner is short the minimum requirements by about 26,500 square feet. They've only met 69 percent of the minimum area for the zoning district. So, as nearby residents, we see that variation request as somewhat excessive, somewhat egregious, and that falls short of the requirements. Granting the request we think would cause irreparable harm to the neighboring property values and establish most importantly maybe a dangerous precedent for future evaluation or future variation requests.

One thing I wanted to note, too, just kind of as an aside, you mentioned that the structure won't affect any of the lighting to the nearby homes. If this is built there, we won't have sunlight until noon. Traffic, we won't get into that, that was spoken about for hours at the previous meetings, but our street is dangerous now, the Chestnut residential street. I can't imagine what 80 units is going to do to that street at this point here. I guess the last comment I'll make which isn't so much for this, but the master plan, it's three years old, it's

only three years old but quite a bit has gone on in the last three years on these residential blocks.

Chapter 28, Section 5.1-7.4, Minimum Lot Size, so they're required a minimum of 61,500 square feet, their lot is 39,587. So, they're short of the requirement by a little over almost 22,000 square feet. They've only met 64 percent of the minimum required lot size. So, again, nearby residents perceive the variation request as excessive, it's egregious, and falls short of the requirements, setting a dangerous precedent going forward. That's our concern.

Chapter 28, Section 5.1-7.6, Required Front Yard, at the east side of the building, I know there's been some adjustments to that. But the code requires a minimum front yard setback of 47 feet, they're seeking a variance to allow a setback of 6.7 feet. So, they're short of the required front yard setback of 40 feet, and I know there's a street between there, but 40 feet is a pretty great deal. So, they've only met 14 percent of the requirements for the front yard setback. So, again as residents, we look at that and see potentially, you know, falling short of one of the requirements and then the petition, just again a dangerous precedent going forward in our eyes as residents.

Chapter 28, Section 5.1-7.6 Required Front Yard, west side. This one is a little more personal. So, the code requires a minimum front yard setback of 47 feet, and they want a variance to allow a setback of 20 feet. So, short by 27 feet, they've only met 42 percent of the requirements that are outlined. So, as definitely a nearby resident, you know, we've seen, you know, again here a dangerous precedent being set. They're only meeting 42 percent of what's required.

Chapter 28, Section 5.1-7.6, Required Side Yard. The code requires a minimum side yard of 37 feet. The Petitioner is seeking a variance to allow a setback of five feet. So, they're short the minimum required side yard by 32 feet. The Petitioner only has met 13 percent of the requirements for the minimum side yard setback. So, at this point here, they've only met 13.5 percent of the required setback, extremely excessive at that point, and again we look at that as a dangerous precedent going forward with future variance requests.

Chapter 28, Section 5.1-7.7, Maximum Building Lot Coverage. So, the code allows a maximum building coverage of 45 percent. The Petitioner is seeking a variance to allow a building lot coverage ratio of 72 percent. So, they've exceeded the maximum building lot coverage by 27 percent for that space. So, we see the Petitioner asking for variances far in excess of code requirements, and with the exception of the building height variation, all of their requests have been far outside the scope of the Village Code.

Maximum allowable building height, this is the only one where we look at this and said, well, you know, it calls for 60 feet and they're seeking 62 feet. They have since adjusted by sinking it into the ground. This was really the only one, this is a true variance request that we think is normal at this point. So, this one we're fine with.

Chapter 28, Section 5.1-7.13, Maximum Floor Area Ratio. The code limits the maximum floor area ratio to 200 percent. The Petitioner is requesting a variance to allow a floor area ratio of 242 percent. So, they've exceeded again by 21 percent with this variance request. So, another example of excessive requests and would not be needed if the above setback criteria were met.

Chapter 28, Section 11.7(a), Loading Requirements. The code requires one off-street loading space. Petitioner has requested a variance to completely remove this requirement from their apartment building plan. I'm not sure through some of the

commentary if this one has been addressed. But this one here, you know, we see nothing but trouble with this particular request because they're seeking approval for an 80-unit apartment rental development, so which inherently is going to have a higher rate of turnover. The Petitioner is attempting to use a small 35-foot parking space along Sigwalt to serve as loading and unloading space. That's a pretty crowded space already and there's not even a building there yet. So, you know, this won't even, we look at this here as just, you know, you allow this variance here, you're placing an undue burden on the safety of our neighborhood streets. We've heard lots about that, we won't get into it again today, but the traffic up and down Chestnut and Sigwalt and Campbell over the last few years have become extremely dangerous.

Chapter 28, Section 6.6-5.1, Permitted Obstructions. The code limits obstructions from encroaching into the setback areas. Petitioner is seeking a variance to allow certain of its balconies to encroach 5.3 feet into the setback areas. The balcony is a part of the building structure, the Petitioner is already seeking excessive setback variances, this request would allow the balconies which are part of the building to reduce the setback area by another 5.3 feet. I'm not sure again, I was trying to track it down if that's been adjusted.

Chapter 28, 6.6-5.1, Permitted Obstructions. The code requires all electrical transformers to be located outside all setback areas. The Petitioner is requesting a variance to waive this requirement and allow transformers within the setback area. We view that to be somewhat reasonable.

The last one, Chapter 28, Section 11.2-8, Width of Parking Lot Drive Aisles. The code requires a minimum drive aisle width of 24 feet. Petitioner is requesting certain parking lot drive aisles to be allowed at 20 feet. So, as residents, matters dealing with the interior layout of the building are really of no concern to us, but the request for a 20-foot wide access, granted it's basement parking lot area, places quite a bit of burden on their own customers.

So, in the spirit of what we were talking about mostly here today and what most of our concerns were about is just, you know, not only the number of variances that they're requesting but the egregious nature of all the requests that they've having. You know, the building is far too big, it's too dense, and it's too noncompliant with the code currently and not at all harmonious or compatible with the surrounding neighborhood. So, that's our biggest concern. So, as a resident of the neighborhood immediately surrounding the site, I ask that you deny these variances for the Petitioner for all the reasons we mentioned above.

CHAIRMAN ENNES: Mr. Greifenstein, thank you.

MR. GREIFENSTEIN: Thank you.

CHAIRMAN ENNES: Anyone else in that back row? How about in the row in front? Sir, would you come up?

MR. MEERSMAN: Good evening, my name is Donald Meersman, M-e-e-r-s-m-a-n. I live at 202 South on Highland Avenue. I've lived there for about 30 years. Arlington Heights is a great place to live and one of the reasons for that is because of the public service from people like you. I admire your patience and your stamina.

One of the reasons why Arlington Heights is a great place to live is because we have respect for the rules. This plan as proposed requires massive variances to the building code. The paid representative for the development made a point that it is unreasonable to think that a development of this size can go through without any variances. I don't think anyone is suggesting that. I believe that there's a huge difference between any variances and

11, not 12, very significant variances.

You do not have to file a Freedom of Information Act request to see what the Village of Arlington Heights building codes are. They are well known, they are not hard to find. By the way, we heard tonight that they may be submitting a new design. If that is correct, then it should have to go back to the Design Commission. The designers of this apartment house seemed to have ignored the building codes in their proposals. I'm asking you to please do not ignore the building codes.

I asked the question what is the hardship on the part of the developers, and what is the urgency on the part of the Village of Arlington Heights. Several times it's been mentioned that the clock is running and the delay costs money to redesign. They said this evening that it's difficult for them to make money. This to me sounds like a man who goes out in the rain with no umbrella and then cries because he's getting wet. If the plan met the building code, they'd have been under construction by now. They chose to ignore the code.

During the Plan Commission preliminary meeting, someone expressed the opinion that all the problems are solved because the parking issue has been addressed. The parking issue is one issue, and to say that the Design Commission approved is to tell half the story. The in-house counsel to the Village of Arlington Heights took an extremely close interest in this matter, gave a convoluted, difficult-to-follow explanation that the Design Commission overstepped their mandate. The Staff came to the rescue of the developers.

I personally question the impartiality of the Staff. The Design Commission is not all wrong. Mr. Eckhardt is a dedicated public servant. He's been there for over 20 years. I assume that they've done this for a long time. The Design Commission is supposed to judge a building only on its appearance as if it existed by itself? I don't know how you can do this. So, it was wrong for them to think of the building where it will be located? It's going to be located over on Sigwalt, not on a fantasy land where buildings hover on clouds.

Okay, it's a good-looking building, but not on this site. It is too big. The density is all wrong. Perhaps the in-house counsel could help the developer look up the building code because the setbacks are not even close. Now the Staff is reinterpreting the density requirements. The Staff seems to be leaning over backwards to justify the variances that are requested. I call to your attention Chicago Tribune, February 18th, they were talking about a similar development in Wilmette, a five-story 75 units, it says and I quote, "It fails to live up to the high standard of architectural quality set by the suburban historic homes." It mentions that high density brings high visibility, and it mentions that sophisticated design quality matters if these buildings are to nestle comfortably into their suburban surroundings.

In this particular development, there were financial pressures to get something done. Investment is currently flowing into Arlington Heights. We have tear-downs, we have new developments, there's construction going on all over the place. I live at George and Highland, there is a new building going in across the street from me. It will probably be a million dollars by the time it's done.

The Village of Arlington Heights is not desperate for development. Please respect the rules that have built our great town. Please continue to do the fine job that you have done and fairly enforce the development plan for downtown. Thank you.

CHAIRMAN ENNES: Thank you, Mr. Meersman. Anyone else on this side? Yes, sir.

MR. ALLEN: Good evening. Keith Allen, A-l-l-e-n. I live at 46 South

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Chestnut, so I'm directly across the street to the west of this proposal. I'd like to highlight several issues I believe should be paramount in your review and deliberations this evening.

First, the Comprehensive Plan. My hope is that everyone can acknowledge that the plan does not reflect the current situation surrounding this parcel. Yes, this parcel is set as R-7, but the Comprehensive Plan also calls for R-6 surrounding it to provide a buffer to the R-3 neighborhood. That R-6 buffer does not exist, it will not exist in any of our lifetimes. The R-6 is my side of the block to the west. All of our homes have been redeveloped, we've poured amounts of money into them, so they're not ripe for redevelopment. That R-6 buffer does not exist.

So, what are we left with? 100-year-old historic homes directly across from an R-7 project that sits on a site that's just over half the required size with no transition buffer or contextual dialogue with the adjacent neighborhood.

Second, the issuance of variances for a PUD per Section 28, Section 9.5. The code states such variances may be granted as long as it is demonstrated that they will not exercise a detrimental influence on the surrounding neighborhood; but even more importantly, the variations shall be justified when other characteristics of the development exceed the minimum standards of the Municipal Code. In other words, a PUD must go above and beyond the code standards.

Our neighborhood coalition has reviewed this ad nauseam, and it's our opinion that the following reflects the proposal's adherence to the code: meets the code in seven instances; variances requested so it does not meet the code in 11 instances; and most importantly exceeds the code, zero. The Petitioner has not demonstrated in even one instance that any part of the proposal exceeds the minimum standards of the code. Thus, we believe no variation should be granted by application of this section of the code.

Third, if the Commission does choose to review the variances requested, I would ask that you review each on its own merits and apply the criteria from the code that states the following. In its consideration of the standards of practical difficulties or particular hardship, the Plan Commission shall require evidence that:

1. The property in question cannot yield a reasonable return if permitted to be used only under the condition allowed by the regulation of the zoning, i.e., prove a hardship. The only hardships here are self-imposed by the fact that the Petitioner has secured a parcel that's less than half the size required to support an R-7 development. Buy more land, you'll be fine. That's not a hardship, that's poor planning.
2. The plight of the owner is due to unique circumstances. We see there's nothing really unique about this property whatsoever other than the fact that it's too small to support their development.
3. The variation if granted will not alter the essential character of the locality. I think the overwhelming opposition of the residents to this project since last August indicates that we all believe there would be a tremendous detrimental alteration to our neighborhood, and that it may very well include a reduction in our property values. The code then states a variation shall be permitted only if the evidence in the judgment of the Plan Commission sustains each and all of the three conditions enumerated above.
4. As was just spoken about, the application of the harmony and compatibility

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criteria from the Village design guidelines. I would ask that you have a meaningful discussion of the harmony and compatibility criteria since it has been removed from the Design Commission's purview and placed before this Commission for consideration.

Please ask yourself how this proposal is in any way harmonious, compatible or contextual with the surrounding historic single-family homes. It is not, in terms of height, massing, scale, materials, style, setback, density, et cetera. As the Design Commission has said on several occasions, the design does not meet the design guidelines evaluation criteria for harmony and compatibility, specifically regarding height and setback. I would hope you come to the same conclusion.

Lastly, I would hope that each of you consider your role in adherence to the code and the issuance of variances as seriously as Commissioner Green, as he has said in the past, and I quote, "All properties in Arlington Heights are governed by the Comprehensive Plan and protected by our zoning ordinances. My intent is to maintain the integrity of our zoning ordinances and guard it against extreme variations that would set dangerous precedent and diminish overall property values." I couldn't agree more. This is exactly the type of development that the code should be protecting us from. Thank you.

CHAIRMAN ENNES: Thank you, Mr. Allen. Anyone else?

MR. VOSS: I will be brief. My name is Michael Voss, I live at 105 South Mitchell.

CHAIRMAN ENNES: Can you spell your name please?

MR. VOSS: V as in victor, o-s-s. The Staff brought up a number of points this evening, comparing the R-7 development to single-family homes that were to my knowledge all built prior to the code requirements or the variance requirements that we're looking at today for the new plan. All of these developments are abutting up against single-family homes in a situation that's entirely different that we're looking at with the development on Sigwalt.

This Plan Commission took a look at this proposal a few months ago and voted to approve it and sent it on to the Village Board. The Village Board rejected it out of hand. Why? Because it's inappropriate to the space they're trying to put it on. There is not enough room to put five pounds in a three-pound bag. Take a look at it and I think you'll come to the same conclusion.

CHAIRMAN ENNES: Thank you, Mr. Voss. Anyone else on the right side? Okay, let's move over to the left side. We'll start in the back, anybody in the back row? The next row? Oh, yes, the gentleman in the back.

MR. O'SCHNEIDER: Good evening. My name is Hank O'Schneider on 121 South Vail, Arlington Heights. I just want to --

CHAIRMAN ENNES: Spell your name please.

MR. O'SCHNEIDER: O-s-c-h-n-e-i-d-e-r. We already talked about the density of the project and I'm not going to -- property, but my concern is with the parking and with the traffic on Highland. The parking, I think last time they had less tandem spaces that they have now. They have 15 tandem spots now, is that correct? I don't know how that's going to work. That's like 15 spots less than you really should have.

Then the traffic on Highland, currently with commuters leaving their garage going out on Highland, basically it's a 1.5 lane street now with pedestrians and everything else. So, I just want to bring that to your attention and see what you think about that. Thank

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you.

CHAIRMAN ENNES: Okay. Yes, please, at the end of that row.

MS. LICHTER: Hi, I'm Rebecca Lichter, L-i-c-h-t-e-r, at 115 South Highland. I guess I have too many points. A lot of the other speakers have already brought up some of them, so I'll keep my comments brief.

But regarding the variances, again one of the questions that was brought up in a previous meeting, I wanted to bring it up this time as well, is when other residents have had any changes to their houses and done renovations, they've followed the code. So, why would all these variances be granted for these guys? Why can't they follow the code just like any other resident in the area?

Secondly, is this the right place, is this the right commission to deal with traffic control, stop signs, crosswalks? Or is that done with the Board?

CHAIRMAN ENNES: It's addressed here, parts of it.

MS. LICHTER: Okay, so to some of the other comments as well, and even what the Staff had found with the way the traffic flows, I believe you said 80 percent going on Sigwalt and Campbell, as well as 20 percent coming up Highland. I don't have specific facts other than that and the anecdotal examples of when I'm trying to cross the street coming up Highland across Sigwalt to go towards the downtown area, I can't even tell you how many times I've been standing in the crosswalk and traffic does not stop, whether it's just me, me and my family, myself on one side, family is on the other. It's a bad intersection. So, just Tuesday in fact, I was trying to back out of the driveway to go towards the downtown, and two cars came flying up Highland, slammed on the brakes at Sigwalt, flying through the intersection and flying into the parking garage. So, it sort of proves the point that traffic is going to come flying up Highland and it's a dangerous intersection and something needs to be done. So, I'd ask this Board to consider making that a four-way stop and add stop signs on Sigwalt to help control some of that. I think that's it for me. Thank you very much.

CHAIRMAN ENNES: Thank you, Ms. Lichter. Anyone else? Yes, sir.

MR. ERICKSEN: Good evening. My name is Mark Ericksen, E-r-i-c-k-s-e-n. I just bought the property at 133 South Highland. I've lived in Arlington Heights for 34 years. I actually wanted to move to Highland because it's a little more urban. This property here has been sitting there now for about 10-15 years, for the property here and then the one to the north that's owned by another developer. Eventually they're going to be developed.

One of the things that's good about the development is that you're going to add more people to downtown to keep downtown invigorated. I'm sure we all remember what downtown was like 15-20 years ago and it's had all kinds of problems. We were wondering if all the shops were going to stay open or not. So, this is a nice problem to have.

I really can't talk about the variances but I can talk about this being a nicely designed project. I'm very happy that it has 1.5 parking spaces which should help the load on the streets. I think the city should look at, you know, crosswalks like everyone is saying, and then, you know, if it starts becoming more populated, then maybe the city is going to have to start putting some stickers on cars on who can park on what street, you know, for accessibility.

But the way it's designed, the way it's been changed, I'm in support of the project.

CHAIRMAN ENNES: Thank you, sir. Anyone else? Anyone else in the whole room that still wants to comment? Okay, thank you very much for your comments. We're

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going to close the public portion and we're going to go back to the Commissioners.

Commissioner Jensen, do you have anything?

COMMISSIONER JENSEN: No, I have nothing further.

CHAIRMAN ENNES: Mary Jo?

COMMISSIONER WARSKOW: Yes. I just want to voice that this is a very difficult decision for me personally. I do recognize that the lot has been empty for a long time and I do want to see something go there, and I am very supportive of a higher density. It is appropriate in a downtown area with access to shopping and restaurants and other amenities. So, I am in support of that.

I have heard you residents. I'm listening to each one of the arguments. In terms of traffic, I know we all don't want more traffic. I think the situation really living in that area is that traffic doesn't obey the rules like we're asking the developer to obey the rules. It's speed, it's not stopping at the stop signs, it's driving erratically, I watch it everyday. So, if everybody obeyed the rules, then this wouldn't be a problem, adding additional people to the street.

I normally harp on stormwater management, but the vault will meet MWRD's requirements. So, I am all, you know, I'm not concerned about stormwater management in this case here.

In terms of variances, we have variances for lots of properties, whether that's residential or whether that's commercial. Variances come up all the time, so we can't say, you know, we don't get variances here.

I do understand, in order for the Village to cover all of the costs, that things like the flooding, the infrastructure to address the flooding, things that we need addressed, we have to have development. We have to bring revenue into the Village. So, I'm trying to balance all of these things in my mind.

The one thing I am going to say is I am a proponent of open space and I do have a problem with the lot ratio and the floor area ratio on this building. I do not have enough information on the economics to know whether it is truly feasible to build something with a lower ratio on this site, but I can say that I am not happy with the coverage on the site. I would like to see some more green space. I don't have a problem with the building the way it is adjacent to residences. I think some things have been compromised there, but I would like to see more open space around the buildings. I do understand that the B-5 immediately to the north is going to have like no open space, so I would just like to see a little balance on that particular area to have some open space. That's my comments.

CHAIRMAN ENNES: Thank you, Commissioner Warskow. Commissioner Lorenzini?

COMMISSIONER LORENZINI: Thank you. Sam, I think it was Mr. Allen who made the comment about the plan ultimately calls for the homes to be a buffer area but he said it's never going to happen. Could you kind of clarify what he's referring to?

MR. ENRIGHT: Let me address that. You know, I met with Mr. Allen and other residents with Charles Perkins a few weeks ago. Actually the west side of Chestnut north of Sigwalt is shown on our Comprehensive Plan for duplex type units which would correspond to the R-4, not the R-6, it's a big difference. R-6 is, you know, at this point 40 feet in height, more density, not as much as R-7 but it's the next level down. But R-4 duplexes is basically two residences on one lot if you have a big enough lot.

We don't see duplexes. It's just not something that developers are doing anymore because of economics. So, it's not likely that that would ever happen here. So, really the future development to the west or the south on properties that could be up zoned is really in the hands of the homeowners that own those lots. You know, we've heard from several homeowners on the west side of Chestnut that they're planning to be there for a long time and there's, you know, those houses have been there for a long time so they're not likely to change. But if they were to change, the Comprehensive Plan would only allow R-4 rezoning which is a very, very low density, just a little bit higher than single-family.

COMMISSIONER LORENZINI: Okay, thank you. There's been several comments about the variance where this would normally require two acres. So, what would that look like? They would just buy one big lot of land and just put a bigger building on that? Is that basically what would happen?

MR. HUBBARD: Right, the overall size of the zoning district would have to be at least two acres so there would be a larger site to get the rezoning up to at least two acres.

COMMISSIONER LORENZINI: Then theoretically, or practically, they would just put a bigger five-story building on there?

MR. HUBBARD: On a larger site, yes, you can put, you know, a larger building theoretically.

COMMISSIONER LORENZINI: All right. Just some of my feelings, I voted for this last time and I just want to say that generally I go along with the Planning Department. They've very professional and doing this for many years. I find them to do a very good job. The Engineering Department behind them reviews all the calculations, the traffic, the drainage, any structural issues. It's not just, we don't, the Village doesn't just take the developer what the developer gives them and runs with it.

This, in my opinion, this seems like a good transition between a residential building and a 90-foot tall building that could be on some of the lots next to it. It would look kind of silly to have a residential building and then a 90-foot building next to it. So, I think this is somewhat of a decent transition.

As one gentleman said, there is a lot of development going on in Arlington Heights all over. This is a great town and there is a lot going on, a lot of money being poured over here. But this lot has been empty for 15 years and something has got to happen there. That's all I have.

CHAIRMAN ENNES: Commissioner Green?

COMMISSIONER GREEN: Just to restate, I think the transitional use of this corner is by far better than if you incorporated that into the downtown zone uses. I just wanted to, it would bring commercial use on the bottom and it will bring congestion and people. So, I think this is a very good transition for this corner which could have been like I said a downtown zoning.

CHAIRMAN ENNES: Commissioner Cherwin?

COMMISSIONER CHERWIN: Yes, I agree with, you know, what our fellow Commissioners have said. I think, you know, while there are a number of variations here and that's why a commission like this exists, this is a unique site in a very, I guess I should say critical part of the downtown, so we do have to look at everything on the totality of circumstances here. You know, I was supportive of it last time, and I think the Petitioner has made a very good effort to enhance it and take in the input from the public. I'm supportive of it, that's all.

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CHAIRMAN ENNES: Commissioner Sigalos?

COMMISSIONER SIGALOS: I really don't have too much more to add other than what the fellow Commissioners have added. I certainly understand what some of the residents' concerns have been with the variances and codes we have here. But again, I feel that this building does do a good transition between the 90-foot tall buildings and so forth in the Downtown Arlington Heights and what would be to the north of this. So, I think this is a good mix. I like the elevation and the setback. I think that all looks well with this transition. That's really all I have to say right now.

CHAIRMAN ENNES: Commissioner Dawson?

COMMISSIONER DAWSON: There was a reference made in your initial report and I recall it from last meeting, I was trying to find it in the minutes, about the setbacks are, perhaps there is the unusual situation and so when you really look at the variances that are being requested, if you took into consideration this unusual additional eight-foot setback, could you elaborate, Sam? Do you know what I'm getting at?

MR. HUBBARD: So, you're talking about the right-of-way dedication on the east side and the west side?

COMMISSIONER DAWSON: Right.

MR. HUBBARD: Yes, so --

COMMISSIONER DAWSON: The variation seemed much more excessive because of almost an oddity created on the lot, and I wish you could expand on that a bit more.

MR. HUBBARD: Yes. So, on both the east side and the west side of the property, in order to comply with the minimum width for a street, the developer has to dedicate this, you know, eight-foot section of their property as right-of-way. So, effectively, their property line is here currently; once they dedicate it, it's going to be there. So, obviously that's a corresponding change, that's an eight-foot change to the setback as well because it's measured to the property line and the property line has shifted eight feet in. So, that's, when we referred to the unique circumstance of having to dedicate a right-of-way, that exacerbates the, you know, the variation for the setback on paper. However, the point we were trying to make is that this area, this eight feet is, you know, we don't have any immediate plans to widen the street in this location, so this eight feet is just going to say as open space. Effectively, it's going to function as part of the property, part of the yard, although technically it's not factored in for variation.

COMMISSIONER DAWSON: So, I remember at the last meeting, there was, you know, a lot of discussions with the variation, but they're really just a lot of explanation about why perhaps it appeared that the variations were more excessive than in reality, they may be for this parcel. It really is tough just as has been said. This is a very difficult decision, and perhaps it seems that we're not taking in or not listening, but this parcel, I asked, I went back into the minutes, I asked how long it had been vacant last time. I said it's at least 17 years and it was stated that it's at least 20 years. That was mentioned last time.

AUDIENCE MEMBER: No.

COMMISSIONER DAWSON: It's been vacant for at least 17 years. Since 2000.

AUDIENCE MEMBER: No. That's not accurate.

MR. ENRIGHT: I can approximately address that. The northern portion used to be the Daily Herald. Bruce Adriani bought that and knocked down those buildings pretty quickly. So, that's been vacant for over 20 years. The southern portion, the subject to this

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discussion tonight, had four single-family homes, three on Chestnut, let me finish here, three on Chestnut, and then there was a duplex on Highland and one or two houses on Highland. So, there were four or five houses and a duplex. They were very modest small homes, they went into disrepair because they were vacant after a while and eventually torn down by a previous landowner.

COMMISSIONER DAWSON: How long ago was that?

MR. ENRIGHT: I would say that's probably 10 years ago.

COMMISSIONER DAWSON: Okay, I recall when I returned to Arlington Heights, that was now 18 years ago, 17-18 years ago, that parcel was vacant. I remember going to downtown, the north end, it was an open lot. So, that's what I'm thinking of, perhaps not the other end of the lot.

But I guess to my point, the comment that this is not an unusual plight or that this is not an extreme situation, when you have a parcel that's been vacant for that long, through a period of time where townhomes were considered or duplexes were considered in being built, back in early 2000's, those were still being built, so I guess it wasn't vacant at that time. Correct?

MR. ENRIGHT: This property has six lots. There were I believe four or five single-family homes, three on Chestnut and one or two on Highland and one that was a Duplex apartment on Highland right next to where our garage is now.

COMMISSIONER DAWSON: I guess the point I'm trying to make is it doesn't appear to be being received, not that I would expect it to be I guess, but this parcel has been vacant for a long time. No other developer has been able to come to Arlington Heights, which is an area which is attractive for building, to find a building that could fit into this area. So, in my original meeting, that weighed very heavily in my mind.

I do not, as a resident of this town, don't like vacant parcels. I think they attract dangerous issues to the Village. I don't like that in the core of the downtown of Arlington Heights there is this large vacant parcel. I see a development that's coming in. I liked the previous development, though clearly the Village Board didn't agree, because the lower amount of parking, it was attracting residents that didn't have as many cars. So, the Village disagreed with me and that was fine, but that was why I supported that. I thought it was interesting that a developer was going to be forced to attract people into the building that clearly had one parking, and that would not impact. Now we're having more cars and the residents are saying we don't want the danger and the additional cars. Now because the Village Board asked you to go back and put in more parking, now there's more cars which counteracts the reason why I supported it in the first place related to parking and the traffic and amount of cars.

So, it's a very, it's an extremely difficult decision for me personally. I think it's a very attractive building. I know people don't necessarily agree with me but I personally think it's a very attractive building. I think it's a good fit for a vacant parcel that we have not been able to find anything else that would fit into the difficult parameters that are set by the zoning of this parcel.

I struggle now with the additional cars that are going to be, and now there's a three-bedroom that is going to be coming into this building. To me it changed against what I was previously considering attractive to the parking here. So, I don't know where I'm going to fall on this right now.

CHAIRMAN ENNES: Commissioner Drost?

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COMMISSIONER DROST: Having had some history of ownership and involvement as an employer and a resident all within very close proximity of this development, I think I never went into expecting that to be green space, that it had to be developed in an urban way. The questions I've kind of, and I'll ask Staff, what's cooking on the north side? Any interest there? Is there any, have you as a Planning Department had any interest from developers?

MR. ENRIGHT: Bruce Adriani was on the site for quite a few years, 20-25 years, somewhere in there.

COMMISSIONER DROST: Yes.

MR. ENRIGHT: Yes, every so often he shows up and has some ideas on what he wants to do with the property. You know, a couple of months ago, we met with him and he had some idea for, you know, three buildings including expanding the Village Garage, it would be an independent garage, but it would basically look like an addition, and then have a building fronting on top of the garage and then one fronting Chestnut, one fronting Campbell Street with, you know, setbacks and so forth. You know, nothing in stone but obviously, you know --

COMMISSIONER DROST: No, but there is some percolation and there's going to be Norwood builders there, apartment builders, condominium builders, and I think you referenced they've had a lot of experience in DesPlaines and I think you referred to them as merchant type buildings.

MR. ENRIGHT: You know, one thing we have talked to Mr. Adriani about is his property is zoned B-5. By code, you can get 140-foot tall building and zero setback on that whole site by code. But we've informed him, and he doesn't want to do that, build up to that maximum in terms of, you know, he doesn't want to put 140 feet all over the block, he doesn't want to put 140 feet anywhere. But you know, we've told him we were following the master plan for six to eight stories with respect to the rest of that block which is less than what code would require in terms of, or potentially allow in terms of height.

COMMISSIONER DROST: Being keenly interested in this site as more than -- as an observer, actually as a stakeholder here, would you consider this development would tone down any subsequent development on the north side? I think I heard you say that.

MR. HUBBARD: Yes, it would be a transition.

COMMISSIONER DROST: So, it's transitional development, and with that and also being a veteran of all the construction downtown, there's going to be a lot of interruption during this period. It's not going to happen in 18 months, it's going to have a longer range of completion date no doubt. Any other developments that are cooking like the AT&T building? Anything between, let's say, I know that right next door is the Citibank --

MR. ENRIGHT: No, there is nothing else in the B-5 district.

COMMISSIONER DROST: That there's a, you know, people are kicking the tires now, and that's to Don Meersman point about it, an active downtown that we have and how it's shifted from 2008 which was a retail model and now it's becoming a service and entertainment model.

MR. ENRIGHT: The only thing in the works quite frankly is a 15-unit building at 13 East Miner which has some issues with utilities. I don't know if that will get built, but it's just four stories.

COMMISSIONER DROST: Yes, I'm just trying to take a bigger, holistic approach to this, that this will be one building and, you know, then the neighbors will be secure

again. But it's going to be ongoing, there's, you know, some economic activity that is really kind of churning at this point. Rightfully so because I think we've got a very good town in Arlington Heights. It does attract people and we want to continue to build that up, that's been my mantra for decades I guess. So, don't kill the golden goose basically.

So, those are the comments, basically getting sort of a holistic approach to this development, that this is one part that will now set a pattern for other developers and may cause them more money to be able to meet standards and the code requirements because of this development. So, that's more of a comment, but again I didn't move into where we were expecting to have green space. So, that's the end.

CHAIRMAN ENNES: Thank you, George. I have a couple of questions. One is kind of a minor issue that hasn't been brought up. But out of my curiosity, I see that we're requiring the developer, the property management company to be responsible for plowing the snow on these additional street parking spaces. Am I correct in that?

MR. HUBBARD: That was a condition of approval, yes.

CHAIRMAN ENNES: Why are we requiring that? Have we done that before with others?

MR. HUBBARD: The rationale being that because they have these two existing utility pedestals right here, they have to have these bump-outs in the parkway. So, I don't know if this stretch is as much an issue but the loading space here and then the small two-parking space here, it's difficult for a plow truck to get in and maneuver at and remove that snow. You know, when there's snow on the ground, they could misread where the curb is and damage some of the public street. So, you know, the Public Works Department has asked that the Petitioner enter into this agreement and we've recommended it as a condition of approval.

CHAIRMAN ENNES: If I can ask the attorney to come up? I have one other question, and I appreciate Commissioner Drost's comments on the economics. In reading and reviewing your forecast on the type of tenants that you're looking at, it looks like you're looking for a pretty broad mix from empty nesters to, I don't want to say younger but upwardly mobile people. What's the average income that you think is going to be attracted to this?

MR. FIRSEL: Three times what the annual rental would be is what I'm told, so if it's $2,500 a month, $30,000 a year would be $90,000.

CHAIRMAN ENNES: So, at about the median level for Arlington Heights.

MR. FIRSEL: Yes. To that point, I represent Mr. Adriani. I represent a buyer of the AT&T building. I represent another building that's being relocated under contract by a property and Arlington Downs. So, unfortunately or fortunately, I'm going to see you folks a lot.

COMMISSIONER DROST: So, do you have anything to add to the rest of the --

CHAIRMAN ENNES: About the AT&T building?

COMMISSIONER DROST: Yes, tell us more.

CHAIRMAN ENNES: Let's find out.

COMMISSIONER DROST: We want the scoop.

MR. FIRSEL: You will see a proposal. I am confident you will see, the Staff will see a preliminary proposal within the next, I would guess 60 to 90 days for the northern part of this that's zoned B-5. It's already in the works.

COMMISSIONER DROST: Good, thank you.

CHAIRMAN ENNES: One other question. We've discussed whether it's 15

years or 20 years or 12 years, this property has been vacant for an awful long time. If you come in and develop this, what is your estimate of the property taxes that you'll be contributing back to the community? Is that something you've done? Do you know what that amount is?

MR. FIRSEL: Well, I can tell you that I do property tax reduction work, and I do it for the apartment building in Arlington Downs as a matter of fact. Their taxes are about $2,800 a unit. The taxes here I believe, based on the cost of construction, the assessed value of this property is going to be higher. So, my guess is you could be $3,500 a unit in property tax. It's a big number. You know, there was a comment brought up about haven't seen the economics, this is a very difficult standard to satisfy in an open public forum that's being televised, to go through the economics of your project and tell someone how much it costs, how much you're making. I have offered Staff to certainly meet with them. I offer any public official on a confidential basis to discuss the economics. But it's almost impossible to do in an open forum.

CHAIRMAN ENNES: Just to put you at ease, this forum isn't televised.

COMMISSIONER DROST: We do have a court reporter. But the point is, and sort of from the economic standpoint, you might say, well, that's not our job. But from the standpoint of the success of a project, it is. So, that's why we might ask these, you know, the intimate questions.

MR. FIRSEL: Oh, yes, and I answered the question. I have no problem with the questions you've asked so far, none at all. I do know that the developer is a very sustainable developer. This one is not going broke in the middle of construction of this project. That's something I would urge you to take into consideration. Thank you.

COMMISSIONER JENSEN: Mr. Chair, a question of the Staff I guess. As several Commissioners have mentioned this, if the Village were to turn this down, is it possible that these six lots would be kind of part of the B-5 district? Is that a possibility?

MR. ENRIGHT: It would not be something that we would recommend as Staff.

COMMISSIONER JENSEN: So, you might recommend against it but it would not be incorporated, so we wouldn't necessarily expect these tall buildings if they're allowed in the B-5 district to be on this particular property if the Village turns down this petition?

MR. ENRIGHT: No, we would still abide by the Comprehensive Plan which calls for R-7 on this property.

COMMISSIONER JENSEN: Thank you.

CHAIRMAN ENNES: Anyone else?

COMMISSIONER DAWSON: You were asking about the economics. There is some reference to the economics in the Village minutes/

CHAIRMAN ENNES: I saw that, but I also saw the developer has an extensive report commentary.

COMMISSIONER DAWSON: Sure, I just thought it is already public, they're talking about $280,000 in impact fees going to school districts in the area and some other economics.

CHAIRMAN ENNES: So, would someone want to make a motion?

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

A motion to recommend to the Village Board of Trustees <u>approval</u> of PC#17-016, a

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Rezoning from R-3 One-Family Dwelling District into the R-7 Multiple-Family Dwelling District; a Planned Unit Development (PUD) to allow the construction of a five-story, 80-unit residential development; and a Preliminary and Final Plat of Resubdivision to consolidate six lots into one lot.

And the following Variations:

1. **Chapter 28, Section 5.1-7.3, *Minimum Area for Zoning District*, to allow the R-7 District to be approximately 1.39 acres where code requires a minimum of two acres for the R-7 district.**
2. **Chapter 28, Section 5.1-7.4, *Minimum Lot Size*, to allow a 39,587 square-foot lot where code requires a minimum of 61,500 square-foot in lot size.**
3. **Chapter 28, Section 5.1-7.6, *Required Front Yard*, to allow a front yard setback (east side) of 6.8 feet where code requires a 45-foot setback.**
4. **Chapter 28, Section 5.1-7.6, *Required Front Yard*, to allow a front yard setback (west side) of 20 feet where code requires a 45-foot setback.**
5. **Chapter 28, Section 5.1-7.6, *Required Side Yard*, to allow a side yard setback of five feet where code requires a 35-foot setback.**
6. **Chapter 28, Section 5.1-7.7, *Maximum Building Lot Coverage*, to allow 72 percent building lot coverage where code allows a maximum 45 percent building lot coverage.**
7. **Chapter 28, Section 5.1-7.13, *Maximum Floor Area Ratio*, to allow 242 percent FAR where code limits maximum FAR to 200 percent.**
8. **Chapter 28, Section 11.7(a), *Loading Requirements*, to waive the requirement for one off-street loading space.**
9. **Chapter 28, Section 6.6-5.1, *Permitted Obstructions*, to allow certain balconies to project 5.3 feet into the required front and exterior side yards.**
10. **Chapter 28, Section 6.6-5.1, *Permitted Obstructions*, to allow a transformer within the required front (east) yard setback.**
11. **Chapter 28, Section 11.2-8, to allow certain drive aisles to be no less than 20 feet where code requires a minimum drive aisle width of 24 feet.**

This approval shall be subject to the following conditions:

1. **Overhead utilities along Sigwalt Street west of Highland Avenue and east of Chestnut Avenue shall be buried unless Commonwealth Edison and the Village deems that it is not feasible, in which case the overhead utilities will need to be relocated to the south side of Sigwalt Street.**
2. **Move-in/move-out operations shall be restricted to between 7:00 a.m. to 6:00 p.m. on Monday through Friday, and 9:00 a.m. to 4:00 p.m. on Saturday and Sunday.**
3. **Residential units are approved as rental apartments, converting residential units to condominiums shall require an amendment to the planned unit development.**
4. **The Petitioner shall provide a final construction schedule/phasing plan,**

including detailed information on street closures at time of building permit for review and approval by Staff.

5. **The Petitioner shall comply with the August 15, 2017 motion of the Housing Commission to provide a $300,000 fee in lieu of providing the 12 affordable housing units ($25,000 for each unit) to be paid at the time of building permit.**
6. **School, park and library contributions shall be required per Village code prior to the issuance of a building permit.**
7. **The Petitioner shall enter into an agreement with the Village that assigns the responsibility of snow removal within the on-street parking spaces and loading spaces (located along the north side of Sigwalt Street east of Chestnut Avenue and west of Highland Street(to the owner of the subject property.**
8. **The Petitioner shall comply with all federal, state, and Village codes, regulations and policies.**

COMMISSIONER CHERWIN: I'll second.
CHAIRMAN ENNES: Roll call vote, Sam.
MR. HUBBARD: Commissioner Dawson.
COMMISSIONER DAWSON: You have to start with me, Sam? I guess I'm going to say, I'm going to go no with comment.
MR. HUBBARD: Commissioner Drost.
COMMISSIONER DROST: I'll go aye with comment.
MR. HUBBARD: Commissioner Jensen.
COMMISSIONER JENSEN: Yes, without comment.
MR. HUBBARD: Commissioner Lorenzini.
COMMISSIONER LORENZINI: Yes.
MR. HUBBARD: Commissioner Sigalos.
COMMISSIONER SIGALOS: Yes.
MR. HUBBARD: Commissioner Warskow.
COMMISSIONER WARSKOW: No, with comment.
MR. HUBBARD: Chairman Ennes.
CHAIRMAN ENNES: Yes.
MR. HUBBARD: Commissioner Cherwin.
COMMISSIONER CHERWIN: Yes.
MR. HUBBARD: Commissioner Green.
COMMISSIONER GREEN: Yes.
COMMISSIONER DAWSON: Comment?
CHAIRMAN ENNES: Please.
COMMISSIONER DAWSON: I want to be clear that I actually do think this is a good building and a good use for the space. I think Staff did an excellent job. For me, again I'm going to go back to I liked it before when there was less parking. The increase, I liked the idea that this was attracting tenants that were going to have bicycles, use walking and public transport. To me, the tipping point is hearing about all of the other development that's suddenly popping up, and I'm terrified of what is going to happen traffic and safety-wise and parking to this

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area. So, until I know about all these other developments that we're talking about, it's just difficult for me with the increased parking traffic or car traffic on the site. But I don't know what else we would put there and I think it's a beautiful building and it is a good use for this space.

COMMISSIONER DROST: My comment is to reiterate some of the comments I had made before, and that is again taking a more comprehensive or holistic approach to how all of this is going to be developed in such a way that there might be, if construction goes there, it is going to be tough for everybody. So, that's a consideration that Trustees have to make and again deferral to the Trustees but vote on the legislation is probably the end place where these concerns that the residents have had which I found to be very valid and concerning but they- need to also be addressed by the elected officials.

COMMISSIONER WARSKOW: I'm the last with comment. So, I, too, am very supportive. I like the building, I like the use. I am for higher density. I don't want completely open space, I just want more green space around the building. So, I object because of the lot coverage and the FAR percentage.

CHAIRMAN ENNES: Thank you, Commissioners. You have a favorable decision to go on to the Village Board. I want to thank all of the neighbors and all of you for coming and presenting us with your comments.

MR. ENRIGHT: This is potentially going to the Board on March 5th.

CHAIRMAN ENNES: Sam, is there anything else on our docket?

MR. HUBBARD: There's nothing else on the agenda.

COMMISSIONER DROST: I'll make a motion to adjourn.

COMMISSIONER GREEN: I'll second it.

COMMISSIONER WARSKOW: I'll second it.

CHAIRMAN ENNES: All in favor?

(Chorus of ayes.)

CHAIRMAN ENNES: Thanks. Good luck with your project.

(Whereupon, the above-petition was adjourned at 9:58 p.m.)

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Item: 703-709, 715-723 W. Algonquin Rd. - PC#17-013

Department: Planning & Community Development

Recommendation

It is recommended that a continuance until the March 28th, 2018, Plan Commission meeting be granted to allow the petitioner suitable time to address items raised by Weber Packaging Solutions.

ATTACHMENTS:

Description	Type
Staff Memo	Memorandum

Memorandum

To: Chairman Ennes and Members of the Plan Commission

CC: Randy Recklaus, Village Manager

All Department Heads

From: Sam Hubbard, Development Planner

Date: 3/9/2018

Re: PC #17-013: Hamilton Partners Distribution Facility, 703-709 & 715-723 W. Algonquin Rd. – Plan Commission Hearing March 14, 2018

On February 28, 2018, the Plan Commission voted to continue application #17-013 until the March 14th meeting to allow the petitioner additional time to address three primary issues:

1. Coordination between the petitioner and the owner of Weber Packaging Solutions (711 W. Algonquin Rd.), which is located immediately to the west of the subject property and shares a common access drive with the subject property.

2. Incorporation of required changes by IDOT relative to restricted egress from the driveway along Algonquin Road and changes to the traffic study to evaluate the proposed timing modifications for the traffic signal at Meijer Drive and Algonquin Road.

3. Village coordination with staff from the City of Rolling Meadows, who raised concerns about truck traffic on Meijer Drive and its impact on that street relative to traffic and maintenance.

The petitioner has made changes to the site plan and traffic study as required by IDOT, and submitted their plan to IDOT for a second review. Staff from the Village of Arlington Heights have met with staff from the City of Rolling Meadows to discuss the maintenance and use of Meijer Drive. Based on this meeting, the City of Rolling Meadows was going to provide a proposal outlining what, if any, changes they are requesting to the existing Intergovernmental Agreement between both municipalities, which governs the maintenance responsibilities for Meijer Drive. This proposal has not yet been received.

On March 2nd, the attorney for Weber submitted a formal letter summarizing their concerns relative to the project. This letter has been provided to Hamilton Partners, and staff is awaiting a response from the petitioner. Once this response is received, staff is hoping to coordinate a meeting between both parties to help facilitate a resolution of these issues. Since these issues have not yet been resolved, staff is recommending a continuance until the March 28th Plan Commission meeting.

Recommendation:

It is recommended that a continuance until the March 28th, 2018, Plan Commission meeting be granted to allow the petitioner suitable time to address items raised by Weber Packaging Solutions.

Item: Olympic Park Swim Center - 660 N. Ridge Ave. - PC#18-002

Department: Planning & Community Development

Requested Action

1. Amendment to Planned Unit Development (PUD) Ordinances 79-19 and 03-036 to allow a building addition and site improvements.

2. Special Use Permit to allow a "Community Center, Recreation Building".

Variations Required

1. Variation to Section 11.4, Schedule of Parking Requirements, to reduce the required amount of off-site parking from 757 spaces to 291 spaces.

2. Variation to Section 6.13-3(b), Side and Rear Yards, to allow a 10' fence in the rear yard where code limits fence heights to 5'.

3. Variation to Section 6.13-3(c), Exterior Side Yards, to allow a 8' tall fence in an exterior rear yard where code limits fence heights to 5'.

Recommendation

The Staff Development Committee recommends approval of the proposed PUD Amendment, Special Use Permit, and the following variations from Chapter 28 of the Municipal Code:

• Variation to Section 11.4, Schedule of Parking Requirements, to reduce the required amount of off-site parking from 757 spaces to 291 spaces.
• Variation to Section 6.13-3(b), Side and Rear Yards, to allow a 10' fence in the rear yard where code limits fence heights to 5'.
• Variation to Section 6.13-3(c), Exterior Side Yards, to allow a 8' tall fence in an exterior rear yard where code limits fence heights to 5'.

This approval shall be subject to the following conditions:

Parking Related:
1. The Arlington Heights Park District shall take the following actions if it is determined, at the sole discretion of the Village of Arlington Heights, that there is a shortage of on-site parking spaces on the subject property:

a. The Park District shall work with the Village to adjust scheduling so that major events do not overlap. This may include a reduction in the amount of programming that is allowed on the subject property.

b. The Park District shall construct all landbanked parking stalls, as identified in the plan prepared by Gewalt Hamilton Associates, Inc., within 90 days upon request of the Village.

c. The Park District will explore the ability for a shared parking agreement with the Christian Liberty Academy located to the east of the subject property (or other acceptable location), which agreement shall be subject to review by the Village.

Traffic Related:
1. If it is determined by the Village that future roadway improvements are feasible and necessary to correct traffic congestion at the intersection of Ridge Avenue and Euclid Avenue, the Park District shall dedicate the necessary land to facilitate such improvements.

2. At the request of the Village, the Park District will limit the southern entrance drive to restrict ingress into the subject property from northbound automobiles on Ridge Avenue.

General:
1. The petitioner shall provide three foot tall shrubs in the landscape island at the northeast corner of the site should the landbanked parking be constructed. Additionally, the petitioner shall substitute the Dogwood and Nine Bark shrubs proposed at the north side of the parking lot expansion with six foot tall evergreens, and additional evergreens shall be added to the north of the parking lot expansion to conform with Section 6.15-1.2 of Chapter 28 of the Municipal Code.

2. The petitioner shall comply with all Federal, State, and Village Codes, Regulations, and Policies.

ATTACHMENTS:

Description	**Type**
Staff Report	Board or Commission Report
Public Notice	Exhibits
Aerial	Exhibits
Conceptual Plan Review Minutes - 11-8-17	Minutes
DC Minutes 2-13-18	Minutes
DC Staff Report 2-13-18	Board or Commission Report
Neighborhood Meeting Summary	Correspondence
Project Narrative	Correspondence
Plat of Survey	Exhibits
Elevations	Exhibits

Engineering EOPC	Exhibits
Engineering Plans	Exhibits
Floor Plans	Exhibits
Landscape & Tree Preservation Plan	Exhibits
Lighting Spec Sheets	Exhibits
Photometric Plan	Exhibits
Plat of Easement & Vacation	Exhibits
Renderings	Exhibits
Revised Project Renderings	Exhibits
Stormwater Report	Exhibits
Traffic Study	Exhibits
Department Comments - Round 1	Exhibits
Petitioner Response to Comments - Round 1	Exhibits
Department Comments - Round 2	Exhibits
Petitioner Response to Comments - Round 2	Exhibits

VILLAGE OF ARLINGTON HEIGHTS

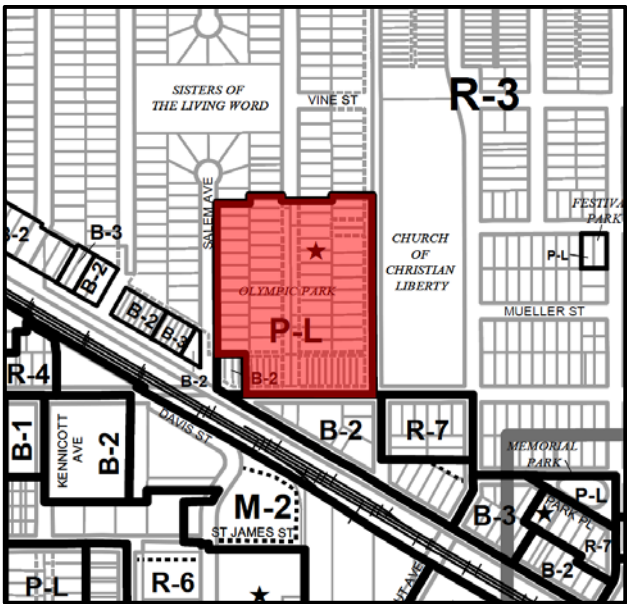
STAFF DEVELOPMENT COMMITTEE REPORT

Project Number: *PC 18-002*
Project Title: *Olympic Park PUD Amendment*
Address: *660 N. Ridge Street*
PIN: *Multiple PIN's*

To: *Plan Commission*
Prepared By: *Sam Hubbard, Development Planner*
Meeting Date: *March 14, 2018*
Date Prepared: *March 9, 2018*

Petitioner: *Arlington Heights Park District*
Address: *410 N. Arlington Heights Road*
Arlington Heights, IL 60004

Existing Zoning: *P-L, Public Land District*



SURROUNDING LAND USES

Direction	Existing Zoning	Existing Use	Comprehensive Plan
North	R-3, One-Family Dwelling District	Single-Family homes	Mixed-Use
South	B-2, General Business District	Existing restaurant and tire store	Government or Institutional
East	R-3, One-Family Dwelling District	Christian Liberty Academy	Mixed-Use
West	R-3, One-Family Dwelling District, B-2, General Business District	Single-Family homes and office building	Mixed-Use

Requested Action:

1. Amendment to Planned Unit Development (PUD) Ordinances 79-19 and 03-036 to allow a building addition and site improvements.
2. Special Use Permit to allow a "Community Center, Recreation Building".

Variations Required:

1. Variation to Section 11.4, Schedule of Parking Requirements, to reduce the required amount of off-site parking from 757 spaces to 291 spaces.
2. Variation to Section 6.13-3(b), Side and Rear Yards, to allow a 10' fence in the rear yard where code limits fence heights to 5'.
3. Variation to Section 6.13-3(c), Exterior Side Yards, to allow a 8' tall fence in an exterior rear yard where code limits fence heights to 5'.

Project Background:

The subject property is located on the west side of the Village at the intersection of Euclid Avenue and Ridge Avenue. Comprising approximately 6 acres, the property is owned by the Arlington Heights Park District (AHPD) and is currently home to Olympic Park and the Olympic Swim Center facility. The site includes the following outdoor amenities:

- Full size soccer field
- Half size soccer field
- Safety fence for baseball field
- Basketball court
- Skate Park
- Playground area
- Two tennis courts
- Safety Town

The Olympic Swim Center building is approximately 45,200 square feet and includes three pools, locker rooms, a lobby area, a basement, and several small office and storage rooms. The site currently has 191 parking spaces. Access to the site comes from one driveway entrance along Ridge Avenue near the southwest corner of the site.

The proposed action, if approved, would allow the Park District to build a two-story building addition on the north and west elevations of the building. There are two scenario's presented by the petitioner; the "Base Bid", which includes a new gymnasium with one full size basketball court, a 2nd floor running track around the perimeter of the gym, additional office space, remodeled administrative areas and locker rooms, a fitness center, and a fourth pool. The second scenario is the "Alternate Bid", which consists is identical to the base bid, except the gymnasium expansion and 2nd story running track would be larger to accommodate two full sized basketball courts. The only exterior difference between the two bid scenarios is that the base bid includes an outdoor basketball court, and the alternate bid incorporates that outdoor basketball court within the building as the second full sized basketball court.

If bids for the work are favorable, the AHPD will proceed with the larger alternate bid version of the project, however, if bids come back indicating high construction costs, AHPD will proceed with the smaller base bid scenario. The zoning analysis of this project takes a conservative approach and has reviewed the project assuming that the larger alternate bid scenario will be constructed. If the AHPD opts to construct the smaller base bid, alternative bid zoning approval can be applied to the base bid since the scope and intensity of the project will have been reduced (i.e. the zoning approval of the base bid is substantially complaint with zoning approval of the alternate bid).

In order to accommodate for the additional use of the subject property given the proposed building addition, an expansion of the parking lot would occur, increasing the on-site parking to 266 spaces (75 space increase). The skate park, basketball court, tennis courts, and playground would be removed to make space for the new building and parking areas. However, a new playground area would be added to the north of the existing building. The outdoor field space would be reduced in size to where there would be only one full size soccer field (or two half-size soccer fields) as opposed to both a full sized field and a half sized one. Safety Town would remain in its current location. The amount of parking spaces and orientation of the parking areas is identical under both the "base bid" and "alternative bid" scenarios.

The current facility employees 4 full time staff members and 75 part time staff members. As a result of the proposed addition, the facility will have 6 full time staff members and 125 part time staff members. However, the maximum number of staff present at any one time is anticipated to be 35, compared to 25 currently. Hours of operation during the week would be 5:30am to 10:00pm (opening ½ an hour earlier than current operations), and weekend hours would remain the same (6:00am to 9:00pm Saturday and Sunday).

Programming and attendance for the swimming pools is anticipated to remain unchanged. The proposed gym would experience peak usage between 5:00pm and 9:00pm during the week as a result of youth sports events.

Neighborhood Meetings

The petitioner held three open houses/neighborhood meetings in December of 2017 to introduce the project to surrounding neighbors. A record of the comments received at these meetings has been included in the packet for the Plan Commission.

Conceptual Plan Review Committee

On November 8, 2017, the Conceptual Plan Review Committee (CPRC) met to discuss the Olympic Park project. The committee had general questions about traffic, parking, community need for the facility, and the potential for safety fencing/netting around the soccer field. The CPRC was generally supportive of the project and encouraged the petitioner to move forward.

Design Commission

On February 13, 2018, the petitioner appeared before the Design Commission for review of the architecture and aesthetic of the building. The commission had concerns regarding the use of precast concrete on the gymnasium addition and voted for a continuance to allow the petitioner to propose revisions to the design to address their concerns. The project is scheduled to reappear before the Design Commission on March 13th.

Zoning and Comprehensive Plan

The subject property is within the P-L Public Lands zoning district, which is the appropriate district for public uses such as Olympic Park and the Olympic Swim Center. However, all developments within the P-L District are required to obtain Planned Unit Development (PUD) approval, which the property received in 1978. Consequently, an amendment to the previously granted PUD is required to allow the proposed building addition and site changes. Of note, the PUD was most recently amended in 2003 to allow for a small building addition to accommodate the third pool and an expansion to the parking lot.

The proposed use is classified as a "Community Center, Recreation Building" per the Zoning Code, which is designated as a special use within the P-L District. Since the property has never been granted a special use permit, the petitioner is required to obtain one as part of this process. This is consistent with similar approvals granted to the AHPD in 2013 to allow modifications at Camelot Park.

The Comprehensive Plan designates this property as "Parks" and the existing use as Olympic Park is compatible with this classification.

Site and Landscaping

The proposed development conforms to all height, bulk, and setback regulations of the P-L District. There is an existing curb cut along Euclid Avenue, which has been blocked off with four flower pots and was to be removed within five years of the previous PUD amendment from 2003. Since the curb cut was never removed, the petitioner has agreed to its removal as part of the proposed development.

The primary entrance to the facility is currently located at the southeast corner of the building. This entrance will stay, however, the building addition will add a second entrance along the western elevation adjacent to the parking lot addition. The secondary entrance will likely become the primary entrance to the facility as it is more centrally located to parking areas and has been designed to facilitate drop-offs and pick-ups.

As noted above, the petitioner has proposed to reduce the size of the playing field on the western side of the site from one full size and one half-size soccer field, to only one full sized soccer field. This reduction is partly due to the parking lot expansion, but also partly due to stormwater improvements proposed for the site. Specifically, the petitioner will be increasing the size of the at-grade stormwater detention facility located in the southwest corner of the site. The base of this detention facility will be seeded with native plantings to help improve stormwater quality and infiltration, and the perimeter will be screened on the east and west sides with several shrubs and an ornamental tree.

This detention area may be modified slightly from what is shown on the plans that have been provided to the Plan Commission due to last minute efforts to provide additional parking areas. This modification may cause the soccer field to shift slightly to the north. Staff is aware of concerns from the owner of the single-family home abutting the property to the north that soccer balls have occasionally broken windows in their home. Shifting the soccer field to the north may exacerbate this problem, and so staff encourages the Park District to work with this property owner to find a solution, which may include safety netting or additional landscape plantings to help shield the home.

Site landscaping conforms to code requirements with exception to certain areas around the north portion of the parking lot expansion. In these areas, staff has requested additional plantings to conform with code requirements and to provide additional screening for the residential homes abutting the subject property to the north. A condition of approval requiring these landscape improvements has been included in the recommendation at the end of this report.

The petitioner has proposed an 8' tall chainlink fence between the soccer field and the detention basin, and a 10' chainlink fence around the basketball court (assuming the base bid is constructed). If the alternate bid is constructed, the 10' chainlink fence would not be constructed as the exterior basketball court would become an interior court. These fences require the following variations:

- **Variation to Section 6.13-3(b), Side and Rear Yards, to allow a 10' fence in the rear yard where code limits fence heights to 5'.**
- **Variation to Section 6.13-3(c), Exterior Side Yards, to allow a 8' tall fence in an exterior rear yard where code limits fence heights to 5'.**

Staff is supportive of both variation requests since they will facilitate safe and efficient usage of both exterior recreation areas.

Parking

The proposed improvements at Olympic Park will result in 291 on-site parking spaces, with 17 of these spaces being landbanked along the north side of the site. The Zoning Code requires parking spaces be provided as based on the sum of all uses within the building and assumes a worst case scenario that all spaces within the building are used to peak capacity at the same time. Based on Zoning Code requirements, a total of 757 parking spaces are required on the subject property. **Table I** below illustrates this requirement, and **Exhibit I** at the end of this report shows the parking calculation.

Table I: Parking Summary

Total Parking Required	757
TOTAL PARKING PROVIDED	291
Surplus/(Deficit)	**-466**

Therefore, the following variation is needed:

- **Variation to Section 11.4, Schedule of Parking Requirements, to reduce the required amount of off-site parking from 757 spaces to 291 spaces**

The petitioner has submitted a parking study, which surveyed existing usage of the parking lot during two weekdays in November 2017, and one Saturday in November 2017 when a swim meet was taking place at the facility. Peak parking demand occurred at 3:00pm on Saturday where 203 vehicles were observed accessing the site (current parking lot has 191 spaces). Due to a lack of available parking within the on-site parking lot, 14 cars parked along Ridge Avenue. The traffic study used this survey as a baseline to establish parking demand for the existing facility, then used the Institute of Transportation Engineers manual (ITE) to forecast future parking demand to be generated by the proposed addition. When added together, the peak future parking demand was estimated at 309 parking spaces (274 spaces are proposed with an additional 17 spaces landbanked), which results in an anticipated deficit of 35 parking spaces (assuming landbanked parking is not constructed). The study identifies approximately 45 street parking spaces along Ridge Avenue north of Euclid and south of Elm Street. It should be noted that forecasted peak parking demand for AHPD facilities typically exceeds on-site parking provided at those facilities. For example, peak parking demand in 2013 at Camelot Park was estimated at 143 spaces when an addition was proposed at that facility, and only 72 on-site parking spaces were proposed at that time.

In order to balance preservation of greenspace and the ability to provide adequate onsite parking, the petitioner has proposed landbanking 17 parking stalls at the northern side of the site adjacent to Safety Town. This is a last minute change proposed by the petitioner, and these landbanked parking spaces are not reflected on the plans provided to the Plan Commission. Staff will provide updated plans for clarification at the public hearing. If these 17 landbanked spaces are constructed, the forecasted parking deficit at peak usage would decrease from 35 spaces to 18 spaces. A condition of approval has been included that would require landbanked parking to be constructed by the petitioner at the request of the Village should it be determined that a deficit of on-site parking has caused problematic off-site parking spillover.

The parking study also notes that Christian Liberty Academy (located across Ridge Avenue to the east of the subject property) uses the Olympic Park parking lot for student drop-off and pick-up activities at 8:30am, 12:00pm, and 3:30pm during the school week (these are not peak usage times at Olympic Park). There is no agreement, either written or verbal, that allows for this shared used of the subject property parking lot. If parking during peak times on the subject property is overflowing to the street and becoming a problem, the AHPD may wish to approach Christian Liberty to see if shared usage of the Christian Liberty parking lot would be allowed during peak usage times at Olympic Park, which likely fall outside of peak usage times for the Christian Liberty parking lot.

Within their response to first round comments, the petitioner has outlined their rationale for the requested variation and provided the required written justification supporting their request. The Staff Development Committee is supportive of the variation for the following reasons. First, certain aspects of the park operate as a neighborhood park (basketball courts, playground, etc.) where many patrons are grade school and high school age. These patrons come to the park by foot or bicycle, or are dropped off by parents who frequently leave and do not park. To further encourage non-motorized modes of travel, the Park District is providing additional bicycle parking racks on the west side of the building. The total number of bicycle parking spaces is 52, which exceeds the code required amount of 46 spaces.

Second, the Park District will not actually use all spaces within the facility to their peak capacity at the same time. The traffic study provided by the petitioner makes it clear that the Park District is aware of parking capacity constraints and concludes that "parking usage should be monitored closely and programing be scheduled for the expanded facility so that major activities (i.e., indoor basketball games, outdoor soccer games, etc.) do not coincide with peak swim center activities (swim meets)". Additionally, the report notes that usage of the outdoor fields on the subject property has decreased significantly since additional soccer fields and football fields were added in Sunset Meadows Park. However, a condition of approval has been recommended that would require the AHPD to adjust scheduling so that major events don't overlap, and if necessary, reduce scheduling to mitigate parking overflow outside of the subject property.

Finally, the Village Board has approved similar variations for other AHPD facilities, including at Frontier Park, Camelot Park, and Pioneer Park. These variations were approved as follows:

- Frontier Park (2013): 272 parking spaces allowed where 729 spaces are required (457 space deficit)
- Camelot Park (2013): 72 parking spaces allowed where 383 spaces are required (311 space deficit)
- Pioneer Park (2006): 133 parking spaces allowed where 647 spaces are required (514 space deficit)

Staff believes that with appropriate event scheduling, the ability for landbanked parking to be constructed at the request of the Village, the possibility of shared parking with the Christian Liberty Academy, and the existence of street parking along Ridge Avenue, the proposed parking variation will not have a detrimental impact on the surrounding community. Therefore, the necessary criteria for variation approval have been met and staff is supportive of the proposed variation.

Traffic

The petitioner has submitted a traffic study in conjunction with their application, which has analyzed the major intersections adjacent to the development to determine if these intersections have the capacity to handle the projected traffic volume that will result from the proposed addition without creating adverse impacts to their functionality. All intersections are expected to continue functioning with minimal increases in delay, with exception to the intersection of Ridge and Euclid. Specifically, southbound delays at this intersection are expected to increase by over a minute and a half during the weekday morning peak hour and the weekday evening peak hour (graded as Level of Service "F"). This delay is typical for a minor street intersecting a major street with heavy through volumes, such as Euclid Avenue, however, as southbound cars on Ridge begin to stack as they await movement through the intersection, the stacked cars will back up and block ingress to the southern driveway entrance into the subject property.

The traffic study has identified several solutions to address this situation. First, as patrons familiarize themselves with the remodeled site, they may opt to utilize the northern driveway for ingress into the site if the southern driveway entrance is blocked due to stacked cars. If this does not prove effective, the traffic study has recommended "Do Not Block" signage be installed in front of the southern driveway entrance to discourage cars from queuing and blocking ingress into the subject property. Third, the study states that "future consideration should be given to limit the south (existing) site access to egress only should queuing/operations become problematic". Under this scenario, all northbound automobiles on Ridge would be forced to enter within the northern driveway, which would prevent back-ups on northbound Ridge Avenue that would occur when southbound cars are stacked to the point where they block ingress into the southern driveway. Conditions of approval requiring the Park District to implement these solutions, if deemed necessary by the Village, have been included.

Finally, the study also recommends that the Euclid Avenue and Ridge Avenue intersection be evaluated after the addition is complete and the facility is back in operation to determine if future improvements are necessary to Ridge Avenue, i.e. widening the southbound approach to provide a separate shared left-turn/through lane and a right-turn lane. Widening Ridge Avenue at this location would need to be coordinated with the Cook County Department of Transportation, and it is unknown if this widening is actually feasible. The Village will continue to monitor operations at this intersection to determine what, if any, action is necessary to ameliorate traffic congestion.

RECOMMENDATION

The Staff Development Committee recommends approval of the proposed PUD Amendment, Special Use Permit, and the following variations from Chapter 28 of the Municipal Code:

- Variation to Section 11.4, Schedule of Parking Requirements, to reduce the required amount of off-site parking from 757 spaces to 291 spaces.
- Variation to Section 6.13-3(b), Side and Rear Yards, to allow a 10' fence in the rear yard where code limits fence heights to 5'.
- Variation to Section 6.13-3(c), Exterior Side Yards, to allow a 8' tall fence in an exterior rear yard where code limits fence heights to 5'.

This approval shall be subject to the following conditions:

Parking Related:

1. The Arlington Heights Park District shall take the following actions if it is determined, at the sole discretion of the Village of Arlington Heights, that there is a shortage of on-site parking spaces on the subject property:
    a. The Park District shall work with the Village to adjust scheduling so that major events do not overlap. This may include a reduction in the amount of programing that is allowed on the subject property.
    b. The Park District shall construct all landbanked parking stalls, as identified in the plan prepared by Gewalt Hamilton Associates, Inc., within 90 days upon request of the Village.
    c. The Park District will explore the ability for a shared parking agreement with the Christian Liberty Academy located to the east of the subject property (or other acceptable location), which agreement shall be subject to review by the Village.

Traffic Related:

1. If it is determined by the Village that future roadway improvements are feasible and necessary to correct traffic congestion at the intersection of Ridge Avenue and Euclid Avenue, the Park District shall dedicate the necessary land to facilitate such improvements.
2. At the request of the Village, the Park District will limit the southern entrance drive to restrict ingress into the subject property from northbound automobiles on Ridge Avenue.

General:

1. The petitioner shall provide three foot tall shrubs in the landscape island at the northeast corner of the site should the landbanked parking be constructed. Additionally, the petitioner shall substitute the Dogwood and Nine Bark shrubs proposed at the north side of the parking lot expansion with six foot tall evergreens, and additional evergreens shall be added to the north of the parking lot expansion to conform with Section 6.15-1.2 of Chapter 28 of the Municipal Code.
2. The petitioner shall comply with all Federal, State, and Village Codes, Regulations, and Policies.

_____ March 9, 2018
Bill Enright, Deputy Director of Planning and Community Development

Cc: Randy Recklaus, Village Manager
All Department Heads

Exhibit I: Parking Calculations

Use	Parking requirement	Square Footage	Number of Occupants	Number of Employees	Required parking spaces
Lower Level					
Multi-Purpose Rooms	30% of Occupancy	2,105	140	N/A	42
Storage, Mechanical, Bathrooms/Locker rooms, Non-functional Space	N/A	12,696	N/A	N/A	0.00
LOWER LEVEL TOTAL		14,801	140	N/A	42.00
Ground Level					
Multi-Purpose Rooms	30% of Occupancy	2,956	197	N/A	59
Daycare	3 spaces per employee	581	N/A	2	6.00
Offices/Administrative	1 space per 300 sf	1,222	N/A	N/A	4.07
Leisure Pool	30% of Occupancy	6,076	291	N/A	87.30
Lap/Diving Pool	30% of Occupancy	11,040	505	N/A	151.50
Warm Water Pool	30% of Occupancy	3,563	168	N/A	50.40
Bleachers	30% of Occupancy	N/A	412	N/A	123.60
Gym	30% of Occupancy	19,133	382	N/A	114.60
Concessions	1 space per 300 sf	350	N/A	N/A	1.17
Storage, Mechanical, Bathrooms/Locker rooms, Non-functional Space	N/A	14,465	N/A	N/A	48.22
GROUND LEVEL TOTAL		59,386	1,955	2	646
2nd Level					
Control Desk	1 space per 300 sf	107	N/A	N/A	0.36
Fitness Room	30% of Occupancy	5,049	101	N/A	30.294
Assessment Rooms	1 space per 250 sf	271	N/A	N/A	1.08
Track	30% of Occupancy	6,339	126.78	N/A	38.03
Storage, Mechanical, Bathrooms/Locker rooms, Non-functional Space	N/A	3,312	N/A	N/A	0.00
2ND LEVEL TOTAL		15,078	228	N/A	69
FACILITY TOTAL		89,265	2,323	N/A	757
REQUIRED PARKING				Total Parking Required	757
				TOTAL PARKING PROVIDED	266
				Surplus/(Deficit)	-491

NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN THAT THE PLAN COMMISSION OF THE VILLAGE OF ARLINGTON HEIGHTS WILL CONDUCT A PUBLIC HEARING ON MARCH 14, 2018, AT 7:30 P.M. in the Municipal Building, 33 South Arlington Heights Road, Arlington Heights, Illinois to consider Petition No. 18-002, an amendment to a Planned Unit Development and a Special Use Permit to allow a "Community Center/Recreation Building", said property located at 660 N. Ridge Avenue in Arlington Heights, IL, and legally described as follows:

Lots 8 and 9 in Block 16; Lots 1 through 19, both inclusive, and Lot 22 in Block 17; Lot 8 in Block 15, both inclusive, and Lots 24 through 27, both inclusive, in Block 8; all that part of vacated Hawthorne Street as shown on the Plat of Vacation thereof heretofore recorded in the Office of the Recorder of Deeds of Cook County, Illinois as document number 20833210, all that part of the vacated east and west public alley in Block 17 as shown on the Plat of Vacation thereof heretofore recorded in the Office of the Recorder of Deeds of Cook County, Illinois as document number 20833208; all that part of vacated Fernandez Avenue as shown on the Plat of Vacation thereof heretofore recorded in the Office of Recorder of Deeds of Cook County, Illinois as document number 20833211; all that part of the vacated east and west public alley in Block 18 as shown on the Plat of Vacation thereof heretofore recorded in the Office of Recorder of Deeds of Cook County, Illinois as document number 20833209, excepting therefrom that part of the south half of said vacated public alley lying north of and adjoining Lots 16 through 19, both inclusive, in said Block 18; all as shown on the lat of R.A. Cepek's Arlington Ridge, being a subdivision of that part of the west half (except the east 33.0 feet thereof) of the northeast quarter and of the south half of the northwest quarter of Section 30, Township 42 North, Range 11, East of the Third Principal Meridian lying north of the northeasterly line of the Northwest Highway, said northeasterly line of highway being 66.0 feet northeasterly of and parallel with the northeasterly line of the Chicago & Northwestern Railway right-of-way, according to the plat of said subdivision registered in the Office of the Registrar of Titles of Cook County, Illinois on September 2, 1925, as document number No.LR 270771.

Also,

Lots 8 through 16, both inclusive and Lots 17 and 18 in Block B; Lots 6 through 24, both inclusive, in Block C, all in the resubdivision of certain blocks and parts of blocks and vacated streets in R.A. Cepek's Arlington Ridge, being a subdivison of that part of the west half (except the east 33.0 feet thereof) of the northeast quarter and of the south half of the northwest quarter of Section 30, Township 42 North, Range 11, east of the Third Principal Meridian lying north of the northeasterly line of the Northwest Highway, said northeasterly line of highway being 66.0 feet northeasterly of and parallel with the northeasterly line of the Chicago & Northwestern Railway right-of-way, according to the plat of said resubdivision registered in the Office of the Registrar of Cook County, Illinois on May 27, 1946, as document number No.LR 110067.

As part of said petition, the petitioner is requesting the following variation from Chapter 28 of the Municipal Code:

- A variation to Section 11.4, Schedule of Parking Requirements, to reduce the required amount of off-street parking to allow 264 parking spaces on the subject property.

And 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.

Terry Ennes, Chairman
ARLINGTON HEIGHTS PLAN COMMISSION
Published in Daily Herald February 27, 2018 (4494388)

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 715, Act 5, Section 1 and 5. That a notice of which the annexed printed slip is a true copy, was published February 27, 2018 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 Paula Baltzer
Authorized Agent

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Olympic Park - Aerial

November 3, 2017

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REPORT OF THE PROCEEDINGS OF

THE CONCEPTUAL PLAN REVIEW COMMITTEE

OF THE VILLAGE OF ARLINGTON HEIGHTS PLAN COMMISSION

HELD AT VILLAGE HALL ON: **November 8, 2017**

Project Title: Olympic Park PUD Amendment

Address: 660 N. Ridge Avenue

Petitioner: Arlington Heights Park District
410 N. Arlington Heights Road
Arlington Heights, IL 60004

Requested Action:

- Amendment to Planned Unit Development (PUD) Ordinances 79-19 and 03-036 to allow a building addition.

Variations Required:

- A Variation from Chapter 28, Section 11.4, to reduce the required off-street parking (extent of variation is unknown at this time).

Attendees: Benjamin Rea, Arlington Heights Park District
Rick Hanetho, Arlington Heights Park District
John Dzarnowski, FGM Architects
Dave Yandel, FGM Architects
Jay Cherwin, Plan Commissioner
Bruce Green, Plan Commissioner
Lynn Jensen, Plan Commissioner
John Sigalos, Plan Commissioner
Sam Hubbard, Village of Arlington Heights

Project Summary:

The Olympic Swim Center building is approximately 45,200 square feet and includes three pools, locker rooms, a lobby area, a basement, and several small office and storage rooms. The site currently has 185 parking spaces. Access to the site comes from one driveway entrance along Ridge Avenue near the southwest corner of the site.

The proposed action, if approved, would allow the Park District to build a two-story building addition on the north and west elevations of the building, which would house a new gymnasium with two full size basketball courts, a 2nd floor running track around the perimeter of the gym, additional office space, two multi-purpose rooms, a fitness center, a fourth pool, and remodeled locker rooms. Depending on construction costs, the project would all be completed in one phase, or split into two phases with the first phase encompassing just one basketball court in the new gym and the second phase entailing an addition to the gym for the second basketball court.

Meeting Discussion:

Mr. Hanetho thanked the Conceptual Plan Commission for the opportunity to discuss the Park District project, which he was very excited to be taking on. He explained that the Park District had been contemplating a renovation and expansion of the Olympic Park facility for several years. The goal of the Park District was to make Olympic Park the primary location for activities around the center of Arlington Heights, with Camelot Park catering to residents in the north, and Pioneer Park catering to residents in south Arlington Heights. Their vision for this facility has been to include a gym with a 2nd story walking track, fitness spaces, multi-purpose spaces, and the possibility of a warm water pool. This facility would function as a "one-stop shop" for families and residents of all ages, from young children up to seniors. Based on a recently conducted community preference survey, the community has identified the renovation and expansion of the Olympic Park facility as a top priority.

Mr. Dzarnowski outlined the proposed project, which includes a northern addition to the building. Certain outdoor amenities would be removed to make space for the addition, but Safety Town would remain and the existing playground would be relocated to the western side of the building addition. There would be a new access drive around the building to meet fire lane requirements, which would also provide a new ingress/egress point to Ridge Avenue since the existing driveway is close to the intersection of Ridge Avenue and Euclid Avenue. He explained that they were considering two options for the addition, which would be based on the project budget; the first option would be for a single gym addition, the second would be for a larger double gym addition. They would be removing a small portion of the existing parking lot to expand the existing retention basin. The Park District has decided that they only need one soccer field on the site, so the parking expansion would eliminate a portion of the field area but would leave enough space for at least one full sized soccer field, which could also be divided into multiple tot-sized fields if needed.

Mr. Hubbard stated that the property was within the P-L Public Land District, which was the appropriate zoning district for a facility such as Olympic Park. In 1978 the subject property was approved for a PUD to allow the Olympic Park Swim Center, In 2003 the PUD was amended to allow a small expansion of the facility. The proposed changes require another PUD amendment, which will need to be reviewed by the Plan Commission and ultimately approved or denied by the Village Board. Staff has suggested that the Park District reach out to surrounding neighbors and hold a neighborhood meeting prior to appearing before the Plan Commission.

He explained that a full zoning review of the project had not yet been completed since the plans were still very preliminary at this point, however, a cursory analysis indicated that the project would likely conform to all setback, height, and bulk/mass zoning requirements. Staff is requesting that the existing curb cut along Euclid, which is currently unused, be removed as part of this project. Additionally, staff was asking the Park District to consider a pedestrian connection to Salem Avenue located west of the site. A Design Commission application would be required for the proposed building addition.

The major points to review with this project will be with traffic and parking, and so the petitioner will need to provide a traffic and parking study from a qualified traffic engineer as part of their Plan Commission application. It is very likely that a parking variation will be needed, which is typical of all Park District facilities. The Plan Commission application will need to contain a significant amount of details on all aspects of the development to allow staff to conduct a thorough review. Staff was supportive of this project

Commissioner Jensen said it was a good project and he had a few questions. He asked how the 2nd gymnasium would alter the building footprint from what was shown on the plans.

Mr. Dzarnowski responded that the plans shown this evening reflected the 2nd gymnasium, and the plans in the packet that was provided to the Conceptual Plan Review Committee showed both alternatives.

Commissioner Jensen asked if there was a parking problem on the site as it currently existed today.

Mr. Hanetho replied that he was not aware of any significant parking problems at the site.

Unidentified Park District Representative From the Audience stated that generally things ran pretty smooth. Sometimes they needed to coordinate with the Christian Liberty Academy located next door when both facilities had events planned for the same day.

Commissioner Cherwin said he was at the facility almost every weekend and had not witnessed a parking problem.

Commissioner Jensen summarized that the existing parking deficit relative to code requirements had therefore not been a problem. He asked if the proposed changes were expected to significantly alter the existing traffic compared to current levels.

Mr. Yandel explained that their initial thought was that the changes would generate some additional traffic, but not substantially more traffic. They would have a fitness facility that would have people coming in and out all day, but much of

that traffic would be earlier in the day so that it would not overlap with event programing that occurred later in the day. The traffic study would be analyzing traffic generation to help forecast expected traffic volumes based on the peak usage of the facility.

Mr. Hanetho explained that from a programming perspective they would not be scheduling major events to overlap, for example they would not be looking to schedule a major swim meet while the fitness center was open and there were also soccer games occurring on the field. This was something that the Park District would need to manage internally, but that everywhere he had worked they had been able to successfully manage events.

Commissioner Siglaos stated that he didn't have too much to add. His primary concern had been parking, but from what was said this evening, parking did not appear to be a major issue. He was going to suggest working with the Christian Liberty Academy to coordinate parking, but it sounded like the Park District was already doing this.

Commissioner Cherwin asked about the community preference survey conducted by the Park District

Mr. Hanetho explained that the survey asked about a number of the facilities owned and operated by the Park District. One of the current focuses within the industry was for facilities that catered to aging active adults. This was something that was somewhat limited within the current Park District facilities, and the Olympic Pool expansion project would add this element but also include something for all ages, such as the indoor gym and exterior playground.

Commissioner Cherwin asked if the double gym scenario could include indoor field space.

Mr. Hanetho responded that one of the questions on the preference survey was about indoor field spaces. However, staff and the Park District board had not yet determined what the level of demand was for indoor field space. If the double gym scenario was within the parameters of the project budget, and if there is significant demand for indoor turf, it was something that they would look at.

Commissioner Cherwin said he thought it was a great project.

Mr. Green said he also thought it was a good project and he hoped that the parking would work out. He asked if there would be any nets around the soccer field. If there were, he recommended that the plans show the netting as opposed to having the Park District come back after the fact to petition for the netting.

Discussion ensued relative to safety netting at Sunset Meadows Park.

RECOMMENDATION

The Conceptual Plan Review Committee was supportive of the proposal and advised the petitioner to move forward.

Bruce Green, Chair
CONCEPTUAL PLAN REVIEW COMMITTEE
Sam Hubbard, Recorder

APPROVED

MINUTES OF
THE VILLAGE OF ARLINGTON HEIGHTS
DESIGN COMMISSION MEETING
HELD AT THE ARLINGTON HEIGHTS MUNICIPAL BUILDING
33 S. ARLINGTON HEIGHTS RD.
FEBRUARY 13, 2018

Chair Fitzgerald called the meeting to order at 6:30 p.m.

Members Present:	John Fitzgerald, Chair Aaron Coon Kirsten Kingsley
Members Absent:	Ted Eckhardt Jonathan Kubow
Also Present:	Scott Nielsen, Fairfield Homes for *412 W. Campbell St.* Jack Boryszewski, MJ&B Contractors for *116 S. Gibbons Ave.* Peter Theodore, Camburas & Theodore Ltd. for *Marshalls* Josh Conroy, Camburas & Theodore Ltd. for *Marshalls* Jessica Wiebesiek, Camburas & Theodore Ltd. for *Marshalls* Benjamin Rea, Arlington Heights Park District for *Olympic Park* David Yandel, FGM Architects for *Olympic Park* Louise Kowalczyk, FGM Architects for *Olympic Park* Steve Hautzinger, Staff Liaison

REVIEW OF MEETING MINUTES FROM JANUARY 23, 2018

A MOTION WAS MADE BY COMMISSIONER KINGSLEY, SECONDED BY COMMISSIONER COON, TO APPROVE THE MEETING MINUTES OF JANUARY 23, 2018. ALL WERE IN FAVOR. MOTION CARRIED.

ITEM 4. PUBLIC LAND REVIEW

DC#18-006 – Olympic Park Indoor Swim Center – 660 N. Ridge Ave.

Benjamin Rea, representing the *Arlington Heights Park District*, and David Yandel and Louise Kowalczyk, representing *FGM Architects,* were present on behalf of the project.

Mr. Hautzinger presented Staff comments. The subject design is being forwarded to the Design Commission for review pursuant to Chapter 6 of the Municipal Code. This project requires Plan Commission review and Village Board approval to amend the existing Planned Unit Development (PUD). Because this project is going to the Plan Commission, the role of the Design Commission is limited to building and signage only as outlined in Chapter 28 of the Municipal Code, Section 14.2-1.

The petitioner is proposing a two-story addition to the existing Olympic Park Indoor Swim Center. The addition will be located on the north and west sides of the existing building, and will include a new warm-water pool, a new gymnasium, an elevated indoor running track, fitness center, and new fully accessible locker rooms. The project includes an alternate to possibly double the size of the gymnasium addition. The existing building design has a modern aesthetic with the primary exterior materials being a dark iron spot brick, buff colored split-faced concrete masonry units, silver window mullions, and silver metal panel accents.

The proposed addition is designed to match the existing building materials, colors, and style. The only new material is the precast concrete panels for the gymnasium walls, which are proposed to be painted to match the buff colored concrete masonry units on the existing building. Overall, the proposed addition is very nicely designed as a seamless addition to the existing building. The only comment is that the double-sized gymnasium creates a relatively large precast box, and it should be considered to incorporate some of the dark brick material to break up the large amount of painted precast.

All rooftop mechanical equipment is proposed to be screened with silver metal panels to match the mechanical screens on the existing building. The proposed "OLYMPIC RECREATION CENTER" wall sign is not allowed by code. Only ground signs are allowed in the Public Land (P-L) Zoning District. The proposed wall sign either needs to be removed from the design, or an application for a sign variation can be submitted for review. Another option would be a tablet style sign, which is allowed to have the name of the building cut into any masonry surface or cast in bronze or other incombustible material.

Staff recommends approval of the proposed design with the two previously stated comments for the commissioners to review.

Mr. Rea, the Director of Parks and Planning, thanked the commissioners for the opportunity to present their project, which they feel is a very good design and plan; they are happy to hear any comments from the commissioners. Mr. Yandel said that with regards to signage, they would most likely pursue a variance. The existing wall signage on the addition that was done in 2004 faces Euclid, and will most likely be removed because they are proposing to re-identify the building as a recreation center and not a swim center. The building is also being re-orientated to the west, with a new main entrance at the center of the facility, because the facility is predominantly visited by car or from the neighborhood to the west, with new parking as a full perimeter roadway feeing into the building from the west. They share Staff's concerns about the large amount of precast on the alternate double size gymnasium; however, the Park District prefers the larger gymnasium because it will support the large amount of programs, allow for 2 full size high school basketball courts, as well as a larger indoor walking/running track that is one of the predominant and most requested features within the Park District. In order to potentially afford the larger gymnasium, the painted precast concrete is predominantly cost driven more so than design driven; however, there are opportunities to introduce a different color to the painted scheme being proposed.

Commissioner Kingsley asked if there would be any split face block on the addition, and Mr. Yandel replied that only the existing building has split face block; no additional split face block is being added. He added that there will only be 3 colors; the iron spot brick that will match identically to the existing, the buff masonry or precast to be painted, and the clear anodized aluminum that is all the doors, windows and new screening and coping.

Commissioner Coon felt it was a really nice design and he liked that a lot of the elements from the previous improvements were taken into the current proposal, but he is adamantly opposed to the idea of precast on this project. He felt there were a lot of materials already on the building, and precast would tilt this in a direction of not being cohesive with the rest of the development. He felt the petitioner should look at ways of doing the addition out of the split-face block; even more so to try to find ways to bring in more of the brick. He referenced the split-face block used at the Rec Center at Pioneer Park, which he felt was awful; it is a bad fit in a residential neighborhood, and he was concerned about precast panels being a bad fit here as well; it has so much of an industrial feel in a residential neighborhood. He felt the brick and the block were a nice palette to work with, and he preferred to see the petitioner stick with those 2 materials. He was not opposed to the massing of the expansion itself, and he liked the idea of additional basketball courts that his sons could use. He said there was a lot to like about the design, with the exception of the precast material that would be too jarring for him; he could not support it.

Commissioner Kingsley felt it was a really nice building and she was glad that the petitioner took elements from the existing building. She liked the black dark brick and the panels; however, she did not like split-face block and felt that it should not be repeated, which it was not, and she thanked the petitioner for that. She had a hesitation with having so much precast, and she would rather see it in panels. She liked the proportion of the Base Bid, without the alternate, because it relates to the existing building so well; she liked the double window placed there, and when the building is elongated, the windows become narrower like slits. Commissioner Kingsley also felt that the east elevation would be viewed as the main elevation when driving past the building, and it was hard for her to tell much about what was happening on that elevation, or the materials. She asked about any entrances on the east elevation, and Mr. Yandel replied that only emergency exits will be on the east elevation, to be used for special occasions like a swim meet. He reiterated that the main entrance will be located in the center of the facility, which is predominantly for control of visitors.

Commissioner Kingsley asked how visitors will know that the east elevation is not the front of the building. Mr. Yandel explained that the existing bike racks, flag pole, bench, and plantings will be reconfigured and simplified to diminish and de-emphasize that as the entrance and move the traditional entry elements to the new main entrance. Additionally, moving the main entrance to the center of the facility allows parking to be much safer. Commissioner Kingsley felt that because the east elevation is still the face of the building, the stairwell should be clad in something other than precast. She also felt strongly that the ground sign for the facility should be individual letters, and not just a sign plaque, and she had concerns about the lack of sunlight on the existing lap pool after the new pool is added. Mr. Rea pointed out that the existing glass that goes out to a sun deck will be filled in with the addition, and the west wall of the new warm water pool will be all glass. There will also be glass between the two pools, to the greatest extent possible. He added that they have heard this same concern from patrons of the facility. Commissioner Kingsley felt the petitioner should consider putting something else in that area, something to provide diffused light; it is going to be a very dark pool, and she suggested the petitioner look at other pools that have west-facing natural light, such as Prospect High School that has a similar east-facing window.

Commissioner Kingsley reiterated her concerns about the precast, and Mr. Yandel asked if breaking up the precast with a brick face on a portion of it would be acceptable. Commissioner Coon felt this would help, and asked if the petitioner considered form liners. Ms. Kowalczyk replied that they used a brick form liner at Camelot Park, and she asked if that would be acceptable in this application. She added that from a construction standpoint, it was most economical to use precast panels; however, it did not mean that another material could not be applied to the panels, or the panels decorated in some way. Commissioner Coon objected to introducing more than 3 materials; he felt the brick, the split face block and the metal are prominent on the building and introducing a fourth material would upset things. Mr. Rea said that they agreed, and that with the precast, they are trying to re-create the look of the mass of the split-face on the south elevation that contrasts with the dark. He added that the precast never touches the split face block, there is always a brick portion between the two, and Ms. Kowalczyk added that a good portion of the main

facade of the gymnasium will be broken up by the playground that will be located there. Commissioner Kingsley pointed out that the north side of the new gymnasium will be a complete wall of precast, and she felt there should be some fenestration there. Commissioner Coon agreed, especially with there being homes adjacent to the site.

Chair Fitzgerald liked the proposed design and felt it was a beautiful building, and he liked the idea of doing something different to the stairway on the east elevation to break up the facade of the panels. He was not as opposed to the pre-cast panels, and he was open to darkening them. He also suggested adding a hedge along the west elevation, approximately 6-feet below the window, which did not need to be evergreen, just something narrow with height, as well as on the north elevation if there is room. He felt that plants could solve this issue, as they do many issues.

Chair Fitzgerald questioned whether a motion could be made tonight, considering the issues that the commissioners have. Commissioner Coon wanted to see more design put into the gymnasium portion of the project; the walls are set back from the main facade and the stair bump out on the east elevation was a nice place to introduce an iron spot brick wall that picks up on the brick to the south. He also suggested letting the precast recede behind the brick in an architectural way that is pleasing, and felt something should be done to the north elevation. He felt the gymnasium would look like a warehouse attached to a very nice park complex; he was concerned about the way the precast is articulated as currently shown. Ms. Kowalczyk asked if some of the precast could remain if it were diminished, and Commissioner Coon was okay with that if the precast was more in the background; bring more of the original materials back into the design.

The commissioners discussed options on whether or not to vote on the project at this time, and how it would affect the Plan Commission and Village Board process. Mr. Rea said that they are not opposed to revisiting certain components of the design, based on the comments made tonight; however, the project is scheduled for Plan Commission review on March 14. Mr. Hautzinger said that if feasible, the Design Commission process should be completed before advancing to the Plan Commission; however, if this is not possible, the Design Commission process can run parallel with the Plan Commission review. There is a Design Commission meeting on March 13, which is one night before the Plan Commission review. The petitioner said he would work with Staff to revise the design and return to a future date with the Design Commission.

A MOTION WAS MADE BY COMMISSIONER COON, SECONDED BY COMMISSIONER KINGSLEY, TO CONTINUE THE PROJECT FOR THE OLYMPIC PARK INDOOR SWIM CENTER (DC#18-006), TO A FUTURE DESIGN COMMISSION MEETING DATE.

KINGSLEY, AYE; COON, AYE; FITZGERALD, AYE.
ALL WERE IN FAVOR. MOTION CARRIED.

S T A F F D E S I G N C O M M I S S I O N R E P O R T

PROJECT INFORMATION:		**PETITION INFORMATION:**	
Project Name:	Olympic Park Indoor Swim Center Addition	**DC Number:**	18-006
Project Address:	660 N. Ridge Avenue	**Petitioner Name:**	Ben Rea
Prepared By:	Steve Hautzinger	**Petitioner Address:**	Arlington Heights Park District 410 N. Arlington Heights Rd. Arlington Heights, IL 60004
Date Prepared:	February 2, 2018	**Meeting Date:**	February 13, 2018

Requested Action(s):
Approval of the proposed architectural design for an addition to the existing Olympic Park Indoor Swim Center.

Design Commission Responsibility for Projects Being Reviewed by Plan Commission:
The subject design is being forwarded to the Design Commission for review pursuant to Chapter 6 of the Municipal Code.

This project requires Plan Commission review and Village Board approval to amend the existing Planned Unit Development (PUD). Because this project is going to the Plan Commission, the role of the Design Commission is limited. The Design Commission's responsibility is as outlined in Chapter 28 of the Municipal Code, Section 14.2-1, which states:

"*For developments where a public hearing is necessary before the Plan Commission or Zoning Board of Appeals, the design review process should, if feasible, be completed by the time of the public hearing. Development proposals requiring rezoning, PUD or other Plan Commission approvals, shall be reviewed by the Design Commission* ***for building and signage only****.*"

Summary:
The petitioner is proposing a two-story addition to the existing Olympic Park Indoor Swim Center. The addition will be located on the north and west sides of the existing building, and will include a new warm-water pool, a new gymnasium, an elevated indoor running track, fitness center, and new fully accessible locker rooms. The project includes an alternate to possibly double the size of the gymnasium addition.

Architectural Design:
The existing building design has a modern aesthetic with the primary exterior materials being a dark ironspot brick, buff colored split-faced concrete masonry units, silver window mullions, and silver metal panel accents. The proposed addition is designed to match the existing building materials, colors, and style. The only new material is the precast concrete panels for the gymnasium walls, which are proposed to be painted to match the buff colored concrete masonry units on the existing building. Overall, the proposed addition is very nicely designed as a seamless addition to the existing building. The only comment is that the double-sized gymnasium creates a relatively large precast box, and it should be considered to incorporate some of the dark brick material to break up the large amount of painted precast.

Equipment Screening:
All rooftop mechanical equipment is proposed to be screened with silver metal panels to match the mechanical screens on the existing building.

Signage:
The proposed "OLYMPIC RECREATION CENTER" wall sign is not allowed by code. Only ground signs are allowed in the Public Land (P-L) Zoning District. The proposed wall sign either needs to be removed from the design, or an application for a sign variation can be submitted for review. Another option would be a tablet style sign, which is allowed to have the name of the building cut into any masonry surface or cast in bronze or other incombustible material.

RECOMMENDATION:

It is recommended that the Design Commission **approve** the design of the proposed addition to the existing Olympic Park Indoor Swim Center building located at 600 N. Ridge Avenue. This recommendation is subject to compliance with the plans received 1/9/18, Design Commission recommendations, compliance with all applicable Federal, State, and Village codes regulations and policies, the issuance of all required permits, and the following:

1. Consider incorporating the dark brick material to break up the amount of painted precast concrete on the double-sized gymnasium.
2. The petitioner is required to meet the Sign code, Chapter 30 or obtain a sign variation(s).
3. 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/owner/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.

_____ February 2, 2018

Steve Hautzinger AIA, Design Planner
Department of Planning & Community Development

Cc: Charles Witherington Perkins, Director of Planning and Community Development, Bill Enright, Deputy Director of Planning and Community Development, Sam Hubbard, Development Planner, Petitioner, DC File 18-006

Summary of Open Houses Held on December 3rd, 5th, and 6th

A brief summary of the open houses held on December 3rd, 5th, and 6th is provided below:

- **December 3rd.** The open house was held from 10 – 11:30 a.m. and was attended by approximately 30 residents. Overall, comments about the project were very positive. A few comments/concerns shared with staff and FGM were: the loss of existing site amenities, traffic concerns on Euclid and Ridge, the need for more natural landscaping, would like an outdoor walking track, concern about locker room sizes, reduced natural light to the lap pool, lap pool too small, not happy with the pool closed during the summer, and the proposed location of the playground in relation to adjacent (near Fernandez) homes. A total of 16 comment cards were received
- **December 5th-** The open house was held from 7 – 8:45 p.m. and was attended by approximately 20 residents. Comments about the project were again very positive. A few comments/concerns shared with staff and FGM were: the proposed location of the playground (near Fernandez), loss of site amenities, line of site to the parking lot, providing landscaping/berms to screen the parking lot, traffic congestion on Ridge, noise concerns, improve pool ventilation, provide a safe drop-off/pick-up area, no improvements to the dive well, have other pools open during the proposed closure, and the removal of the existing fencing/backstop. A total of 14 comment cards were received
- **December 6th-** The open house was held from 10 – 11:30 a.m. and was attended by approximately 20 residents. Comments about the project remained very positive. A few comments/concerns shared with staff and FGM were: the loss of existing site amenities, need a clock in the family activity area, provide a safe drop-off/pick-up area, provide a kitchen in one of the multi-purpose rooms, would like a larger indoor track, limit pool closure during construction, add swimsuit dryers to the locker rooms, traffic congestion on Ridge, and improving locker room heat. A total of 11 comment cards were received
- A copy of all comments received at the 3 open houses has been attached

To best communicate the open houses to the public, staff took the following measures:

- News article about the project was published to the Park District's main website
- Letters (see attached copy) were mailed via USPS to the residents and businesses (93 in total) surrounding the Olympic Indoor Swim Center facility (see attached mailing list)
- Informational boards about the project and open houses were placed at Olympic
- Posters were given to staff at Olympic to place in strategic locations for patrons to see
- Press release was distributed to the local Media

- We featured the Open Houses in weekly E-blast to the community – 15,000 subscription
- We published a large web banner on ahpd.org website that is linked to more information about the open houses
- We posted information about and encouraged attendance to the Open House via our social media channels: Facebook and Twitter

FGM ARCHITECTS

January 8, 2018

Sam Hubbard
Development Planner
Department of Planning and Community Development
Village of Arlington Heights
33 S. Arlington Heights Road
Arlington Heights, IL 60005

RE: Arlington Heights Park District
Olympic Indoor Swim Center – Addition & Renovation
660 North Ridge Avenue, Arlington Heights, Illinois

Dear Mr. Hubbard:

The Arlington Heights Park District (AHPD) intends to renovate the Olympic Indoor Swim Center located at Olympic Park. The site is bounded by Euclid Avenue to the south, North Salem Avenue to the west, North Ridge Avenue to the east, and a residential neighborhood to the north along Fernandez Avenue. The area south of Euclid Avenue and along Northwest Highway is commercial and Christian Liberty Academy is located across North Ridge Avenue to the east.

The existing park is comprised of the existing indoor swim center and the following outdoor site amenities: on-site parking, large playfield used primarily for soccer and similar activities, basketball court, two tennis courts, playground, and skate park. The existing building includes a 6-lane lap pool, diving well, and activity pool, locker rooms, offices, and lower level multi-purpose rooms.

AHPD recently completed a facility needs assessment for the district and renovation and expansion of the Olympic Indoor Swim Center to include a gymnasium with indoor running / walking track and fitness space was one of the two highest priorities identified. The central location of Olympic Park makes this location ideal to support the residents of Arlington Heights.

Olympic Park will be improved with the following site and building amenities: additional on-site parking and drive aisles to provide additional site access from North Ridge Avenue and full perimeter fire department access to the building; expansion of the stormwater detention basin to accommodate the proposed improvements; two-story addition to the north of the existing building with new main entrance on the west side of the building; new lobby with control desk for visitors and staff offices; new locker rooms for the pool and separate locker rooms for fitness; new second floor fitness area accessible from a new stairway and elevator; and new gymnasium with second level running / walking track. The gymnasium will be sized to accommodate a regulation high school sized basketball court and if funds are available, sized to accommodate two regulation high school sized basketball courts.

1211 West 22nd Street, Suite 700
Oak Brook, Illinois 60606
630.574.8300 **PHONE**
630.574.9292 **FAX**
fgmarchitects.com

Due to the expansion of the existing facility, the existing skate park, basketball court, and tennis courts will be removed and considered for relocation on-site or elsewhere. The existing playground will be removed and a new playground with new equipment will be constructed adjacent to the addition. The existing play field will be reduced in size but will still be large enough to accommodate a full-sized soccer field.

The design intent for the new addition is to match the material and color palette of the existing building constructed in 1969 with a major addition completed in 2004. The primary elements are face brick, precast concrete, split-faced concrete masonry units, aluminum and glass windows, and matching metal panels and trim.

Pending review and approval by the Village of Arlington Heights, the project is scheduled to start construction early summer of 2018 and be constructed in phases to be completed by fall of 2019. The goal is to keep the existing facility open during the majority of the construction period, with the exception of summer 2018 and summer 2019 when maintenance and repair work to the existing pools and related systems can be completed.

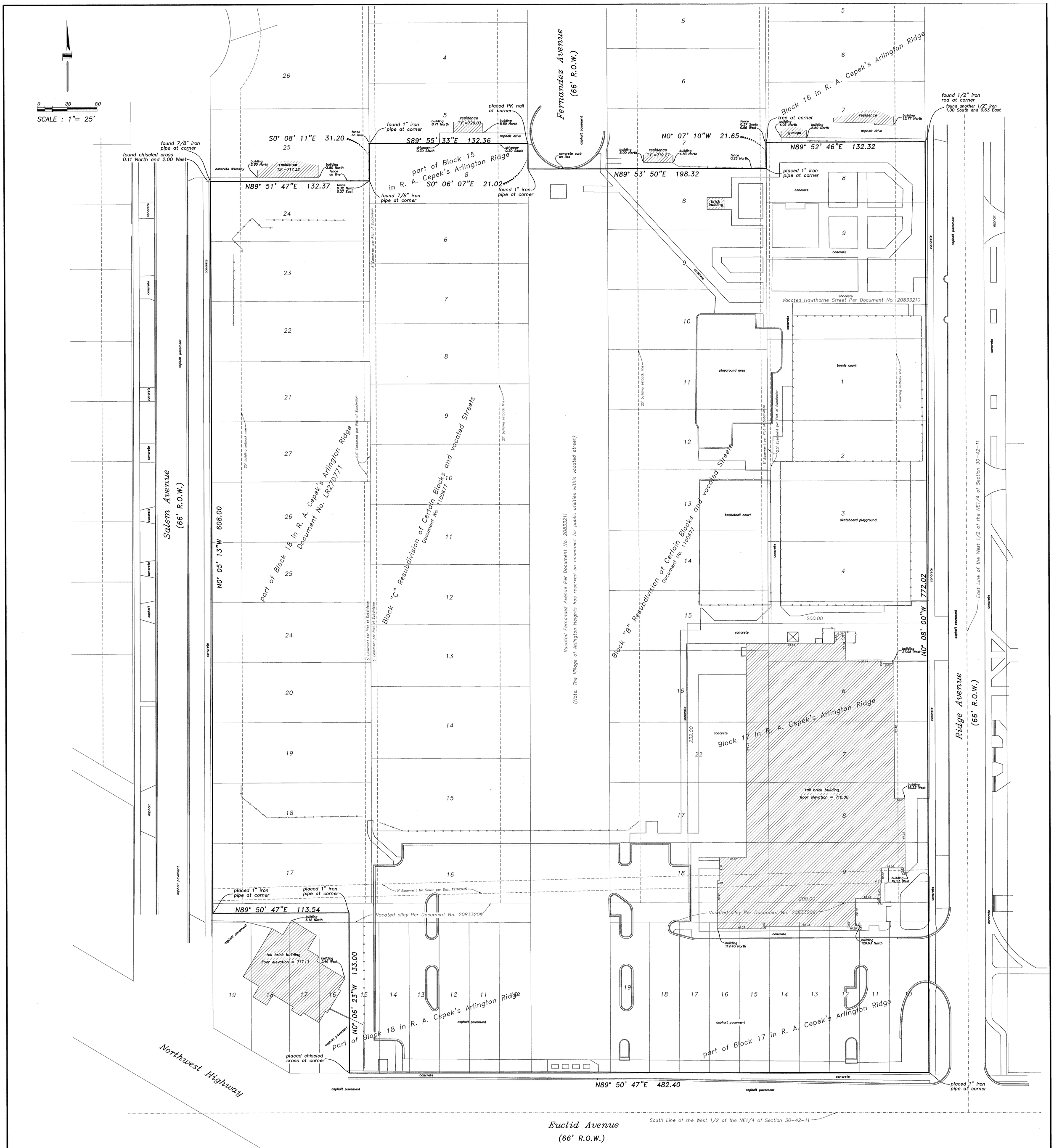
FGM Architects is pleased to be partnered with AHPD on this exciting project. Please review the enclosed documents and if any additional information is required, do not hesitate to contact me directly at 312-948-8436 or davidy@fgmarchitects.com

Respectfully submitted,

David B. Yandel, AIA
Principal

Cc: John Dzarnowski, FGM
Rick Hanetho, APHD
Ben Rea, AHPD
Brian Meyer, AHPD

S:\jobs\2017\17-2408.01\ADMIN\3.0 Agency\3.5 PUD\2018-01-08 VAH Plan Cx\5_AHPD_Olympic_Project Description_2018-01-08.docx



Plat of Survey

of

LOTS 8 AND 9 IN BLOCK 16; LOTS 1 THROUGH 19, BOTH INCLUSIVE, AND LOT 22 IN BLOCK 17; LOT 8 IN BLOCK 15, LOTS 10 THROUGH 15, BOTH INCUSIVE, AND LOTS 24 THROUGH 27, BOTH INCLUSIVE, IN BLOCK 18; ALL THAT PART OF VACATED HAWTHORNE STREET AS SHOWN ON THE PLAT OF VACATION THEREOF HERETOFORE RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS OF COOK COUNTY, ILLINOIS AS DOCUMENT NO. 20833210, ALL THAT PART OF THE VACATED EAST AND WEST PUBIC ALLEY IN BLOCK 17 AS SHOWN ON THE PLAT OF VACATION THEREOF HERETOFORE RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS OF COOK COUNTY, ILLINOIS, AS DOCUMNET NO. 20833209; ALL THAT PART OF VACATED FERNANDEZ AVENUE AS SHOWN ON THE PLAT OF VACATION THEREOF HERETOFORE RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS OF COOK COUNTY, ILLINOIS AS DOCUMENT NO. 20833211; ALL THAT PART OF THE VACATED EAST AND WEST PUBLIC ALLEY IN BLOCK 18 AS SHOWN ON THE PLAT OF VACATION THEREOF HERETOFORE RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS OF COOK COUNTY, ILLINOIS, AS DOCUMENT NO. 20833209, EXCEPTING THEREFROM THAT PART OF THE SOUTH HALF OF SAID VACATED PUBLIC ALLEY LYING NORTH OF AND ADJOINING LOTS 16 THROUGH 19, BOTH INCLUSIVE, IN SAID BLOCK 18; ALL AS SHOWN ON THE PLAT OF R.A. CEPEK'S ARLINGTON RIDGE, BEING A SUABDIVISION OF THAT PART OF THE WEST HALF (EXCEPT THE EAST 33.0 FEET THEREOF) OF THE NORTHEAST QUARTER AND OF THE SOUTH HALF OF THE NORTHWEST QUARTER OF SECTION 30, TOWNSHIP 42 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN LYING NORTH OF THE NORTHEASTERLY LINE OF THE NORTHWEST HIGHWAY, SAID NORTHEASTERLY LINE OF HIGHWAY BEING 66.0 FEET NORTHEASTERLY OF AND PARALLEL WITH THE NORTHEASTERLY LINE OF THE CHICAGO & NORTHWESTERN RAILWAY RIGHT-OF-WAY, ACCORDING TO THE PLAT OF SAID SUBDIVISION REGISTERED IN THE OFFICE OF THE REGISTRAR OF TITLES OF COOK COUNTY, ILLINOIS ON SEPTEMBER 2, 1925, AS DOCUMENT No.LR 270771.

ALSO

LOTS 8 THROUGH 16, BOTH INCLUSIVE AND LOTS 17 AND 18 IN BLOCK B; LOTS 6 THROUGH 24, BOTH INCLUSIVE, IN BLOCK C, ALL IN THE RESUBDIVISION OF CERTAIN BLOCKS AND PARTS OF BLOCKS AND VACATED STREETS IN R.A. CEPEK'S ARLINGTON RIDGE, BEING A SUBDIVISION OF THAT PART OF THE WEST HALF (EXCEPT THE EAST 33.0 FEET THEREOF) OF THE NORTHEAST QUARTER AND OF THE SOUTH HALF OF THE NORTHWEST QUARTER OF SECTION 30, TOWNSHIP 42 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN LYING NORTH OF THE NORTHEASTERLY LINE OF THE NORTHWEST HIGHWAY, SAID NORTHEASTERLY LINE OF HIGHWAY BEING 66.0 FEET NORTHEASTERLY OF AND PARALLEL WITH THE NORTHEASTERLY LINE OF THE CHICAGO & NORTHWESTERN RAILWAY RIGHT-OF-WAY, ACCORDING TO THE PLAT OF SAID RESUBDIVSION REGISTERED IN THE OFFICE OF THE REGISTRAR OF COOK COUNTY, ON MAY 27, 1946, AS DOCUMENT No.LR 1100677

State of Illinois } SS.
County of Cook }

I, David Bycroft, an Illinois Professional Land Surveyor, do hereby certify that I have surveyed the property described in the caption of this plat and that this plat is a correct representation of said survey.

dated at Arlington Heights, Illinois, this 8th day of October, 2017

by _____
as Illinois Professional Land Surveyor No. 2846

PROFESSIONAL LAND SURVEYOR
35-2846
DAVID R. BYCROFT
ARLINGTON HEIGHTS
STATE OF ILLINOIS
EXPIRES 11-30-2018

This professional service conforms to the current Illinois minimum standards for a boundary survey.

Field work completed on October 6, 2017.

All dimensions hereon shown unless it is otherwise noted are given in feet and decimal parts thereof.

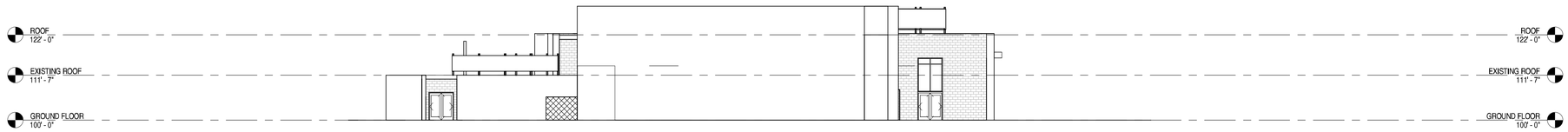
The area of the property surveyed equals 436,374 square feet which equals 10.018 acres.

Design Firm #184-005910
Expires April 30, 2019

FILE NO. 17-6751

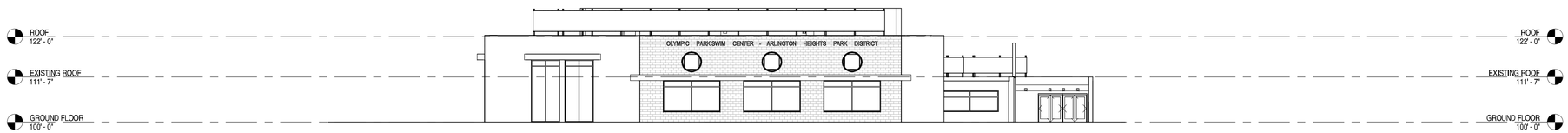
for:
Arlington Heights Park District
410 North Arlington Heights Road
Arlington Heights, Illinois

from the office of:
Norman J. Toberman and Associates
115 South Wilke Road
Suite 301
Arlington Heights, Illinois
847-439-8225



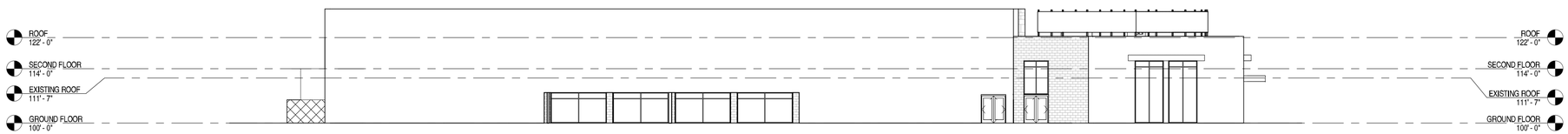
K1 EXISTING ELEVATION - NORTH

1/16" = 1'-0"



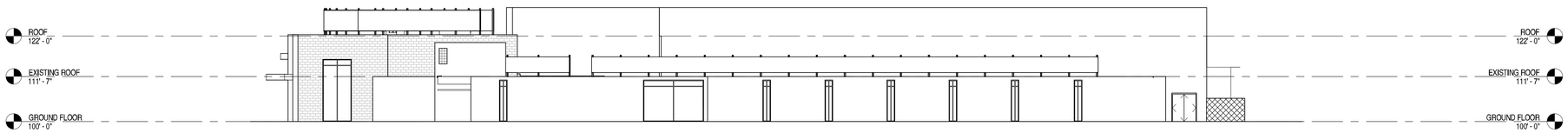
G1 EXISTING ELEVATION - SOUTH

1/16" = 1'-0"



D1 EXISTING ELEVATION - WEST

1/16" = 1'-0"



A1 EXISTING ELEVATION - EAST

1/16" = 1'-0"

ISSUANCE

NO.	DATE	DESCRIPTION
00	01/08/18	PLAN COMMISSION REVIEW
01	02/09/18	PLAN COMMISSION REVIEW - REVISIONS

FGM ARCHITECTS
CHICAGO OAK BROOK O'FALLON ST. LOUIS

DATE:

PROFESSIONAL SEAL

EXPIRATION DATE:

DATE	02/09/18
DRAWN	PWH, EJS
CHECKED	DBY
APPROVED	JCD
PROFESSIONAL DESIGN FIRM IL # 184-000350	

OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT

660 Ridge Ave
Arlington Heights, IL 60004

EXISTING ELEVATIONS

SHEET NO.

A310

JOB NO. 17-2408.01

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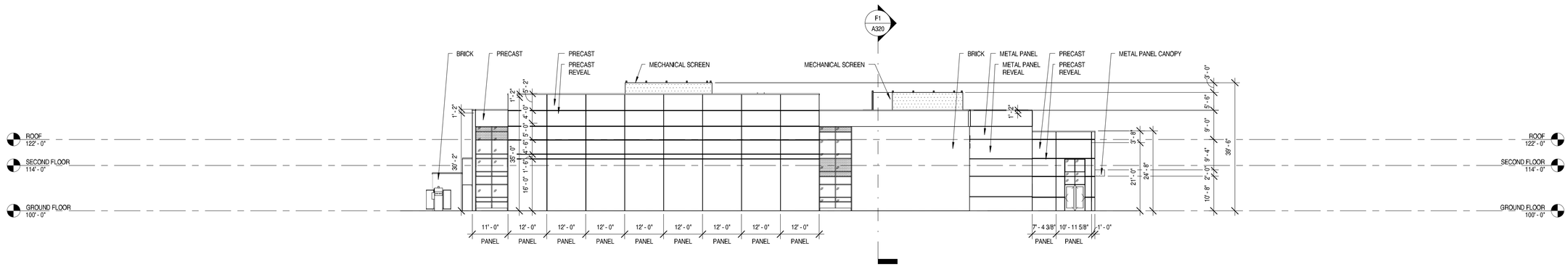
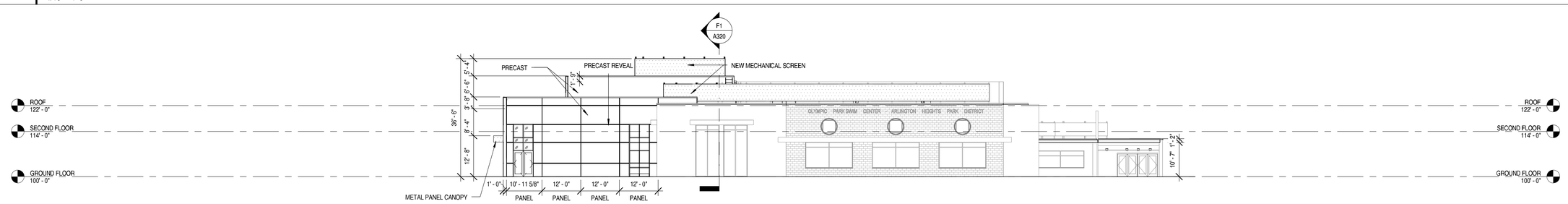


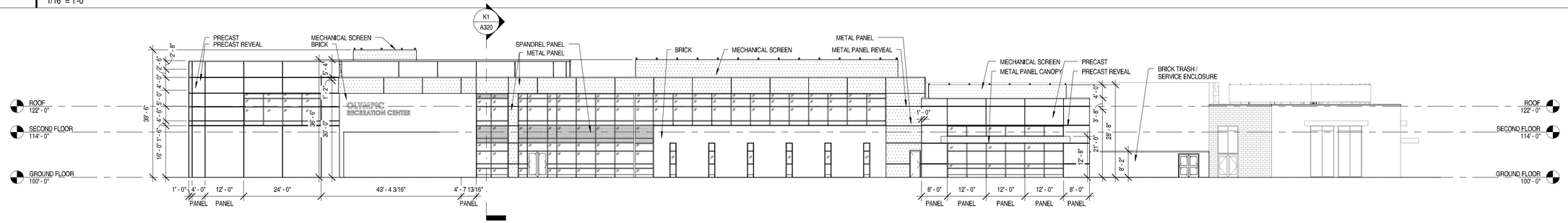
K1 OVERALL EXTERIOR ELEVATION - NORTH

1/16" = 1'-0"



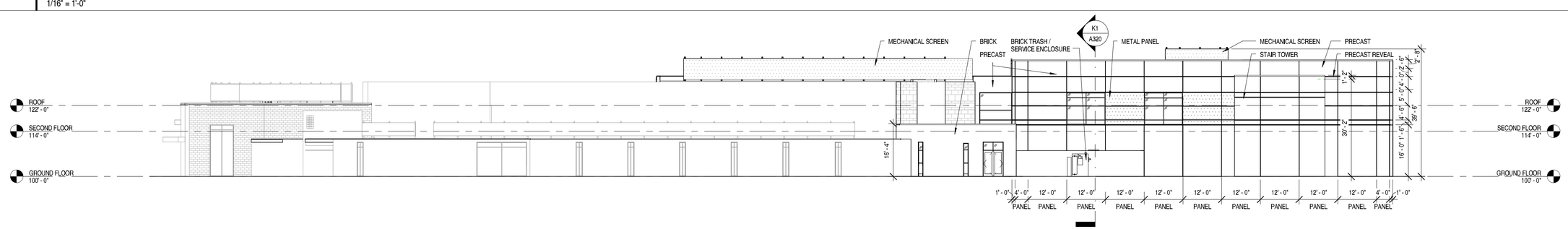
G1 OVERALL EXTERIOR ELEVATION - SOUTH

1/16" = 1'-0"



D1 OVERALL EXTERIOR ELEVATION - WEST

1/16" = 1'-0"



A1 OVERALL EXTERIOR ELEVATION - EAST

1/16" = 1'-0"

ISSUANCE

NO.	DATE	DESCRIPTION
00	01/08/18	PLAN COMMISSION REVIEW
01	02/09/18	PLAN COMMISSION REVIEW - REVISIONS

FGM ARCHITECTS
CHICAGO OAK BROOK O'FALLON ST. LOUIS

DATE:

PROFESSIONAL SEAL

EXPIRATION DATE:

DATE	02/09/18
DRAWN	PWH, EJS
CHECKED	DBY
APPROVED	JCD
PROFESSIONAL DESIGN FIRM IL # 184-000350	

OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT
660 Ridge Ave
Arlington Heights, IL 60004

PROPOSED ELEVATIONS - BASE BID

SHEET NO.
A311

JOB NO. 17-2408.01

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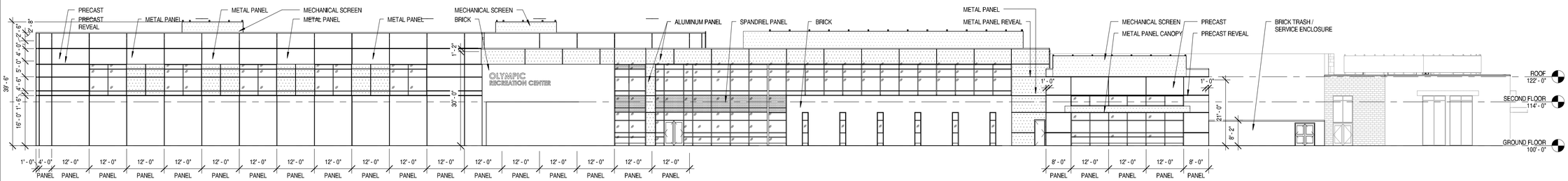
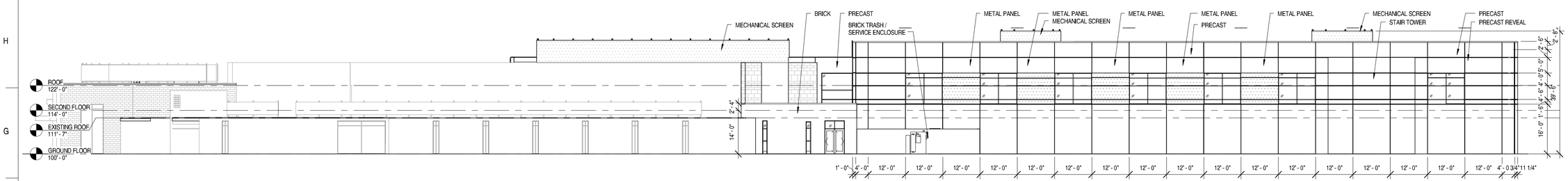


K1 OVERALL EXTERIOR ELEVATION - WEST - ALTERNATE BID #1

1/16" = 1'-0"



F1 OVERALL EXTERIOR ELEVATION - EAST - ALTERNATE BID #1

1/16" = 1'-0"

ISSUANCE			
NO.	DATE	DESCRIPTION	
00	01/08/18	PLAN COMMISSION REVIEW	
01	02/09/18	PLAN COMMISSION REVIEW - REVISIONS	

FGM ARCHITECTS
CHICAGO OAK BROOK O'FALLON ST. LOUIS

DATE:

PROFESSIONAL SEAL

EXPIRATION DATE:

DATE	02/09/18
DRAWN	PWH, EJS
CHECKED	DBY
APPROVED	JCD

PROFESSIONAL DESIGN FIRM IL # 184-000350

OLYMPIC SWIM ADDITION AND RENOVATION
ARLINGTON HEIGHTS PARK DISTRICT
660 Ridge Ave
Arlington Heights, IL 60004

PROPOSED ELEVATIONS - ALTERNATE BID # 1

SHEET NO.
A312

JOB NO. 17-2408.01

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ENGINEER'S OPINION OF PROBABLE COST

Olympic Swim Addition and Renovation
Arlington Heights, Illinois
Arlington Heights Park District
5313.000

Prepared by: David Guerrero, Jr
Date: February 9, 2018

Checked by: Walter E. Graft
Date: February 9, 2018

GEWALT HAMILTON ASSOCIATES, INC.
CONSULTING ENGINEERS
625 Forest Edge Drive, Vernon Hills, IL 60061
TEL 847.478.9700 ■ FAX 847.478.9701
www.gha-engineers.com

Base Bid

Pay Item	Description	Quantity	Unit	Unit Price	Value
1	Earth Excavation - Haul Off	6,361.0	CY	$45.00	$286,245.00
2	Tree Removal and Root Excavation & Disposal	40.0	EA	$500.00	$20,000.00
3	6" Topsoil and Sodding (Import and Placement)	2,370.0	SY	$18.00	$42,660.00
4	6" Topsoil, Seed, Fertilizer, and Blanket (Import and Placement	7,315.0	SY	$10.00	$73,150.00
5	Concrete Post and Base Removal	6.0	EA	$125.00	$750.00
6	Pavement Removal (Full Depth)	6,285.0	SY	$10.00	$62,850.00
7	Sawcut	890.0	LF	$1.00	$890.00
8	Undercut - Excavation and Haul Off, Import, Compaction	200.0	CY	$70.00	$14,000.00
9	Sidewalk Removal	23,380.0	SF	$1.00	$23,380.00
10	Concrete Curb Removal	1,370.0	LF	$6.00	$8,220.00
11	Sign Panel Assembly Removal	6.0	EA	$125.00	$750.00
12	Fence, Posts, and Foundation Removal	1,730.0	LF	$10.00	$17,300.00
13	Planters Removal	1.0	LSUM	$2,500.00	$2,500.00
14	Water Service Pipe Removal	225.0	LF	$20.00	$4,500.00
15	Water Service Disconnect	2.0	EA	$500.00	$1,000.00
16	Fire Hydrant Removal	2.0	EA	$1,000.00	$2,000.00
17	Water Structure Removal	1.0	EA	$750.00	$750.00
18	Storm Sewer Pipe Removal	445.0	LF	$20.00	$8,900.00
19	Storm Structure Removal	4.0	EA	$700.00	$2,800.00
20	Lightpole and Foundation Removal	2.0	EA	$2,000.00	$4,000.00
21	Power Pole Removal and Relocation	2.0	EA	$15,000.00	$30,000.00
22	Skate Park Equipment Removal/Salvage	1.0	LSUM	$5,000.00	$5,000.00
23	Basketball Hoop Assembly and Foundations Removal/Salvage	2.0	EA	$500.00	$1,000.00
24	Playground Equipment Removal	1.0	LSUM	$3,500.00	$3,500.00
25	Subbase Granular Material, CA-6, 4"	1,190.0	SY	$8.00	$9,520.00
26	Playground Subbase Granular Material, CA-7, 6"	970.0	SY	$10.00	$9,700.00
27	Geotextile Fabric	968.0	SY	$1.50	$1,452.00
28	Normal Duty Pavement	5,160.0	SY	$40.00	$206,400.00
29	Heavy Duty Pavement	2,190.0	SY	$90.00	$197,100.00
30	Class D Patch, 4"	25.0	SY	$30.00	$750.00
31	Class D Patch, Village	50.0	SY	$70.00	$3,500.00
32	Portland Cement Concrete Sidewalk, 5"	11,633.0	SF	$8.00	$93,064.00
33	Portland Cement Concrete Pavement, 8"	160.0	SY	$110.00	$17,600.00
34	Detectable Warnings	314.0	SF	$45.00	$14,130.00
35	Combination Concrete Curb & Gutter, B6.12	2,880.0	LF	$30.00	$86,400.00
36	12" Ribbon Curb	530.0	LF	$25.00	$13,250.00
37	Storm Manhole, Type A, 5' Diameter, Frame & Grate/Lid	2.0	EA	$4,500.00	$9,000.00
38	Storm Manhole, Type A, 4' Diameter, Frame & Grate/Lid	1.0	EA	$3,500.00	$3,500.00
39	Catch Basins, Type A, 5' Diameter, Frame & Grate	2.0	EA	$5,000.00	$10,000.00
40	Catch Basins, Type A, 4' Diameter, Frame & Grate	3.0	EA	$4,000.00	$12,000.00
41	Inlet, Type A, 2' Diameter, Frame & Grate	3.0	EA	$1,500.00	$4,500.00
42	Flared End Section, 24" Diameter, w/ Grate	1.0	EA	$4,500.00	$4,500.00
43	Sanitary Manhole, 4' Diameter, Frame & Lid	1.0	EA	$4,000.00	$4,000.00
44	Clean Out	4.0	EA	$500.00	$2,000.00
45	Fire Hydrant Assembly, Complete	2.0	EA	$5,000.00	$10,000.00
46	Valve Box	1.0	EA	$3,500.00	$3,500.00
47	Watermain Fitting & Couplings	2.0	EA	$950.00	$1,900.00
48	Sanitary WYE Fitting & Couplings	1.0	EA	$750.00	$750.00
49	Vortex Plate	1.0	EA	$1,000.00	$1,000.00
50	Vortex Restrictor	1.0	EA	$3,500.00	$3,500.00
51	Drainage Strucuture to be Adjusted	5.0	EA	$400.00	$2,000.00
52	Perf. PVC Storm Sewers Underdrains, 4"	363.0	LF	$35.00	$12,705.00
53	PVC Storm Sewers, 10"	281.0	LF	$50.00	$14,050.00
54	PVC Storm Sewers, 12"	52.0	LF	$60.00	$3,120.00
55	RCP Storm Sewers, 12"	186.0	LF	$60.00	$11,160.00
56	RCP Storm Sewers, 15"	167.0	LF	$70.00	$11,690.00
57	RCP Storm Sewers, 24"	454.0	LF	$90.00	$40,860.00
58	PVC Sanitary Sewers, 8"	126.0	LF	$50.00	$6,300.00
59	Water, Ductile Iron Pipe, 6"	100.0	LF	$70.00	$7,000.00
60	Trench Backfill	660.0	CY	$30.00	$19,800.00
61	Inlet and Pipe Protection	19.0	EA	$200.00	$3,800.00
62	Perimeter Erosion Barrier	1,572.0	LF	$4.00	$6,288.00
63	Tree Protection	7.0	EA	$20.00	$140.00
64	Stabalized Construction Entrance	160.0	SY	$15.00	$2,400.00
65	Paint Pavement Markings	1.0	LSUM	$10,000.00	$10,000.00
66	Sign Panel Assembly, Type A Galavanized Steel Pole	14.0	EA	$300.00	$4,200.00
67	Lightpole and Foundation Reinstallation, Complete	2.0	EA	$7,500.00	$15,000.00
68	Bike Rack	1.0	EA	$1,000.00	$1,000.00
69	Playground Fence, 4' Ameristar Aluminum Fence	215.0	LF	$45.00	$9,675.00
70	Basketball Fence, 10'	310.0	LF	$55.00	$17,050.00
71	Soccer Field Fence, 8'	265.0	LF	$45.00	$11,925.00
72	Basketball Pavement Paint and Playing Lines, Complete	1.0	LSUM	$6,000.00	$6,000.00
73	Basketball Hoop & Foundation Reinstallation, Complete	2.0	EA	$1,000.00	$2,000.00
74	Playground Synthetic Turf & Shock Pad	8,300.0	SF	$10.00	$83,000.00
				Construction:	$1,640,324.00
				Total:	**$1,640,324.00**

Detailed Description:

*Since Gewalt-Hamilton Associates Inc. Has No Control Over the Cost of Labor, Materials, or Equipment, or Over the Contractor's Methods of Determining Prices, or Over Competitive Bidding of Market Conditions, Opinions of Probable Costs, as Provided for Herein, Are to be Made on the Basis of Experience and Qualifications and Represent the Best Judgement as a Design Professional Familiar with the Construction Industry. Gewalt-Hamilton Associates, Inc., Cannot and Does Not Guarantee That Proposals, Bids, or The Construction Costs Will Not Vary From Opinions of Probable Cost Prepared for the Owner.

WALTER E. GRAFT 062-048837 LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

P.E.

OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT

660 NORTH RIDGE AVENUE
ARLINGTON HEIGHTS, ILLINOIS 60004

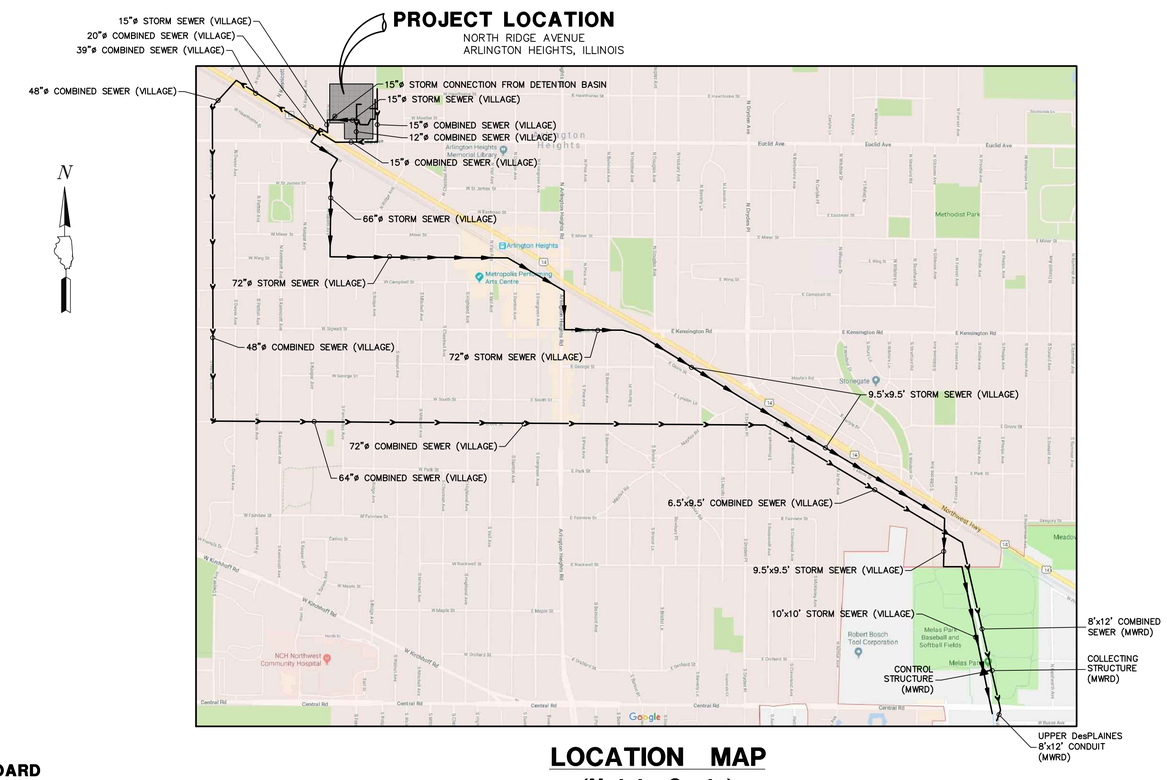
STANDARD SYMBOLS

FEATURE	EXISTING	PROPOSED
BUFFALO BOX		
BUSH/SHRUB		
CATCH BASIN		
CLEANOUT	CO	C.O.
COMBINE SEWER LINE		
CONTOUR	708	708
CULVERT		
DITCH/SWALE		
ELECTRIC LINE	E	E
ELECTRIC MANHOLE		
FENCE	X X X X	X X X X
FIRE HYDRANT		
FLARED END SECTION		
GAS LINE	G	G
GAS MANHOLE		
GAS VALVE		
INLET		
LIGHT POLE		
OVERHEAD WIRES	A	A
POWER POLE		
R.O.W LINE		
R.O.W MARKER		
SANITARY FORCEMAIN LINE		
SANITARY SEWER LINE	C	C
SANITARY SEWER MANHOLE		
SIGN		
SPOT ELEVATION	x850.00	x850.0
STORM SEWER LINE		
STORM SEWER MANHOLE		
TELEPHONE LINE	T	T
TELEPHONE MANHOLE		
TELEPHONE BOX/PEDESTAL		
TREE-CONIFEROUS (SIZE/TAG#)	345	345
TREE-DECIDUOUS (SIZE/TAG#)	12"	12"
VALVE BOX		
VALVE VAULT		
WATER VALVE		
WATERMAIN LINE	W	W

0 10' 20' 30' 100' 200' 300' — 1"= 100'
0 50' 100' — 1"= 50'
0 50' 100' — 1"= 40'
0 50' 100' — 1"= 30'
0 50' 100' — 1"= 20'

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

NOTE: CONSTRUCTION MEANS, METHODS AND JOB SITE SAFETY IS THE SOLE AND EXCLUSIVE RESPONSIBILITY OF THE CONTRACTOR



LOCATION MAP
(Not to Scale)

J.U.L.I.E
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION CALL 811

811 Know what's below. Call before you dig.

BENCHMARK:
REFERENCE DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 DERIVED BY GPS MEASUREMENTS. (NAVD 1988)

SITE BENCHMARK:
"ARROW" ON UPPER FLANGE OF FIRE HYDRANT SPINDLE AS LABELED ON TOPOGRAPHIC SURVEY
ELEVATION = 718.08

SHEET INDEX

C1. TITLE SHEET
C2. DEMOLITION PLAN
C3. GEOMETRIC PLAN
C4. UTILITY PLAN
C5. GRADING PLAN
C6. EROSION CONTROL DETAILS
C7. MWRD GENERAL NOTES
C8. DRAINAGE EXHIBIT
C9. GENERAL NOTES / DETAILS
C10. DETAILS
C11. DETAILS
1 C12. AUTOTURN EXHIBIT

TOPOGRAPHIC SURVEY BY:
NORMAN J. TOBERMAN & ASSOCIATES
115 SOUTH WILKE ROAD SUITE 301
ARLINGTON HEIGHTS, ILLINOIS 60004
TELEPHONE: 847-439-8225

PLANS PREPARED FOR:
ARLINGTON HEIGHTS PARK DISTRICT
410 N. ARLINGTON HEIGHTS ROAD
ARLINGTON HEIGHTS, IL 60004
TELEPHONE: 847-577-3000

TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE FOLLOWING SITE IS LOCATED IN AN AREA OF MINIMAL FLOOD HAZARD. THE SITE IS NOT LOCATED WITHIN A FLOODWAY OR FLOODPLAIN, THEREFORE, IT IS NOT PART OF A FLOOD PROTECTION AREA. BASED ON PANEL #17031C0203J EFFECTIVE 8/19/2008.

TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DRAINAGE OF SURFACE WATERS WILL NOT BE CHANGED BY THE PROPOSED DEVELOPMENT. IF ANY DRAINAGE PATTERNS WILL BE CHANGED, REASONABLE PROVISIONS HAVE BEEN MADE FOR THE COLLECTION AND DIVERSION OF SUCH WATERS IN TO THE PUBLIC AREA, OR DRAINS APPROVED FOR THE USE BY MUNICIPAL ENGINEER, AND THAT SUCH SURFACE WATERS ARE PLANNED FOR IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES SO AS TO REDUCE THE LIKELIHOOD OF DAMAGES TO ADJOINING PROPERTIES.

SIGNED: _____ P.E.
WALTER E. GRAFT

DATE: _____

ILLINOIS LICENSE NO.: 062-048837

EXPIRATION DATE: NOVEMBER 30, 2019

NOT FOR CONSTRUCTION

ISSUANCE

NO.	DATE	DESCRIPTION
00	01/08/18	PLAN COMMISSION REVIEW
01	02/09/18	PLAN COMMISSION REVIEW - REVISIONS

FGM ARCHITECTS
CHICAGO OAK BROOK O'FALLON ST. LOUIS
GEWALT HAMILTON ASSOCIATES, INC.
625 Forest Edge Drive ▪ Vernon Hills, IL 60061
TEL: 847-478-9700 ▪ FAX: 847-478-9701
GHA JOB # 5313.000

DATE:
WALTER E. GRAFT 062-048837 LICENSED PROFESSIONAL ENGINEER ILLINOIS
PROFESSIONAL SEAL
EXPIRATION DATE: 11/30/19

DATE 01/08/17
DRAWN DG
CHECKED WEG
APPROVED WEG
PROFESSIONAL DESIGN FIRM IL # 184-000922

OLYMPIC SWIM ADDITION AND RENOVATION
ARLINGTON HEIGHTS PARK DISTRICT
660 Ridge Ave
Arlington Heights, IL 60004
TITLE SHEET

SHEET NO.
C1

JOB NO. 17-2408.01

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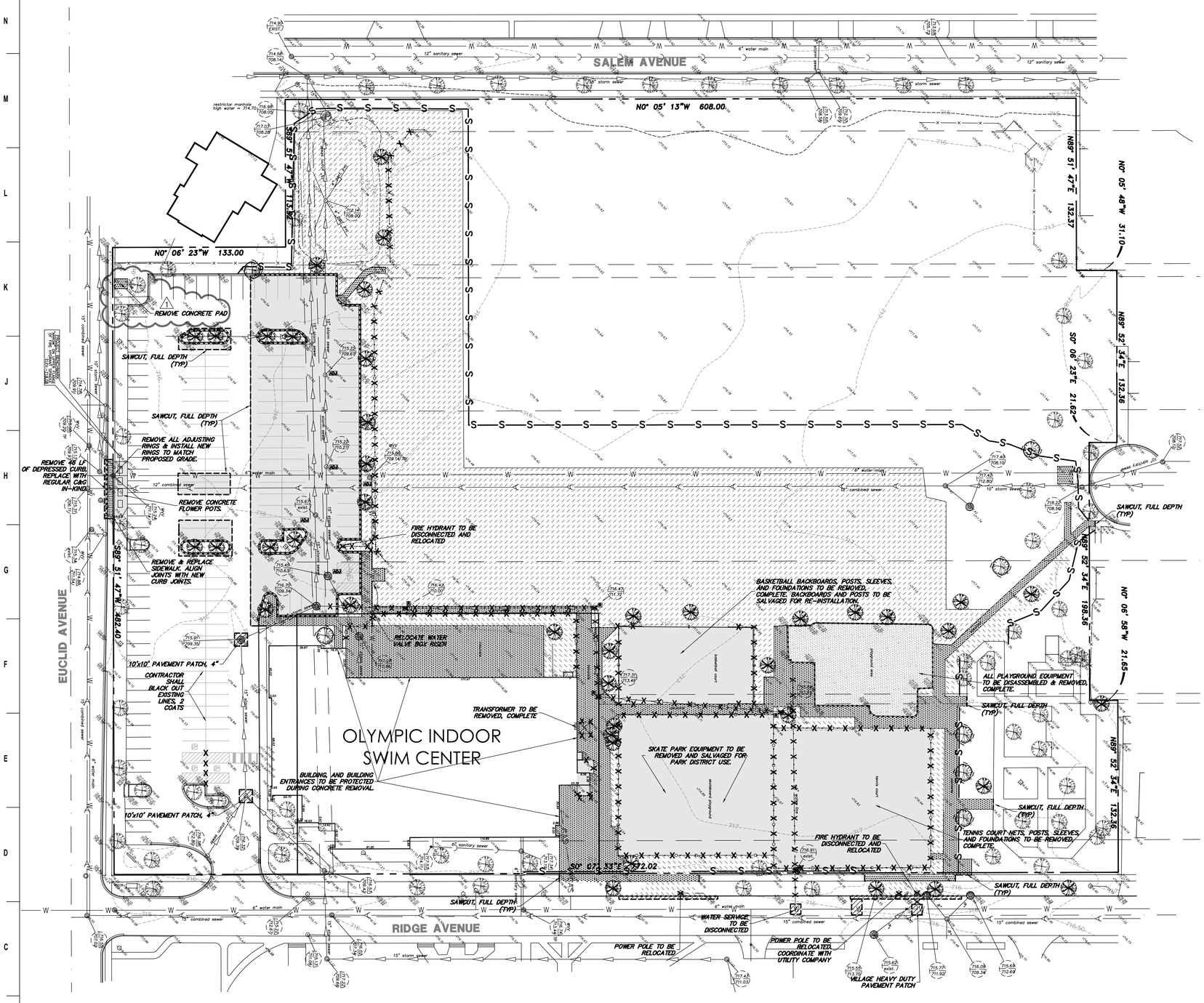

REMOVAL LEGEND

- PLAYGROUND REMOVAL
- PAVEMENT REMOVAL FULL DEPTH
- CLASS D PATCH
- EARTH/GRAVEL REMOVAL
- SIDEWALK REMOVAL
- ADJ STRUCTURE TO BE ADJUSTED
- R STRUCTURE TO BE REMOVED
- SIGN REMOVAL
- TREE/SHRUB REMOVAL
- PERIMETER EROSION BARRIER
- TREE TRUNK PROTECTION FENCE
- COMBINATION CURB AND GUTTER REMOVAL
- UTILITY TO BE REMOVED
- TREE ROOT PRUNING
- PAVEMENT SAWCUT
- A STRUCTURE TO BE ABANDONED
- X STRUCTURE REMOVAL
- CF CONSTRUCTION FENCE
- B-110 SOIL BORING

EXISTING CONDITION AND DEMOLITION NOTES

1. Prior to starting any construction, provide soil erosion and sediment control devices as shown on the plans and as required per IEPA NPDES guidelines. Refer to notes and details throughout the entire plan set.
2. Prior to starting any excavation work, provide tree protection, preservation and root pruning as shown on the plans and notes throughout the entire plan set.
3. Contractor shall refer to subsurface soil exploration report.
4. Ridge Avenue is under the jurisdiction of the Village of Arlington Heights. Euclid Avenue is under the jurisdiction of the Cook County Highway Department. All work within the right of way will require a permit from the respective agency.
5. The contractor shall be responsible for fencing the active work zone from the public and protecting the public from any construction related hazards. At a minimum, all excavation, demolition areas and other areas potentially hazardous to pedestrians and vehicles must be protected.
6. At all times, main drive, loading docks, and dumpster areas shall remain open and unobstructed. Temporary shut down of one traffic lane at a time will be permitted for short term periods and shall be coordinated with appointed Property Owner construction staff. Short term closings shall be completed within the work day and restored to unobstructed access by the close of the work day.
7. Temporary stone or asphalt pathways shall be provided as needed throughout the course of construction to facilitate safe pedestrian and vehicular movement. The longitudinal slope of such paths shall not exceed 5% and cross slopes shall not exceed 2%. Provide 6" CA-6 base and 2" surface asphalt.
8. The existing facilities will remain open and actively used. Contractor shall refer to mechanical, electrical and architectural plans and coordinate with utility companies to ensure continuous utility services during demolition and transitioning of services.
9. The contractor is responsible for the demolition and disposal of all existing improvements onsite necessary to complete the job. These improvements include, but are not limited to, existing pavements, curbs, sidewalks, utilities, lighting, light bases, manholes, fences, foundations, and other structures within the work area. Excavate and grade to proposed pavement and building subbase grades. (Refer to foundation plans for proposed building subbase grades.) These items shall be completely removed and legally disposed of offsite.
10. Remove or abandon existing utilities as shown. Utilities that are removed, unless otherwise noted, shall be backfilled with CA-6 crushed stone in lifts of 8" or less and compacted to 95% Modified Proctor density. Utilities to be abandoned shall be plugged at both ends with a minimum of 2 feet long non-shrink concrete/mortar plugs. Manhole structures to be abandoned shall have the top section removed, sewers bulkheaded with concrete and backfilled with CA-6 crushed stone.
11. Temporarily remove, store and protect sign and posts within affected work zone for reinstallation. Coordinate onsite storage with Property Owner.
12. The Contractor shall include all associated costs with the removal, transport, disposal, testing and certification of "Uncontaminated Soil" as defined under 415 ILCS 5/3.160 including any fees, taxes, or surcharges charged by or through the operator(s) of Clean Construction or Demolition Debris Fill Operations or Uncontaminated Soil Fill Operations for the acceptance of Uncontaminated Soil.
13. Skate park equipment to be removed and salvaged for future use. Coordinate delivery of disassembled equipment to Park District.
14. Playground equipment to be removed complete and disposed of.
15. Basketball backboards and posts to be removed and salvaged for future use.
16. Tennis court nets, posts, sleeves, and foundations to be removed complete and disposed of.
17. Coordinate utility pole relocation within Ridge Avenue.
18. Existing fire hydrant to be removed. Fire hydrant lead to be disconnected from the main per Village of Arlington Heights Public Works (VAHPW) requirements. This will require shutdown and removal of existing tee, installation of makeup piece with MJ fittings. Coordinate relocation with VAHPW Water Distribution Unit at 847-368-5800.
19. Ex. copper water service lead to be disconnected at Village main. Shut off corporation valve, cut copper service and plug end per VAHPW requirements.

GRAPHIC SCALE

40 0 20 40

(IN FEET)
1 inch = 40 ft.

ISSUANCE			
NO.	DATE	DESCRIPTION	
00	01/08/18	PLAN COMMISSION REVIEW	
01	02/09/18	PLAN COMMISSION REVIEW - REVISIONS	

FGM ARCHITECTS
CHICAGO OAK BROOK O'FALLON ST. LOUIS
GHA GEWALT HAMILTON ASSOCIATES, INC.
625 Forest Edge Drive ■ Vernon Hills, IL 60061
TEL: 847-478-9700 ■ FAX: 847-478-9701
GHA JOB # 5313.000

DATE:

WALTER E. GRAFF 062-048837 LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

PROFESSIONAL SEAL

EXPIRATION DATE:

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PROFESSIONAL DESIGN FIRM IL # 184-000922	

OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT

660 Ridge Ave
Arlington Heights, IL 60004

DEMOLITION PLAN

SHEET NO.

C2

JOB NO. 17-2408.01

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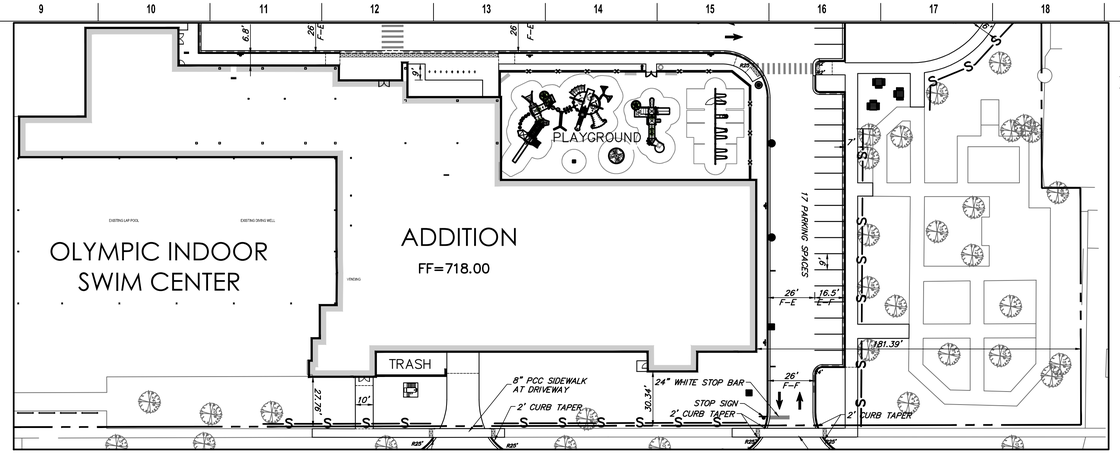
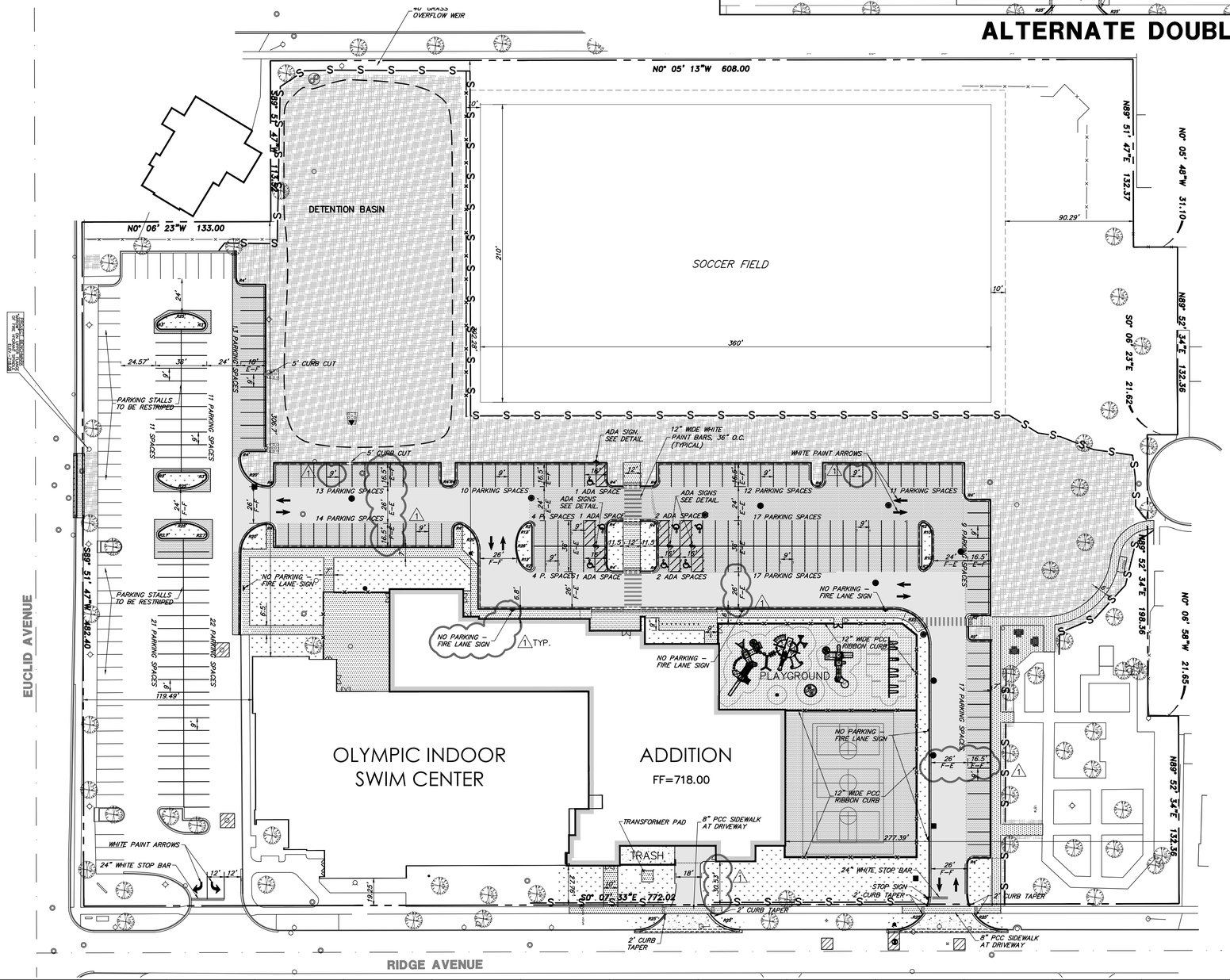
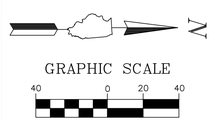
Zoning matrix				
	Existing	Proposed - Base Bid	Proposed - alternate Bid	P-L District Required
Lot Size (sq. ft.)	436,374	436,374	436,374	No Limit
Lot Width (ft)	482.4	482.4	482.4	No Limit
Set Backs				
North (rear)	405.93'	277.39'	181.39'	30'
South (front)	119.43'	119.43'	119.43'	15'
East (exterior side)	19.23'	19.23'/27.71'	19.23'/27.71'	10'
West (exterior side)	306.70' at S notch	306.7' / 372.79'	306.7' / 372.79'	10'
F.A.R.	8.24%	17.93%	20.67%	250%
Building Lot Coverage	6.76%	13.19%	15.40%	No Limit
Impervious Surface Coverage (sq. ft.)	157,052	189,352	188,875	No Limit
Building Height	36'	36'	36'	No Limit
Off-street Parking Spaces	191	266	266	TBD
Bicycle Parking Spaces	34	52	52	
Total Building Square Footage	35,972	78,244	90,218	N/A
Building Foundation (sq.ft)	29,479	57,571	67,218	N/A



ALTERNATE DOUBLE GYM





PROPOSED LEGEND

- HEAVY DUTY PAVEMENT — 2.0" HMA SURFACE, N50; 2.25" HMA BINDER, N50; 8" HMA BINDER, N50; 4" CA-6 STONE BASE; GEOTEXTILE FABRIC
- NORMAL DUTY PAVEMENT — 2.0" HMA SURFACE, N50; 2.25" HMA BINDER, N50; 10" CA-6 STONE BASE; GEOTEXTILE FABRIC
- PCC PAVEMENT — 6" PCC CONCRETE; 4" CA-6 BASE
- PCC SIDEWALK — 5" PCC CONCRETE; 4" CA-6 BASE
- ARTIFICIAL TURF — SEE DETAIL
- CLASS D PATCH — MATCH EX. PAVEMENT SECTION
- 6" TOPSOIL PLACEMENT & SOD RESTORATION — SEE LANDSCAPE PLANS AND SPECIFICATIONS FOR RESTORATION DETAILS
- 6" TOPSOIL PLACEMENT AND SEED & BLANKET — SEE LANDSCAPE PLANS AND SPECIFICATIONS FOR RESTORATION DETAILS
- STONE RIP RAP, CLASS A1
- DETECTABLE WARNINGS
- B6.12 CURB & GUTTER (REGULAR)
- B6.12 CURB & GUTTER (DEPRESSED)
- B6.12 CURB & GUTTER (REVERSE PITCH)
- BARRIER CURB
- BARRIER CURB (DEPRESSED)
- INTEGRATED SIDEWALK/CONCRETE CURB
- FENCE
- TREE TRUNK PROTECTION FENCE
- PERIMETER EROSION BARRIER
- CONSTRUCTION FENCE
- RETAINING WALLS
- SUMMITS
- SLOPES
- SWALES
- OVERLAND FLOW ROUTE
- PROPOSED TREE

GEOMETRIC AND PAVING PLAN

1. All pavement dimensions are to edge of pavement, unless otherwise noted. E=edge of pavement, B=back of curb, F=face of curb. Radii dimensions are to back of curb.
2. Install all curb and sidewalk as shown. Note some curbs require reverse pitch gutter. Dowel new sidewalk and curb to existing and proposed curbs per general notes. When constructing a carriage walk, the proposed sidewalk contraction and expansion joints shall align with existing curb joints.
3. Provide 1.90% cross slope and 4.5% maximum longitudinal slope on all sidewalks and pedestrian path ways unless otherwise indicated. Illinois accessibility code requires a maximum constructed cross slope of 2.00% and longitudinal slope of 5.00%.
4. Install bituminous pavement as shown. Refer to detail sheet for specific pavement sections and general note sheet for construction, testing and compaction requirements.
5. Install PCC pavement as shown. Refer to detail sheet for specific pavement section and general notes for construction, testing and compaction requirements.
6. All parking lot stall markings shall be 4" Yellow paint and all other parking lot pavement markings shall be paint, color as noted, in accordance with Section 780 of the IDOT Standard Specifications. (Two single applications, 16 mils each required). Site pavement marking shall be coordinated with Site engineer. Contractor shall notify site engineer 48 hrs prior to installing pavement marking. Re-striping of entire existing parking lot is required.
7. For handicapped stall markings, refer to Handicapped Parking Stall and Sign Dimensioning Detail.
8. Install new signs and handicapped parking signs using 2" galvanized square tube post and telescoping post sleeve per IDOT standard. If posts are within pavement, core pavement accordingly.
9. Install transformer pad as shown. Pad shall be set 6" above finished grade. Refer to MEP plans for final pad size and design requirements.
10. Contractor shall install temporary erosion control seed and blanket as necessary to meet soil erosion and sediment control requirements. Refer to notes and details throughout the plan set for specific material requirements.
11. For final restoration, the contractor shall be responsible for restoring all disturbed turf areas and proposed turf areas as follows:
    a. Refer to Landscape plans and specifications for plant and tree material and installation requirements.
    b. Refer to Landscape plans for topsoil, seed and sod material and restoration requirements.
    c. Prior to placement of topsoil restoration area subgrade material shall be rototilled and re-compacted to a maximum of 80% standard proctor to a depth of 6".
    d. Spread a minimum of 6" of existing site salvaged screened topsoil or new pulverized topsoil on all disturbed areas. Compact to 80% standard proctor.
13. Once restoration has been completed, the contractor shall remove erosion control devices. Silt fence trenches shall be backfilled and restored in kind. Storm structures shall be cleaned of debris.
14. Coordinate Playground Equipment installation with underdrain and infill material.

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GHA JOB # 5313.000

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PROFESSIONAL DESIGN FIRM IL # 184-000922	

OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT

660 Ridge Ave

Arlington Heights, IL 60004

GEOMETRIC PLAN

SHEET NO.

C3

JOB NO. 17-2408.01

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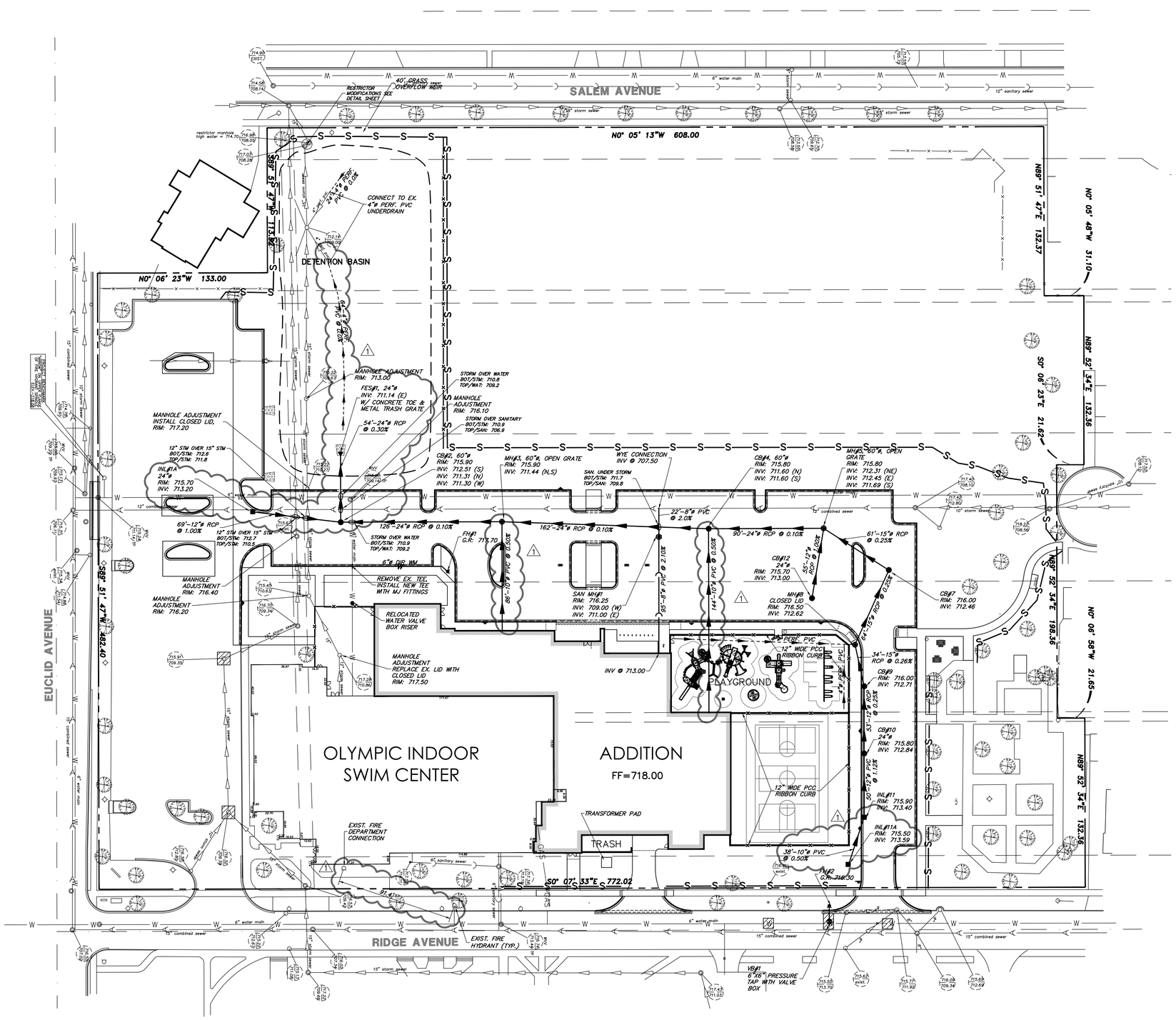

GRAPHIC SCALE

40 0 20 40

(IN FEET)
1 inch = 40 ft.

DRAINAGE & UTILITY LEGEND

- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING WATERMAIN
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED WATERMAIN

EXISTING	PROPOSED	
		STORM MANHOLE
		STORM CATCHBASIN
		STORM INLET
		FLARED END SECTION
		SANITARY MANHOLE
		VALVE VAULT
		VALVE BOX
		FIRE HYDRANT
		BUFFALO BOX
		STREET LIGHT
		POWER POLE
		SIGN

UTILITY PLAN NOTES

1. The contractor shall verify the exact location and elevation of existing utilities prior to initiating work. Any discrepancies found between the information noted on the plans and actual field conditions, or any conflicts with proposed improvements shall be reported to the engineer immediately. The contractor shall not proceed any further until given written clarification on how to proceed.
2. Install storm sewer as shown. Refer to Storm Sewer requirement table on General Notes Sheet for pipe material, joint, frame and grate, stone bedding and testing requirements. Note that project site is in a combined sewer service area. Storm sewer requires ASTM C-923 rubber boot connections.
3. Install sanitary sewer as shown. Refer to Sanitary Sewer requirement table on General Notes Sheet for pipe material, joint, frame and grate, stone bedding and testing requirements.
4. Install watermain as shown. Refer to Water Main requirement table on General Notes Sheet for pipe material, joint, frame and grate, valves, fire hydrant, stone bedding and testing requirements.
5. Contractor shall provide the following as-constructed documents at the conclusion of the project:
   a. Water Main
      - As-constructed location of all bends, tees, valves, copper unions, etc. (measured dimension from two fixed above grade objects are required for buried objects)
      - Rim and top of pipe elevations for all structures
      - Provide all testing documentation.
   b. Sanitary Sewer
      - As-constructed locations of structures, service connections, cleanouts.
      - Rim and invert elevations.
      - Color video with transcript required for new sewer lines installed.
   c. Storm Sewer
      - As-constructed locations of structures, service connections, cleanouts.
      - Rim and invert elevations.
      - Color video with transcript required for new sewer lines installed.
6. Refer to MEP plans for site lighting, post foundation and wire routing.
7. Manhole Adjustment: remove frame, grate, flat top or cone section and remove first barrel section. Replace barrel section with new correct height section and reinstall existing cone & frame. Replace adjusting rings in-kind.
8. Rim Adjustment: remove frame & adjusting rings. Replace with new rings and existing frame. Maximum 12" of adjusting rings.

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OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT

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Arlington Heights, IL 60004

UTILITY PLAN

SHEET NO.

C4

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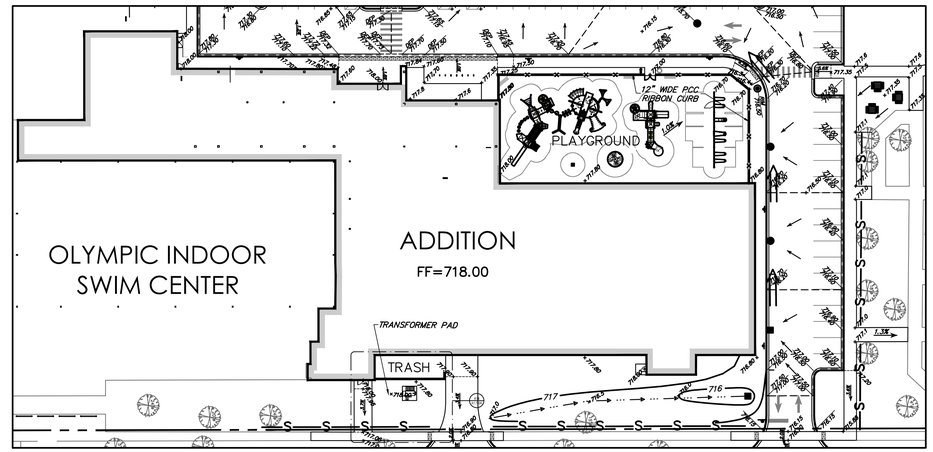
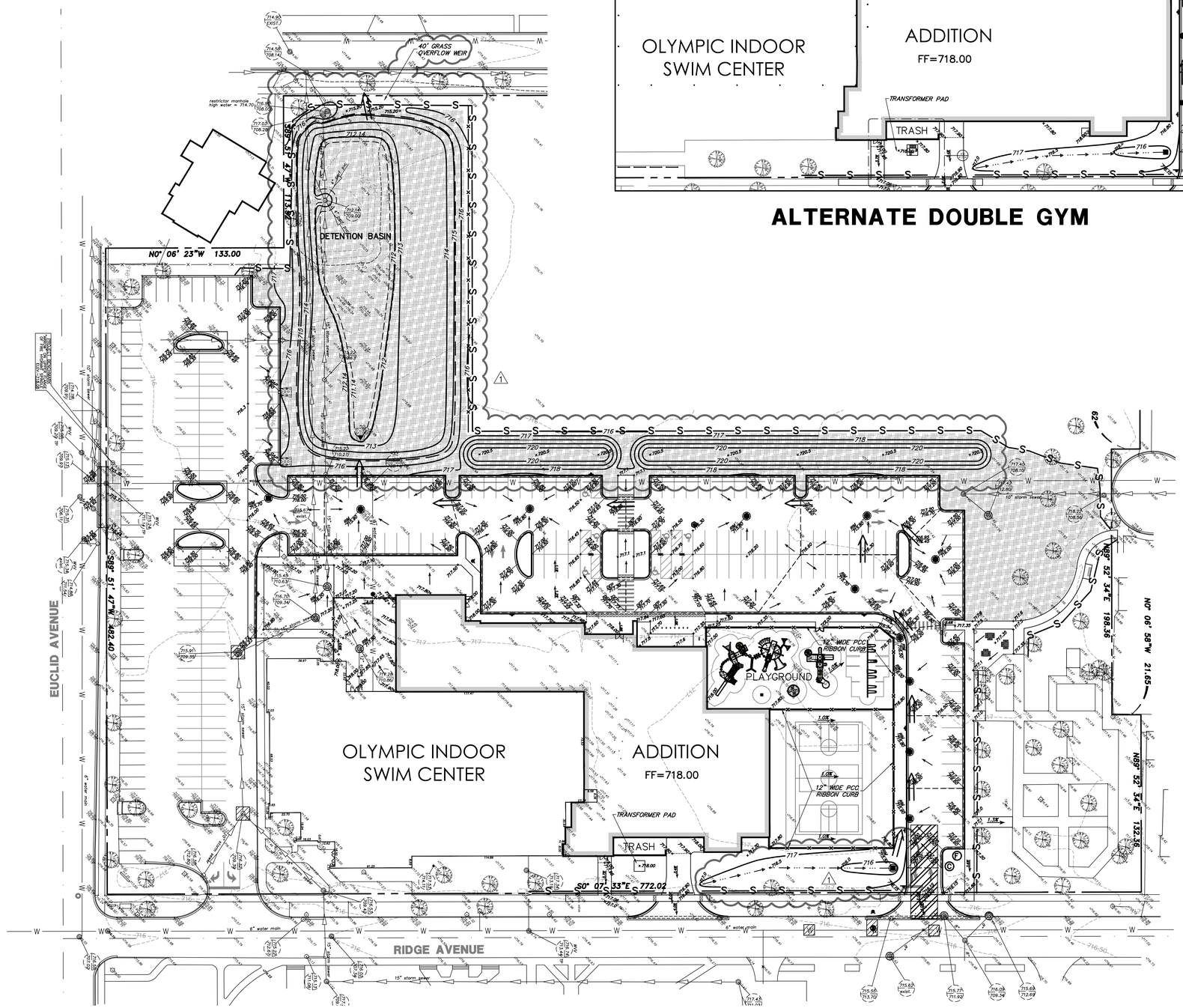
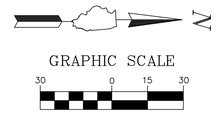


ALTERNATE DOUBLE GYM





EROSION LEGEND

- TOPSOIL FURNISH AND PLACE, VARIABLE DEPTH SEEDING, SEE LANDSCAPE MULCH, MACHINE APPLICATION METHOD 3A
- STONE RIP-RAP
- CONSTRUCTION ENTRANCE
- INLET FILTERS
- PERIMETER EROSION BARRIER
- TEMPORARY FENCE
- TREE TRUNK PROTECTION FENCE
- DITCH CHECK
- COIR LOG
- SEDIMENT BASIN/TRAP
- TEMPORARY PERFORATED RISER
- CONCRETE WASHOUT
- PORTABLE RESTROOM FACILITY
- SEDIMENT REMOVAL CHANNEL

GRADING PLAN NOTES

1. Prior to starting any construction, provide soil erosion and sediment control devices as shown on the plans and as required per IEPA NPDES guidelines. Refer to notes and details throughout the entire plan set.
2. Prior to starting any excavation work, provide tree protection, preservation and root pruning as shown on the plans and notes throughout the entire plan set.
3. Contractor shall refer to subsurface soil exploration report.
4. Refer to General Notes for grading, compaction and proof roll requirements.
5. Handicap accessible parking spaces shall be constructed between 1.0% and 1.90% maximum slopes in any one direction. Illinois accessibility code permits a maximum constructed slope of 2.00%.
6. Crushed concrete meeting IDOT certifications for the design plan gradations for non-porous pavement and sidewalk stone base, structural fill, and trench backfill will be permitted.
7. Crushed concrete may not be used for underdrain trench or porous fill conditions.
8. The contractor shall import or export soil as necessary to construct the site to specified plan grades. Such work is considered incidental to the contract and no additional compensation shall be allowed for such work. Minor adjustments to grades can be accommodated with Project Engineer approval.
9. The Contractor shall include all associated costs with the removal, transport, disposal, testing and certification of "Uncontaminated Soil" as defined under 415 ILCS 5/3.160 including any fees, taxes, or surcharges charged by or through the operator(s) of Clean Construction or Demolition Debris Fill Operations or Uncontaminated Soil Fill Operations for the acceptance of Uncontaminated Soil.
10. All structures shall be adjusted to meet finished turf and pavement grades.
11. Refer to soil erosion and sediment control notes and details for seed and blanket requirements for temporary stabilization.
12. Refer to geometric plan or landscape plan for final restoration requirements.
13. Contractor shall provide the following as-constructed documents at the conclusion of the project:
    a. Stormwater Basins and swales impounding water
        - Top of berm, overflow, and bottom of basin elevations
        - Structure and flared end sections elevations within basin
        - Control structure restrictor size and elevation.
        - As-constructed volumes within respective basins up to overflow elevation.
    b. Lawn or open space areas
        - Spot elevations at a maximum 50 foot grid.
        - Spot elevation top and bottom of berms or swales
        - Spot elevations and ridge / high and low points.
    c. Parking lot and hard surfaces.
        - Top of curb and flowline elevations at similar locations to proposed grading.
        - Spot elevations at summit / high and low points.
    d. ADA parking stalls, sidewalk ramps, and ADA Routes
        - Provide 6 spot elevations within the parking stall 3 along the front and rear of the stall at 8 foot spacing along the stall pavement markings.
        - Provide 4 spot grades per square at landings and any tampers or ramps.
        - Provide spot elevations along route at maximum 10 foot spacing on both sides of the path to confirm cross and longitudinal slopes requirements have been met.
    e. Buildings
        - Top of foundation elevations.
        - Finished floor elevations at doorways.

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OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT

660 Ridge Ave

Arlington Heights, IL 60004

GRADING PLAN

SHEET NO.

C5

JOB NO. 17-2408.01

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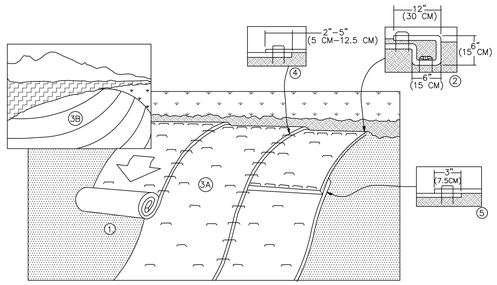
NOTES:

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECP'S.
3. ROLL THE RECP'S (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2"–5" (5 CM – 12.5 CM) OVERLAP DEPENDING ON RECP'S TYPE.
5. CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP'S WIDTH.

NOTE:

*IN LOOSE SOIL, CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.



STAPLE PLACEMENTS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. SEE STAPLE PATTERN GUIDES FOR ACTUAL RECOMMENDED PLACEMENTS.

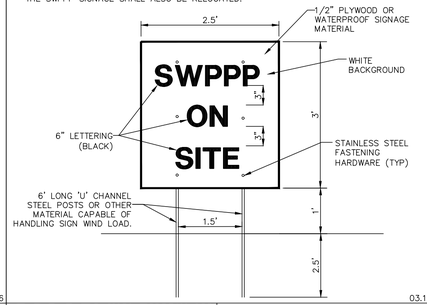
03.15.2016

GEWALT HAMILTON ASSOCIATES, INC.

EROSION CONTROL BLANKET SLOPE INSTALLATION

NOTES:

1. WORDING IS TO BE PLACED ON WATERPROOF MATERIAL OR ENCLOSED WITHIN A WATERPROOF ENCASEMENT.
2. THE SIGN SHALL BE FASTENED TO THE POSTS AT A MINIMUM OF SIX (6) LOCATIONS WITH STAINLESS STEEL HARDWARE.
3. THE SIGN SHALL BE POSTED AT THE MAIN ENTRANCE TO THE CONSTRUCTION SITE. IF THE ENTRANCE LOCATION IS RELOCATED, THE SWPPP SIGNAGE SHALL ALSO BE RELOCATED.



03.15.2016

GEWALT HAMILTON ASSOCIATES, INC.

SWPPP SIGNAGE

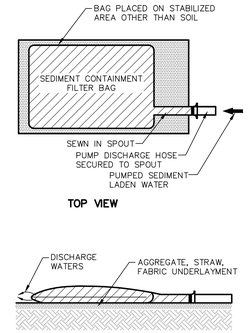
NOTES:

1. DISCHARGE WATER ONTO A STABILIZED AREA (i.e. GRASS LINE SWALE, GRASS FIELD, PAVED AREA, AGGREGATE) OR INTO A SECONDARY SEDIMENT CONTAINMENT SYSTEM.
2. DISCHARGE WATER MUST FLOW AWAY FROM THE CONSTRUCTION AREA.
3. SEDIMENT CAPTURED BY THE FILTER BAG MUST BE PROPERLY DISPOSED OF.
4. FABRIC TYPE MAY NEED TO BE CHANGED BASED ON SEDIMENT TYPES.

MAINTENANCE
1. CHANGE FILTER BAG WHEN NEEDED
2. REMOVE SEDIMENT FROM BAG
3. DISPOSE OF BAG

SPECIFICATIONS
FABRIC = LING OR ERO–TEX225EX (NEEDLEPUNCHED NONWOVEN) OR APPROVED EQUAL

SIZES
- 10' x 15' FOR 2" DISCHARGE HOSE
- 20' x 15' FOR 3" DISCHARGE HOSE
- 25' x 15' FOR 4" DISCHARGE HOSE
- 35' x 15' FOR 6" DISCHARGE HOSE



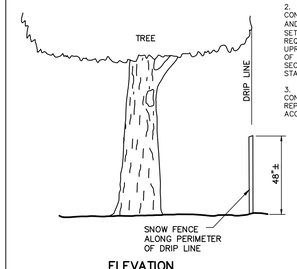
03.15.2016

GEWALT HAMILTON ASSOCIATES, INC.

SEDIMENT CONTAINMENT FILTER BAG

NOTES:

1. EXISTING TREES TO BE PROTECTED SHALL HAVE SNOW FENCE INSTALLED AT THE DRIP LINE OF THE TREE TO PREVENT THE STOCKPILING OF EXCAVATED OR CONSTRUCTION MATERIALS UNDER THE TREE, AND PROHIBIT VEHICULAR TRAFFIC OR EXCESSIVE FOOT TRAFFIC WITHIN THE DRIP LINE.
2. SNOW FENCE SHALL BE WEBBED HDPE CONSTRUCTION FENCING, COLORED ORANGE AND SUPPORTED WITH STEEL "TEE" POSTS SET AT MAX. 15' INTERVALS, OR AS REQUIRED TO MAINTAIN THE FENCE IN AN UPRIGHT POSITION THROUGHOUT THE TERM OF CONSTRUCTION, IN CONFORMANCE WITH SECTION 201.05a OF THE HIGHWAY STANDARDS.
3. TREES THAT MAY BE DAMAGED BY CONSTRUCTION OPERATIONS SHALL BE REPAIRED OR REPLACED IN A MANNER ACCEPTABLE TO THE VILLAGE.



ELEVATION

03.15.2016

GEWALT HAMILTON ASSOCIATES, INC.

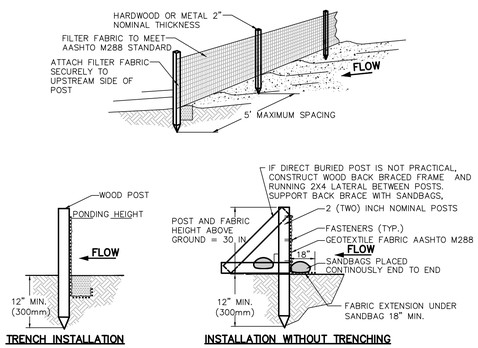
TREE PROTECTION FENCING DETAIL

NOTES:

1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" (225mm) MAXIMUM RECOMMENDED STORAGE HEIGHT.
3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF–SITE AND CAN BE PERMANENTLY STABILIZED.
4. FABRIC AND INSTALLATION SHALL MEET THE REQUIREMENTS OF ASSHTO STANDARD SPECIFICATION M–288–00.
5. SLICING METHOD IS PREFERRED.

PROPERTY	TEST PROCEDURE	
Grab Elongation		
Machine Direction	ASTM D–4533	123 lbs
X–Machine Direction	ASTM D–4833	101 lbs
Permittivity	ASTM D–4491	0.05 sec^{-1}
A.S.O.	ASTM D–4751	30 u.s. Sieve
UV Stability	ASTM D–4355	70%

1. SET POSTS AND EXCAVATE OR SLIT–TRENCH A 6–INCH DEEP TRENCH UPSLOPE ALONG THE LINE OF THE POST
2. ATTACH AASHTO GEOTEXTILE FILTER FABRIC TO EACH POST WITH A MINIMUM OF 3(THREE) FASTENERS PER POST AND EXTEND TO THE BOTTOM OF THE TRENCH. ACCEPTABLE FASTENERS INCLUDE STAPLES, ZIP–TIES, OR WIRE TIES.
3. BACKFILL AND COMPACT THE EXCAVATED SPOIL MATERIALS



03.15.2016

GEWALT HAMILTON ASSOCIATES, INC.

SILT FENCE INSTALLATION DETAIL

Stabilization Type:	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Permanent Seeding			A	—	—	X	X	X	X	X		
Dormant Seeding	B	—	—									
Temporary Seeding			C	—	—	X	X	X	X	X		
Sodding			E	X	X	X	—	—	—	—	—	—
Mulching	F	—	—	—	—	—	—	—	—	—	—	—

A = KENTUCKY BLUEGRASS @ 90 LBS/AC. MIXED WITH PERENNIAL RYEGRASS @ 30 LBS/AC.
B = KENTUCKY BLUEGRASS @ 135 LBS/AC. MIXED WITH PERENNIAL RYEGRASS @ 45 LBS/AC.
C = SPRING OATS @ 100 LBS/AC.
D = WHEAT OR CEREAL RYE @ 150 LBS/AC.
E = SOD
F = STRAW MULCH (HYDROMULCH OR USE STRAW BLANKET) @ 2 TONS/AC.
XXX = IRRIGATION NEEDED

IRRIGATION SHOULD BE PROVIDED AS NECESSARY TO THOROUGHLY ESTABLISH INTENDED GROWTH.

NOTE:
SPRAYED ON PRODUCTS CANNOT BE USED NOV.–FEB.

03.15.2016

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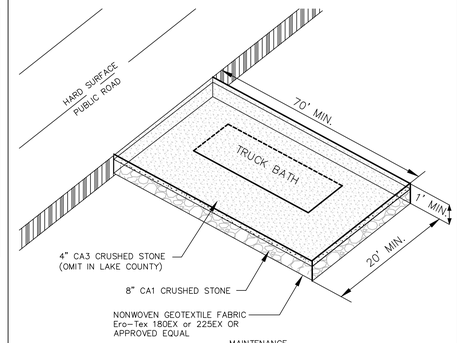
TYPICAL SOIL PROTECTION CHART



MAINTENANCE
1. STREET CLEANING
2. ENTRANCE CLEANING
3. TRUCK BATH CLEANOUT
4. TRUCK BATH WATER MUST BE SEDIMENT FREE BEFORE DISCHARGE.

03.15.2016

GEWALT HAMILTON ASSOCIATES, INC.

TEMPORARY CONSTRUCTION ENTRANCE

TREE PRESERVATION NOTES

1. Prior to construction and with the coordination of the Village Arborist, the contractor shall install tree protection fencing. In conjunction with the installation of the fence, root pruning will be done adjacent to the fence. Root pruning shall be done with a "Ditch Witch" or other mechanical device approved by the Village Arborist which cleanly cuts the roots to a minimum depth of two feet.

2. Existing vegetation which is to remain, shall be protected against un– neccessary cutting, breaking, or skinning of roots, skinning and brushing of bark, smothering by stockpiling of construction materials or excavated materials within the drip line, excessive foot or vehicular traffic, or parking of vehicles within the drip line.

3. Existing vegetation which is to remain, shall be watered as required to maintain its health during the course of the construction operations and is the contractor's responsibility. Soil moisture shall be monitored weekly. Any necessary watering shall be coordinated with the Village Arborist.

4. Vegetation that becomes damaged by construction operations shall be repaired/replaced, in a manner acceptable to the Village Arborist.

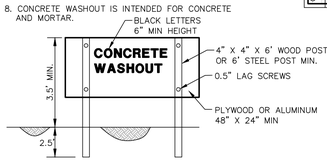
5. All fence shall be bright orange plastic mesh with metal posts driven into the ground at a minimum of 8 foot on centers. At the discretion of the contractor, chain link fence may be substituted in lieu of the plastic mesh fence and used in conjunction with the project perimeter fencing. The contractor shall maintain the fence and immediately repair damaged sections.

GEWALT HAMILTON ASSOCIATES, INC.

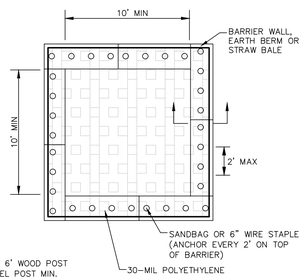
TREE PRESERVATION NOTES

NOTES

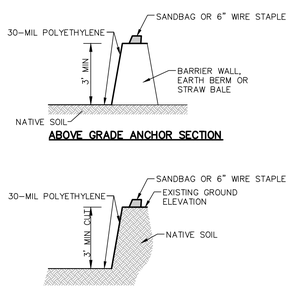
1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
3. CONCRETE WASHOUT SHOULD NOT BE ALLOWED IN STREET OR TO REACH A STORM WATER DRAINAGE SYSTEM OR WATERCOURSE.
4. CONCRETE WASHOUT AREA TO BE LOCATED AT LEAST 10' BEHIND CURB IF ADJACENT TO A PAVED ROAD.
5. IF USING STRAW BALES, STAKE IN PLACE USING (2) 2"X2"X4' WOODEN STAKES.
6. STRAW BALES SHALL BE TRENCHED IN 3".
7. CONCRETE WASHOUT DUMPSTER MAY BE USED IN LIEU OF CONSTRUCTION ONE AS DETAILED.
8. CONCRETE WASHOUT IS INTENDED FOR CONCRETE AND MORTAR.



CONCRETE WASHOUT SIGN DETAIL (OR EQUIVALENT)



PLAN VIEW



MAINTENANCE:

1. DRIED CONCRETE WASTE SHALL BE PICKED UP AND DISPOSED OF PROPERLY WHEN 75% OF CAPACITY IS REACHED.
2. HARDENED CONCRETE CAN BE PROPERLY RECYCLED AND REUSED ONSITE OR HAULED OFF–SITE TO AN APPROPRIATE FACILITY.

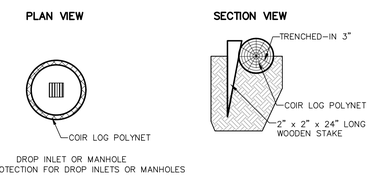
03.15.2016

GEWALT HAMILTON ASSOCIATES, INC.

CONCRETE WASHOUT

NOTES:

1. DO NOT SCALE DRAWING.
2. REFER TO MANUFACTURER'S PRODUCT SPECIFICATIONS TO ENSURE QUALITY OF THE PRODUCTS



DROP INLET OR MANHOLE INLET PROTECTION FOR DROP INLETS OR MANHOLES

* USE 9LB DENSITY 12" DIAMETER, 20' LONG COIR LOG POLYNET FOR STANDARD CIRCULAR DRAINAGE STRUCTURES. PLACE THE COIR LOG AROUND THE STRUCTURE AND JOIN THE ENDS TOGETHER WITH COIR TWINE. USE 2"x2"x24" WOODEN STAKES SPACED 3' APART TO HOLD DOWN LOG POLYNET.

MAINTENANCE
1. CLEAN OUT SEDIMENT BEHIND LOG WHEN ½ FULL
2. RESECURE LOOSE LOGS
3. REPLACE LOGS AS NEEDED
4. REMOVE WHEN NOT NEEDED

03.15.2016

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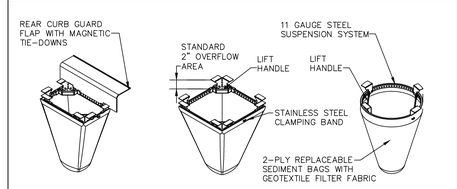
COIR ROLL DETAIL INLET PROTECTION



Material Property	Test Method	Value (min. ave.)	
> Inner Filter Bag Specs (ft^3/min vol)		Non–Woven	Woven Mono
Grab Tensile	ASTM D 4632	100 lbs	200 lbs
Puncture Strength	ASTM D 4833	65 lbs	90 lbs
Trapezoidal Tear	ASTM D 4535	45 lbs	75 lbs
UV Resistance	ASTM D 4355	70% at 500 hrs	90%
App Open Size (AOS)	ASTM D 4751	70 sieve (.212 mm)	40 sieve (.425 mm)
Premittivity	ASTM D 4491	2.0/sec.	2.1/sec
Water Flow Rate	ASTM D 4491	140 gpm/sqft.	145gpm/sqft
> Polyester Outer Reinforcement Bag Specifications			
Weight	ASTM D 3776	4.55 oz/sqyd +/–15%	
Thickness	ASTM D 1777	.040 +/– .005	
> Frame Construction			
A36 Structural Steel; 11 Gauge, Zinc Plated	ASTM A 576	Tensile Strength > 58,000 psi Yield Strength > 36,000 psi	

MAINTENANCE
1. CLEAN OUT AFTER EVERY RAIN EVENT

ACCEPTABLE MANUFACTURER'S AS LISTED BELOW:

1. INLET & PIPE PROTECTION, INC. Naperville, IL 60564 847 722–0690
2. MARATHON MATERIALS, INC. Plainfield, IL 60544 800–983–9493

03.15.2016

GEWALT HAMILTON ASSOCIATES, INC.

INLET FILTER BASKET DETAIL

NO.	DATE	DESCRIPTION
00	01/08/18	PLAN COMMISSION REVIEW
01	02/09/18	PLAN COMMISSION REVIEW - REVISIONS

ISSUANCE

FGM ARCHITECTS
CHICAGO OAK BROOK O'FALLON ST. LOUIS
GHA GEWALT HAMILTON ASSOCIATES, INC.
625 Forest Edge Drive ▪ Vernon Hills, IL 60061
TEL: 847.478.9700 ▪ FAX: 847.478.9701
GHA JOB # 5313.000

DATE:

WALTER R. DRAFT 062-048837 LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

PROFESSIONAL SEAL

EXPIRATION DATE: 11/30/19

DATE	01/08/17
DRAWN	DG
CHECKED	WEG
APPROVED	WEG
PROFESSIONAL DESIGN FIRM IL # 184.000922	

OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT
660 Ridge Ave
Arlington Heights, IL 60004

DEMOLITION PLAN

SHEET NO.

C6

JOB NO. 17-2408.01

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A. REFERENCED SPECIFICATIONS

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE FOLLOWING, EXCEPT AS MODIFIED HEREIN OR ON THE PLANS:
   * STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT SS) FOR ALL IMPROVEMENTS EXCEPT SANITARY SEWER AND WATER MAIN CONSTRUCTION;
   * STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION (SSWS) FOR SANITARY SEWER AND WATER MAIN CONSTRUCTION;
   * VILLAGE OF **ARLINGTON HEIGHTS** MUNICIPAL CODE;
   * THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO (MWRD) WATERSHED MANAGEMENT ORDINANCE AND TECHNICAL GUIDANCE MANUAL;
   * IN CASE OF CONFLICT BETWEEN THE APPLICABLE ORDINANCES NOTED, THE MORE STRINGENT SHALL TAKE PRECEDENCE AND SHALL CONTROL ALL CONSTRUCTION.

B. NOTIFICATIONS

1. THE MWRD LOCAL SEWER SYSTEMS SECTION FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF ANY WORK (CALL 708-588-4055).

2. THE VILLAGE OF **ARLINGTON HEIGHTS** ENGINEERING DEPARTMENT AND PUBLIC MUST BE NOTIFIED AT LEAST 24 HOURS PRIOR TO THE START OF CONSTRUCTION AND PRIOR TO EACH PHASE OF WORK. CONTRACTOR SHALL DETERMINE ITEMS REQUIRING INSPECTION PRIOR TO START OF CONSTRUCTION OR EACH WORK PHASE.

3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION FOR THE EXACT LOCATIONS OF UTILITIES AND FOR THEIR PROTECTION DURING CONSTRUCTION. IF EXISTING UTILITIES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, IMMEDIATELY NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED. CALL J.U.L.I.E. AT 1-800-892-0123.

C. GENERAL NOTES

1. ALL ELEVATIONS SHOWN ON PLANS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). CONVERSION FACTOR IS _____ FT.

2. MWRD, THE MUNICIPALITY AND THE OWNER OR OWNER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION IMPROVEMENTS.

3. THE CONTRACTOR(S) SHALL INDEMNIFY THE OWNER, ENGINEER, MUNICIPALITY, MWRD, AND THEIR AGENTS, ETC., FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, OR TESTING OF THIS WORK ON THE PROJECT.

4. THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERING PLANS AS APPROVED BY MWRD AND THE MUNICIPALITY UNLESS CHANGES ARE APPROVED BY MWRD, THE MUNICIPALITY, OR AUTHORIZED AGENT. THE CONSTRUCTION DETAILS, AS PRESENTED ON THE PLANS, MUST BE FOLLOWED. PROPER CONSTRUCTION TECHNIQUES MUST BE FOLLOWED ON THE IMPROVEMENTS INDICATED ON THE PLANS.

5. THE LOCATION OF VARIOUS UNDERGROUND UTILITIES WHICH ARE SHOWN ON THE PLANS ARE FOR INFORMATION ONLY AND REPRESENT THE BEST KNOWLEDGE OF THE ENGINEER. VERIFY LOCATIONS AND ELEVATIONS PRIOR TO BEGINNING THE CONSTRUCTION OPERATIONS.

6. ANY EXISTING PAVEMENT, SIDEWALK, DRIVEWAY, ETC., DAMAGED DURING CONSTRUCTION OPERATIONS AND NOT CALLED FOR TO BE REMOVED SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.

7. MATERIAL AND COMPACTION TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MUNICIPALITY, MWRD, AND OWNER.

8. THE UNDERGROUND CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS TO NOTIFY ALL INSPECTION AGENCIES.

9. ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS DISTURBED DURING CONSTRUCTION SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO FINAL INSPECTION.

10. RECORD DRAWINGS SHALL BE KEPT BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER AS SOON AS UNDERGROUND IMPROVEMENTS ARE COMPLETED. FINAL PAYMENTS TO THE CONTRACTOR SHALL BE HELD UNTIL THEY ARE RECEIVED. ANY CHANGES IN LENGTH, LOCATION OR ALIGNMENT SHALL BE SHOWN IN RED. ALL WYES OR BENDS SHALL BE LOCATED FROM THE DOWNSTREAM MANHOLE. ALL VALVES, B-BOXES, TEES OR BENDS SHALL BE TIED TO A FIRE HYDRANT.

D. SANITARY SEWER

1. THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT ANY POLLUTED WATER, SUCH AS GROUND AND SURFACE WATER, FROM ENTERING THE EXISTING SANITARY SEWERS.

2. A WATER-TIGHT PLUG SHALL BE INSTALLED IN THE DOWNSTREAM SEWER PIPE AT THE POINT OF SEWER CONNECTION PRIOR TO COMMENCING ANY SEWER CONSTRUCTION. THE PLUG SHALL REMAIN IN PLACE UNTIL REMOVAL IS AUTHORIZED BY THE MUNICIPALITY AND/OR MWRD AFTER THE SEWERS HAVE BEEN TESTED AND ACCEPTED.

3. DISCHARGING ANY UNPOLLUTED WATER INTO THE SANITARY SEWER SYSTEM FOR THE PURPOSE OF SEWER FLUSHING OF LINES FOR THE DEFLECTION TEST SHALL BE PROHIBITED WITHOUT PRIOR APPROVAL FROM THE MUNICIPALITY OR MWRD.

4. ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS (LATEST EDITION).

5. ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER SYSTEM.

6. ALL DOWNSPOUTS AND FOOTING DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM.

7. ALL SANITARY SEWER PIPE MATERIALS AND JOINTS (AND STORM SEWER PIPE MATERIALS AND JOINTS IN A COMBINED SEWER AREA) SHALL CONFORM TO THE FOLLOWING:

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
VITRIFIED CLAY PIPE	ASTM C-700	ASTM C-425
REINFORCED CONCRETE SEWER PIPE	ASTM C-76	ASTM C-443
CAST IRON SOIL PIPE	ASTM A-74	ASTM C-564
DUCTILE IRON PIPE	ANSI A21.51	ANSI A21.11
POLYVINYL CHLORIDE (PVC) PIPE		
6-INCH TO 15-INCH DIAMETER SDR 26	ASTM D-3034	ASTM D-3212
18-INCH TO 27-INCH DIAMETER F/DY=46	ASTM F-679	ASTM D-3212
HIGH DENSITY POLYETHYLENE (HDPE)	ASTM D-3350 ASTM D-3035	ASTM D-3261,F-2620 (HEAT FUSION) ASTM D-3212,F-477 (GASKETED)
WATER MAIN QUALITY PVC		
4-INCH TO 36-INCH	ASTM D-2241	ASTM D-3139
4-INCH TO 12-INCH	AWWA C900	ASTM D-3139
14-INCH TO 48-INCH	AWWA C905	ASTM D-3139

THE FOLLOWING MATERIALS ARE ALLOWED ON A QUALIFIED BASIS SUBJECT TO DISTRICT REVIEW AND APPROVAL PRIOR TO PERMIT ISSUANCE. A SPECIAL CONDITION WILL BE ADDED TO THE PERMIT WHEN THE PIPE MATERIAL BELOW IS USED FOR SEWER CONSTRUCTION OR A CONNECTION IS MADE.

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
POLYPROPYLENE (PP) PIPE		
12-INCH TO 24-INCH DOUBLE WALL	ASTM F-2736	D-3212, F-477
30-INCH TO 60-INCH TRIPLE WALL	ASTM F-2764	D3212, F-477

8. ALL SANITARY SEWER CONSTRUCTION (AND STORM SEWER CONSTRUCTION IN COMBINED SEWER AREAS), REQUIRES STONE BEDDING WITH STONE ¼ " TO 1" IN SIZE, WITH MINIMUM BEDDING THICKNESS EQUAL TO ¼ THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN FOUR (4) INCHES NOR MORE THAN EIGHT (8) INCHES. MATERIAL SHALL BE CA-7, CA-11 OR CA-13 AND SHALL BE EXTENDED AT LEAST 12" ABOVE THE TOP OF THE PIPE WHEN USING PVC.

9. NON-SHEAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPES OF DISSIMILAR PIPE MATERIALS.

10. ALL MANHOLES SHALL BE PROVIDED WITH BOLTED, WATERTIGHT COVERS. SANITARY LIDS SHALL BE CONSTRUCTED WITH A CONCEALED PICKHOLE AND WATERTIGHT GASKET WITH THE WORD "SANITARY" CAST INTO THE LID.

11. WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED:
    a) A CIRCULAR SAW-CUT OF SEWER MAIN BY PROPER TOOLS ("SHEWER-TAP" MACHINE OR SIMILAR) AND PROPER INSTALLATION OF HUBWYE SADDLE OR HUB-TEE SADDLE.
    b) REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR TEE BRANCH SECTION.
    c) WITH PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING, USING "BAND SEAL" OR SIMILAR COUPLINGS TO HOLD IT FIRMLY IN PLACE.

12. WHENEVER A SANITARY/COMBINED SEWER CROSSES UNDER A WATERMAIN, THE MINIMUM VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATERMAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY/COMBINED SEWERS AND WATERMAINS SHALL BE MAINTAINED UNLESS: THE SEWER IS LAID IN A SEPARATE TRENCH, KEEPING A MINIMUM 18" VERTICAL SEPARATION; OR THE SEWER IS LAID IN THE SAME TRENCH WITH THE WATERMAIN LOCATED AT THE OPPOSITE SIDE ON A BENCH OF UNDISTURBED EARTH, KEEPING A MINIMUM 18" VERTICAL SEPARATION. IF EITHER THE VERTICAL OR HORIZONTAL DISTANCES DESCRIBED CANNOT BE MAINTAINED, OR THE SEWER CROSSES ABOVE THE WATER MAIN, THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN STANDARDS OR IT SHALL BE ENCASED WITH A WATER MAIN QUALITY CARRIER PIPE WITH THE ENDS SEALED.

13. ALL EXISTING SEPTIC SYSTEMS SHALL BE ABANDONED. ABANDONED TANKS SHALL BE FILLED WITH GRANULAR MATERIAL OR REMOVED.

14. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES, AND SHALL BE CAST IN PLACE OR PRE-CAST REINFORCED CONCRETE.

15. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE PRECAST "RUBBER BOOTS" THAT CONFORM TO ASTM C-923 FOR ALL PIPE CONNECTIONS. PRECAST SECTIONS SHALL CONSIST OF MODIFIED GROOVE TONGUE AND RUBBER GASKET TYPE JOINTS.

16. ALL ABANDONED SANITARY SEWERS SHALL BE PLUGGED AT BOTH ENDS WITH AT LEAST 2 FEET LONG NON-SHRINK CONCRETE OR MORTAR PLUG.

17. EXCEPT FOR FOUNDATION/FOOTING DRAINS PROVIDED TO PROTECT BUILDINGS, OR PERFORATED PIPES ASSOCIATED WITH VOLUME CONTROL FACILITIES, DRAIN TILES/FIELD TILES/UNDERDRAINS/PERFORATED PIPES ARE NOT ALLOWED TO BE CONNECTED TO OR TRIBUTARY TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS IN COMBINED SEWER AREAS. CONSTRUCTION OF NEW FACILITIES OF THIS TYPE IS PROHIBITED; AND ALL EXISTING DRAIN TILES AND PERFORATED PIPES ENCOUNTERED WITHIN THE PROJECT AREA SHALL BE PLUGGED OR REMOVED, AND SHALL NOT BE CONNECTED TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS.

18. A BACKFLOW PREVENTER IS REQUIRED FOR ALL DETENTION BASINS TRIBUTARY TO COMBINED SEWERS. REQUIRED BACKFLOW PREVENTERS SHALL BE INSPECTED AND EXERCISED ANNUALLY BY THE PROPERTY OWNER TO ENSURE PROPER OPERATION, AND ANY NECESSARY MAINTENANCES SHALL BE PERFORMED TO ENSURE FUNCTIONALITY. IN THE EVENT OF A SEWER SURCHARGE INTO AN OPEN DETENTION BASIN TRIBUTARY TO COMBINED SEWERS, THE PERMITTEE SHALL ENSURE THAT CLEAN UP AND WASH OUT OF SEWAGE TAKES PLACE WITHIN 48 HOURS OF THE STORM EVENT.

E. EROSION AND SEDIMENT CONTROL

1. THE CONTRACTOR SHALL INSTALL THE EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.

2. EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE FUNCTIONAL PRIOR TO HYDROLOGIC DISTURBANCE OF THE SITE.

3. ALL DESIGN CRITERIA, SPECIFICATIONS, AND INSTALLATION OF EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL.

4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

5. INSPECTIONS AND DOCUMENTATION SHALL BE PERFORMED, AT A MINIMUM:
   a) UPON COMPLETION OF INITIAL EROSION AND SEDIMENT CONTROL MEASURES, PRIOR TO ANY SOIL DISTURBANCE.
   b) ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT WITH GREATER THAN 0.5 INCH OF RAINFALL OR LIQUID EQUIVALENT PRECIPITATION.

6. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. IF STRIPPING, CLEARING, GRADING, OR LANDSCAPING ARE TO BE DONE IN PHASES, THE CO-PERMITTEE SHALL PLAN FOR APPROPRIATE SOIL EROSION AND SEDIMENT CONTROL MEASURES.

7. A STABILIZED MAT OF CRUSHED STONE MEETING THE STANDARDS OF THE ILLINOIS URBAN MANUAL SHALL BE INSTALLED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE. SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.

8. CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL AND SHALL BE INSTALLED PRIOR TO ANY ON SITE CONSTRUCTION ACTIVITIES INVOLVING CONCRETE.

9. MORTAR WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ADDITION TO CONCRETE WASHOUT FACILITIES FOR ANY BRICK AND MORTAR BUILDING ENVELOPE CONSTRUCTION ACTIVITIES.

10. TEMPORARY DIVERSIONS SHALL BE CONSTRUCTED AS NECESSARY TO DIRECT ALL RUNOFF FROM HYDROLOGICALLY DISTURBED AREAS TO AN APPROPRIATE SEDIMENT TRAP OR BASIN. VOLUME CONTROL FACILITIES SHALL NOT BE USED AS TEMPORARY SEDIMENT BASINS.

12. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) DAYS.

13. ALL FLOOD PROTECTION AREAS AND VOLUME CONTROL FACILITIES SHALL, AT A MINIMUM, BE PROTECTED WITH A DOUBLE-ROW OF SILT FENCE (OR EQUIVALENT).

14. VOLUME CONTROL FACILITIES SHALL NOT BE CONSTRUCTED UNTIL ALL OF THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

15. SOIL STOCKPILES SHALL, AT A MINIMUM, BE PROTECTED WITH PERIMETER SEDIMENT CONTROLS. SOIL STOCKPILES SHALL NOT BE PLACED IN FLOOD PROTECTION AREAS OR THEIR BUFFERS.

16. EARTHEN EMBANKMENT SIDE SLOPES SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL BLANKET.

17. STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY APPROPRIATE SEDIMENT CONTROL MEASURES.

18. THE CONTRACTOR SHALL EITHER REMOVE OR REPLACE ANY EXISTING DRAIN TILES AND INCORPORATE THEM INTO THE DRAINAGE PLAN FOR THE DEVELOPMENT. DRAIN TILES CANNOT BE TRIBUTARY TO A SANITARY OR COMBINED SEWER. DRAIN TILES ALLOWED IN COMBINED SEWER AREA FOR GREEN INFRASTRUCTURE PRACTICES.

19. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. DEWATERING SYSTEMS SHOULD BE INSPECTED DAILY DURING OPERATIONAL PERIODS. THE SITE INSPECTOR MUST BE PRESENT AT THE COMMENCEMENT OF DEWATERING ACTIVITIES.

20. THE CONTRCTOR SHALL BE RESPONSIBLE FOR TRENCH DEWATERING AND EXCAVATION FOR THE INSTALLATION OF SANITARY SEWERS, STORM SEWERS, WATERMAINS AS WELL AS THEIR SERVICES AND OTHER APPURTENANCES. ANY TRENCH DEWATERING, WHICH CONTAINS SEDIMENT SHALL PASS THROUGH A SEDIMENT SETTLING POND OR EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE. ALTERNATIVES MAY INCLUDE DEWATERING INTO A SUMP PIT, FILTER BAG OR EXISTING VEGETATED UPSLOPE AREA. SEDIMENT LADEN WATERS SHALL NOT BE DISCHARGE TO WATERWAYS, FLOOD PROTECTION AREAS OR THE COMBINED SEWER SYSTEM.

21. ALL PERMANENT EROSION CONTROL PRACTICES SHALL BE INITIATED WITHIN SEVEN (7) DAYS FOLLOWING THE COMPLETION OF SOIL DISTURBING ACTIVITIES.

22. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND REPAIRED AS NEEDED ON A YEAR-ROUND BASIS DURING CONSTRUCTION AND ANY PERIODS OF CONSTRUCTION SHUTDOWN UNTIL PERMANENT STABILIZATION IS ACHIEVED.

23. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER PERMANENT SITE STABILIZATION.

24. THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER, SITE INSPECTOR, OR MWRD.

ISSUANCE

NO.	DATE	DESCRIPTION
00	01/08/18	PLAN COMMISSION REVIEW
01	02/09/18	PLAN COMMISSION REVIEW - REVISIONS

FGM ARCHITECTS
CHICAGO OAK BROOK O'FALLON ST. LOUIS
GHA GEWALT HAMILTON ASSOCIATES, INC.
625 Forest Edge Drive ▪ Vernon Hills, IL 60061
TEL: 847.478.9700 ▪ FAX: 847.478.9701
GHA JOB # 5313.000

DATE:

PROFESSIONAL SEAL

EXPIRATION DATE: 11/30/19

DATE	01/08/17
DRAWN	DG
CHECKED	WEG
APPROVED	WEG
PROFESSIONAL DESIGN FIRM IL # 184-000922	

OLYMPIC SWIM ADDITION AND RENOVATION
ARLINGTON HEIGHTS PARK DISTRICT
660 Ridge Ave
Arlington Heights, IL 60004

MWRD GENERAL NOTES

SHEET NO.
C7

JOB NO. 17-2408.01

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GRAPHIC SCALE

40 0 20 40

(IN FEET)
1 inch = 40 ft.

PROJECT AREA SUMMARY

EXISTING CONDITIONS	
PROJECT AREA	4.48 AC
IMPERVIOUS	1.58 AC
PERVIOUS	2.90 AC
VILLAGE COMPOSITE 'C'	0.66
MWRD COMPOSITE 'C'	0.61

PROPOSED CONDITIONS	
PROJECT AREA	4.48 AC
IMPERVIOUS	2.35 AC
SYNTHETIC TURF	0.19 AC
PERVIOUS	1.94 AC
VILLAGE COMPOSITE 'C'	0.75
MWRD COMPOSITE 'C'	0.70

MAINTENANCE AREA	
TOTAL	0.17 AC

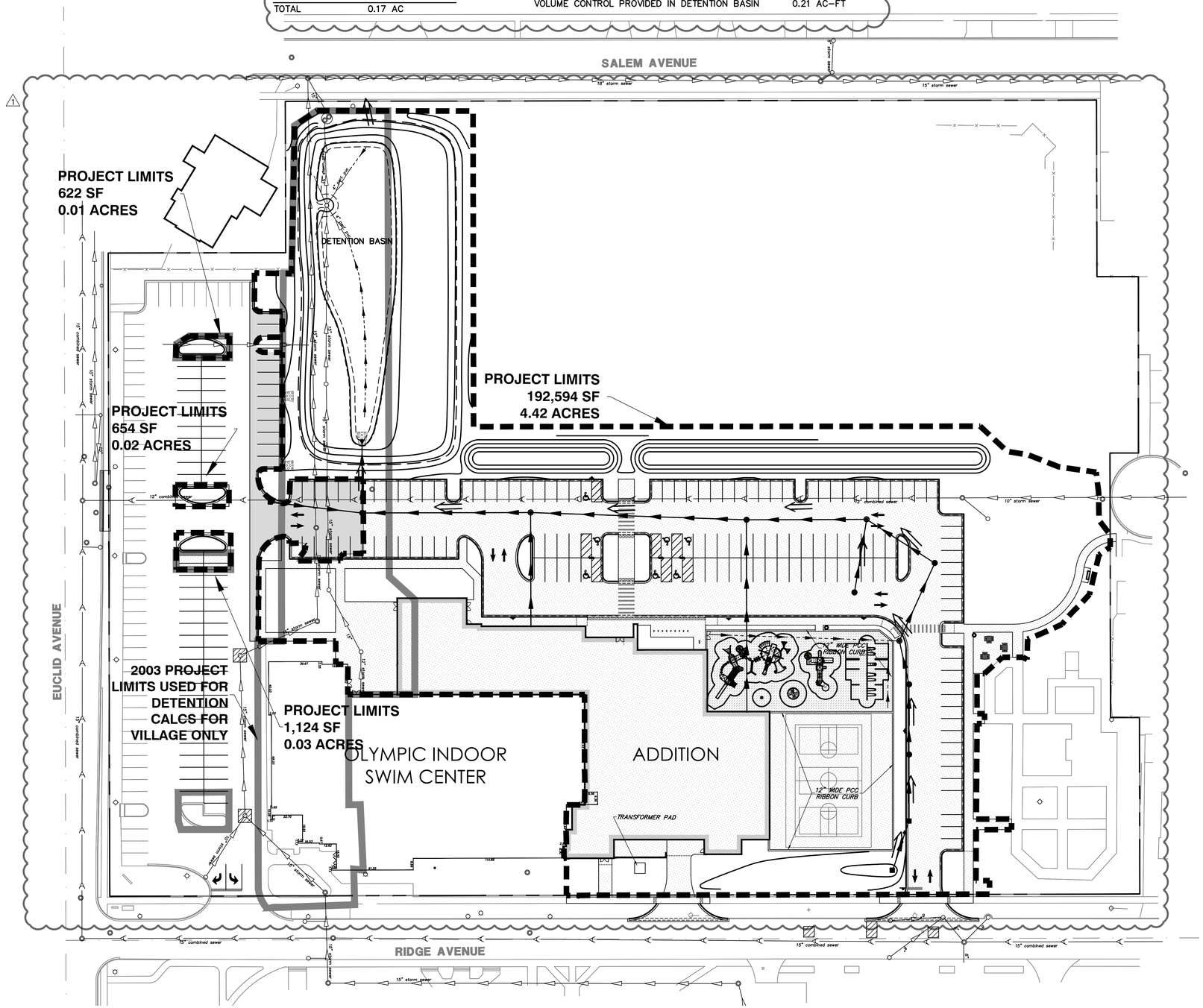
DETENTION SUMMARY

VILLAGE REQUIREMENTS	
COMBINED 2003 & 2018 PROJECT AREAS	4.90 AC
VILLAGE ALLOWABLE RELEASE RATE	0.18 CFS/AC
0.18 CFS/AC x 4.90 AC	0.88 CFS
TOTAL DETENTION REQUIRED	1.33 AC–FT
PROPOSED DETENTION PROVIDED IN DETENTION BASIN @ HWL = 714.70	1.34 AC–FT

MWRD REQUIREMENTS	
MWRD ALLOWABLE RELEASE RATE	0.30 CFS/AC
0.18 CFS/AC x 4.48 AC PROJECT AREA	1.34 CFS
TOTAL DETENTION VOLUME REQUIRED	1.02 AC–FT
PROPOSED DETENTION PROVIDED IN DETENTION BASIN @ HWL = 714.51	1.02 AC–FT
VOLUME CONTROL REQUIRED	0.20 AC–FT
VOLUME CONTROL PROVIDED IN DETENTION BASIN	0.21 AC–FT

LEGEND

- 2003 PROJECT LIMITS
- 2018 PROJECT LIMITS
- IMPERVIOUS AREA
- SYNTHETIC TURF
- PERVIOUS AREA
- MAINTENANCE AREA
- OVERLAND FLOW ROUTE



MAINTENANCE PLAN

Arlington Heights Park District shall assume responsibility for the following perpetual maintenance activities:

1. General

Regular inspections and routine maintenance of general areas shall be performed on a quarterly or as-needed basis. Specific items of concern include:

- Litter and debris shall be controlled
- Landscaped areas shall be maintained with regular mowing and restored with appropriate seeding/vegetation as necessary
- Accumulated sediment shall be disposed of properly, along with any wastes generated during maintenance operations
- Riprap areas shall be repaired with the addition of new riprap, as necessary, of similar size and shape
- Roads shall be swept, vacuumed and/or washed on a regular basis

2. Stormwater Management Facilities

All components of the stormwater management facilities shall be checked quarterly between March and November and maintained as necessary to ensure proper performance. It is critical that all inflows and outflows to the detention facility are clean and performing as designed. In addition, the design volume of the detention facility shall also be maintained. Inspections for the following specific items would be conducted quarterly between March and November.

Vegetated Areas

- Regular mowing to control vegetation, no cutting of native vegetation
- Need for planting, reseeding or sodding. Supplement alternative native vegetation if a significant portion has not established (50% of the surface area). Reseed with alternative grass species if original grass cover has not successfully established
- Evidence of grazing, motorbikes or other vehicles, repair
- Check for invasive vegetation, remove where possible
- All vegetation must be maintained per the approved planting plan

Outlet Control Structure

- Inspect restrictor and remove debris if clogged or discharge reduced
- Remove accumulated sediment at outlet
- Any ice damage to outlet of pipe, repair if necessary

Detention Volume

- Inspect all stormwater detention facilities to ensure that the constructed volume for detention is maintained. No sediment, topsoil, or other dumping into the facility shall be allowed. Specific locations in the stormwater management system, designed to accumulate sediment, shall be dredged as necessary to prevent sediment from reaching the invert of any gravity outlet pipe.

3. Volume Control Facility

Routine inspections and maintenance of volume control facilities shall be performed by the Owner on a yearly or as-needed basis. Specific items of concern include:

- Facility shall be inspected yearly to verify the system is functioning properly.

4. Stormwater Collection System

The Owner shall perform two inspections per year of all components of the stormwater collection system. The inspections shall occur in the spring and fall of each year and include the following specific areas of concern.

Storm Inlets/Manholes

- Remove accumulated leaves and other debris from grates
- Reset covers/lids on as-needed basis
- Remove accumulated sediment from manhole bottom when 50% of sump is filled

Storm Sewers

- Visually inspect pipes by removing manhole lids, make repairs as necessary
- Storm sewers shall be checked for siltation deposits at inlets, outlets, and within the conduit, clean out as necessary
- Restore riprap at outfalls

5. Vegetated Areas

- Need for planting, reseeding, or sodding. Supplement alternative native vegetation if a significant portion has not established (50% of the surface area after second growing season). Reseed with alternative native grass species if original grass cover has not successfully established.
- Evidence of grazing, motorbikes, or other vehicles, repair
- Check for invasive vegetation, remove when possible
- Regular mowing to control vegetation; it is recommended that native vegetation remain uncut
- Dead or damaged non-native grassy areas - repair with seeding with fertilization or seeding with mulch

6. Qualified Sewer Construction

- Perform manhole inspections once every five years, make repairs as necessary
- Perform sewer inspections once every five years, make repairs as necessary
- Perform regular cleaning so that each sewer segment is cleaned once every 5 years

ISSUANCE

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DATE:

WALTER E. GRAFF 062-048837 LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

PROFESSIONAL SEAL

EXPIRATION DATE: 11/30/19

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OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT

660 Ridge Ave
Arlington Heights, IL 60004

DRAINAGE EXHIBIT

SHEET NO.

C8

JOB NO. 17-2408.01

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GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE PERFORMED ACCORDING TO THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" LATEST EDITION, THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" LATEST EDITION, THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" LATEST EDITION, THE DETAILS IN THESE PLANS, THE CONTRACT DOCUMENTS, ALL APPLICABLE REQUIREMENTS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION, THE IEPA AND ORDINANCES OF AUTHORITIES HAVING JURISDICTION AND ALL ADDENDA THERETO.
2. EASEMENTS FOR THE EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE AND UTILITIES WITHIN PUBLIC RIGHTS-OF-WAY ARE SHOWN ON THE PLANS ACCORDING TO AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION IN THE FIELD OF THESE UTILITY LINES AND THEIR PROTECTION FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS. IF EXISTING UTILITY LINES OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
3. WHENEVER, DURING CONSTRUCTION OPERATIONS, ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF GUTTERS, DRAINAGE STRUCTURES, DITCHES, ETC. SUCH THAT THE NATURAL FLOW LINE OF WATER IS OBSTRUCTED, THE LOOSE MATERIAL WILL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE FROM DIRT AND DEBRIS. THIS WORK SHALL BE CONSIDERED INCLUDED IN THE CONTRACT. THE CONTRACTOR'S FAILURE TO PROVIDE THE ABOVE WILL PRECLUDE ANY POSSIBLE ADDED COMPENSATION REQUESTED DUE TO DELAYS OR UNSUITABLE MATERIALS CREATED AS A RESULT THEREOF.
4. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AFFECTING THEIR WORK WITH THE ACTUAL CONDITIONS AT THE JOB SITE PRIOR TO ORDERING MATERIALS. IN ADDITION, THE CONTRACTOR MUST VERIFY THE LINE AND GRADES. IF THERE ARE ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE CONSTRUCTION PLANS, STANDARD SPECIFICATIONS AND/OR SPECIAL DETAILS, THE CONTRACTOR SHALL SECURE WRITTEN INSTRUCTION FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY OMISSION OR DISCREPANCIES. FAILING TO SECURE SUCH INSTRUCTION, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS/HER OWN RISK AND EXPENSE AND NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR ANY COSTS INCURRED..
5. ALL PAVEMENT DIMENSIONS ARE SHOWN TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
6. WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE THE MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
7. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 72 HOURS PRIOR TO BEGINNING WORK.
8. IF DURING CONSTRUCTION THE CONTRACTOR ENCOUNTERS OR OTHERWISE BECOMES AWARE OF ANY SEWERS OR UNDERDRAINS OTHER THAN THOSE SHOWN ON THE PLANS, HE/SHE SHALL INFORM THE ENGINEER, WHO SHALL DIRECT THE WORK NECESSARY TO MAINTAIN OR REPLACE THE FACILITIES IN SERVICE AND TO PROTECT THEM FROM DAMAGE DURING CONSTRUCTION IF MAINTAINED. EXISTING FACILITIES TO BE MAINTAINED THAT ARE DAMAGED BECAUSE OF NON-COMPLIANCE WITH THIS PROVISION SHALL BE REPLACED AT THE CONTRACTOR'S OWN EXPENSE.
9. THE CONTRACTOR SHALL PROVIDE TEMPORARY TOILET FACILITIES AND HAND SANITIZING STATIONS FOR THE USE OF ALL THE CONTRACTORS PERSONNEL EMPLOYED ON THE WORK SITE. THE FACILITIES SHALL BE MAINTAINED IN PROPER SANITARY CONDITION THROUGHOUT THE PROJECT. THE LOCATION OF THE TEMPORARY FACILITIES SHALL BE APPROVED BY THE ENGINEER.
10. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THE NPDES PERMIT AND SWPPP MANUAL. IF NO NPDES PERMIT OR SWPPP MANUAL IS NEEDED FOR THE PROJECT THE CONTRACTOR SHALL PERFORM SOIL EROSION SEDIMENT CONTROL BEST PRACTICES OR AS DIRECTED BY THE OWNER TO PREVENT ILLICIT DISCHARGES FROM THE SITE.

UTILITY NOTES

1. UNDERGROUND WORK SHALL INCLUDE TRENCHING, DISPOSAL OF EXCESS MATERIAL, DEWATERING, INSTALLATION OF PIPE, CASTINGS, STRUCTURES, BACKFILLING OF TRENCHES AND COMPACTION, AND TESTING AS SHOWN ON THE CONSTRUCTION PLANS. FITTINGS AND ACCESSORIES NECESSARY TO COMPLETE THE WORK MAY NOT BE SPECIFIED BUT SHALL BE CONSIDERED AS INCLUDED TO THE COST OF THE CONTRACT. ALL SEWER SHALL BE INSTALLED USING A LASER AND BEGIN AT THE DOWNSTREAM END.
2. MACHINE CORE ALL CONNECTIONS TO EXISTING STRUCTURES USING A CORE DRILL. HAMMERING OR SAWING OF STRUCTURES WILL NOT BE ALLOWED.
3. SANITARY SERVICE CONNECTIONS TO NEW SEWERS SHALL BE MADE WITH WYE BRANCHES. WYE BRANCHES SHALL BE FACTORY MANUFACTURED PERMANENTLY AFFIXED TO THE MAIN SEWER. TEE BRANCHES ARE NOT ALLOWED.
4. ALL CONNECTIONS TO EXISTING SANITARY MANHOLES SHALL BE INSTALLED WITH A NEOPRENE BOOT SECURED WITH DOUBLE STAINLESS STEEL STRAPS MEETING THE REQUIREMENTS OF ASTM C-923.
5. ALL CONNECTIONS TO EXISTING OR DISSIMILAR STORM/SANITARY LINES SHALL BE DONE WITH STAINLESS STEEL NON-SHEAR COUPLINGS.
6. STONE BEDDING AND BACKFILL SHALL BE OMITTED FOR A DISTANCE OF 15 FEET UP AND DOWNSTREAM OF SEWERS DRAINING TO OR FROM PONDS OR STREAMS. THE REPLACED BEDDING SHALL BE SILTY CLAY SOIL MECHANICALLY COMPACTED TO 90% MODIFIED PROCTOR DENSITY. THE USE OF PERMEABLE SOILS WILL NOT BE PERMITTED.
7. ALL WATER MAIN SHALL HAVE MECHANICAL RESTRAINED TYPE JOINTS AT ALL CONNECTIONS AND FITTINGS. IN ADDITION, ALL HARDWARE SHALL BE STAINLESS STEEL.
8. THRUST BLOCKING SHALL BE PROVIDED ON WATER MAIN AT ALL BENDS, TEES, ELBOWS, ETC. INDIVIDUAL INSPECTION FOR ALL THRUST BLOCKING IS REQUIRED. THRUST BLOCKING SHALL BE POURED IN PLACE CONCRETE. PRECAST BLOCKS MAY BE USED AS APPROVED BY THE ENGINEER IN THE FIELD.
9. ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER. ALL DOWNSPOUTS, SIDE YARD DRAINS, AND OUTSIDE DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM. FOOTING DRAINS SHALL FIRST DRAIN TO A SUMP PIT.
10. BUILDING STORM SEWER SERVICE PIPE SHALL NOT BE LESS THAN THE DIAMETER OF THE PLUMBING PIPE FROM THE BUILDING, BUT NOT LESS THAN 6 INCHES. THE PIPE SHALL HAVE A MINIMUM SLOPE OF 1/8-INCH PER FOOT, BUT NOT MORE THAN 1/2-INCH PER FOOT. CHANGES OF DIRECTION OF SERVICE PIPE SHALL BE MADE WITH COMBINATIONS OF 22-1/2 DEGREE BENDS WHEREVER PRACTICABLE, WITH NOT LESS THAN 2 FEET OF STRAIGHT PIPE BETWEEN SUCH BENDS. RIGHT ANGLE (90 DEGREE) BENDS WILL NOT BE ALLOWED. WHEN A SERVICE LINE-EXCEEDS 100 FEET IN LENGTH, A CLEANOUT SHALL BE PROVIDED AT A LOCATION DESIGNATED BY THE ENGINEER. THE CLEANOUT SHALL BE PROPERLY SEALED, WITH THE TOP OF THE PLUGGED RISER FLUSH WITH FINISHED GRADE.

PROJECT SPECIFIC NOTES

1. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE GUARANTEED BY THE CONTRACTOR AND HIS SURETY FOR A PERIOD OF 12 MONTHS FROM THE DATE OF INITIAL ACCEPTANCE OF THE WORK BY THE OWNER AGAINST ALL DEFECTS IN MATERIALS AND WORKMANSHIP OF WHATEVER NATURE.
2. ALL CONSTRUCTION WILL BE INSPECTED BY THE OWNER'S REPRESENTATIVE. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE MUNICIPALITY AS WELL AS THE STANDARD SPECIFICATIONS.
3. ALL PUBLIC WATER MAINS AND SANITARY SEWER MAINS MUST BE ACCEPTED BY THE VILLAGE OF ARLINGTON HEIGHTS.
4. THE SEWER AND WATER CONTRACTOR SHALL BE REQUIRED TO BE LICENSED AND BONDED WITH THE VILLAGE OF ARLINGTON HEIGHTS BEFORE WORK IS STARTED.
5. CONTRACTOR SHALL NOTIFY THE VILLAGE OF ARLINGTON HEIGHTS (847-368-5250) AND THE PROJECT ENGINEER (847-478-9700) AT LEAST 72 HOURS PRIOR TO BEGINNING ANY WORK ON THIS PROJECT.
6. THE CONTRACTOR SHALL INDEMNIFY THE OWNER, ENGINEER, THE MUNICIPALITY AND THEIR AGENTS, FROM ALL LIABILITY INVOLVED IN CONSTRUCTION, INSTALLATION AND TESTING OF THE WORK ON THIS PROJECT.
7. THE CONTRACTOR MUST CARRY INSURANCE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. ALL OFFICIALS, EMPLOYEES AND AGENTS OF GEWALT HAMILTON ASSOCIATES MUST BE LISTED AS ADDITIONAL INSURED.
8. ALL ELEVATIONS ARE ON NAVD 88 VERTICAL DATUM.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL TRAFFIC CONTROL TO ADEQUATELY INFORM AND PROTECT THE PUBLIC OF ALL CONSTRUCTION OPERATIONS.
10. STOCKPILING MATERIAL WITHIN THE 100 YEAR FLOOD PLAIN AND OR THE FLOODWAY IS STRICTLY PROHIBITED
11. ALL PAVEMENT AND BUILDING SUBGRADE SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY (ASTM D-1557). ALL SUBGRADE IN LAWN AREAS SHALL BE COMPACTED TO 90% MODIFIED PROCTOR DENSITY (ASTM D-1557). TOPSOIL AND SUBGRADE 6" BELOW TOPSOIL SHALL BE COMPACTED TO 80% STANDARD PROCTOR DENSITY (ASTM D-698).
12. PRIOR TO PLACEMENT OF FABRIC AND STONE, THE SUBGRADE SHALL BE PROOF-ROLLED IN THE PRESENCE OF THE ENGINEER. PROOF-ROLLING SHALL BE DONE USING A THREE AXLE DUMP TRUCK TOGETHER WITH LOAD WEIGHING AT LEAST TWENTY-FIVE (25) TONS. THE LOAD SHALL BE UNIFORMLY PLACED IN THE DUMP BODY. ALL DEFICIENCIES SHALL BE REPAIRED AND RE-PROOF-ROLLED UNTIL FOUND ACCEPTABLE TO THE ENGINEER.
13. ALL STONE USED ON THE PROJECT SHALL BE CRUSHED UNLESS SPECIFICALLY NOTED OTHERWISE.
14. ALL CONNECTIONS TO EXISTING STORM MANHOLES SHALL BE INSTALLED WITH A NEOPRENE BOOT SECURED WITH DOUBLE STAINLESS STEEL STRAPS MEETING THE REQUIREMENTS OF ASTM C-923.
15. ALL CONCRETE SHALL HAVE A LIGHT BROOM FINISH APPLIED WITHIN 1 HOUR OF FINAL STRIKING.
16. ALL CONCRETE SHALL CONSIST OF PORTLAND CEMENT CONCRETE, 4" SLUMP, 6.1 BAG MIX AND AIR ENTRAINMENT OF NOT LESS THAN FIVE (5%) OR MORE THAN EIGHT (8%). CONCRETE SHALL BE A MINIMUM COMPRESSIVE STRENGTH (4000PSI) AT TWENTY EIGHT (28) DAYS. FLYASH MAY BE USED IN THE CONCRETE MIX.
17. ALL CONCRETE SHALL HAVE A WHITE, IDOT TYPE 3 CURING COMPOUND APPLIED TO THE SURFACE WITHIN 1 HOUR OF FINAL STRIKING AT THE MANUFACTURER RECOMMENDED APPLICATION RATE.
18. 3/4" THICK PRE-MOLDED FIBER EXPANSION JOINTS WITH 2, 3/4" x 18" PLAIN ROUND, STEEL DOWEL BARS SHALL BE INSTALLED IN ALL CURBS AT (45') FORTY FIVE FOOT INTERVALS AND AT ALL P.C.'S, P.T.'S AND CURB RETURNS. ALTERNATE ENDS OF THE DOWEL BARS SHALL BE GREASED AND FITTED WITH METAL EXPANSION TUBES. ALL EXPANSION JOINTS MUST BE FREE OF CONCRETE FOR FULL DEPTH. CONTRACTION JOINTS SHALL BE TOOLED AT 15' INTERVALS.
19. UNLESS OTHERWISE NOTED ON THE PLANS WHENEVER NEW FLATWORK CONCRETE ABUTS EXISTING/OR NEW CONCRETE SET A 1/2" THICK PRE-MOLDED FIBER EXPANSION JOINT AND DOWEL WITH SMOOTH 12" #4 BARS @ 24" O.C. THIS INCLUDES CONCRETE POURED ADJACENT TO EXISTING SIDEWALKS, CURBS AND BUILDING. THE DOWEL BARS SHOULD BE 4" INTO EXISTING CONCRETE WITH 8" EXTENDING INTO NEW CONCRETE.
20. ALL DOWEL BARS AND TIE BARS SHALL BE EPOXY COATED UNLESS NOTED OTHERWISE.

STORM SEWERS	MODEL/SPECIFICATION	STANDARDS/REQUIREMENTS	
UNDERDRAINS	PVC SDR 26	PIPE:ASTM D-3034	JOINT:ASTM D-3212
	RCP CL IV	PIPE:ASTM C-76	JOINT:ASTM C-443
	PVC SDR 26	PIPE:ASTM D-3034	JOINT:ASTM D-3212
	PERFORATIONS	HOLE PATTERN:ASTM D-2729	
FRAME & GRATE/LID	PAVED AREAS	OPEN LID:NEENAH R-1713 TYPE "D"	CLOSED LID:NEENAH R-1713 EMBOSS "STORM"
	CURB STRUCTURES	OPEN LID:NEENAH R-1713 TYPE "D"	CLOSED LID:N/A
	GRASS AREAS	OPEN LID:NEENAH R-1713 TYPE "D"	CLOSED LID:NEENAH R-1713 EMBOSS "STORM"
ADJUSTMENT RINGS	CONCRETE	4" MINIMUM, 12" MAXIMUM	
	PLASTIC	LESS THAN 4"	
PIPE BEDDING MATERIAL	CA-11		
TRENCH BACKFILL	CA-6		
TRENCH BACKFILL UNDERDRAIN	CA7/CA-11	CRUSHED CONCRETE NOT ALLOWED, ALL STONE MUST BE WASHED	
MANHOLE CONNECTIONS		ASTM: C-923	

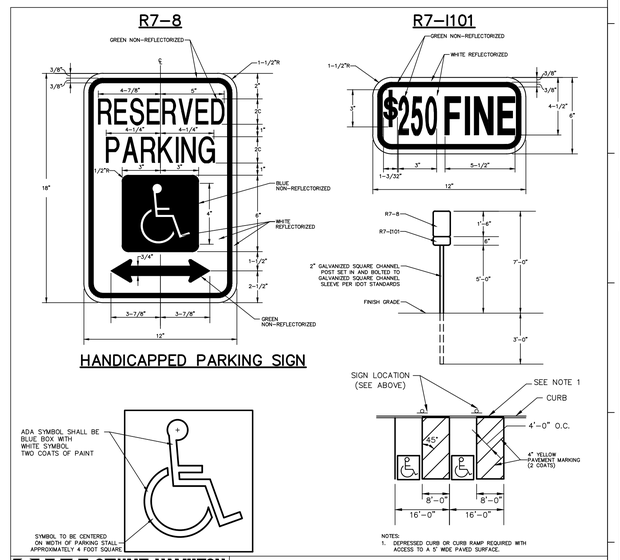
WATER MAIN	MODEL/SPECIFICATION	STANDARDS/REQUIREMENTS	
	DIP CL 52	PIPE:ANSI/AWWA A21.51/C-151	JOINT:ANSI/AWWA A21.11/C-111
		LINING:ANSI/AWWA C104/A21.4	
FRAME & GRATE/LID		CLOSED LID:NEENAH R-1713 EMBOSSED "WATER"	
ADJUSTMENT RINGS	CONCRETE	2 RINGS, 12" MAXIMUM	
PIPE BEDDING MATERIAL	CA-6		
TRENCH BACKFILL	CA-6		
POLYWRAP	8 MIL BLACK POLY	WRAP:ANSI/AWWA C105/A21.5	INSTALLATION:ASTM A-674 METHOD A
CURB STOP	NO LEAD BRASS	MUELLER BRONZE BODY, GROUND-KEY PLUG OR BALL, AND WIDE TEE HEAD, WITH INLET AND OUTLET TO MATCH SERVICE PIPING MATERIALS. VERIFY WITH VILLAGE PRIOR TO FINAL ORDER.	
CURB BOX		CAST-IRON BOX WITH TELESOCPING TOP SECTION OF LENGTH REQUIRED FOR DEPTH OF BURY OF VALVE. INCLUDE COVER WITH LETTERING "WATER" AND BOTTOM SECTION WITH BASE OF SIZE TO FIT OVER CURB-STOP AND BARREL APPROXIMATELY 3" IN DIAMETER. VERIFY WITH VILLAGE PRIOR TO FINAL ORDER.	
CORPORATION VALVE	NO LEAD BRASS	VERIFY WITH VILLAGE PRIOR TO FINAL ORDER.	
SERVICE SADDLE	DOUBLE STRAP SADDLE	MUELLER SS SERIES SS DBLE STRAP. VERIFY WITH VILLAGE PRIOR TO FINAL ORDER.	
FIRE HYDRANT	EJIW MODEL BR250	AWWA C502, 5.25" BARREL HYDRANTS WITH BREAKAWAY FLANGE, NST, A 4.5" STEAMER PORT AND TWO 2.5" HOSE PORT, STAINLESS STEEL HARDWARE. TRAFFIC TYPE, PAINTED RED, 250 PSI OPERATING PRESSURE. VERIFY WITH VILLAGE PRIOR TO FINAL ORDER.	
VALVES	MUELLER OR EJIW	RESILIENT WEDGE GATE VALVES WITH NON-RISING STEM AND MECHANICAL JOINT. VERIFY WITH VILLAGE PRIOR TO FINAL ORDER.	
VALVE BOX	MUELLER OR EJIW	VERIFY WITH VILLAGE PRIOR TO FINAL ORDER.	
FITTINGS		SAME MATERIAL AS PIPE MOLDED OR FORMED TO SUIT PIPE SIZE AND END DESIGN, IN REQUIRED TEE, BENDS, PLUGS, ELBOWS, CLEANOUTS, REDUCERS, TRAPS, AND OTHER CONFIGURATIONS REQUIRED.	
BOLTS		ALL BOLTS SHALL BE STAINLESS STEEL CONFORMING TO ASTM A-193, TYPE 304 NUTS ARE TO BE SERIES 300 STAINLESS STEEL OTHER THAN SERIES 304, CONFORMING TO ASTM-194.	
WATER SERVICE PIPE	TYPE K COPPER	PIPE:ASTM B-88	

SANITARY SEWERS	MODEL/SPECIFICATION	STANDARDS/REQUIREMENTS	
	PVC C900 DR18	PIPE:AWWA C900	JOINT:ASTM D-3139 GASKET:ASTM F-477
FRAME & GRATE/LID		CLOSED LID:NEENAH R-1916-C BOLT DOWN LID, TYPE F CONCEALED PICKHOLE EMBOSSED "SANITARY"	
ADJUSTMENT RINGS	CONCRETE	4" MINIMUM, 12" MAXIMUM	
	PLASTIC	LESS THAN 4"	
PIPE BEDDING MATERIAL	CA-11		
TRENCH BACKFILL	CA-6		
CHIMNEY SEAL	CRETEX	ASTM C-923	
MANHOLE CONNECTIONS		ASTM C-923	
JOINT WRAP	MAC WRAP	ASTM C-877 TYPE II	

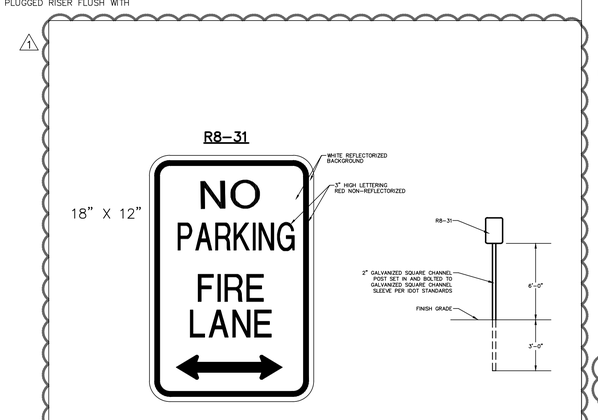
TESTING REQUIREMENTS	
WATER MAIN	ALL WATER MAIN SHALL HAVE A PRESSURE AND LEAKAGE TEST PERFORMED IN ACCORDANCE WITH SECTION 41-2.14 OF STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS ACCEPT THE PRESSURE DURING THE TESTS SHALL BE EQUAL TO 150PSI.
SANITARY SEWER	ALL SANITARY SEWER SHALL BE TESTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS. ALL RIGID SANITARY SEWER PIPE SHALL BE TESTED BY EITHER METHOD A B OR C AS OUTLINED IN SECTION 31-1.12. ALL FLEXIBLE SANITARY SEWER PIPE SHALL BE TESTED BY METHOD D AND EITHER METHOD A B OR C. ALL SANITARY SEWER MUST BE TESTED BY METHOD E. THE CONTRACTOR SHALL PROVIDE THE ENGINEER A COPY OF THE VIDEO ON A DIGITAL VIDEO DISC. THE VIDEO MUST BE IN COLOR AND PROCEED NO FASTER THAN 1 FOOT PER SECOND.
SEWER WATER MAIN CROSSINGS	ALL SEWERS THAT CROSS OR RUN PARALLEL TO WATER MAINS SUBJECT TO IEPA REQUIREMENTS FOR WATER MAIN QUALITY PIPE MUST BE PRESSURE TESTED ACCORDING TO 41-2.14 OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS
SANITARY MANHOLES	ALL SANITARY MANHOLES SHALL BE TESTED BY EITHER ASTM C-969 OR ASTM C-1244

NON-WOVEN	STYLE DESCRIPTION	STANDARDS/REQUIREMENTS
LIGHT DUTY	UNDERDRAIN FABRIC	3.5 oz
		MINIMUM GRAD TENSILE ASTM D4632 = 90 LBS
		MINIMUM TRAPEZOID TEAR ASTM D4533 = 40 LBS
		MINIMUM FLOW RATE ASTM D4491 = 150 GAL/MIN/SQFT
MEDIUM DUTY	UNDERDRAIN FABRIC	6 oz
		MINIMUM GRAD TENSILE ASTM D4632 = 160 LBS
		MINIMUM TRAPEZOID TEAR ASTM D4533 = 60 LBS
		MINIMUM FLOW RATE ASTM D4491 = 110 GAL/MIN/SQFT
HEAVY DUTY	SUBGRADE/SUBBASE SEPARATION	10 oz
		MINIMUM GRAD TENSILE ASTM D4632 = 250 LBS
		MINIMUM TRAPEZOID TEAR ASTM D4533 = 100 LBS
		MINIMUM FLOW RATE ASTM D4491 = 75 GAL/MIN/SQFT

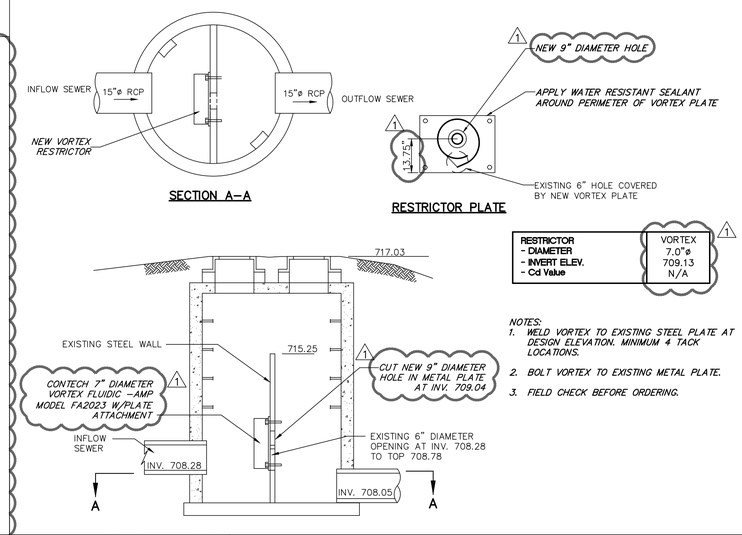
WOVEN	STYLE DESCRIPTION	STANDARDS/REQUIREMENTS
HEAVY DUTY	SUBGRADE/SUBBASE SEPARATION	6 oz
		MINIMUM GRAD TENSILE ASTM D4632 = 315 LBS
		MINIMUM TRAPEZOID TEAR ASTM D4533 = 113 LBS
		MINIMUM FLOW RATE ASTM D4491 = 4 GAL/MIN/SQFT



HANDICAPPED PARKING STALL AND SIGN DIMENSIONS



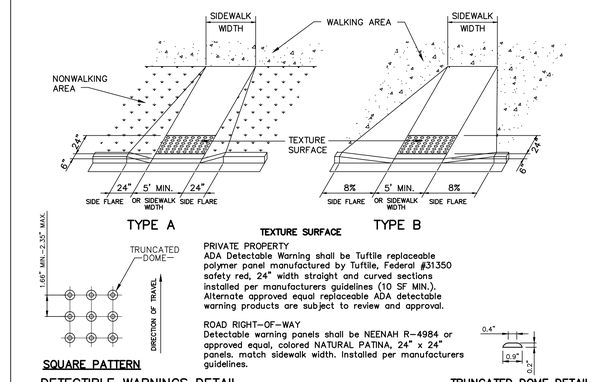
NO PARKING FIRE LANE SIGN DETAIL



RESTRICTOR	VORTEX
- DIAMETER	7.0"ø
- INVERT ELEV.	709.13
- Cd Value	N/A

NOTES:
1. WELD VORTEX TO EXISTING STEEL PLATE AT DESIGN ELEVATION. MINIMUM 4 TACK LOCATIONS.
2. BOLT VORTEX TO EXISTING METAL PLATE.
3. FIELD CHECK BEFORE ORDERING.

OUTLET CONTROL STRUCTURE MODIFICATION DETAIL



TEXTURE SURFACE

PRIVATE PROPERTY
ADA Detectable Warning shall be Tuftile replaceable polymer panel manufactured by Tuftile, Federal #31350 safety red, 24" width straight and curved sections installed per manufacturers guidelines (10 SF MIN.). Alternate approved equal replaceable ADA detectable warning products are subject to review and approval.

ROAD RIGHT-OF-WAY
Detectable warning panels shall be NEENAH R-4984 or approved equal, colored NATURAL PATINA, 24" x 24" panels. match sidewalk width. Installed per manufacturers guidelines.

DETECTIBLE WARNINGS DETAIL

TRUNCATED DOME DETAIL

GENERAL NOTES

RAMPS SHALL BE LOCATED AS SHOWN ON PLANS IN ALIGNMENT WITH NORMAL SIDEWALK AND/OR CROSSWALK AND SHALL HAVE SUFFICIENT CURB LENGTH AT CORNER RADIUS TO PREVENT VEHICULAR ENCROACHMENT.

THE MAXIMUM SLOPE OF THE SIDE FLARE FOR TYPE B RAMPS SHALL BE 1:10; HOWEVER, IF THE WIDTH OF THE LANDING AREA BETWEEN THE TOP OF THE RAMP AND AN OBSTRUCTION IS LESS THAN 48" THEN THE MAXIMUM SLOPE SHALL BE 1:12.

SIDEWALK RAMPS FOR THE HANDICAPPED

NO.	DATE	DESCRIPTION
00	01/08/18	PLAN COMMISSION REVIEW
01	02/09/18	PLAN COMMISSION REVIEW - REVISIONS

ISSUANCE

FGM ARCHITECTS
CHICAGO OAK BROOK O'FALLON ST. LOUIS
GEWALT HAMILTON ASSOCIATES, INC.
625 Forest Edge Drive • Vernon Hills, IL 60061
TEL: 847-478-9700 • FAX: 847-478-9701
GHA JOB # 5313.000

DATE:

PROFESSIONAL SEAL

EXPIRATION DATE: 11/30/19

DATE	01/08/17
DRAWN	DG
CHECKED	WEG
APPROVED	WEG
PROFESSIONAL DESIGN FIRM	IL # 184-000922

OLYMPIC SWIM ADDITION AND RENOVATION
ARLINGTON HEIGHTS PARK DISTRICT
660 Ridge Ave
Arlington Heights, IL 60004

GENERAL NOTES / DETAILS

SHEET NO.
C9

JOB NO. 17-2408.01

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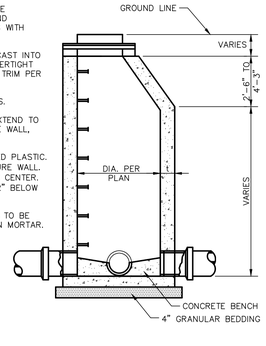
NOTES:

1. SEE STORM TABLE FOR FURTHER REQUIREMENTS.
2. PRECAST REINFORCED CONCRETE SECTIONS PER ASTM C-478 AND PREFORMED BITUMINOUS JOINTS WITH INTEGRAL PRECAST BOTTOMS.
3. PIPE OPENINGS SHALL BE PRECAST INTO WALLS. CAST IN RESILIENT WATERTIGHT SLEEVE WITH STAINLESS STEEL TRIM PER ASTM C-923.
4. I.D.O.T #602601 FOR FLAT TOPS.
5. PRECAST PCC BENCH SHALL EXTEND TO CROWN AND SLOPE TO OUTSIDE WALL, SMOOTH FINISH.
6. STEPS TO BE STEEL REINFORCED PLASTIC.
   A. IMBEDDED 3" INTO STRUCTURE WALL.
   B. SPACED AT 16" CENTER TO CENTER.
   C. FIRST STEP LOCATED 8"-12" BELOW FRAME.
7. FINAL ADJUSTMENT TO FRAMES TO BE DONE WITH STEEL SHIMS SET IN MORTAR.



DIA	MIN. THICKNESS (t)
48"	4"
60"	5"
72"	6"

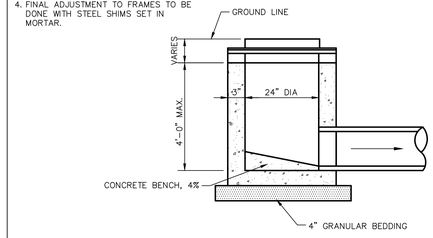
03.15.2016

GEWALT HAMILTON ASSOCIATES, INC.

STORM MANHOLE TYPE A COMBINED SEWER

NOTES:

1. SEE STORM TABLE FOR FURTHER REQUIREMENTS.
2. PRECAST REINFORCED CONCRETE SECTIONS PER ASTM C-478 AND PREFORMED BITUMINOUS JOINTS WITH INTEGRAL PRECAST BOTTOMS.
3. PIPE OPENINGS SHALL BE PRECAST INTO WALLS. CAST IN RESILIENT WATERTIGHT SLEEVE WITH STAINLESS STEEL TRIM PER ASTM C-923.
4. I.D.O.T #602601 FOR FLAT TOPS.
5. PRECAST PCC BENCH SHALL EXTEND TO CROWN AND SLOPE TO OUTSIDE WALL, SMOOTH FINISH.
6. STEPS TO BE STEEL REINFORCED PLASTIC.
   A. IMBEDDED 3" INTO STRUCTURE WALL.
   B. SPACED AT 16" CENTER TO CENTER.
   C. FIRST STEP LOCATED 8"-12" BELOW FRAME.
7. FINAL ADJUSTMENT TO FRAMES TO BE DONE WITH STEEL SHIMS SET IN MORTAR.



DIA	MIN. THICKNESS (t)
48"	4"
60"	5"
72"	6"

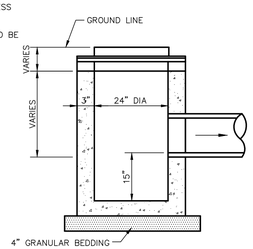
03.15.2016

GEWALT HAMILTON ASSOCIATES, INC.

CATCH BASIN TYPE A COMBINED SEWER

NOTES:

1. SEE STORM TABLE FOR FURTHER REQUIREMENTS.
2. PRECAST REINFORCED CONCRETE SECTIONS PER ASTM C-478 AND PREFORMED BITUMINOUS JOINTS WITH INTEGRAL PRECAST BOTTOMS.
3. PIPE OPENINGS SHALL BE PRECAST INTO WALLS. CAST IN RESILIENT WATERTIGHT SLEEVE WITH STAINLESS STEEL TRIM PER ASTM C-923.
4. FINAL ADJUSTMENT TO FRAMES TO BE DONE WITH STEEL SHIMS SET IN MORTAR.



03.15.2016

GEWALT HAMILTON ASSOCIATES, INC.

CATCH BASIN TYPE C COMBINED SEWER

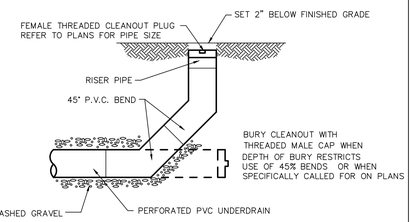
NOTES:

1. SEE STORM TABLE FOR FURTHER REQUIREMENTS.
2. PRECAST REINFORCED CONCRETE SECTIONS PER ASTM C-478 AND PREFORMED BITUMINOUS JOINTS WITH INTEGRAL PRECAST BOTTOMS.
3. PIPE OPENINGS SHALL BE PRECAST INTO WALLS. CAST IN RESILIENT WATERTIGHT SLEEVE WITH STAINLESS STEEL TRIM PER ASTM C-923.
4. FINAL ADJUSTMENT TO FRAMES TO BE DONE WITH STEEL SHIMS SET IN MORTAR.

03.15.2016

GEWALT HAMILTON ASSOCIATES, INC.

INLET TYPE A COMBINED SEWER



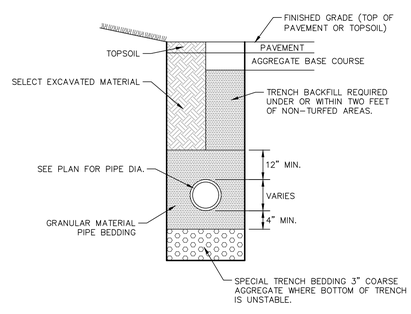
03.15.2016

GEWALT HAMILTON ASSOCIATES, INC.

STORM SEWER UNDERDRAIN CLEANOUT

NOTE:
SEE STORM TABLE FOR MATERIAL REQUIREMENTS.

TRENCH WIDTH
WIDTH (MAX.) = 9" + OD + 9" WHEN TRENCH ≤ 5 FT.
WIDTH (MAX.) = 18" + OD + 18" WHEN TRENCH > 5 FT.



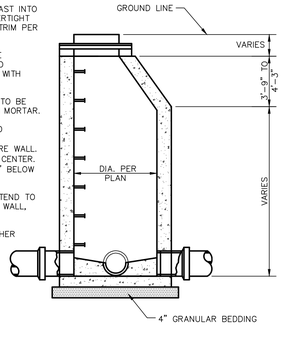
03.15.2016

GEWALT HAMILTON ASSOCIATES, INC.

STORM TRENCH DETAIL

NOTES:

1. EXTERIOR NEOPRENE CHIMNEY SEAL STAINLESS STEEL TRIM PER ASTM C-923.
2. PIPE OPENINGS SHALL BE PRECAST INTO WALLS. CAST IN RESILIENT WATERTIGHT SLEEVE WITH STAINLESS STEEL TRIM PER ASTM C-923.
3. PRECAST REINFORCED CONCRETE SECTIONS PER ASTM C-478 AND PREFORMED BITUMINOUS JOINTS WITH INTEGRAL PRECAST BOTTOMS.
4. FINAL ADJUSTMENT TO FRAMES TO BE DONE WITH STEEL SHIMS SET IN MORTAR.
5. STEPS TO BE STEEL REINFORCED PLASTIC.
   A. IMBEDDED 3" INTO STRUCTURE WALL.
   B. SPACED AT 16" CENTER TO CENTER.
   C. FIRST STEP LOCATED 8"-12" BELOW FRAME.
6. PRECAST PCC BENCH SHALL EXTEND TO CROWN AND SLOPE TO OUTSIDE WALL, SMOOTH FINISH.
7. SEE SANITARY TABLE FOR FURTHER REQUIREMENTS.



DIM	MIN. THICKNESS
48"	4"
60"	5"
72"	6"

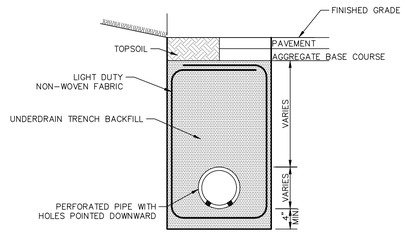
03.15.2016

GEWALT HAMILTON ASSOCIATES, INC.

SANITARY MANHOLE

NOTE:
SEE STORM TABLE FOR MATERIAL REQUIREMENTS.

TRENCH WIDTH
WIDTH (MAX.) = 9" + OD + 9" WHEN TRENCH ≤ 5 FT.
WIDTH (MAX.) = 18" + OD + 18" WHEN TRENCH > 5 FT.



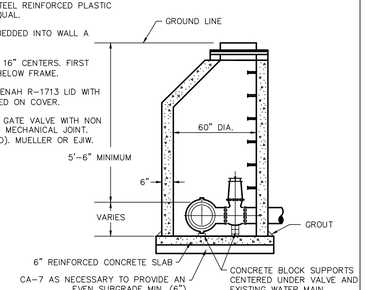
03.15.2016

GEWALT HAMILTON ASSOCIATES, INC.

STORM UNDERDRAIN DETAIL

NOTES:

1. SEE WATERMAIN TABLE FOR FURTHER REQUIREMENTS.
2. PRECAST REINFORCED CONCRETE SECTIONS WITH PREFORMED BITUMINOUS JOINTS AND INTEGRAL PRECAST BOTTOMS.
3. ADJUST RINGS NOT TO EXCEED 8".
4. STEEPS TO BE STEEL REINFORCED PLASTIC OR APPROVED EQUAL.
5. STEPS TO BE IMBEDDED INTO WALL A MINIMUM OF 3"
6. STEPS TO BE AT 16" CENTERS. FIRST STEP TO BE 8" BELOW FRAME.
7. FRAME TO BE NEENAH R-1713 LID WITH "WATER" IMPRINTED ON COVER.
8. RESILIENT WEDGE GATE VALVE WITH NON RISING STEM AND MECHANICAL JOINT. (SIZE AS LABELED). MUELLER OR EJW.



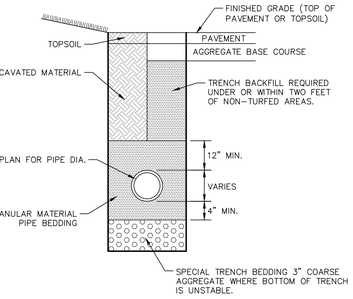
03.15.2016

GEWALT HAMILTON ASSOCIATES, INC.

TAPPING VALVE AND VAULT

NOTE:
SEE SANITARY TABLE FOR MATERIAL REQUIREMENTS.

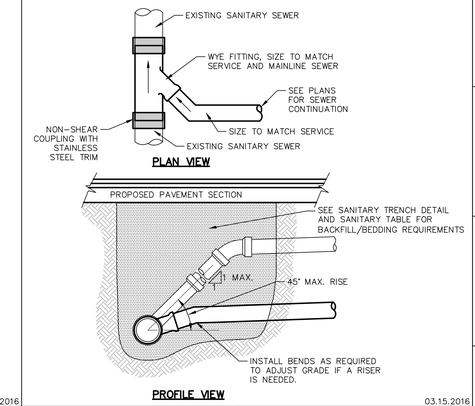
TRENCH WIDTH
WIDTH (MAX.) = 9" + OD + 9" WHEN TRENCH ≤ 5 FT.
WIDTH (MAX.) = 18" + OD + 18" WHEN TRENCH > 5 FT.



03.15.2016

GEWALT HAMILTON ASSOCIATES, INC.

SANITARY TRENCH DETAIL



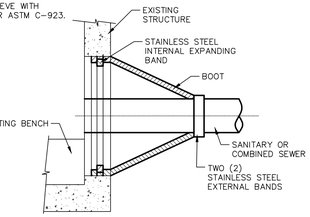
03.15.2016

GEWALT HAMILTON ASSOCIATES, INC.

SANITARY SERVICE CONNECTION DETAIL

NOTES:

1. MACHINE CORE CIRCULAR OPENING IN STRUCTURE WALL OF DIAMETER TO FIT THE REQUIRED BOOT SIZE PER MANUFACTURERS RECOMMENDATION.
2. CUT SHAPE AND SLOPE NEW INVERT CHANNEL IN THE EXISTING CONCRETE BENCH FOR SMOOTH FLOW FROM/TO NEW CONNECTION.
3. CLEAN EXISTING STRUCTURE AND SEWER PIPE OF ANY DIRT CONCRETE OR DEBRIS WHICH MAY ACCUMULATE DURING THE CONSTRUCTION PROCESS.
4. RESILIENT WATERTIGHT SLEEVE WITH STAINLESS STEEL TRIM PER ASTM C-923.



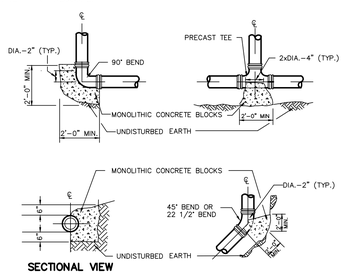
03.15.2016

GEWALT HAMILTON ASSOCIATES, INC.

STORM OR COMBINED SEWER PIPE CONNECTION TO EXISTING STRUCTURE DETAIL

NOTES:

1. BLOCKING SHALL BE APPLIED FOR ALL TEES, PLUGS, CAPS, & 22 1/2" OR MORE BENDS.
2. THRUST BLOCKS TO BE CLASS "X" CONCRETE.
3. BEARING AREAS OF UNDISTURBED EARTH SHALL HAVE A MINIMUM ALLOWABLE BEARING CAPACITY OF 2000 P.S.F.
4. BEARING AREA OF SOIL BASED ON 65 P.S.I. WATERMAIN PRESSURE.

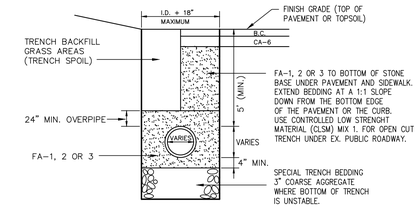


03.15.2016

GEWALT HAMILTON ASSOCIATES, INC.

THRUST BLOCKING DETAIL

NOTE:
SEE WATERMAIN TABLE FOR MATERIAL REQUIREMENTS.



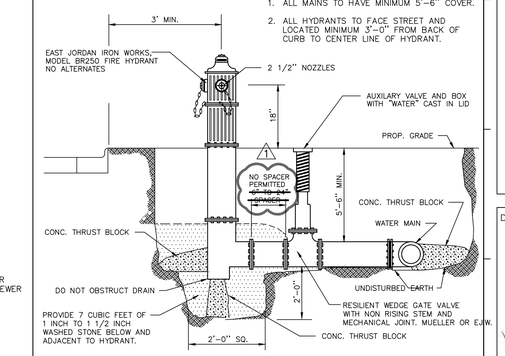
03.15.2016

GEWALT HAMILTON ASSOCIATES, INC.

FIRE HYDRANT DETAIL

NOTES:

1. ALL MAINS TO HAVE MINIMUM 5'-6" COVER.
2. ALL HYDRANTS TO FACE STREET AND LOCATED MINIMUM 3'-0" FROM BACK OF CURB TO CENTER LINE OF HYDRANT.



03.15.2016

GEWALT HAMILTON ASSOCIATES, INC.

WATERMAIN TRENCH DETAIL

NO.	DATE	DESCRIPTION
00	01/08/18	PLAN COMMISSION REVIEW
01	02/09/18	PLAN COMMISSION REVIEW - REVISIONS

ISSUANCE

FGM ARCHITECTS
CHICAGO OAK BROOK ST. LOUIS O'FALLON
GEWALT HAMILTON ASSOCIATES, INC.
625 Forest Edge Drive ▪ Vernon Hills, IL 60061
TEL: 847-478-9700 ▪ FAX: 847-478-9701
GHA JOB # 5313.000

DATE:

WALTER E. DRAFT 062-048837 LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

PROFESSIONAL SEAL

EXPIRATION DATE: 11/30/19

DATE	01/08/17
DRAWN	DG
CHECKED	WEG
APPROVED	WEG

PROFESSIONAL DESIGN FIRM IL # 184-000922

OLYMPIC SWIM ADDITION AND RENOVATION
ARLINGTON HEIGHTS PARK DISTRICT
660 Ridge Ave
Arlington Heights, IL 60004

DETAILS

SHEET NO.
C10

JOB NO. 17-2408.01

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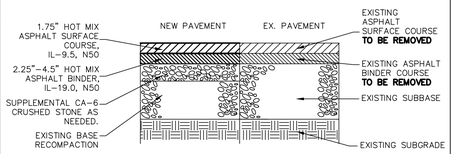
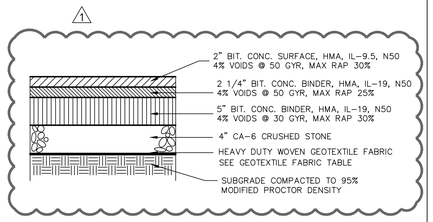
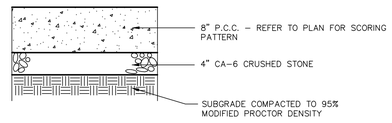


NOTES:
1. EXISTING ASPHALT PAVEMENT TO BE REMOVED (±3"-4"). EX. AGGREGATE TO BE REMOVED AS NEEDED TO MEET PROPOSED ASPHALT THICKNESS.
2. SUPPLEMENTAL AGGREGATE THICKNESS TO MEET PROPOSED PLAN ELEVATIONS OR ASPHALT PATCH THICKNESS.
3. SUPPLEMENTAL AGGREGATE TO BE CA-6 CRUSHED LIMESTONE OR CRUSHED GRAVEL. NO CRUSHED CONCRETE.

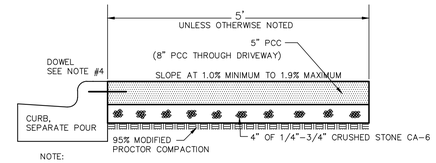
GEWALT HAMILTON ASSOCIATES, INC. — 4"-6.5" PAVEMENT PATCH DETAIL



GEWALT HAMILTON ASSOCIATES, INC. — HEAVY DUTY PAVEMENT DETAIL



GEWALT HAMILTON ASSOCIATES, INC. — P.C.C. PAVEMENT DETAIL

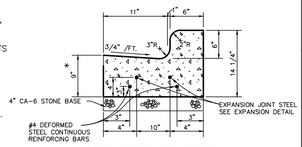


NOTE:
1. SET 1/2" EXPANSION JOINTS AT POINTS ABUTTING CURB OR PAVEMENT AND AT 60' MAX. INTERVALS.
2. CONTROL JOINTS SHALL BE SAWCUT 1/8" TO 1/4" WIDE AND 1/4 OF THE SIDEWALK THICKNESS DEEP. THE EDGE OF THE CONTROL JOINTS SHALL BE GIVEN A 1/4" RADIUS. JOINTS TO BE LOCATED AT 5' MAX. INTERVALS.
3. THREE #4 DEFORMED STEEL BARS SHALL BE INSTALLED IN THE SIDEWALK CENTERED OVER ALL TRENCH CROSSINGS. THEY SHALL EXTEND 10 FEET BEYOND THE EDGES OF THE TRENCH.
4. SIDEWALK ADJACENT TO NEW OR EXISTING CURB, OR EXISTING SIDEWALK SHALL BE DOWELED TO CURB OR EXISTING SIDEWALK WITH SMOOTH 12" EPOXY COATED #5 BARS AT 30" O.C.
5. SIDEWALK CONTRACTION AND EXPANSION JOINTS SHALL ALIGN WITH WITH NEW CURB JOINTS RESPECTIVELY.

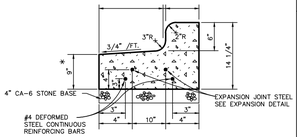
03.15.2016

GEWALT HAMILTON ASSOCIATES, INC. — PCC SIDEWALK

NOTES:
1. SET EXPANSION JOINTS AT ALL PC'S,PT'S, FIVE FEET ON EITHER SIDE OF ANY FRAMES, AND AT 60' MAX. INTERVALS.
2. SAW CUT CONTRACTION JOINTS FULL FACE AND TOP, AT LEAST 2 INCHES IN DEPTH AND AT 15' MAXIMUM INTERVALS WITHIN 24 HOURS OF POURING.
3. CURING COMPOUND REQUIRED.



REGULAR SECTION



REVERSE PITCH

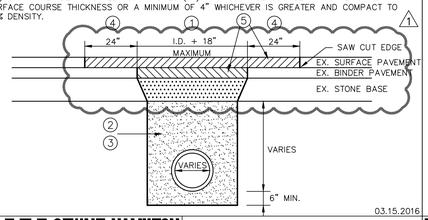
* INCREASE TO 11 INCHES ADJACENT TO HEAVY DUTY PAVEMENT

03.15.2016

GEWALT HAMILTON ASSOCIATES, INC. — B6.12 CURB & GUTTER

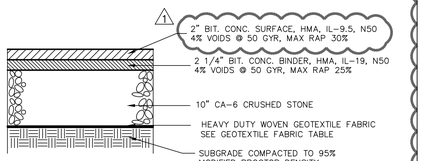
NOTES:
1. PRIOR TO EXCAVATION, SAWCUT PAVEMENT FULL DEPTH.
2. EXCAVATE THE STONE BASE AND SUBBASE.
3. INSTALL THE UTILITY PIPE AND BACKFILL WITH CA-6 CRUSHED STONE. COMPACT MECHANICALLY TO 95% STANDARD PROCTOR DENSITY.
4. SAWCUT STRAIGHT AND PARALLEL AND REMOVE AN ADDITIONAL 24" OF HMA SURFACE PAVEMENT ON BOTH SIDES OF THE TRENCH.
5. FOR PARKING LOTS - INSTALL TEN INCHES (10") OF CA-6 CRUSHED STONE BASE AND COMPACT WITH A VIBRATORY COMPACTOR TO 95% MODIFIED PROCTOR DENSITY. INSTALL FOUR INCHES (4") HMA SURFACE COURSE. MATCH EXISTING PAVEMENT THICKNESS OR A MINIMUM OF 4" WHICHEVER IS GREATER AND COMPACT TO 93% DENSITY.

FOR HEAVY DUTY PAVEMENT - INSTALL FOUR INCHES (4") OF CA-6 CRUSHED STONE BASE AND COMPACT WITH VIBRATORY COMPACTOR TO 95% MODIFIED PROCTOR DENSITY. INSTALL SIX INCHES (6") OF HMA BINDER. INSTALL FOUR INCHES (4") HMA SURFACE COURSE. MATCH EXISTING SURFACE COURSE THICKNESS OR A MINIMUM OF 4" WHICHEVER IS GREATER AND COMPACT TO 93% DENSITY.

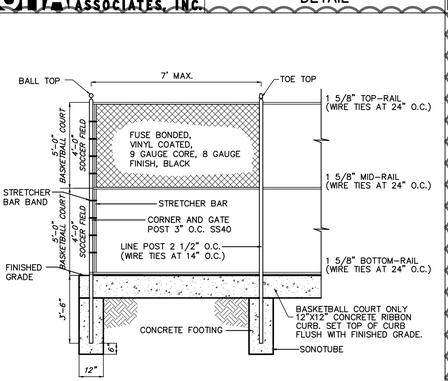


03.15.2016

GEWALT HAMILTON ASSOCIATES, INC. — UTILITY TRENCH PAVEMENT REPAIR DETAIL

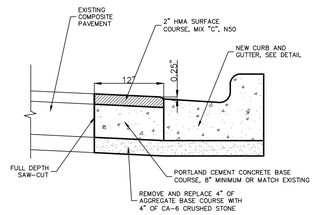


GEWALT HAMILTON ASSOCIATES, INC. — NORMAL DUTY PAVEMENT DETAIL



BASKETBALL COURT FENCE HEIGHT = 10'-0"
SOCCER FIELD FENCE HEIGHT = 8'-0"

GEWALT HAMILTON ASSOCIATES, INC. — BASKETBALL/SOCCER FENCE DETAIL



03.15.2016

GEWALT HAMILTON ASSOCIATES, INC. — PAVEMENT PATCH FOR NEW CURB INSTALLATION

NOTES:
1. SET EXPANSION JOINTS AT ALL PC'S,PT'S, FIVE FEET ON EITHER SIDE OF ANY FRAMES, AND AT 60' MAX. INTERVALS.
2. SAW CUT CONTRACTION JOINTS FULL FACE AND TOP, AT LEAST 2 INCHES IN DEPTH AND AT 15' MAXIMUM INTERVALS WITHIN 24 HOURS OF POURING.
3. CURING COMPOUND REQUIRED.

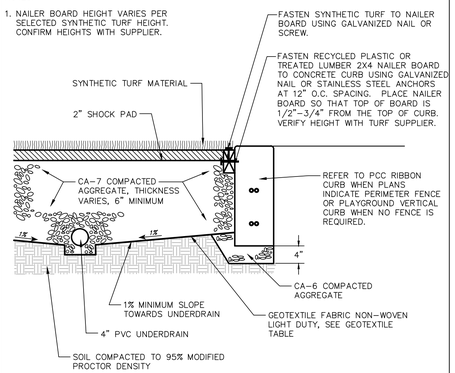
DEPRESSED SECTION

* INCREASE TO 11 INCHES ADJACENT TO HEAVY DUTY PAVEMENT

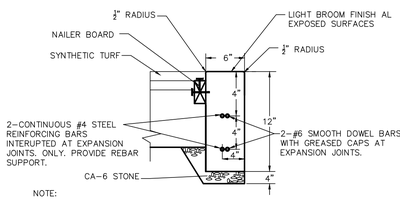
03.15.2016

GEWALT HAMILTON ASSOCIATES, INC. — DEPRESSED B6.12 CURB & GUTTER

NOTES:
1. NAILER BOARD HEIGHT VARIES PER SELECTED SYNTHETIC TURF HEIGHT. CONFIRM HEIGHTS WITH SUPPLIER.

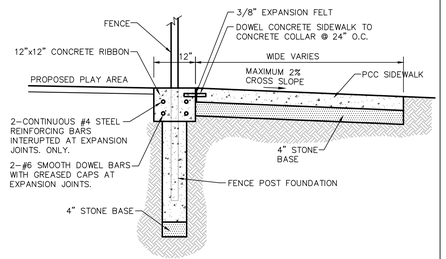


GEWALT HAMILTON ASSOCIATES, INC. — SYNTHETIC TURF PLAYGROUND DETAIL



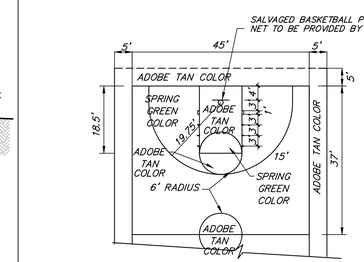
NOTE:
1. SET EXPANSION JOINTS AT ALL PC'S, PT'S, FIVE FEET ON EITHER SIDE OF ANY FRAMES, AND AT 200' MAX. INTERVALS.
2. SAW CUT CONTRACTION JOINTS FULL FACE AND TOP, AT LEAST 2 INCHES IN DEPTH AND AT 20' MAXIMUM INTERVALS WITHIN 24 HOURS OF POURING.
3. CURING COMPOUND REQUIRED.

GEWALT HAMILTON ASSOCIATES, INC. — PLAYGROUND VERTICAL CURB DETAIL

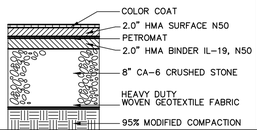


NOTE:
1. SET EXPANSION JOINTS AT 150' MAXIMUM INTERVALS.
2. CONTRACTION JOINTS TO BE TOOLED AT FENCE POST LOCATIONS, ±8'.
3. SIDEWALK EXPANSION/CONTRACTION JOINTS TO MATCH CONCRETE JOINT LOCATIONS INSTALLED.

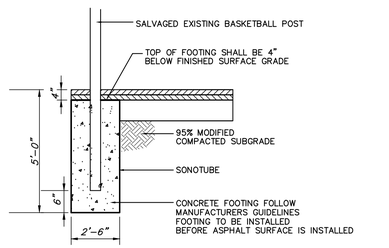
GEWALT HAMILTON ASSOCIATES, INC. — CONCRETE RIBBON CURB WITH FENCE POST SECTION



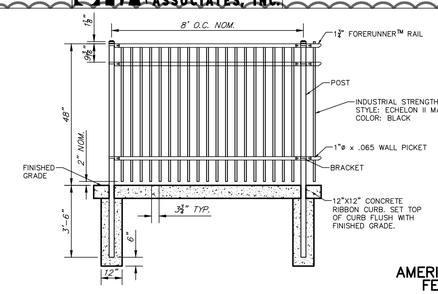
NOTES
1. INSTALL BASKETBALL POSTS PER MANUFACTURER SPECIFICATIONS AND INSTRUCTIONS.
2. REFER TO SPECIFICATIONS FOR COLOR COAT REQUIREMENTS, MINIMUM TWO BLACK AND TWO COLOR COATS.
3. STRIPE FOLLOWING NFSHSA GUIDE FOR BASKETBALL COURTS.

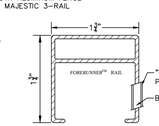


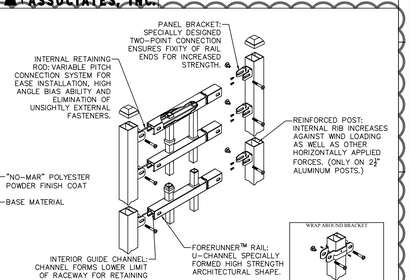
GEWALT HAMILTON ASSOCIATES, INC. — BASKETBALL COURT LAYOUT



GEWALT HAMILTON ASSOCIATES, INC. — BASKETBALL POST FOUNDATION







AMERISTAR 48" HIGH FENCE DETAIL

NO.	DATE	DESCRIPTION
00	01/08/18	PLAN COMMISSION REVIEW
01	02/09/18	PLAN COMMISSION REVIEW - REVISIONS

ISSUANCE

FGM ARCHITECTS
CHICAGO OAK BROOK O'FALLON ST. LOUIS
GEWALT HAMILTON ASSOCIATES, INC.
625 Forest Edge Drive ▪ Vernon Hills, IL 60061
TEL: 847-478-9700 ▪ FAX: 847-478-9701
GHA JOB # 5313.000

DATE:

WALTER R. DRAFT 062-048837 LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

PROFESSIONAL SEAL

EXPIRATION DATE: 11/30/19

DATE	01/08/17	
DRAWN	DG	
CHECKED	WEG	
APPROVED	WEG	

PROFESSIONAL DESIGN FIRM IL # 184-000922

OLYMPIC SWIM ADDITION AND RENOVATION
ARLINGTON HEIGHTS PARK DISTRICT
660 Ridge Ave
Arlington Heights, IL 60004

DETAILS

SHEET NO.
C11

JOB NO. 17-2408.01

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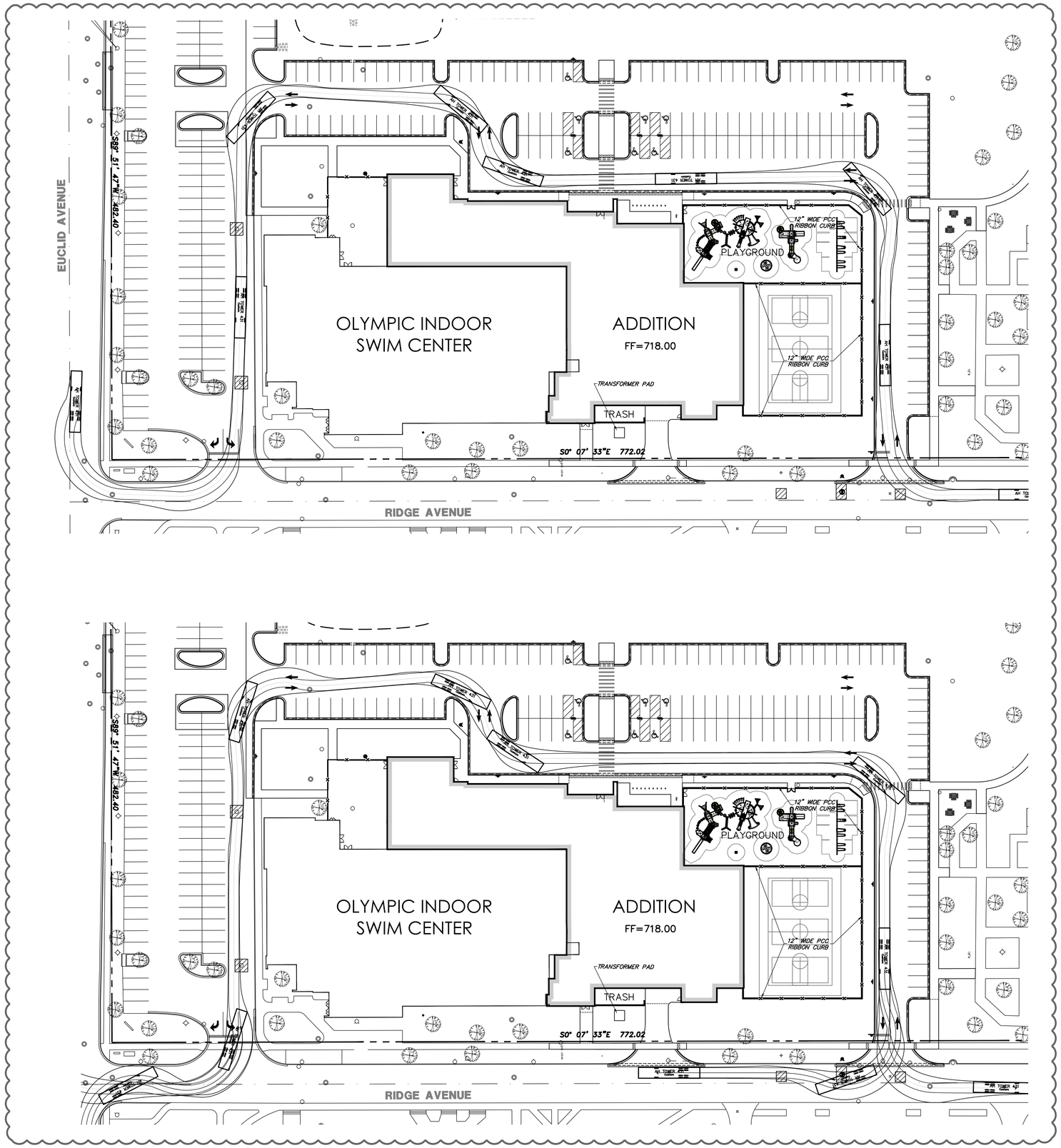

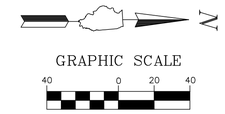

AH TOWER 431 feet

	feet
Width	: 8.50
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 40.0

ISSUANCE			
NO.	DATE	DESCRIPTION	
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01	02/09/18	PLAN COMMISSION REVIEW - REVISIONS	

FGM ARCHITECTS
CHICAGO OAK BROOK O'FALLON ST. LOUIS
GHA GEWALT HAMILTON ASSOCIATES, INC.
625 Forest Edge Drive ■ Vernon Hills, IL 60061
TEL: 847-478-9700 ■ FAX: 847-478-9701
GHA JOB # 5313.000

DATE:

PROFESSIONAL SEAL

EXPIRATION DATE:

DATE	01/08/17
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APPROVED	WEG

PROFESSIONAL DESIGN FIRM IL # 184-000922

OLYMPIC SWIM ADDITION AND RENOVATION
ARLINGTON HEIGHTS PARK DISTRICT
660 Ridge Ave
Arlington Heights, IL 60004

AUTOTURN EXHIBIT

SHEET NO.
C12

JOB NO. |17-2408.01

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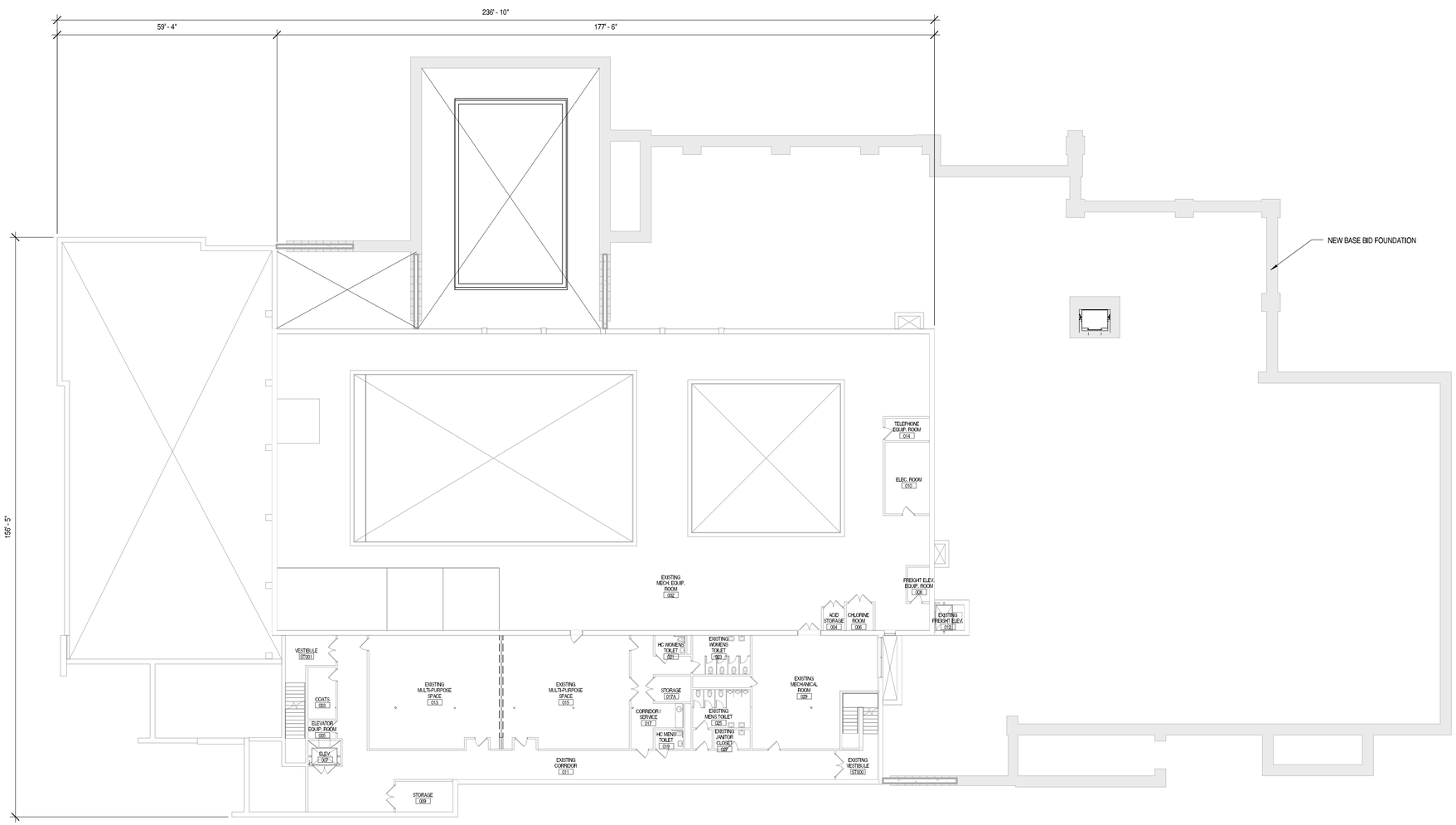

A1 BASEMENT FLOOR PLAN - EXISTING

1/16" = 1'-0"

ISSUANCE		
NO.	DATE	DESCRIPTION
00	01/08/18	PLAN COMMISSION REVIEW
01	02/09/18	PLAN COMMISSION REVIEW - REVISIONS

FGM ARCHITECTS

CHICAGO OAK BROOK O'FALLON ST. LOUIS

DATE:

PROFESSIONAL SEAL

EXPIRATION DATE:

DATE	02/09/18
DRAWN	PWH, EJS
CHECKED	DBY
APPROVED	JCD

PROFESSIONAL DESIGN FIRM ILL # 184-000350

OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT

660 Ridge Ave

Arlington Heights, IL 60004

BASEMENT FLOOR PLAN - EXISTING

SHEET NO.

A100

JOB NO. 17-2408.01

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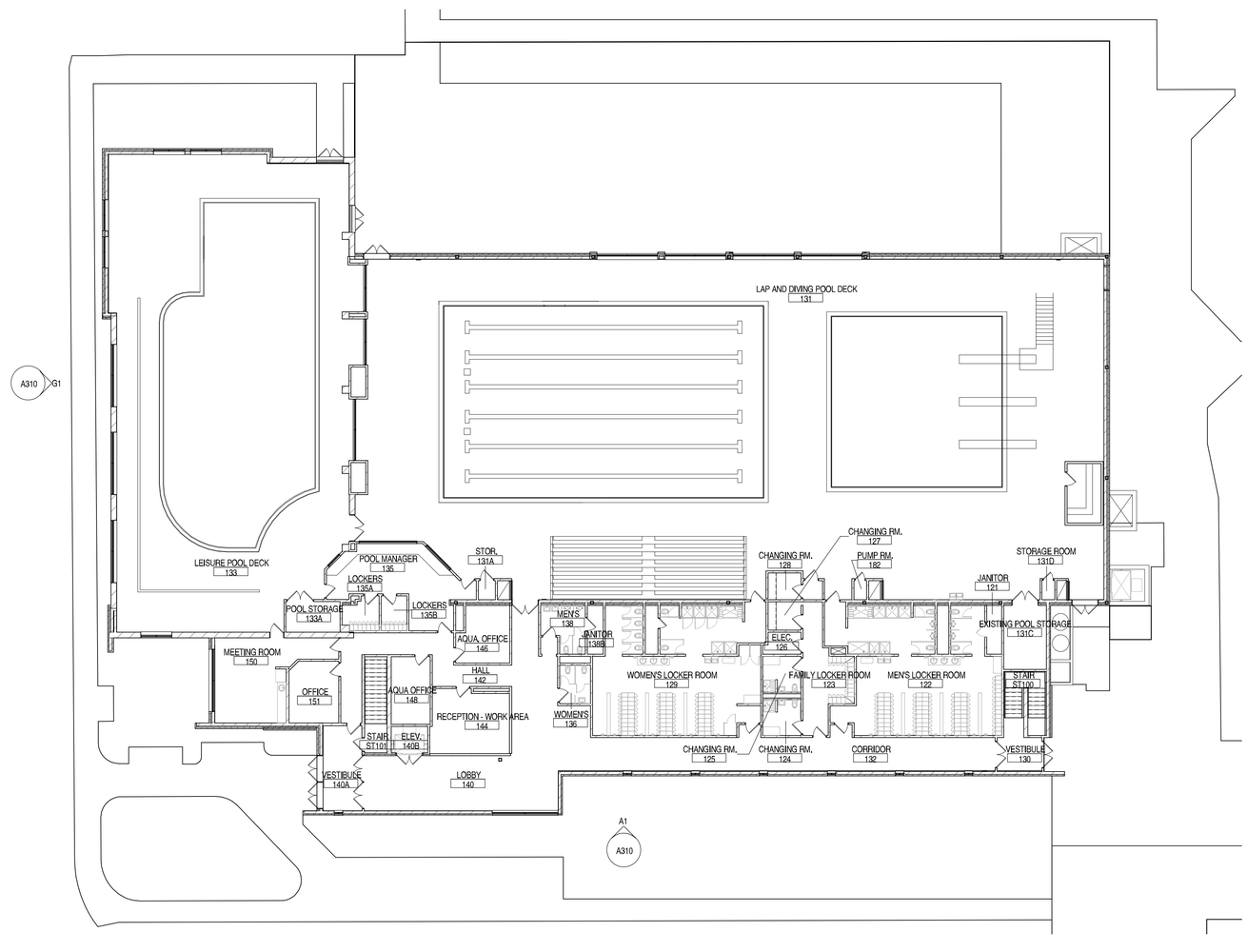

A1 FIRST FLOOR PLAN - EXISTING

1/16" = 1'-0"

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CHICAGO OAK BROOK O'FALLON ST. LOUIS

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CHECKED	DBY
APPROVED	JCD

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IL # 184-003350

OLYMPIC SWIM ADDITION AND RENOVATION
ARLINGTON HEIGHTS PARK DISTRICT
660 Ridge Ave
Arlington Heights, IL 60004

FIRST FLOOR PLAN - EXISTING

SHEET NO.
A110

JOB NO. 17-2408.01

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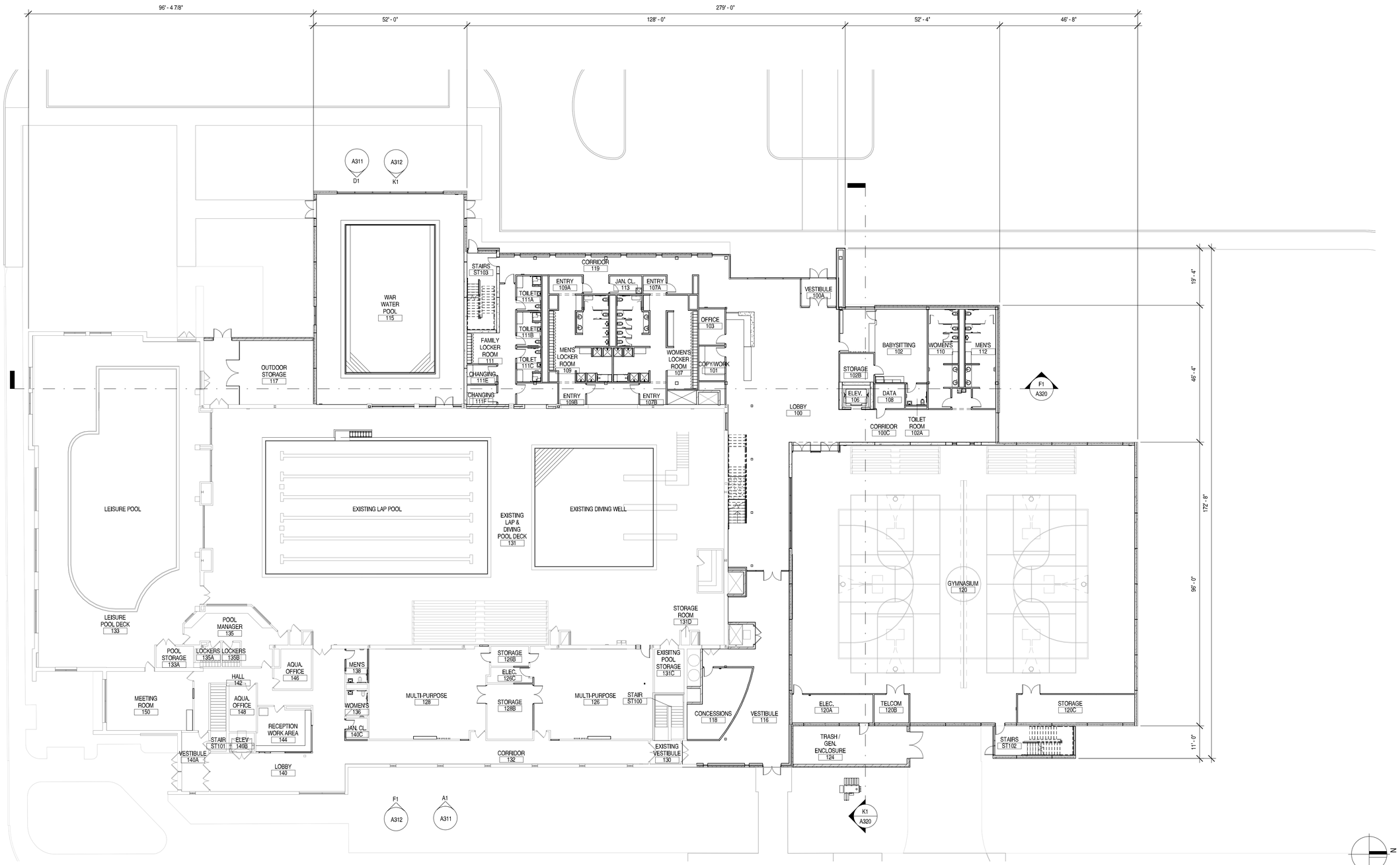

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01	02/09/18	PLAN COMMISSION REVIEW - REVISIONS	

FGM ARCHITECTS

CHICAGO OAK BROOK O'FALLON ST. LOUIS

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PROFESSIONAL SEAL

EXPIRATION DATE:

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CHECKED	DBY
APPROVED	JCD
PROFESSIONAL DESIGN FIRM IL # 184-000350	

OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT

660 Ridge Ave
Arlington Heights, IL 60004

PROPOSED FIRST FLOOR PLAN- BASE BID

SHEET NO.

A110A

JOB NO. 17-2408.01

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A1 **PROPOSED FIRST FLOOR - BASE BID**

1/16" = 1'-0"

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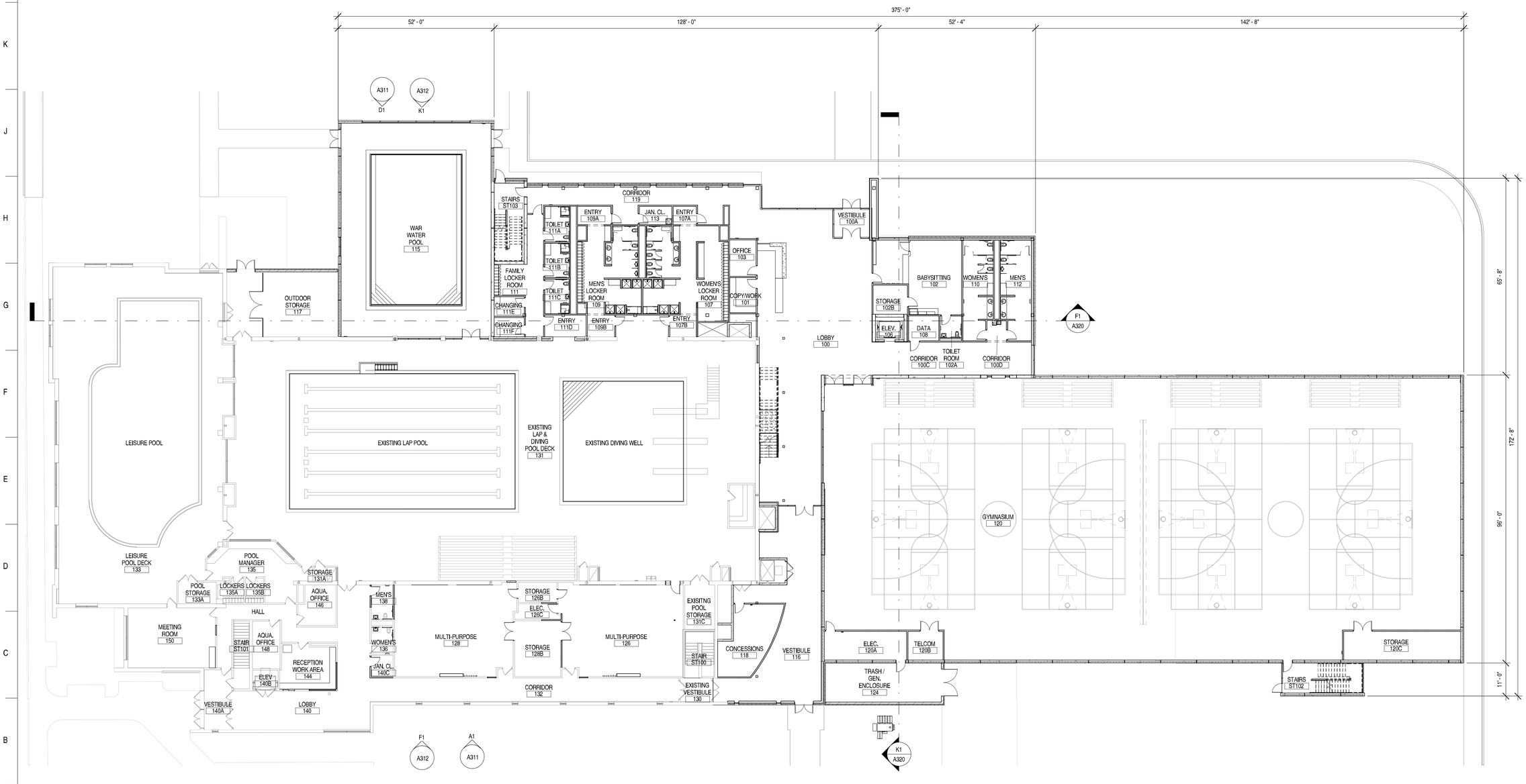

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NO.	DATE	DESCRIPTION
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01	02/09/18	PLAN COMMISSION REVIEW - REVISIONS

FGM ARCHITECTS

CHICAGO OAK BROOK O'FALLON ST. LOUIS

DATE:

PROFESSIONAL SEAL

EXPIRATION DATE:

DATE	02/09/18
DRAWN	PWH, EJS
CHECKED	DBY
APPROVED	JCD

PROFESSIONAL DESIGN FIRM IL # 184-000350

OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT

660 Ridge Ave

Arlington Heights, IL 60004

PROPOSED FIRST FLOOR PLAN - ALTERNATE BID # 1

SHEET NO.

A110B

JOB NO. 17-2408.01

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A1 **PROPOSED FIRST FLOOR PLAN - ALTERNATE BID #1**

1/16" = 1'-0"

2/13/2018 9:45:43 AM

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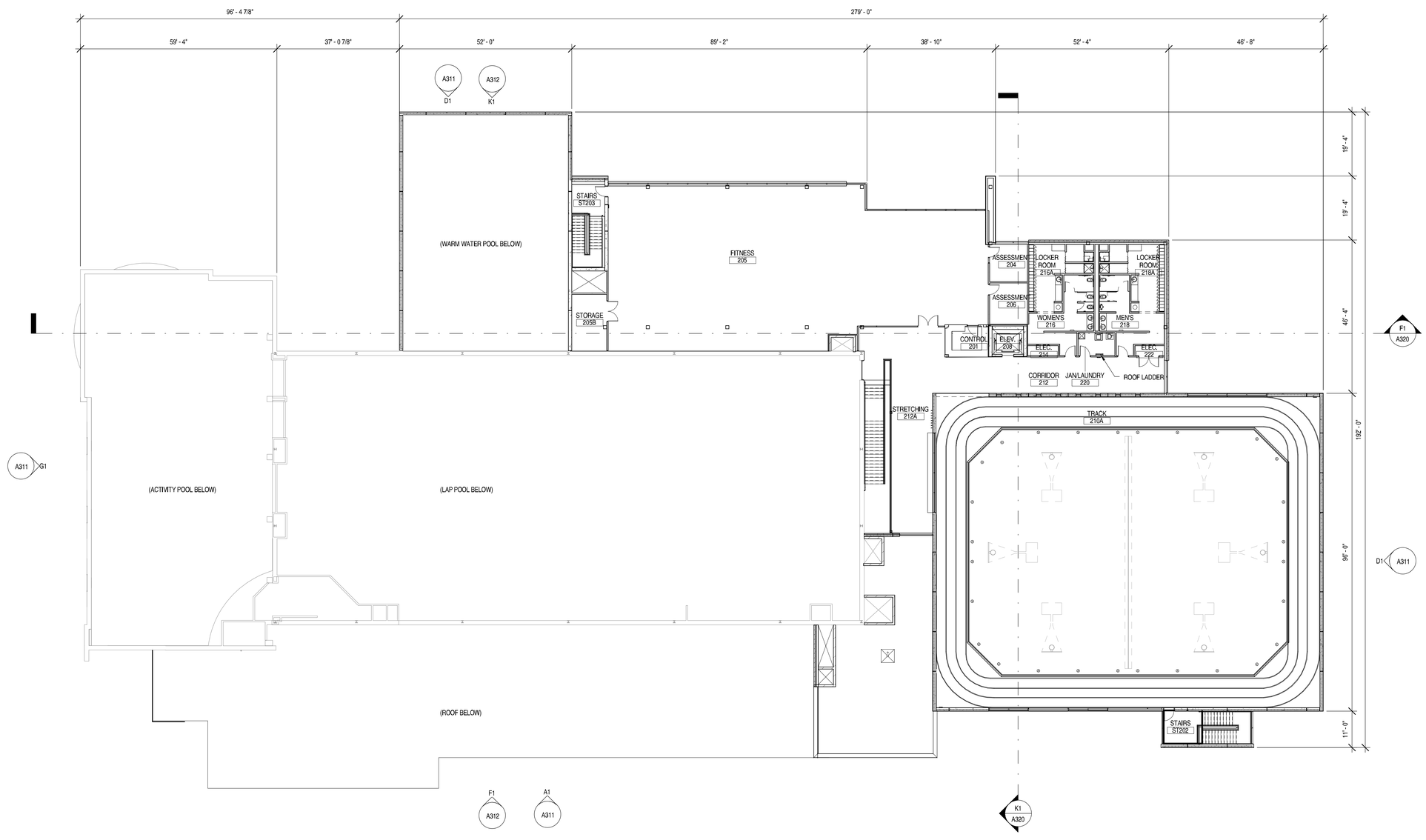

A1 PROPOSED SECOND FLOOR - BASE BID

1/16" = 1'-0"

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CHICAGO OAK BROOK O'FALLON ST. LOUIS

DATE:

PROFESSIONAL SEAL

EXPIRATION DATE:

DATE	02/09/18
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CHECKED	DBY
APPROVED	JCD

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OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT
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PROPOSED SECOND FLOOR PLAN - BASE BID

SHEET NO.

A120A

JOB NO. 17-2408.01

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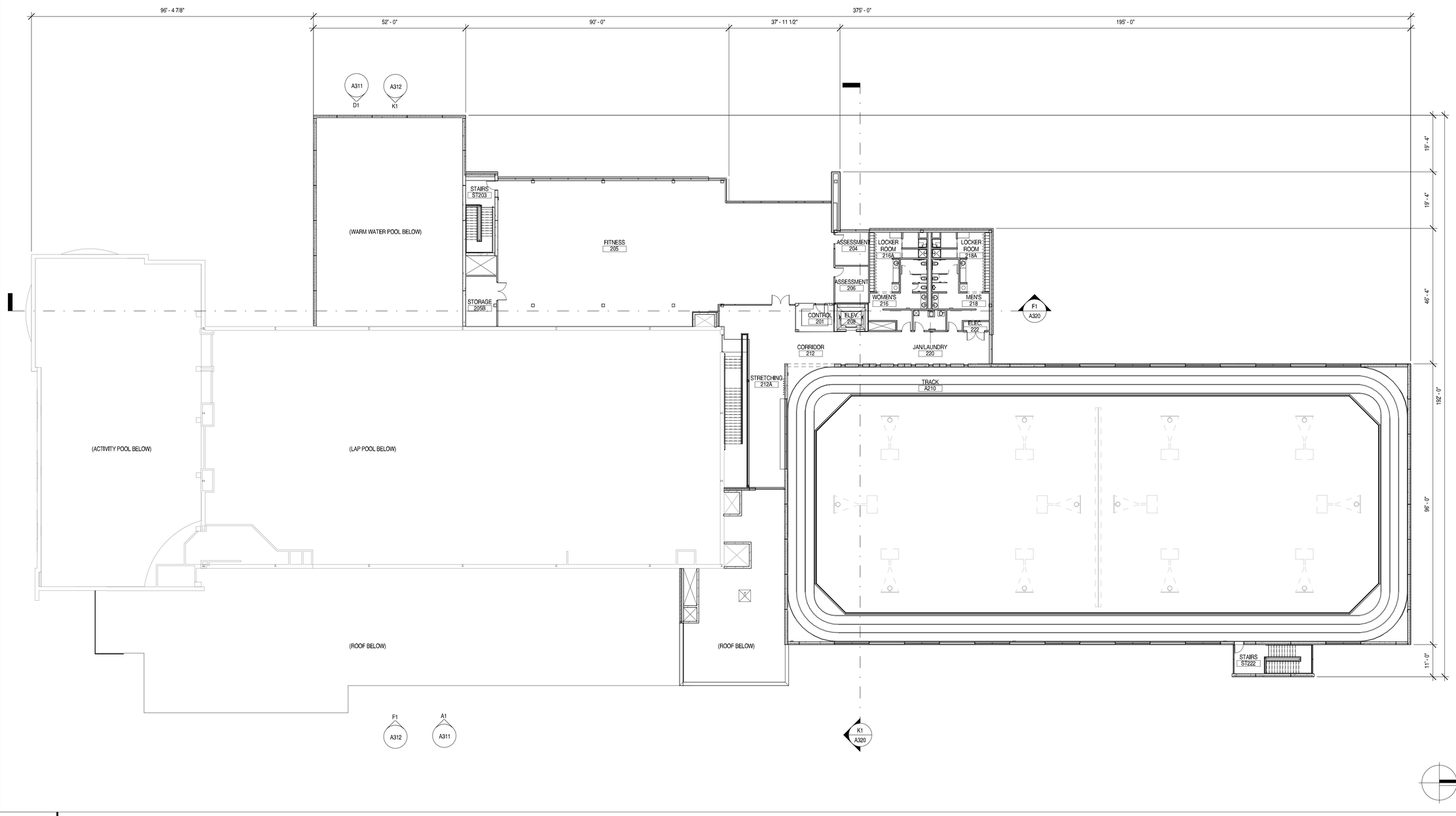

A1 **PROPOSED SECOND FLOOR PLAN - ALTERNATE BID #1**

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01	02/09/18	PLAN COMMISSION REVIEW - REVISIONS

FGM ARCHITECTS
CHICAGO OAK BROOK O'FALLON ST. LOUIS

DATE:

PROFESSIONAL SEAL

EXPIRATION DATE:

DATE	02/09/18	
DRAWN	PWH, EJS	
CHECKED	DBY	
APPROVED	JCD	

PROFESSIONAL DESIGN FIRM IL # 184-000350

OLYMPIC SWIM ADDITION AND RENOVATION
ARLINGTON HEIGHTS PARK DISTRICT
660 Ridge Ave
Arlington Heights, IL 60004

PROPOSED SECOND FLOOR PLAN - ALTERNATE BID #1

SHEET NO.

A120B

JOB NO. 17-2408.01

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K1 NOT USED

K15 OCCUPANCY SCHEDULE

ROOM SCHEDULE - CODE INFORMATION - BASEMENT

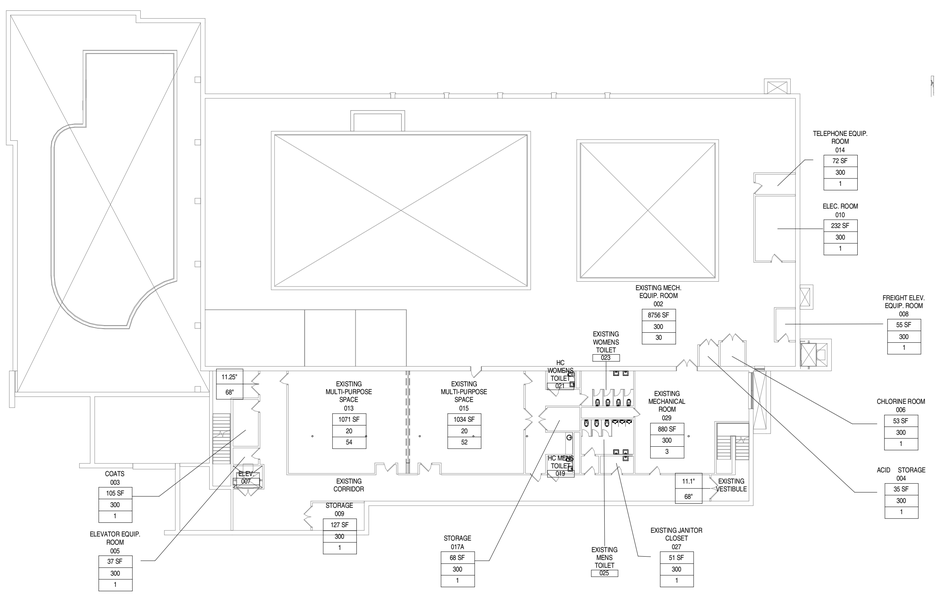
vg	ROOM NAME	OCCUPANCY GROUP	OCCUPANCY FUNCTION	ROOM AREA	S.F. PER OCCUPANT	OCCUPANCY LOAD
002	EXISTING MECH. EQUIP. ROOM	A-3	MECHANICAL	8756 SF	300	30
003	COATS	A-3	STORAGE	105 SF	300	1
004	ACID STORAGE	A-3	STORAGE	35 SF	300	1
005	ELEVATOR EQUIP. ROOM	A-3	MECHANICAL	37 SF	300	1
006	CHLORINE ROOM	A-3	MECHANICAL	53 SF	300	1
007	ELEV.	A-3	-	57 SF	0	0
008	FREIGHT ELEV. EQUIP. ROOM	A-3	MECHANICAL	55 SF	300	1
009	STORAGE	A-3	STORAGE	127 SF	300	1
010	ELEC. ROOM	A-3	MECHANICAL	232 SF	300	1
011	EXISTING CORRIDOR	A-3	-	1599 SF	0	0
012	EXISTING FREIGHT ELEV.	A-3	-	56 SF	0	0
013	EXISTING MULTI-PURPOSE SPACE	A-3	CLASSROOM	1071 SF	20	54
014	TELEPHONE EQUIP. ROOM	A-3	MECHANICAL	72 SF	300	1
015	EXISTING MULTI-PURPOSE SPACE	A-3	CLASSROOM	1034 SF	20	52
017	CORRIDOR / SERVICE	A-3	-	286 SF	0	0
017A	STORAGE	A-3	STORAGE	68 SF	300	1
019	HC MENS TOILET	A-3	-	39 SF	0	0
021	HC WOMENS TOILET	A-3	-	42 SF	0	0
023	EXISTING WOMENS TOILET	A-3	-	162 SF	0	0
025	EXISTING MENS TOILET	A-3	-	161 SF	0	0
027	EXISTING JANITOR CLOSET	A-3	STORAGE	51 SF	300	1
029	EXISTING MECHANICAL ROOM	A-3	MECHANICAL	880 SF	300	3
Grand total				14939 SF		149

TOTAL OCCUPANCY - BASE BID

BASEMENT	149
FIRST FLOOR	1020
SECOND FLOOR	147
TOTAL	1316

TOTAL OCCUPANCY - ALTERNATE

BASEMENT	149
FIRST FLOOR	1199
SECOND FLOOR	186
TOTAL	1534



A1 CODE COMPLIANCE PLAN - BASEMENT

1/16" = 1'-0"

A20 CODE LEGEND

VILLAGE OF ARLINGTON HEIGHTS APPLICABLE CODES:

1.	2009	INTERNATIONAL BUILDING CODE
2.	CURRENT	ILLINOIS PLUMBING CODE (77 ILL. ADM. CODE 890)
3.	CURRENT	INTERNATIONAL ENERGY CONSERVATION CODE
4.	2010	ILLINOIS ACCESSIBILITY CODE (71 ILL. ADM. CODE 400)
5.	2009	INTERNATIONAL FUEL GAS CODE
6.	2009	INTERNATIONAL MECHANICAL CODE
7.	2001	NFPA LIFE SAFETY CODE
8.	2011	NATIONAL ELECTRICAL CODE
9.	CURRENT	ILLINOIS DEPARTMENT OF PUBLIC HEALTH POOL CODE
10.	CURRENT	ILLINOIS ELEVATORE SAFETY AND REGULATION ACT

BUILDING AREAS:

SEE SHEETS G1.0.3 -G1.0.6 FOR BUILDING AREAS

CODE COMPLIANCE NOTES:

1. BUILDING USES : ASSEMBLY A-3 (Section 303.1), SINGLE OCCUPANCY

   BUILDING TYPE : 2B (TABLE 601)
   FIRE PROTECTION SYSTEMS: AUTOMATIC SPRINKLER SYSTEM
   OCCUPANCY CLASSIFICATIONS: (SECTIONS 302-312, 408)
   1. ACCESSORY OCCUPANCIES (SECTION 508.3.1): N/A
   2. INCIDENTAL USE AREAS (TABLE 508.2): N/A
   3. MIXED OCCUPANCY AND FIRE AREA SEPARATIONS (TABLE 508.4), FOR SPRINKLERED BUILDING:
      a. N/A

2. HEIGHT CALCULATIONS (MIXED USE SEPARATED BY USE GROUPS)

USE GROUP	A-3
ALLOWABLE HEIGHT = # STORIES / HEIGHT (FT)	2 STORIES / 55 FT
INCREASE FOR AUTOMATIC SPRINKLERS (504.2)	1 STORY / 20 FT
ADJUSTED ALLOW. HEIGHT = # STORIES / HEIGHT (FT)	3 STORIES / 75 FT
ACTUAL HEIGHT = # STORIES / HEIGHT (FT)	2 STORY / 36 FT

3. AREA CALCULATIONS (NON-SEPARATED MIXED USE GROUPS)

   SEE SHEETS G1.0.3 -G1.0.6 FOR AREA CALCULATIONS

4. FIRE-RESISTANCE LEGEND:

   1-HR. FIRE SEPARATION ASSEMBLY
   2-HR. FIRE SEPARATION ASSEMBLY

5. OCCUPANCY LEGEND:

   OCCUPANT LOAD: CALCULATED BY ROOM SQUARE FOOTAGE (IBC 2009 TABLE 1004.1.1) OR ACTUAL OCCUPANT LOAD ("0" INDICATES THAT THE ACTUAL OCCUPANT WAS USED)

   OFFICE — ROOM NAME
   7120 — ROOM NUMBER
   504 — AREA OF ROOM (S.F.)
   100 — S.F. / OCCUPANT (TABLE 1004.1.1)
   9 — OCCUPANT LOAD

6. EXITING LEGEND:

   11 — DIRECTION OF TRAVEL
   OCCUPANT LOAD (TABLE 1004.1.1 OR ACTUAL)
   31" — EXIT CAPACITY REQUIRED (IBC 2009 TABLE 1005.1)
   68" — EXIT CAPACITY PROVIDED (OPENING CLEAR WIDTH)

   * NOTE: EXIT CAPACITY: DOORS: 0.15 IN / PERSON

7. MAXIMUM TRAVEL DISTANCE

   TD (TRAVEL DISTANCE TO EXIT) = 250'
   CD (COMMON PATH OF TRAVEL DISTANCE) = 75'

   DISTANCE TO EXIT (TABLE 1016.1) : ASSEMBLY A-3: 250 FEET

   COMMON PATH OF TRAVEL: 75 FEET

   MIN. # OF EXITS FOR OCCUPANT LOAD:

TABLE 1015.1	
OCCUPANT LOAD (PER STORY)	MIN. NO. OF EXITS (PER STORY)
1 - 500	2
500 - 1000	3
MORE THAN 1000	4

   DEAD END: MAX. 20 FEET (SECTION 1018.4)

8. F.E.C. FIRE EXTINGUISHER CABINET RECESSED - U.N.O. (1 PER 3,000 SF & 75 FT. MAX. TRAVEL)

   F.E. SURFACE-MOUNTED FIRE EXTINGUISHER (SECTION 906)

   S.P.V.C. STAND PIPE VALVE CABINET - STAGE ONLY (SECTION 410.7) (SECTION 905)

FIRE-RESISTIVE REQUIREMENTS:

FOR TYPE 2B CONSTRUCTION

RATINGS FOR BUILDING ELEMENTS (IN HOURS):

FIRE RESISTANCE RATING REQUIREMENTS FOR BUILING ELEMENTS (TABLE 601) :

1. a. STRUCTURAL FRAME: (COLUMNS, GIRDERS, BEAMS, JOISTS, SPANDRELS AND BRACING) 0 HR
   b. EXTERIOR BEARING WALLS: N/A
   c. INTERIOR BEARING WALLS: 0 HR
   d. NON-BEARING WALLS AND PARTITIONS - EXTERIOR: 0 HR
   e. NON-BEARING WALLS AND PARTITIONS - INTERIOR: 0 HR
   f. FLOOR CONSTRUCTION, INCLUDING SUPPORTING BEAMS AND JOISTS: 0 HR
   g. ROOF CONSTRUCTION, INCLUDING SUPPORTING BEAMS AND JOISTS: 0 HR

   FIRE WALLS AND PARTY WALLS: 2 HR

   FIRE SEPARATION ASSEMBLIES:
   a. EXIT (STAIR) ENCLOSURES 1 hr.
   b. SHAFT ENCLOSURES/ELEVATOR HOISTWAYS 1 hr. (Section 708)
   c. MIXED USE/FIRE SEPARATION ASSEMBLIES N/A
   d. OTHER SEPARATION ASSEMBLIES N/A
   e. SHAFTS N/A

   FIRE PARTITIONS:
   a. EXIT ACCESS CORRIDORS: 0 HR. (TABLE 1017.1)
   b. COMBUSTIBILITY (SECTIONS 602.2, 602.3, 602.4, 602.5, 603)
      1. EXTERIOR WALLS: NON-COMBUSTIBLE
      2. INTERIOR ELEMENTS: NON-COMBUSTIBLE
      3. ROOF: NON-COMBUSTIBLE

ISSUANCE

NO.	DATE	DESCRIPTION
00	01/08/18	PLAN COMMISSION REVIEW
01	02/09/18	PLAN COMMISSION REVIEW - REVISIONS

FGM ARCHITECTS
CHICAGO OAK BROOK O'FALLON ST. LOUIS

PROFESSIONAL SEAL

EXPIRATION DATE:

DRAWN RMH, EJS
CHECKED DBV
APPROVED JCD
PROFESSIONAL DESIGN FIRM ILL. # 184.000595

OLYMPIC SWIM ADDITION AND RENOVATION
ARLINGTON HEIGHTS PARK DISTRICT
660 Ridge Ave
Arlington Heights, IL 60004

CODE COMPLIANCE PLAN BASEMENT FLOOR

SHEET NO.
G1.0.2

JOB NO. 17-2408.01

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ROOM SCHEDULE - CODE INFORMATION - FIRST FLOOR						
vg	ROOM NAME	OCCUPANCY GROUP	OCCUPANCY FUNCTION	ROOM AREA	S.F. PER OCCUPANT	OCCUPANCY LOAD
100	LOBBY	A-3	BUSINESS	2095 SF	100	21
100A	VESTIBULE	A-3	--	116 SF	0	0
100B	VIEWING AREA	A-3	BUSINESS	891 SF	100	9
100C	CORRIDOR	A-3	-	577 SF	0	0
100D	CORRIDOR	A-3	--	44 SF	0	0
100D	CORRIDOR	A-3	-	36 SF	0	0
101	COPY/WORK	A-3	OFFICE	104 SF	100	2
102	BABYSITTING	A-3	CLASSROOM	610 SF	35	18
102A	TOILET ROOM	A-3	--	51 SF	0	0
102B	STORAGE	A-3	MECHANICAL	111 SF	300	1
103	OFFICE	A-3	OFFICE	108 SF	100	2
106	ELEV.	A-3	-	73 SF	0	0
107	WOMEN'S LOCKER ROOM	A-3	EXERCISE	791 SF	50	16
107A	ENTRY	A-3	--	47 SF	0	0
107B	ENTRY	A-3	--	64 SF	0	0
108	DATA	A-3	MECHANICAL	83 SF	300	1
109	MEN'S LOCKER ROOM	A-3	EXERCISE	552 SF	50	12
109A	ENTRY	A-3	--	68 SF	0	0
109B	ENTRY	A-3	--	65 SF	0	0
110	WOMEN'S	A-3	--	316 SF	0	0
111	FAMILY LOCKER ROOM	A-3	EXERCISE	343 SF	50	7
111A	TOILET	A-3	--	95 SF	0	0
111B	TOILET	A-3	--	93 SF	0	0
111C	TOILET	A-3	--	94 SF	0	0
111D	ENTRY	A-3	-	100 SF	0	0
111E	CHANGING	A-3	EXERCISE	65 SF	50	2
111F	CHANGING	A-3	EXERCISE	65 SF	50	2
112	MEN'S	A-3	-	327 SF	0	0
113	JAN. CL.	A-3	STORAGE	66 SF	300	1
115	WAR WATER POOL	A-3	EXERCISE	3563 SF	0	136
116	VESTIBULE	A-3	--	1274 SF	0	0
117	OUTDOOR STORAGE	A-3	STORAGE	542 SF	300	2
118	CONCESSIONS	A-3	OFFICE	363 SF	100	4
119	CORRIDOR	A-3	-	596 SF	0	0
120	GYMNASIUM	A-4	EXERCISE	10067 SF	50	202
120A	ELEC.	A-3	MECHANICAL	263 SF	300	1
120B	TELCOM	A-3	MECHANICAL	112 SF	300	1
120C	STORAGE	S1	STORAGE	380 SF	300	2
121	Room			Redundant Room		
122	FREIGHT ELEVATOR	A-3	--	67 SF	0	0
124	TRASH / GEN. ENCLOSURE	A-3	STORAGE	502 SF	300	2
126	MULTI-PURPOSE	A-3	CLASSROOM	1233 SF	20	62
126B	STORAGE	A-3	STORAGE	86 SF	300	1
126C	ELEC.	A-3	STORAGE	72 SF	300	1
128	MULTI-PURPOSE	A-3	CLASSROOM	1207 SF	20	61
128B	STORAGE	A-3	STORAGE	287 SF	300	1
130	EXISTING VESTIBULE	A-3	--	84 SF	0	0
131	EXISTING LAP & DIVING POOL DECK	A-3	EXERCISE	8101 SF	50	422
131A	STORAGE	A-3	STORAGE	18 SF	300	1
131B	PUMP ROOM	A-3	MECHANICAL	14 SF	300	1
131C	EXISTING POOL STORAGE	A-3	STORAGE	151 SF	300	1
131D	STORAGE ROOM	A-3	STORAGE	14 SF	300	1
132	CORRIDOR	A-3	-	769 SF	0	0
133	LEISURE POOL DECK	A-3	EXERCISE	3361 SF		

ROOM SCHEDULE - CODE INFORMATION - FIRST FLOOR						
vg	ROOM NAME	OCCUPANCY GROUP	OCCUPANCY FUNCTION	ROOM AREA	S.F. PER OCCUPANT	OCCUPANCY LOAD
133A	POOL STORAGE	A-3	STORAGE	92 SF	300	1
135	POOL MANAGER	A-3	OFFICE	427 SF	100	5
135A	LOCKERS	A-3	EXERCISE	61 SF	50	2
135B	LOCKERS	A-3	EXERCISE	50 SF	50	1
135C	DATA CL.	A-3	MECHANICAL	11 SF	300	1
136	WOMEN'S	A-3	--	66 SF	0	0
138	MEN'S	A-3	--	83 SF	0	0
140	LOBBY	A-3	--	779 SF	0	0
140A	VESTIBULE	A-3	--	186 SF	0	0
140B	ELEV.	A-3	--	53 SF	0	0
140C	JAN. CL.	A-3	STORAGE	52 SF	300	1
142	HALL	A-3	--	573 SF	0	0
144	RECEPTION WORK AREA	A-3	OFFICE	271 SF	100	3
146	AQUA. OFFICE	A-3	OFFICE	157 SF	100	2
148	AQUA. OFFICE	A-3	OFFICE	146 SF	100	2
150	MEETING ROOM	A-3	OFFICE	583 SF	100	6
Grand total				44792 SF		1020

TOTAL OCCUPANCY - BASE BID

BASEMENT	149
FIRST FLOOR	1020
SECOND FLOOR	147
TOTAL	1316

TOTAL OCCUPANCY - ALTERNATE

BASEMENT	149
FIRST FLOOR	1199
SECOND FLOOR	186
TOTAL	1534

K1 OCCUPANCY SCHEDULE

GENERAL NOTES

1. PROVIDE FIRE WALLS, FIRE AND SMOKE PARTITIONS AT LOCATIONS INDICATED ON THESE G-Series DRAWINGS. PROVIDE CONSTRUCTION IN ACCORDANCE WITH UL-TEST NUMBERS FOR RATINGS INDICATED.

   UNLESS OTHERWISE NOTED PROVIDE THE FOLLOWING UL-TEST DESIGNS:
   2HR RATED CMU: UL-U905; UL-U906;
   3HR RATED CMU: UL-U904;
   1HR RATED GYPSUM BOARD: UL-U419; UL-U448;
   1-1/2HR RATED GYPSUM BOARD: UL-U449
   2HR RATED GYPSUM BOARD: UL-U411; UL-U412; UL-U419;
   3HR RATED GYPSUM BOARD: UL-U419;UL-U435;
   1HR RATED SHAFTWALL: UL-U465;
   2HR RATED SHAFTWALL: UL-U467

2. FIRE RATED WALLS AND PARTITIONS SHALL BE CONTINUOUS, WITHOUT GAPS IN HORIZONTAL AND VERTICAL DIRECTIONS. SEAL ALL PENETRATIONS ACCORDING TO SPECIFIED OR SELECTED UL TESTS.

3. IN ADDITION TO SIGNS REQUIRED BY THE SPECIFICATIONS FOR EACH PENETRATION, PROVIDE STENCILLED SIGNS AT ALL ACCESSIBLE CONCEALED FLOOR, CEILING OR ATTIC SPACE WHICH INCORPORATES THE WORDS: "FIRE AND/OR SMOKE BARRIER - PROTECT ALL OPENINGS". PROVIDE AT LEASTE ONE OR MORE SIGNS ON BOTH SIDES OF EACH WALL SEGMENT SPACED AT LEAST 15' APART. LETTERING SHALL BE AT LEAST 2" IN HEIGHT.

4. BOTTOM FLANGE PROTECTION: PROVIDE INTUMESCENT COATING FIRE PROTECTION AT THE BOTTOM FLANGE OF LINTELS, SHELF ANGLES AND PLATES, IN WALLS THAT ARE PART OF THE PRIMARY STRUCTURAL FRAME, WHICH SPAN MORE THAN 6 FEET AND WHICH ARE EXPOSED TO VIEW. ALL OTHER LINTEL SURFACES IN WALL THAT ARE PART OF THE PRIMARY STRUCTURAL FRAME, SPAN MORE THAN 6 FEET BUT WHICH ARE NOT EXPOSED TO VIEW AND NOT ENCASED BY CMU OR CONCRETE, MAY BE FIRE PROOFED WITH SPRAY FIREPROOFING OR INTUMESCENT COATINGS.

5. STRUCTURAL FRAME SUPPORTING FIRE RATED WALLS: ALL STRUCTURAL COMPONENTS, INCLUDING COLUMNS, GIRDERS, BEAMS, JOISTS AND DECKS, SUPPORTING FIRE RATED SHAFT CONSTRUCTION SHALL BE FIRE RATED TO THE SAME LEVEL OF PROTECTION OF THE SHAFT. PROTECTION OF INDIVIDUAL BEAMS SHALL EXTEND TO THE ENTIRE SPAN OF THE STRUCTURE AND TO COLUMNS ALL THE WAY DOWN TO THE GROUND.

PLUMBING FIXTURES - BASE					
1316 TOTAL ANTICIPATED OCCUPANTS: 658 MALE & 658 FEMALE					
FIXTURE	REQUIRED		PROVIDED		
	MALE	FEMALE	MALE	FEMALE	UNISEX
WATER CLOSETS	4	9	12	18	2
URINAL	5	-	8	-	-
LAVATORY	4	4	13	13	2
SHOWER	6	6	8	8	1
DRINKING FOUNTAIN OR WATER COOLER	1 SET FOR EACH SET OF MEN'WOMEN TOILETS		2		
SERVICE SINK	1 PER FLOOR		2		

K15 PLUMBING FIXTURE SCHEDULE

VILLAGE OF ARLINGTON HEIGHTS APPLICABLE CODES:

1. 2009 INTERNATIONAL BUILDING CODE
2. CURRENT ILLINOIS PLUMBING CODE (77 ILL. ADM. CODE 890)
3. CURRENT INTERNATIONAL ENERGY CONSERVATION CODE
4. 2010 ILLINOIS ACCESSIBILITY CODE (71 ILL. ADM. CODE 400)
5. 2009 INTERNATIONAL FUEL GAS CODE
6. 2009 INTERNATIONAL MECHANICAL CODE
7. 2001 NFPA LIFE SAFETY CODE
8. 2011 NATIONAL ELECTRICAL CODE
9. CURRENT ILLINOIS DEPARTMENT OF PUBLIC HEALTH POOL CODE
10. CURRENT ILLINOIS ELEVATORE SAFETY AND REGULATION ACT

BUILDING AREAS:

	EXISTING	BASE BID	TOTAL
BASEMENT GROSS ENCLOSED AREA:	6,493 SF	0 SF	6,493 SF
FIRST FLOOR GROSS ENCLOSED AREA:	29,479 SF	28,092 SF	57,571 SF
SECOND FLOOR GROSS ENCLOSED AREA:	0 SF	14,180 SF	14,180 SF
TOTAL EXISTING:	35,972 SF	42,272 SF	78,244 SF

	BUILDING 1	BUILDING 2
BASEMENT GROSS ENCLOSED AREA:	6,493 SF	0 SF
FIRST FLOOR GROSS ENCLOSED AREA:	32,042 SF	22,529 SF
SECOND FLOOR GROSS ENCLOSED AREA:	0 SF	14,180 SF
TOTAL EXISTING:	38,535 SF	36,705 SF

CODE COMPLIANCE NOTES:

1. BUILDING USES - ASSEMBLY A-3 (Section 303.1), SINGLE OCCUPANCY

   BUILDING TYPE - 2B (TABLE 601)
   FIRE PROTECTION SYSTEMS: AUTOMATIC SPRINKLER SYSTEM
   OCCUPANCY CLASSIFICATIONS: (SECTIONS 302-312, 408)
   1. ACCESSORY OCCUPANCIES (SECTION 508.3.1): N/A
   2. INCIDENTAL USE AREAS (TABLE 508.2): N/A
   3. MIXED OCCUPANCY AND FIRE AREA SEPARATIONS (TABLE 508.4), FOR SPRINKLERED BUILDING:
      a. N/A

2. HEIGHT CALCULATIONS (MIXED USE SEPARATED BY USE GROUPS)

USE GROUP	A-3
ALLOWABLE HEIGHT = # STORIES / HEIGHT (FT)	2 STORIES / 55 FT
INCREASE FOR AUTOMATIC SPRINKLERS (504.2)	1 STORY / 20 FT
ADJUSTED ALLOW. HEIGHT = # STORIES / HEIGHT (FT)	3 STORIES / 75 FT
ACTUAL HEIGHT = # STORIES / HEIGHT (FT)	2 STORY / 36 FT

3. AREA CALCULATIONS (NON-SEPARATED MIXED USE GROUPS)

ITEM	% FACTOR	AREA (SF)
ALLOWABLE TABULAR AREA	100	9,500
REDUCTION FOR HEIGHT	0	0
INCREASE FOR OPEN PERIMETER	75	7,125
INCREASE FOR AUTOMATIC SPRINKLER	200	19,000
TOTAL ALLOWABLE AREA	375%	35,625 SF

FRONTAGE (Section 506.2)	N - 204' E - 373' W - 373' S - 204'
TOTAL FRONTAGE	1,154 FT
PERIMETER	1,154 FT
WIDTH OF OPEN SPACE	30 FT
AREA INCREASE - FRONTAGE I = [(F/P)-0.25]W/30	75%

4. FIRE-RESISTANCE LEGEND:
   - 1-HR. FIRE SEPARATION ASSEMBLY
   - 2-HR. FIRE SEPARATION ASSEMBLY

5. OCCUPANCY LEGEND:

   OCCUPANT LOAD: CALCULATED BY ROOM SQUARE FOOTAGE (IBC 2009 TABLE 1004.1.1) OR ACTUAL OCCUPANT LOAD ("0" INDICATES THAT THE ACTUAL OCCUPANT WAS USED)

   OFFICE — ROOM NAME
   7120 — ROOM NUMBER
   504 — AREA OF ROOM (S.F.)
   100 — S.F. / OCCUPANT (TABLE 1004.1.1)
   9 — OCCUPANT LOAD

6. EXITING LEGEND:
   11 — DIRECTION OF TRAVEL
   — OCCUPANT LOAD (TABLE 1004.1.1 OR ACTUAL)
   51** — EXIT CAPACITY REQUIRED (IBC 2009 TABLE 1005.1)
   68* — EXIT CAPACITY PROVIDED (OPENING CLEAR WIDTH)

   * NOTE: EXIT CAPACITY: DOORS: 0.15 IN / PERSON

7. MAXIMUM TRAVEL DISTANCE
   TD (TRAVEL DISTANCE TO EXIT) = 250'
   CD (COMMON PATH OF TRAVEL DISTANCE) = 75'

   DISTANCE TO EXIT (TABLE 1016.1) : ASSEMBLY A-3: 250 FEET
   COMMON PATH OF TRAVEL: 75 FEET
   MIN. # OF EXITS FOR OCCUPANT LOAD:

TABLE 1015.1	
OCCUPANT LOAD (PER STORY)	MIN. NO. OF EXITS (PER STORY)
1 - 500	2
500 - 1000	3
MORE THAN 1000	4

   DEAD END: MAX. 20 FEET (SECTION 1018.4)

8. F.E.C. FIRE EXTINGUISHER CABINET RECESSED - U.N.O. (1 PER 3,000 SF & 75 FT. MAX. TRAVEL)
   F.E. SURFACE-MOUNTED FIRE EXTINGUISHER (SECTION 906)
   S.P.V.C. STAND PIPE VALVE CABINET - STAGE ONLY (SECTION 410.7) (SECTION 905)

FIRE-RESISTIVE REQUIREMENTS:

FOR TYPE 2B CONSTRUCTION
RATINGS FOR BUILDING ELEMENTS (IN HOURS):
FIRE RESISTANCE RATING REQUIREMENTS FOR BUILING ELEMENTS (TABLE 601) :

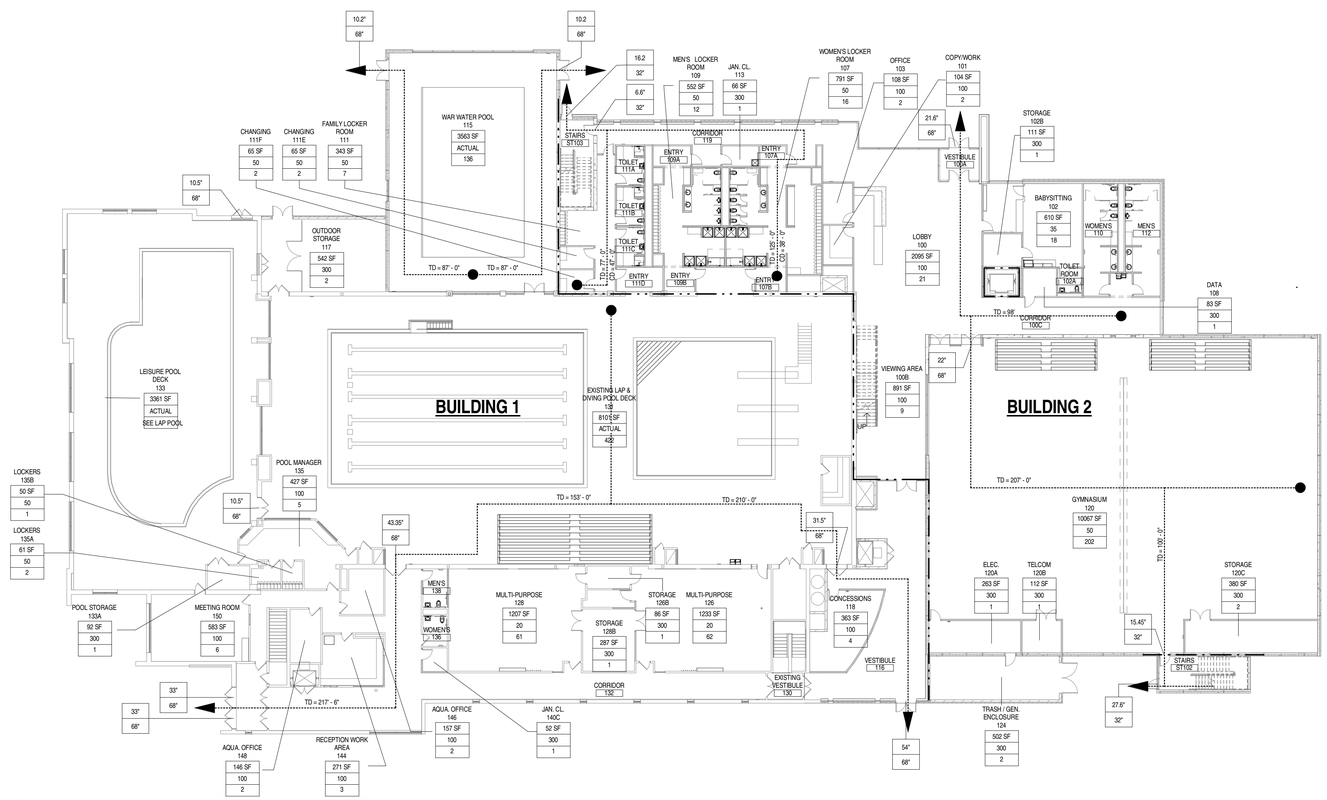
1. a. STRUCTURAL FRAME: (COLUMNS, GIRDERS, BEAMS, JOISTS, SPANDRELS AND BRACING) 0 HR
   b. EXTERIOR BEARING WALLS: N/A
   c. INTERIOR BEARING WALLS: 0 HR
   d. NON-BEARING WALLS AND PARTITIONS - EXTERIOR: 0 HR
   e. NON-BEARING WALLS AND PARTITIONS - INTERIOR: 0 HR
   f. FLOOR CONSTRUCTION, INCLUDING SUPPORTING BEAMS AND JOISTS: 0 HR
   g. ROOF CONSTRUCTION, INCLUDING SUPPORTING BEAMS AND JOISTS: 0 HR

   FIRE WALLS AND PARTY WALLS: 2 HR

   FIRE SEPARATION ASSEMBLIES:
   a. EXIT (STAIR) ENCLOSURES: 1 hr.
   b. SHAFT ENCLOSURES/ELEVATOR HOISTWAYS 1 hr. (Section 708)
   c. MIXED USE/FIRE SEPARATION ASSEMBLIES N/A
   d. OTHER SEPARATION ASSEMBLIES N/A
   e. SHAFTS N/A

   FIRE PARTITIONS:
   a. EXIT ACCESS CORRIDORS: 0 HR. (TABLE 1017.1)
   b. COMBUSTIBILITY (SECTIONS 602.2, 602.3, 602.4, 602.5, 603)
      1. EXTERIOR WALLS: NON-COMBUSTIBLE
      2. INTERIOR ELEMENTS: NON-COMBUSTIBLE
      3. ROOF: NON-COMBUSTIBLE

2. OTHER REQUIREMENTS: INCIDENTAL USE AREAS (TABLE 508.2) / (TABLE 715.4):
   a. MECHANICAL/ELECTRICAL/PUMP 1 HR. / 60 MIN. DOORS



A1 CODE COMPLIANCE PLAN - FIRST FLOOR - BASE

1/16" = 1'-0"

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ISSUANCE			
NO.	DATE	DESCRIPTION	
00	01/26/18	PLAN COMMISSION REVIEW	
01	02/09/18	PLAN COMMISSION REVIEW - REVISIONS	

FGM ARCHITECTS
CHICAGO OAK BROOK O'FALLON ST. LOUIS

PROFESSIONAL SEAL
EXPIRATION DATE:

DRAWN EMM, E.S.
CHECKED DBY
APPROVED JCD
PROFESSIONAL DESIGN FIRM IL # 184.003880

OLYMPIC SWIM ADDITION AND RENOVATION
ARLINGTON HEIGHTS PARK DISTRICT
660 Ridge Ave
Arlington Heights, IL 60004

CODE COMPLIANCE PLAN FIRST FLOOR - BASE

SHEET NO.
G1.0.3

JOB NO. 17-2408.01
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K1 NOT USED

K10 OCCUPANCY SCHEDULE

ROOM SCHEDULE - CODE INFORMATION - SECOND FLOOR

ROOM NUMBER	ROOM NAME	OCCUPANCY GROUP	OCCUPANCY FUNCTION	ROOM AREA	S.F. PER OCCUPANT	OCCUPANCY LOAD
201	CONTROL	A-3	OFFICE	99 SF	100	1
204	ASSESSMENT	A-3	OFFICE	129 SF	100	2
205	FITNESS	A-3	EXERCISE	5143 SF	50	35
205B	STORAGE	A-3	STORAGE	182 SF	300	1
206	ASSESSMENT	A-3	OFFICE	142 SF	100	2
208	ELEV.	A-3	--	72 SF	0	0
210A	TRACK	A-3	EXERCISE	4010 SF	50	81
212	CORRIDOR	A-3	--	1203 SF	0	0
212A	STRETCHING	A-3	EXERCISE	537 SF	50	10
214	ELEC.	A-3	MECHANICAL	28 SF	300	1
216	WOMEN'S	A-3	--	280 SF	0	0
216A	LOCKER ROOM	A-3	EXERCISE	274 SF	50	6
218	MEN'S	A-3	--	278 SF	0	0
218A	LOCKER ROOM	A-3	EXERCISE	274 SF	50	6
220	JAN/LAUNDRY	A-3	MECHANICAL	77 SF	300	1
222	ELEC.	A-3	MECHANICAL	27 SF	300	1
Grand total				12755 SF		147

TOTAL OCCUPANCY - BASE BID

BASEMENT	149
FIRST FLOOR	1020
SECOND FLOOR	147
TOTAL	1316

TOTAL OCCUPANCY - ALTERNATE

BASEMENT	149
FIRST FLOOR	1199
SECOND FLOOR	186
TOTAL	1534

K15 PLUMBING FIXTURE SCHEDULE

GENERAL NOTES

1. PROVIDE FIRE WALLS, FIRE AND SMOKE PARTITIONS AT LOCATIONS INDICATED ON THESE G-Series DRAWINGS. PROVIDE CONSTRUCTION IN ACCORDANCE WITH UL-TEST NUMBERS FOR RATINGS INDICATED:

   UNLESS OTHERWISE NOTED PROVIDE THE FOLLOWING UL-TEST DESIGNS:
   2HR RATED CMU: UL-U905; UL-U906;
   3HR RATED CMU: UL-U904;
   1HR RATED GYPSUM BOARD: UL-U419; UL-U448;
   1-1/2HR RATED GYPSUM BOARD: UL-U449
   2HR RATED GYPSUM BOARD: UL-U411; UL-U412; UL-U419;
   3HR RATED GYPSUM BOARD: UL-U419;UL-U435;
   1HR RATED SHAFTWALL: UL-U465;
   2HR RATED SHAFTWALL: UL-U467

2. FIRE RATED WALLS AND PARTITIONS SHALL BE CONTINUOUS, WITHOUT GAPS IN HORIZONTAL AND VERTICAL DIRECTIONS. SEAL ALL PENETRATIONS ACCORDING TO SPECIFIED OR SELECTED UL TESTS.

3. IN ADDITION TO SIGNS REQUIRED BY THE SPECIFICATIONS FOR EACH PENETRATION, PROVIDE STENCILLED SIGNS AT ALL ACCESSIBLE CONCEALED FLOOR, CEILING OR ATTIC SPACE WHICH INCORPORATES THE WORDS : "FIRE AND/OR SMOKE BARRIER - PROTECT ALL OPENINGS". PROVIDE AT LEASTE ONE OR MORE SIGNS ON BOTH SIDES OF EACH WALL SEGMENT SPACED AT LEAST 15' APART. LETTERING SHALL BE AT LEAST 2" IN HEIGHT.

4. BOTTOM FLANGE PROTECTION. PROVIDE INTUMESCENT COATING FIRE PROTECTION AT THE BOTTOM FLANGE OF LINTELS, SHELF ANGLES AND PLATES, IN WALLS THAT ARE PART OF THE PRIMARY STRUCTURAL FRAME, WHICH SPAN MORE THAN 6 FEET AND WHICH ARE EXPOSED TO VIEW. ALL OTHER LINTEL SURFACES IN WALL THAT ARE PART OF THE PRIMARY STRUCTURAL FRAME, SPAN MORE THAN 6 FEET BUT WHICH ARE NOT EXPOSED TO VIEW AND NOT ENCASED BY CMU OR CONCRETE, MAY BE FIRE PROOFED WITH SPRAY FIREPROOFING OR INTUMESCENT COATINGS.

5. STRUCTURAL FRAME SUPPORTING FIRE RATED WALLS: ALL STRUCTURAL COMPONENTS, INCLUDING COLUMNS, GIRDERS, BEAMS, JOISTS AND DECKS, SUPPORTING FIRE RATED SHAFT CONSTRUCTION SHALL BE FIRE RATED TO THE SAME LEVEL OF PROTECTION OF THE SHAFT. PROTECTION OF INDIVIDUAL BEAMS SHALL EXTEND TO THE ENTIRE SPAN OF THE STRUCTURE AND TO COLUMNS ALL THE WAY DOWN TO THE GROUND.

PLUMBING FIXTURES - BASE

1316 TOTAL ANTICIPATED OCCUPANTS: 658 MALE & 658 FEMALE

FIXTURE	REQUIRED		PROVIDED		
	MALE	FEMALE	MALE	FEMALE	UNISEX
WATER CLOSETS	4	9	12	18	2
URINAL	5	-	8	-	-
LAVATORY	4	4	13	13	2
SHOWER	6	6	8	8	1
DRINKING FOUNTAIN OR WATER COOLER	1 SET FOR EACH SET OF MEN'WOMEN TOILETS		2		
SERVICE SINK	1 PER FLOOR		2		

VILLAGE OF ARLINGTON HEIGHTS APPLICABLE CODES:

1.	2009	INTERNATIONAL BUILDING CODE
2.	CURRENT	ILLINOIS PLUMBING CODE (77 ILL. ADM. CODE 890)
3.	CURRENT	INTERNATIONAL ENERGY CONSERVATION CODE
4.	2010	ILLINOIS ACCESSIBILITY CODE (71 ILL. ADM. CODE 400)
5.	2009	INTERNATIONAL FUEL GAS CODE
6.	2009	INTERNATIONAL MECHANICAL CODE
7.	2001	NFPA LIFE SAFETY CODE
8.	2011	NATIONAL ELECTRICAL CODE
9.	CURRENT	ILLINOIS DEPARTMENT OF PUBLIC HEALTH POOL CODE
10.	CURRENT	ILLINOIS ELEVATORE SAFETY AND REGULATION ACT

BUILDING AREAS:

	EXISTING	BASE BID	TOTAL
BASEMENT GROSS ENCLOSED AREA:	6,493 SF	0 SF	6,493 SF
FIRST FLOOR GROSS ENCLOSED AREA:	29,479 SF	28,092 SF	57,571 SF
SECOND FLOOR GROSS ENCLOSED AREA:	0 SF	14,180 SF	14,180 SF
TOTAL EXISTING:	35,972 SF	42,272 SF	78,244 SF

	BUILDING 1	BUILDING 2
BASEMENT GROSS ENCLOSED AREA:	6,493 SF	0 SF
FIRST FLOOR GROSS ENCLOSED AREA:	32,042 SF	22,529 SF
SECOND FLOOR GROSS ENCLOSED AREA:	0 SF	14,180 SF
TOTAL EXISTING:	38,535 SF	36,705 SF

CODE COMPLIANCE NOTES:

1. BUILDING USES : ASSEMBLY A-3 (Section 303.1), SINGLE OCCUPANCY

   BUILDING TYPE : 2B (TABLE 601)
   FIRE PROTECTION SYSTEMS: AUTOMATIC SPRINKLER SYSTEM
   OCCUPANCY CLASSIFICATIONS: (SECTIONS 302-312, 408)
   1. ACCESSORY OCCUPANCIES (SECTION 508.3.1): N/A
   2. INCIDENTAL USE AREAS (TABLE 508.2): N/A
   3. MIXED OCCUPANCY AND FIRE AREA SEPARATIONS (TABLE 508.4), FOR SPRINKLERED BUILDING:
      a. N/A

2. HEIGHT CALCULATIONS (MIXED USE SEPARATED BY USE GROUPS)

USE GROUP	A-3
ALLOWABLE HEIGHT = # STORIES / HEIGHT (FT)	2 STORIES / 55 FT
INCREASE FOR AUTOMATIC SPRINKLERS (504.2)	1 STORY / 20 FT
ADJUSTED ALLOW. HEIGHT = # STORIES / HEIGHT (FT)	3 STORIES / 75 FT
ACTUAL HEIGHT = # STORIES / HEIGHT (FT)	2 STORY / 36 FT

3. AREA CALCULATIONS (NON-SEPARATED MIXED USE GROUPS)

ITEM	% FACTOR	AREA (SF)
ALLOWABLE TABULAR AREA	100	9,500
REDUCTION FOR HEIGHT	0	0
INCREASE FOR OPEN PERIMETER	75	7,125
INCREASE FOR AUTOMATIC SPRINKLER	200	19,000
TOTAL ALLOWABLE AREA	375%	35,625 SF

FRONTAGE (Section 506.2)	N - 204' E - 373' W - 372' S - 204'
TOTAL FRONTAGE	1,154 FT
PERIMETER	1,154 FT
WIDTH OF OPEN SPACE	30 FT
AREA INCREASE - FRONTAGE I = [(F/P)-0.25]W/30	75%

4. FIRE-RESISTANCE LEGEND:

   1-HR. FIRE SEPARATION ASSEMBLY
   2-HR. FIRE SEPARATION ASSEMBLY

5. OCCUPANCY LEGEND:

   OCCUPANT LOAD: CALCULATED BY ROOM SQUARE FOOTAGE (IBC 2009 TABLE 1004.1.1) OR ACTUAL OCCUPANT LOAD ("0" INDICATES THAT THE ACTUAL OCCUPANT WAS USED)

   OFFICE — ROOM NAME
   7120 — ROOM NUMBER
   504 — AREA OF ROOM (S.F.)
   100 — S.F. / OCCUPANT (TABLE 1004.1.1)
   5 — OCCUPANT LOAD

6. EXITING LEGEND:

   11 — DIRECTION OF TRAVEL
   OCCUPANT LOAD (TABLE 1004.1.1 OR ACTUAL)
   31" — EXIT CAPACITY REQUIRED (IBC 2009 TABLE 1005.1)
   68" — EXIT CAPACITY PROVIDED (OPENING CLEAR WIDTH)

   * NOTE: EXIT CAPACITY: DOORS: 0.15 IN / PERSON

7. MAXIMUM TRAVEL DISTANCE

   TD (TRAVEL DISTANCE TO EXIT) = 250'
   CD (COMMON PATH OF TRAVEL DISTANCE) = 75'

   DISTANCE TO EXIT (TABLE 1016.1) : ASSEMBLY A-3: 250 FEET
   COMMON PATH OF TRAVEL: 75 FEET
   MIN. # OF EXITS FOR OCCUPANT LOAD:

TABLE 1015.1	
OCCUPANT LOAD (PER STORY)	MIN. NO. OF EXITS (PER STORY)
1 - 500	2
500 - 1000	3
MORE THAN 1000	4

   DEAD END: MAX. 20 FEET (SECTION 1018.4)

8. F.E.C. FIRE EXTINGUISHER CABINET RECESSED - U.N.O. (1 PER 3,000 SF & 75 FT. MAX. TRAVEL)
   F.E. SURFACE-MOUNTED FIRE EXTINGUISHER (SECTION 906)
   S.P.V.C. STAND PIPE VALVE CABINET - STAGE ONLY (SECTION 410.7) (SECTION 905)

FIRE-RESISTIVE REQUIREMENTS:

FOR TYPE 2B CONSTRUCTION
RATINGS FOR BUILDING ELEMENTS (IN HOURS):
FIRE RESISTANCE RATING REQUIREMENTS FOR BUILING ELEMENTS (TABLE 601) :

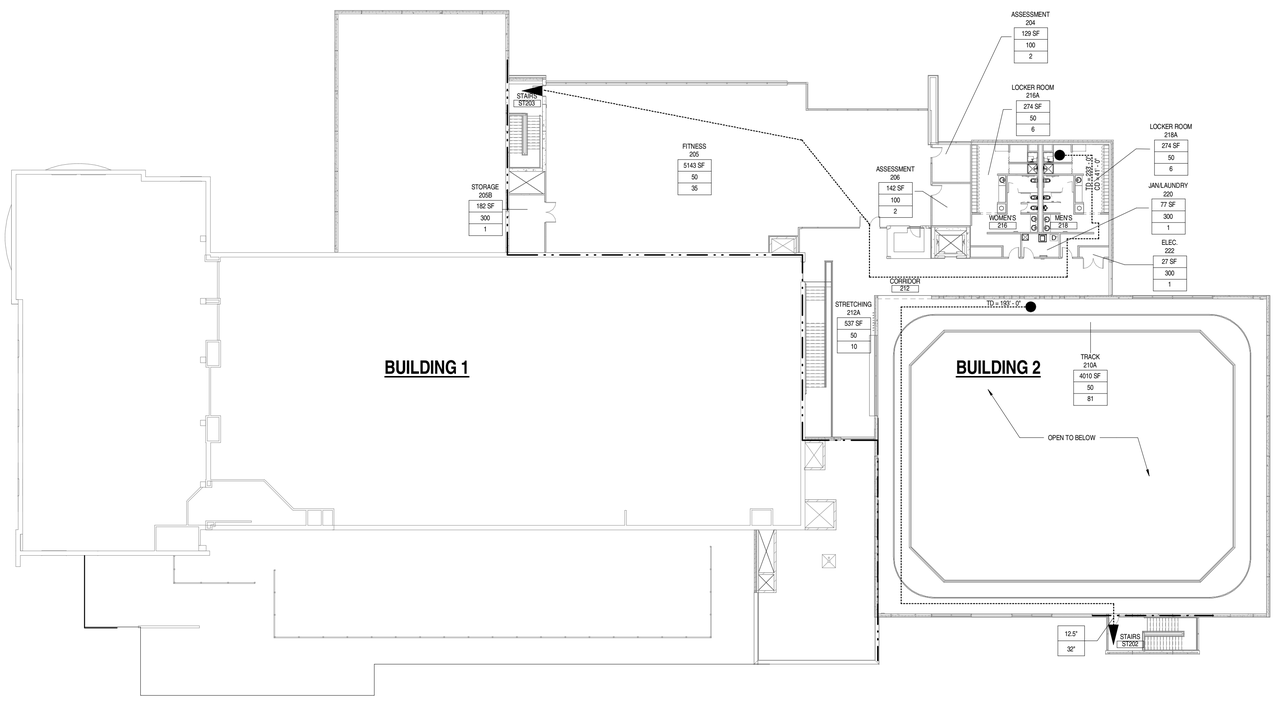
1. a. STRUCTURAL FRAME: (COLUMNS, GIRDERS, BEAMS, JOISTS, SPANDRELS AND BRACING) 0 HR
   b. EXTERIOR BEARING WALLS: N/A
   c. INTERIOR BEARING WALLS: 0 HR
   d. NON-BEARING WALLS AND PARTITIONS - EXTERIOR: 0 HR
   e. NON-BEARING WALLS AND PARTITIONS - INTERIOR: 0 HR
   f. FLOOR CONSTRUCTION, INCLUDING SUPPORTING BEAMS AND JOISTS: 0 HR
   g. ROOF CONSTRUCTION, INCLUDING SUPPORTING BEAMS AND JOISTS: 0 HR

   FIRE WALLS AND PARTY WALLS: 2 HR

   FIRE SEPARATION ASSEMBLIES:
   a. EXIT (STAIR) ENCLOSURES 1 hr.
   b. SHAFT ENCLOSURES/ELEVATOR HOISTWAYS 1 hr. (Section 708)
   c. MIXED USE/FIRE SEPARATION ASSEMBLIES N/A
   d. OTHER SEPARATION ASSEMBLIES N/A
   e. SHAFTS N/A

   FIRE PARTITIONS:
   a. EXIT ACCESS CORRIDORS: 0 HR. (TABLE 1017.1)
   b. COMBUSTIBILITY (SECTIONS 602.2, 602.3, 602.4, 602.5, 603)
      1. EXTERIOR WALLS: NON-COMBUSTIBLE
      2. INTERIOR ELEMENTS: NON-COMBUSTIBLE
      3. ROOF: NON-COMBUSTIBLE

2. OTHER REQUIREMENTS: INCIDENTAL USE AREAS (TABLE 508.2) / (TABLE 715.4):
   a. MECHANICAL/ELECTRICAL/PUMP 1 HR. / 60 MIN. DOORS



A1 CODE COMPLIANCE PLAN - SECOND FLOOR - BASE

1/16" = 1'-0"

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NO.	DATE	DESCRIPTION
1	04.05.2017	ISSUED FOR CONSTRUCTION

ISSUANCE

FGM ARCHITECTS
OAK BROOK O'FALLON CHICAGO

PROFESSIONAL SEAL

EXPIRATION DATE:

DATE	02/02/18
DRAWN	Author
CHECKED	Checker
APPROVED	Approver

PROFESSIONAL DESIGN FIRM IL # 184-003393

OLYMPIC SWIM ADDITION AND RENOVATION
ARLINGTON HEIGHTS PARK DISTRICT
660 Ridge Ave
Arlington Heights, IL 60004

CODE COMPLIANCE PLAN - SECOND FLOOR - BASE

SHEET NO.
G1.0.4

JOB NO. 17-2408.01

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ROOM SCHEDULE - CODE INFORMATION - FIRST FLOOR						
vg	ROOM NAME	OCCUPANCY GROUP	OCCUPANCY FUNCTION	ROOM AREA	S.F. PER OCCUPANT	OCCUPANC Y LOAD
100	LOBBY	A-3	BUSINESS	2095 SF	100	21
100A	VESTIBULE	A-3	--	116 SF	0	0
100B	VIEWING AREA	A-3	BUSINESS	891 SF	100	9
100C	CORRIDOR	A-3	--	577 SF	0	0
100D	CORRIDOR	A-3	--	44 SF	0	0
100D	CORRIDOR	A-3	--	36 SF	0	0
101	COPY/WORK	A-3	OFFICE	104 SF	100	2
102	BABYSITTING	A-3	CLASSROOM	610 SF	35	18
102A	TOILET ROOM	A-3	--	51 SF	0	0
102B	STORAGE	A-3	MECHANICAL	111 SF	300	1
103	OFFICE	A-3	OFFICE	108 SF	100	2
106	ELEV.	A-3	-	73 SF	0	0
107	WOMEN'S LOCKER ROOM	A-3	EXERCISE	791 SF	50	16
107A	ENTRY	A-3	--	47 SF	0	0
107B	ENTRY	A-3	--	64 SF	0	0
108	DATA	A-3	MECHANICAL	83 SF	300	1
109	MEN'S LOCKER ROOM	A-3	EXERCISE	552 SF	50	12
109A	ENTRY	A-3	--	68 SF	0	0
109B	ENTRY	A-3	--	65 SF	0	0
110	WOMEN'S	A-3	--	318 SF	0	0
111	FAMILY LOCKER ROOM	A-3	EXERCISE	343 SF	50	7
111A	TOILET	A-3	--	95 SF	0	0
111B	TOILET	A-3	--	93 SF	0	0
111C	TOILET	A-3	--	94 SF	0	0
111D	ENTRY	A-3	--	100 SF	0	0
111E	CHANGING	A-3	EXERCISE	65 SF	50	2
111F	CHANGING	A-3	EXERCISE	65 SF	50	2
112	MEN'S	A-3	--	327 SF	0	0
113	JAN. CL.	A-3	STORAGE	66 SF	300	1
115	WAR WATER POOL	A-3	EXERCISE	3563 SF	ACTUAL	136
116	VESTIBULE	A-3	--	1274 SF	0	0
117	OUTDOOR STORAGE	A-3	STORAGE	542 SF	300	2
118	CONCESSIONS	A-3	OFFICE	363 SF	100	4
119	CORRIDOR	A-3	--	596 SF	0	0
120	GYMNASIUM	A-4	EXERCISE	19097 SF	50	381
120A	ELEC.	A-3	MECHANICAL	263 SF	300	1
120B	TELCOM	A-3	MECHANICAL	112 SF	300	1
120C	STORAGE	S1	STORAGE	380 SF	300	2
121	Room			Redundant Room		
122	FREIGHT ELEVATOR	A-3	--	67 SF	0	0
124	TRASH / GEN. ENCLOSURE	A-3	STORAGE	502 SF	300	2
126	MULTI-PURPOSE	A-3	CLASSROOM	1233 SF	20	62
126B	STORAGE	A-3	STORAGE	86 SF	300	1
126C	ELEC.	A-3	STORAGE	72 SF	300	1
128	MULTI-PURPOSE	A-3	CLASSROOM	1207 SF	20	61
128B	STORAGE	A-3	STORAGE	287 SF	ACTUAL	1
130	EXISTING VESTIBULE	A-3	--	84 SF	0	0
131	EXISTING LAP & DIVING POOL DECK	A-3	EXERCISE	8101 SF	50	422
131A	STORAGE	A-3	STORAGE	18 SF	300	1
131B	PUMP ROOM	A-3	MECHANICAL	14 SF	300	1
131C	EXISITNG POOL STORAGE	A-3	STORAGE	151 SF	300	1
131D	STORAGE ROOM	A-3	STORAGE	14 SF	ACTUAL	SEE LAP POOL
132	CORRIDOR	A-3	--	793 SF	0	0
133	LEISURE POOL DECK	A-3	EXERCISE	3361 SF		

ROOM SCHEDULE - CODE INFORMATION - FIRST FLOOR						
vg	ROOM NAME	OCCUPANCY GROUP	OCCUPANCY FUNCTION	ROOM AREA	S.F. PER OCCUPANT	OCCUPANC Y LOAD
133A	POOL STORAGE	A-3	STORAGE	92 SF	300	1
135	POOL MANAGER	A-3	OFFICE	427 SF	100	5
135A	LOCKERS	A-3	EXERCISE	61 SF	50	2
135B	LOCKERS	A-3	EXERCISE	50 SF	50	1
135C	DATA CL.	A-3	MECHANICAL	11 SF	300	1
136	WOMEN'S	A-3	--	66 SF	0	0
138	MEN'S	A-3	--	83 SF	0	0
140	LOBBY	A-3	--	779 SF	0	0
140A	VESTIBULE	A-3	--	186 SF	0	0
140B	ELEV	A-3	--	53 SF	0	0
140C	JAN. CL.	A-3	STORAGE	52 SF	300	1
142	HALL	A-3	--	573 SF	0	0
144	RECEPTION WORK AREA	A-3	OFFICE	271 SF	100	3
146	AQUA. OFFICE	A-3	OFFICE	157 SF	100	2
148	AQUA. OFFICE	A-3	OFFICE	146 SF	100	2
150	MEETING ROOM	A-3	OFFICE	583 SF	100	6
Grand total				57520 SF		1199

TOTAL OCCUPANCY - BASE BID

BASEMENT 149
FIRST FLOOR 1020
SECOND FLOOR 147
TOTAL 1316

TOTAL OCCUPANCY - ALTERNATE

BASEMENT 149
FIRST FLOOR 1199
SECOND FLOOR 186
TOTAL 1534

K1 **OCCUPANCY SCHEDULE**

PLUMBING FIXTURES - ALTERNATE					
1510 TOTAL ANTICIPATED OCCUPANTS: 755 MALE & 755 FEMALE					
FIXTURE	REQUIRED		PROVIDED		
	MALE	FEMALE	MALE	FEMALE	UNISEX
WATER CLOSETS	4	9	12	18	2
URINAL	5	-	8	-	-
LAVATORY	4	4	13	13	2
SHOWER	6	6	8	8	1
DRINKING FOUNTAIN OR WATER COOLER	1 SET FOR EACH SET OF MEN/WOMEN TOILETS		2		
SERVICE SINK	1 PER FLOOR		2		

K8 **PLUMBING FIXTURE SCHEDULE**

VILLAGE OF ARLINGTON HEIGHTS APPLICABLE CODES:

1. 2009 INTERNATIONAL BUILDING CODE
2. CURRENT ILLINOIS PLUMBING CODE (77 ILL. ADM. CODE 890)
3. CURRENT INTERNATIONAL ENERGY CONSERVATION CODE
4. 2010 ILLINOIS ACCESSIBILITY CODE (71 ILL. ADM. CODE 400)
5. 2009 INTERNATIONAL FUEL GAS CODE
6. 2009 INTERNATIONAL MECHANICAL CODE
7. 2001 NFPA LIFE SAFETY CODE
8. 2011 NATIONAL ELECTRICAL CODE
9. CURRENT ILLINOIS DEPARTMENT OF PUBLIC HEALTH POOL CODE
10. CURRENT ILLINOIS ELEVATORE SAFETY AND REGULATION ACT

BUILDING AREAS:

	EXISTING	BASE W/ ALTERNATE	TOTAL
BASEMENT GROSS ENCLOSED AREA:	6,493 SF	0 SF	6,493 SF
FIRST FLOOR GROSS ENCLOSED AREA:	29,479 SF	37,739 SF	67,218 SF
SECOND FLOOR GROSS ENCLOSED AREA:	0 SF	16,507 SF	16,507 SF
TOTAL EXISTING:	35,972 SF	54,246 SF	90,218 SF

	BUILDING 1	BUILDING 2
BASEMENT GROSS ENCLOSED AREA:	6,493 SF	0 SF
FIRST FLOOR GROSS ENCLOSED AREA:	35,042 SF	32,176 SF
SECOND FLOOR GROSS ENCLOSED AREA:	0 SF	16,507 SF
TOTAL EXISTING:	41,535 SF	48,683 SF

CODE COMPLIANCE NOTES:

1. BUILDING USES : ASSEMBLY A-3 (Section 303.1), SINGLE OCCUPANCY

   BUILDING TYPE : 2B (TABLE 601)
   FIRE PROTECTION SYSTEMS: AUTOMATIC SPRINKLER SYSTEM
   OCCUPANCY CLASSIFICATIONS: (SECTIONS 302-312, 408)
   1. ACCESSORY OCCUPANCIES (SECTION 508.3.1): N/A
   2. INCIDENTAL USE AREAS (TABLE 508.2): N/A
   3. MIXED OCCUPANCY AND FIRE AREA SEPARATIONS (TABLE 508.4), FOR SPRINKLERED BUILDING: N/A

2. HEIGHT CALCULATIONS (MIXED USE SEPARATED BY USE GROUPS)

USE GROUP	A-3
ALLOWABLE HEIGHT = # STORIES / HEIGHT (FT)	2 STORIES / 55 FT
INCREASE FOR AUTOMATIC SPRINKLERS (504.2)	1 STORY / 20 FT
ADJUSTED ALLOW. HEIGHT = # STORIES / HEIGHT (FT)	3 STORIES / 75 FT
ACTUAL HEIGHT = # STORIES / HEIGHT (FT)	2 STORY / 36 FT

3. AREA CALCULATIONS (NON-SEPARATED MIXED USE GROUPS)

ITEM	% FACTOR	AREA (SF)
ALLOWABLE TABULAR AREA	100	9,500
REDUCTION FOR HEIGHT	0	0
INCREASE FOR OPEN PERIMETER	75	7,125
INCREASE FOR AUTOMATIC SPRINKLER	200	19,000
TOTAL ALLOWABLE AREA	375%	35,625 SF

FRONTAGE (Section 506.2)	N - 204' E - 471' W - 471' S - 204'
TOTAL FRONTAGE	1,350 FT
PERIMETER	1,1350 FT
WIDTH OF OPEN SPACE	30 FT
AREA INCREASE - FRONTAGE I = [(F/P)-0.25]xW/30	75%

4. FIRE-RESISTANCE LEGEND:
   1-HR. FIRE SEPARATION ASSEMBLY
   2-HR. FIRE SEPARATION ASSEMBLY

5. OCCUPANCY LEGEND:

   OCCUPANT LOAD: CALCULATED BY ROOM SQUARE FOOTAGE (IBC 2009 TABLE 1004.1.1) OR ACTUAL OCCUPANT LOAD ("0" INDICATES THAT THE ACTUAL OCCUPANT WAS USED)

   OFFICE — ROOM NAME
   7120 — ROOM NUMBER
   504 — AREA OF ROOM (S.F.)
   100 — S.F. / OCCUPANT (TABLE 1004.1.1)
   9 — OCCUPANT LOAD

6. EXITING LEGEND:

   DIRECTION OF TRAVEL
   11 — OCCUPANT LOAD (TABLE 1004.1.1 OR ACTUAL)
   31" — EXIT CAPACITY REQUIRED (IBC 2009 TABLE 1005.1)
   68" — EXIT CAPACITY PROVIDED (OPENING CLEAR WIDTH)

   * NOTE: EXIT CAPACITY: DOORS: 0.15 IN / PERSON

7. MAXIMUM TRAVEL DISTANCE

   TD (TRAVEL DISTANCE TO EXIT) = 250'
   CD (COMMON PATH OF TRAVEL DISTANCE) = 75'

   DISTANCE TO EXIT (TABLE 1016.1) : ASSEMBLY A-3: 250 FEET
   COMMON PATH OF TRAVEL: 75 FEET
   MIN. # OF EXITS FOR OCCUPANT LOAD:

TABLE 1015.1	
OCCUPANT LOAD (PER STORY)	MIN. NO. OF EXITS (PER STORY)
1 - 500	**2**
500 - 1000	3
MORE THAN 1000	4

DEAD END: MAX. 20 FEET (SECTION 1018.4)

8. F.E.C. FIRE EXTINGUISHER CABINET RECESSED - U.N.O. (1 PER 3,000 SF & 75 FT. MAX. TRAVEL)

   F.E. SURFACE-MOUNTED FIRE EXTINGUISHER (SECTION 906)

   S.P.V.C. STAND PIPE VALVE CABINET - STAGE ONLY (SECTION 410.7) (SECTION 905)

FIRE-RESISTIVE REQUIREMENTS:

FOR TYPE 2B CONSTRUCTION
RATINGS FOR BUILDING ELEMENTS (IN HOURS):

FIRE RESISTANCE RATING REQUIREMENTS FOR BUILING ELEMENTS (TABLE 601) :

1. a. STRUCTURAL FRAME: (COLUMNS, GIRDERS, BEAMS, JOISTS, SPANDRELS AND BRACING) — 0 HR
   b. EXTERIOR BEARING WALLS: — N/A
   c. INTERIOR BEARING WALLS: — 0 HR
   d. NON-BEARING WALLS AND PARTITIONS - EXTERIOR: — 0 HR
   e. NON-BEARING WALLS AND PARTITIONS - INTERIOR: — 0 HR
   f. FLOOR CONSTRUCTION, INCLUDING SUPPORTING BEAMS AND JOISTS: — 0 HR
   g. ROOF CONSTRUCTION, INCLUDING SUPPORTING BEAMS AND JOISTS: — 0 HR

   FIRE WALLS AND PARTY WALLS: — 2 HR

   FIRE SEPARATION ASSEMBLIES:
   a. EXIT (STAIR) ENCLOSURES — 1 hr.
   b. SHAFT ENCLOSURES/ELEVATOR HOISTWAYS — 1 hr. (Section 708)
   c. MIXED USE/FIRE SEPARATION ASSEMBLIES — N/A
   d. OTHER SEPARATION ASSEMBLIES — N/A
   e. SHAFTS — N/A

   FIRE PARTITIONS:
   a. EXIT ACCESS CORRIDORS: 0 HR. (TABLE 1017.1)
   b. COMBUSTIBILITY (SECTIONS 602.2, 602.3, 602.4, 602.5, 603)
      1. EXTERIOR WALLS: NON-COMBUSTIBLE
      2. INTERIOR ELEMENTS: NON-COMBUSTIBLE
      3. ROOF: NON-COMBUSTIBLE

2. OTHER REQUIREMENTS: INCIDENTAL USE AREAS (TABLE 508.2) / (TABLE 715.4):
   a. MECHANICAL/ELECTRICAL/PUMP — 1 HR. / 60 MIN. DOORS

GENERAL NOTES

1. PROVIDE FIRE WALLS, FIRE AND SMOKE PARTITIONS AT LOCATIONS INDICATED ON THESE G-Series DRAWINGS. PROVIDE CONSTRUCTION IN ACCORDANCE WITH UL-TEST NUMBERS FOR RATINGS INDICATED.

   UNLESS OTHERWISE NOTED PROVIDE THE FOLLOWING UL-TEST DESIGNS:
   2HR RATED CMU: UL-U905; UL-U906;
   3HR RATED CMU: UL-U904;
   1HR RATED GYPSUM BOARD: UL-U419; UL-U448;
   1-1/2HR RATED GYPSUM BOARD: UL-U449
   2HR RATED GYPSUM BOARD: UL-U411; UL-U412; UL-U419;
   3HR RATED GYPSUM BOARD: UL-U419;UL-U435;
   1HR RATED SHAFTWALL: UL-U469;
   2HR RATED SHAFTWALL: UL-U-467

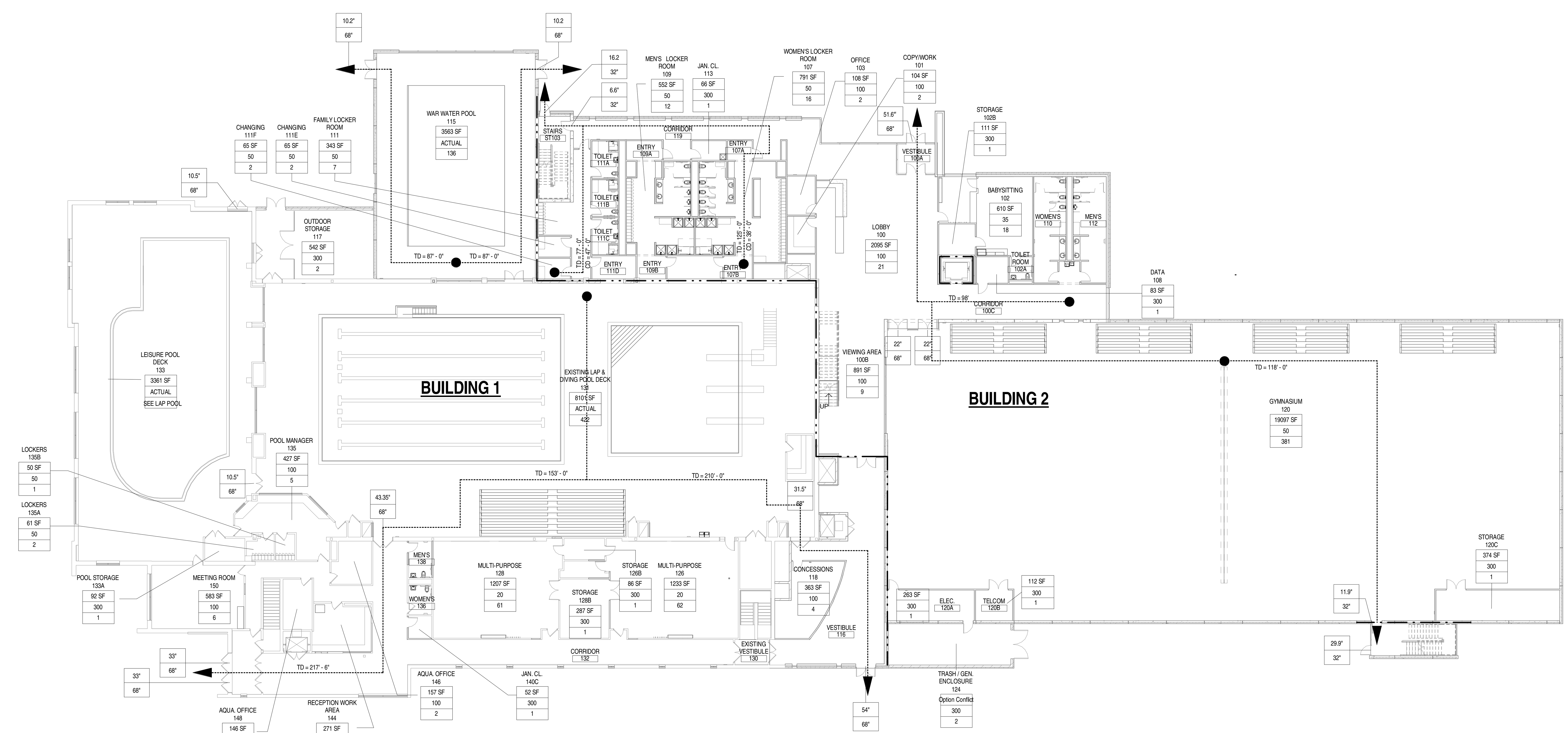
2. FIRE RATED WALLS AND PARTITIONS SHALL BE CONTINUOUS, WITHOUT GAPS IN HORIZONTAL AND VERTICAL DIRECTIONS. SEAL ALL PENETRATIONS ACCORDING TO SPECIFIED OR SELECTED UL TESTS.

3. IN ADDITION TO SIGNS REQUIRED BY THE SPECIFICATIONS FOR EACH PENETRATION, PROVIDE STENCILLED SIGNS AT ALL ACCESSIBLE CONCEALED FLOOR, CEILING OR ATTIC SPACE WHICH INCORPORATES THE WORDS: "FIRE AND/OR SMOKE BARRIER - PROTECT ALL OPENINGS". PROVIDE AT LEASTE ONE OR MORE SIGNS ON BOTH SIDES OF EACH WALL SEGMENT SPACED AT LEAST 15' APART. LETTERING SHALL BE AT LEAST 2" IN HEIGHT.

4. BOTTOM FLANGE PROTECTION. PROVIDE INTUMESCENT COATING FIRE PROTECTION AT THE BOTTOM FLANGE OF LINTELS, SHELF ANGLES AND PLATES, IN WALLS THAT ARE PART OF THE PRIMARY STRUCTURAL FRAME, WHICH SPAN MORE THAN 6 FEET AND WHICH ARE EXPOSED TO VIEW. ALL OTHER LINTEL SURFACES IN WALL THAT ARE PART OF THE PRIMARY STRUCTURAL FRAME, SPAN MORE THAN 6 FEET BUT WHICH ARE NOT EXPOSED TO VIEW AND NOT ENCASED BY CMU OR CONCRETE, MAY BE FIRE PROOFED WITH SPRAY FIREPROOFING OR INTUMESCENT COATINGS.

5. STRUCTURAL FRAME SUPPORTING FIRE RATED WALLS: ALL STRUCTURAL COMPONENTS, INCLUDING COLUMNS, GIRDERS, BEAMS, JOISTS AND DECKS, SUPPORTING FIRE RATED SHAFT CONSTRUCTION SHALL BE FIRE RATED TO THE SAME LEVEL OF PROTECTION OF THE SHAFT. PROTECTION OF INDIVIDUAL BEAMS SHALL EXTEND TO THE ENTIRE SPAN OF THE STRUCTURE AND TO COLUMNS ALL THE WAY DOWN TO THE GROUND.

K13 **CODE LEGEND AND NOTES**



A1 **CODE COMPLIANCE PLAN - FIRST FLOOR - ALTERNATE**
1/16" = 1'-0"

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ISSUANCE		
NO.	DATE	DESCRIPTION
00	01/08/18	PLAN COMMISSION REVIEW
01	02/09/18	PLAN COMMISSION REVIEW - REVISIONS

FGM ARCHITECTS
CHICAGO OAK BROOK O'FALLON ST. LOUIS

PROFESSIONAL SEAL
EXPIRATION DATE:

DRAWN PWH, EJS
CHECKED DBY
APPROVED JCD
PROFESSIONAL DESIGN FIRM IL # 184-000350

OLYMPIC SWIM ADDITION AND RENOVATION
ARLINGTON HEIGHTS PARK DISTRICT
660 Ridge Ave
Arlington Heights, IL 60004

CODE COMPLIANCE PLAN - FIRST FLOOR - ALTERNATE

SHEET NO.
G1.0.5

JOB NO. 17-2408.01
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ROOM SCHEDULE - CODE INFORMATION - SECOND FLOOR						
ROOM NUMBER	ROOM NAME	OCCUPANCY GROUP	OCCUPANCY FUNCTION	ROOM AREA	S.F. PER OCCUPANT	OCCUPANCY LOAD
201	CONTROL	A-3	OFFICE	99 SF	100	1
204	ASSESSMENT	A-3	OFFICE	129 SF	100	2
205	FITNESS	A-3	EXERCISE	5143 SF	50	35
205B	STORAGE	A-3	STORAGE	182 SF	300	1
206	ASSESSMENT	A-3	OFFICE	142 SF	100	2
208	ELEV.	A-3	--	72 SF	0	0
210A	TRACK	A-3	EXERCISE	5983 SF	50	120
212	CORRIDOR	A-3	--	1203 SF	0	0
212A	STRETCHING	A-3	EXERCISE	537 SF	50	10
214	ELEC.	A-3	MECHANICAL	28 SF	300	1
216	WOMEN'S	A-3	--	280 SF	0	0
216A	LOCKER ROOM	A-3	EXERCISE	274 SF	50	6
218	MEN'S	A-3	--	278 SF	0	0
218A	LOCKER ROOM	A-3	EXERCISE	274 SF	50	6
220	JAN/LAUNDRY	A-3	MECHANICAL	77 SF	300	1
222	ELEC.	A-3	MECHANICAL	27 SF	300	1
Grand total				14728 SF		186

TOTAL OCCUPANCY - BASE BID

BASEMENT	149
FIRST FLOOR	1020
SECOND FLOOR	147
TOTAL	1316

TOTAL OCCUPANCY - ALTERNATE

BASEMENT	149
FIRST FLOOR	1199
SECOND FLOOR	186
TOTAL	1534

K1 OCCUPANCY SCHEDULE

PLUMBING FIXTURES - ALTERNATE					
1510 TOTAL ANTICIPATED OCCUPANTS: 755 MALE & 755 FEMALE					
FIXTURE	REQUIRED		PROVIDED		
	MALE	FEMALE	MALE	FEMALE	UNISEX
WATER CLOSETS	4	9	12	18	2
URINAL	5	-	8	-	-
LAVATORY	4	4	13	13	2
SHOWER	6	6	8	8	1
DRINKING FOUNTAIN OR WATER COOLER	1 SET FOR EACH SET OF MEN/WOMEN TOILETS		2		
SERVICE SINK	1 PER FLOOR		2		

K8 PLUMBING FIXTURE SCHEDULE

VILLAGE OF ARLINGTON HEIGHTS APPLICABLE CODES:

1.	2009	INTERNATIONAL BUILDING CODE
2.	CURRENT	ILLINOIS PLUMBING CODE (77 ILL. ADM. CODE 890)
3.	CURRENT	INTERNATIONAL ENERGY CONSERVATION CODE
4.	2010	ILLINOIS ACCESSIBILITY CODE (71 ILL. ADM. CODE 400)
5.	2009	INTERNATIONAL FUEL GAS CODE
6.	2009	INTERNATIONAL MECHANICAL CODE
7.	2001	NFPA LIFE SAFETY CODE
8.	2011	NATIONAL ELECTRICAL CODE
9.	CURRENT	ILLINOIS DEPARTMENT OF PUBLIC HEALTH POOL CODE
10.	CURRENT	ILLINOIS ELEVATORE SAFETY AND REGULATION ACT

BUILDING AREAS:

	EXISTING	BASE W/ ALTERNATE	TOTAL
BASEMENT GROSS ENCLOSED AREA:	6,493 SF	0 SF	6,493 SF
FIRST FLOOR GROSS ENCLOSED AREA:	29,479 SF	37,739 SF	67,218 SF
SECOND FLOOR GROSS ENCLOSED AREA:	0 SF	16,507 SF	16,507 SF
TOTAL EXISTING:	35,972 SF	54,246 SF	90,218 SF

	BUILDING 1	BUILDING 2
BASEMENT GROSS ENCLOSED AREA:	6,493 SF	0 SF
FIRST FLOOR GROSS ENCLOSED AREA:	35,042 SF	32,176 SF
SECOND FLOOR GROSS ENCLOSED AREA:	0 SF	16,507 SF
TOTAL EXISTING:	41,535 SF	48,683 SF

CODE COMPLIANCE NOTES:

1. BUILDING USES : ASSEMBLY A-3 (Section 303.1), SINGLE OCCUPANCY

   BUILDING TYPE : 2B (TABLE 601)
   FIRE PROTECTION SYSTEMS: AUTOMATIC SPRINKLER SYSTEM
   OCCUPANCY CLASSIFICATIONS: (SECTIONS 302-312, 408)
   1. ACCESSORY OCCUPANCIES (SECTION 508.3.1): N/A
   2. INCIDENTAL USE AREAS (TABLE 508.2): N/A
   3. MIXED OCCUPANCY AND FIRE AREA SEPARATIONS (TABLE 508.4), FOR SPRINKLERED BUILDING: N/A

2. HEIGHT CALCULATIONS (MIXED USE SEPARATED BY USE GROUPS)

USE GROUP	A-3
ALLOWABLE HEIGHT = # STORIES / HEIGHT (FT)	2 STORIES / 55 FT
INCREASE FOR AUTOMATIC SPRINKLERS (504.2)	1 STORY / 20 FT
ADJUSTED ALLOW. HEIGHT = # STORIES / HEIGHT (FT)	3 STORIES / 75 FT
ACTUAL HEIGHT = # STORIES / HEIGHT (FT)	2 STORY / 36 FT

3. AREA CALCULATIONS (NON-SEPARATED MIXED USE GROUPS)

ITEM	% FACTOR	AREA (SF)
ALLOWABLE TABULAR AREA	100	9,500
REDUCTION FOR HEIGHT	0	0
INCREASE FOR OPEN PERIMETER	75	7,125
INCREASE FOR AUTOMATIC SPRINKLER	200	19,000
TOTAL ALLOWABLE AREA	375%	35,625 SF

FRONTAGE (Section 506.2)	N - 204' E - 477' W - 477' S - 204'
TOTAL FRONTAGE	1,350 FT
PERIMETER	1,1350 FT
WIDTH OF OPEN SPACE	30 FT
AREA INCREASE - FRONTAGE I = [(F/P)-0.25]/W/30	75%

4. FIRE-RESISTANCE LEGEND:

   1-HR. FIRE SEPARATION ASSEMBLY
   2-HR. FIRE SEPARATION ASSEMBLY

5. OCCUPANCY LEGEND:

   OCCUPANT LOAD: CALCULATED BY ROOM SQUARE FOOTAGE (IBC 2009 TABLE 1004.1.1) OR ACTUAL OCCUPANT LOAD ("0" INDICATES THAT THE ACTUAL OCCUPANT WAS USED)

   OFFICE — ROOM NAME
   7120 — ROOM NUMBER
   504 — AREA OF ROOM (S.F.)
   100 — S.F. / OCCUPANT (TABLE 1004.1.1)
   9 — OCCUPANT LOAD

6. EXITING LEGEND:

   11 — DIRECTION OF TRAVEL
   OCCUPANT LOAD (TABLE 1004.1.1 OR ACTUAL)
   31 — EXIT CAPACITY REQUIRED (IBC 2009 TABLE 1005.1)
   68 — EXIT CAPACITY PROVIDED (OPENING CLEAR WIDTH)

   * NOTE: EXIT CAPACITY: DOORS: 0.15 IN / PERSON

7. MAXIMUM TRAVEL DISTANCE

   TD (TRAVEL DISTANCE TO EXIT) = 250'
   CD (COMMON PATH OF TRAVEL DISTANCE) = 75'

   DISTANCE TO EXIT (TABLE 1016.1) : ASSEMBLY A-3: 250 FEET

   COMMON PATH OF TRAVEL: 75 FEET

   MIN. # OF EXITS FOR OCCUPANT LOAD:

TABLE 1015.1	
OCCUPANT LOAD (PER STORY)	MIN. NO. OF EXITS (PER STORY)
1 - 500	2
500 - 1000	3
MORE THAN 1000	4

   DEAD END: MAX. 20 FEET (SECTION 1018.4)

8. F.E.C. FIRE EXTINGUISHER CABINET RECESSED - U.N.O. (1 PER 3,000 SF & 75 FT. MAX. TRAVEL)

   F.E. SURFACE-MOUNTED FIRE EXTINGUISHER (SECTION 906)

   S.P.V.C. STAND PIPE VALVE CABINET - STAGE ONLY (SECTION 410.7) (SECTION 905)

FIRE-RESISTIVE REQUIREMENTS:

FOR TYPE 2B CONSTRUCTION

RATINGS FOR BUILDING ELEMENTS (IN HOURS):

FIRE RESISTANCE RATING REQUIREMENTS FOR BUILING ELEMENTS (TABLE 601) :

1. a. STRUCTURAL FRAME: (COLUMNS, GIRDERS, BEAMS, JOISTS, SPANDRELS AND BRACING) 0 HR
   b. EXTERIOR BEARING WALLS: N/A
   c. INTERIOR BEARING WALLS: 0 HR
   d. NON-BEARING WALLS AND PARTITIONS - EXTERIOR: 0 HR
   e. NON-BEARING WALLS AND PARTITIONS - INTERIOR: 0 HR
   f. FLOOR CONSTRUCTION, INCLUDING SUPPORTING BEAMS AND JOISTS: 0 HR
   g. ROOF CONSTRUCTION, INCLUDING SUPPORTING BEAMS AND JOISTS: 0 HR

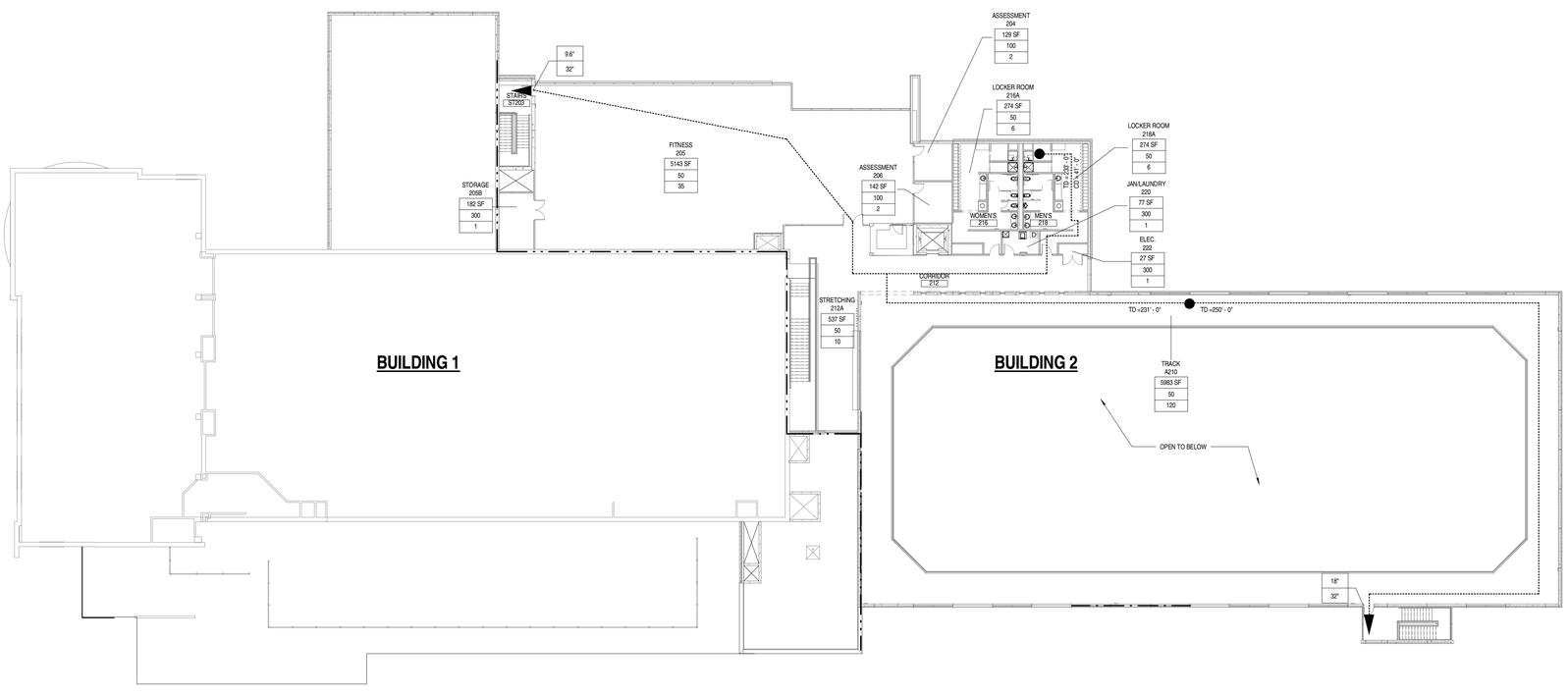
   FIRE WALLS AND PARTY WALLS: 2 HR

   FIRE SEPARATION ASSEMBLIES:
   a. EXIT (STAIR) ENCLOSURES 1 hr.
   b. SHAFT ENCLOSURES/ELEVATOR HOISTWAYS 1 hr. (Section 708)
   c. MIXED USE/FIRE SEPARATION ASSEMBLIES N/A
   d. OTHER SEPARATION ASSEMBLIES N/A
   e. SHAFTS N/A

   FIRE PARTITIONS:
   a. EXIT ACCESS CORRIDORS: 0 HR. (TABLE 1017.1)
   b. COMBUSTIBILITY (SECTIONS 602.2, 602.3, 602.4, 602.5, 603)
      1. EXTERIOR WALLS: NON-COMBUSTIBLE
      2. INTERIOR ELEMENTS: NON-COMBUSTIBLE
      3. ROOF: NON-COMBUSTIBLE

2. OTHER REQUIREMENTS: INCIDENTAL USE AREAS (TABLE 508.2) / (TABLE 715.4):
   a. MECHANICAL/ELECTRICAL/PUMP 1 HR. / 60 MIN. DOORS

K13 CODE LEGEND AND NOTES



A1 CODE COMPLIANCE PLAN - SECOND FLOOR - ALTERNATE

1/16" = 1'-0"

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NO.	DATE	DESCRIPTION
00	01/08/18	PLAN COMMISSION REVIEW
01	02/09/18	PLAN COMMISSION REVIEW - REVISIONS

ISSUANCE

FGM ARCHITECTS
CHICAGO OAK BROOK O'FALLON ST. LOUIS

PROFESSIONAL SEAL

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OLYMPIC SWIM ADDITION AND RENOVATION
ARLINGTON HEIGHTS PARK DISTRICT
660 Ridge Ave
Arlington Heights, IL 60004

CODE COMPLIANCE PLAN - SECOND FLOOR - ALTERNATE

SHEET NO.
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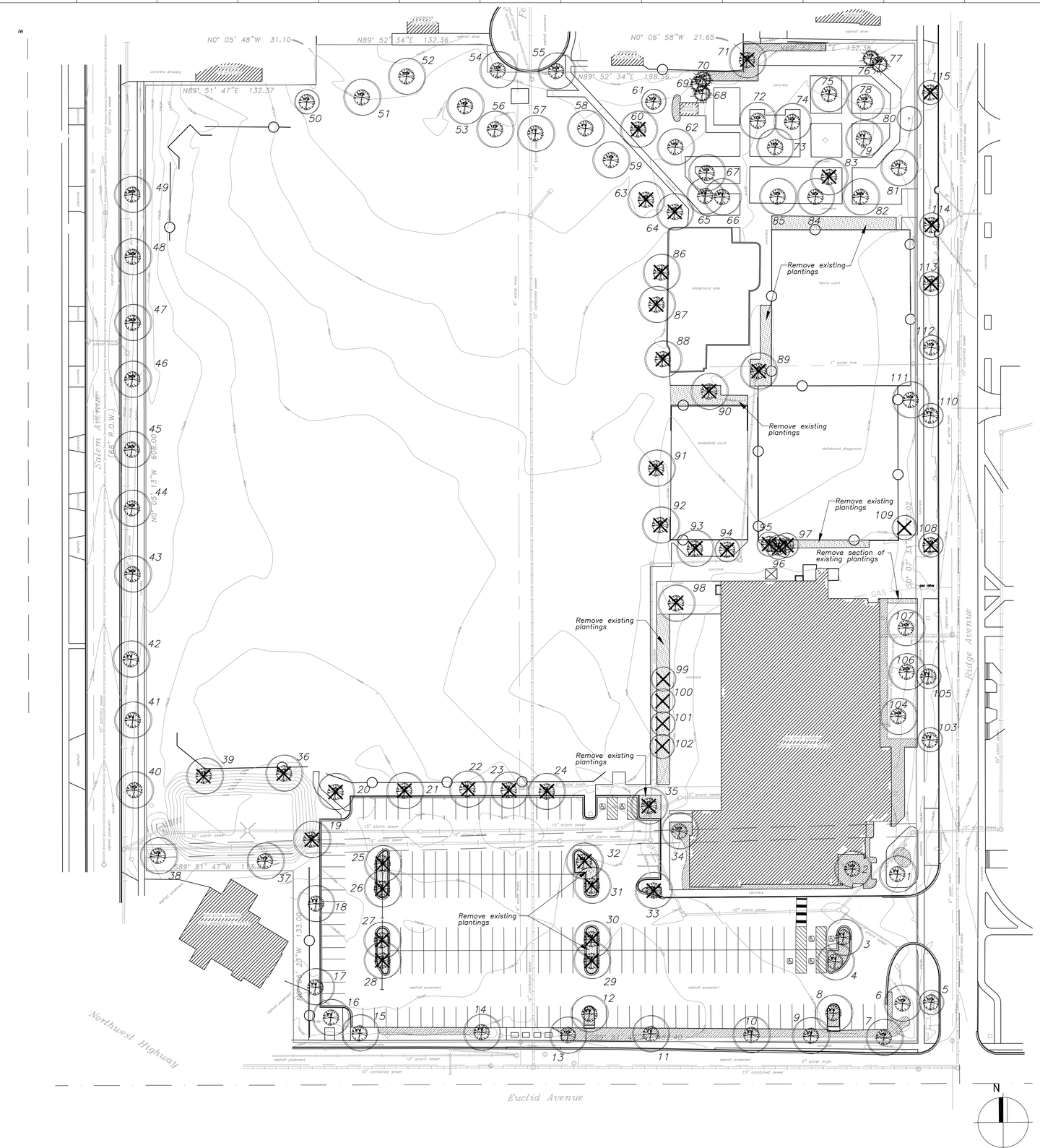

LEGEND

- EXISTING DECIDUOUS TREE TO REMAIN
- EXISTING EVERGREEN TREE TO REMAIN
- EXISTING TREES TO BE REMOVED
- EXISTING PLANTINGS TO REMAIN (SHRUBS, GROUNDCOVERS AND PERENNIALS)
- EXISTING PLANTINGS TO BE REMOVED (SHRUBS, GROUNDCOVERS AND PERENNIALS)

TREE INVENTORY NOTES

1. LOCATIONS OF EXISTING TREES ARE APPROXIMATE. CONTRACTOR TO CONFIRM ACTUAL LOCATIONS PRIOR TO CONSTRUCTION ACTIVITIES.
2. REFER TO CIVIL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL TREE PRESERVATION INFORMATION.
3. REFER TO LANDSCAPE PLAN FOR EXISTING PLANTINGS TO REMAIN. CONFIRM ALL REMOVALS WITH OWNER PRIOR TO CONSTRUCTION ACTIVITIES.
4. CONDITION RATING IS BASED ON THE FOLLOWING CRITERIA:
   - 1–EXCELLENT
   - 2–VERY GOOD CONDITION
   - 3–GOOD CONDITION
   - 4–BELOW AVERAGE CONDITION
   - 5–POOR CONDITION
   - 6–DEAD
5. TREE INVENTORY PREPARED IN CONJUNCTION WITH OSAGE, INC. (WWW.OSAGEGROUP.COM)

L14 **LEGEND AND NOTES**

N.T.S.

TREE INVENTORY LIST

ID #	SPECIES	SIZE	CONDITION	STATUS	NOTES
1	OHIO BUCKEYE	6"	2	REMAIN	
2	RED MAPLE	9"	4	REMAIN	
3	HONEYLOCUST	6"	3	REMAIN	
4	HONEYLOCUST	8"	2	REMAIN	
5	CRABAPPLE	11"	3	REMAIN	
6	KENTUCKY COFFEETREE	11"	2	REMAIN	
7	NORWAY MAPLE	8"	3	REMAIN	
8	KENTUCKY COFFEETREE	6"	2	REMAIN	
9	HONEYLOCUST	13"	2	REMAIN	
10	CATALPA	5"	2	REMAIN	
11	GINKGO	2"	4	REMAIN	TRUNK SCAR
12	KENTUCKY COFFEETREE	5"	4	REMAIN	TRUNK SCAR
13	HONEYLOCUST	10"	2	REMAIN	
14	RED MAPLE	4"	3	REMAIN	
15	NORWAY MAPLE	5"	4	REMAIN	
16	KENTUCKY COFFEETREE	6"	2	REMAIN	
17	KENTUCKY COFFEETREE	7"	3	REMAIN	
18	KENTUCKY COFFEETREE	6"	2	REMAIN	
19	FREEMAN MAPLE	8"	3	REMOVE	
20	KENTUCKY COFFEETREE	9"	2	REMOVE	TRUNK SCARS
21	KENTUCKY COFFEETREE	11"	1	REMOVE	
22	SUGAR MAPLE	5"	4	REMOVE	TRUNK SCARS
23	CATALPA	5"	3	REMOVE	TRUNK SCARS
24	KENTUCKY COFFEETREE	4"	3	REMOVE	TRUNK SCARS
25	HONEYLOCUST	7"	4	REMOVE	
26	HONEYLOCUST	6"	4	REMOVE	
27	HONEYLOCUST	7"	3	REMOVE	
28	HONEYLOCUST	6"	3	REMOVE	
29	HONEYLOCUST	7"	2	REMOVE	TRUNK SCARS
30	HONEYLOCUST	6"	5	REMOVE	LEADER REMOVED
31	HONEYLOCUST	7"	2	REMOVE	
32	HONEYLOCUST	7"	4	REMOVE	TREE IS STRESSED
33	HONEYLOCUST	5"	4	REMOVE	TRUNK SCARS
34	AUTUMN BLAZE MAPLE	9"	1	REMAIN	
35	HONEYLOCUST	12"	2	REMAIN	
36	AUTUMN BLAZE MAPLE	13"	1	REMOVE	
37	AUTUMN BLAZE MAPLE	11"	1	REMAIN	
38	AUTUMN BLAZE MAPLE	10"	1	REMAIN	
39	AUTUMN BLAZE MAPLE	14"	2	REMOVE	GIRDLING ROOTS
40	LITTLELEAF LINDEN	10"	3	REMAIN	GIRDLING ROOTS
41	LITTLELEAF LINDEN	10"	2	REMAIN	GIRDLING ROOTS
42	ELM HYBRID	7"	2	REMAIN	
43	HONEYLOCUST	34"	3	REMAIN	
44	HONEYLOCUST	34"	2	REMAIN	
45	HONEYLOCUST	30"	4	REMAIN	
46	HONEYLOCUST	27"	4	REMAIN	
47	HONEYLOCUST	29"	2	REMAIN	EXPOSED ROOTS
48	HONEYLOCUST	27"	4	REMAIN	
49	HONEYLOCUST	29"	3	REMAIN	
50	CRABAPPLE	11"	4	REMAIN	BASAL SCARS
51	WHITE ASH	17"	2	REMAIN	GIRDLING ROOTS
52	HONEYLOCUST	20"	2	REMAIN	
53	HONEYLOCUST	19"	2	REMAIN	
54	NORWAY MAPLE	21"	4	REMAIN	GIRDLING ROOTS
55	CRIMSON KING MAPLE	20"	4	REMAIN	GIRDLING ROOTS
56	LITTLELEAF LINDEN	10"	1	REMAIN	
57	CATALPA	6"	2	REMAIN	
58	HYBRID ELM	4"	2	REMAIN	
59	HONEYLOCUST	12"	2	REMAIN	
60	KATSURA TREE	5"	5	REMOVE	
61	CRABAPPLE	12"	4	REMAIN	DECAY
62	HONEYLOCUST	10"	2	REMAIN	
63	WHITE ASH	16"	3	REMOVE	BEING TREATED
64	NORWAY MAPLE	18"	3	REMOVE	GIRDLING ROOTS
65	KATSURA TREE	7",6",6",4"	4	REMAIN	DECAY
66	KATSURA TREE	8",7",6",6"	3	REMAIN	
67	RED MAPLE	9"	4	REMAIN	BASAL DECAY
68	WHITE PINE HYBRID	8"	4	REMAIN	
69	WHITE PINE HYBRID	9"	3	REMAIN	
70	WHITE PINE HYBRID	9"	3	REMAIN	
71	SIBERIAN ELM	30"	5	REMOVE	DECAY
72	LITTLELEAF LINDEN	14"	4	REMAIN	GIRDLING ROOTS
73	LITTLELEAF LINDEN	16"	2	REMAIN	
74	LITTLELEAF LINDEN	13"	4	REMAIN	GIRDLING ROOTS
75	SHINGLE OAK	4"	2	REMAIN	
76	SCOTCH PINE	11",14"	3	REMAIN	
77	SCOTCH PINE	19"	3	REMAIN	
78	OHIO BUCKEYE	10"	2	REMAIN	
79	OHIO BUCKEYE	8"	2	REMAIN	
80	SERVICEBERRY	9"	1	REMAIN	
81	RED OAK	3"	2	REMAIN	
82	HONEYLOCUST	19"	2	REMAIN	
83	WHITE ASH	18"	5	REMOVE	ASH BORER
84	HONEYLOCUST	15"	4	REMAIN	
85	HONEYLOCUST	16"	3	REMAIN	
86	SUGAR MAPLE	8"	2	REMOVE	
87	KENTUCKY COFFEETREE	4"	1	REMOVE	
88	NORWAY MAPLE	21"	2	REMOVE	
89	HONEYLOCUST	19"	5	REMOVE	TRUNK SCAR
90	HONEYLOCUST	15"	4	REMOVE	
91	SUGAR MAPLE	5"	1	REMOVE	
92	HONEYLOCUST	16"	2	REMOVE	
93	NORWAY MAPLE	15"	4	REMOVE	GIRDLING ROOTS
94	AMUR MAPLE	8",8",7"	5	REMOVE	
95	AMUR MAPLE	4",4",3"	4	REMOVE	
96	AMUR MAPLE	5",5"	4	REMOVE	DECAY
97	AMUR MAPLE	6",5",5"	4	REMOVE	GIRDLING ROOTS
98	WHITE ASH	17"	3	REMOVE	
99	SERVICEBERRY	8'	2	REMOVE	
100	SERVICEBERRY	8'	2	REMOVE	
101	SERVICEBERRY	8'	2	REMOVE	
102	SERVICEBERRY	8'	2	REMOVE	
103	CRABAPPLE	4"	3	REMAIN	BASAL DECAY
104	HONEYLOCUST	21"	2	REMAIN	
105	CRABAPPLE	11"	3	REMAIN	TRUNK SCAR
106	HONEYLOCUST	18"	4	REMAIN	
107	HONEYLOCUST	20"	3	REMAIN	
108	CRABAPPLE	8",6",6"	4	REMAIN	DECAY
109	SERVICEBERRY	15"	5	REMOVE	
110	CRABAPPLE	6"	3	REMAIN	GIRDLING ROOTS
111	LITTLELEAF LINDEN	16"	3	REMAIN	GIRDLING ROOTS
112	CRABAPPLE	10",7",7",5"	4	REMAIN	BASAL DECAY
113	CRABAPPLE	8",6",5"	4	REMOVE	BASAL DECAY
114	CRABAPPLE	14"	3	REMOVE	BASAL DECAY
115	CRABAPPLE	12"	5	REMOVE	BASAL DECAY

A1 **TREE INVENTORY PLAN**

1" = 40'

A14 **TREE INVENTORY LIST**

N.T.S.

ISSUANCE

NO.	DATE	DESCRIPTION
00	01.08.18	PLAN COMMISSION REVIEW
01	02.09.18	PLAN COMMISSION REVIEW-REVISIONS

FGM ARCHITECTS
CHICAGO OAK BROOK O'FALLON ST. LOUIS

DATE:

PROFESSIONAL SEAL

EXPIRATION DATE:

DATE	02/09/18
DRAWN	SWW
CHECKED	DBY
APPROVED	JCD

PROFESSIONAL DESIGN FIRM IL # 184-000350

OLYMPIC SWIM ADDITION AND RENOVATION
ARLINGTON HEIGHTS PARK DISTRICT
660 Ridge Ave
Arlington Heights, IL 60004

TREE INVENTORY PLAN

SHEET NO.

L0.0.1

JOB NO. 17-2408.01

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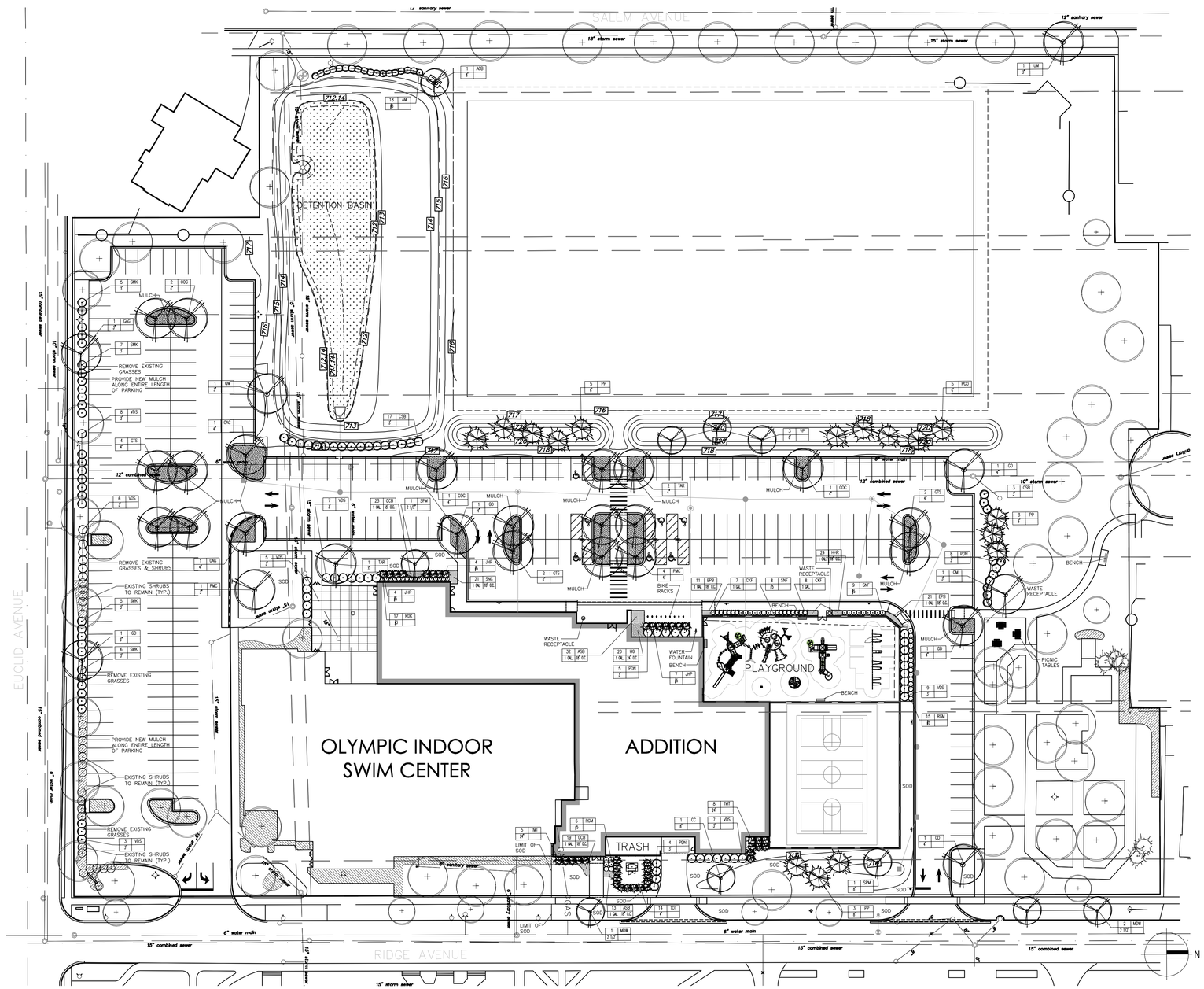
LEGEND

- EXISTING DECIDUOUS TREE TO REMAIN
- EXISTING EVERGREEN TREE TO REMAIN
- EXISTING PLANTINGS TO REMAIN
- EXISTING SHRUBS TO REMAIN
- PROPOSED SHADE TREE
- PROPOSED ORNAMENTAL TREE
- PROPOSED EVERGREEN TREE
- PROPOSED DECIDUOUS SHRUB
- PROPOSED EVERGREEN SHRUB
- PROPOSED ORNAMENTAL GRASS
- PROPOSED PERENNIALS & GROUNDCOVERS
- DETENTION AREA SEEDING



PLANT LIST–BASE BID

KEY	QUANTITY	BOTANIC NAME	COMMON NAME	SIZE	REMARKS
DECIDUOUS SHADE TREES					
COC	4	CELTIS O. 'CHICAGOLAND'	CHICAGOLAND HACKBERRY	4"	BB (4)
GAG	1	GINKGO B. 'AUTUMN GOLD'	AUTUMN GOLD MAIDENHAIR TREE	3"	BB (3)
GAG	2	GINKGO B. 'AUTUMN GOLD'	AUTUMN GOLD MAIDENHAIR TREE	4"	BB (3) (4)
GTS	8	GLEDITSIA T.I. 'SKYLINE'	SKYLINE HONEYLOCUST	4"	BB (4)
GD	1	GYMNOCLADUS DIOICUS 'ESPRESSO–JFS'	ESPRESSO KENTUCKY COFFEETREE	3"	BB
GD	4	GYMNOCLADUS DIOICUS 'ESPRESSO–JFS'	ESPRESSO KENTUCKY COFFEETREE	4"	BB (4)
PMC	1	PLATANUS X. ACERFOLIA 'MORTON CIRCLE'	EXCLAMATION LONDON PLANETREE	3"	BB
PMC	4	PLATANUS X. ACERFOLIA 'MORTON CIRCLE'	EXCLAMATION LONDON PLANETREE	4"	BB (4)
QM	2	QUERCUS MACROCARPA	BUR OAK	3"	BB
TAR	1	TILIA A. 'MCKSENTRY'	SENTRY AMERICAN LINDEN	3"	BB
TAR	2	TILIA A. 'MCKSENTRY'	SENTRY AMERICAN LINDEN	4"	BB (4)
UM	1	ULMUS 'MORTON'	ACCOLADE ELM	3"	BB
DECIDUOUS ORNAMENTAL TREES					
AGB	1	AMELANCHIER G. 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE APPLE SERVICEBERRY	8'	BB (1)
CC	1	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	8'	BB (1)
MDW	3	MALUS 'DONALD WYMAN'	DONALD WYMAN CRABAPPLE	2 1/2"	BB (4)
SPM	1	SYRINGA P. 'MORTON'	CHINA SNOW PEKING LILAC	2 1/2"	BB
SPM	1	SYRINGA P. 'MORTON'	CHINA SNOW PEKING LILAC	8'	BB (1)
VP	3	VIBURNUM PRUNIFOLIUM	BLACKHAW VIBURNUM	8'	BB (1) (4)
EVERGREEN TREES					
PGD	5	PICEA G. DENSATA	BLACK HILLS SPRUCE	6'	BB (2) (4)
PP	8	PICEA PUNGENS	COLORADO SPRUCE	6'	BB (2) (4)
PP	3	PICEA PUNGENS	COLORADO SPRUCE	8'	BB (2) (4)
LARGE DECIDUOUS SHRUBS					
AM	18	ARONIA M. 'MORTON'	IROQUOIS BEAUTY BLACK CHOKEBERRY	#5	CONTAINER
CSB	17	CORNUS S. 'BAILEYI'	BAILEY'S RED DOGWOOD	3'	BB
PDN	17	PHYSOCARPUS O. 'MONLO'	DIABLO NINEBARK	3'	BB
SMK	23	SYRINGA P. 'MISS KIM'	MISS KIM LILAC	3'	BB
VDS	45	VIBURNUM D. 'SYNNESTVEDT'	CHICAGO LUSTRE ARROWWOOD VIBURNUM	3'	BB
DWARF DECIDUOUS SHRUBS					
RGM	21	RIBES A. 'GREEN MOUND'	GREEN MOUND ALPINE CURRANT	#5	CONTAINER
SNF	17	SPIRAEA J. 'NEON FLASH'	NEON FLASH SPIREA	#5	CONTAINER
EVERGREEN SHRUBS					
JHP	15	JUNIPERUS H. 'PLUMOSA COMPACTA YOUNGSTOWN'	YOUNGSTOWN ANDORRA COMPACT JUNIPER	#5	CONTAINER
TMT	13	TAXUS M. 'TAUNTONI'	TAUNTON YEW	24"	BB
TOT	14	THUJA O. 'TECHNEYI'	MISSION ARBORVITAE	4'	BB
PERENNIALS, SHRUB ROSES & ORNAMENTAL GRASSES					
ASB	45	ALIUM T. 'SUMMER BEAUTY'	SUMMER BEAUTY ALLIUM	1 GAL.	18" O.C.
CKF	15	CALAMAGROSTIS A. 'KARL FOERSTER'	KARL FOERSTER FEATHER REED GRASS	1 GAL.	
EPB	32	ECHINACEA P. 'PICA BELLA'	PICA BELLA CONEFLOWER	1 GAL.	18" O.C.
GCB	42	GERANIUM C. 'BIOKOVO'	BIOKOVO CRANESBILL	1 GAL.	18" O.C.
HHR	24	HEMEROCALLIS 'HAPPY RETURNS'	HAPPY RETURNS DAYLILY	1 GAL.	18" O.C.
HG	20	HOSTA 'GUACAMOLE'	GUACAMOLE HOSTA	1 GAL.	24" O.C.
RDK	17	ROSA 'RADTKO'	DOUBLE KNOCK OUT SHRUB ROSE	#3	CONTAINER
SNC	21	SALVIA N. 'CARADONNA'	CARADONNA SALVIA	1 GAL.	18" O.C.

REMARKS

1. MULTI–STEM, CLUMP FORM
2. FULL SPECIMENS, BRANCHED TO THE GROUND
3. MALE ONLY PLANTS
4. MATCHED SPECIMENS

MATERIAL SCHEDULE–BASE BID

KEY	QUANTITY	MATERIAL	REMARKS
–	– C.Y.	MULCH	SHREDDED HARDWOOD
–	– C.Y.	COMPOST	MUSHROOM COMPOST
–	AS REQ.	SEED – KENTUCKY BLUEGRASS, PERENNIAL RYEGRASS & FINE FESCUE MIX	SEE TECH. SPECIFICATION
–	– S.Y.	SOD – KENTUCKY BLUEGRASS BLEND	SEE TECH. SPECIFICATION
–	9,975 S.F.	NATIVE SEEDING	SEE NOTE 12 & TECH. SPEC.
–	4	BENCHES	SEE GENERAL NOTE 8
–	3	PICNIC TABLES	SEE GENERAL NOTE 9
–	3	WASTE RECEPTACLES	SEE GENERAL NOTE 10
–	9	BIKE RACKS	SEE GENERAL NOTE 11

PLANT LIST – ALTERNATE BID

KEY	QUANTITY	BOTANIC NAME	COMMON NAME	SIZE	REMARKS
DECIDUOUS SHADE TREE					
AFM	ADD 1	ACER F. 'MARMO'	MARMO FREEMAN MAPLE	3"	BB
DECIDUOUS ORNAMENTAL TREE					
CC	DEDUCT 1	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	8'	BB (1)
EVERGREEN TREES					
PP	ADD 2	PICEA PUNGENS	COLORADO SPRUCE	8'	BB (2) (4)
LARGE DECIDUOUS SHRUBS					
ISB	ADD 17	ITEA V. 'MORTON'	SCARLET BEAUTY VIRGINIA SWEETSPIRE	#5	CONTAINER
EVERGREEN SHRUBS					
TMT	ADD 2	TAXUS M. 'TAUNTONI'	TAUNTON YEW	24"	BB

MATERIAL SCHEDULE–BASE BID

KEY	QUANTITY	MATERIAL	REMARKS
–	– C.Y.	MULCH	SHREDDED HARDWOOD
–	– C.Y.	COMPOST	MUSHROOM COMPOST

NO.	DATE	DESCRIPTION
00	01.08.18	PLAN COMMISSION REVIEW
01	02.09.18	PLAN COMMISSION REVIEW-REVISIONS

ISSUANCE

FGM ARCHITECTS
CHICAGO OAK BROOK O'FALLON ST. LOUIS

DATE:

PROFESSIONAL SEAL

EXPIRATION DATE:

DATE 02/09/18
DRAWN SWW
CHECKED DBY
APPROVED JCD

PROFESSIONAL DESIGN FIRM IL # 184-000350

OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT
660 Ridge Ave
Arlington Heights, IL 60004

LANDSCAPE PLAN - BASE BID

SHEET NO.
L0.0.2

JOB NO. 17-2408.01

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A1 LANDSCAPE PLAN - BASE BID
1" = 40'

A15 MATERIAL SCHEDULES
N.T.S.

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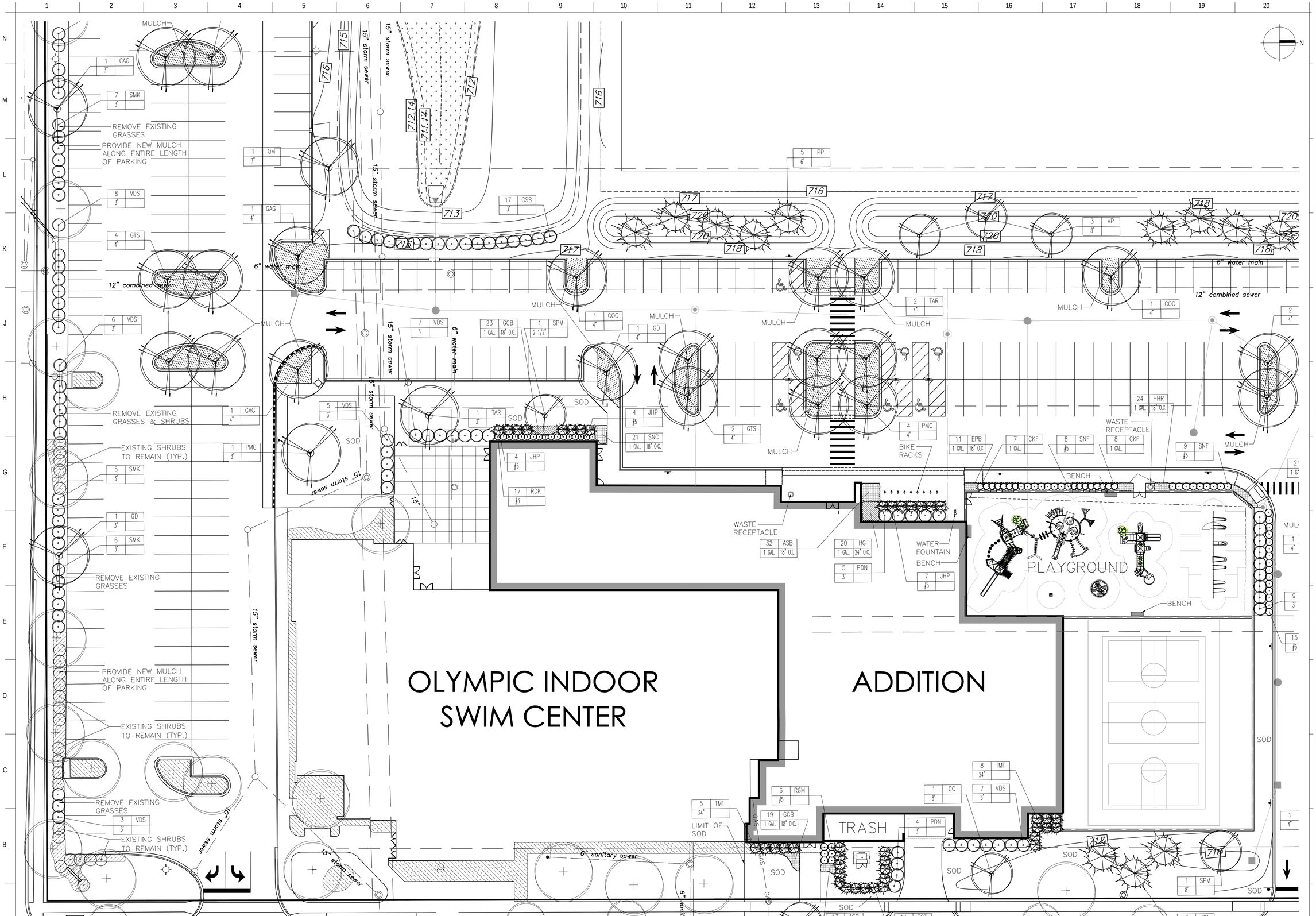

A1 ENLARGED LANDSCAPE PLAN - BASE BID

1" = 20'

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01	02.09.18	PLAN COMMISSION REVIEW-REVISIONS

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APPROVED	JCD

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OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT

660 Ridge Ave

Arlington Heights, IL 60004

ENLARGED LANDSCAPE PLAN - BASE BID

SHEET NO.

L0.0.3

JOB NO. 17-2408.01

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GENERAL NOTES

1. QUANTITY LISTS ARE SUPPLIED AS A CONVENIENCE. CONTRACTOR SHALL VERIFY ALL QUANTITIES.

2. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING. CONTACT "J.U.L.I.E" (JOINT UTILITY LOCATING FOR EXCAVATORS) 1-800-892-0123.

3. PLANTING BEDS SHALL BE ELEVATED SLIGHTLY TO PROVIDE FOR PROPER DRAINAGE. ROOTBALLS OF TREES SHALL BE ELEVATED ABOVE FINISHED GRADE AS ILLUSTRATED ON INSTALLATION DETAILS. ALL GRADING SHALL PROVIDE SLOPES WHICH ARE SMOOTH, CONTINUOUS AND HAVE POSITIVE DRAINAGE IN ALL AREAS. SHOULD THE LANDSCAPE CONTRACTOR ENCOUNTER DRAINAGE PROBLEMS WHICH MAY BE DETRIMENTAL TO THE GROWTH OF THE SPECIFIED PLANT MATERIALS, THE OWNER SHALL BE NOTIFIED ACCORDINGLY, PRIOR TO INSTALLATION.

4. PLANT MATERIAL SHALL BE NURSERY GROWN AND BE EITHER BALL AND BURLAPPED OR CONTAINER GROWN. SIZES INDICATED ON PLANT LIST REPRESENT MINIMUM REQUIREMENTS. THE REQUIREMENTS FOR MEASUREMENT, BRANCHING AND BALL SIZE SHALL CONFORM TO THE "AMERICAN STANDARD FOR NURSERY STOCK" (LATEST EDITION) BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION. PLANT MATERIALS FOR GROUPINGS OR WHERE SYMMETRY IS CRITICAL, SHALL BE MATCHED AS NEARLY AS POSSIBLE.

5. CONTRACTOR SHALL OBTAIN ONE (1) COMPLETE SOIL EVALUATION PERFORMED BY A CERTIFIED SOIL TESTING LABORATORY, INCLUDING RECOMMENDATIONS FOR SPECIFIC SOIL AMENDMENTS. SAMPLES ARE TO BE TAKEN PRIOR TO INSTALLATION OF PLANT MATERIALS AND ANY ADDITION OF SOIL AMENDMENTS.

6. CONTRACTOR SHALL RESTORE ALL AREAS IMPACTED BY CONSTRUCTION ACTIVITIES ON AND OFF-SITE. UNLESS NOTED OTHERWISE, ALL RESTORATION AREAS SHALL BE SEEDED.

7. CONTRACTOR TO CONFIRM PRESERVATION AND REMOVAL OF ALL TREES AND PLANT MATERIALS WITH AHPD PRIOR TO CONSTRUCTION ACTIVITIES. REFER TO TECHNICAL SPECIFICATION SECTION 015639-TREE PROTECTION AND SHEET L0.0.1 FOR ADDITIONAL INFORMATION.

8. BENCHES SHALL BE DUMOR #185-60PL SUPPLIED BY NUTOYS LEISURE PRODUCTS (708) 579-9055 OR APPROVED EQ. MOUNT ON CONCRETE FOOTINGS PER MANUFACTURER'S SPECIFICATIONS. RECYCLED SLATS TO BE CEDAR COLOR AND CAST IRON SUPPORT TO BE BLACK. ONE SLAT OF BENCH SHALL HAVE A 2" X 10" SLOT IN IT FOR A MEMORIAL PLAQUE. PROVIDE CENTER ARMREST. INSTALL PER MANUFACTURER'S SPECIFICATIONS.

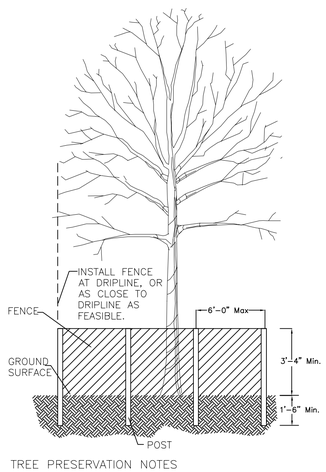
9. PICNIC TABLES SHALL BE DUMOR #76 WITH THREE SEATS (ADA) SUPPLIED BY NUTOYS LEISURE PRODUCTS (708) 579-9055 OR APPROVED EQ. MOUNT ON CONCRETE PAD FOR ACCESSIBILITY AND PER MANUFACTURER'S SPECIFICATIONS. RECYCLED SLATS TO BE CEDAR COLOR AND CAST IRON SUPPORT TO BE BLACK.

10. WASTE RECEPTACLES SHALL BE DUMOR #157 SUPPLIED BY NUTOYS LEISURE PRODUCTS (708) 579-9055 OR APPROVED EQ. MOUNT ON CONCRETE PAD FOR ACCESSIBILITY AND PER MANUFACTURER'S SPECIFICATIONS. COLOR TO BE BLACK.

11. BIKE RACKS SHALL BE GAMETIME DOUBLE LOOP BICYCLE BOLLARD MODEL #8356 SUPPLIED BY CUNNINGHAM RECREATION (815) 355-9225 OR APPROVED EQ. MOUNT ON CONCRETE PAD FOR ACCESSIBILITY AND PER MANUFACTURER'S SPECIFICATIONS. COLOR TO BE BLACK.

12. SEEDING FOR BOTTOM OF DETENTION AREA SHALL BE STANDARD "STORMWATER" NATIVE SEED MIX AS SUPPLIED BY CARDNO NATIVE PLANT NURSERY OR APPROVED EQUAL (WWW.CARDNONATIVEPLANTNURSERY.COM). INSTALL AT 32.81 PLS POUNDS PER ACRE. REFER TO TECHNICAL SPECIFICATIONS FOR SPECIFIC SPECIES, QUANTITIES, INSTALLATION AND MAINTENANCE REQUIREMENTS.

G1 GENERAL NOTES
N.T.S.



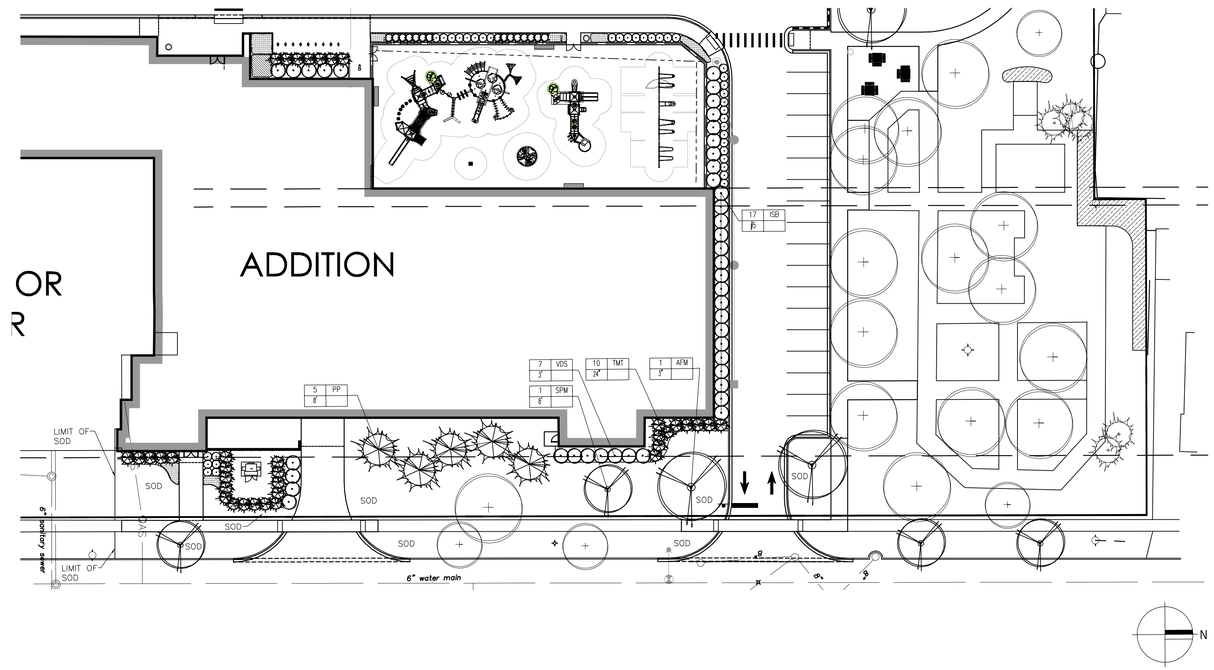
TREE PRESERVATION NOTES

1. FENCE POSTS SHALL BE EITHER STANDARD STEEL POSTS OR WOOD POSTS. FENCE SHALL BE 40" HIGH SNOW FENCE, PLASTIC WEB FENCING OR ANY OTHER APPROVED MATERIAL. REFER TO TECHNICAL SPECIFICATION SECTION 015639 (TEMPORARY TREE AND PLANT PROTECTION) FOR ADDITIONAL INFORMATION. REMOVE PROTECTIVE FENCE ONLY AFTER ALL CONSTRUCTION WORK HAS BEEN FINISHED.

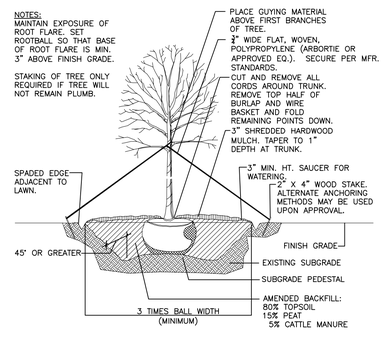
2. EXISTING TREES TO BE PRESERVED SHALL BE BARRICADED IN A MANNER THAT WILL EFFECTIVELY PROTECT THEM DURING CONSTRUCTION OPERATIONS. PRIOR TO ANY ONSITE CONSTRUCTION, PROTECT EXISTING TREES DESIGNATED TO REMAIN AGAINST UNNECESSARY CUTTING, BREAKING, SKINNING OF ROOTS, SKINNING OR BRUISING OF BARK, SMOTHERING OF TREES BY STOCKPILING CONSTRUCTION MATERIALS OR EXCAVATED MATERIALS WITHIN THE DRIP LINE, EXCESS FOOT OR VEHICULAR TRAFFIC, OR PARKING OF VEHICLES WITHIN THE DRIP LINE. PROVIDE TEMPORARY GUARDS TO PROTECT TREES TO BE LEFT STANDING. PROTECTIVE FENCING SHALL BE INSTALLED. CONFIRM REMOVALS OF ANY VEGETATION WITH OWNER PRIOR TO CONSTRUCTION ACTIVITIES.

3. LOCATIONS OF EXISTING TREES ARE APPROXIMATE. CONTRACTOR TO CONFIRM ACTUAL LOCATIONS PRIOR TO CONSTRUCTION ACTIVITIES.

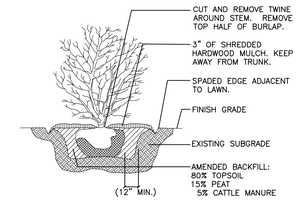
A1 TREE PRESERVATION DETAIL
N.T.S.



H9 LANDSCAPE PLAN - ALTERNATE BID
1"=30'



DECIDUOUS TREE INSTALLATION DETAIL
N.T.S.



SHRUB INSTALLATION DETAIL
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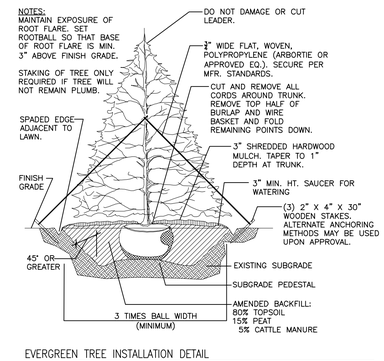
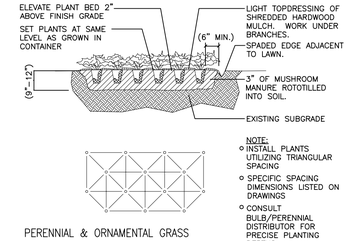


EVERGREEN TREE INSTALLATION DETAIL
N.T.S.



PERENNIAL & ORNAMENTAL GRASS INSTALLATION DETAIL
N.T.S.

A9 INSTALLATION DETAILS
N.T.S.

ISSUANCE			
NO.	DATE	DESCRIPTION	
00	01.08.18	PLAN COMMISSION REVIEW	
01	02.09.18	PLAN COMMISSION REVIEW-REVISIONS	

FGM ARCHITECTS
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APPROVED	JCD	

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OLYMPIC SWIM ADDITION AND RENOVATION
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Arlington Heights, IL 60004

GENERAL NOTES AND DETAILS

SHEET NO.
L0.0.4

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D-Series Size 0
LED Area Luminaire

Catalog Number

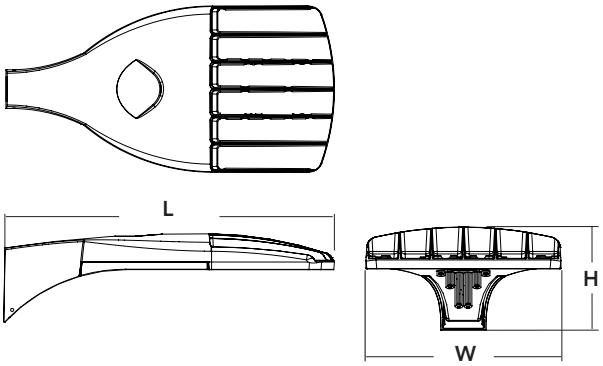
Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	0.95 ft² (.09 m²)
Length:	26″ (66.0 cm)
Width:	13″ (33.0 cm)
Height:	7″ (17.8 cm)
Weight (max):	16 lbs (7.25 kg)



A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability1
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background[1]

To learn more about A+, visit www.acuitybrands.com/aplus.

1. See ordering tree for details.
2. A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: Link to Roam; Link to DTL DLL

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: DSX0 LED P6 40K T3M MVOLT SPA DDBXD

DSX0 LED

Series	LEDs	Color temperature	Distribution	Voltage	Mounting
DSX0 LED	**Forward optics** P1 P4 P7 P2 P5 P3 P6 **Rotated optics** P10[1] P12[1] P11[1] P13[1]	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted[2]	T1S Type I short T2S Type II short T2M Type II medium T3S Type III short T3M Type III medium T4M Type IV medium TFTM Forward throw medium T5VS Type V very short T5S Type V short T5M Type V medium T5W Type V wide BLC Backlight control[2,3] LCCO Left corner cutoff[2,3] RCCO Right corner cutoff[2,3]	MVOLT[4] 120[5] 208[5] 240[5] 277[5] 347[5,6] 480[5,6]	**Shipped included** SPA Square pole mounting RPA Round pole mounting WBA Wall bracket SPUMBA Square pole universal mounting adaptor[7] RPUMBA Round pole universal mounting adaptor[7] **Shipped separately** KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish)[8]

Control options		Other options	Finish *(required)*
Shipped installed		**Shipped installed**	
PER NEMA twist-lock receptacle only (control ordered separate)[9]	PIRH1FC3V Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc[11,12]	HS House-side shield[17]	DDBXD Dark bronze
PER5 Five-wire receptacle only (control ordered separate)[9,10]	BL30 Bi-level switched dimming, 30%[13,14]	SF Single fuse (120, 277, 347V)[5]	DBLXD Black
PER7 Seven-wire receptacle only (control ordered separate)[9,10]	BL50 Bi-level switched dimming, 50%[13,14]	DF Double fuse (208, 240, 480V)[5]	DNAXD Natural aluminum
DMG 0-10V dimming extend out back of housing for external control (control ordered separate)	PNMTDD3 Part night, dim till dawn[15]	L90 Left rotated optics[1]	DWHXD White
PIR Bi-level, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc[11,12]	PNMT5D3 Part night, dim 5 hrs[15]	R90 Right rotated optics[1]	DDBTXD Textured dark bronze
PIRH Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc[11,12]	PNMT6D3 Part night, dim 6 hrs[15]	DDL Diffused drop lens[17]	DBLBXD Textured black
PIR1FC3V Bi-level, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc[11,12]	PNMT7D3 Part night, dim 7 hrs[15]	**Order separately**	DNATXD Textured natural aluminum
	FAO Field adjustable output[16]	BS Bird spikes	DWHGXD Textured white
		EGS External glare shield	

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Ordering Information

Accessories

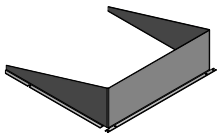
Ordered and shipped separately.

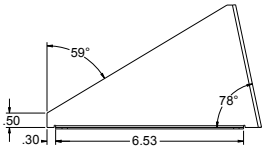
DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [18]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [18]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [18]
DSHORT SBK U	Shorting cap [18]
DSX0HS 20C U	House-side shield for 20 LED unit [17]
DSX0HS 30C U	House-side shield for 30 LED unit [17]
DSX0HS 40C U	House-side shield for 40 LED unit [17]
DSX0DDL U	Diffused drop lens (polycarbonate) [17]
PUMBA DDBXD U*	Square and round pole universal mounting bracket adaptor (specify finish)[19]
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) [7]

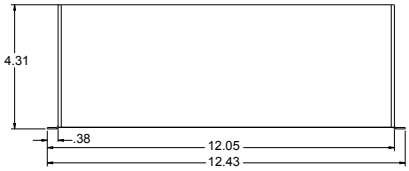
For more control options, visit DTL and ROAM online.

NOTES
1 P10, P11, P12 and P13 and rotated options (L90 or R90) only available together.
2 AMBPC is not available with BLC, LCCO, RCCO, P4, P7 or P13.
3 Not available with HS or DDL.
4 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
5 Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
6 Not available in P4, P7 or P13. Not available with BL30, BL50 or PNMT options.
7 Existing drilled pole only. Available as a separate combination accessory; for retrofit use only: PUMBA (finish) U; 1.5 G vibration load rating per ANCI C136.31.
8 Must order fixture with SPA mounting. Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" mast arm (not included).
9 Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included.
10 If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Shorting Cap included.
11 Reference Motion Sensor table on page 3.
12 Reference PER Table on page 3 to see functionality.
13 Requires (2) separately switched circuits.
14 Not available with 347V, 480V or PNMT. For PER5 or PER7 see PER Table on page 3.
15 Not available with 347V, 480V, BL30 and BL50. For PER5 or PER7 see PER Table on page 3. Separate Dusk to Dawn required.
16 Not available with other dimming controls options.
17 Not available with BLC, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
18 Requires luminaire to be specified with PER, PER5 or PER7 option. See PER Table on page 3.
19 For retrofit use only.

External Glare Shield

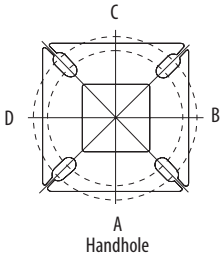




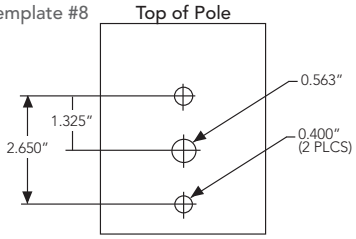


Drilling

HANDHOLE ORIENTATION



Template #8



Tenon Mounting Slipfitter **

Tenon O.D.	Single Unit	2 at 180°	2 at 90°	3 at 120°	3 at 90°	4 at 90°
2-3/8"	AST20-190	AST20-280	AST20-290	AST20-320	AST20-390	AST20-490
2-7/8"	AST25-190	AST25-280	AST25-290	AST25-320	AST25-390	AST25-490
4"	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490

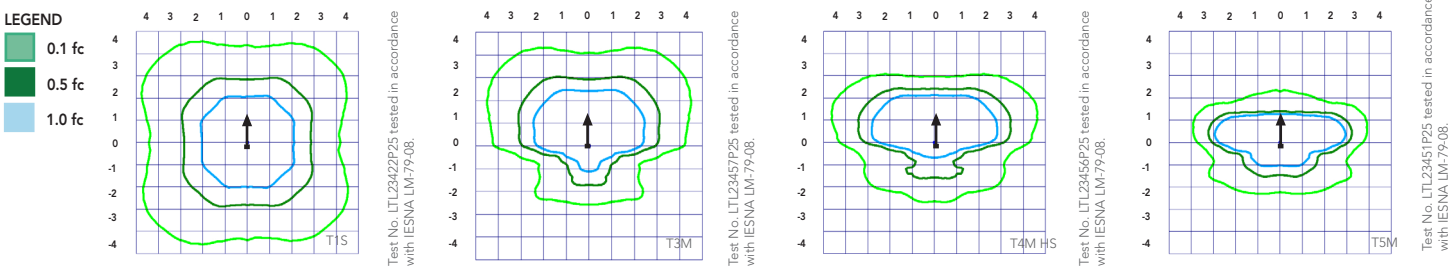
Pole drilling nomenclature: # of heads at degree from handhole (default side A)					
DM19AS	DM28AS	DM29AS	DM32AS	DM39AS	DM49AS
1 @ 90°	2 @ 280°	2 @ 90°	3 @ 120°	3 @ 90°	4 @ 90°
Side B	Side B & D	Side B & C	Round pole only	Side B, C, & D	Sides A, B, C, D
Note: Review luminaire spec sheet for specific nomenclature					

Pole top or tenon O.D.	4.5" @ 90°	4" @ 90°	3.5" @ 90°	3" @ 90°	4.5" @ 120°	4" @ 120°	3.5" @ 120°	3" @ 120°
DSX SPA	Y	Y	Y	N	-	-	-	-
DSX RPA	Y	Y	N	N	Y	Y	Y	Y
DSX SPUMBA	Y	N	N	N	-	-	-	-
DSX RPUMBA	N	N	N	N	Y	Y	Y	N
					*3 fixtures @120 require round pole top/tenon.			

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Area Size 0 homepage.

Isofootcandle plots for the DSX0 LED 40C 1000 40K. Distances are in units of mounting height (20').



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Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.04
5°C	41°F	1.04
10°C	50°F	1.03
15°C	50°F	1.02
20°C	68°F	1.01
25°C	**77°F**	**1.00**
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	25000	50000	100000
Lumen Maintenance Factor	0.96	0.92	0.85

Electrical Load

					Current (A)					
	Performance Package	LED Count	Drive Current	Wattage	120	208	240	277	347	480
Forward Optics (Non-Rotated)	P1	20	530	38	0.32	0.18	0.15	0.15	0.10	0.08
	P2	20	700	49	0.41	0.23	0.20	0.19	0.14	0.11
	P3	20	1050	71	0.60	0.37	0.32	0.27	0.21	0.15
	P4	20	1400	92	0.77	0.45	0.39	0.35	0.28	0.20
	P5	40	700	89	0.74	0.43	0.38	0.34	0.26	0.20
	P6	40	1050	134	1.13	0.65	0.55	0.48	0.39	0.29
	P7	40	1300	166	1.38	0.80	0.69	0.60	0.50	0.37
Rotated Optics (Requires L90 or R90)	P10	30	530	53	0.45	0.26	0.23	0.21	0.16	0.12
	P11	30	700	72	0.60	0.35	0.30	0.27	0.20	0.16
	P12	30	1050	104	0.88	0.50	0.44	0.39	0.31	0.23
	P13	30	1300	128	1.08	0.62	0.54	0.48	0.37	0.27

Motion Sensor Default Settings						
Option	Dimmed State	High Level (when triggered)	Photocell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
*PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min
*for use with Inline Dusk to Dawn or timer.						

PER Table						
Control	PER (3 wire)	PER5 (5 wire)		PER7 (7 wire)		
			Wire 4/Wire5		Wire 4/Wire5	Wire 6/Wire7
Photocontrol Only (On/Off)	✔	⚠	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM	⊘	✔	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM with Motion (ROAM on/off only)	⊘	⚠	Wires Capped inside fixture	⚠	Wires Capped inside fixture	Wires Capped inside fixture
Future-proof*	⊘	⚠	Wired to dimming leads on driver	✔	Wired to dimming leads on driver	Wires Capped inside fixture
Future-proof* with Motion	⊘	⚠	Wires Capped inside fixture	✔	Wires Capped inside fixture	Wires Capped inside fixture

✔ Recommended
⊘ Will not work
⚠ Alternate

*Future-proof means: Ability to change controls in the future.

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Performance Data

Lumen Output

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Forward Optics

LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)					AMBPC (Amber Phosphor Converted)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
20	530	**P1**	38W	T1S	4,369	1	0	1	115	4,706	1	0	1	124	4,766	1	0	1	125	2,541	1	0	1	73
				T2S	4,364	1	0	1	115	4,701	1	0	1	124	4,761	1	0	1	125	2,589	1	0	1	74
				T2M	4,387	1	0	1	115	4,726	1	0	1	124	4,785	1	0	1	126	2,539	1	0	1	73
				T3S	4,248	1	0	1	112	4,577	1	0	1	120	4,634	1	0	1	122	2,558	1	0	1	73
				T3M	4,376	1	0	1	115	4,714	1	0	1	124	4,774	1	0	1	126	2,583	1	0	1	74
				T4M	4,281	1	0	1	113	4,612	1	0	2	121	4,670	1	0	2	123	2,570	1	0	1	73
				TFTM	4,373	1	0	1	115	4,711	1	0	2	124	4,771	1	0	2	126	2,540	1	0	1	73
				T5VS	4,548	2	0	0	120	4,900	2	0	0	129	4,962	2	0	0	131	2,650	1	0	0	76
				T5S	4,552	2	0	0	120	4,904	2	0	0	129	4,966	2	0	0	131	2,690	1	0	0	77
				T5M	4,541	3	0	1	120	4,891	3	0	1	129	4,953	3	0	1	130	2,658	2	0	0	76
				T5W	4,576	3	0	2	120	4,929	3	0	2	130	4,992	3	0	2	131	2,663	2	0	1	73
				BLC	3,586	1	0	1	94	3,863	1	0	1	102	3,912	1	0	1	103					
				LCCO	2,668	1	0	1	70	2,874	1	0	2	76	2,911	1	0	2	77					
				RCCO	2,668	1	0	1	70	2,874	1	0	2	76	2,911	1	0	2	77					
20	700	**P2**	49W	T1S	5,570	1	0	1	114	6,001	1	0	1	122	6,077	2	0	2	124	3,144	1	0	1	70
				T2S	5,564	1	0	2	114	5,994	1	0	2	122	6,070	2	0	2	124	3,203	1	0	1	71
				T2M	5,593	1	0	1	114	6,025	1	0	1	123	6,102	1	0	1	125	3,141	1	0	1	70
				T3S	5,417	1	0	2	111	5,835	1	0	2	119	5,909	2	0	2	121	3,165	1	0	1	70
				T3M	5,580	1	0	2	114	6,011	1	0	2	123	6,087	1	0	2	124	3,196	1	0	1	71
				T4M	5,458	1	0	2	111	5,880	1	0	2	120	5,955	1	0	2	122	3,179	1	0	1	71
				TFTM	5,576	1	0	2	114	6,007	1	0	2	123	6,083	1	0	2	124	3,143	1	0	1	70
				T5VS	5,799	2	0	0	118	6,247	2	0	0	127	6,327	2	0	0	129	3,278	2	0	0	73
				T5S	5,804	2	0	0	118	6,252	2	0	0	128	6,332	2	0	1	129	3,328	2	0	0	74
				T5M	5,789	3	0	1	118	6,237	3	0	1	127	6,316	3	0	1	129	3,288	2	0	1	73
				T5W	5,834	3	0	2	119	6,285	3	0	2	128	6,364	3	0	2	130	3,295	2	0	1	73
				BLC	4,572	1	0	1	93	4,925	1	0	1	101	4,987	1	0	1	102					
				LCCO	3,402	1	0	2	69	3,665	1	0	2	75	3,711	1	0	2	76					
				RCCO	3,402	1	0	2	69	3,665	1	0	2	75	3,711	1	0	2	76					
20	1050	**P3**	71W	T1S	7,833	2	0	2	110	8,438	2	0	2	119	8,545	2	0	2	120					
				T2S	7,825	2	0	2	110	8,429	2	0	2	119	8,536	2	0	2	120					
				T2M	7,865	2	0	2	111	8,473	2	0	2	119	8,580	2	0	2	121					
				T3S	7,617	2	0	2	107	8,205	2	0	2	116	8,309	2	0	2	117					
				T3M	7,846	2	0	2	111	8,452	2	0	2	119	8,559	2	0	2	121					
				T4M	7,675	2	0	2	108	8,269	2	0	2	116	8,373	2	0	2	118					
				TFTM	7,841	2	0	2	110	8,447	2	0	2	119	8,554	2	0	2	120					
				T5VS	8,155	3	0	0	115	8,785	3	0	0	124	8,896	3	0	0	125					
				T5S	8,162	3	0	1	115	8,792	3	0	1	124	8,904	3	0	1	125					
				T5M	8,141	3	0	2	115	8,770	3	0	2	124	8,881	3	0	2	125					
				T5W	8,204	3	0	2	116	8,838	4	0	2	124	8,950	4	0	2	126					
				BLC	6,429	1	0	2	91	6,926	1	0	2	98	7,013	1	0	2	99					
				LCCO	4,784	1	0	2	67	5,153	1	0	2	73	5,218	1	0	2	73					
				RCCO	4,784	1	0	2	67	5,153	1	0	2	73	5,218	1	0	2	73					
20	1400	**P4**	92W	T1S	9,791	2	0	2	106	10,547	2	0	2	115	10,681	2	0	2	116					
				T2S	9,780	2	0	2	106	10,536	2	0	2	115	10,669	2	0	2	116					
				T2M	9,831	2	0	2	107	10,590	2	0	2	115	10,724	2	0	2	117					
				T3S	9,521	2	0	2	103	10,256	2	0	2	111	10,386	2	0	2	113					
				T3M	9,807	2	0	2	107	10,565	2	0	2	115	10,698	2	0	2	116					
				T4M	9,594	2	0	2	104	10,335	2	0	3	112	10,466	2	0	3	114					
				TFTM	9,801	2	0	2	107	10,558	2	0	2	115	10,692	2	0	2	116					
				T5VS	10,193	3	0	1	111	10,981	3	0	1	119	11,120	3	0	1	121					
				T5S	10,201	3	0	1	111	10,990	3	0	1	119	11,129	3	0	1	121					
				T5M	10,176	4	0	2	111	10,962	4	0	2	119	11,101	4	0	2	121					
				T5W	10,254	4	0	3	111	11,047	4	0	3	120	11,186	4	0	3	122					
				BLC	8,036	1	0	2	87	8,656	1	0	2	94	8,766	1	0	2	95					
				LCCO	5,979	1	0	2	65	6,441	1	0	2	70	6,523	1	0	3	71					
					5,979	1	0	2	65	6,441	1	0	2	70	6,523	1	0	3	71					

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Performance Data

Lumen Output

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Forward Optics

LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)					AMBPC (Amber Phosphor Converted)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
40	700	**P5**	89W	T1S	10,831	2	0	2	122	11,668	2	0	2	131	11,816	2	0	2	133					
				T2S	10,820	2	0	2	122	11,656	2	0	2	131	11,803	2	0	2	133					
				T2M	10,876	2	0	2	122	11,716	2	0	2	132	11,864	2	0	2	133					
				T3S	10,532	2	0	2	118	11,346	2	0	2	127	11,490	2	0	2	129					
				T3M	10,849	2	0	2	122	11,687	2	0	2	131	11,835	2	0	2	133					
				T4M	10,613	2	0	3	119	11,434	2	0	3	128	11,578	2	0	3	130					
				TFTM	10,842	2	0	2	122	11,680	2	0	2	131	11,828	2	0	2	133					
				T5VS	11,276	3	0	1	127	12,148	3	0	1	136	12,302	3	0	1	138					
				T5S	11,286	3	0	1	127	12,158	3	0	1	137	12,312	3	0	1	138					
				T5M	11,257	4	0	2	126	12,127	4	0	2	136	12,280	4	0	2	138					
				T5W	11,344	4	0	3	127	12,221	4	0	3	137	12,375	4	0	3	139					
				BLC	8,890	1	0	2	100	9,576	1	0	2	108	9,698	1	0	2	109					
				LCCO	6,615	1	0	3	74	7,126	1	0	3	80	7,216	1	0	3	81					
				RCCO	6,615	1	0	3	74	7,126	1	0	3	80	7,216	1	0	3	81					
40	1050	**P6**	134W	T1S	14,805	3	0	3	110	15,949	3	0	3	119	16,151	3	0	3	121	6,206	2	0	2	68
				T2S	14,789	3	0	3	110	15,932	3	0	3	119	16,134	3	0	3	120	6,322	2	0	2	69
				T2M	14,865	3	0	3	111	16,014	3	0	3	120	16,217	3	0	3	121	6,201	2	0	2	68
				T3S	14,396	3	0	3	107	15,509	3	0	3	116	15,705	3	0	3	117	6,247	1	0	2	69
				T3M	14,829	2	0	3	111	15,975	3	0	3	119	16,177	3	0	3	121	6,308	2	0	2	69
				T4M	14,507	2	0	3	108	15,628	3	0	3	117	15,826	3	0	3	118	6,275	1	0	2	69
				TFTM	14,820	2	0	3	111	15,965	3	0	3	119	16,167	3	0	3	121	6,203	1	0	2	68
				T5VS	15,413	4	0	1	115	16,604	4	0	1	124	16,815	4	0	1	125	6,671	2	0	0	73
				T5S	15,426	3	0	1	115	16,618	4	0	1	124	16,828	4	0	1	126	6,569	2	0	0	72
				T5M	15,387	4	0	2	115	16,576	4	0	2	124	16,786	4	0	2	125	6,491	3	0	1	71
				T5W	15,506	4	0	3	116	16,704	4	0	3	125	16,915	4	0	3	126	6,504	3	0	2	71
				BLC	12,151	1	0	2	91	13,090	1	0	2	98	13,255	1	0	2	99					
				LCCO	9,041	1	0	3	67	9,740	1	0	3	73	9,863	1	0	3	74					
				RCCO	9,041	1	0	3	67	9,740	1	0	3	73	9,863	1	0	3	74					
40	1300	**P7**	166W	T1S	17,023	3	0	3	103	18,338	3	0	3	110	18,570	3	0	3	112					
				T2S	17,005	3	0	3	102	18,319	3	0	3	110	18,551	3	0	3	112					
				T2M	17,092	3	0	3	103	18,413	3	0	3	111	18,646	3	0	3	112					
				T3S	16,553	3	0	3	100	17,832	3	0	3	107	18,058	3	0	3	109					
				T3M	17,051	3	0	3	103	18,369	3	0	3	111	18,601	3	0	3	112					
				T4M	16,681	3	0	3	100	17,969	3	0	3	108	18,197	3	0	3	110					
				TFTM	17,040	3	0	3	103	18,357	3	0	4	111	18,590	3	0	4	112					
				T5VS	17,723	4	0	1	107	19,092	4	0	1	115	19,334	4	0	1	116					
				T5S	17,737	4	0	2	107	19,108	4	0	2	115	19,349	4	0	2	117					
				T5M	17,692	4	0	2	107	19,059	4	0	2	115	19,301	4	0	2	116					
				T5W	17,829	5	0	3	107	19,207	5	0	3	116	19,450	5	0	3	117					
				BLC	13,971	2	0	2	84	15,051	2	0	2	91	15,241	2	0	2	92					
				LCCO	10,396	1	0	3	63	11,199	1	0	3	67	11,341	1	0	3	68					
					10,396	1	0	3	63	11,199	1	0	3	67	11,341	1	0	3	68					

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Performance Data

Lumen Output

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Rotated Optics

LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)					AMBPC (Amber Phosphor Converted)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
30	530	**P10**	53W	T1S	6,727	2	0	2	127	7,247	3	0	3	137	7,339	3	0	3	138					
				T2S	6,689	3	0	3	126	7,205	3	0	3	136	7,297	3	0	3	138					
				T2M	6,809	3	0	3	128	7,336	3	0	3	138	7,428	3	0	3	140					
				T3S	6,585	3	0	3	124	7,094	3	0	3	134	7,183	3	0	3	136					
				T3M	6,805	3	0	3	128	7,331	3	0	3	138	7,424	3	0	3	140					
				T4M	6,677	3	0	3	126	7,193	3	0	3	136	7,284	3	0	3	137					
				TFTM	6,850	3	0	3	129	7,379	3	0	3	139	7,472	3	0	3	141					
				T5VS	6,898	3	0	0	130	7,431	3	0	0	140	7,525	3	0	0	142					
				T5S	6,840	2	0	1	129	7,368	2	0	1	139	7,461	2	0	1	141					
				T5M	6,838	3	0	1	129	7,366	3	0	2	139	7,460	3	0	2	141					
				T5W	6,777	3	0	2	128	7,300	3	0	2	138	7,393	3	0	2	139					
				BLC	5,626	2	0	2	106	6,060	2	0	2	114	6,137	2	0	2	116					
				LCCO	4,018	1	0	2	76	4,328	1	0	2	82	4,383	1	0	2	83					
				RCCO	4,013	3	0	3	76	4,323	3	0	3	82	4,377	3	0	3	83					
30	700	**P11**	72W	T1S	8,594	3	0	3	119	9,258	3	0	3	129	9,376	3	0	3	130					
				T2S	8,545	3	0	3	119	9,205	3	0	3	128	9,322	3	0	3	129					
				T2M	8,699	3	0	3	121	9,371	3	0	3	130	9,490	3	0	3	132					
				T3S	8,412	3	0	3	117	9,062	3	0	3	126	9,177	3	0	3	127					
				T3M	8,694	3	0	3	121	9,366	3	0	3	130	9,484	3	0	3	132					
				T4M	8,530	3	0	3	118	9,189	3	0	3	128	9,305	3	0	3	129					
				TFTM	8,750	3	0	3	122	9,427	3	0	3	131	9,546	3	0	3	133					
				T5VS	8,812	3	0	0	122	9,493	3	0	0	132	9,613	3	0	0	134					
				T5S	8,738	3	0	1	121	9,413	3	0	1	131	9,532	3	0	1	132					
				T5M	8,736	3	0	2	121	9,411	3	0	2	131	9,530	3	0	2	132					
				T5W	8,657	4	0	2	120	9,326	4	0	2	130	9,444	4	0	2	131					
				BLC	7,187	3	0	3	100	7,742	3	0	3	108	7,840	3	0	3	109					
				LCCO	5,133	1	0	2	71	5,529	1	0	2	77	5,599	1	0	2	78					
				RCCO	5,126	3	0	3	71	5,522	3	0	3	77	5,592	3	0	3	78					
30	1050	**P12**	104W	T1S	12,149	3	0	3	117	13,088	3	0	3	126	13,253	3	0	3	127					
				T2S	12,079	4	0	4	116	13,012	4	0	4	125	13,177	4	0	4	127					
				T2M	12,297	3	0	3	118	13,247	3	0	3	127	13,415	3	0	3	129					
				T3S	11,891	4	0	4	114	12,810	4	0	4	123	12,972	4	0	4	125					
				T3M	12,290	3	0	3	118	13,239	4	0	4	127	13,407	4	0	4	129					
				T4M	12,058	4	0	4	116	12,990	4	0	4	125	13,154	4	0	4	126					
				TFTM	12,369	4	0	4	119	13,325	4	0	4	128	13,494	4	0	4	130					
				T5VS	12,456	3	0	1	120	13,419	3	0	1	129	13,589	4	0	1	131					
				T5S	12,351	3	0	1	119	13,306	3	0	1	128	13,474	3	0	1	130					
				T5M	12,349	4	0	2	119	13,303	4	0	2	128	13,471	4	0	2	130					
				T5W	12,238	4	0	3	118	13,183	4	0	3	127	13,350	4	0	3	128					
				BLC	10,159	3	0	3	98	10,944	3	0	3	105	11,083	3	0	3	107					
				LCCO	7,256	1	0	3	70	7,816	1	0	3	75	7,915	1	0	3	76					
				RCCO	7,246	3	0	3	70	7,806	4	0	4	75	7,905	4	0	4	76					
30	1300	**P13**	128W	T1S	14,438	3	0	3	113	15,554	3	0	3	122	15,751	3	0	3	123					
				T2S	14,355	4	0	4	112	15,465	4	0	4	121	15,660	4	0	4	122					
				T2M	14,614	3	0	3	114	15,744	4	0	4	123	15,943	4	0	4	125					
				T3S	14,132	4	0	4	110	15,224	4	0	4	119	15,417	4	0	4	120					
				T3M	14,606	4	0	4	114	15,735	4	0	4	123	15,934	4	0	4	124					
				T4M	14,330	4	0	4	112	15,438	4	0	4	121	15,633	4	0	4	122					
				TFTM	14,701	4	0	4	115	15,836	4	0	4	124	16,037	4	0	4	125					
				T5VS	14,804	4	0	1	116	15,948	4	0	1	125	16,150	4	0	1	126					
				T5S	14,679	3	0	1	115	15,814	3	0	1	124	16,014	3	0	1	125					
				T5M	14,676	4	0	2	115	15,810	4	0	2	124	16,010	4	0	2	125					
				T5W	14,544	4	0	3	114	15,668	4	0	3	122	15,866	4	0	3	124					
				BLC	7919	3	0	3	62	8531	3	0	3	67	8639	3	0	3	67					
				LCCO	5145	1	0	2	40	5543	1	0	2	43	5613	1	0	2	44					
					5139	3	0	3	40	5536	3	0	3	43	5606	3	0	3	44					

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FEATURES & SPECIFICATIONS

INTENDED USE
The sleek design of the D-Series Size 0 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and pedestrian areas.

CONSTRUCTION
Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED driver is mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (0.95 ft^2) for optimized pole wind loading.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

OPTICS
Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in 3000 K, 4000 K or 5000 K (70 CRI) configurations. The D-Series Size 0 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL
Light engine(s) configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L85/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

INSTALLATION
Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 0 to withstand up to a 3.0 G vibration load rating per ANSI C136.31. The D-Series Size 0 utilizes the AERIS™ series pole drilling pattern (template #8). Optional terminal block and NEMA photocontrol receptacle are also available.

LISTINGS
UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40°C minimum ambient. U.S. Patent No. D672,492 S. International patent pending.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

WARRANTY
5-year limited warranty. Complete warranty terms located at:
www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

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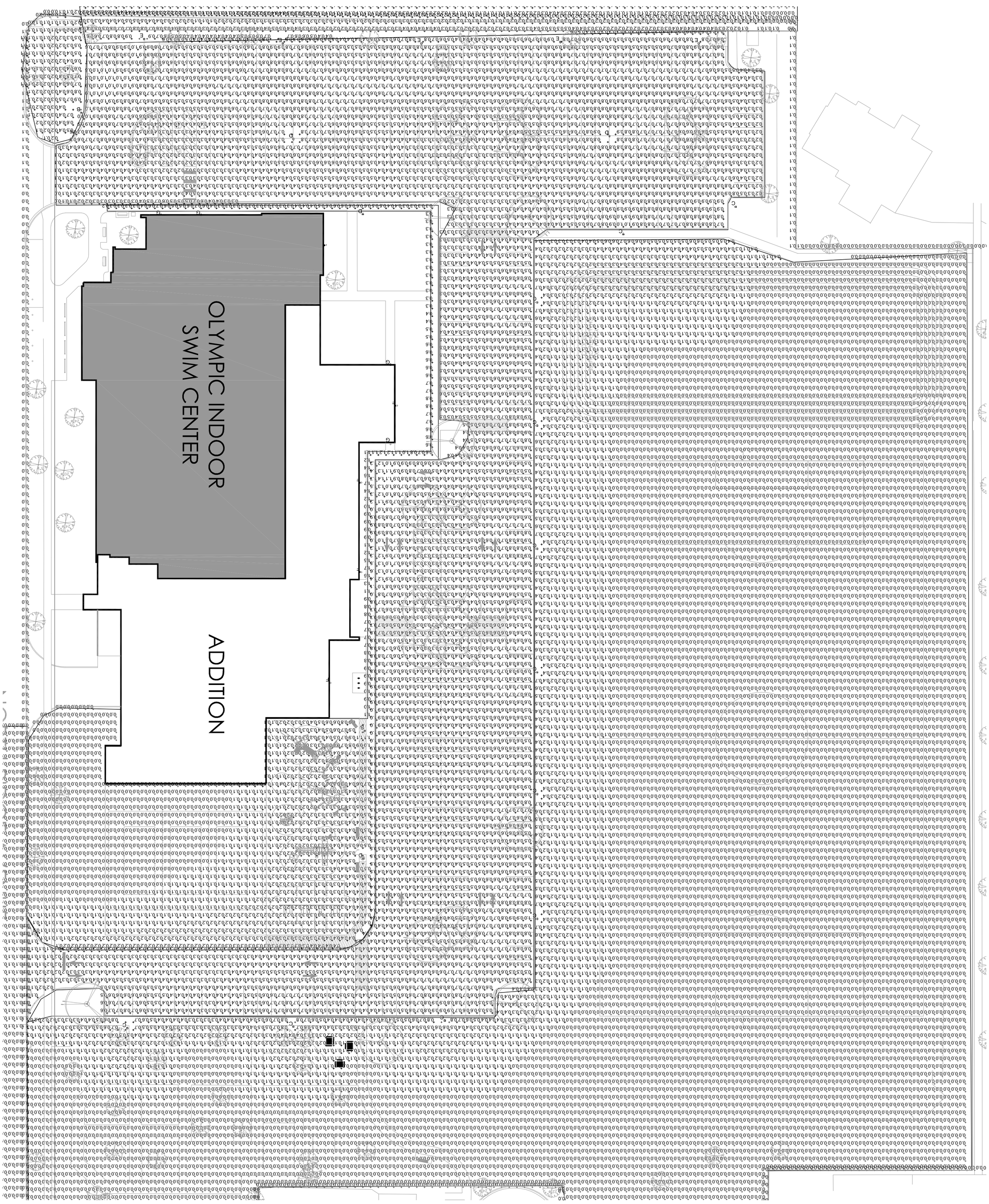
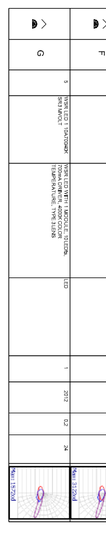


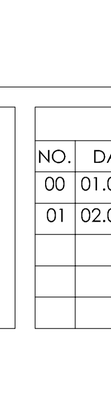
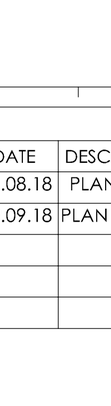
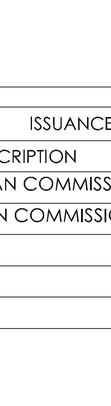
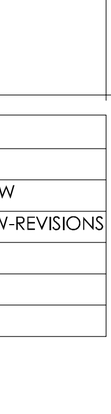
Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Busness Line	+	0.1 fc	0.1 fc	0.0 fc	N/A	N/A
EUCLID AVENUE	+	0.2 fc	1.0 fc	0.0 fc	N/A	N/A
FEILD	+	0.0 fc	0.9 fc	0.0 fc	N/A	N/A
Green Space	+	0.3 fc	1.0 fc	0.0 fc	N/A	N/A
PARKING LOT	+	0.5 fc	1.7 fc	0.0 fc	N/A	N/A
PLAYGROUND	+	0.2 fc	1.7 fc	0.0 fc	N/A	N/A
Residentail Line	+	0.0 fc	0.1 fc	0.0 fc	N/A	N/A
ROAD	+	0.0 fc	0.1 fc	0.0 fc	N/A	N/A
Road Line	+	0.2 fc	0.4 fc	0.0 fc	N/A	N/A

Schedule

Symbol	Label	QTY	Catalog Number	Description	Lamp	Lamps per Luminaire	Total Lamp Lumens	LLF	Wattage	Polar Plot
	A	2	OSX1 LED P1 40K7 TM MVOLT	OSX1 LED P1 40K7 TM MVOLT	LED	1	4125	0.9	36	
	B	11	OSX1 LED P1 40K7 RAA MVOLT	OSX1 LED P1 40K7 RAA MVOLT	LED	1	4611	0.9	36	
	C	4	OSX1 LED P1 40K7 SRV MVOLT	OSX1 LED P1 40K7 SRV MVOLT	LED	1	4689	0.9	36	
	D	5	OSX1 LED P1 40K7 FTM MVOLT	OSX1 LED P1 40K7 FTM MVOLT	LED	1	4111	0.9	36	
	E	4	OSX1 LED P1 40K7 TRM MVOLT	OSX1 LED P1 40K7 TRM MVOLT	LED	1	4297	0.9	36	
	F	5	WPX1 LED 1 TRANSWRAP MVOLT	WPX1 LED 1 MVOLT, STEEL POLE, TRANSWRAP, TYPE 3 LENS	LED	1	2012	0.9	34	
	G	5	WPX1 LED 1 MVOLT	WPX1 LED 1 MVOLT, STEEL POLE, TYPE 3 LENS	LED	1	2012	0.9	34	

Schedule

Symbol	Label	QTY	Catalog Number	Description	Lamp	Lamps per Luminaire	Total Lamp Lumens	LLF	Wattage	Polar Plot
	A	2	OSX1 LED P1 40K7 TM MVOLT	OSX1 LED P1 40K7 TM MVOLT	LED	1	4125	0.9	36	
	B	11	OSX1 LED P1 40K7 RAA MVOLT	OSX1 LED P1 40K7 RAA MVOLT	LED	1	4611	0.9	36	
	C	4	OSX1 LED P1 40K7 SRV MVOLT	OSX1 LED P1 40K7 SRV MVOLT	LED	1	4689	0.9	36	
	D	5	OSX1 LED P1 40K7 FTM MVOLT	OSX1 LED P1 40K7 FTM MVOLT	LED	1	4111	0.9	36	
	E	4	OSX1 LED P1 40K7 TRM MVOLT	OSX1 LED P1 40K7 TRM MVOLT	LED	1	4297	0.9	36	
	F	5	WPX1 LED 1 TRANSWRAP MVOLT	WPX1 LED 1 MVOLT, STEEL POLE, TRANSWRAP, TYPE 3 LENS	LED	1	2012	0.9	34	
	G	5	WPX1 LED 1 MVOLT	WPX1 LED 1 MVOLT, STEEL POLE, TYPE 3 LENS	LED	1	2012	0.9	34	

ESP-1

SITE PHOTOMETRICS - BASE BID

1" = 1/32" = 1'-0"

SHEET NO.
ESP-1

JOB NO. 17-2408.01

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OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT
660 Ridge Ave
Arlington Heights, IL 60004

SITE PHOTOMETRICS - BASE BID

DATE
DRAWN
CHECKED
APPROVED

PROFESSIONAL DESIGN FIRM
IL # 184-000350

PROFESSIONAL SEAL
EXPIRATION DATE:
DATE:

FGM ARCHITECTS

CHICAGO OAK BROOK O'FALLON ST. LOUIS

ISSUANCE

NO.	DATE	DESCRIPTION
00	01.08.18	PLAN COMMISSION REVIEW
01	02.09.18	PLAN COMMISSION REVIEW-REVISIONS

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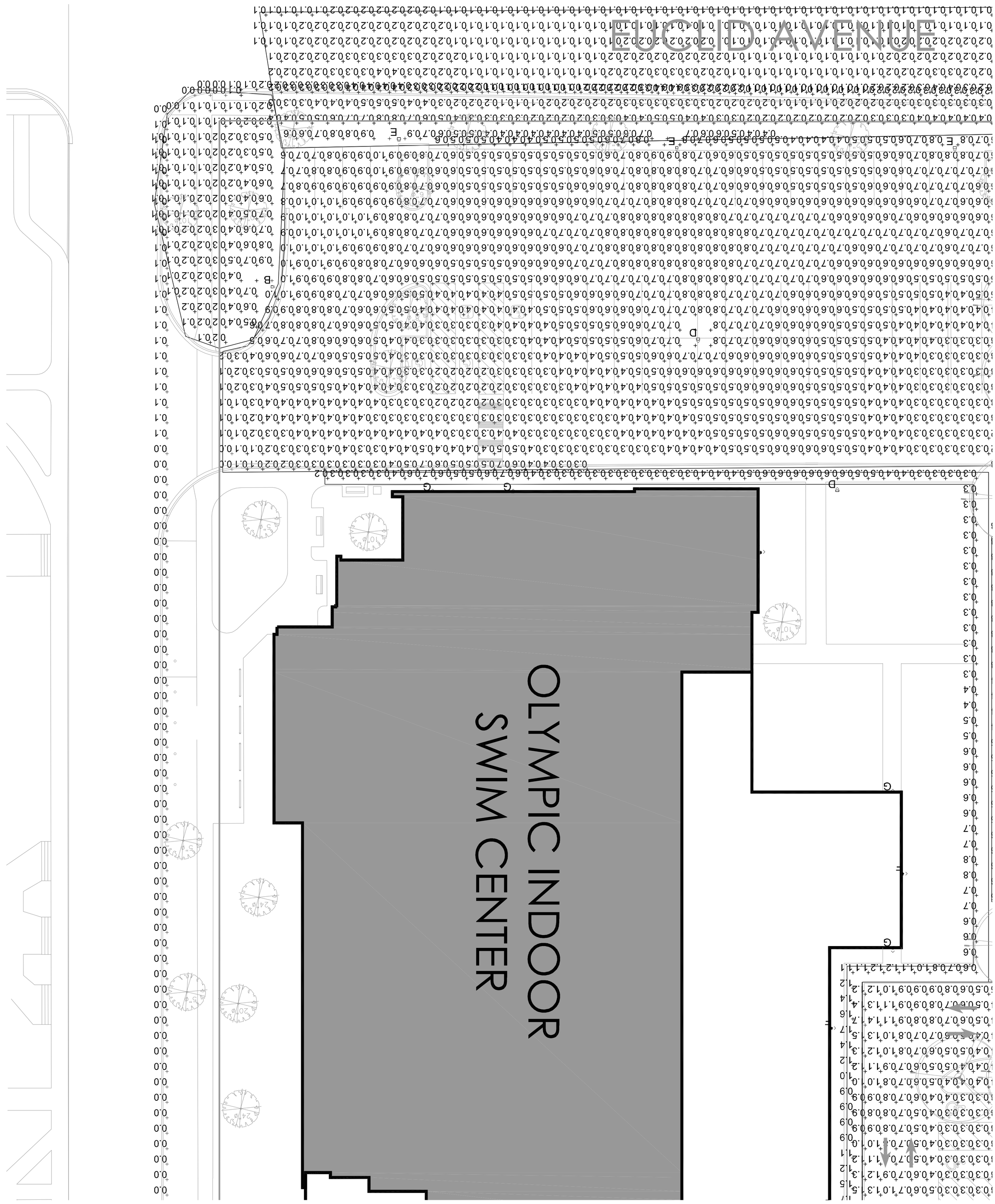

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Busness Line	+	0.1 fc	0.1 fc	0.0 fc	N/A	N/A
EUCLID AVENUE	+	0.2 fc	1.0 fc	0.0 fc	N/A	N/A
FEILD	+	0.0 fc	0.9 fc	0.0 fc	N/A	N/A
Green Space	+	0.3 fc	1.0 fc	0.0 fc	N/A	N/A
PARKING LOT	+	0.5 fc	1.7 fc	0.0 fc	N/A	N/A
PLAYGROUND	+	0.2 fc	1.7 fc	0.0 fc	N/A	N/A
Residentail Line	+	0.0 fc	0.1 fc	0.0 fc	N/A	N/A
ROAD	+	0.0 fc	0.1 fc	0.0 fc	N/A	N/A
Road Line	+	0.2 fc	0.4 fc	0.0 fc	N/A	N/A

Schedule												
Symbol	Label	QTY	Catalog Number	Description	Lamp	Number Lamps	Lumens per Lamp	LLF	Wattage	Polar Plot
	A	2	OSX1 LED P1 40K7 TM MVOLT	OSX1 LED P1 40K7 TMMVOLT	LED	1	4129	0.9	38	Plot 1.ies/pd
	B	11	OSX1 LED P1 40K7 RAA MVOLT	OSX1 LED P1 40K7 RAAMVOLT	LED	1	4811	0.9	38	Plot 2.ies/pd
	C	4	OSX1 LED P1 40K7 SRV MVOLT	OSX1 LED P1 40K7 SRVMVOLT	LED	1	4889	0.9	38	Plot 3.ies/pd
	D	5	OSX1 LED P1 40K7 FTM MVOLT	OSX1 LED P1 40K7 FTMMVOLT	LED	1	4111	0.9	38	Plot 4.ies/pd
	E	4	WDGE1 LED P1 7 40K MVOLT	WDGE1 LED P1 7 40K 70CRI VW MVOLT	LED	1	2017	0.9	34	Plot 5.ies/pd
	F	5	WDGE1 LED P1 7 40K 70CRI MVOLT	WDGE1 LED P1 7 40K 70CRI VW MVOLT	LED	1	4097	0.9	47	Plot 6.ies/pd
	G	5	WDGE1 LED P1 7 40K 70CRI MVOLT	WDGE1 LED P1 7 40K 70CRI VW MVOLT	LED	1	2017	0.9	34	Plot 7.ies/pd

N

ESP-2

SITE PHOTOMETRICS - BASE BID

1" = 1/16" = 1'-0"

SHEET NO. **ESP-2**

OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT
660 Ridge Ave
Arlington Heights, IL 60004

SITE PHOTOMETRICS - BASE BID

DATE
DRAWN
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APPROVED

PROFESSIONAL DESIGN FIRM
IL # 184-000350

PROFESSIONAL SEAL
EXPIRATION DATE:
DATE:

FGM ARCHITECTS
CHICAGO OAK BROOK O'FALLON ST. LOUIS

ISSUANCE

NO.	DATE	DESCRIPTION
00	01.08.18	PLAN COMMISSION REVIEW
01	02.09.18	PLAN COMMISSION REVIEW-REVISIONS

JOB NO. 17-2408.01

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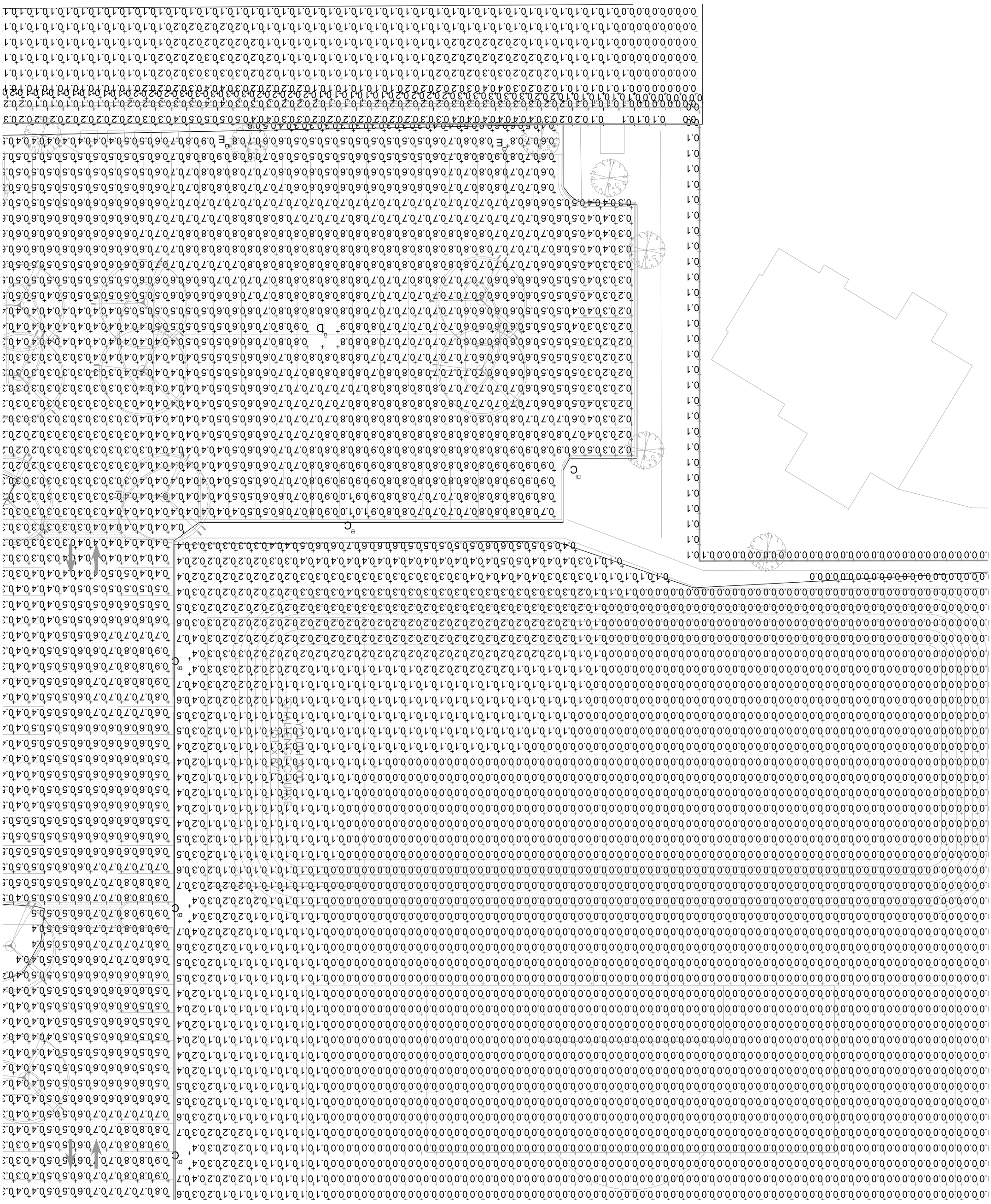

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Busness Line	+	0.1 fc	0.1 fc	0.0 fc	N/A	N/A
EUCLID AVENUE	+	0.2 fc	1.0 fc	0.0 fc	N/A	N/A
FEILD	+	0.0 fc	0.9 fc	0.0 fc	N/A	N/A
Green Space	+	0.3 fc	1.0 fc	0.0 fc	N/A	N/A
PARKING LOT	+	0.5 fc	1.7 fc	0.0 fc	N/A	N/A
PLAYGROUND	+	0.2 fc	1.7 fc	0.0 fc	N/A	N/A
Residentail Line	+	0.0 fc	0.1 fc	0.0 fc	N/A	N/A
ROAD	+	0.0 fc	0.1 fc	0.0 fc	N/A	N/A
Road Line	+	0.2 fc	0.4 fc	0.0 fc	N/A	N/A

Schedule												
Symbol	Label	QTY	Catalog Number	Description	Lamp	Number Lamps	Lumens per Lamp	LLF	Wattage	Polar Plot
	A	2	OSX1-LED-P1-40K-T5M-MVOLT	OSX1 LED P1 40K T5M MVOLT	LED	1	4125	0.9	38	Plot_1.png
	B	11	OSX1-LED-P1-40K-T4M-MVOLT	OSX1 LED P1 40K T4M MVOLT	LED	1	4411	0.9	38	Plot_2.png
	C	4	OSX1-LED-P1-40K-T3M-MVOLT	OSX1 LED P1 40K T3M MVOLT	LED	1	4889	0.9	38	Plot_3.png
	D	5	OSX1-LED-P1-40K-FTM-MVOLT	OSX1 LED P1 40K FTM MVOLT	LED	1	4111	0.9	38	Plot_4.png
	E	5	OSX1-LED-P1-40K-FTM-MVOLT	OSX1 LED P1 40K FTM MVOLT	LED	1	4111	0.9	38	Plot_5.png
	F	4	WSR1-LED-1-TAN-HSS-MVOLT	WSR1 LED 1 TAN HSS MVOLT	LED	1	4097	0.9	47	Plot_6.png
	G	5	WSR1-LED-1-TAN-TRAP-MVOLT	WSR1 LED 1 TAN TRAP MVOLT	LED	1	3017	0.9	34	Plot_7.png

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Busness Line	+	0.1 fc	0.1 fc	0.0 fc	N/A	N/A
EUCLID AVENUE	+	0.2 fc	1.0 fc	0.0 fc	N/A	N/A
FEILD	+	0.0 fc	0.9 fc	0.0 fc	N/A	N/A
Green Space	+	0.3 fc	1.0 fc	0.0 fc	N/A	N/A
PARKING LOT	+	0.5 fc	1.7 fc	0.0 fc	N/A	N/A
PLAYGROUND	+	0.2 fc	1.7 fc	0.0 fc	N/A	N/A
Residentail Line	+	0.0 fc	0.1 fc	0.0 fc	N/A	N/A
ROAD	+	0.0 fc	0.1 fc	0.0 fc	N/A	N/A
Road Line	+	0.2 fc	0.4 fc	0.0 fc	N/A	N/A

N

ESP-3

SITE PHOTOMETRICS - BASE BID

1" = 1/16" = 1'-0"

SHEET NO.
ESP-3

OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT
660 Ridge Ave
Arlington Heights, IL 60004

SITE PHOTOMETRICS - BASE BID

DATE
DRAWN
CHECKED
APPROVED

PROFESSIONAL DESIGN FIRM
IL # 184-000350

PROFESSIONAL SEAL
EXPIRATION DATE:
DATE:

FGM ARCHITECTS

CHICAGO OAK BROOK O'FALLON ST. LOUIS

ISSUANCE

NO.	DATE	DESCRIPTION
00	01.08.18	PLAN COMMISSION REVIEW
01	02.09.18	PLAN COMMISSION REVIEW-REVISIONS

JOB NO. 17-2408.01

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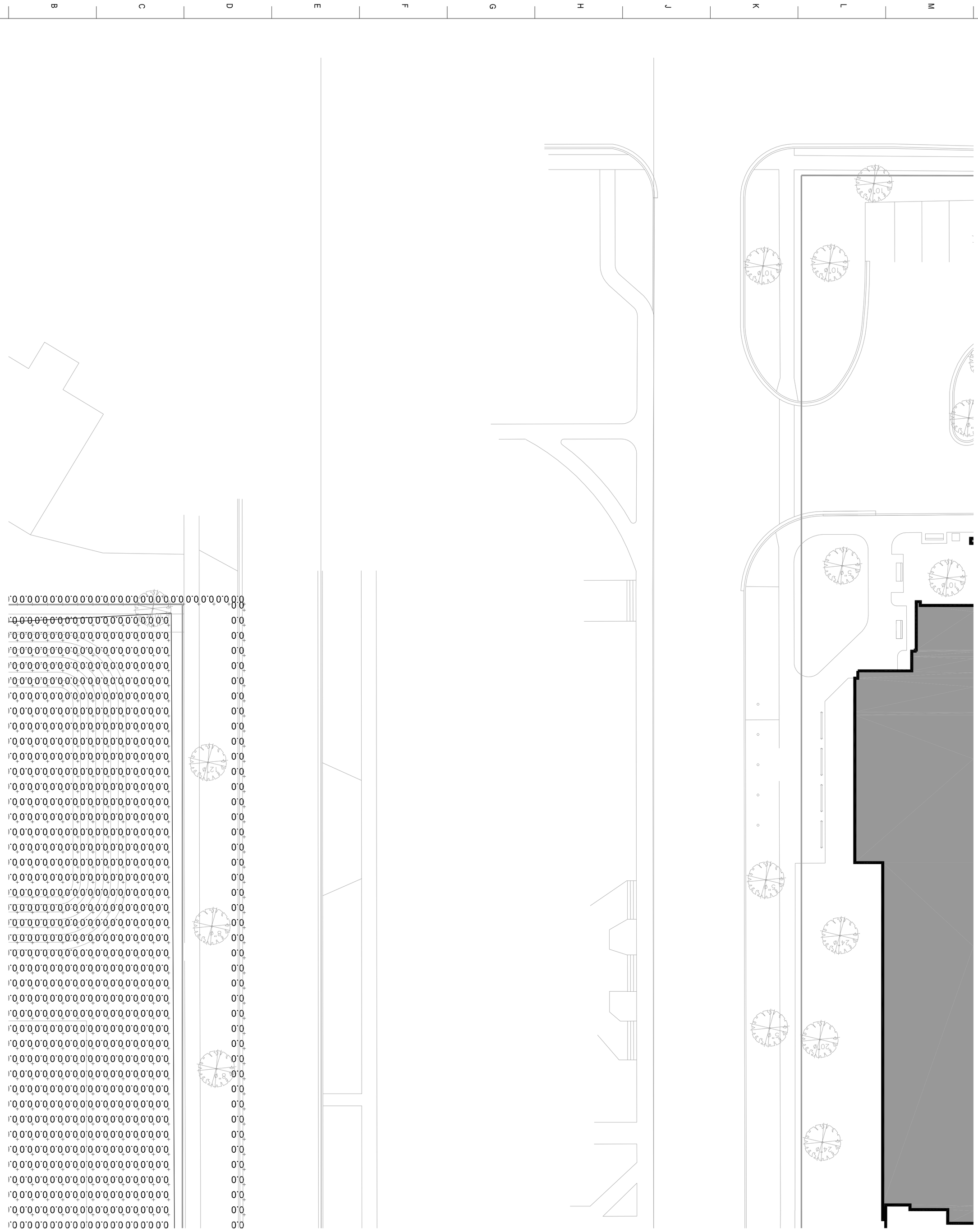

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Busness Line	+	0.1 fc	0.1 fc	0.0 fc	N/A	N/A
EUCLID AVENUE	+	0.2 fc	1.0 fc	0.0 fc	N/A	N/A
FEILD	+	0.0 fc	0.9 fc	0.0 fc	N/A	N/A
Green Space	+	0.3 fc	1.0 fc	0.0 fc	N/A	N/A
PARKING LOT	+	0.5 fc	1.7 fc	0.0 fc	N/A	N/A
PLAYGROUND	+	0.2 fc	1.7 fc	0.0 fc	N/A	N/A
Residentail Line	+	0.0 fc	0.1 fc	0.0 fc	N/A	N/A
ROAD	+	0.0 fc	0.1 fc	0.0 fc	N/A	N/A
Road Line	+	0.2 fc	0.4 fc	0.0 fc	N/A	N/A

Schedule													
Symbol	Label	QTY	Catalog Number	Description	Lamp	Lamps per Luminaire	Total Lamps	LLF	Wattage	Polar Plot
	A	2	OSX1 LED P1 40K7 TM MVOLT	OSX1 LED P1 40K7 TM MVOLT	LED	1	4125	0.9	38	Plot: 1.Polar
	B	11	OSX1 LED P1 40K7 RAM MVOLT	OSX1 LED P1 40K7 RAM MVOLT	LED	1	4611	0.9	38	Plot: 2.Polar
	C	4	OSX1 LED P1 40K7 SRV MVOLT	OSX1 LED P1 40K7 SRV MVOLT	LED	1	4689	0.9	38	Plot: 3.Polar
	D	5	OSX1 LED P1 40K7 FTM MVOLT	OSX1 LED P1 40K7 FTM MVOLT	LED	1	4111	0.9	38	Plot: 4.Polar
	E	5	OSX1 LED P1 40K7 TRM MVOLT	OSX1 LED P1 40K7 TRM MVOLT	LED	1	2017	0.9	34	Plot: 5.Polar
	F	4	WDGE1 LED 1 30K NW	WDGE1 LED 1 30K NW	LED	1	4097	0.9	47	Plot: 6.Polar
	G	5	WDGE1 LED 1 30K NW MVOLT	WDGE1 LED 1 30K NW MVOLT	LED	1	2017	0.9	34	Plot: 7.Polar

ESP-4

SITE PHOTOMETRICS - BASE BID

1" = 1/16" = 1'- 0"

SHEET NO.
ESP-4

JOB NO. 17-2408.01
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OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT
660 Ridge Ave
Arlington Heights, IL 60004

SITE PHOTOMETRICS - BASE BID

DATE
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CHECKED
APPROVED

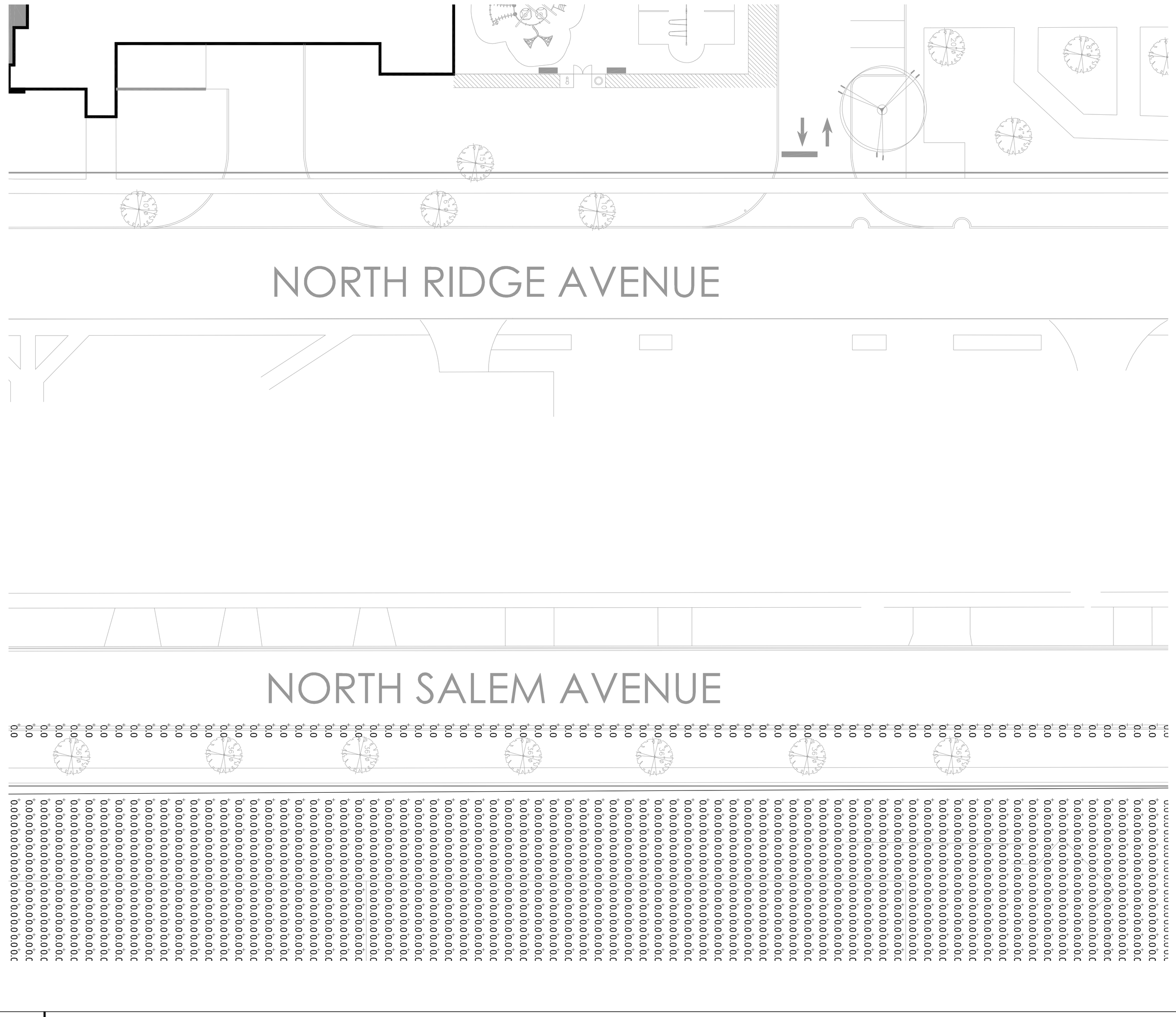
PROFESSIONAL DESIGN FIRM
IL # 184-000350

PROFESSIONAL SEAL
EXPIRATION DATE:
DATE:

FGM ARCHITECTS
CHICAGO OAK BROOK O'FALLON ST. LOUIS

ISSUANCE

NO.	DATE	DESCRIPTION
00	01.08.18	PLAN COMMISSION REVIEW
01	02.09.18	PLAN COMMISSION REVIEW-REVISIONS



Schedule

Symbol	Label	QTY	Catalog Number	Description	Lamp	Number Lamps	Lumens per Lamp	LLF	Wattage
	A	3	DSX1 LED P1 40K T5M MVOLT	DSX1 LED P1 40K T5M MVOLT	LED	1	4470	0.9	36
	B	2	DSX1 LED P1 40K T6M MVOLT	DSX1 LED P1 40K T6M MVOLT	LED	1	4476	0.9	36
	C	11	DSX1 LED P1 40K T4M MVOLT	DSX1 LED P1 40K T4M MVOLT	LED	1	4811	0.9	31
	D	4	DSX1 LED P1 40K T5W MVOLT	DSX1 LED P1 40K T5W MVOLT	LED	1	4956	0.9	31
	E	1	DSX1 LED P1 40K T5FT4J MVOLT	DSX1 LED P1 40K T5FT4J MVOLT	LED	1	4711	0.9	31
	F	4	WDGE LED 1 30K TRNSP MVOLT	WDGE LED GEN 1 1 NEO DOUT,E,SR,U,DCN, 3000K,CRI80,TR, 4000K COLOR TEMPERATURE, TYPE 3 (U)(W)	Custom Field Place Luminaire in IES Line Form. Luminaire OUTPUT: 4047 lm.	1	4047	0.9	41
	G	1	WDGE LED 1 30K TRNSP MVOLT	WDGE LED GEN 1 1 NEO DOUT,E,SR,U,DCN, 3000K,CRI80,TR, 4000K COLOR TEMPERATURE, TYPE 3 (U)(W)	LED	1	2012	0.9	24

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Busness Line	+	0.1 fc	0.1 fc	0.0 fc	N/A	N/A
EUCLID AVENUE	+	0.2 fc	1.0 fc	0.0 fc	N/A	N/A
FEILD	+	0.0 fc	0.9 fc	0.0 fc	N/A	N/A
Green Space	+	0.3 fc	1.0 fc	0.0 fc	N/A	N/A
PARKING LOT	+	0.5 fc	1.7 fc	0.0 fc	N/A	N/A
PLAYGROUND	+	0.2 fc	1.7 fc	0.0 fc	N/A	N/A
Residentall Line	+	0.0 fc	0.1 fc	0.0 fc	N/A	N/A
ROAD	+	0.0 fc	0.1 fc	0.0 fc	N/A	N/A
Road Line	+	0.2 fc	0.4 fc	0.0 fc	N/A	N/A

ISSUANCE

NO.	DATE	DESCRIPTION
00	01.08.18	PLAN COMMISSION REVIEW
01	02.09.18	PLAN COMMISSION REVIEW-REVISIONS

FGM ARCHITECTS
CHICAGO OAK BROOK O'FALLON ST. LOUIS

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PROFESSIONAL DESIGN FIRM
IL # 184-000350

OLYMPIC SWIM ADDITION AND RENOVATION
ARLINGTON HEIGHTS PARK DISTRICT
660 Ridge Ave
Arlington Heights, IL 60004

SITE PHOTOMETRICS - BASE BID

SHEET NO.
ESP-5

JOB NO. 17-2408.01

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ESP-5 **SITE PHOTOMETRICS - BASE BID**
1" = 1/16" = 1'- 0"

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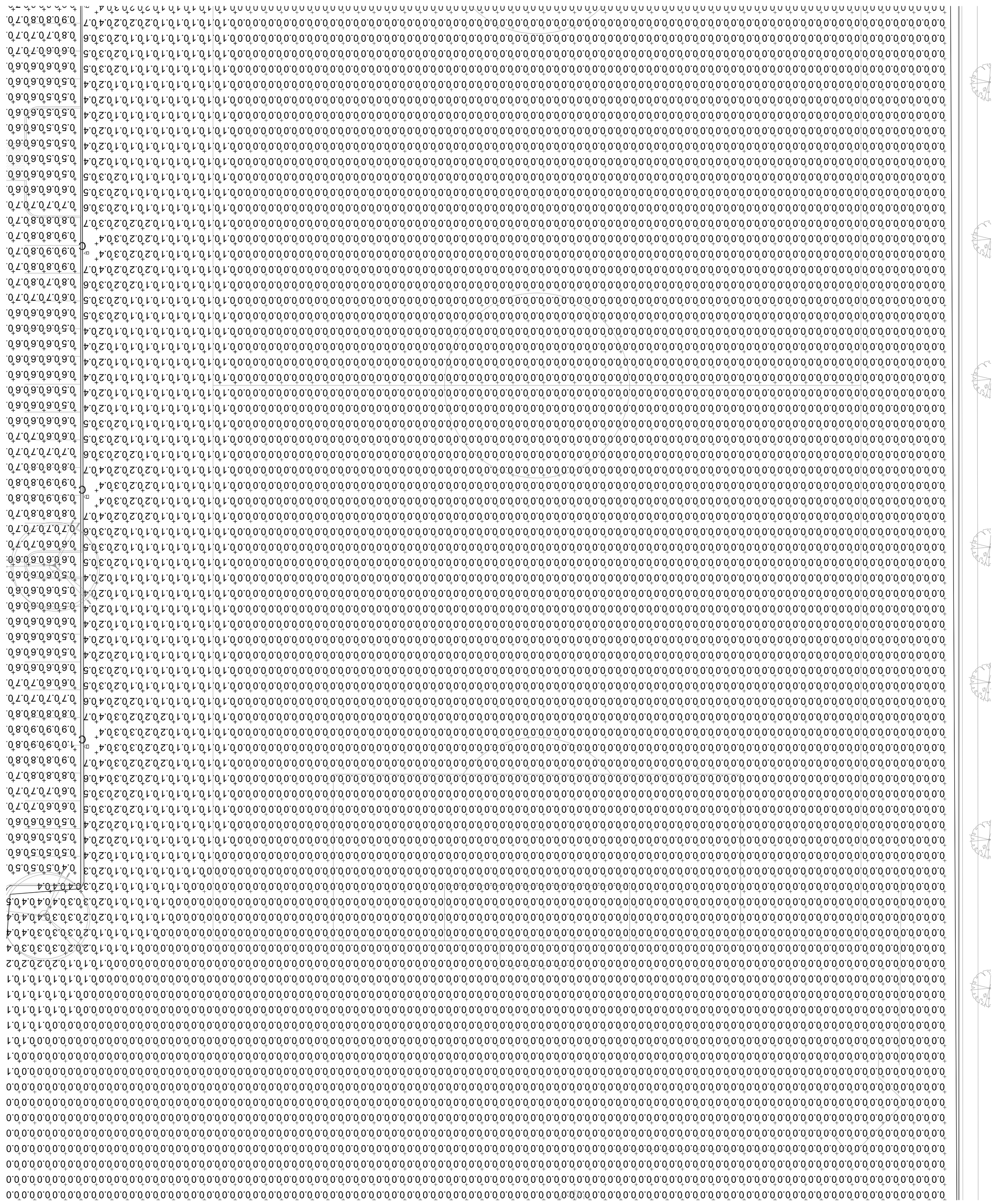
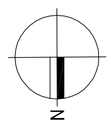


Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Busness Line	+	0.1 fc	0.1 fc	0.0 fc	N/A	N/A
EUCLID AVENUE	+	0.2 fc	1.0 fc	0.0 fc	N/A	N/A
FEILD	+	0.0 fc	0.9 fc	0.0 fc	N/A	N/A
Green Space	+	0.3 fc	1.0 fc	0.0 fc	N/A	N/A
PARKING LOT	+	0.5 fc	1.7 fc	0.0 fc	N/A	N/A
PLAYGROUND	+	0.2 fc	1.7 fc	0.0 fc	N/A	N/A
Residentail Line	+	0.0 fc	0.1 fc	0.0 fc	N/A	N/A
ROAD	+	0.0 fc	0.1 fc	0.0 fc	N/A	N/A
Road Line	+	0.2 fc	0.4 fc	0.0 fc	N/A	N/A

Schedule												
Symbol	Label	QTY	Catalog Number	Description	Lamp	Number Lamps	Lumens per Lamp	LLF	Wattage	Polar Plot
	A	2	OSX1 LED P1 40K TM MVOLT	OSX1 LED P1 40K TMMVOLT	LED	1	4125	0.9	38	Plot_1.png
	B	11	OSX1 LED P1 40K R4M MVOLT	OSX1 LED P1 40K R4MMVOLT	LED	1	4611	0.9	38	Plot_2.png
	C	4	OSX1 LED P1 40K 5W MVOLT	OSX1 LED P1 40K 5WMVOLT	LED	1	4689	0.9	38	Plot_3.png
	D	5	OSX1 LED P1 40K 5FNS MVOLT	OSX1 LED P1 40K 5FNSMVOLT	LED	1	4711	0.9	38	Plot_4.png
	E	5	OSX1 LED P1 40K 5FNM MVOLT	OSX1 LED P1 40K 5FNMMVOLT	LED	1	4711	0.9	38	Plot_5.png
	F	4	OSX1 LED P1 40K TRADWNP MVOLT	OSX1 LED P1 40K TRADWNPMVOLT TRUNNION ARM, TRADWNP, WHITE	LED	1	4267	0.9	47	Plot_6.png
	G	5	WPX1 LED 1 SWNSWNP MVOLT	WPX1 LED 1 SWNSWNPMVOLT WALL MOUNT, STEEL, SWNSWNP, WHITE, 10-20W	LED	1	2012	0.9	34	Plot_7.png



ESP-6

SITE PHOTOMETRICS - BASE BID

1" = 1/16" = 1'-0"

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ESP-6

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OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT
660 Ridge Ave
Arlington Heights, IL 60004

SITE PHOTOMETRICS - BASE BID

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FGM ARCHITECTS

CHICAGO OAK BROOK O'FALLON ST. LOUIS

ISSUANCE

NO.	DATE	DESCRIPTION
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01	02.09.18	PLAN COMMISSION REVIEW-REVISIONS

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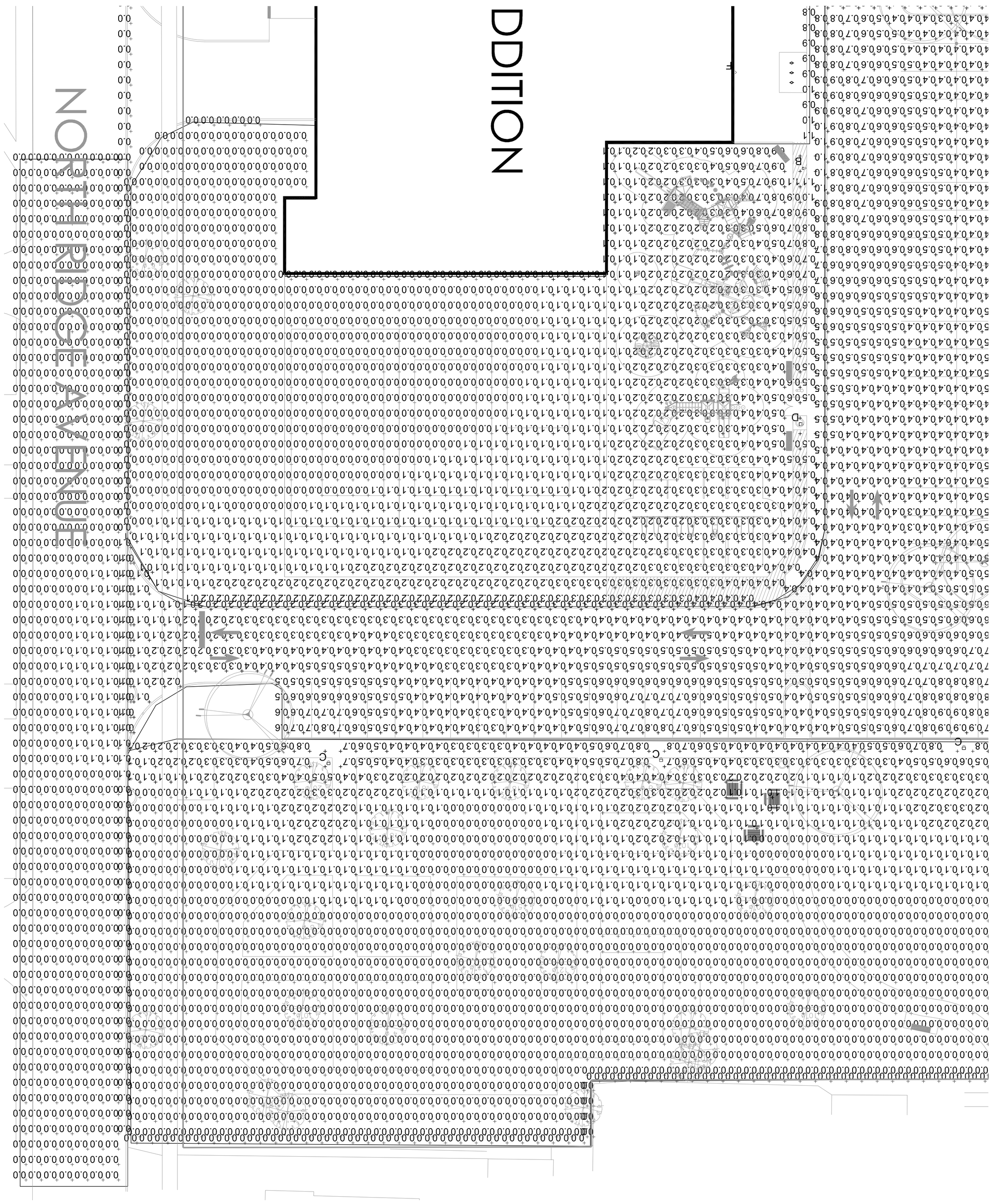

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Busness Line	+	0.1 fc	0.1 fc	0.0 fc	N/A	N/A
EUCLID AVENUE	+	0.2 fc	1.0 fc	0.0 fc	N/A	N/A
FEILD	+	0.0 fc	0.9 fc	0.0 fc	N/A	N/A
Green Space	+	0.3 fc	1.0 fc	0.0 fc	N/A	N/A
PARKING LOT	+	0.5 fc	1.7 fc	0.0 fc	N/A	N/A
PLAYGROUND	+	0.2 fc	1.7 fc	0.0 fc	N/A	N/A
Residentail Line	+	0.0 fc	0.1 fc	0.0 fc	N/A	N/A
ROAD	+	0.0 fc	0.1 fc	0.0 fc	N/A	N/A
Road Line	+	0.2 fc	0.4 fc	0.0 fc	N/A	N/A

Schedule												
Symbol	Label	QTY	Catalog Number	Description	Lamp	Number Lamps	Lumens per Lamp	LLF	Wattage	Polar Plot
	A	2	OSX1 LED P1 40K7 TM MVOLT	OSX1 LED P1 40K7 TM MVOLT	LED	1	4125	0.9	38	Plane: 0.00vert
	B	11	OSX1 LED P1 40K7 RAM MVOLT	OSX1 LED P1 40K7 RAM MVOLT	LED	1	4811	0.9	38	Plane: 0.00vert
	C	4	OSX1 LED P1 40K7 SRM MVOLT	OSX1 LED P1 40K7 SRM MVOLT	LED	1	4889	0.9	38	Plane: 0.00vert
	D	5	OSX1 LED P1 40K7 FTM MVOLT	OSX1 LED P1 40K7 FTM MVOLT	LED	1	4111	0.9	38	Plane: 0.00vert
	E	5	OSX1 LED P1 40K7 FTM MVOLT	OSX1 LED P1 40K7 FTM MVOLT	LED	1	4111	0.9	38	Plane: 0.00vert
	F	4	WSR1 LED 1 TAN/DBR	PARK LED WSR1 1 MVOLT, STEEL POLE, TAN/DARK BRONZE	LED	1	2012	0.9	34	Plane: 0.00vert
	G	5	WSR1 LED 1 TAN/DBR	PARK LED WSR1 1 MVOLT, STEEL POLE, TAN/DARK BRONZE	LED	1	2012	0.9	34	Plane: 0.00vert

N

ESP-7

SITE PHOTOMETRICS - BASE BID

1" = 1/16" = 1'-0"

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SHEET NO.

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OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT

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Arlington Heights, IL 60004

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01	02.09.18	PLAN COMMISSION REVIEW-REVISIONS

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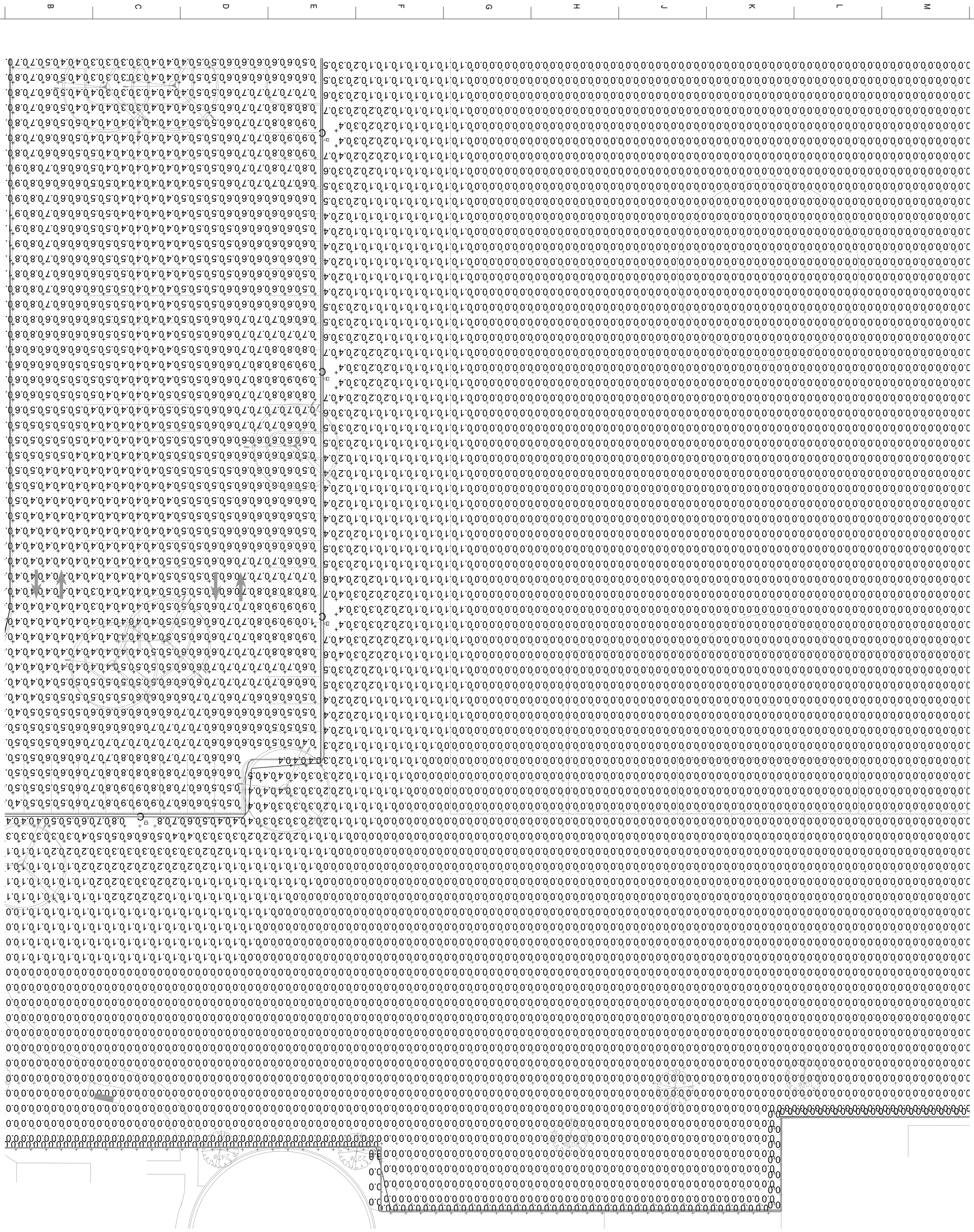

Schedule											
Symbol	Label	QTY	Catalog Number	Description	Lamp	Lamps per Luminaire	Total Lamps	LLF	Wattage	Polar Plot
	A	2	DSX1 LED P1 40K TFM MVOLT	DSX1 LED P1 40K TFMVOLT	LED	1	4125	0.9	92	Plot 1.1(fc).pd
	B	11	DSX1 LED P1 40K RAM MVOLT	DSX1 LED P1 40K RAMVOLT	LED	1	4411	0.9	98	Plot 2.1(fc).pd
	C	4	DSX1 LED P1 40K SRM MVOLT	DSX1 LED P1 40K SRMVOLT	LED	1	4089	0.9	98	Plot 3.1(fc).pd
	D	5	DSX1 LED P1 40K FTM MVOLT	DSX1 LED P1 40K FTMMVOLT	LED	1	4111	0.9	98	Plot 4.1(fc).pd
	E	4	WDGE1 LED 1 TAN30K MVOLT	WDGE1 LED 1 TAN30K	LED	1	2012	0.9	34	Plot 5.1(fc).pd
	F	5	WDGE1 LED 1 TAN40K MVOLT	WDGE1 LED 1 TAN40K	LED	1	2257	0.9	47	Plot 6.1(fc).pd
	G									

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Busness Line	+	0.1 fc	0.1 fc	0.0 fc	N/A	N/A
EUCLID AVENUE	+	0.2 fc	1.0 fc	0.0 fc	N/A	N/A
FEILD	+	0.0 fc	0.9 fc	0.0 fc	N/A	N/A
Green Space	+	0.3 fc	1.0 fc	0.0 fc	N/A	N/A
PARKING LOT	+	0.5 fc	1.7 fc	0.0 fc	N/A	N/A
PLAYGROUND	+	0.2 fc	1.7 fc	0.0 fc	N/A	N/A
Residentail Line	+	0.0 fc	0.1 fc	0.0 fc	N/A	N/A
ROAD	+	0.0 fc	0.1 fc	0.0 fc	N/A	N/A
Road Line	+	0.2 fc	0.4 fc	0.0 fc	N/A	N/A

N

ESP-8

SITE PHOTOMETRICS - BASE BID

1" = 1/16" = 1'- 0"

JOB NO. 17-2408.01

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SHEET NO.

ESP-8

OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT

660 Ridge Ave
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CHICAGO OAK BROOK O'FALLON ST. LOUIS

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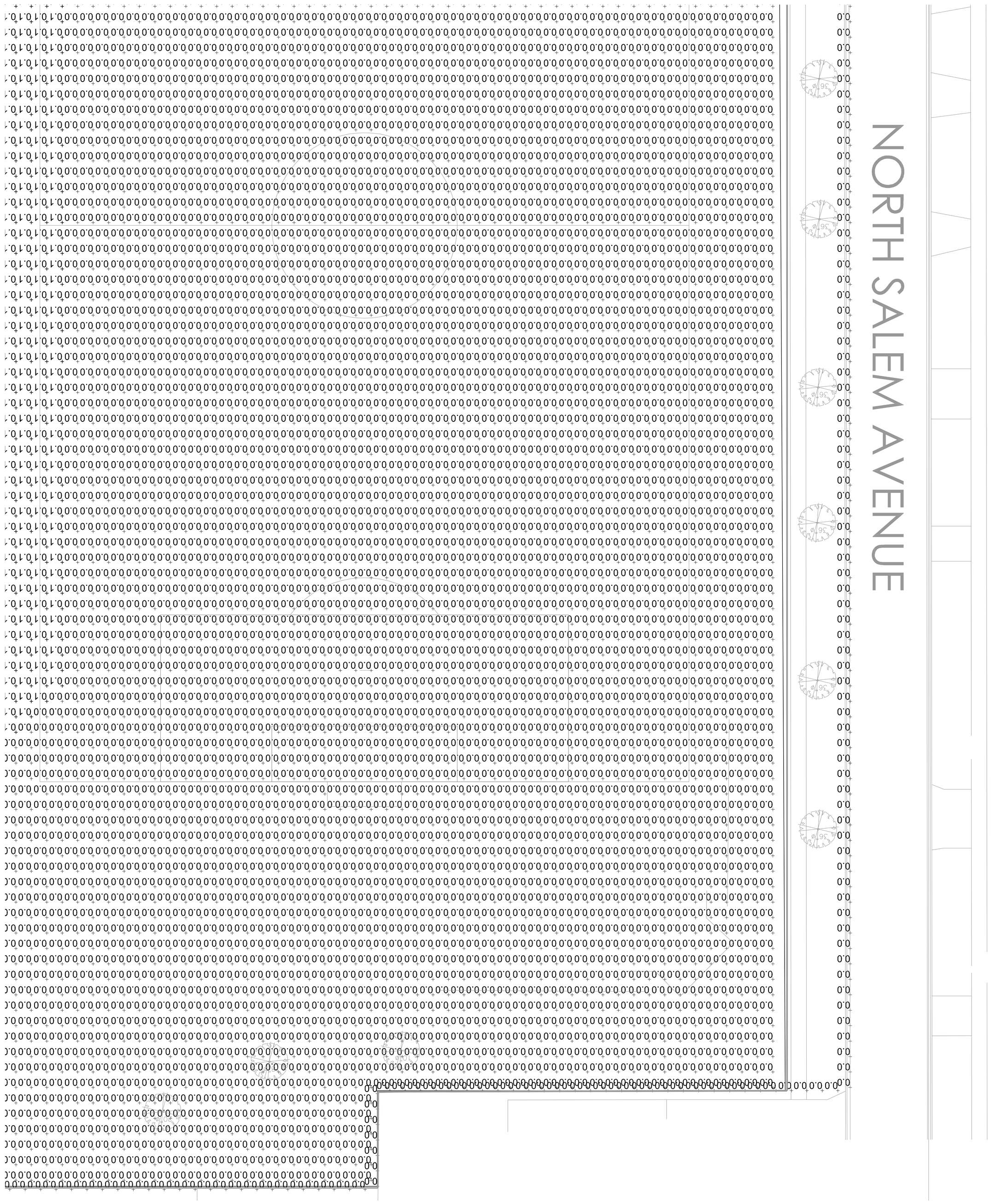

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Busness Line	+	0.1 fc	0.1 fc	0.0 fc	N/A	N/A
EUCLID AVENUE	+	0.2 fc	1.0 fc	0.0 fc	N/A	N/A
FEILD	+	0.0 fc	0.9 fc	0.0 fc	N/A	N/A
Green Space	+	0.3 fc	1.0 fc	0.0 fc	N/A	N/A
PARKING LOT	+	0.5 fc	1.7 fc	0.0 fc	N/A	N/A
PLAYGROUND	+	0.2 fc	1.7 fc	0.0 fc	N/A	N/A
Residentail Line	+	0.0 fc	0.1 fc	0.0 fc	N/A	N/A
ROAD	+	0.0 fc	0.1 fc	0.0 fc	N/A	N/A
Road Line	+	0.2 fc	0.4 fc	0.0 fc	N/A	N/A

Schedule Symbol	Label	QTY	Catalog Number	Description	Lamp	Number Lamps	Lumens per Lamp	LLF	Wattage	Polar Plot
	A	2	OSX1 LED P1 40K TM MVOLT	OSX1 LED P1 40K TMMVOLT	LED	1	4125	0.9	38	Plot 1.IES Plot
	B	11	OSX1 LED P1 40K R4M MVOLT	OSX1 LED P1 40K R4MMVOLT	LED	1	4811	0.9	38	Plot 2.IES Plot
	C	4	OSX1 LED P1 40K 15W MVOLT	OSX1 LED P1 40K 15WMVOLT	LED	1	4889	0.9	38	Plot 3.IES Plot
	D	5	OSX1 LED P1 40K 5TWM MVOLT	OSX1 LED P1 40K 5TWMMVOLT	LED	1	4111	0.9	38	Plot 4.IES Plot
	E	4	WDGE1 LED 1 30K NW MVOLT	WDGE1 LED 1 30K NW MVOLT TRUNNION, WHITE, TYPE 3 LENS	LED	1	2010	0.9	34	Plot 5.IES Plot
	F	5	WDGE1 LED 1 30K NW MVOLT	WDGE1 LED 1 30K NW MVOLT SELECTAL WHITE, TYPE 3 LENS	LED	1	2010	0.9	34	Plot 6.IES Plot
	G	5	WDGE1 LED 1 30K NW MVOLT	WDGE1 LED 1 30K NW MVOLT SELECTAL TRUNNION, WHITE, TYPE 3 LENS	LED	1	2010	0.9	34	Plot 7.IES Plot

N

ESP-9

SITE PHOTOMETRICS - BASE BID

1" = 1/16" = 1'-0"

JOB NO. 17-2408.01

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SHEET NO.
ESP-9

OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT
660 Ridge Ave
Arlington Heights, IL 60004

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CHICAGO OAK BROOK O'FALLON ST. LOUIS

ISSUANCE

NO.	DATE	DESCRIPTION
00	01.08.18	PLAN COMMISSION REVIEW
01	02.09.18	PLAN COMMISSION REVIEW-REVISIONS

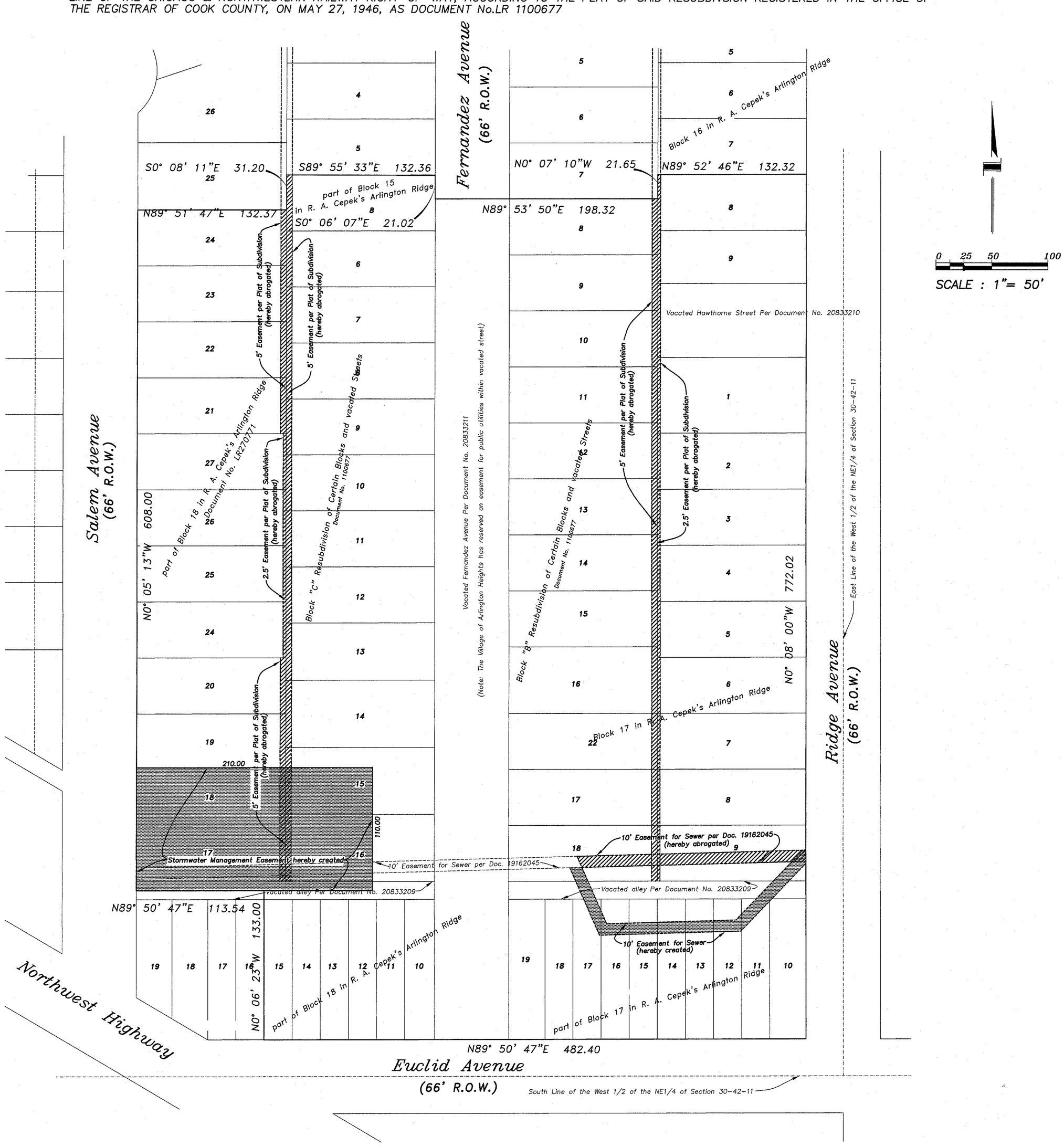
Plat of Easement and Plat of Abrogation

of part of

LOTS 8 AND 9 IN BLOCK 16; LOTS 1 THROUGH 19, BOTH INCLUSIVE, AND LOT 22 IN BLOCK 17; LOT 8 IN BLOCK 15, LOTS 10 THROUGH 15, BOTH INCUSIVE, AND LOTS 24 THROUGH 27, BOTH INCLUSIVE, IN BLOCK 18; ALL THAT PART OF VACATED HAWTHORNE STREET AS SHOWN ON THE PLAT OF VACATION THEREOF HERETOFORE RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS OF COOK COUNTY, ILLINOIS AS DOCUMENT NO. 20833210, ALL THAT PART OF THE VACATED EAST AND WEST PUBIC ALLEY IN BLOCK 17 AS SHOWN ON THE PLAT OF VACATION THEREOF HERETOFORE RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS OF COOK COUNTY, ILLINOIS, AS DOCUMNET NO. 20833209; ALL THAT PART OF VACATED FERNANDEZ AVENUE AS SHOWN ON THE PLAT OF VACATION THEREOF HERETOFORE RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS OF COOK COUNTY, ILLINOIS AS DOCUMENT NO. 20833211; ALL THAT PART OF THE VACATED EAST AND WEST PUBLIC ALLEY IN BLOCK 18 AS SHOWN ON THE PLAT OF VACATION THEREOF HERETOFORE RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS OF COOK COUNTY, ILLINOIS, AS DOCUMENT NO. 20833209, EXCEPTING THEREFROM THAT PART OF THE SOUTH HALF OF SAID VACATED PUBLIC ALLEY LYING NORTH OF AND ADJOINING LOTS 16 THROUGH 19, BOTH INCLUSIVE, IN SAID BLOCK 18; ALL AS SHOWN ON THE PLAT OF R.A. CEPEK'S ARLINGTON RIDGE, BEING A SUABDIVISION OF THAT PART OF THE WEST HALF (EXCEPT THE EAST 33.0 FEET THEREOF) OF THE NORTHEAST QUARTER AND OF THE SOUTH HALF OF THE NORTHWEST QUARTER OF SECTION 30, TOWNSHIP 42 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN LYING NORTH OF THE NORTHEASTERLY LINE OF THE NORTHWEST HIGHWAY, SAID NORTHEASTERLY LINE OF HIGHWAY BEING 66.0 FEET NORTHEASTERLY OF AND PARALLEL WITH THE NORTHEASTERLY LINE OF THE CHICAGO & NORTHWESTERN RAILWAY RIGHT-OF-WAY, ACCORDING TO THE PLAT OF SAID SUBDIVISION REGISTERED IN THE OFFICE OF THE REGISTRAR OF TITLES OF COOK COUNTY, ILLINOIS ON SEPTEMBER 2, 1925, AS DOCUMENT No.LR 270771.

ALSO

LOTS 8 THROUGH 16, BOTH INCLUSIVE AND LOTS 17 AND 18 IN BLOCK B; LOTS 6 THROUGH 24, BOTH INCLUSIVE, IN BLOCK C, ALL IN THE RESUBDIVISION OF CERTAIN BLOCKS AND PARTS OF BLOCKS AND VACATED STREETS IN R.A. CEPEK'S ARLINGTON RIDGE, BEING A SUBDIVISION OF THAT PART OF THE WEST HALF (EXCEPT THE EAST 33.0 FEET THEREOF) OF THE NORTHEAST QUARTER AND OF THE SOUTH HALF OF THE NORTHWEST QUARTER OF SECTION 30, TOWNSHIP 42 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN LYING NORTH OF THE NORTHEASTERLY LINE OF THE NORTHWEST HIGHWAY, SAID NORTHEASTERLY LINE OF HIGHWAY BEING 66.0 FEET NORTHEASTERLY OF AND PARALLEL WITH THE NORTHEASTERLY LINE OF THE CHICAGO & NORTHWESTERN RAILWAY RIGHT-OF-WAY, ACCORDING TO THE PLAT OF SAID RESUBDIVSION REGISTERED IN THE OFFICE OF THE REGISTRAR OF COOK COUNTY, ON MAY 27, 1946, AS DOCUMENT No.LR 1100677



Indicates easement area to be abrogated

Indicates easement area to be created

PRELIMINARY

ARLINGTON HEIGHTS PARK DISTRICT

FGM ARCHITECTS

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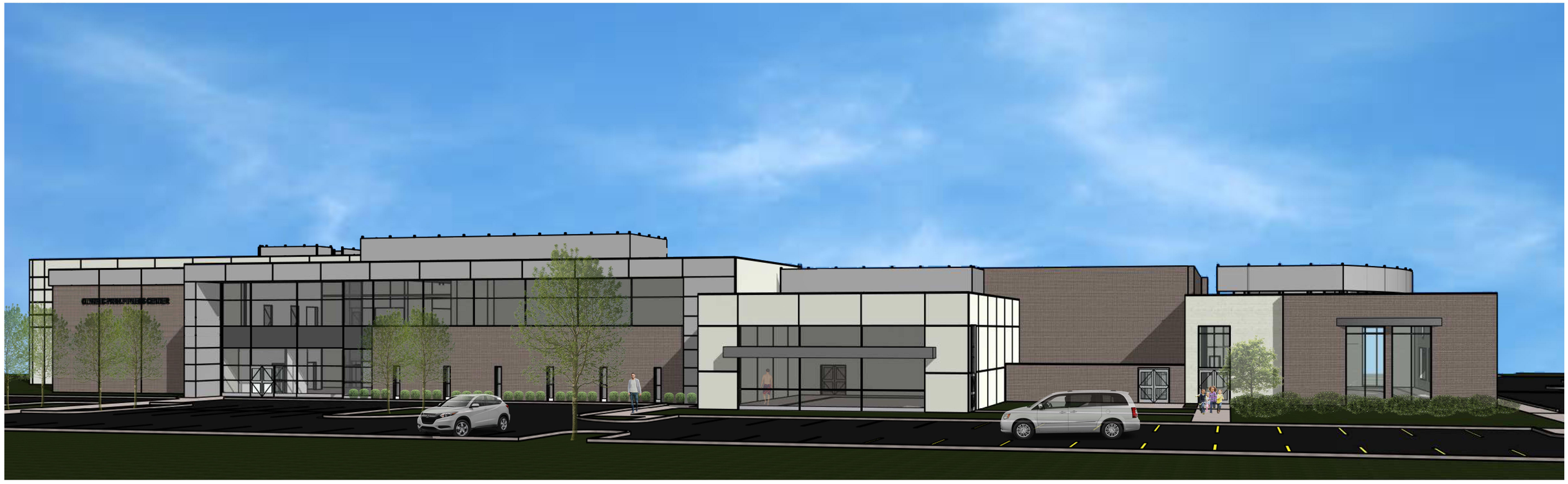
VIEW TO NORTHWEST - BASE BID

ARLINGTON HEIGHTS PARK DISTRICT



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VIEW TO NORTHEAST - BASE BID

ARLINGTON HEIGHTS PARK DISTRICT

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VIEW TO SOUTHEAST - BASE BID

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VIEW TO SOUTHEAST - ALTERNATE BID #1

ARLINGTON HEIGHTS PARK DISTRICT

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FRONT ENTRY

Exterior Rendering

FGM ARCHITECTS

View Looking Northwest from Euclid

Exterior Rendering

FGM ARCHITECTS

View Looking Northwest along Ridge

Exterior Rendering

FGM ARCHITECTS

View Looking Southwest along Ridge

Exterior Rendering

FGM ARCHITECTS

View Looking Southeast from Park

Exterior Rendering

FGM ARCHITECTS

View Looking Northeast from Park

Exterior Rendering

FGM ARCHITECTS

View Looking Northeast (West Elevation)

Exterior Rendering

FGM ARCHITECTS

View of New Main Entrance (West Elevation)

GEWALT HAMILTON ASSOCIATES, INC.
CONSULTING ENGINEERS
625 Forest Edge Drive, Vernon Hills, IL 60061
TEL 847.478.9700 ▪ FAX 847.478.9701
www.gha-engineers.com

Olympic Indoor Swim Center
Arlington Heights Park District
Arlington Heights, Illinois
February 9, 2018
GHA Project #5313.100

Stormwater Management Report

1. Introduction

The Olympic Indoor Swim Center is an existing Park District site in a combined sewer area within the Village of Arlington Heights. The parcel is 10.02 acres bounded by residential properties to the north, Ridge Avenue to the east, Euclid Avenue to the south and Salem Avenue to the west. The Arlington Heights Park District (AHPD) is looking to expand the existing building to the north into the basketball, tennis court and skate board park area. A new driveway with parking will be provided along the west side of the building and return to Ridge Avenue to provide a second entrance into the site. The existing detention facility will be expanded to provide detention for the respective improvements. The proposed improvements will disturb approximately 4.65 acres, where 4.48 acres consist of the project area and 0.17 acres consist of the maintenance area. Maintenance areas include parking lot areas that will be removed and replaced. There is one new sanitary sewer connection coming from the expanded building.

2. Existing Conditions

The site consists of an indoor pool facility with exterior grass soccer fields, two tennis courts, one basketball court, skate board park, playground equipment, safety town and support parking facility. Within the project area of 4.48 acres, the existing impervious areas are approximately 1.58 acres, as shown in the Existing Impervious Exhibit.

There is no regulatory floodplain, wetlands and riparian environments on or within 100 feet of the site.

The existing relief storm sewer is tributary to the combined sewer system.

There is an existing detention on the southwest side of the grass playfield, which was constructed for the 2003-2004 building expansion where the detention was required by the Village. The Village required volume was 0.30 acre-feet at allowable release rate of 0.18 cfs/acre. The provided volume was 0.32 acre-feet. Required detention calculations from the 2003-2004 project are included in Appendix A.

3. Proposed Improvements and Stormwater Design

In the proposed conditions, the 4.48-acre project area consists of 2.35 acres of impervious area, 0.19 acre of synthetic turf playground, and 1.94 acres of pervious areas, as shown in the Proposed Impervious Exhibit. The proposed improvements intend to expand this existing basin by extending eastward through the existing parking lot and northward. The newly expanded detention basin will provide detention in addition to the volume control requirement. A Drainage Exhibit is included.

3.1 Village Detention Requirements

The Village of Arlington Heights required detention number are calculated in two scenarios: using net increase of detention required between the proposed and existing conditions and using the detention required for the proposed conditions when combining project areas from the 2003 project and the current project.

For the first scenario, the additional required detention volume is calculated to be 0.18 acre-feet, which is the difference of 1.33 acre-feet for the proposed and 1.15 acre-feet for the existing conditions. Since there was 0.30 acre-feet of detention required from the 2003 project, the basin will need to be expanded to accommodate a total of 0.48 acre-feet of detention.

For the second scenario, the required detention volume for the proposed development, not using the net increase method, is 1.33 acre-feet of detention. The combined project areas from the 2003 project and the current project were considered in the detention calculations. The combined project area is 4.90 acres, which includes an additional 0.42 acre from the 2003 project that is not included in the current 4.48-acre project area.

The proposed detention basin is designed to satisfy both scenarios, using 1.33 acre-feet as the minimum amount of detention. The detention basin will provide a total volume of 1.34 acre-feet at the HWL of 714.70. Required detention calculations are included in Appendix B. Provided detention storage calculations are included in Appendix D.

The Village of Arlington Heights also requires detention volume to be provided at an allowable release rate of 0.18 cfs/acre. For the 4.90-acre combined project area, the Village allowable release is 0.88 cfs. To satisfy the allowable release rate, a 3.76" diameter restrictor will be required. Due to clogging potential and the MWRD's requirement for a minimum of 4" restrictor, a 7" Vortex Valve will be used, where the design head is 5.57' with a discharge rate of 0.79 cfs, which stays below the maximum allowable discharge of 0.88 cfs. Rating curve for the Vortex restrictor and Vortex Valve detail are included in Appendix D.

3.2 WMO Detention Requirements

The required detention volume for MWRD is 1.02 acre-feet for the 4.48-acre project area. The detention basin will provide 1.02 acre-feet at the HWL of 714.51.

The allowable release rate is 0.30 cfs/acre for MWRD. For the 4.48-acre project area, the allowable release is 1.34 cfs. To satisfy the allowable release rate, a 4.69" diameter regular restrictor will be required. However, a 7" Vortex Valve will be used instead to satisfy Village requirements, where the design head is 5.38' with a discharge rate of 0.79 cfs.

3.3 WMO Volume Control Requirements

A requirement within the WMO is a volume control component, which requires that one (1) inch of stormwater runoff from all impervious surfaces of the development be treated using volume control practices. According to the WMO Technical Guidance Manual, synthetic turf fields are not considered impervious surfaces for the purposes of volume control requirements.

For the proposed impervious area of 2.35 acres, the required volume control volume is 0.20 ac-ft. The bottom one foot of the detention basin will provide 0.21 ac-ft of volume control storage.

Based on the soils report, the seasonally high groundwater table is at elevation 704. The bottom of the volume control facility is at 711.14, which is greater than 3.5' depth requirement between the bottom of the volume

control facility and the seasonally high ground water table in combined sewer areas. The soils report is included in Appendix E.

3.4 Overflow Weir

The 40-feet overflow weir located west of the detention basin is at elevation 715.20. The weir is 6" above the Village HWL at 714.70. Based on the weir sizing calculations enclosed in Appendix D, the 100-year peak flowrate is 31.36 cfs. This overflow will safely pass the critical flow rate at 715.60. There is a 1.3-foot freeboard between the Village HWL at 714.70 and the top of the berm of the detention basin at 716.

3.5 Soil Erosion and Sediment Control

As shown in the engineering plan set, soil erosion and sediment control measures are proposed, including silt fence, seed and erosion control blanket, sod, inlet protection, and construction entrance. Since the site is tributary to a combined sewer, an IEPA NPDES permit is not required, but erosion control practices are in place as described above.

4. Conclusion

The proposed improvements at Olympic Indoor Swim Center were designed to conform with the requirements of both the Village of Arlington Heights and the MWRD. The attached plans, exhibits and calculations provide supporting documentation that the requirements of both agencies have been met.

This report prepared by:
Gewalt Hamilton Associates, Inc.

Monica Hue, P.E.I.
Staff Engineer

Walter E. Graft, P.E.
Senior Engineer

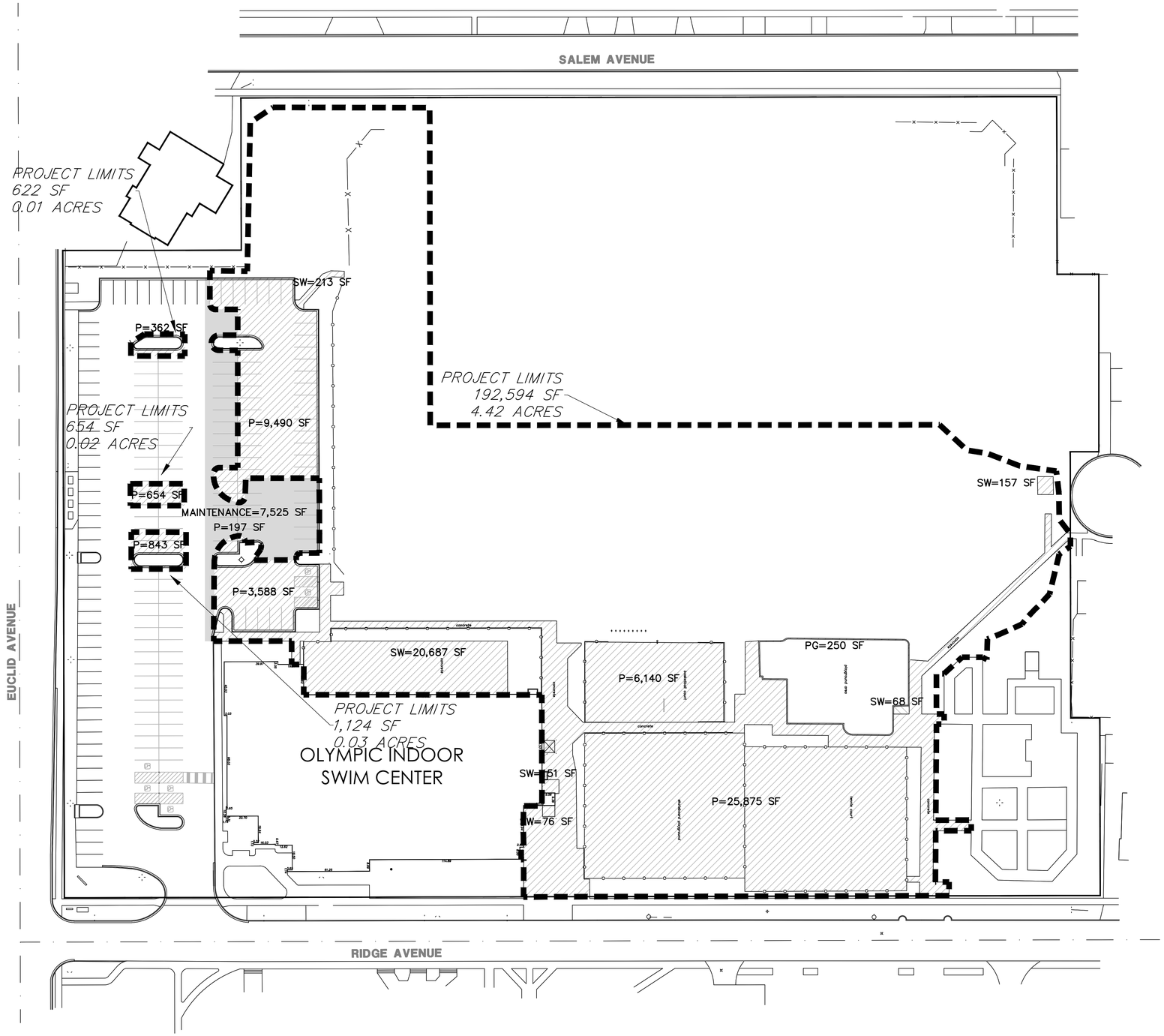
Exhibits:

Existing Impervious Exhibit
Proposed Impervious Exhibit
Drainage Exhibit

Appendices:

Appendix A – Detention Calculations from 2003-2004 Building Expansion Project
Appendix B - Village of Arlington Heights Detention Calculations
Appendix C – MWRD Detention Calculations
Appendix D – Detention Storage Calculation, Orifice Design, and Overflow Weir Calculations
Appendix E – Geotechnical Report

Exhibits



PROJECT AREA

TOTAL	195,014 SF 4.48 ACRES

EXISTING IMPERVIOUS AREA

TOTAL AREA	68,751 SF 1.58 ACRES

EXISTING PERVIOUS AREA

TOTAL	126,263 SF 2.90 ACRES

MAINTENANCE AREA

TOTAL	7525 SF 0.17 ACRES

LEGEND

- IMPERVIOUS AREA
- MAINTENANCE AREA

GRAPHIC SCALE

40 0 20 40

(IN FEET)
1 inch = 40 ft.

ISSUANCE

NO.	DATE	DESCRIPTION
00	01/08/18	PLAN COMMISSION REVIEW
01	02/09/18	PLAN COMMISSION REVIEW - REVISIONS

FGM ARCHITECTS
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625 Forest Edge Drive ■ Vernon Hills, IL 60061
TEL: 847-478-9700 ■ FAX: 847-478-9701
GHA JOB # 5313.000

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EXPIRATION DATE: 11/30/19

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PROFESSIONAL DESIGN FIRM
IL # 184-000350

OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT
660 Ridge Ave
Arlington Heights, IL 60004

EXISTING IMPERVIOUS

SHEET NO.
1

JOB NO. 17-2408.01

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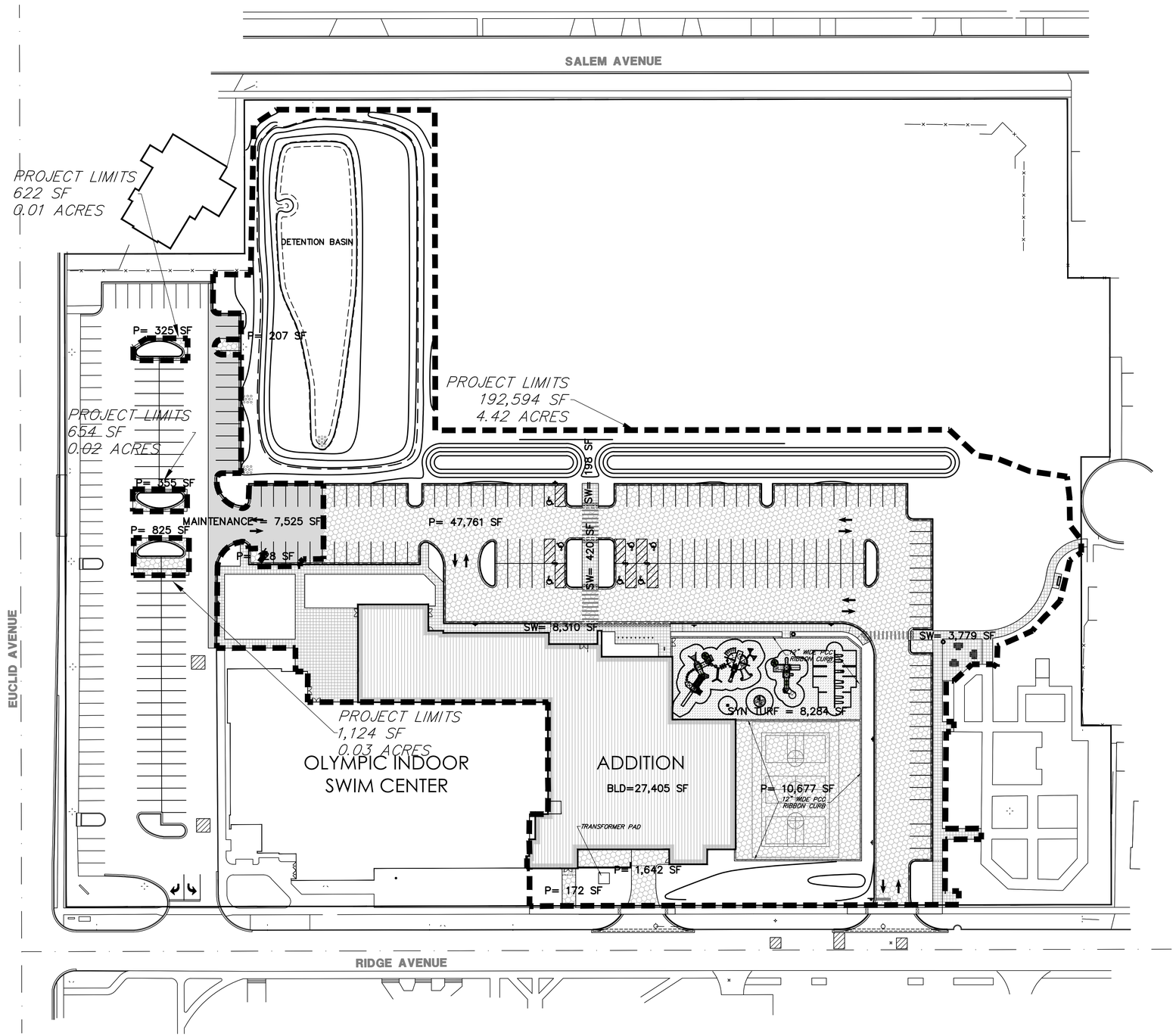

PROJECT AREA

TOTAL	195,014 SF 4.48 ACRES

EXISTING IMPERVIOUS AREA

TOTAL AREA	68,751 SF 1.58 ACRES

EXISTING PERVIOUS AREA

TOTAL	126,263 SF 2.90 ACRES

PROPOSED IMPERVIOUS AREA

BUILDING	27,405 SF
SIDEWALK	12,707 SF
PAVEMENT	62,092 SF
TOTAL AREA	102,204 SF 2.35 ACRES

PROPOSED SYNTHETIC TURF AREA

TOTAL	8,284 SF 0.19 ACRES

PROPOSED PERVIOUS AREA

TOTAL	84,526 SF 1.94 ACRES

MAINTENANCE AREA

TOTAL	7,525 SF 0.17 ACRES

LEGEND

- IMPERVIOUS BUILDING
- IMPERVIOUS PAVEMENT AREA
- IMPERVIOUS SIDEWALK AREA
- SYNTHETIC TURF
- MAINTENANCE AREA

N

GRAPHIC SCALE

40 0 20 40

(IN FEET)
1 inch = 40 ft.

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OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT

660 Ridge Ave.
Arlington Heights, IL 60004

PROPOSED IMPERVIOUS

SHEET NO.
2

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GRAPHIC SCALE

40 0 20 40

(IN FEET)
1 inch = 40 ft.

PROJECT AREA SUMMARY

EXISTING CONDITIONS	
PROJECT AREA	4.48 AC
IMPERVIOUS	1.58 AC
PERVIOUS	2.90 AC
VILLAGE COMPOSITE 'C'	0.66
MWRD COMPOSITE 'C'	0.61

PROPOSED CONDITIONS	
PROJECT AREA	4.48 AC
IMPERVIOUS	2.35 AC
SYNTHETIC TURF	0.19 AC
PERVIOUS	1.94 AC
VILLAGE COMPOSITE 'C'	0.75
MWRD COMPOSITE 'C'	0.70

MAINTENANCE AREA	
TOTAL	0.17 AC

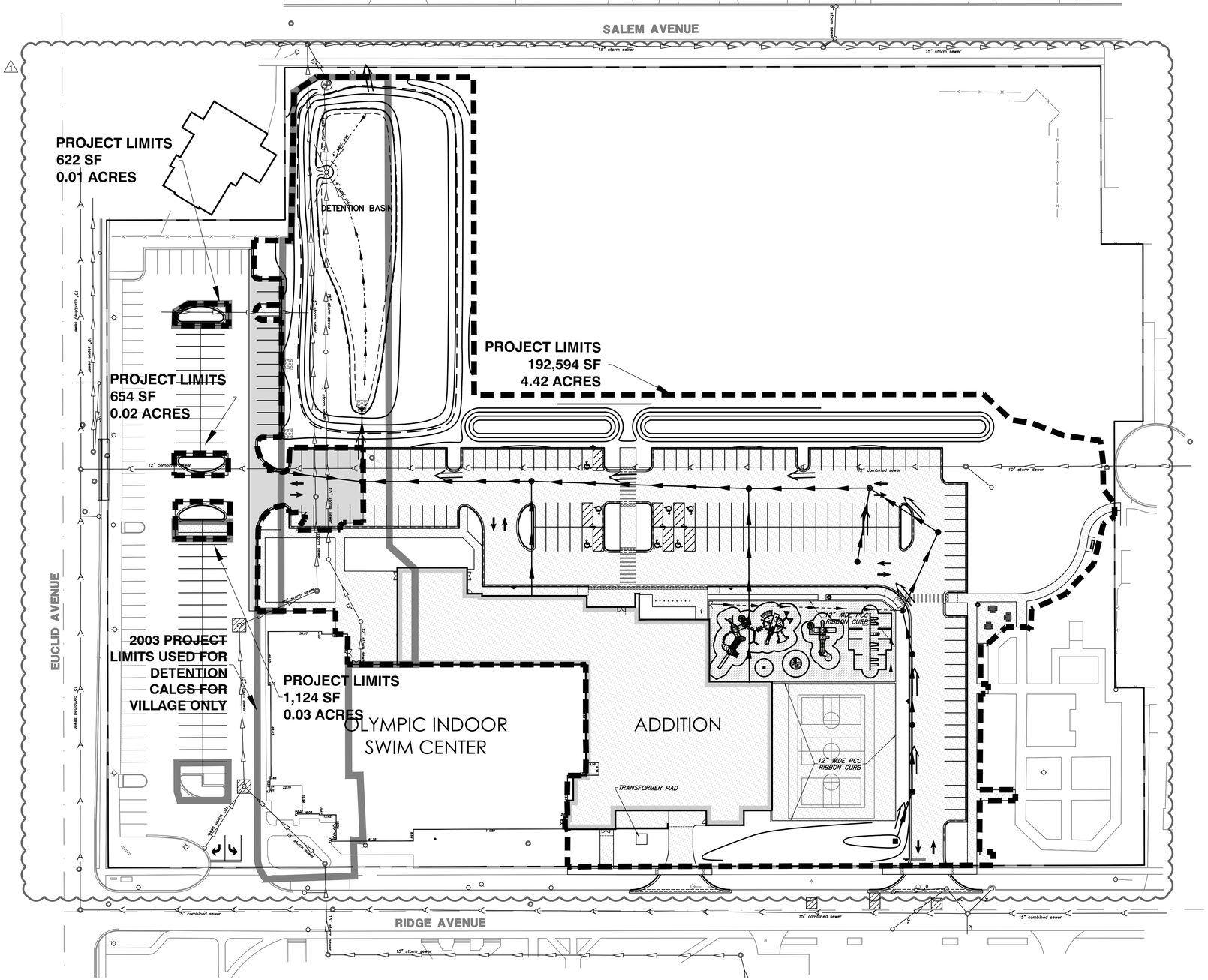
DETENTION SUMMARY

VILLAGE REQUIREMENTS	
COMBINED 2003 & 2018 PROJECT AREAS	4.90 AC
VILLAGE ALLOWABLE RELEASE RATE	0.18 CFS/AC
0.18 CFS/AC x 4.90 AC	0.88 CFS
TOTAL DETENTION REQUIRED	1.33 AC–FT
PROPOSED DETENTION PROVIDED IN DETENTION BASIN @ HWL = 714.70	1.34 AC–FT

MWRD REQUIREMENTS	
MWRD ALLOWABLE RELEASE RATE	0.30 CFS/AC
0.30 CFS/AC x 4.48 AC PROJECT AREA	1.34 CFS
TOTAL DETENTION VOLUME REQUIRED	1.02 AC–FT
PROPOSED DETENTION PROVIDED IN DETENTION BASIN @ HWL = 714.51	1.02 AC–FT
VOLUME CONTROL REQUIRED	0.20 AC–FT
VOLUME CONTROL PROVIDED IN DETENTION BASIN	0.21 AC–FT

LEGEND

- 2003 PROJECT LIMITS
- 2018 PROJECT LIMITS
- IMPERVIOUS AREA
- SYNTHETIC TURF
- PERVIOUS AREA
- MAINTENANCE AREA
- OVERLAND FLOW ROUTE



MAINTENANCE PLAN

Arlington Heights Park District shall assume responsibility for the following perpetual maintenance activities:

1. General

Regular inspections and routine maintenance of general areas shall be performed on a quarterly or as-needed basis. Specific items of concern include:

- Litter and debris shall be controlled
- Landscaped areas shall be maintained with regular mowing and restored with appropriate seeding/vegetation as necessary
- Accumulated sediment shall be disposed of properly, along with any wastes generated during maintenance operations
- Riprap areas shall be repaired with the addition of new riprap, as necessary, of similar size and shape
- Roads shall be swept, vacuumed and/or washed on a regular basis

2. Stormwater Management Facilities

All components of the stormwater management facilities shall be checked quarterly between March and November and maintained as necessary to ensure proper performance. It is critical that all inflows and outflows to the detention facility are clean and performing as designed. In addition, the design volume of the detention facility shall also be maintained. Inspections for the following specific items would be conducted quarterly between March and November.

Vegetated Areas

- Regular mowing to control vegetation, no cutting of native vegetation
- Need for planting, reseeding or sodding. Supplement alternative native vegetation if a significant portion has not established (50% of the surface area). Reseed with alternative grass species if original grass cover has not successfully established
- Evidence of grazing, motorbikes or other vehicles, repair
- Check for invasive vegetation, remove where possible
- All vegetation must be maintained per the approved planting plan

Outlet Control Structure

- Inspect restrictor and remove debris if clogged or discharge reduced
- Remove accumulated sediment at outlet
- Any ice damage to outlet of pipe, repair if necessary

Detention Volume

- Inspect all stormwater detention facilities to ensure that the constructed volume for detention is maintained. No sediment, topsoil, or other dumping into the facility shall be allowed. Specific locations in the stormwater management system, designed to accumulate sediment, shall be dredged as necessary to prevent sediment from reaching the invert of any gravity outlet pipe.

3. Volume Control Facility

Routine inspections and maintenance of volume control facilities shall be performed by the Owner on a yearly or as-needed basis. Specific items of concern include:

- Facility shall be inspected yearly to verify the system is functioning properly.

4. Stormwater Collection System

The Owner shall perform two inspections per year of all components of the stormwater collection system. The inspections shall occur in the spring and fall of each year and include the following specific areas of concern.

Storm Inlets/Manholes

- Remove accumulated leaves and other debris from grates
- Reset covers/lids on as-needed basis
- Remove accumulated sediment from manhole bottom when 50% of sump is filled

Storm Sewers

- Visually inspect pipes by removing manhole lids, make repairs as necessary
- Storm sewers shall be checked for siltation deposits at inlets, outlets, and within the conduit, clean out as necessary
- Restore riprap at outfalls

5. Vegetated Areas

- Need for planting, reseeding, or sodding. Supplement alternative native vegetation if a significant portion has not established (50% of the surface area after second growing season). Reseed with alternative native grass species if original grass cover has not successfully established.
- Evidence of grazing, motorbikes, or other vehicles, repair
- Check for invasive vegetation, remove when possible
- Regular mowing to control vegetation; it is recommended that native vegetation remain uncut
- Dead or damaged non-native grassy areas - repair with seeding with fertilization or seeding with mulch

6. Qualified Sewer Construction

- Perform manhole inspections once every five years, make repairs as necessary
- Perform sewer inspections once every five years, make repairs as necessary
- Perform regular cleaning so that each sewer segment is cleaned once every 5 years

ISSUANCE

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WALTER E. GRAEF 062-048837 LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

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PROFESSIONAL DESIGN FIRM IL # 184-000922

OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT

660 Ridge Ave
Arlington Heights, IL 60004

DRAINAGE EXHIBIT

SHEET NO.

C8

JOB NO. 17-2408.01

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Appendix A

Detention Calculations from 2003-2004 Building Expansion Project

OLYMPIC PARK | DETENTION CALC. | 8 OCT 02

2002-4319

DETENTION WILL BE PROVIDED FOR ALL NEW IMPERIOUS AND DISTURBED AREAS

RELEASE RATE 0.18 CFS/AC

C - IMPERVIOUS 0.95

C - PERVIOUS 0.50

USE BULLETIN 70 RAINFALL

NEW IMPERVIOUS AREA

BLDG	40 (57)	=	2280
	75 (55)	=	4125
	22 (33)	=	726
	22 (13)	=	286
DECK	25 (40)	=	1000
			8417 SF

NEW PAVING / WALK

26 (40)	1040
26 (12)	312
182 (62)	11284
- 9 (17)	- 153
22 (9)	207
58 (69)	4002
17 (16)	272
35 (8)	280
	17,244 SF

RECONSTRUCTED PAVEMENT

TO BASIN	31 (22)	682	
	10 (3)	30	
	20 (152)	3040	
	20 (60)	800	4,552 SF
	32 (20)	640	
	30 (131)	3930	
	55 (30)	1650	
	44 (38)	1672	
	25 (13)	325	8,217 SF

NORMAN J. TOBERMAN
19325
REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

EXPIRES 11/30/03

OLYMPIC PARK | DETENTION CALC. | OCT. 8, 2002

2002-1319

EXISTING BLDG (TO DRAIN TO DETENTION BASIN (ZONE 5)

109 (8)	=	872
82 (12)	=	984
126 (122)	=	15372
9 (42)	=	378
		17,606 □'SF

DETERMINE REQUIRED DETENTION BASED ON NEW IMPERVIOUS AREA

BLDG / DECK	3417
NEW PAVING / WALK	17,244
RECONST. PAVT	4552
	39213 SF

GRASS	110 (73)	=	8030
	25 (25)	=	625
	5 (180)	=	900
	20 (8)	=	160
	70 (9)	=	630
	100 (16)	=	1600
			11,945 SF

TOTAL BASIN (NEW)	30,213	=	0.694 AC	IMP
	11,945	=	0.274 AC	GRASS
	42158 □'	=	0.968 AC	

$$C = \frac{\overset{0.659}{0.694(0.95)} + \overset{0.137}{0.274(0.50)}}{0.968} = \frac{0.796}{0.968} = 0.823$$

OLYMPIC PARK | DETENTION CALC. | OCT. 8, 2002

2002-4319

(3 of 5)

DETENTION (REQUIRED)

T	I_{100}	× 0.823	−0.18	× T
30	5.60	3.79	3.61	1.80
40	4.50	3.70	3.52	2.35
50	4.08	3.36	3.18	2.65
1	3.56	2.93	2.75	2.75
1.5	2.76	2.27	2.09	3.15
2	2.24	1.84	1.66	3.32
3	1.60	1.32	1.14	3.42
4	1.30	1.07	0.89	3.56
5	1.10	0.91	0.73	3.65
6	0.97	0.80	0.62	3.72 ← PEAK
7	0.86	0.71	0.53	3.71
8	0.78	0.64	0.46	3.68

DETENTION (REQ'D) = $3.72 \frac{0.968}{12}$ = **0.3000 AC-FT**

= **13,071** CF

STAEDTLER® No. 937 611E Engineer's Computation Pad

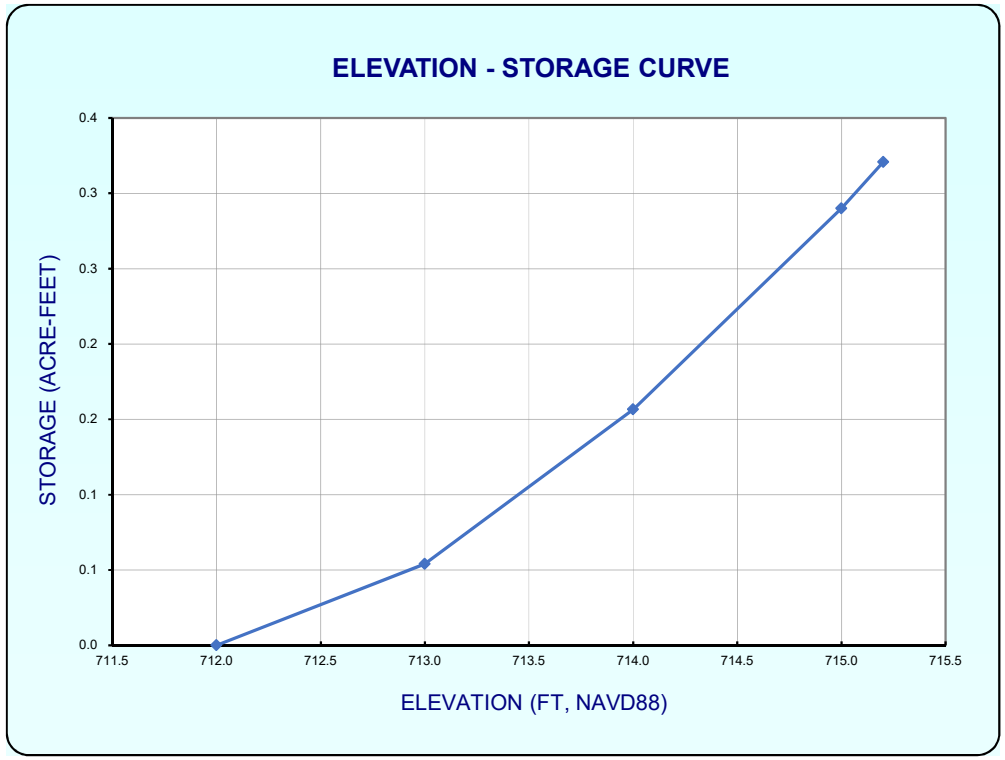
GEWALT HAMILTON ASSOCIATES, INC.

Project Name: AHPD Olympic Swim
GHA Project #: 5313.100

Calculated by: THP
Checked by:

Detention Storage Calculations - Existing

Elevation (ft)	Area (ft^2)	Area (ac)	Average Area (ac)	Incremental Storage (ac-ft)	Cummulative Storage (ac-ft)
712.00	885	0.020			0.00
			0.054	0.05	
713.00	3,826	0.088			0.05
			0.103	0.10	
714.00	5,113	0.117			0.16
			0.133	0.13	
715.00	6,511	0.149			0.29
			0.153	0.03	
715.20	6,859	0.157			0.32



	Elevation (ft, NAVD88)	Storage (ac-ft)
Detention	712.00	0.00
	713.00	0.05
	714.00	0.16
	715.00	0.29
	715.20	0.32

Appendix B

Village of Arlington Heights Detention Calculations

GEWALT HAMILTON ASSOCIATES, INC.
DETENTION CALCULATIONS

Village Required Volume - EXISTING CONDITION

AHPD Olympic Swim
Arlington Heights, IL

Criteria Modified Rational Method Using Village's Allowabe Release (0.18 cfs/ac)
100 year Rainfall Intensity Source: ISWS State Bulletin 70

DESCRIPTION	User Input		Program Output	
BASIN AREA	**4.90**	ACRES		
ALLOWABLE RELEASE			0.88	CFS
AREA @ 0.50	2.98	ACRES		
AREA @ 0.75	0.00	ACRES		
AREA @ 0.95	1.92	ACRES		
AREA @ 1.00	0.00	ACRES		
DEV. C FACTOR			0.68	FACTOR

TIME (HR.)	100 YR RATE (IN./HR.)	FLOW IN (CFS)	STORAGE RATE (CFS)	STORAGE VOLUME (AC-FT.)
0.17	10.02	33.183	32.302	0.458
0.33	7.30	24.175	23.294	0.641
0.5	5.60	18.545	17.664	0.736
0.67	4.65	15.399	14.518	0.811
0.83	4.00	13.247	12.365	0.855
1	3.56	11.790	10.908	0.909
1.5	2.70	8.942	8.060	1.008
2	2.24	7.418	6.537	1.089
3	1.62	5.365	4.483	1.121
4	1.30	4.305	3.424	1.141
5	1.10	3.643	2.761	1.151
6	0.95	3.146	2.265	1.132
7	0.84	2.782	1.900	1.109
8	0.76	2.517	1.635	1.090
9	0.69	2.285	1.404	1.053
10	0.64	2.119	1.238	1.032
11	0.60	1.987	1.106	1.013
12	0.55	1.821	0.940	0.940
13	0.51	1.689	0.808	0.875
14	0.48	1.590	0.708	0.826
15	0.45	1.490	0.609	0.761
16	0.43	1.424	0.543	0.723
17	0.41	1.358	0.476	0.675
18	0.39	1.292	0.410	0.615
19	0.38	1.258	0.377	0.597
20	0.36	1.192	0.311	0.518
21	0.35	1.159	0.278	0.486
22	0.34	1.126	0.245	0.448
23	0.33	1.093	0.211	0.405
24	0.32	1.060	0.178	0.357

MAXIMUM DETENTION VOLUME **1.151 AC-FT**
50120 CF

GEWALT HAMILTON ASSOCIATES, INC.
DETENTION CALCULATIONS

Village Required Volume - PROPOSED CONDITION

AHPD Olympic Swim
Arlington Heights, IL

Criteria Modified Rational Method Using Village's Allowabe Release (0.18 cfs/ac)
100 year Rainfall Intensity Source: ISWS State Bulletin 70

DESCRIPTION	User Input		Program Output	
BASIN AREA	**4.90**	ACRES		
ALLOWABLE RELEASE			0.88	CFS
AREA @ 0.50	2.02	ACRES		
AREA @ 0.75	0.19	ACRES		
AREA @ 0.95	2.69	ACRES		
AREA @ 1.00	0.00	ACRES		
DEV. C FACTOR			0.76	FACTOR

TIME (HR.)	100 YR RATE (IN./HR.)	FLOW IN (CFS)	STORAGE RATE (CFS)	STORAGE VOLUME (AC-FT.)
0.17	10.02	37.155	36.274	0.514
0.33	7.30	27.069	26.188	0.720
0.5	5.60	20.766	19.884	0.829
0.67	4.65	17.243	16.361	0.914
0.83	4.00	14.833	13.951	0.965
1	3.56	13.201	12.320	1.027
1.5	2.70	10.012	9.131	1.141
2	2.24	8.306	7.425	1.237
3	1.62	6.007	5.126	1.281
4	1.30	4.821	3.939	1.313
5	1.10	4.079	3.198	1.332
6	0.95	3.523	2.641	1.321
7	0.84	3.115	2.233	1.303
8	0.76	2.818	1.937	1.291
9	0.69	2.559	1.677	1.258
10	0.64	2.373	1.492	1.243
11	0.60	2.225	1.343	1.231
12	0.55	2.039	1.158	1.158
13	0.51	1.891	1.010	1.094
14	0.48	1.780	0.898	1.048
15	0.45	1.669	0.787	0.984
16	0.43	1.594	0.713	0.951
17	0.41	1.520	0.639	0.905
18	0.39	1.446	0.565	0.847
19	0.38	1.409	0.528	0.835
20	0.36	1.335	0.453	0.756
21	0.35	1.298	0.416	0.729
22	0.34	1.261	0.379	0.695
23	0.33	1.224	0.342	0.656
24	0.32	1.187	0.305	0.610

MAXIMUM DETENTION VOLUME **1.332 AC-FT**
58035 CF

Appendix C

MWRD Detention Calculations

GEWALT HAMILTON ASSOCIATES, INC.

Project Name: AHPD Olympic Swim
GHA Project #: 5313.100

Calculated by: MXH
Checked by:

Runoff Curve Number

Circle One: Present (Developed) Description: **Project Area**

Soil Name and Hydrologic Group	Cover Description	Curve Number	Area [X] acres [ ] sq. mi. [ ] %	Product of Curve Number and Area
D	Pervious Area - Grass	80	1.62	129.60
D	Impervious Area	98	2.35	230.30
D	Synthetic Turf	91	0.19	17.31
D	Native Plantings	77	0.32	24.64
		Totals =	4.48	401.85

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{402}{4.48} = \underline{90}$$

Use CN = **90**

GEWALT HAMILTON ASSOCIATES, INC.

Project Name:
GHA Project #:

Calculated by: MXH
Checked by:

RUNOFF CURVE NUMBER ADJUSTMENT CALCULATOR

Site Information:

Total Site Area, A_w (ac) =	4.48	**Total Impervious Area, A_I (ac) =**	2.35
Runoff, R (in) =	6.36		
P = rainfall depth (in) =	7.58		
CN =	89.69		
S =	1.15		
Runoff Volume Over Watershed, V_w (ac-ft) =	**2.37**		

Volume of GI Provided:

Volume Control Storage, V_R =	**0.20**	**ac-ft**	1" of volume over impervious area
Additional Volume, V_{GI} =	**0.01**	**ac-ft**	Additional volume over the required 1"

Adjusted Volume Over Watershed, $V_{ADJ} = V_W - V_R - V_{GI}$

V_{ADJ} (ac-ft) = **2.17**

Adjusted Runoff Over Watershed, $R_{ADJ} = \frac{V_{ADJ}}{A_W}$

R_{ADJ} (in) = **5.81**

S_{ADJ}= **1.76**

Adjusted CN for detention calcs, CN_{ADJ} = **85.01**

*Blue values are entered by user

GEWALT HAMILTON ASSOCIATES, INC.

Project Name: East Leyden HS Improvements
GHA Project #: 5201.050

Calculated by: MXH
Checked by:

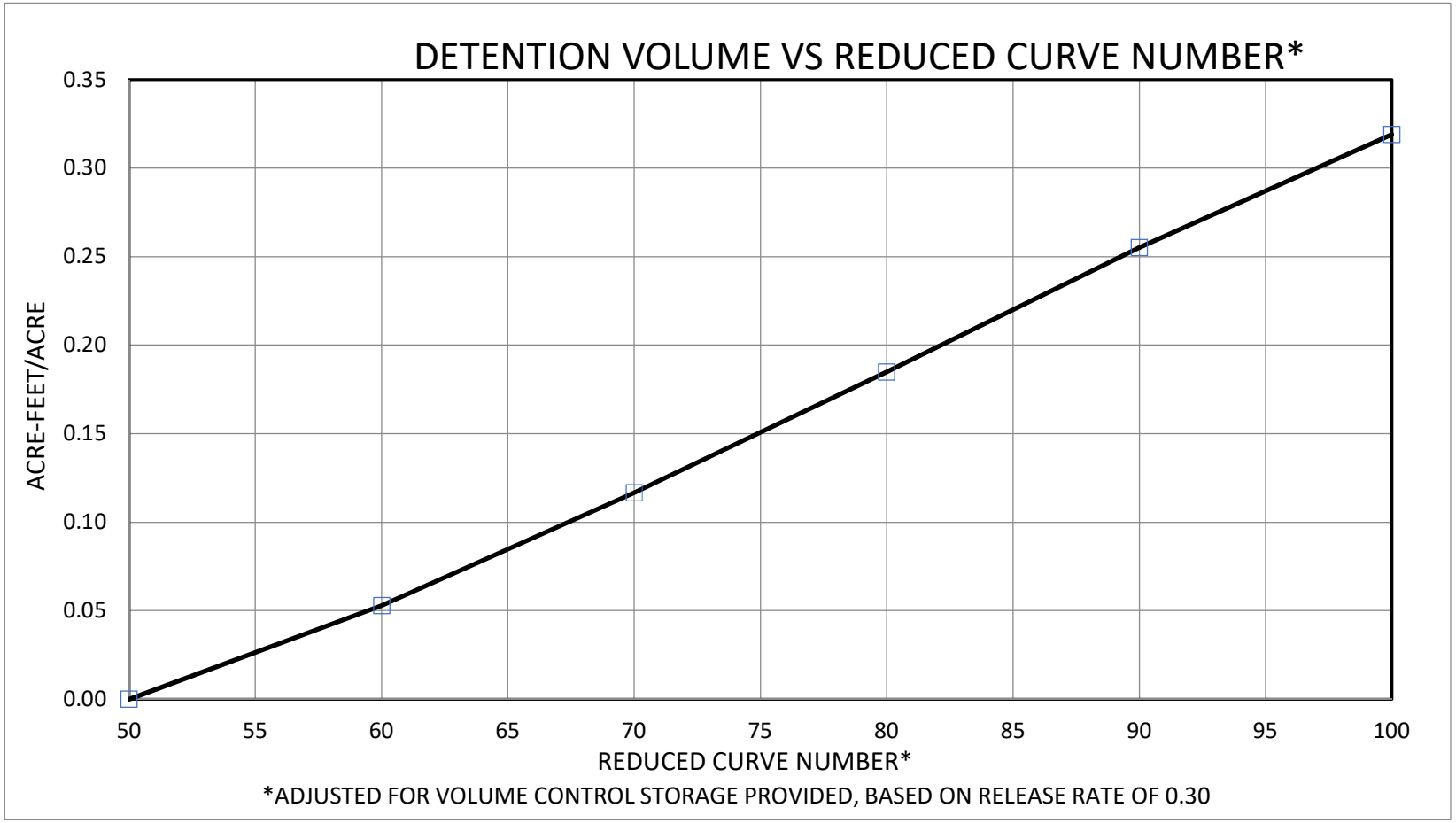
Detention Volume Vs Reduced Curve Number

Enter Site Area: 4.48 acres

* Blue Values are entered by user

Enter Reduced Curve Number for Site: 85.01

Estimated Required Detention Volume: **1.02** acre-feet



Appendix D

Detention Storage Calculation, Orifice Design, and Overflow Weir Calculations

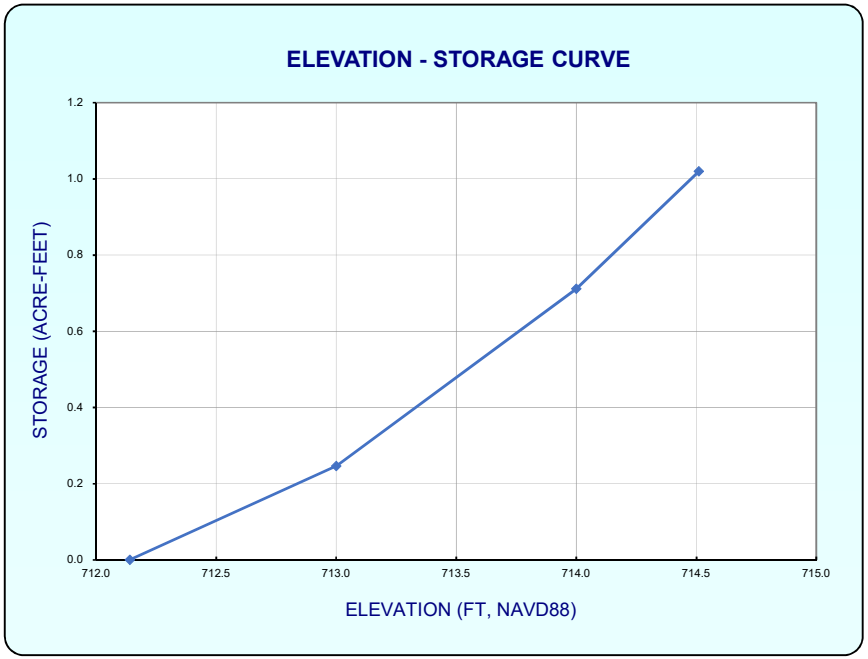
GEWALT HAMILTON ASSOCIATES, INC.

Project Name: AHPD Olympic Swim
GHA Project #: 5313.100

Calculated by: MXH
Checked by:

Detention Storage Calculations - Proposed

Elevation (ft)	Area (ft^2)	Area (ac)	Average Area (ac)	Incremental Storage (ac-ft)	Cummulative Storage (ac-ft)
711.14	7,888	0.181			0.00
			0.202	0.17	
712.00	9,702	0.223			0.17
			0.226	0.03	
712.14	9,972	0.229			0.21
			0.287	0.25	
713.00	15,000	0.344			0.45
			0.465	0.46	
714.00	25,500	0.585			0.92
			0.604	0.31	
714.51	27,147	0.623			1.22
			0.630	0.12	
714.70	27,761	0.637			1.34
	at 715		0.648	0.19	
715.00	28,730	0.660			1.54



	Elevation (ft, NAVD88)	Storage (ac-ft)	
Volume Control Provided for MWRD	711.14	0.00	
	712.00	0.17	
	712.14	0.21	
Detention Provided for MWRD	712.14	0.00	
	713.00	0.25	
	714.00	0.71	
	714.51	1.02	100-year HWL
Detention Provided for Village	711.14	0.00	
	712.00	0.17	
	712.14	0.21	
	713.00	0.45	
	714.00	0.92	
	714.51	1.22	
	714.70	1.34	100-year HWL

THEORETICAL RESTRICTOR DESIGN - VILLAGE

AHPD Olympic Swim
February 6, 2018

Criteria DESIGN AN ORIFICE AS A RESTRICTOR
MWRD BASED C'd FACTORS

	User Input	Program Output		
HI WATER ELEV	**714.68**	FEET		
INVERT/LWL	**709.13**	FEET		
C'd SEE BELOW	**0.61**	FACTOR		
RESTRICT. DIA	**3.76**	INCHES		
Q ALLOWABLE			0.88	CFS FOR SITE
SYSTEM HEAD			5.39	VERTICAL FEET
ORIFICE AREA			0.077	SQ. FT.
			11.147	SQ. IN.
ORIFICE DIA.			3.767	IN. DIA.
SELECTED DIAMETER	3.76	IN. DIA.		
ACTUAL RELEASE	0.88	CFS RELEASE		

FACTORS FOR C'd RELEASE RATES
BASED ON MWRD CRITERIA
Q = C'd * A * (64.4 * Head)^0.5

Square Edged	0.79-0.82
Round Edged	0.93-0.98
Sharp Edged	0.58-0.64
Projecting Edge	0.52

THEORETICAL RESTRICTOR DESIGN - MWRD

AHPD Olympic Swim
February 6, 2018

Criteria DESIGN AN ORIFICE AS A RESTRICTOR
MWRD BASED C'd FACTORS

	User Input	Program Output	
HI WATER ELEV	**714.51**	FEET	
INVERT/LWL	**709.13**	FEET	
C'd SEE BELOW	**0.61**	FACTOR	
RESTRICT. DIA	**4.69**	INCHES	
Q ALLOWABLE		1.34	CFS FOR SITE
SYSTEM HEAD		5.18	VERTICAL FEET
ORIFICE AREA		0.120	SQ. FT.
		17.312	SQ. IN.
ORIFICE DIA.		4.695	IN. DIA.
SELECTED DIAMETER	4.69	IN. DIA.	
ACTUAL RELEASE	1.34	CFS RELEASE	

FACTORS FOR C'd RELEASE RATES
BASED ON MWRD CRITERIA
Q = C'd * A * (64.4 * Head)^0.5

Square Edged	0.79-0.82
Round Edged	0.93-0.98
Sharp Edged	0.58-0.64
Projecting Edge	0.52

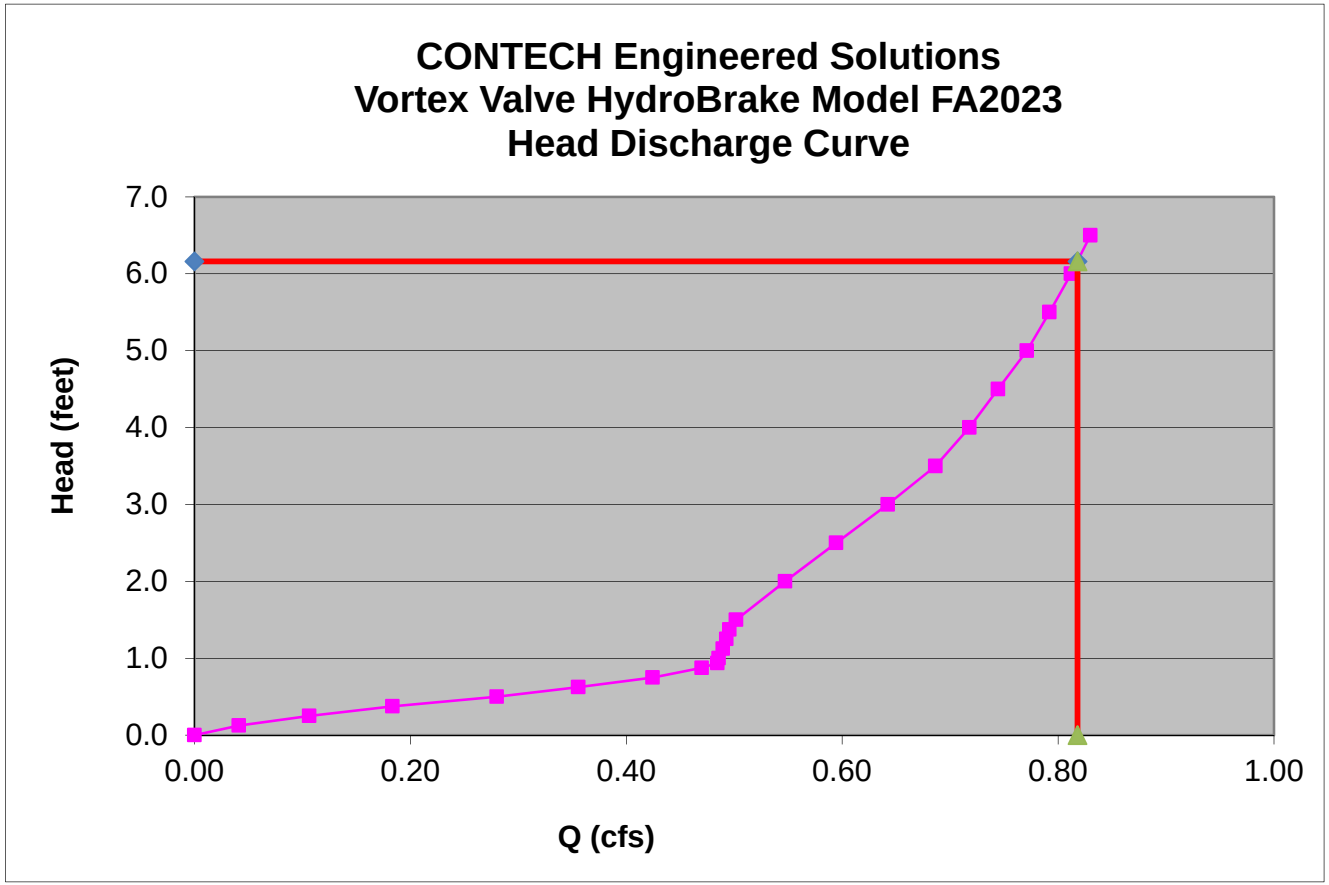
CONTECH ENGINEERED SOLUTIONS

Vortex Valve FA2023 with 7" Opening

Head (ft)	Flow (cfs)
0	0.000
0.125	0.041
0.25	0.106
0.375	0.183
0.5	0.280
0.625	0.356
0.75	0.424
0.875	0.470
0.9375	0.484
1	0.486
1.125	0.489
1.25	0.493
1.375	0.496
1.5	0.502
2	0.547
2.5	0.594
3	0.642
3.5	0.686
4	0.718
4.5	0.744
5	0.771
5.5	0.792
6	0.812
6.5	0.830

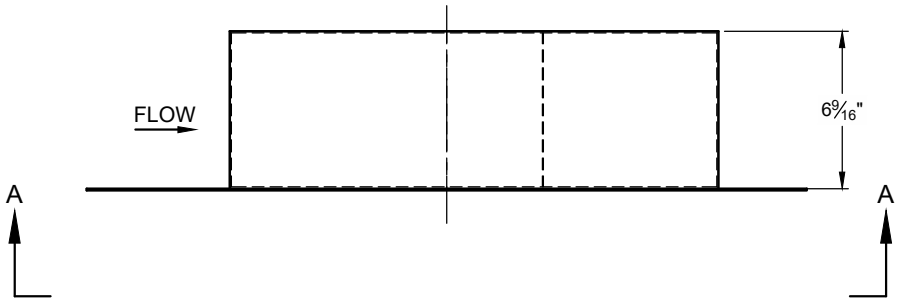
Village:
Allowable release = 0.88 cfs
Head = 714.70 (HWL) - 709.13 (restrictor invert) = 5.57'
Actual Q = 0.795 cfs

MWRD:
Allowable release = 1.34 cfs
Head = 714.51 (HWL) - 709.13 (restrictor invert) = 5.38'
Actual Q = 0.787 cfs

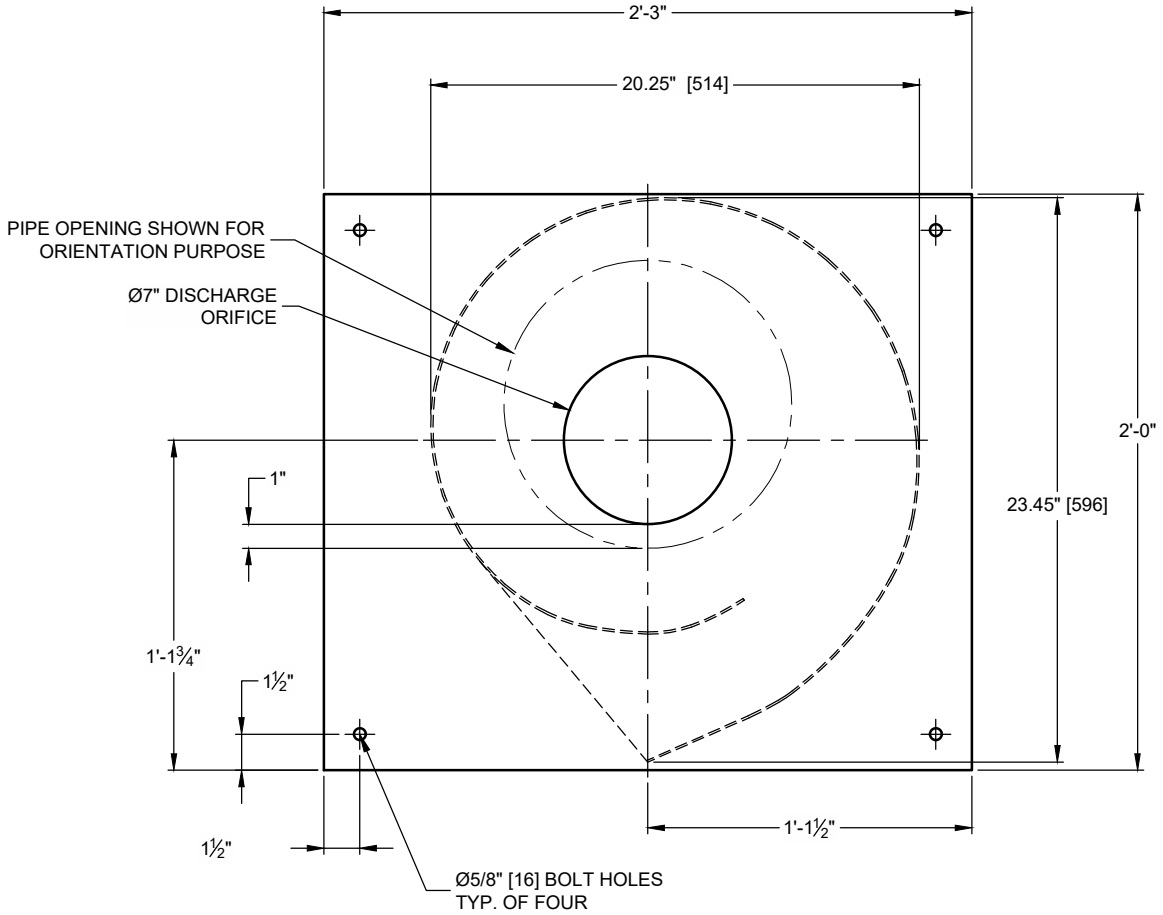


NOTES

1. ALL WELDS CONTINUOUS, UNLESS OTHERWISE NOTED
2. MATERIALS:
   - 1/8" ALUMINUM 5052
   - (1) 5/8" AND (1) 9/16" BUNA N, 50 DUROMETER O-RINGS



TOP VIEW



REAR VIEW

This CADD file is for the purpose of specifying stormwater flow control equipment to be furnished by Contech Engineered Solutions LLC and may only be transferred to other documents exactly as provided by Contech Engineered Solutions LLC. Title block information, **excluding** the Contech Engineered Solutions LLC logo and the Fluidic-Amp or Fluidic-Cone designation and patent number, may be deleted if necessary. Revisions to any part of this CADD file without prior coordination with Contech Engineered Solutions LLC shall be considered unauthorized use of proprietary information.

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FABRICATION DRAWING FOR FLUIDIC-AMP VORTEX VALVE
MODEL FA2023 WITH PLATE ATTACHMENT
ARLINGTON HEIGHTS SWIM CENTER
ARLINGTON HEIGHTS, IL

DATE: 2/7/2018	SCALE: 1 1/2"= 1'-0"	FILE NAME: FA2023-FAB-PANDS	DRAWN: DRA	CHECKED: ----

C:\USERS\DADAMS\ONEDRIVE - CONTECH ENGINEERED SOLUTIONS\CONTECH STORMWATER SOLUTIONS\PRODUCTS\VORTEX VALVE HYDROBRAKE\DRAWINGS\FA2023-FAB-PANDS.DWG 2/7/2018 2:49 PM

Overflow Weir Calculations

AHPD Olympic Swim
Project No. 5313.100
Date: 2-6-18

Design Requirements / Assumptions
100 year storm frequency

Overflow Weir West of Detention Basin

Tributary Area		4.82	Acres
Runoff Coefficient		0.76	
Time of Concentration		14	min.
100 year rainfall intensity		8.56	in/hr
100 yr peak inflow	Q=CiA	**31.36**	**cfs**
Weir bottom elevation		715.20	ft
Weir top elevation		715.60	ft
Length of bottom of weir (at elev.715.2)		40.0	ft
Length of top of weir (at elev.715.6)		46.0	ft
Weir coefficient	(C)	3.0	
Head over weir	(H)	0.40	ft
Area	(A)	17.20	ft^2
Discharge $Q = CAH^{1/2}$		**32.6**	**cfs**

Appendix E

Geotechnical Report

SOIL AND MATERIAL CONSULTANTS, INC.

Office: 847-870-0544
Fax: 847-870-0661
us@soilandmaterialconsultants.com
www.soilandmaterialconsultants.com

December 29, 2017
File No. 23694

Benjamin Rea
Arlington Heights Park District
401 North Arlington Heights Road
Arlington Heights, IL, 60004

Re: Geotechnical Investigation
Olympic Indoor Swim Center
Addition & Renovation
Arlington Heights, IL

Dear Mr. Rea:

The following is our report of findings for the geotechnical investigation completed for Olympic Indoor Swim Center Addition and Renovation in the Village of Arlington Heights, Illinois.

The investigation was requested to determine current subsurface soil and water conditions at select boring locations. The findings of the field investigation and the results of laboratory testing are intended to assist in the planning, design and construction of proposed site improvements.

PROPOSED IMPROVEMENTS

We understand it is proposed to construct a new addition to the north and west sides of the existing building. The addition is expected to be supported on shallow depth foundations and include two full length basketball courts, locker rooms, multi-purpose rooms, and a warm pool. The interior is expected to have at-grade slabs supported on prepared subgrade soils. Improvements exterior to the building are expected to include a new parking lot, sidewalks, extension of the existing detention pond, and related underground improvements.

SCOPE OF THE INVESTIGATION

The field investigation included obtaining 21 borings at the locations requested and as indicated on the enclosed location sketch. The boring locations were established using field taping methods and accuracy. Surface elevations were determined using the data presented on the topographic survey rounded to the nearest 0.5 ft.

We auger drilled the 15 structure and 2 detention area borings to depths of 15 feet to 25 feet below existing surface elevations. Soil samples were obtained using a split barrel sampler advanced utilizing an automatic SPT hammer. The 4 pavement area borings were drilled and sampled in a similar manner to depths of 15 feet. Soil profiles were determined in the field and soil samples returned to our laboratory for additional testing including determination of moisture content. Cohesive soils obtained by split barrel sampling were tested further to determine dry unit weight and unconfined compressive strength.

The results of all field determinations and laboratory testing are included in summary with this report.

RESULTS OF THE INVESTIGATION

Enclosed are boring logs indicating the soil conditions encountered at each location. Site surface conditions include the existing building, pavement materials, vegetation, topsoil and fill soil conditions. The topsoil is classified as dark brown to black silt/clay mixtures with traces of roots usually present.

Fill soil conditions were encountered at borings D-1, D-2, P-1, P-4, B-1, B-3, B-5, B-7, B-8, B-9, B-10, B-11, B-12, B-13, B-14, and B-15. Composition of the fill includes the presence of silt/clay, clay/silt, sand/silt, pea gravel, and topsoil mixtures extending to depths of 3.0 feet to 13.5 feet at these boring locations. The limits of fill placement were not determined within the scope of this investigation. Larger debris may also be present within the fill but was not encountered during the investigation. The fill soil conditions are found to overlie the apparent natural topsoil at boring B-7 and reached a depth of 3.5 feet. The deep fill encountered at borings B-8, B-9, B-10, B-12, and B-15 is likely the result of existing foundation wall backfill.

Underlying natural soil conditions consist primarily of cohesive soils. These are classified as soft to very hard clay/silt mixtures with lesser portions of sand and gravel. Portions of these soils are sometimes high in moisture content with values in excess of 24% determined.

Thinner layers of non-cohesive soils were also encountered as indicated. These include very loose to medium dense silt/clay, sand, sand/silt, and silt mixtures often found in a very damp to saturated condition. Cobbles and boulders may be present within the site soils at any elevation, although none were encountered while drilling.

The following table summarizes depth ranges below existing grade, the magnitude of soil strength within these ranges and other information:

Boring	Surface Elevation (feet)	Depth Range Below Existing Surface (feet)	Soil Strength (lbs./sq.ft.)	Recorded Water Levels, W.D./A.D. (feet)
Proposed Addition Area				
B-1	716.5	2.0 to 6.5	*500	4.0 / Dry
		6.5 to 9.0	3,000	
		9.0 to 12.0	4,000	
B-2	717.0	2.0 to 6.5	*NONE	6.0 / 6.0
		6.5 to 9.0	*500	
		9.0 to 12.0	4,000	
B-3	716.5	1.5 to 4.0	*3,000	8.5 / 13.5
		4.0 to 12.0	4,000	
B-4	717.0	2.0 to 4.0	3,000	Dry / Dry
		4.0 to 9.0	8,000	
		9.0 to 12.0	5,000	
B-5	717.0	1.5 to 3.5	*NONE	Dry / Dry
		3.5 to 8.5	3,000	
		8.5 to 12.0	5,000	
B-6	717.0	2.0 to 3.5	*NONE	7.0 / 9.5
		3.5 to 9.0	*500	
		9.0 to 12.0	3,000	
B-7	716.5	1.5 to 4.0	*NONE	9.0 / Dry
		4.0 to 4.5	1,500	
		4.5 to 11.0	*500	
		11.0 to 12.0	5,000	
B-8	717.5	2.0 to 7.5	*500	Dry / Dry
		7.5 to 12.0	8,000	
B-9	717.5	2.0 to 13.5	*1,000	Dry / Dry
		13.5 to 17.0	5,000	
B-10	717.5	1.5 to 4.0	*1,000	9.0 / Dry
		4.0 to 11.5	*500	
		11.5 to 13.5	3,000	
		13.5 to 15.5	4,000	
		15.5 to 22.0	3,000	

Boring	Surface Elevation (feet)	Depth Range Below Existing Surface (feet)	Soil Strength (lbs./sq.ft.)	Recorded Water Levels, W.D./A.D. (feet)
B-11	717.0	2.0 to 7.0	*1,000	Dry / Dry
		7.0 to 9.0	4,000	
		9.0 to 22.0	3,000	
B-12	718.0	0.5 to 3.0	*1,000	Dry / Dry
		3.0 to 8.5	*500	
		8.5 to 22.0	6,000	
B-13	716.0	2.0 to 4.0	*3,000	22.0 / 22.0
		4.0 to 8.5	3,000	
		8.5 to 18.0	6,000	
		18.0 to 22.0	4,000	
B-14	716.0	2.0 to 3.0	*3,000	Dry / Dry
		3.0 to 8.5	*1,000	
		8.5 to 16.0	6,000	
		16.0 to 22.0	4,000	
B-15	718.0	0.5 to 14.0	*500	13.0 / Dry
		14.0 to 22.0	4,000	
Pavement Areas				
P-1	717.0	1.5 to 4.5	*2,000	Dry / Dry
		4.5 to 6.5	4,000	
		6.5 to 9.0	8,000	
		9.0 to 12.0	5,000	
P-2	716.5	2.0 to 7.0	3,000	Dry / Dry
		7.0 to 9.0	8,000	
		9.0 to 12.0	5,000	
P-3		2.0 to 4.0	6,000	Dry / Dry
		4.0 to 8.5	8,000	
		8.5 to 12.0	4,000	
P-4	716.0	2.0 to 4.5	*3,000	Dry / Dry
		4.5 to 9.5	4,000	
		9.5 to 12.0	6,000	

* Not recommended for support of foundations.

It is expected that foundations can be supported on undisturbed natural soils located at any elevation within the depth ranges indicated in the above table, except as noted. Above these depth ranges the soils are not considered able to support foundations, even at reduced design bearing values, due to long-term settlement considerations.

SUBSURFACE WATER

The boring logs and the above table indicate the depth at which subsurface water was encountered in the bore holes at the time of the drilling operations and during the period of these readings. It is expected that fluctuations from the water levels recorded will occur over a period of time due to variations in rainfall, temperature, subsurface soil conditions, soil permeability and other factors not evident at the time of the water level measurements.

The levels recorded at borings D-1, B-1, B-2, B-3, B-6, B-7, B-10, and B-15 indicate a perched water condition. Perched water is primarily surface precipitation falling on this site or adjacent properties and which becomes trapped in pervious soil that is underlaid by relatively impervious soil. This water often flows laterally along a path of least resistance such as non-cohesive soil strata or other permeable medium. This water will also drain from the embankments of open excavations. The actual ground water condition is expected to be present in well defined granular soil layers located at deeper elevations.

BUILDING PAD

Prior to foundation excavation, a building pad should be constructed to provide adequate support of the floor slabs. The building pad construction should consist of removing unsuitable surface conditions including pavement materials, unsuitable fill, vegetation, topsoil, significant debris, weak or unstable soils, and other deleterious conditions which may be encountered. Exposed subgrade soils should be leveled, compacted and proof-rolled in the presence of the Soil Engineer. Proof-rolling may reveal remaining areas of weak and unstable soil conditions requiring additional removal.

The below table shows anticipated removal elevations prior to fill placement for support of the floor slabs. The exact removal depths should be determined in the field by the soil engineer.

Location	Existing Elevation (ft.)	Estimated Removal Elevation (ft.)	Estimated Depth of Removal (ft.)
B-1	716.5	715.0	1.5
B-2	717.0	710.5	6.5
B-3	716.5	715.5	1.0
B-4	717.0	715.0	2.0
B-5	717.0	713.5	3.5
B-6	717.0	713.5	3.5
B-7	716.5	715.0	1.5
B-8	717.5	716.5	1.0
B-9	717.5	716.5	1.0
B-10	717.5	716.0	1.5
B-11	717.0	715.0	2.0
B-12	718.0	717.5	0.5
B-13	716.0	714.5	1.5
B-14	716.0	715.0	1.0
B-15	718.0	717.5	0.5

Structural fill would then be placed on the prepared subgrade and in lifts not to exceed 8.0 inches when uncompacted. Each lift should exceed the minimum compaction requirement prior to placement of the next lift. We recommend a minimum of 95% compaction based on the modified proctor test, ASTM D-1557. If high soil moisture content prevents achieving minimum compaction requirements then it will be necessary to disc and aerate the soil.

FOUNDATIONS

Foundation excavation can begin following completion of the building pad. Based on the results of this investigation, it is our opinion that continuous and isolated footing foundations may be considered for support of building loads. These foundations can be supported on structural fill and/or undisturbed natural soils located below all topsoil, debris, unsuitable fill soils, low strength soils and other unsuitable conditions which may be encountered. Soil strength values and the depths at which they are expected to be encountered at these boring locations are indicated in the above table. A net allowable bearing value of 3,000 lbs./sq.ft. is available for design. This value can be used to size foundations for support of structure dead and live loads.

We understand the entire building will be supported on shallow depth foundations. Weak soil conditions should be anticipated at design foundation elevations and will require removal of the weak soil followed by replacement with properly compacted coarse crushed granular fill (CA01). When removal is approved by the Soil Engineer, the removal of the weak soil should also extend beyond the face of footings and/or piers to a distance at least equal to the depth of fill that will be present beneath the footings and/or piers. A capping layer of finer crushed granular fill (CA06) can be utilized to establish a working surface.

The following table contains estimated undercut depths at each boring location based on the assumed bottom of footing elevation of 714.0 feet.

Location	Existing Elevation (ft.)	Estimated Foundation Depth (ft.)	Estimated Depth of Suitable Soils (ft.)	Estimated Depth of Undercut (ft.)
B-1	716.5	714.0	710.0	4.0
B-2	717.0	714.0	708.0	6.0
B-3	716.5	714.0	712.5	1.5
B-4	717.0	714.0	715.5	0.0
B-5	717.0	714.0	713.5	0.5
B-6	717.0	714.0	708.0	6.0
B-7	716.5	714.0	713.0	1.0
B-8	717.5	714.0	710.0	4.0
B-9	717.5	714.0	704.0	10.0
B-10	717.5	714.0	706.0	8.0
B-11	717.0	714.0	710.0	4.0
B-12	718.0	714.0	709.5	4.5
B-13	716.0	714.0	712.0	2.0
B-14	716.0	714.0	712.5	1.5
B-15	718.0	714.0	704.0	10.0

Some of the deepest potential undercuts fall within the existing foundation wall backfill (B-8, B-9, B-10, B-11, B-12, and B-15) and are necessary due to the presence of poorly compacted fill soils. The designer could potentially consider using the existing foundations for support of the proposed expansion in an effort to minimize the extent of deep undercuts.

All exterior building foundations should extend at least 42.0 inches below exposed surface elevations to provide adequate protection against uplift due to freezing of the supporting soils. Foundations for unprotected improvements should extend at least 48.0 inches below exposed surface elevations. We recommend providing adequate reinforcing steel in foundation walls and piers to minimize the effects of long-term differential settlement.

FLOOR SLABS

Floor slabs planned for support on the existing soil conditions are expected to undergo some degree of long-term settlement as the soils consolidate under loading and as they shrink due to desiccation. Slabs may be considered for support on suitable natural soils or on properly placed and compacted fill soils. This is feasible when the soils supporting the slabs are prepared in accordance with the recommendations in the Building Pad section above. A subgrade modulus of 125 psi/in can be used for design of the slab on properly prepared subgrade.

We understand a warm pool is currently planned to be constructed in the west building addition. Special attention should be given to this area due to presence of deep uncontrolled backfill encountered in the area which could result in differential settlement. Future plans for a pool in this area should be reviewed by the Soil Engineer to determine if any additional measures should be taken.

DEWATERING

Excavations may require dewatering due to subsurface water seepage and/or surface precipitation. This water can likely be removed by standard sump and pump operations. Soils exposed at foundation, slab or undercut elevations should not be permitted to become saturated. Loss of bearing strength and stability may occur, requiring additional soil excavation.

Fill soils, cohesive soils and others can be unstable when saturated. These soils tend to cave or run when submerged or disturbed. The stability of exposed embankments is minimal to non-existent as confining soil pressures are removed. Proper drainage within excavations is necessary at all times, particularly when excavations extend below anticipated water levels and below saturated soils.

The contractor should be made responsible for designing and constructing stable temporary excavations. Also, the contractor should shore, slope, bench or restrain the sides of the excavations as required to maintain stability of both the excavation sides and bottom. In no case, should the slope, slope heights, or excavation depth exceed those in the local, state, and federal safety regulations.

SUBGRADE SOIL PREPARATION

The procedure in all areas of subgrade supported improvements should include the removal of unsuitable surface conditions including vegetation, topsoil, unsuitable fill soils, significant debris, weak or unstable soils, and other deleterious conditions which may be encountered. Above grade areas should be cut to design subgrade elevations. Exposed subgrade soils should be leveled, compacted and proof-rolled in the presence of the Soil Engineer.

Proof-rolling may reveal areas of unstable soil conditions. Discing and aeration of high moisture content soils can be effective to depths of up to 1.0 foot, depending upon the equipment utilized. Removal of unstable soils may be necessary if high moisture content conditions extend to depths greater than the effective depth of discing. If the depth of undercut appears to be significant, it may be economical to limit the depth of undercut to that needed to establish adequate support of slabs and remediate weak soil conditions at foundation elevations at the time of foundation construction.

Soft or unstable soil conditions in pavement areas can often be bridged by use of an effective depth of crushed granular material. The placement of the crushed granular bridging material, possibly in conjunction with the use of an appropriate geotextile fabric, should only proceed after review of the proof-roll conditions by the Soil Engineer. Long-term settlement of pavement surfaces may occur locally as the bridged soils desiccate.

Structural fill can be placed on soils prepared to the satisfaction of the Soil Engineer. The fill should be placed in lifts not to exceed 8.0 inches when uncompacted. Each lift should exceed minimum compaction requirements prior to placement of the next lift. We recommend a minimum of 95% compaction based on the modified Proctor test, ASTM D-1557, be achieved within building areas. A minimum of 90% compaction should be achieved beneath exterior

improvements such as pavements and sidewalks. Compaction requirements also apply to backfill placement around foundations and within trench excavations located below subgrade supported improvements.

FILL SOURCES

The onsite non-organic soils are generally suitable for reuse as fill. Offsite sources may also be used provided they are approved in advance by the Soil Engineer. Aeration may be necessary to reduce soil moisture content prior to compaction. Soil borrowed from near the surface where seasonal fluctuations in soil moisture content occur may require particular attention. The moisture content of fill soils should be within approximately 3.0% of optimum moisture content as determined by the modified Proctor test for the soils to meet or exceed minimum compaction requirements.

SEISMIC DESIGN CONSIDERATIONS

By definition, Site Class is based on the average properties of subsurface materials to a depth of 100 feet below the ground surface. Since a 100-foot-deep test boring was not performed on the project, it was necessary to estimate the subsurface conditions below the exploration depths. Based on the borings performed and our experience with the soils in this area we would recommend a soil Site Class D be used for seismic design.

SETTLEMENT CONSIDERATIONS

The magnitude of settlement is dependent upon a combination of factors which include design foundation elevation, magnitude of load applied to the soil at that elevation, underlying soil type, soil strength and condition, subsurface water condition and other considerations.

In the absence of specific design factors the magnitude of total and differential settlement cannot be determined at this time. A preliminary estimate based upon initial design information suggests that post-construction total and differential settlement of foundations could be in the range of 0.75 inches and 0.50 inches respectively. Variations in supporting soil strength will likely increase the magnitude of total and differential settlement

DESIGN VALUES

Where applicable, the following average values can be utilized for design of the retaining walls:

Fill Soils

Unit Wet Weight (lbs./cu.ft.)	=	125.0
Angle of Internal Friction	=	20°
Active Stress Coefficient, K_a	=	0.49
Passive Stress Coefficient, K_p	=	2.03
At-Rest Stress Coefficient, K_o	=	0.66

Cohesive Soils

Unit Wet Weight (lbs./cu.ft.)	=	135.0
Angle of Internal Friction	=	28°
Active Stress Coefficient, K_a	=	.36
Passive Stress Coefficient, K_p	=	2.77
At-Rest Stress Coefficient, K_o	=	0.53

Factors of Safety are not applied to the above values. All backfill materials placed behind walls are presumed to be drained. Passive pressures within 4.0 feet of the surface should be omitted due to seasonal weather conditions.

INFILTRATION

Borings D-1, D-2, P-1 P-2, P-3, and P-4 were performed in the proposed detention and parking areas. We understand a detention pond water management system is being considered to assist in drainage of the site. Based on the gray color changes encountered at the detention and parking lot borings we would estimate the seasonal high ground water elevation to be at EL. 704.

Grain-size analysis testing was performed on selected samples from borings D-1, D-2, P-2, and P-4. Using the USDA soil classification system, the underlying soils were determined to be Silty Clay, Silty Clay Loam, and Clay Loam. These soils have very low infiltration rates of approximately 0.07 in./hr., 0.19 in./hr., and 0.03 in./hr. respectively, due to the high percentage of clay and silt.

CONCLUSION

The information within this report is intended to provide initial information concerning subsurface soil and water conditions on the site. Variations in subsurface conditions are expected to be present between boring locations due to naturally changing and filled soil conditions.

Our understanding of the proposed improvements is based on limited information available to us at the writing of this report. The findings of the investigation and the recommendations presented are not considered applicable to significant changes in the scope of the improvements or applicable to alternate site uses. We recommend that proposed foundation, pavement and grading plans be reviewed by our office to determine if additional considerations are necessary to address anticipated subsurface conditions.

The soils exposed in soil undercut areas should be evaluated for suitability prior to placement of structural fill, as previously indicated in this report. Soils and aggregates placed as structural fill should be tested as the work progresses to verify that minimum compaction requirements have been met. We recommend that soil conditions encountered at foundation elevations be tested to verify the presence of design soil strength prior to concrete placement.

If you have any questions concerning the findings or recommendations presented in this report, please let me know.

Very truly yours,

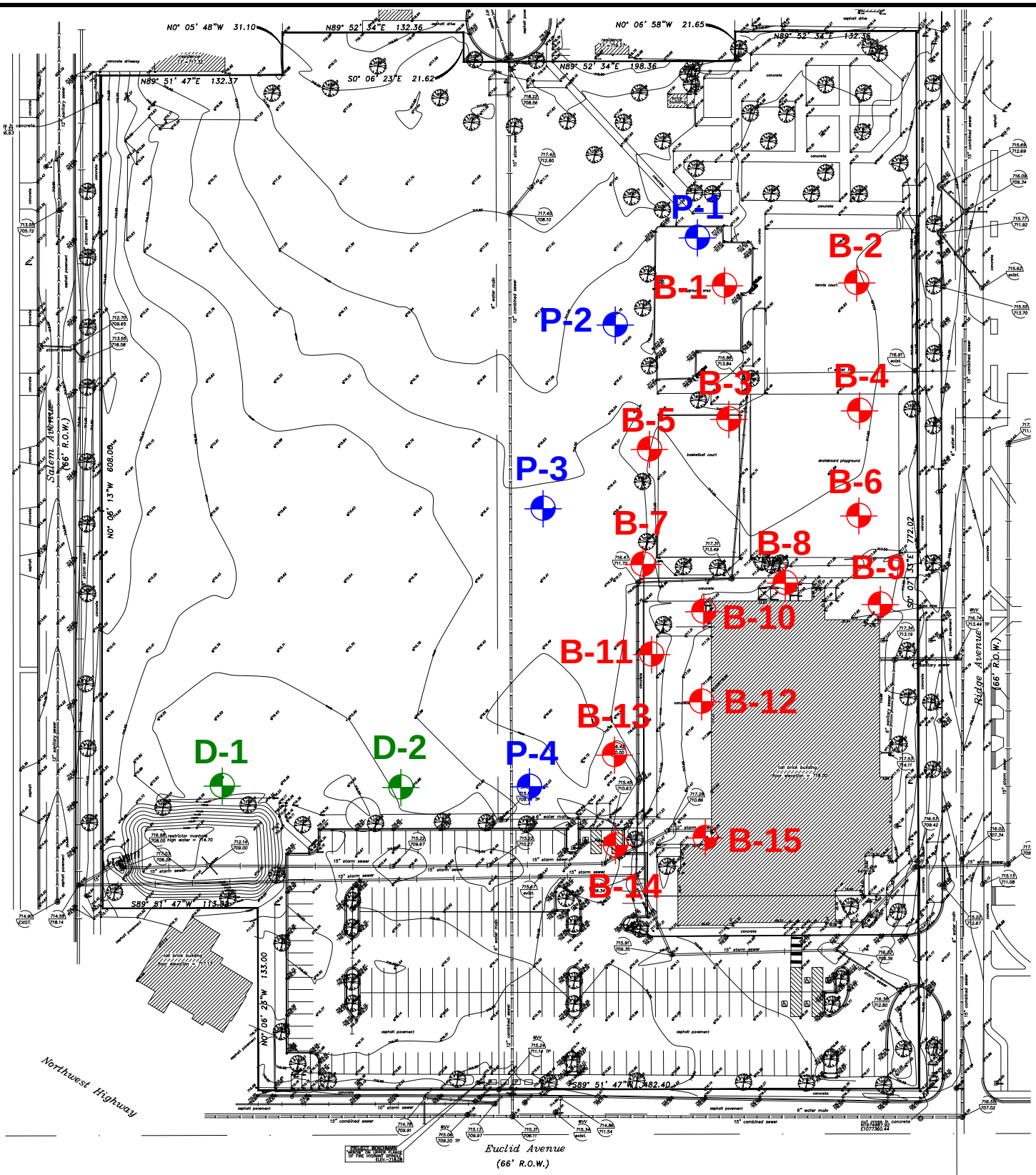
SOIL AND MATERIAL CONSULTANTS, INC.

Reid T. Steinbach, E.I.T.
Project Engineer

Thomas P. Johnson, P.E.
President

RTS/TPJ:ek
Enc.

Cc: David Yandel – FGM Architects
Colleen McCarty – Arlington Heights Park District



B-1 TO B-9 (15')
B-10 TO B-15 (25')
P-1 TO P-4 (15')
D-1 TO D-2 (25')

N

SMC	SOIL AND MATERIAL CONSULTANTS, INC.	LOCATION SKETCH
Client:	ARLINGTON HEIGHTS PARK DISTRICT	
Project:	OLYMPIC INDOOR SWIM CENTER ADDITION & RENOVATION	
Location:	ARLINGTON HEIGHTS, ILLINOIS	
File No. 23694	Date: 12-20-17	Scale: 1" ≈ 100'

SOIL AND MATERIAL CONSULTANTS, INC.

8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

SOIL BORING LOG D-1

Logged By: DA Page: 1 of 1

Client: Arlington Heights Park District

File No. 23694 Date Drilled: 12/18/17

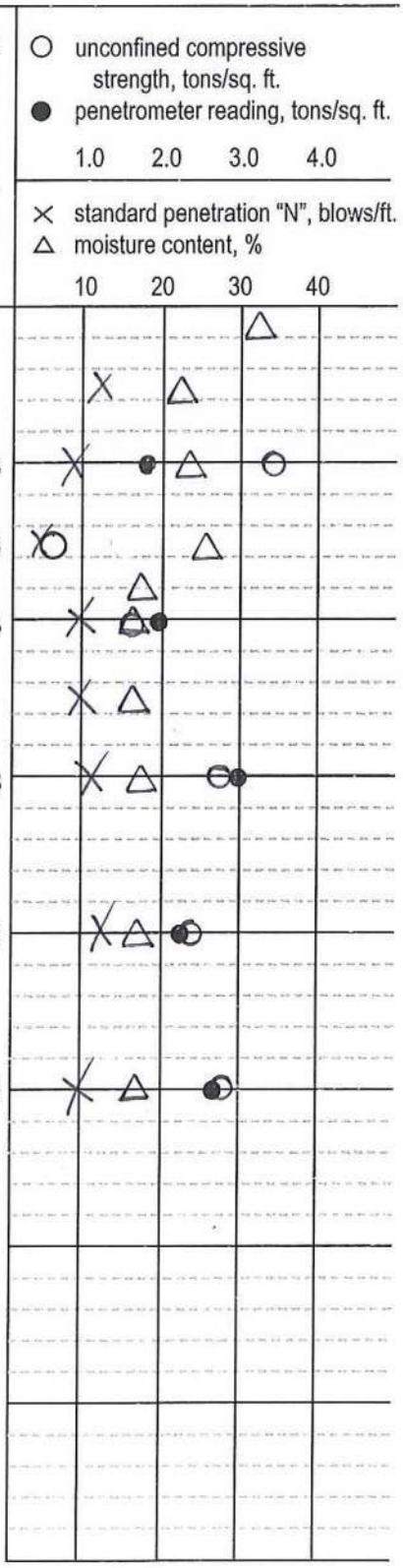
Reference: Olympic Indoor Swim Center
Addition & Renovation
Arlington Heights, IL

Comments:

Equipment: ☒CME 45B ☐CME 55 ☐Hand Auger ☐Other

Elevation 716.0' Existing Surface

depth, ft.	CLASSIFICATION	standard penetration ×	moisture content △	dry unit weight lbs./cu.ft. ɣ	unconfined compressive strengh ○
	Black-dark brown silt,some clay,trace sand & roots,damp,medium dense (topsoil)		31.9		
	Fill	13	21.7		
5	Brown-gray clay,some silt,trace sand & gravel,damp-very damp,very tough to stiff	9	23.4	101.1	3.5
	(a) see below	▽ 4	25.4	95.2	0.5
10	Brown clay,some silt,trace sand & gravel, damp,tough	10	17.7 15.7	118.3	1.6
	Gray silt,some clay,trace fine sand,damp medium dense	10	15.8		
15	Gray clay,some silt,trace sand & gravel, damp,very tough	11	18.1	114.6	2.8
20		13	16.9	122.6	2.4
25		10	17.3	114.3	2.9
	End of Boring				
	(a) Brown silt,some clay & sand,trace gravel,very damp				
30					
35					
40					



Water encountered at 7.5 feet during drilling operations (W.D.)
Water recorded at 23.0 feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

G-303

SOIL AND MATERIAL CONSULTANTS, INC.
8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

SOIL BORING LOG D-2

Logged By: DA Page: 1 of 1

File No. 23694 Date Drilled: 12/20/17

Client: Arlington Heights Park District

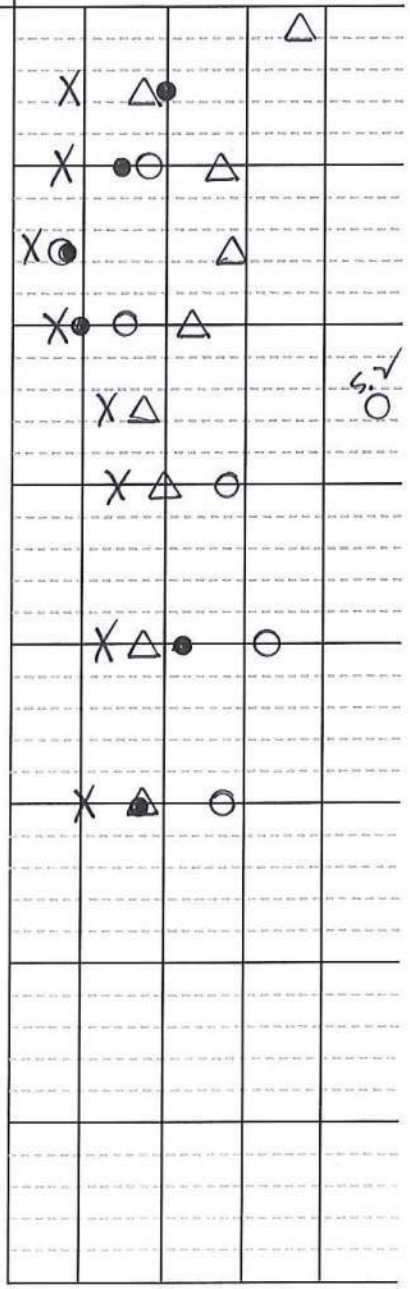
Reference: Olympic Indoor Swim Center
Addition & Renovation
Arlington Heights, IL

Comments:

Equipment: ☒CME 45B ☐CME 55 ☐Hand Auger ☐Other

Elevation 716.0' Existing Surface

depth, ft.	CLASSIFICATION	standard penetration ×	moisture content △	dry unit weight lbs./cu.ft. ɣ	unconfined compressive strengh ○
	(a) see below		37.3		
	Brown-dark brown-black clay & silt,trace sand & gravel,damp,very tough-Fill	8	18.0		
5	Dark gray-brown-black clay,some silt, trace sand,damp,tough - Fill	7	27.4	91.2	1.8
	Brown-gray clay,some silt,trace sand & gravel,very damp,stiff to tough	3	28.8	90.7	0.7
10		6	22.7	102.3	1.5
	Brown clay,some silt,trace sand & gravel, damp,hard	13	17.5	112.9	5.2
15	Gray clay,some silt,trace sand & gravel, damp,very tough ▽	14	19.7	110.0	2.9
20		13	19.2	109.6	3.3
25	End of Boring	11	17.5	115.4	2.8
	(a) Black silt,some clay,trace sand & roots,damp (topsoil) - Fill - 15.0"				
30					
35					
40					



Water encountered at 17.0 feet during drilling operations (W.D.)
Water recorded at dry feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

G-303

SOIL AND MATERIAL CONSULTANTS, INC.

8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

SOIL BORING LOG P-1

Logged By: DA Page: 1 of 1

Client: Arlington Heights Park District

File No. 23694 Date Drilled: 12/18/17

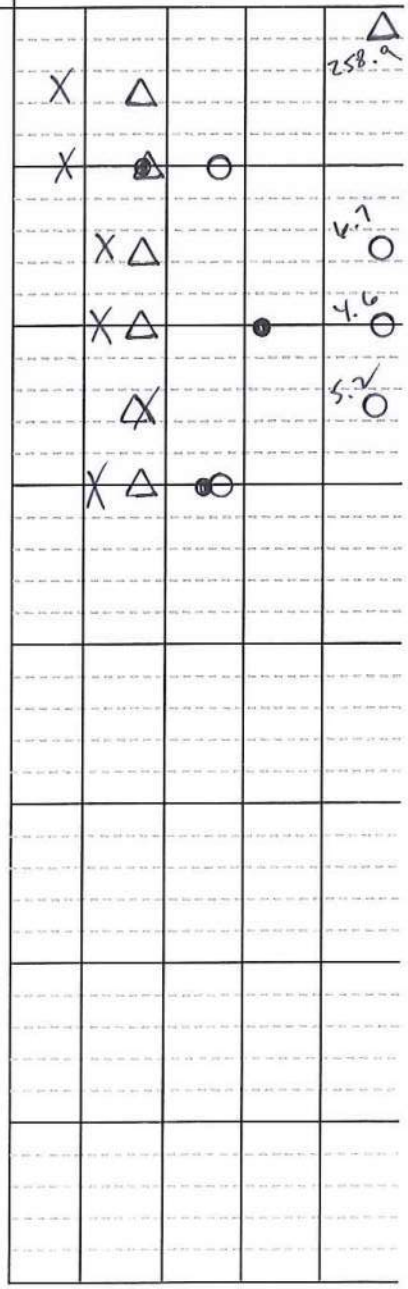
Reference: Olympic Indoor Swim Center
Addition & Renovation
Arlington Heights, IL

Comments:

Equipment: ☒CME 45B ☐CME 55 ☐Hand Auger ☐Other

Elevation 717.0' Existing Surface

depth, ft.	CLASSIFICATION	standard penetration ×	moisture content △	dry unit weight lbs./cu.ft. ɣ	unconfined compressive strength ○
	(a) see below		258.9		
	Black silt,some clay & limestone,trace sand,damp,loose - Fill	7	16.8		
5	Brown-gray clay,some silt,trace sand & gravel,damp,very tough	7	18.9	106.8	2.7
	Brown clay,some silt,trace sand & gravel, damp,hard	13	17.6	110.7	6.7
10		12	18.4	109.2	4.6
		17	16.1	113.3	5.2
	Gray clay,some silt,trace sand & gravel, damp,very tough				
15		12	16.7	117.1	2.8
	End of Boring				
	(a) Black silt & wood mulch,damp (playground) - Fill				
20					
25					
30					
35					
40					



Water encountered at dry feet during drilling operations (W.D.)
Water recorded at dry feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

G-303

SOIL AND MATERIAL CONSULTANTS, INC.

8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

SOIL BORING LOG P-2

Logged By: DA Page: 1 of 1

Client: Arlington Heights Park District File No. 23694 Date Drilled: 12/18/17

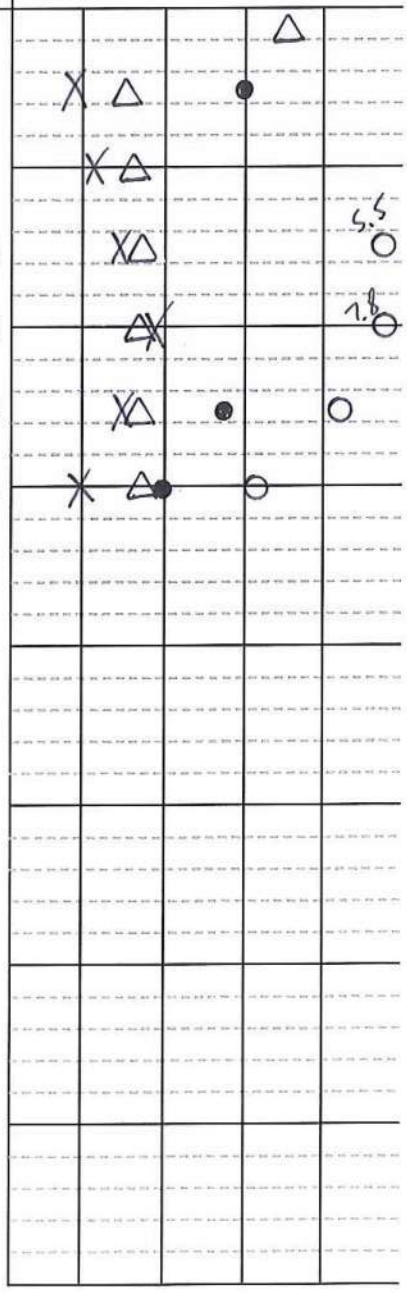
Reference: Olympic Indoor Swim Center
Addition & Renovation
Arlington Heights, IL

Comments:

Equipment: ☒CME 45B ☐CME 55 ☐Hand Auger ☐Other

Elevation 716.5' Existing Surface

depth, ft.	CLASSIFICATION	standard penetration ×	moisture content △	dry unit weight lbs./cu.ft. ɣ	unconfined compressive strengh ○
	Black silt,some clay,trace sand & roots, damp (topsoil)		34.6		
	Brown-gray clay,some silt,trace sand & gravel,damp,very tough	9	15.2		
5	Brown silt,some clay,trace fine sand, damp,medium dense	12	15.6		
	Brown clay,some silt,trace sand & gravel, damp,hard	15	18.0	109.8	5.5
10		19	17.1	114.0	7.8
	Gray clay,some silt,trace sand & gravel, damp,hard	15	16.6	114.8	4.2
15	Gray clay,some silt,trace sand & gravel, damp,very tough	10	17.6	113.4	3.1
	End of Boring				
20					
25					
30					
35					
40					



Water encountered at dry feet during drilling operations (W.D.)
Water recorded at dry feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

G-303

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8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

SOIL BORING LOG P-3

Logged By: DA Page: 1 of 1

Client: Arlington Heights Park District File No. 23694 Date Drilled: 12/18/17

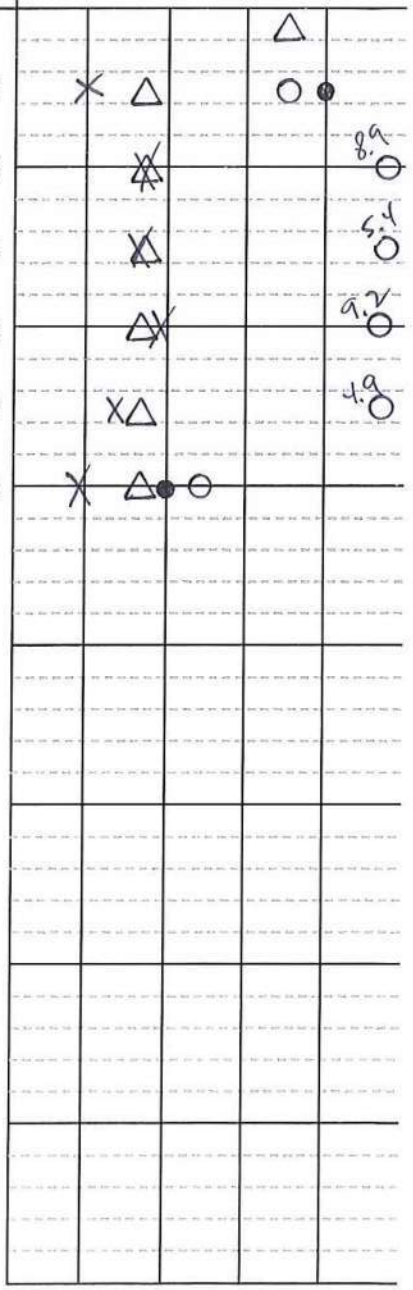
Reference: Olympic Indoor Swim Center Addition & Renovation Arlington Heights, IL

Comments:

Equipment: ☒CME 45B ☐CME 55 ☐Hand Auger ☐Other

Elevation 716.5' Existing Surface

depth, ft.	CLASSIFICATION	standard penetration ×	moisture content △	dry unit weight lbs./cu.ft. ɣ	unconfined compressive strengh ○
	(a) see below		34.8		
	Brown clay,some silt,trace sand & gravel, damp,very tough to very hard	10	17.5	108.8	3.5
5		17	17.7	110.4	8.9
		16	17.7	109.4	5.4
10		19	17.0	111.9	9.2
	Brown clay,some silt,trace sand & gravel, damp,hard	14	16.5	114.1	4.9
	Gray clay,some silt,trace sand & gravel, damp,very tough				
15		9	16.8	112.1	2.4
	End of Boring				
	(a) Black silt,some clay,trace sand & roots,damp (topsoil) - 15.0"				
20					
25					
30					
35					
40					



Water encountered at dry feet during drilling operations (W.D.)
Water recorded at dry feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

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8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

SOIL BORING LOG P-4

Logged By: DA Page: 1 of 1

File No. 23694 Date Drilled: 12/20/17

Client: Arlington Heights Park District

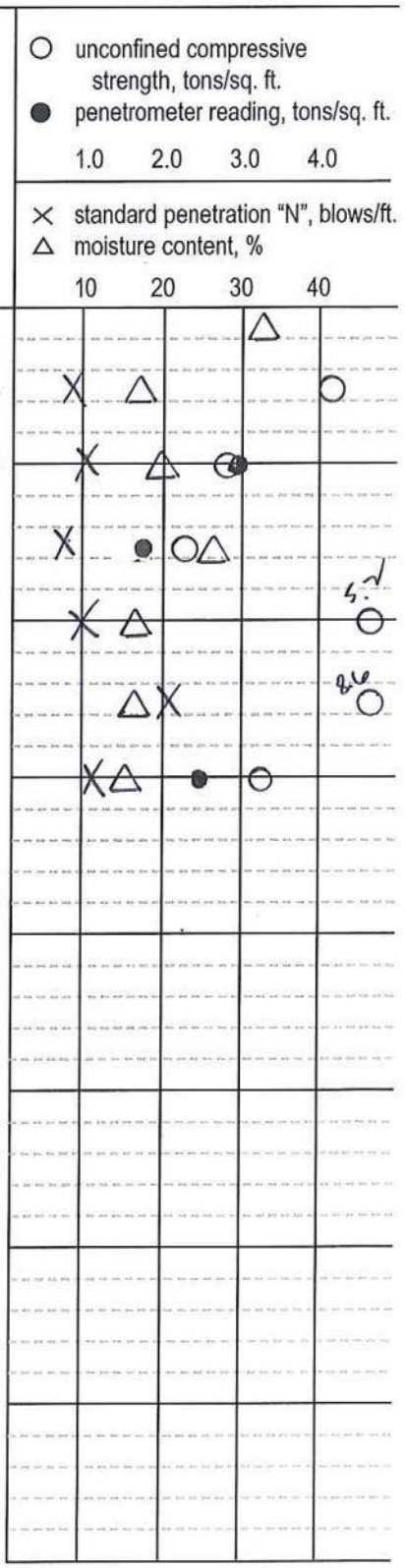
Reference: Olympic Indoor Swim Center
Addition & Removation
Arlington Heights, IL

Comments:

Equipment: ☒CME 45B ☐CME 55 ☐Hand Auger ☐Other

Elevation 716.0' Existing Surface

depth, ft.	CLASSIFICATION	standard penetration ×	moisture content △	dry unit weight lbs./cu.ft. ɣ	unconfined compressive strengh ○
	(a) see below		33.3		
	Brown-dark brown-black clay & silt,trace sand & gravel,damp,hard - Fill	9	17.9	107.4	4.1
5	Brown-gray clay,some silt,trace sand & gravel,damp,very tough	11	20.1	105.7	2.9
		7	26.8	95.8	2.3
10	Brown clay,some silt,trace sand & gravel, damp,hard to very hard	10	17.2	111.7	5.2
	Gray clay,some silt,trace sand & gravel, damp,very tough	21	16.0	115.3	8.6
15		12	15.3	116.7	3.3
	End of Boring				
	(a) Black silt,some clay,trace sand & roots,damp (topsoil) - Fill - 15.0"				
20					
25					
30					
35					
40					



Water encountered at dry feet during drilling operations (W.D.)
Water recorded at dry feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

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SOIL AND MATERIAL CONSULTANTS, INC.

8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

SOIL BORING LOG B-1

Logged By: DA Page: 1 of 1

File No. 23694 Date Drilled: 12/18/17

Client: Arlington Heights Park District

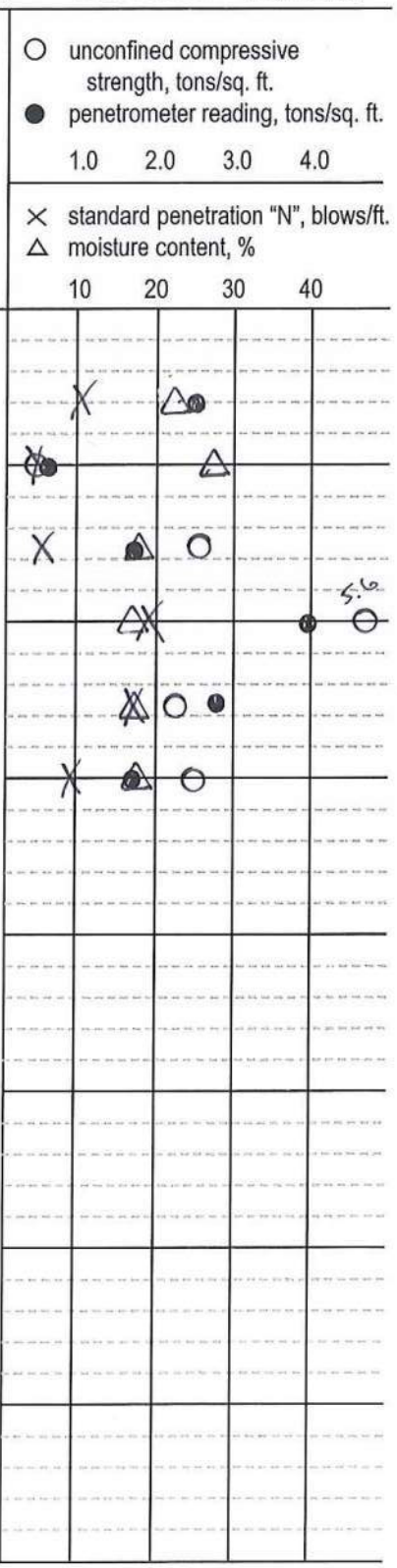
Reference: Olympic Indoor Swim Center
Addition & Renovation
Arlington Heights, IL

Comments:

Equipment: ☒CME 45B ☐CME 55 ☐Hand Auger ☐Other

Elevation 716.5' Existing Surface

depth, ft.	CLASSIFICATION	standard penetration ×	moisture content △	dry unit weight lbs./cu.ft. ɣ	unconfined compressive strengh ○
	(a & b) see below				
	(c) see below				
	Brown-gray clay,some silt,trace sand & gravel,damp-very damp,soft	11	21.9		
5		4	29.2	90.0	0.4
	Brown clay & silt,trace sand & gravel, very damp,very tough	6	18.7	113.4	2.5
10	Brown clay,some silt,trace sand & gravel, damp,hard	19	16.5	121.5	5.6
	Gray clay,some silt,trace sand & gravel, damp,very tough	17	17.5	113.1	2.3
15		9	18.9	109.7	2.5
	End of Boring				
	(a) Wood Chips (playground) - 10.0"				
	(b) Concrete - 6.0"				
20	(c) Black-dark brown-gray clay,some silt, trace sand & gravel,damp,very tough - Fill				
25					
30					
35					
40					



Water encountered at 4.0 feet during drilling operations (W.D.)
Water recorded at dry feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

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SOIL AND MATERIAL CONSULTANTS, INC.

8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

SOIL BORING LOG B-2

Logged By: DA Page: 1 of 1

Client: Arlington Heights Park District

File No. 23694 Date Drilled: 12/20/17

Reference: Olympic Indoor Swim Center
Addition & Renovation
Arlington Heights, IL

Comments:

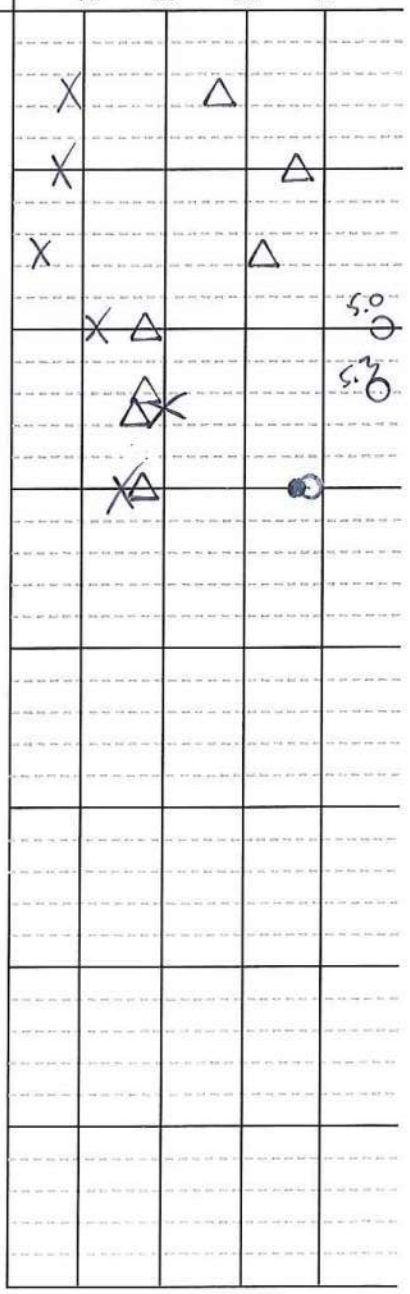
Equipment: ☒CME 45B ☐CME 55 ☐Hand Auger ☐Other

Elevation 717.0' Existing Surface

depth, ft.	CLASSIFICATION	standard penetration ×	moisture content △	dry unit weight lbs./cu.ft. ɣ	unconfined compressive strengh ○
	(a & b) see below				
	Black silt,some clay,trace sand,damp, loose (topsoil)	8	26.0		
5		7	35.6		
	Dark gray to gray-brown silt,some clay, trace sand & gravel,very damp-saturated, very loose	4	31.9		
10	Brown clay,some silt,trace sand & gravel, damp,hard	12	18.8	118.6	5.0
	(c) see below	20	19.1	117.0	5.3
	Gray clay,some silt,trace sand & gravel, damp,very tough		15.9		
15		15	16.6	117.8	3.9
	End of Boring				
	(a) Bituminous concrete - 3.0"				
	(b) Limestone & crushed concrete,damp - 12.0"				
20	(c) Brown fine sand,trace medium-coarse sand,gravel & silt,damp,medium dense				
25					
30					
35					
40					

○ unconfined compressive strength, tons/sq. ft.
● penetrometer reading, tons/sq. ft.
1.0 2.0 3.0 4.0

× standard penetration "N", blows/ft.
△ moisture content, %
10 20 30 40



Water encountered at 6.0 feet during drilling operations (W.D.)
Water recorded at 6.0 feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

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SOIL AND MATERIAL CONSULTANTS, INC.

8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

SOIL BORING LOG B-3

Logged By: DA Page: 1 of 1

Client: Arlington Heights Park District

File No. 23694 Date Drilled: 12/18/17

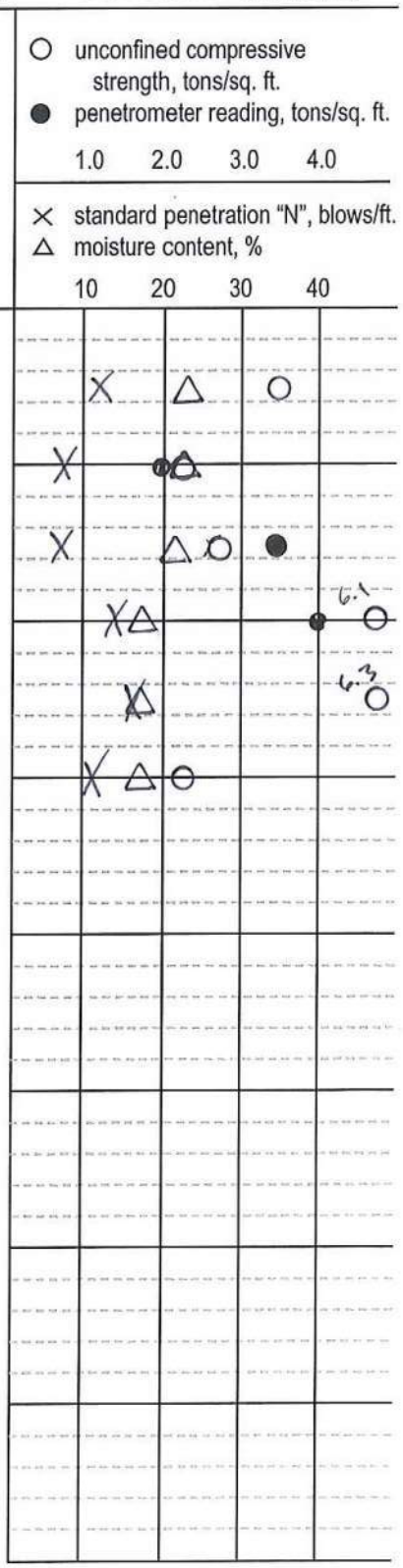
Reference: Olympic Indoor Swim Center
Addition & Renovation
Arlington Heights, IL

Comments:

Equipment: ☒CME 45B ☐CME 55 ☐Hand Auger ☐Other

Elevation 716.5' Existing Surface

depth, ft.	CLASSIFICATION	standard penetration ×	moisture content △	dry unit weight lbs./cu.ft. ɣ	unconfined compressive strengh ○
	(a & b) see below				
	Black-dark gray-brown clay & silt,trace sand & gravel,damp,very tough - Fill	12	23.2	98.2	3.5
5	Dark gray to brown-gray clay,some silt, trace sand & gravel,damp,very tough	7	22.7	98.4	2.3
	▽	7	20.7	101.4	2.8
10	Brown clay,some silt,trace sand & gravel, damp,hard	14	18.1	115.0	6.1
		17	18.0	114.9	6.3
	Gray clay,some silt,trace sand & gravel, damp,very tough				
15		12	18.4	111.9	2.3
	End of Boring				
	(a) Bituminous concrete - 4.5"				
	(b) Limestone,damp - 5.5"				
20					
25					
30					
35					
40					



Water encountered at 8.5 feet during drilling operations (W.D.)
Water recorded at 13.5 feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

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SOIL AND MATERIAL CONSULTANTS, INC.

8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

SOIL BORING LOG B-4

Logged By: DA Page: 1 of 1

Client: Arlington Heights Park District

File No. 23694 Date Drilled: 12/20/17

Reference: Olympic Indoor Swim Center
Addition & Renovation
Arlington Heights, IL

Comments:

Equipment: ☒CME 45B ☐CME 55 ☐Hand Auger ☐Other

Elevation 717.0' Existing Surface

○ unconfined compressive strength, tons/sq. ft.
● penetrometer reading, tons/sq. ft.
1.0 2.0 3.0 4.0

× standard penetration "N", blows/ft.
△ moisture content, %
10 20 30 40

depth, ft.	CLASSIFICATION	standard penetration ×	moisture content △	dry unit weight lbs./cu.ft. ɤ	unconfined compressive strengh ○
	(a,b & c) see below		25.6		
	Brown clay & silt,trace sand,damp,tough	8	18.2		
5	Brown clay,some silt,trace sand & gravel, damp,hard	12	19.5	108.9	7.3
		17	18.4	108.7	5.7
10		17	18.2	109.6	4.5
	Gray clay,some silt,trace sand & gravel, damp,very tough	14	18.3	110.2	2.7
15		10	18.1	110.5	3.3
	End of Boring				
	(a) Bituminous concrete - 3.0"				
	(b) Limestone,damp - 11.0"				
20	(c) Black silt,some clay,trace sand,damp, very loose (topsoil)				
25					
30					
35					
40					

Water encountered at dry feet during drilling operations (W.D.)
Water recorded at dry feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

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SOIL AND MATERIAL CONSULTANTS, INC.

8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

SOIL BORING LOG B-5

Logged By: DA Page: 1 of 1

Client: Arlington Heights Park District

File No. 23694 Date Drilled: 12/18/17

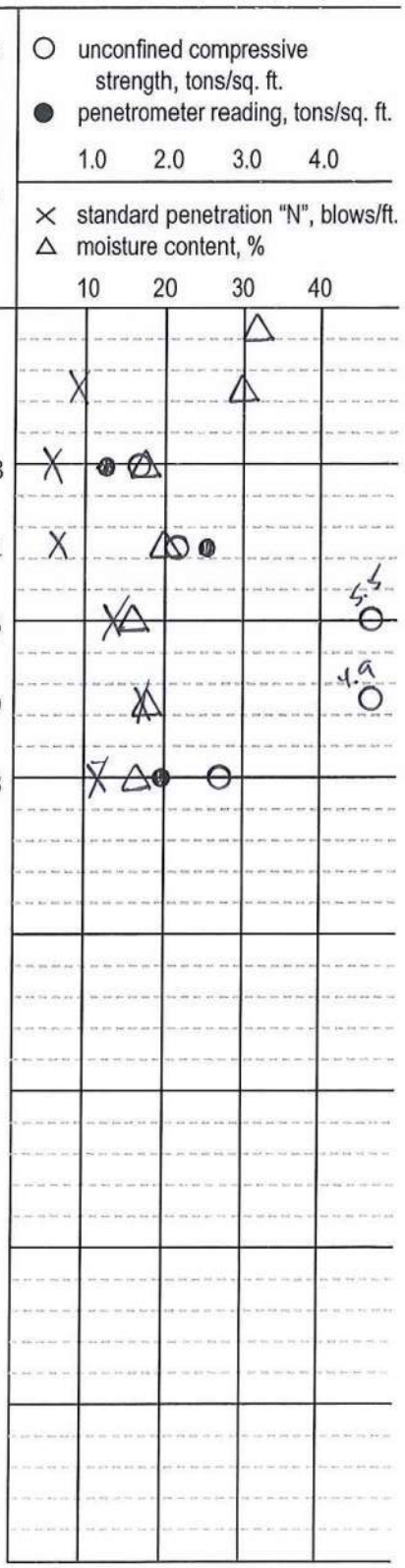
Reference: Olympic Indoor Swim Center
Addition & Renovation
Arlington Heights, IL

Comments:

Equipment: ☒CME 45B ☐CME 55 ☐Hand Auger ☐Other

Elevation 717.0' Existing Surface

depth, ft.	CLASSIFICATION	standard penetration ×	moisture content △	dry unit weight lbs./cu.ft. ɣ	unconfined compressive strengh ○
	Black-dark brown silt,some clay,trace sand & roots,damp,loose (topsoil)-Fill		30.6		
		9	30.4		
5	Brown-gray clay,some silt,trace sand & gravel,damp,tough to very tough	5	19.1	110.2	1.8
		6	20.4	105.9	2.1
10	Brown clay,some silt,trace sand & gravel, damp,hard	14	15.7	116.8	5.5
		17	19.0	109.6	4.9
15	Gray clay,some silt,trace sand & gravel, damp,very tough	12	17.4	115.1	2.8
	End of Boring				
20					
25					
30					
35					
40					



Water encountered at dry feet during drilling operations (W.D.)
Water recorded at dry feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

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SOIL AND MATERIAL CONSULTANTS, INC.

8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

SOIL BORING LOG B-6

Logged By: DA

Page: 1 of 1

Client: Arlington Heights Park District

File No. 23694

Date Drilled: 12/20/17

Reference: Olympic Indoor Swim Center
Addition & Renovation
Arlington Heights, IL

Comments:

Equipment: ☒CME 45B ☐CME 55 ☐Hand Auger ☐Other

Elevation 717.0' Existing Surface

○ unconfined compressive strength, tons/sq. ft.
● penetrometer reading, tons/sq. ft.
1.0 2.0 3.0 4.0

× standard penetration "N", blows/ft.
△ moisture content, %
10 20 30 40

depth, ft.	CLASSIFICATION	standard penetration ×	moisture content △	dry unit weight lbs./cu.ft. ɣ	unconfined compressive strengh ○
	(a & b) see below				
	Black silt,some clay,trace sand,damp, loose (topsoil)	8	38.1		
5	Brown-gray clay,some silt,trace sand & gravel,damp-very damp,stiff to very tough ▽	7	27.2	95.7	0.7
		3	24.4	103.2	0.5
10		7	23.7	107.7	1.8
		8	21.6	112.8	3.3
	Gray clay,some silt,trace sand & gravel, damp,very tough				
15		9	16.9	116.8	2.5
	End of Boring				
	(a) Bituminous concrete - 3.5"				
	(b) Limestone,damp - 9.5"				
20					
25					
30					
35					
40					

Water encountered at 7.0 feet during drilling operations (W.D.)
Water recorded at 9.5 feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

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SOIL AND MATERIAL CONSULTANTS, INC.

8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

SOIL BORING LOG B-7

Logged By: DA Page: 1 of 1

Client: Arlington Heights Park District

File No. 23694 Date Drilled: 12/18/17

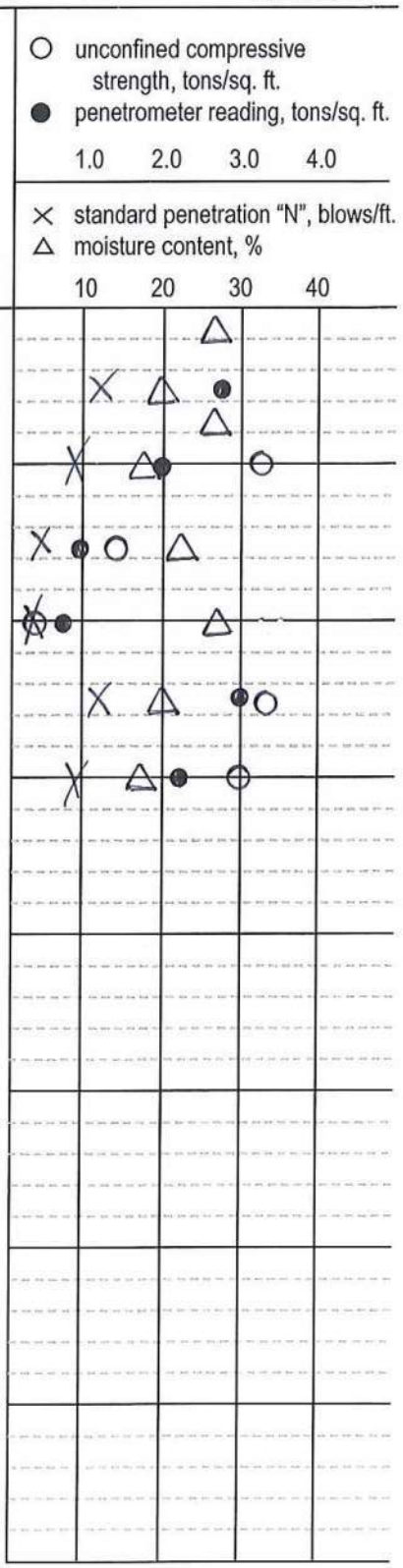
Reference: Olympic Indoor Swim Center
Addition & Renovation
Arlington Heights, IL

Comments:

Equipment: ☒CME 45B ☐CME 55 ☐Hand Auger ☐Other

Elevation 716.5' Existing Surface

depth, ft.	CLASSIFICATION	standard penetration ×	moisture content △	dry unit weight lbs./cu.ft. ɣ	unconfined compressive strengh ○
	(a) see below		25.9		
	Brown-dark brown clay & silt,trace sand & gravel,damp,very tough - Fill	12	19.6		
	(b) see below		27.1		
5	Brown-gray clay,some silt,trace sand & gravel,damp-very damp,very tough	9	18.8	105.7	3.3
	Brown-gray clay,some silt,trace sand & gravel,damp-very damp,tough to soft ▽	4	22.0	106.0	1.4
10		3	27.5	103.3	0.3
	Brown clay,some silt,trace sand & gravel, damp,very tough	12	20.2	107.3	3.4
	Gray clay,some silt,trace sand & gravel, damp,very tough				
15		9	17.5	114.0	3.0
	End of Boring				
	(a) Black silt,some clay,trace sand & roots,damp (topsoil) - Fill				
20	(b) Black silt,some clay,trace sand,damp (topsoil)				
25					
30					
35					
40					



Water encountered at 9.0 feet during drilling operations (W.D.)
Water recorded at dry feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

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8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

SOIL BORING LOG B-8

Logged By: DA Page: 1 of 1

File No. 23694 Date Drilled: 12/20/17

Client: Arlington Heights Park District

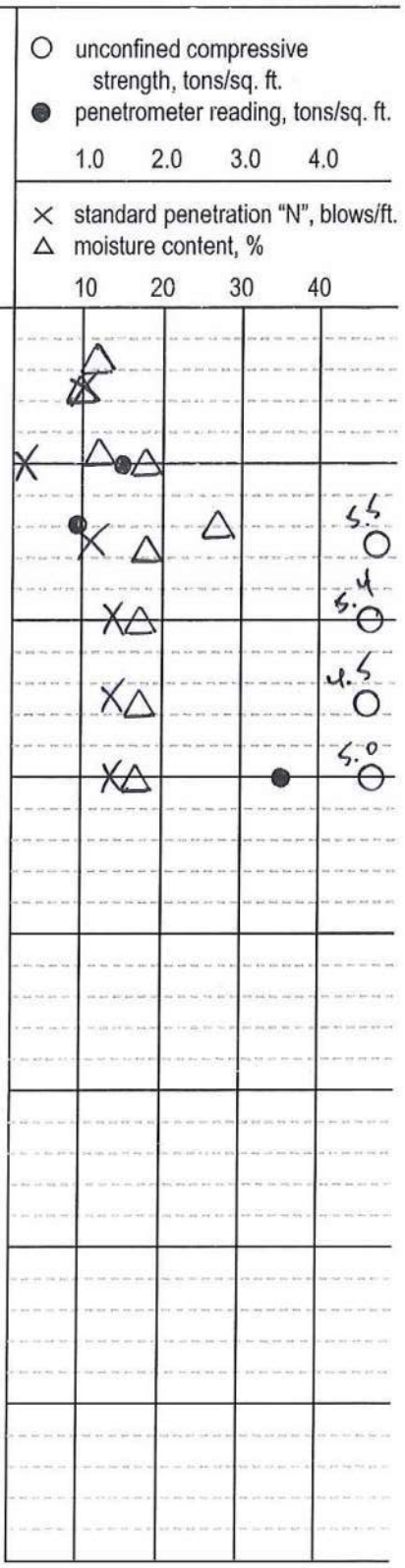
Reference: Olympic Indoor Swim Center
Addition & Renovation
Arlington Heights, IL

Comments:

Equipment: ☒CME 45B ☐CME 55 ☐Hand Auger ☐Other

Elevation 717.5' Existing Surface

depth, ft.	CLASSIFICATION	standard penetration ×	moisture content △	dry unit weight lbs./cu.ft. ɤ	unconfined compressive strengh ○
	(a,b & c) see below				
	Brown-dark brown fine-medium sand,some gravel,trace coarse sand,damp,medium dense to very loose - Fill	10	10.7 9.5		
5	Brown-dark brown clay & silt,trace sand & gravel,very damp,stiff to tough - Fill	2	12.3 19.2		
	Brown-gray clay,some silt,trace sand & gravel,damp,hard	11	27.9 18.5	111.3	5.5
10		14	18.1	108.9	5.4
	Brown clay,some silt,trace sand & gravel, damp,hard	14	17.9	111.1	4.5
	Gray clay,some silt,trace sand & gravel, damp,hard	14	17.0	114.5	5.0
15	End of Boring				
20	(a) Bituminous concrete - 5.0" (b) Brown sand & gravel,damp - 7.0" (c) Brown-gray silt & clay,some sand & gravel,damp,loose - Fill				
25					
30					
35					
40					



Water encountered at dry feet during drilling operations (W.D.)
Water recorded at dry feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

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SOIL AND MATERIAL CONSULTANTS, INC.

8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

SOIL BORING LOG B-9

Logged By: DA Page: 1 of 1

File No. 23694 Date Drilled: 12/20/17

Client: Arlington Heights Park District

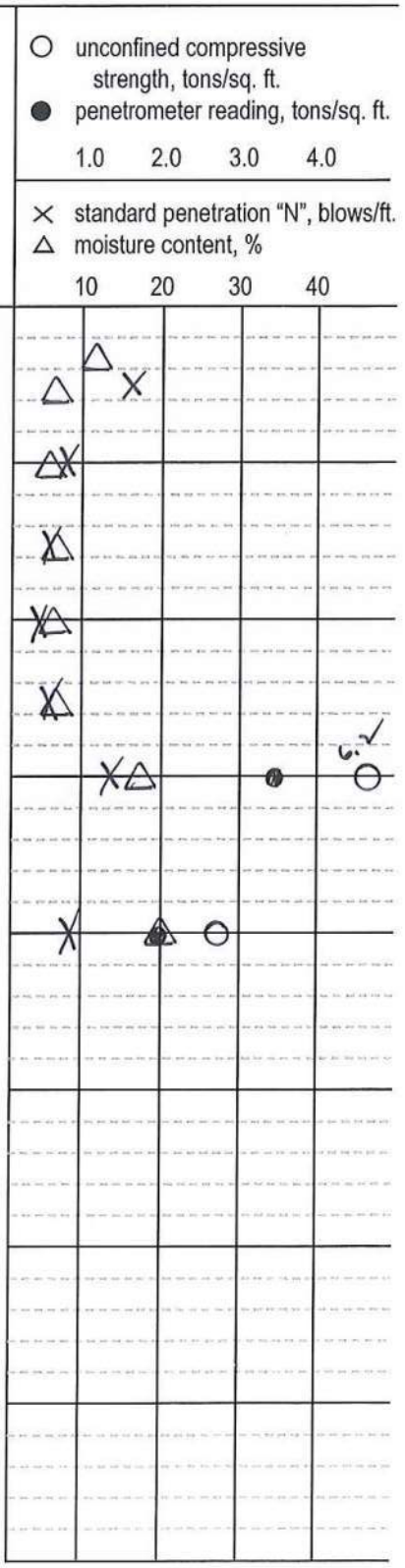
Reference: Olympic Indoor Swim Center
Addition & Renovation
Arlington Heights, IL

Comments:

Equipment: ☒CME 45B ☐CME 55 ☐Hand Auger ☐Other

Elevation 717.5' Existing Surface

depth, ft.	CLASSIFICATION	standard penetration ×	moisture content △	dry unit weight lbs./cu.ft. ɣ	unconfined compressive strengh ○
	(a,b & c) see below		10.8		
	Brown fine-medium sand,some gravel,trace coarse sand,damp,med. dense-Fill	16	6.1		
5	Brown fine-medium sand,some gravel,trace coarse sand,damp,loose - Fill	7	5.2		
		5	5.6		
10	Brown fine-medium sand,some gravel,trace coarse sand,damp,very loose to loose-Fill	4	6.0		
		5	7.1		
15	Brown clay,some silt,trace sand & gravel, damp,hard	14	19.3	109.9	6.2
	Gray clay,some silt,trace sand & gravel, damp,very tough				
20	End of Boring	8	20.0	110.6	2.8
	(a) Bituminous concrete - 5.0"				
	(b) Brown sand & gravel,damp - 7.0"				
25	(c) Brown-dark brown silt & clay,some sand & gravel,damp,medium dense - Fill				
30					
35					
40					



Water encountered at dry feet during drilling operations (W.D.)
Water recorded at dry feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

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SOIL AND MATERIAL CONSULTANTS, INC.

8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

SOIL BORING LOG B-10

Logged By: DA Page: 1 of 1

Client: Arlington Heights Park District

File No. 23694 Date Drilled: 12/19/17

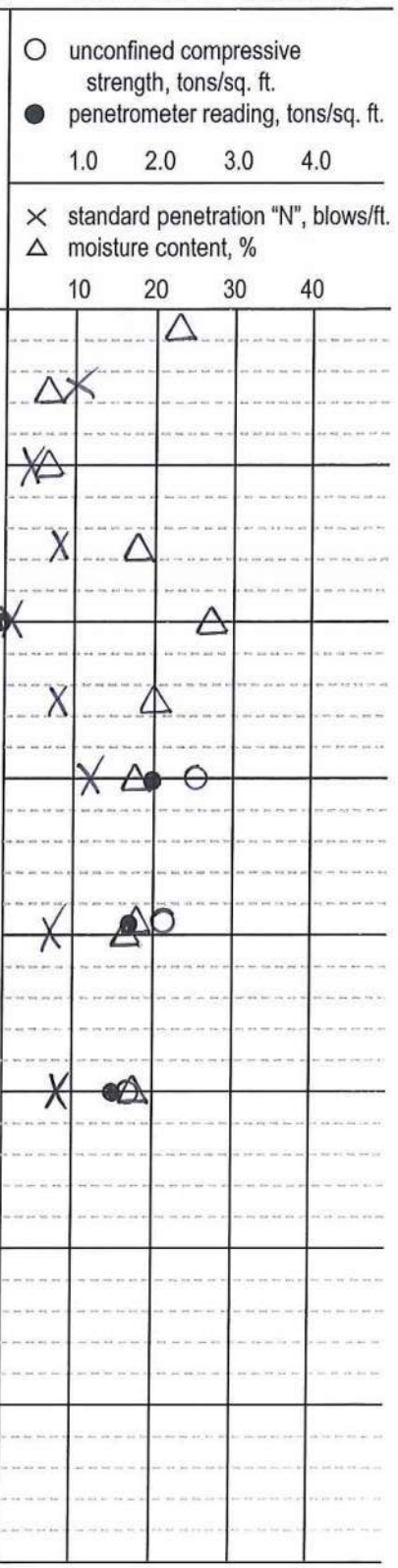
Reference: Olympic Indoor Swim Center
Addition & Renovation
Arlington Heights, IL

Comments:

Equipment: ☒CME 45B ☐CME 55 ☐Hand Auger ☐Other

Elevation 717.5' Existing Surface

depth, ft.	CLASSIFICATION	standard penetration ×	moisture content △	dry unit weight lbs./cu.ft. ɣ	unconfined compressive strengh ○
	(a) see below		22.6		
	Brown-dark brown fine-medium sand, some gravel, trace coarse sand, damp, medium dense to very loose - Fill	10	5.6		
5	Dark brown-black silt, some clay, trace sand & gravel, damp, loose - Fill	4	6.0		
	Brown-gray-black clay, some silt, trace sand & gravel, very damp, very soft - Fill	8	18.5		
10		1	27.3		
	Brown silt, some clay, trace fine sand, damp, loose	8	20.0		
15	Brown-gray clay, some silt, trace sand & gravel, damp, very tough	12	19.1	112.3	2.5
	Gray clay, some silt, trace sand & gravel, damp, very tough				
20	(b) see below	7	19.3 15.8	107.9	2.1
	Gray clay, some silt, trace sand & gravel, damp, tough				
25		8	18.6	109.4	1.7
	End of Boring				
	(a) Black silt, some sand, trace clay, gravel & roots, damp (topsoil) - Fill				
30	(b) Gray fine sand & silt, very damp, loose				
35					
40					



Water encountered at 9.0 feet during drilling operations (W.D.)
Water recorded at dry feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

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SOIL AND MATERIAL CONSULTANTS, INC.

8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

SOIL BORING LOG B-11

Logged By: DA Page: 1 of 1

Client: Arlington Heights Park District

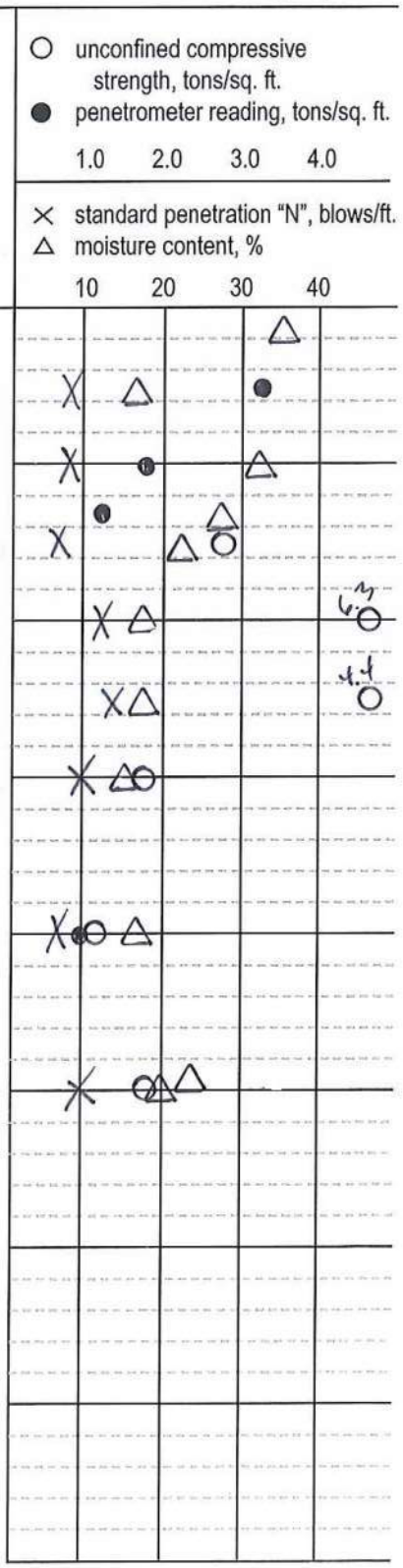
File No. 23694 Date Drilled: 12/19/17

Reference: Olympic Indoor Swim Center
Addition & Renovation
Arlington Heights, IL

Comments:

Equipment: ☒CME 45B ☐CME 55 ☐Hand Auger ☐Other

depth, ft.	CLASSIFICATION Elevation 717.0' Existing Surface	standard penetration ×	moisture content △	dry unit weight lbs./cu.ft. ɣ	unconfined compressive strengh ○
	(a) see below		35.3		
	Brown-dark brown-black clay & silt,trace sand & gravel,damp,very tough to tough - Fill	9	16.7		
5	Black clay & silt,trace sand & gravel, damp,tough - Fill	8	31.8		
	Brown-gray clay,some silt,trace sand & gravel,damp,very tough	7	28.7 22.2	99.2	2.8
10	Brown clay,some silt,trace sand & gravel, damp,hard	13	18.1	109.1	6.3
		14	19.4	105.3	4.4
15	Gray clay,some silt,trace sand & gravel, damp-very damp,tough	10	15.1	123.1	1.8
20		7	15.8	125.2	1.2
	Gray clay,some silt,trace sand & gravel, damp,tough				
25	(b) see below (c) see below	10	24.1 19.7	110.7	1.8
	End of Boring				
30	(a) Black silt,some clay,trace sand & roots,damp (topsoil) - Fill (b) Gray silt,trace fine sand & clay, damp,medium dense (c) Gray clay,some silt,trace sand & gravel,damp,tough				
35					
40					



Water encountered at dry feet during drilling operations (W.D.)
Water recorded at dry feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

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SOIL AND MATERIAL CONSULTANTS, INC.

8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

SOIL BORING LOG B-12

Logged By: DA Page: 1 of 1

Client: Arlington Heights Park District File No. 23694 Date Drilled: 12/19/17

Reference: Olympic Indoor Swim Center
Addition & Renovation
Arlington Heights, IL

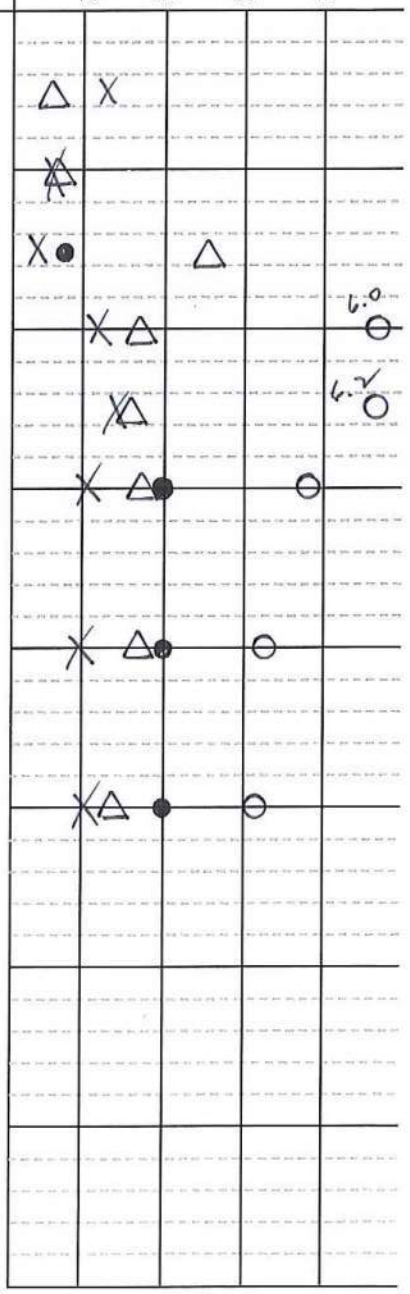
Comments:

Equipment: ☒CME 45B ☐CME 55 ☐Hand Auger ☐Other

Elevation 718.0' Existing Surface

○ unconfined compressive strength, tons/sq. ft.
● penetrometer reading, tons/sq. ft.
× standard penetration "N", blows/ft.
△ moisture content, %

depth, ft.	CLASSIFICATION	standard penetration ×	moisture content △	dry unit weight lbs./cu.ft. ɤ	unconfined compressive strengh ○
	(a) see below				
	Brown-dark brown fine-medium sand,some gravel,trace coarse sand,damp,medium dense to loose _ Fill	13	5.9		
5		6	7.3		
	Brown-gray-black clay & silt,trace sand & gravel,very damp,stiff - Fill	4	24.9		
10	Brown clay,some silt,trace sand & gravel, damp,hard	12	18.3	111.3	6.0
		15	16.4	113.9	6.2
15	Gray clay,some silt,taace sand & gravel, damp,very tough	11	17.2	117.1	3.9
20		10	17.2	115.0	3.3
25		11	13.7	126.1	3.1
	End of Boring				
	(a) Concrete - 4.0"				
30					
35					
40					



Water encountered at dry feet during drilling operations (W.D.)
Water recorded at dry feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

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SOIL AND MATERIAL CONSULTANTS, INC.

8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

SOIL BORING LOG B-13

Logged By: DA Page: 1 of 1

Client: Arlington Heights Park District

File No. 23694 Date Drilled: 12/19/17

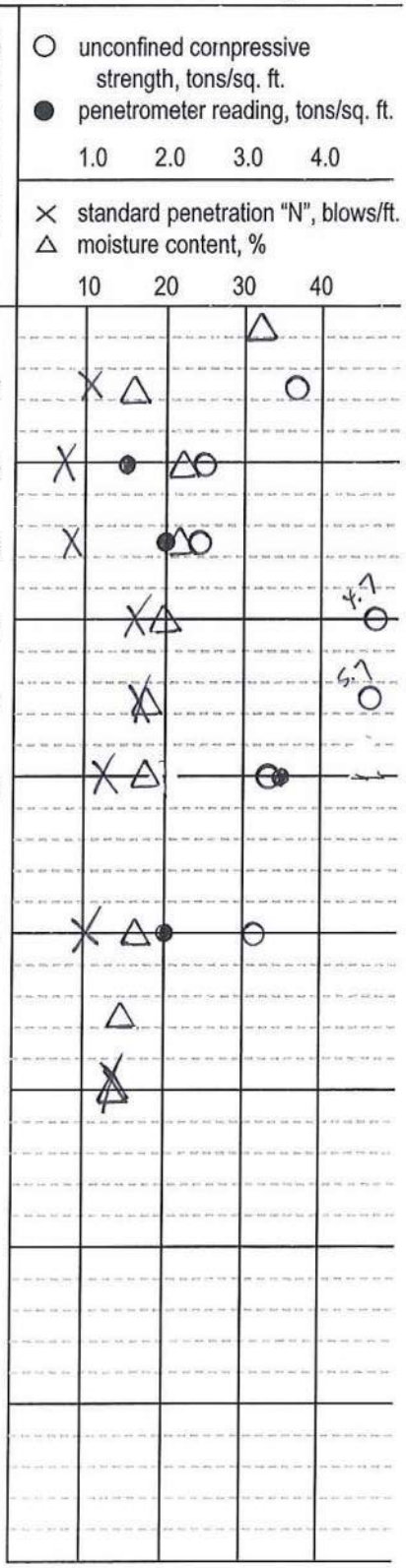
Reference: Olympic Indoor Swim Center
Addition & Renovation
Arlington Heights, IL

Comments:

Equipment: ☒CME 45B ☐CME 55 ☐Hand Auger ☐Other

Elevation 716.0' Existing Surface

depth, ft.	CLASSIFICATION	standard penetration ×	moisture content △	dry unit weight lbs./cu.ft. ɣ	unconfined compressive strengh ○
	(a) see below		30.5		
	Brown-dark brown clay,some silt,trace sand & gravel,damp,very tough-Fill	11	16.4	111.3	3.7
5	Brown-gray clay,some silt,trace sand & gravel,damp,very tough	7	21.6	102.2	2.5
		8	20.9	104.0	2.5
10	Brown clay,some silt,trace sand & gravel, damp,hard	16	19.9	107.7	4.7
		17	19.3	108.6	5.7
15	Gray clay,some silt,trace sand & gravel, damp,very tough	12	18.8	112.7	3.4
20		10	16.8	115.4	3.1
	(b) see below		15.2		
25	Gray silt,some clay,trace fine sand,damp medium dense	14	14.0		
	End of Boring				
30	(a) Black silt,some clay,trace sand & roots,damp (topsoil) - Fill - 15.0" (b) Gray fine sand,trace medium-coarse sand & silt,very damp-saturated				
35					
40					



Water encountered at 22.0 feet during drilling operations (W.D.)
Water recorded at 22.0 feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

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SOIL AND MATERIAL CONSULTANTS, INC.

8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

SOIL BORING LOG B-14

Logged By: DA Page: 1 of 1

Client: Arlington Heights Park District

File No. 23694 Date Drilled: 12/19/17

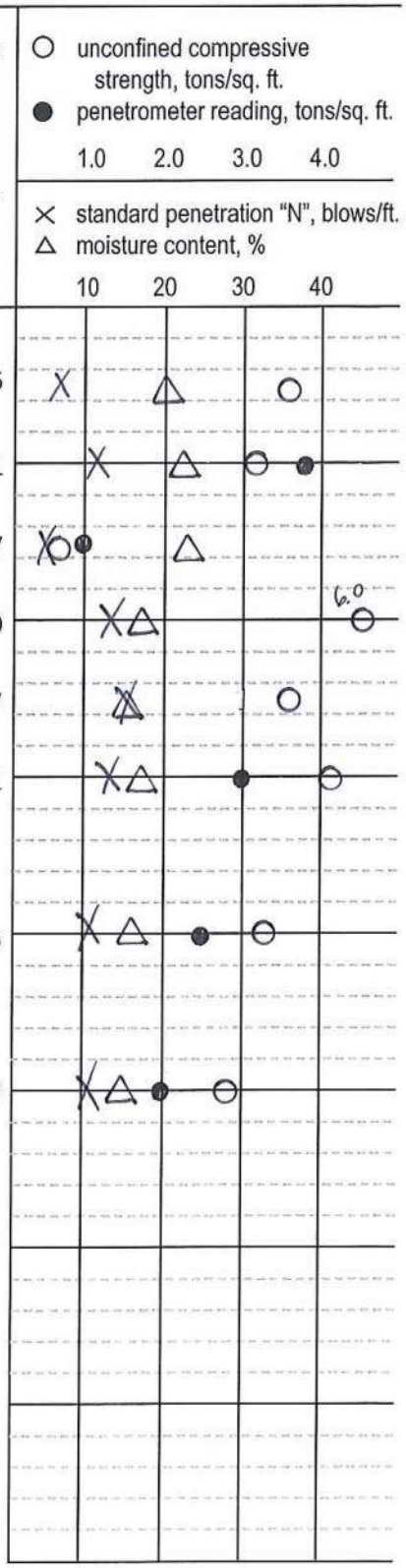
Reference: Olympic Indoor Swim Center
Addition & Renovation
Arlington Heights, IL

Comments:

Equipment: ☒CME 45B ☐CME 55 ☐Hand Auger ☐Other

Elevation 716.0' Existing Surface

depth, ft.	CLASSIFICATION	standard penetration ×	moisture content △	dry unit weight lbs./cu.ft. ɤ	unconfined compressive strengh ○
	(a & b) see below				
	(c) see below	7	20.0	104.0	3.5
5	Brown-gray clay,some silt,trace sand & gravel,damp-very damp,very tough	12	22.4	101.0	3.1
	Brown-gray clay,some silt,trace sand & gravel,damp-very damp,stiff	5	23.0	102.1	0.7
10	Brown clay,some silt,trace sand & gravel damp,hard to very tough	14	18.2	111.2	6.0
		16	15.5	115.8	3.7
15	Gray clay,some silt,trace sand & gravel, damp,hard	14	16.9	115.3	4.1
20	Gray clay,some silt,trace sand & gravel, damp,very tough	11	16.3	117.9	3.3
25		11	14.5	120.5	2.9
	End of Boring				
	(a) Bituminous concrete - 5.0"				
	(b) Crushed gravel,damp - 9.5"				
30	(c) Brown-dark brown-black clay & silt, trace sand & gravel,damp,very tough Fill				
35					
40					



Water encountered at dry feet during drilling operations (W.D.)
Water recorded at dry feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

G-303

SOIL AND MATERIAL CONSULTANTS, INC.

8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

SOIL BORING LOG B-15

Logged By: DA Page: 1 of 1

File No. 23694 Date Drilled: 12/19/17

Client: Arlington Heights Park District

Reference: Olympic Indoor Swim Center
Addition & Renovation
Arlington Heights, IL

Comments:

Equipment: ☒CME 45B ☐CME 55 ☐Hand Auger ☐Other

Elevation 718.0' Existing Surface

○ unconfined compressive strength, tons/sq. ft.
● penetrometer reading, tons/sq. ft.
× standard penetration "N", blows/ft.
△ moisture content, %

depth, ft.	CLASSIFICATION	standard penetration ×	moisture content △	dry unit weight lbs./cu.ft. ɣ	unconfined compressive strengh ○
	(a) see below				
	Brown fine-medium sand, some gravel, trace coarse sand, damp, medium dense - Fill	26	10.8		
5	Brown pea gravel, some sand, damp, very loose - Fill	2	6.8		
		2	3.7		
10		2	3.2		
	▽	2	3.3		
15	Gray clay, some silt, trace sand & gravel, very damp-damp, very tough	7	16.4	120.3	2.2
20	Gray clay, some silt, trace sand & gravel, damp, very tough	11	14.1	127.4	2.1
	Gray silt, some clay, trace sand & gravel, damp, medium dense				
25	End of Boring	16	11.2		
	(a) Concrete - 5.0"				
30					
35					
40					

Water encountered at 13.0 feet during drilling operations (W.D.)
Water recorded at dry feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

G-303

SOIL AND MATERIAL CONSULTANTS, INC.
8 W. COLLEGE DR. • ARLINGTON HEIGHTS, IL 60004 • 847-870-0544 • FAX 847-870-0661

GENERAL NOTES

SAMPLE CLASSIFICATION

Soil sample classification is based on the Unified Soil Classification System, the Standard Practice for Description and Identification Soils (Visual-Manual Procedure), ASTM D-2488, the Standard Test Method for Classification of Soils for Engineering Purposes, ASTM D-2487 (when applicable), and the modifiers noted below.

CONSISTENCY OF COHESIVE SOILS

Term	Qu-tons.sq.ft.	N (unreliable)
Very soft	0.00 – 0.25	0 – 2
Soft	0.26 – 0.49	3 – 4
Stiff	0.50 – 0.99	5 – 8
Tough	1.00 – 1.99	9 –15
Very Tough	2.00 – 3.99	16 – 30
Hard	4.00 – 7.99	30 +
Very Hard	8.00 +	

RELATIVE DENSITY OF GRANULAR SOILS

Term	N – blows/foot
Very Loose	0 – 4
Loose	5 – 9
Medium Dense	10 – 29
Dense	30 – 49
Very Dense	50 +

IDENTIFICATION AND TERMINOLOGY

Term		Size Range
Boulder		over 8 in.
Cobble		3 in. to 8 in.
Gravel	- coarse	1 in. to 3 in.
	- medium	3/8 in. to 1 in.
	- fine	#4 sieve to 3/8 in.
Sand	- coarse	#10 sieve to #4 sieve
	- medium	#40 sieve to #10 sieve
	- fine	#200 sieve to #40 sieve
Silt		0.002 mm to #200 sieve
Clay		smaller than 0.002mm

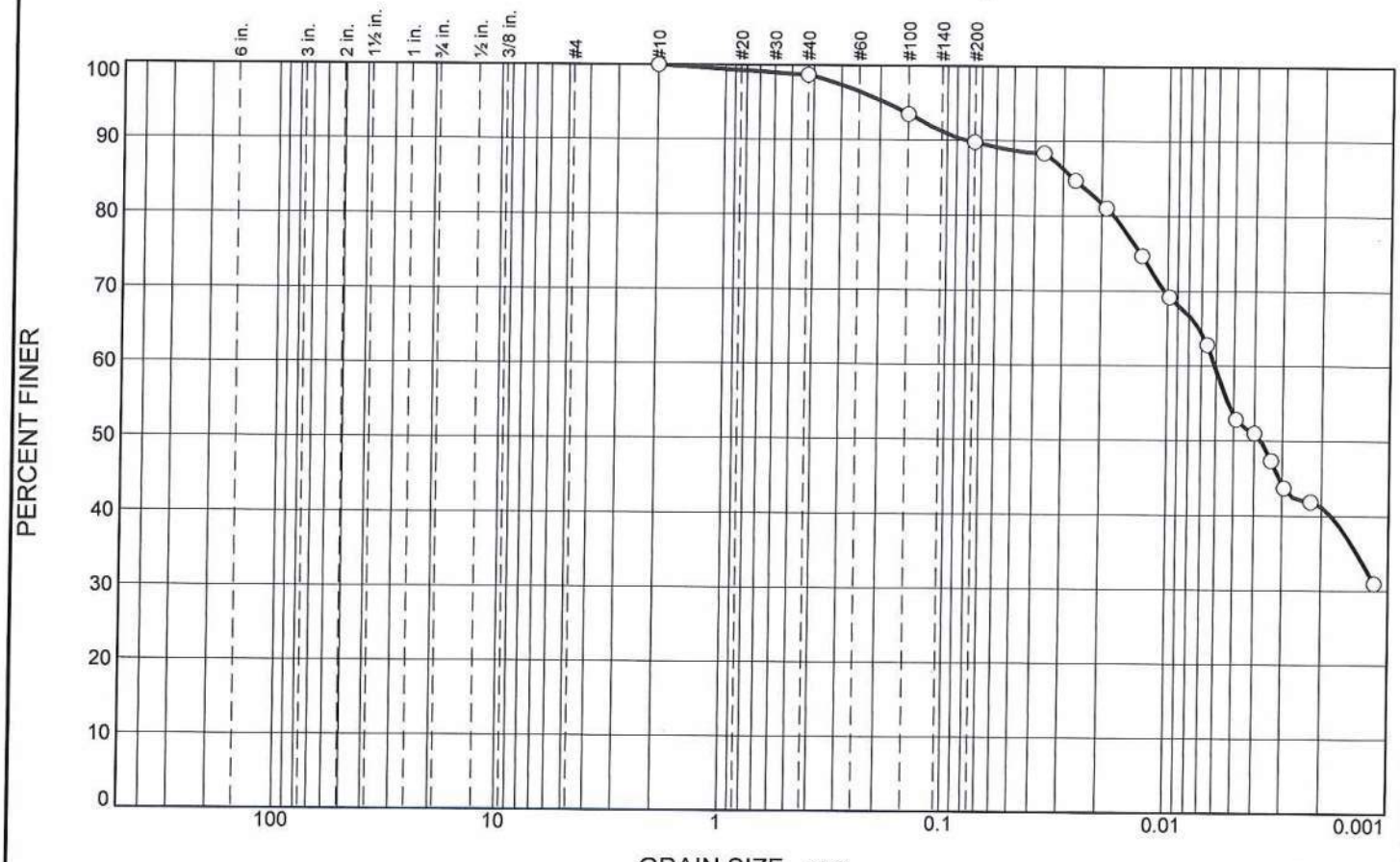
Modifying Term	Percent by Weight
Trace	1 – 10
Little	11 – 20
Some	21 – 35
And	36 – 50

Moisture Content
Dry
Damp
Very Damp
Saturated

DRILLING, SAMPLING & SOIL PROPERY SYMBOLS

CF	-	Continuous Flight Auger
HS	-	Hollow Stem Auger
HA	-	Hand Auger
RD	-	Rotary Drilling
AX	-	Rock Core, 1-3/16 in. diameter
BX	-	Rock Core, 1-5/8 in. diameter
NX	-	Rock Core, 2-1/8 in. diameter
S	-	Sample Number
T	-	Type of Sample
J	-	Jar
AS	-	Auger Sample
SS	-	Split Spoon (2 in. O.D. with 1-3/8 in. I.D.)
ST	-	Shelby Tube (2 in. O.D. w/ith1-7/8 in. I. D.)
R	-	Recovery Length, in.
B	-	Blows/6 in. interval, Standard Penetration Test (SPT)
N	-	Blows/foot to drive 2 in. O.D. split-spoon sampler with 140 lb. hammer falling 30 in., (STP)
Pen.	-	Pocket Penetrometer readings, tons/sq.ft.
W	-	Water Content, % dry weight
Uw	-	Dry Unit Weight of soil, lbs./cu.ft.
Qu	-	Unconfined Compressive Strength, tons/sq.ft.
Str	-	% Strain at Qu.
WL	-	Water Level
WD	-	While Drilling
AD	-	After Drilling
DCI	-	Dry Cave-in.
WCI	-	Wet Cave-in.
LL	-	Liquid Limit, %
PL	-	Plastic Limit, %
PI	-	Plasticity Index (LL-PL)
LI	-	Liquidity Index [(W-PL)/PI]

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	1.3	8.9	48.6	41.2

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#40	98.7		
#100	93.5		
#200	89.8		

* (no specification provided)

Material Description

Silty Clay

Atterberg Limits

PL= 20 LL= 34 PI= 14

Coefficients

D_{90}= 0.0813 D_{85}= 0.0271 D_{60}= 0.0061
D_{50}= 0.0038 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= CL AASHTO= A-6(12)

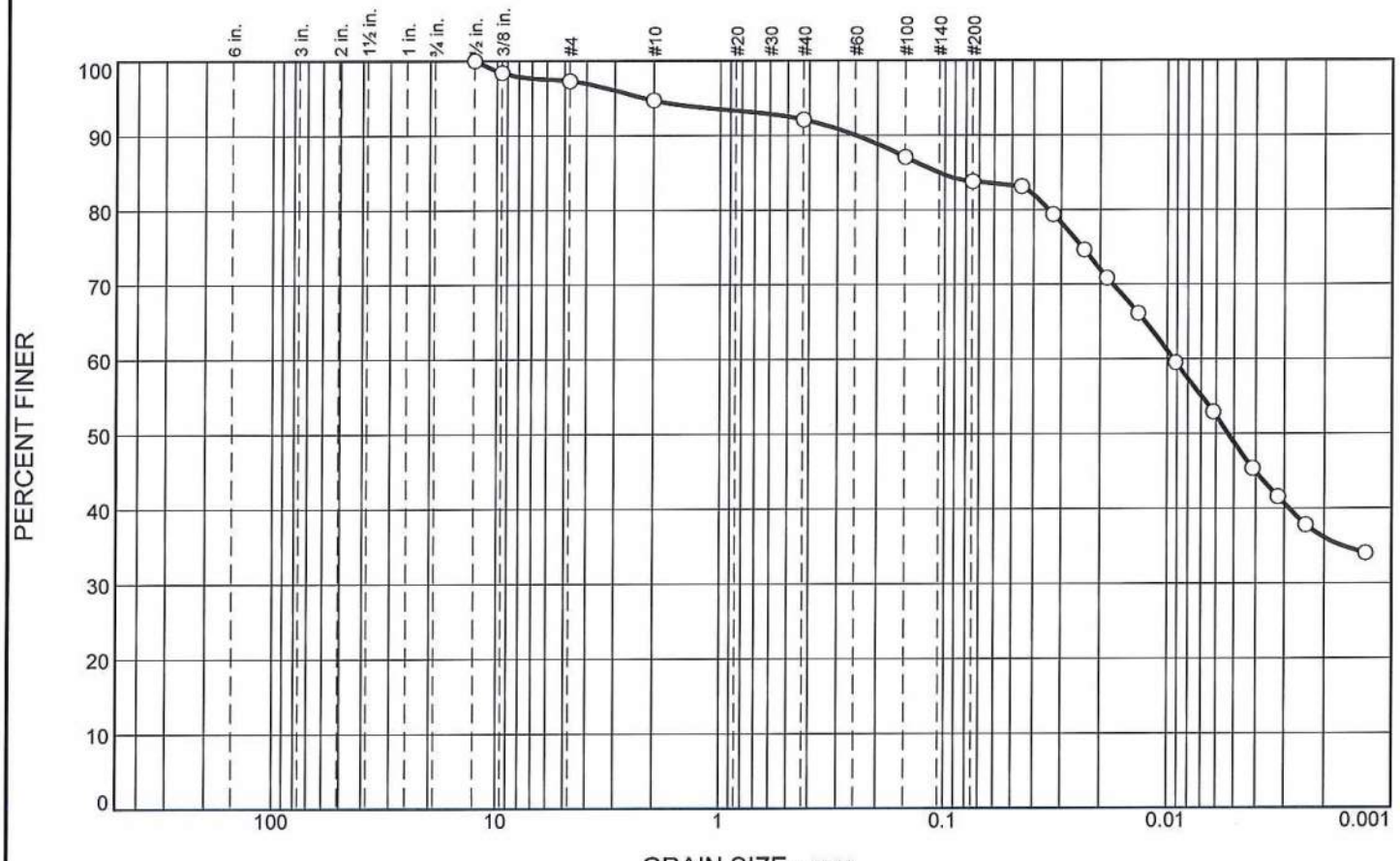
Remarks

Location: D-1
Sample Number: 3 **Depth:** 3.5' to 5.0' **Date:**

SOIL AND MATERIAL CONSULTANTS, INC.

Client: Arlington Heigths Park District
Project: Olympic Indoor Swim Center
Addition and Renovation ARlington Heights, IL
Project No: 23694 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	2.7	2.6	2.6	8.3	47.7	36.1

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1/2	100.0		
3/8	98.4		
#4	97.3		
#10	94.7		
#40	92.1		
#100	87.1		
#200	83.8		

* (no specification provided)

Material Description

Silty Clay Loam

Atterberg Limits

PL= 18 LL= 33 PI= 15

Coefficients

D_{90}= 0.2497 D_{85}= 0.1066 D_{60}= 0.0094
D_{50}= 0.0053 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= CL AASHTO= A-6(12)

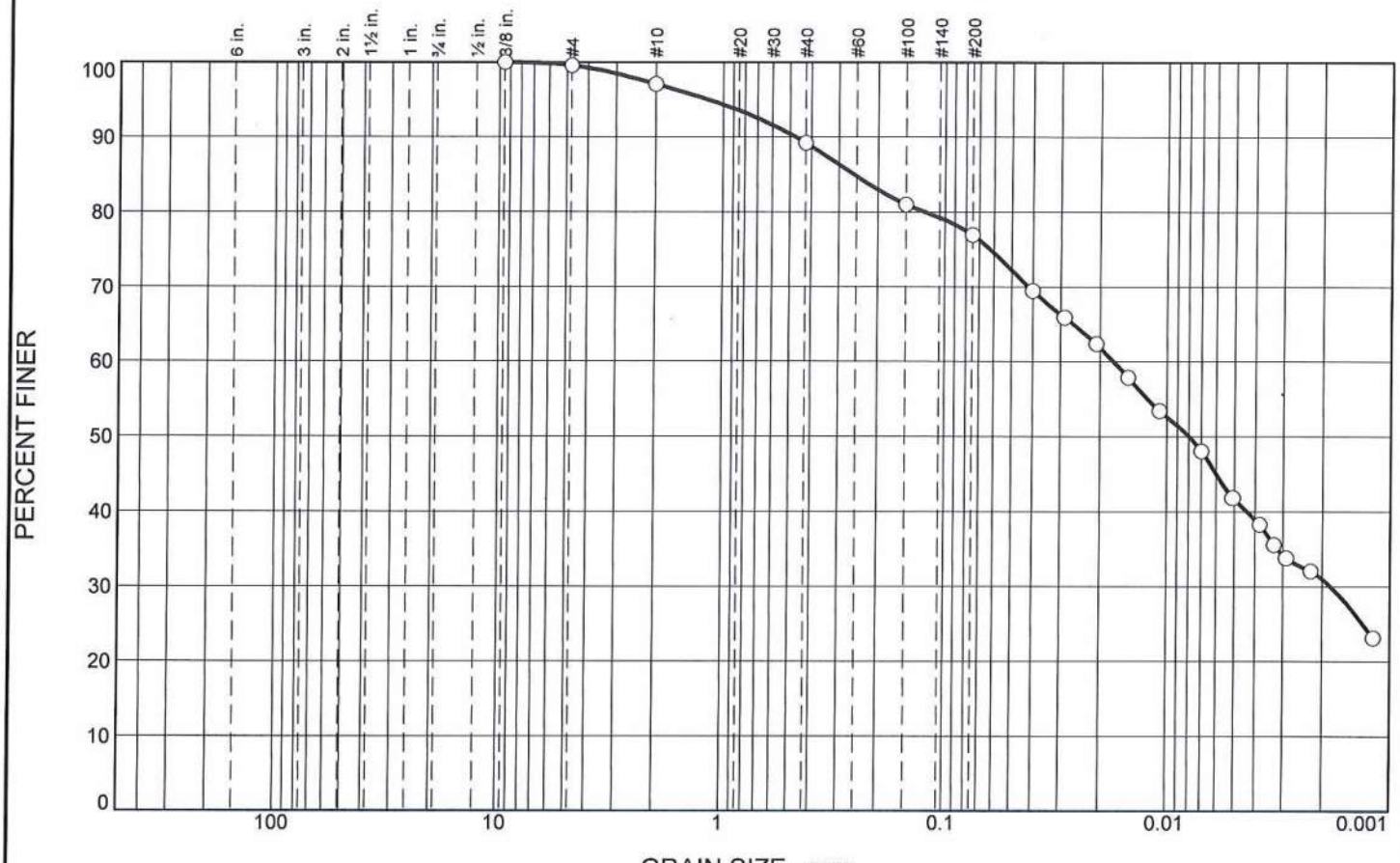
Remarks

Location: D-2
Sample Number: 4 **Depth:** 6.0' to 7.0' **Date:**

SOIL AND MATERIAL CONSULTANTS, INC.

Client: Arlington Heigths Park District
Project: Olympic Indoor Swim Center
Addition and Renovation ARlington Heights, IL
Project No: 23694 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.4	2.5	7.9	12.3	45.9	31.0

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/8	100.0		
#4	99.6		
#10	97.1		
#40	89.2		
#100	81.0		
#200	76.9		

* (no specification provided)

Material Description

Clay Loam

Atterberg Limits

PL= 16 LL= 30 PI= 14

Coefficients

D_{90}= 0.4733 D_{85}= 0.2569 D_{60}= 0.0174
D_{50}= 0.0079 D_{30}= 0.0018 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= CL AASHTO= A-6(9)

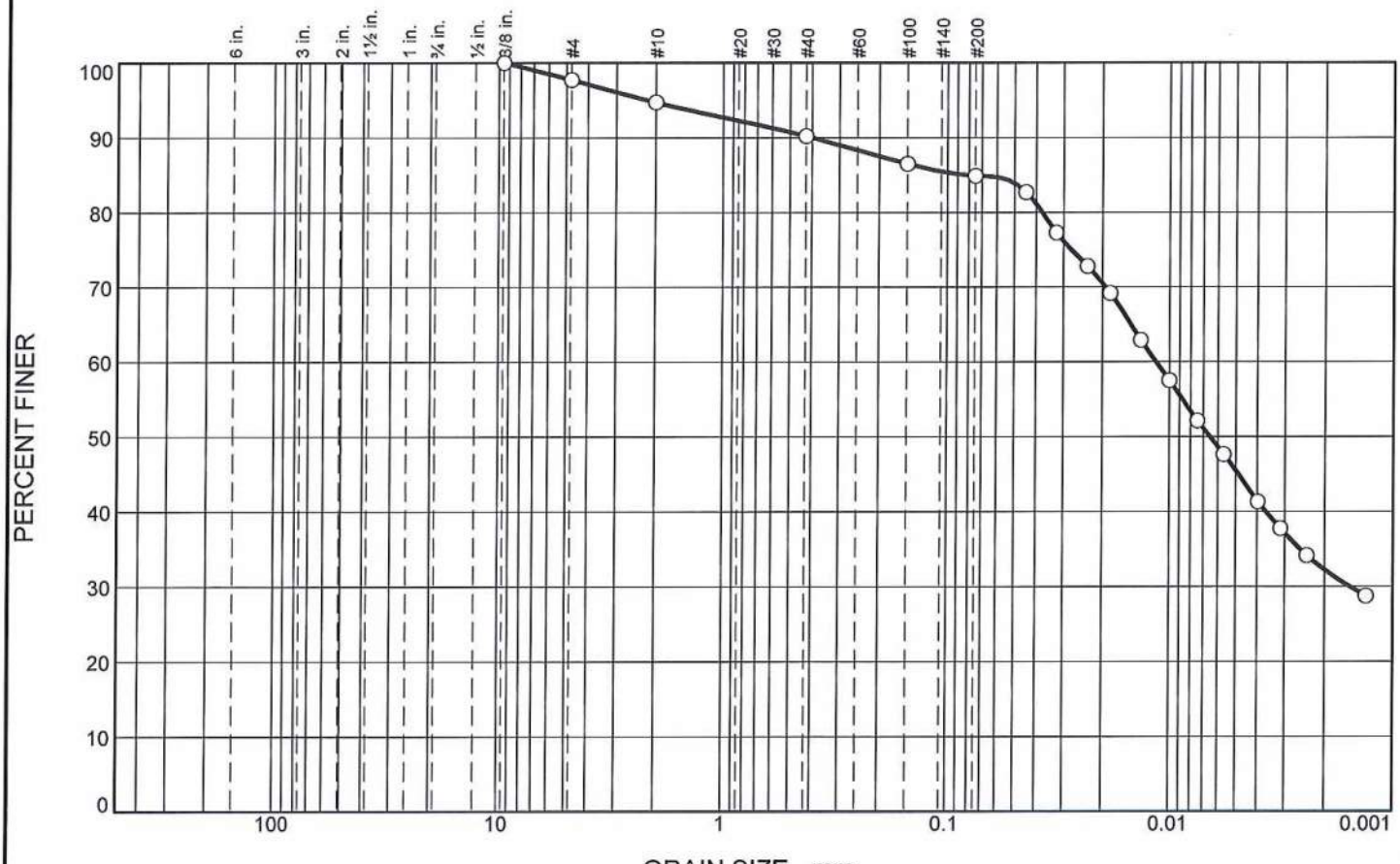
Remarks

Location: P-2
Sample Number: 2 **Depth:** 1.5' to 2.5' **Date:**

SOIL AND MATERIAL CONSULTANTS, INC.

Client: Arlington Heigths Park District
Project: Olympic Indoor Swim Center
Addition and Renovation ARlington Heights, IL
Project No: 23694 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	2.3	3.0	4.5	5.3	52.7	32.2

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/8	100.0		
#4	97.7		
#10	94.7		
#40	90.2		
#100	86.5		
#200	84.9		

* (no specification provided)

Material Description

Silty Clay Loam

Atterberg Limits

PL= 18 LL= 33 PI= 15

Coefficients

D_{90}= 0.4003 D_{85}= 0.0830 D_{60}= 0.0115
D_{50}= 0.0065 D_{30}= 0.0015 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= CL AASHTO= A-6(12)

Remarks

Location: P-4
Sample Number: 2 **Depth:** 15" to 2.5' **Date:**

SOIL AND MATERIAL CONSULTANTS, INC.

Client: Arlington Heigths Park District
Project: Olympic Indoor Swim Center
Addition and Renovation ARlington Heights, IL
Project No: 23694 **Figure**

GEWALT HAMILTON ASSOCIATES, INC.
CONSULTING ENGINEERS
625 Forest Edge Drive, Vernon Hills, IL 60061
Tel 847.478.9700 ▪ Fax 847.478.9701
www.gha-engineers.com

Traffic Impact and Parking Study

To: Mr. John Dzarnowski, AIA - FGM Architects

Copy: Walter E. Graft, P.E. - GHA

From: Lynn M. Means, P.E., PTOE
Senior Transportation Engineer

Date: January 8, 2018
Updated February 15, 2018

Subject: Olympic Indoor Swim Center Addition and Renovation
Arlington Heights Park District
Arlington Heights, Illinois

Part I. Introduction and Project Context

Gewalt Hamilton Associates, Inc. (GHA) has conducted a Traffic Impact and Parking Study for the proposed addition and renovation of the Arlington Heights Park District (AHPD) Olympic Indoor Swim Center and Olympic Park. The site is located on the north side of Euclid Avenue between Ridge Avenue and Salem Avenue in Arlington Heights, Illinois.

The site currently contains the approximately 45,200 square-foot, Olympic Indoor Swim Center (aquatic complex with three pools and classes) and outdoor amenities (basketball court, skate park, playground, tennis court, playground area and soccer fields), along with Safety Town (miniature town) in the northeast area of the site. Access to the site is currently provided via one full access driveway on Ridge Avenue, approximately 100 feet north of Euclid Avenue. The site is served by 191 parking spaces, including six (6) accessible spaces. Parking for 34 bicycles is also provided on the east side of the building.

As currently proposed, the project includes an approximately 32,000 square-foot fitness center addition on the north and west sides of the existing building, in the location of the existing tennis and basketball courts and skate park. The expansion will include a gymnasium, indoor walking track, warm water pool, fitness components, locker rooms and multi-purpose rooms. It will also include outdoor amenities, including the relocation of the playground and basketball court, modified soccer fields (one full size). In addition, the project will incorporate building upgrades, including the relocation of the main building entrance from the south to the west side of the expanded building. Safety Town will remain in its current location and the skate park will be eliminated. *It should be noted, there is a potential to add another gymnasium on the north side of the expanded facility, resulting in an approximately 52,600 square-foot addition (this would eliminate the relocated outdoor basketball court).*

Access to the expanded and renovated facility (under both the single or double gymnasium options) will be maintained via the existing access driveway on Ridge Avenue, as well as an additional access is proposed on Ridge Avenue. The on-site parking supply will be increased to provide an additional 75 parking spaces (including one additional accessible space), for a total of 266 parking spaces. Parking for an additional 18 bicycles will also be provided on-site, for a total of 52 bicycle spaces.

The following provides a summary of existing conditions, site traffic and parking characteristics, future conditions and an analysis of the development's impact on the surrounding roadway network and site access. *Exhibits* and *Appendices* referenced are located in the Technical Addendum at the end of this document.

Part II. Background Information

Existing Site Characteristics, Site Location Map and Roadway Inventory

Exhibit 1 provides a location map of the site vicinity. *Exhibit 2* provides a photo inventory of current operations. Pertinent comments to the site, surrounding land uses, adjacent roadways, pedestrian / bicycle facilities and public transportation include:

Site Characteristics

The AHPD Olympic Indoor Swim Center (Center) and±6-acre Olympic Park (Park) site is located on the north side of Euclid Avenue between Salem Avenue and Ridge Avenue. The Center is approximately 42,500 square-feet and includes three (3) pools, locker rooms and several small office and storage rooms. It employs four (4) full time and 75-part time staff, with a maximum of 25 staff present during peak hours of operation. Hours of operation are 6:00 AM to 10:00 PM, Monday through Friday and 6:00 AM to 9:00 PM on Saturday and Sunday. Typical programming and attendance is as follows:

Programming

- Swimming Pools
  - Weekday
    - Lap Swim – 6:00 to 8:00 AM, 11:00 AM to 3:00 PM and 9:00 to 10:00 PM
    - Water Exercise and Swim Lessons – 8:00 to 11:00 AM
    - Swim Lessons, Swim Teams or Open Swim – 4:00 to 9:00 PM
  - Weekend
    - Lap Swim – 6:00 to 7:00 AM
    - Water Exercise – 7:00 to 8:00 AM
    - Swim Lessons – 8:00 AM to 12:00 PM
    - Open Swim – 12:00 to 5:00 PM
    - Swim Teams – 5:00 to 9:00 PM
- Multi-Purpose Rooms
  - Weekday
    - Variable / Minimal Activity – one to two classes per day
  - Saturday
    - Parties and Rentals – 12:00 to 5:00 PM (coinciding with Open Swim)

Attendance

- Weekday – 300 persons per day, most for scheduled activities (i.e., swim lessons, practice)
- Weekend – 600 persons per day, again most for scheduled activities. Open swim is less than 100 persons per day on the weekend.

The Park includes the following outdoor amenities: soccer fields (one full size and one half size), basketball court, skate park, playground area, two tennis courts and Safety Town. The outdoor fields and activities are seasonal / weather permitting. The soccer fields are used on weekdays for team practices, with a typical attendance of 20 persons. Weekend games are scheduled for the fields, as needed, with a typical attendance of

50 persons. It should be noted, with the addition of Sunset Meadows soccer and football fields, games are infrequently scheduled at the Park. There are no large outdoor events scheduled at Olympic Park.

The site is served by a total of 191 parking spaces, including 6 accessible spaces. A two (2) year license agreement is in place (6/1/17 to 5/31/18) for Big Ange's use of 6 of these spaces. The agreement auto renews, unless notified by either party in advance.

It should be noted, Christian Liberty Academy (CLA) uses the parking facility at 8:30 AM, 12:00 PM and 3:30 PM on weekdays, corresponding with student drop-off and pick-up activities at the school. As noted above, there is minimal activity occurring at the Center during these timeframes. *There is no agreement, written or verbal, between CLA and the AHPD that permits this activity.*

Area Land Use

Land uses surrounding the site are predominately residential to the north and west. Christian Liberty Academy (CLA) is located to the east of the site, across Ridge Avenue. Commercial uses are located to the south of the site, across Euclid Avenue, including Big Ange's Eatery and Firestone Complete Auto Care center.

Euclid Avenue

- Euclid Avenue is an east-west minor arterial that expands from a three (one-travel lane in each direction and a center lane for left-turns) to four-lane cross-section (two travel lanes in each direction) from east to west in the site vicinity.
- At its signalized intersection with Northwest Highway (US Route 14) and Salem Avenue, Euclid Avenue provides a shared through/left-turn and a shared through/right-turn lane in the east bound direction and a through and shared through/right-turn lane in the eastbound direction. Westbound left-turns from Euclid Avenue onto southeast bound Northwest Highway are prohibited, as well as the eastbound and westbound approaches are also both signed No Turn on Red.
- At its unsignalized intersection with Ridge Avenue, Euclid Avenue provides a left-turn lane and a shared through/right-turn lane in both the eastbound and westbound directions.
- Euclid Avenue is under the jurisdiction of the Cook County Department of Transportation and Highways adjacent to the site, easterly to Walnut Avenue, where jurisdiction transitions to the Village of Arlington Heights.
- The posted speed limit is 30 miles per hour (mph).
- The Annual Average Daily Traffic (AADT) on Euclid Avenue is 12,550 vehicles per day (vpd) west of Northwest Highway and 12,200 vpd east of Northwest Highway, year 2014.

Northwest Highway (US Route 14)

- Northwest Highway (US Route 14) is a northwest-southeast four-lane roadway (two travel lanes in each direction) within the study area. It is classified as minor arterial roadway.
- At its signalized intersection with Euclid Avenue and Salem Avenue, a left-turn lane, a through lane and a shared through/right-turn lane are provided in both directions.
- Northwest Highway has a posted speed limit of 35 mph north of Euclid Avenue and 30 mph to the south. It is under the Illinois Department of Transportation (IDOT) jurisdiction.
- The AADT on Northwest Highway is 16,700, year 2015.

Salem Avenue

- Salem Avenue is a north-south, two-lane local street that terminates approximately 850 feet north of Euclid Avenue at a cul-de-sac.

- At its signalized intersection with Euclid Avenue and Northwest Highway, Salem Avenue provides a single approach lane with shared turning movements.
- Parking along the west side is restricted to 2-hour parking; parking is prohibited along the east side of the street.

Ridge Avenue

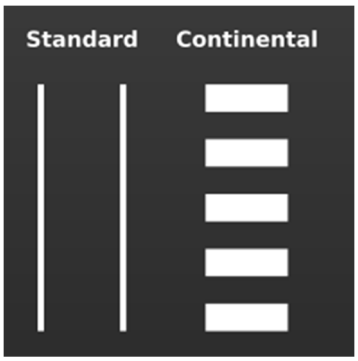
- Ridge Avenue is a north-south, two-lane local street.
- At its unsignalized intersections with Euclid Avenue and Elm Street, Ridge Avenue provides a single approach lane, operating under Stop sign control. It should be noted, the Ridge Avenue northbound approach to its intersection with Euclid Avenue provides a wide pavement section that permits separation of left- and right-turn movements.
- North of Euclid Avenue, the west side of Ridge Avenue is signed No Parking. On the east side it is signed adjacent to CLA No Parking Except Student Drop-Off and Pick-Up Zone 8AM to 4PM school days and 2-hour parking to the north of CLA. To the south of Euclid Avenue, Ridge Avenue is signed 4-hour parking on both sides of the roadway.
- Ridge Avenue has a posted speed limit of 20 mph on school days when kids are present in the site vicinity.

Elm Street

- Elm Street is an east-west, two-lane, local street.
- At its unsignalized intersection with Ridge Avenue, Elm Street provides a single approach lane with shared turn movements (Elm Street is free-flow condition).
- There are no parking restrictions along Elm Street in the site area.

Pedestrian / Bicycle Facilities

- Sidewalks are provided along both sides of all study area roadways.
- Pedestrian crosswalks are maintained at the following locations in the study area (see graphic illustrating crosswalk styles):
  - Standard-style pedestrian crosswalks are provided on the north (Salem Avenue) and northwest and southeast (Northwest Highway) legs of the Euclid Avenue at Northwest Highway and Salem Avenue signalized intersection. A continental-style crosswalk is striped across the east leg (Euclid Avenue).
  - Continental-style crosswalks are provided on the east, north and south legs of the Euclid Avenue and Ridge Avenue intersection.
  - Continental-style crosswalks are also striped on all four approaches of the Ridge Avenue and Elm Street intersection.
  - On the north leg of the Ridge Avenue and Site Access intersection, a continental-style crosswalk is provided (paint is very faded), as well as at a mid-block crossing of Ridge Avenue approximately 200-feet to the north, connecting CLA with the Olympic Park / Center.



- A crossing guard is stationed at the Site Access crosswalk during peak weekday morning and afternoon drop-off and pick-up activities to facilitate pedestrian activity between CLA and parents parking at the Center.
- Pedestrian signals are in place at the signalized intersection of Euclid Avenue at Northwest Highway and Salem Avenue.
- There are no signed bicycle routes along the study area roadways. Ridge Avenue from north of the Olympic Park to Elm Street and the Elm Street east to Walnut Avenue have been identified by the Village of Arlington Heights as a planned bicycle route, connecting to the existing bikeway along Walnut Avenue.

Public Transportation

The site is also well served by public transportation. Pace operates bus route 696 – Randhurst/Woodfield/Harper College in the site vicinity. Metra provides commuter rail service along the Union Pacific Northwest Line that begins in Harvard and ends at the Ogilvie Transportation Center in Chicago. The Arlington Heights Station is located on Northwest Highway, approximately 0.5-mile southeast of the site.

Existing Traffic

Peak period traffic turning movement, bicycle and pedestrian counts were conducted by GHA on Saturday, November 4, 2017 from 10:00 AM to 2:00 PM and on Tuesday, November 7 from 6:00 AM to 9:00 AM and 3:00 to 7:00 PM. Theses timeframes coincide with the peak hours of operation of existing and proposed site uses, the adjacent CLA start (8:25 AM) and dismissal (3:35 PM), along with the adjacent street system peak hours.

Note: The counts were performed when area schools were in session, including CLA. They were also performed coinciding with typical weekday programming and attendance at the Center. The Saturday counts also included a swim meet (1:00 to 5:00 PM) in addition to the typically programming. The Center typically hosts 10 swim meets during the school year. Weather during the counts was generally partly cloudy with periods of light rain and temperatures in the mid to upper 40s.

Exhibit 3A summarizes the existing weekday morning, afternoon school and evening, as well as Saturday midday peak hour traffic volumes. The observed weekday morning, weekday afternoon school, weekday evening and Saturday midday peak hours, in general, occurred from 7:30 to 8:30 AM, 3:15 to 4:15 PM, 4:30 to 5:30 PM and 12:30 to 1:30 PM, respectively; however, the peak hour for each individual intersection was used in the analysis to provide a conservative analysis scenario and intersection volumes were balanced, where appropriate.

Exhibit 3A also provides the AADT (24-hour volume) along Euclid Avenue (year 2014) and Northwest Highway (year 2015) as published by IDOT on their website www.gettingaroundillinois.com. *Exhibit 3B* illustrates the pedestrian and bicycle count data, coinciding with the same aforementioned four peak hours.

No unusual activities (e.g. roadway construction, or inclement weather) were observed during our counts that would be expected to impact traffic volumes or travel patterns in the vicinity. Summaries of the existing traffic counts can be found in *Appendix A*.

Existing Parking

Parking Survey

Exhibit 4 shows an aerial photo of the study area and the parking areas surveyed. GHA conducted an inventory of the parking spaces available in each area shown. GHA surveyed the on-site parking spaces, as well as monitored the on-street parking along Salem Avenue and Ridge Avenue for Olympic Indoor Swim Center and Park usage. *Note, the on-street parking spaces along Salem Avenue and Ridge Avenue are not delineated. Based on a field review (including observations and curb length), Salem Avenue (west side) was assumed to accommodate 15 vehicles and Ridge Avenue between Euclid Avenue and Elm Street, excluding the CLA drop-off/pick-up loading area, can accommodate 45 vehicles (12 west side and 33 east side), for a total of 60 on-street spaces located within close proximity of the site.* A detailed breakdown of the areas surveyed is tabulated on *Exhibits 5A and 5B.*

Parking Occupancy

In order to determine the existing parking demand in the study area, GHA conducted parking occupancy surveys of each of the parking areas identified above. The parking surveys were conducted hourly on Tuesday, November 7, 2017 between 8:00 AM and 12:00 PM and Wednesday, November 8, 2017 between 3:00 and 9:00 PM and on Saturday, November 4, 2017 between 9:00 AM and 5:00 PM. These times were chosen as they represent the peak hours of occupancy based on predicted usage during the day for the existing and proposed uses, as well as the nearby Christian Liberty Academy.

Exhibits 5A and 5B show the results of the weekday and Saturday parking surveys, respectively. The results of the survey indicate the following key findings and observations:

- The peak parking demand in the area occurred at 3:00 PM on Saturday, when the parking demand (203 spaces, including 4 accessible spaces) exceeded the available on-site supply (191 spaces, including 6 accessible spaces). This peak demand included 14 vehicles that were observed to park along Ridge Avenue. As previously noted, this parking demand occurred coinciding with one of ten scheduled Saturday swim meets held at the facility during the school year.
- There was ample on-street parking available along both Salem Avenue and Ridge Avenue coinciding with peak Center activities. At its peak, only approximately 23 percent of the combined on-street supply (14 of 60) was occupied.
- Prior to the start of the swim meet on Saturday, the on-site parking demand did not exceed 55 percent, with a minimum of 90 spaces available.
- During the week, the peak parking demand occurred at 6:00 PM, with a demand of 68 spaces (approximately 36 percent of the available supply), which included 3 vehicles parked on Ridge Avenue. A minimum of 123 parking spaces were observed available during the weekday observations.
- The parking demand observed included the use of a minimum of 20 parking spaces by CLA parents for drop-off and pick up activities during weekday morning and afternoon school peaks. As shown on *Exhibit 5A*, there is ample surplus of parking to accommodate the CLA use of the Center parking lot.
- The afternoon and evening peak periods also included the use of a maximum of 5 to 6 parking spaces along the south side of the Center parking lot by Big Ange's restaurant patrons/employees.
- Bicycle parking is provided on the east side of the building (34 spaces). There is ample supply provided, with a maximum of two parked bicycles observed during both the weekday and Saturday surveys. *Note: the parking surveys were performed in November, when bicycle activity is lower than peak late spring and summer seasons.*

Bicycle Parking on the East Side of the Olympic Center

Existing Operational Observations

Observations were conducted of the area during the four peak hours studied. *Exhibits 6A and 6B* also summarize the pedestrian activities on the fields, coinciding with the parking surveys. Some of these observations include the following:

- There was minimal activity pedestrian activity observed at the outdoor park facilities (soccer fields, basketball court, skate park, playground, tennis courts and Safety Town). A maximum of 18 persons (2 adults and 16 children) were observed during the weekday at 11:00 AM and a maximum of 5 persons (3 adults and 2 kids) were observed on a Saturday.
- Majority of passenger vehicle, as well as bus, drop-off and pick-up activity for the Center occurs at the main entrance located on the south side of the building. Given its close proximity to Ridge Avenue, during peak

activity, back-ups occur for short durations that extend to Ridge Avenue, which blocks traffic from entering the site.

- Pedestrians were frequently observed to cross Ridge Avenue adjacent to the site not within the marked crosswalks.
- It is our understanding, during peak outdoor (soccer) field usage, Salem Avenue's on-street 2-hour parking (west side) is often occupied by parents, given its close proximity to the field. During inclement weather, the east side (where parking is restricted) is often occupied by parents watching their kids on the field.
- The signalized intersection of Euclid Avenue at Northwest Highway and Salem Avenue frequently experiences capacity constraints (back-ups) due to the unique geometry (5 legged-intersection), along with close proximity to the at-grade railroad crossing on the west leg (Euclid Avenue).
- During peak CLA weekday morning and evening drop-off and pick up activities, the east side of Ridge Avenue is heavily parked, as well as previously noted, the Center parking lot is used for these activities. However, it is only for a short duration, approximately 20-30 minutes during each timeframe, and the programming / attendance at the Center is minimal.
- The site access driveway is often used as a "turn around" for vehicles parked on the east side of Ridge Avenue for drop-off / pick-up at CLA that are destined to the south.
- During the weekday evening observations, the Center parking lot was observed to be used for private driver education practice. As shown in the photo, the parking lot had a surplus of parking during this timeframe.

Private Driver Education Vehicle Use of Center Parking Lot

Crash Analysis

In order to evaluate and address potential safety issues at the study area intersections, crash data was obtained from the IDOT Division of Transportation Safety for the last three calendar years available, 2013 through 2015[i]. A summary of the crash data is provided in *Table 1.* It should be noted, there were no reported crashes at the site access intersection with Ridge Avenue over the three-year analysis period.

Table 1: Crash Summary (2013 – 2015) [A]

Location	No. of Crashes	Severity [B]					Crash Type [D]						Percent During Wet/Icy Conditions	Percent During Adjacent Street Peak Hours
		PD	PI [C]			K	CM	RE	HO	FO	Ped	Bike		
			A	B	C									
Euclid Ave at NW Hwy and Salem Ave	28	23	1	2	2	-	8	14	1	4	-	1	29%	32%
Euclid Ave at Ridge Ave	2	2	-	-	-	-	1	1	-	1	-	-	100%	50%

[A] Source: IDOT Division of Transportation Safety for the 2013-2015 calendar years.
[B] PD = property damage only; PI = personal injury; K = fatality.
[C] Type A (incapacitating injury); Type B (non-incapacitating injury); Type C (possible injury).
[D] CM = cross movement/angle; RE = rear end; HO = head on; FO = fixed object; Ped = pedestrian.

As shown in Table 1, the intersection of Euclid Avenue at Northwest Highway and Salem Avenue experienced the highest amount of crashes within the study area over the three-year analyses period. There was an average of nine (9) crashes per year at this location. Majority, approximately 82 percent (23 of 28), involved property

[i] Complete year 2016 and 2017 crash data was not available from IDOT at the time of this study.

damage only and half, 50 percent (14 of 28) were rear-end collisions. There was one crash at this intersection that involved a bicycle.

2024 No-Build (Non-Site) Traffic

Exhibit 7 summarizes the 2024 No-Build weekday morning, weekday afternoon school, weekday evening and Saturday midday peak hour traffic volumes. This identifies background, or ambient, projected growth in traffic conditions without the site traffic. Future traffic volume conditions were developed for the anticipated opening year of the development (year 2019) plus five years. For the purpose of this study and based on a review of historical traffic volumes, the Chicago Metropolitan Agency for Planning (CMAP) 2040 projections (see *Appendix B*), and recent studies performed in the area, traffic volumes along the roadways surrounding the site are assumed to experience an overall annual, compounded growth rate of approximately one-half (0.5) percent per year along the study area roadways. Accordingly, the 2024 No-Build peak hour traffic volumes were developed by applying a 0.5 percent compounded annual growth rate to the existing traffic (*Exhibit 3)*.

Part III. Traffic Evaluation

Proposed Site Plan

Exhibit 8 presents the conceptual site plan prepared by FGM Architects / GHA dated January 8, 2018, which includes both single and double gymnasium options. As proposed, the development consists of razing the existing tennis and basketball courts, skate park and playground and constructing an approximately 32,000 square-foot fitness center addition on the north and west sides of the existing Olympic Indoor Swim Center building. The expansion will include a gymnasium, indoor walking track, warm water pool, fitness components, locker rooms and multi-purpose rooms. It will also include outdoor amenities, including the relocation of the playground and basketball court, modified soccer fields. In addition, the project will incorporate building upgrades, including the relocation of the main building entrance from the south to the west side of the expanded building, which will enhance on-site circulation and safety by moving this activity further from Ridge Avenue.

Additional pedestrian enhancements are also proposed on-site/within the parking facility, including new and eliminated crosswalks, ADA curb ramps and sidewalks/paths. Safety Town will remain in its current location and the skate park will be eliminated. *As previously noted, there is also the potential to add another gymnasium on the north side of the expanded facility, resulting in an approximately 52,600 square-foot addition (this would eliminate the relocated outdoor basketball court).*

With the proposed expansion and renovation, the facility's hours of operation are anticipated to be increased to open a ½-hour earlier during the week (5:30 AM to 10:00 PM Monday through Friday); weekend hours would remain as existing (6:00 AM to 9:00 PM Saturday and Sunday). Programming and attendance for the swimming pools are anticipated to remain unchanged. The multi-purpose rooms are anticipated to experience increased usage, due to additional fitness group exercise programming, with steady attendance throughout the weekdays, as well as weekend mornings. Attendance for the multi-purpose rooms is expected at 200 persons per day (8 classes per day and 25 people per class). The proposed gymnasium is anticipated to experience peak activity during the evenings, with youth sports occurring from 5:00 to 9:00 PM. The daily attendance for the gyms is at 100 persons per day (evenings between 5:00 and 9:00 PM are anticipated at 20 people per hour, coinciding with the anticipated youth programming). *The double gymnasium option would double the aforementioned gym attendance projections.* The proposed fitness center is anticipated to experience steady use throughout the day, with higher activity experienced at 6:00 AM and 5:00 PM. The expected attendance for the fitness center is 700 persons per day, averaging 43 to 44 persons per hour (based on a 16-hour day).

Access to the expanded and renovated facility (under both the single or double gymnasium options) will be maintained via the existing access driveway on Ridge Avenue, as well as an additional access is proposed on Ridge Avenue The on-site parking supply will be increased to provide an additional 75 parking spaces (including one additional accessible space), for a total of 266 parking spaces. Parking for an additional 18 bicycles will also be provided on-site, for a total of 52 bicycle spaces.

Trip Generation and Directional Distribution

Exhibits 9A and 9B – Part A tabulates the traffic generation calculations for the proposed development, as well as the existing site traffic under the single (32,000 square-foot expansion) and double (52,600 square foot expansion) gymnasium alternatives. Trip generation rates published by the Institute of Transportation Engineers (ITE) in the 10th Edition of the Manual *Trip Generation* were used to determine the anticipated traffic from the proposed fitness center expansion. ITE Land Use Code (LUC) 495, Recreational Community Center, was referenced for the proposed use.

Existing site traffic for the Indoor Swim Center summarized on Exhibit 9 was based on the traffic count data collected at the existing facility by GHA in November 2017, which represented typical or above average conditions and is accounted for within the existing and no-build traffic networks. However, as previously described, the outdoor soccer fields experienced minimal use at the time this study was performed. Although as previously described, these field have experienced a decline in usage along with occupancy at peak timeframes that don't coincide with other site activities, in order to provide a conservative analysis scenario, full occupancy of the soccer field was assumed in this study. ITE LUC 488, Soccer Complex, was referenced for this use. *Note, the remaining outdoor activities (basketball court, safety town, playground, etc.) are ancillary to the existing and proposed site uses and <u>not</u> a significant generator of vehicular traffic.*

Exhibit 9 – Part B provides the anticipated trip distribution. This was based on existing travel patterns, site access and the operational characteristics of the street system.

Site and Total Traffic Assignments

Exhibits 10A1 and 10A2 illustrate the additional site traffic assignment during the weekday morning, afternoon school and evening peak hours and the Saturday midday peak hour for the fitness center expansion under the single and double gymnasium alternatives, respectively. *Exhibit 10B* illustrates the traffic assignment associated with the occupancy of the existing soccer field use. These assignments are based on the traffic characteristics summarized on *Exhibits 9A and 9B* (traffic generation and trip distribution) and assigned to the area roadways. *Exhibit 10C* illustrates the reassignment of existing site traffic (Exhibit 3A) with the additional access on Ridge Avenue.

Site traffic, reassigned existing site traffic and 2024 No-Build (see *Exhibits 10A1 /10B, 10C* and *7,* respectively) were combined resulting in the 2024 Total Traffic for the Single Gymnasium option, which is illustrated on *Exhibit 11A.* Similarly, the 2024 Total Traffic for the Double Gymnasium option was developed by combining *Exhibits 10A2, 10B, 10C and 7* (see *Exhibit 11B*).

Capacity and Queue Analyses

Capacity analyses are a standard measurement in the industry that identifies how an intersection operates. *Exhibit 12* – Part A lists the analysis parameters, as published in the Transportation Research Board's (TRB) Highway Capacity Manual (HCM), 6th Edition, 2016. They are measured in terms of level of service (LOS). The concept of LOS is defined as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers. A level-of-service definition provides an index to quality of traffic flow in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety.

Six levels of service are defined for each type of facility. They are given letter designations from A to F, with LOS A representing the best operating conditions and LOS F the worst. LOS C is often considered acceptable for design purposes and LOS D is usually considered as providing the lower threshold of acceptable operations. LOS E and F are usually considered unacceptable.

Capacity analyses were performed for the following scenarios:

- *Existing Traffic* - Existing traffic (November 2017).
- *Total Traffic, Single Gymnasium* – No-Build traffic volumes (non-site, year 2024, with background growth, assumed at 0.5 percent per year) plus the addition of site generated traffic (proposed fitness center expansion, single gym, and occupancy of existing soccer fields), along with the re-distribution of existing site traffic with the new site access on Ridge Avenue.
- *Total Traffic, Double Gymnasium* – No-Build traffic volumes (non-site, year 2024, with background growth, assumed at 0.5 percent per year) plus the addition of site generated traffic (proposed fitness center expansion, double gym, and occupancy of existing soccer fields), along with the re-distribution of existing site traffic with the new site access on Ridge Avenue.

Due to the existing, non-standard traffic control at the signalized intersection of Euclid Avenue at Northwest Highway and Salem Avenue (five-legged intersection), which is not supported by HCS7 software, the capacity analyses were modeled using Synchro v10 software. *Exhibit 12 - Part B* summarizes the intersection capacity and queue analysis results. Capacity analysis summary printouts are provided in *Appendix C*.

As shown on *Exhibit 12*, under both existing and future conditions (both single and double gymnasium options), all study intersections and approaches are anticipated to operate at acceptable levels of service (at LOS D or better), except the Salem Avenue southbound approach at its signalized intersection with Euclid Avenue and Northwest Highway and the Ridge Avenue northbound and southbound approaches at its unsignalized intersection with Euclid Avenue.

As shown, under both existing and future conditions, during the Saturday midday peak hours, the Salem Avenue southbound approach at its intersection with Euclid Avenue and Northwest Highway operates with capacity constraints, at a LOS E. This can be attributed to the unique geometrics of this intersection (5-leg intersection), long pedestrian clearance intervals, as well as the close proximity to the at-grade railroad crossing on the west leg (Euclid Avenue) of the intersection. This intersection experiences minimal increases in delay as a result of the proposed development. No changes to the existing signal timing and phasing are required to accommodate the development traffic.

Under existing conditions during the weekday morning and evening peak periods, the Ridge Avenue northbound and southbound movements at Euclid Avenue operate at LOS E/F. Under future conditions, these movements will continue to operate with capacity constraints during these timeframes, as well as during the Saturday midday peak hour. The delay experienced by these movements is typical for a minor street intersecting a major street with heavy through volumes, such as Euclid Avenue.

In addition, under future conditions, with the proposed site addition and renovation, the 95th-percentile vehicle queues (stacking) on southbound Ridge Avenue at Euclid Avenue are estimated at six (6) to seven (7) vehicles during the weekday morning, weekday evening and Saturday midday peak periods under the single gymnasium option and 7 to eight (8) vehicles under the double gymnasium option. These queue lengths would exceed the available storage on Ridge Avenue between Euclid Avenue and the existing site access, which could block northbound traffic from entering the site and/or traffic from exiting the site.

It should be noted, to provide a conservative analysis scenario, the traffic assignments favored the use of the existing (south) site access on Ridge Avenue, given its proximity to access to Euclid Avenue and location of on-site parking. The multiple site access alternatives (via the existing and new site access to the north on Ridge Avenue) maximizes site access flexibility – i.e., should motorist experience long queues / delay exiting the site via the existing access onto Ridge Avenue, they have the option to exit the site via the new access further north on Ridge Avenue, which is similar for entering operations, as well.

However, in order to facilitate traffic movements to and from Ridge Avenue, as well as the existing site access driveway, it is recommended that consideration be given to installing "Do Not Block Intersection" signs on southbound Ridge Avenue in advance of the south (existing) access drive. These could also be supplemented with optional pavement markings, in accordance with the MUTCD (see graphic – Figure 3B-18 MUTCD, contained in Appendix D). Future considerations would be to limit the south access to exit only, should future operations become problematic. In addition, the Euclid Avenue and Ridge Avenue intersection should be evaluated after the opening of the expansion to determine if future improvements are necessary, i.e., widening of the Ridge Avenue southbound approach to provide a separate shared left-turn/through lane and right-turn lane and/or "Do Not Block Intersection" signage on Euclid Avenue.

Future Parking Analyses

Analyses were conducted to determine the number of parking spaces required to accommodate the planned development and identify the adequacy of the proposed parking supply.

Parking Requirements

Based on parking requirements outlined in the Village of Arlington Heights Code of Ordinances, 128 and 210 off-street parking spaces are required for the proposed single and double gymnasium alternatives, respectively. The Village's parking requirements for the entire site (existing and proposed uses) are summarized in *Table 2*.

As shown in Table 2, per Village Code, the site requires 319 and 401 off-street parking spaces for the single and double gymnasium alternatives, respectively, which includes the previously approved variance for the existing site use. A total of 266 parking spaces is proposed to serve both the existing and proposed site uses; therefore, a variance of 53 and 135 spaces is necessary for peak operations under the single and double gymnasium options, respectively.

Table 2: Parking Requirements – Village Zoning Ordinance

Use	Existing Requirement		Additional Requirement– Village Code (spaces)		Total Parking Requirement (spaces)		Future Supply (spaces)	Parking Differential (spaces)	
	Spaces	Rate	Single Gym	Double Gym	Single Gym	Double Gym		Single Gym	Double Gym
Indoor Swim Center	191 [A]	4.23 [B]	--		319	401	266	*-53*	*-135*
Soccer Field			--						
Fitness Center	--	--	128 [C]	210 [D]					

[A] Site previously approved for 191 parking spaces; a variance of 127 spaces from Village Code requirement of 318 spaces. As previously described, during peak activities similar to those observed during this study (swim meet), the parking demand is at or slightly exceeds the available on-site supply.
[B] Spaces per 1,000 Square-Feet Floor Area (45,200 SF).
[C] One (1) space per 250 Square-Feet Floor Area (health/fitness club use); proposed 32,000 SF, which includes the warm water pool.
[D] One (1) space per 250 Square-Feet Floor Area (health/fitness club use); proposed 52,600 SF, which includes the warm water pool.

Parking Demand Projections

The ITE manual Parking Generation, 4th Edition is a compilation of parking demand surveys from across the country for a wide variety of uses. *Tables 3* presents a summary of the projected peak parking demand for the proposed single and double gymnasium alternatives (expanded use only) based on the ITE peak (85th-percentile) data.

Table 3: Projected Peak (85th-Percentile) Parking Demand – ITE – Parking Generation

Use / Timeframe	Additional Demand – ITE				Additional Parking Supply	Parking Differential	
	Single Gym (32,000 SF)		Double Gym (52,600 SF)			Single Gym	Double Gym
	Rate / 1,000 SF	Spaces	Rate / 1,000 SF	Spaces			
Recreational Center (ITE LUC 495)							
Weekday	5.03	161	5.03	265	75	*-85*	*-190*
Saturday	2.01[A]	64	2.01[A]	106		*+11*	*+31*
Village Code Requirements [B]	--	*128*	--	*210*			

[A] Saturday peak parking demand data unavailable; therefore, estimated by interpolation between similar ITE LUC Codes, LUC 495 and LUC 492 (Health/Fitness Club).
[B] From Table 2.

As shown in Table 3, based on the ITE data, the peak parking demand for proposed expanded use (not including existing Center use) is 161 spaces on a weekday and 64 spaces on a Saturday for the single gymnasium alternative and 265 spaces on a weekday and 106 spaces on a Saturday for the double gymnasium alternative. The ITE parking demand projections are approximately 25 percent higher than required by Village Code during the weekday and approximately 50 percent less than required by Village Code on a Saturday.

Shared Parking Analysis

Based on the anticipated programming information for fitness center expansion, the peak parking demand for the different types of uses do not coincide, both within the existing and proposed facility. Therefore, additional

analyses were conducted based on parking generation and time-of-day distribution data provided in the ITE Parking Generation, 4th Edition and existing parking data collected at the existing site by GHA in November 2017.

Exhibits 13A and 13B summarize the anticipated parking demand for each use on a weekday and weekend, respectively, under the single gymnasium option, while *Exhibits 14A and 14B summarize the anticipated usage under the double gymnasium alternative.*

- As shown in the shared parking calculations, the peak parking demand for the existing and proposed uses for the single gymnasium alternative (*see Exhibits13A and 13B*) is expected to occur at 3:00 PM on Saturday, with a peak parking demand of 250 spaces. The proposed parking supply of 266 spaces can readily accommodate the projected demand; a minimum of 16 spaces is expected to be available at all timeframes.
- During the weekday, under the single gymnasium option, the peak parking demand is expected to occur at 6:00 PM, with approximately 81 percent (215 of 266 spaces). A minimum of 51 spaces is anticipated to be available at all timeframes.
- Under the double gymnasium alternative, the peak parking demand for the existing and proposed uses is expected to occur at 7:00 PM on a weekday, with a peak parking demand of 315, exhibiting a shortfall of 49 spaces. As previously noted, 60 parking spaces are available along Salem Avenue and Ridge Avenue within close proximity of the site, which could readily accommodate overflow parking, if needed.
- On a Saturday, under the double gymnasium option, the peak parking demand is expected to occur at 3:00 PM, with a peak parking demand of 280 spaces, exhibiting a shortfall of 14 spaces. Again, the on-street parking supply in close proximity to the site can readily accommodate the overflow, if needed.

Accordingly, it is recommended that parking usage be monitored closely and programming scheduled for the expanded facility, so that major activities (i.e., indoor basketball games, outdoor soccer games, etc.) do not coincide with peak swim center activities (swim meets) and/or consideration be given to constructing additional off-street parking facilities / shared parking agreement with nearby underutilized parking facilities, if necessary, should the on-street parking demand become excessive and/or problematic.

Programming for both existing and proposed uses should be continued to <u>not</u> be scheduled corresponding with CLA peak weekday morning and afternoon drop-off and pick-up activities and/or enforcement measures be implement to ensure the use of the site's parking facilities during these timeframes discontinued by CLA.

Measures could also be implemented to reduce future parking demand including providing adequate bicycle parking on-site that is easily accessible, along with programs/education to encourage the use of non-auto modes (walking and biking). Increasing times between scheduled events to allow for parking lot turnover between swim meets, games or matches.

Part IV. Conclusions

A traffic and parking study was performed for the proposed addition and renovation of the Arlington Heights Park District (AHPD) Olympic Indoor Swim Center and Olympic Park. Existing and future conditions in the study area have been described, analyzed and evaluated with respect to traffic and parking operations and the impact of the planned development. Conclusions of this effort and recommendations are presented below:

- The proposed development includes an approximately 32,000 square-foot fitness center addition on the north and west sides of the existing building, in the area currently occupied by the tennis and basketball courts and skate park. It will also include outdoor amenities, including the relocation of the playground and basketball court, modified soccer fields; Safety Town will remain in its current location and the skate park will be eliminated.

- There is a potential to add another gymnasium on the north side of the expanded facility, resulting in an approximately 52,600 square-foot total addition (this will eliminate the relocated outdoor basketball court).
- Trip generation for the proposed expansions, as well as a conservative analysis that assumes peak period occupancy of the soccer field for the design year (2019) plus five years (2024) was quantified for the weekday morning, afternoon school and evening periods, as well as Saturday midday peak using ITE Trip generation rates under both the single and double gymnasium options.
- Analyses have been conducted for all study intersections to determine the impact from the planned development under both gymnasium options, along with general growth within the study area (assumed at 0.5 percent compounded per year) to the 2024 design year.
- Improvements were identified and/or proposed both on- and off-site to mitigate the impacts associated with existing and future traffic conditions in the study area and include a relocation of the main building entrance (drop-off/pick-up area to the west side of the building), pedestrian enhancements (crosswalks/sidewalks/paths on-site), as well as recommendations for striping and/or signing along Ridge Avenue adjacent to the site. Future consideration should be given to limit the south (existing) site access to egress only should queuing/operations become problematic, and/or additional improvements to the Ridge Avenue southbound approach at Euclid Avenue (separate shared left-turn/through lane and right-turn lane) or signage on Euclid Avenue.
- Based on the analyses contained herein, the peak hour parking demand for the future fitness center can be accommodated within the proposed parking supply under the single gymnasium alternative under both weekday and Saturday conditions.
- Under the double gymnasium alternative, a shortfall of parking is anticipated; however, it is anticipated to be readily accommodated within the available adjacent roadway network (Salem Avenue and Ridge Avenue) parking supply. Accordingly, scheduling of activities for the expanded facility (under both gymnasium options) should be closely monitored to ensure the peak demand can be accommodated within the proposed parking supply. Consideration should also be given to constructing additional off-street parking facilities or exploring a shared parking agreement with nearby underutilized parking facilities, if necessary.

Part V. Technical Addendum

The following *Exhibits* and *Appendices* were previously referenced. They provide technical support for our observations, findings and recommendations discussed in the text.

<u>Exhibits</u>

1. Location Map
2. Photo Inventory
3. Existing Traffic
   A. Vehicular
   B. Pedestrians and Bicycles
4. Parking Survey Map
5. Parking Occupancy Survey
   A. Weekday
   B. Saturday
6. Olympic Park Outdoor Fields / Activities Occupancy
   A. Weekday
   B. Saturday
7. 2024 No-Build Traffic
8. Site Plan
9. Traffic Characteristics
   A. Single Gymnasium
   B. Double Gymnasium
10. Site Traffic
    A. Addition and Renovations
       1. Single Gymnasium
       2. Double Gymnasium
    B. Soccer Field Occupancy
    C. Reassignment of Existing Traffic with New Site Access
11. 2024 Total Traffic
    A. Single Gymnasium
    B. Double Gymnasium
12. Capacity and Queue Analysis
13. Future Parking Projections – Single Gymnasium
14. Future Parking Projections – Double Gymnasium

<u>Appendices</u>

A. Traffic Count Summaries
B. CMAP Projections
C. Capacity Analysis Worksheets
D. MUTCD – Do Not Block Intersection Exhibit

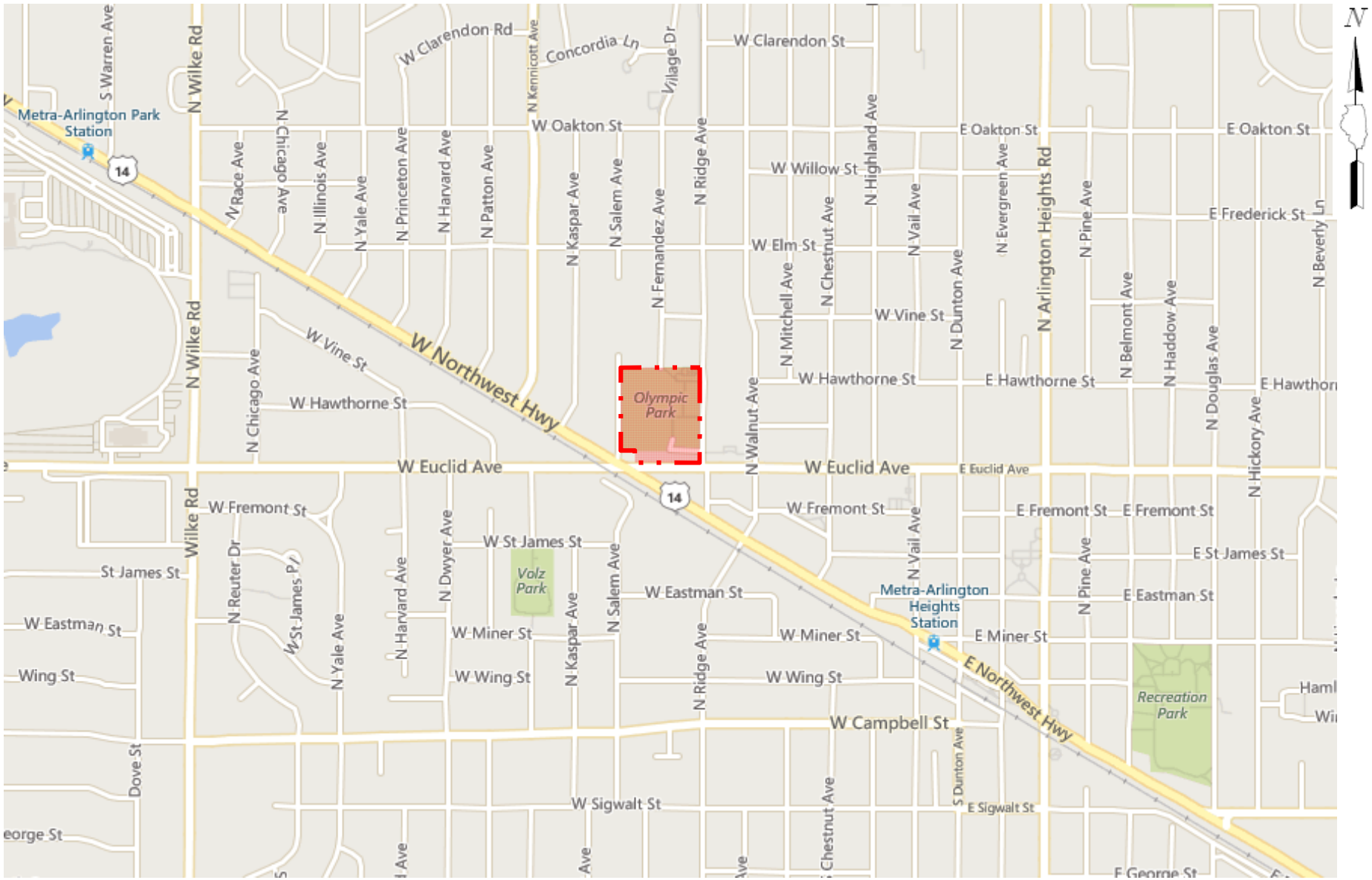
5313.900_AHPD Olympic_TIS_2.15.18.docx

Technical Addendum

GEWALT HAMILTON ASSOCIATES, INC.

Exhibits

GHA GEWALT HAMILTON ASSOCIATES, INC.



Proposed Olympic Indoor Swim Center Additions & Renovations – Arlington Heights, Illinois

GEWALT HAMILTON ASSOCIATES, INC.

Exhibit 1
Location Map

Looking east along Olympic Park Access Dr at Ridge Ave

Looking south along Ridge Ave at Olympic Park Access Dr

Looking west across Ridge Ave at Olympic Park Access Dr

Looking north along Ridge Ave at Olympic Park Access Dr

Looking south along Ridge Ave at Euclid Ave

Looking west along Euclid Ave at Ridge Ave

Looking east along Euclid Ave at Ridge Ave

Looking north across Euclid Ave at Ridge Ave

Looking west along Euclid Ave at Northwest Hwy/Salem Ave

Looking south along Salem Ave at Northwest Hwy/Euclid Ave

Looking southeast along Northwest Hwy at Euclid/Salem Ave

Looking northwest along Northwest Hwy at Euclid/Salem Ave

Looking east along Euclid Ave at Northwest Hwy/Salem Ave

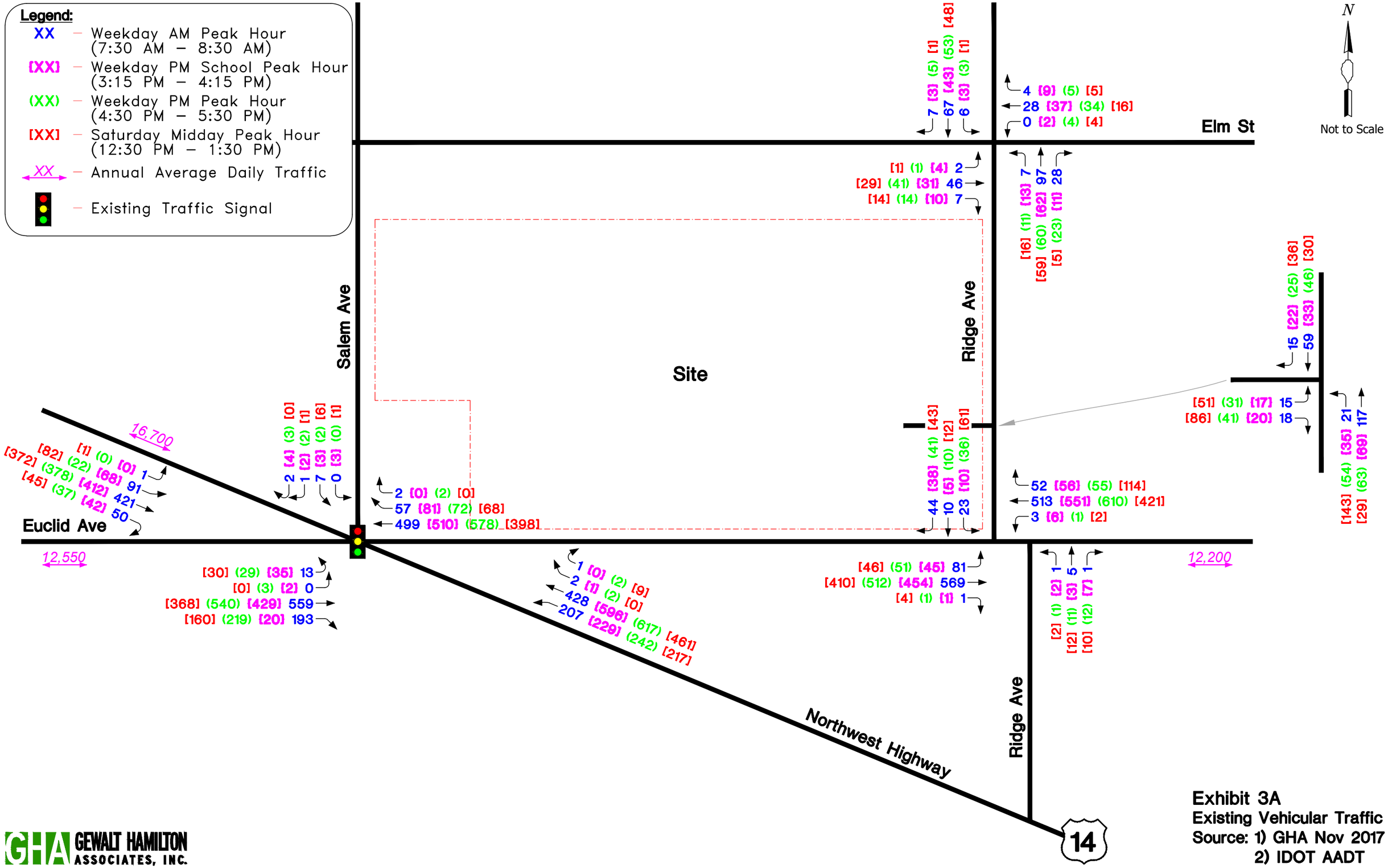
Looking north along Ridge Ave at Elm St

Looking west along Elm St at Ridge Ave

Looking south along Ridge Ave at Elm St

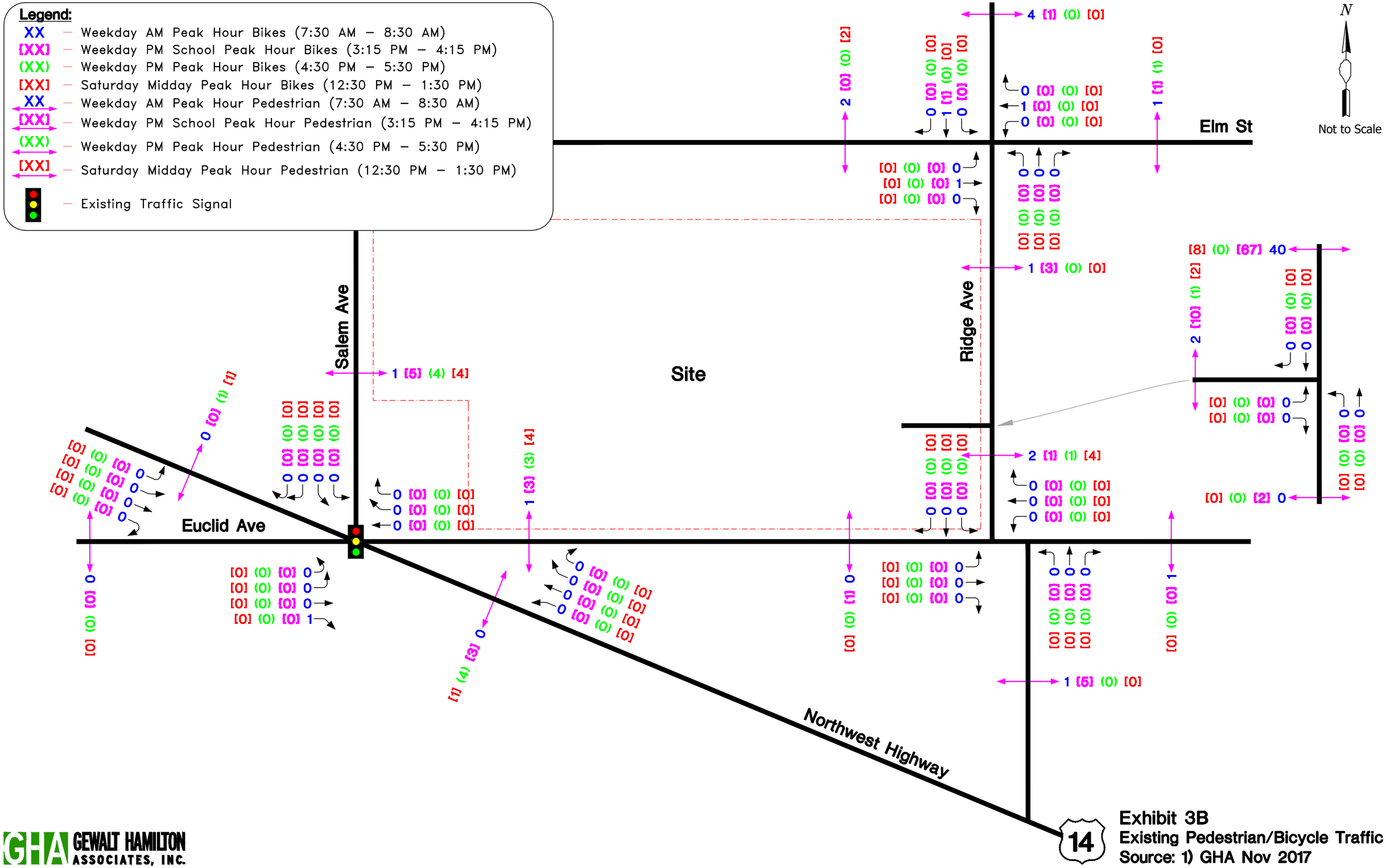
Looking east along Elm St at Ridge Ave

Looking north along Ridge Ave at school drop-off/pick-up



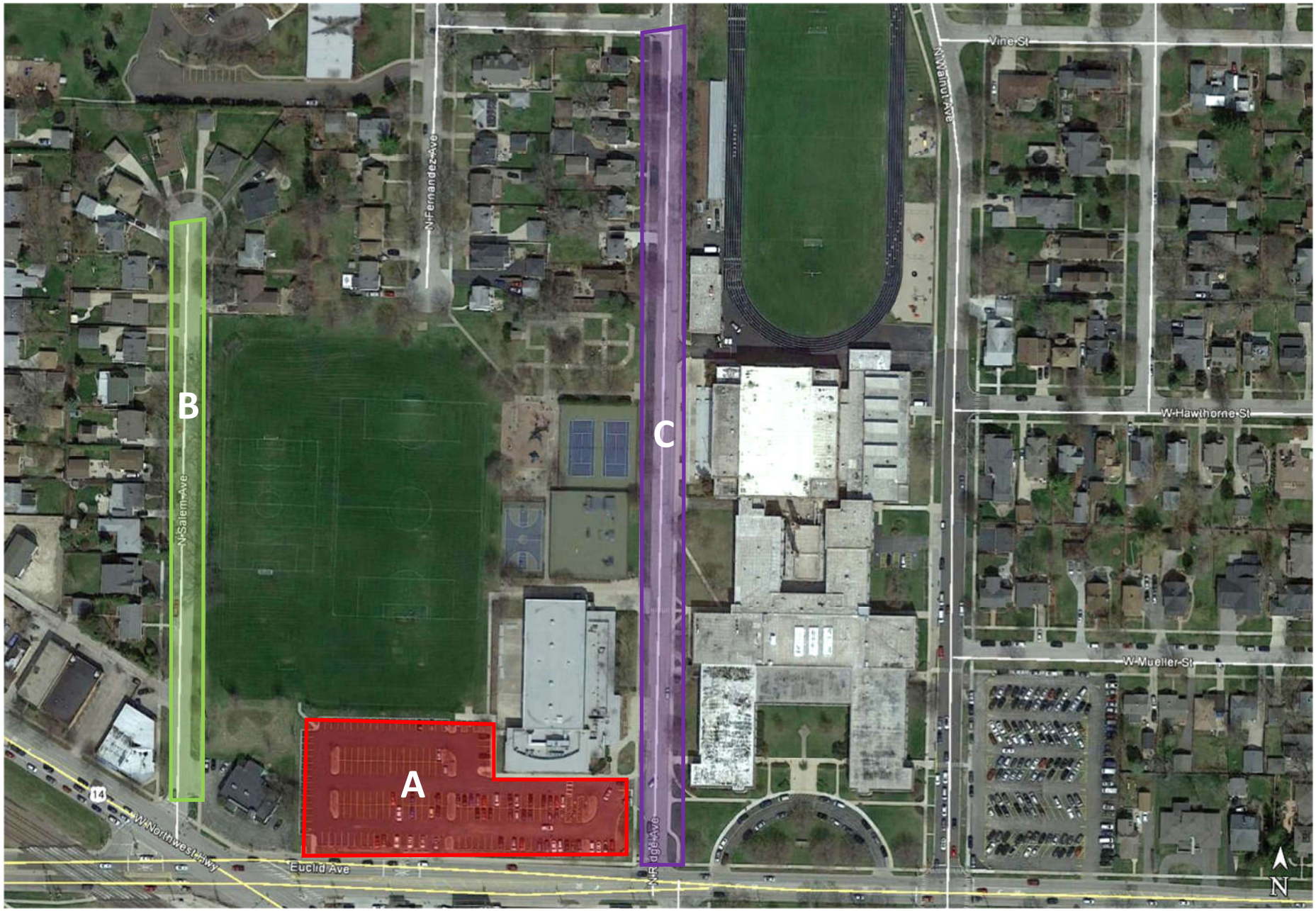
GEWALT HAMILTON ASSOCIATES, INC.

Exhibit 3A
Existing Vehicular Traffic
Source: 1) GHA Nov 2017
2) IDOT AADT



GEWALT HAMILTON ASSOCIATES, INC.

Exhibit 3B
Existing Pedestrian/Bicycle Traffic
Source: 1) GHA Nov 2017



GEWALT HAMILTON ASSOCIATES, INC.

Exhibit 4
Parking Survey Map

Exhibit 5A
Parking Occupancy Survey
Olympic Indoor Swim Center Additions & Renovations
Arlington Heights, Illinois
Tuesday, November 7, 2017; 8:00 AM to 12:00 PM and Wednesday, November 8, 2017 3:00 to 9:00 PM

Parking Description		Parking Type	Parking Supply	November 7				November 8					
				8:00 AM	9:00 AM	10:00 AM	11:00 AM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM
Cars													
Main Parking Lot													
A	Parking Lot	Regular	185	35	26*	21	28	55	27	35	63	45	23
		Handicap	6	0	0	1	2	0	0	0	2	3	0
Salem Avenue (On-Street)													
B	Monitored for Park Use Only	--	--	0	0	0	0	0	0	0	0	0	0
Ridge Avenue (On-Street)													
C	Monitored for Park Use Only	--	--	0	0	0	0	0	1	0	3	2	0
TOTAL			191	35	26	22	30	55	28	35	68	50	23
Percent Occupied			100%	18.3%	13.6%	11.5%	15.7%	28.8%	14.7%	18.3%	35.6%	26.2%	12.0%
Bicycles													
Parked On Site		--	--	0	0	0	0	2	2	2	2	2	2

Notes: * Includes One (1) Bus.

Key

- 100%-85% Occupied
- 85%-60% Occupied
- 60%-0% Occupied

GEWALT HAMILTON ASSOCIATES, INC.

Exhibit 5B
Parking Occupancy Survey
Olympic Indoor Swim Center Additions & Renovations
Arlington Heights, Illinois
Saturday, November 4, 2017; 9:00 AM to 5:00 PM

Parking Description		Parking Type	Parking Supplly	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM
Cars											
Main Parking Lot											
A	Parking Lot	Regular	185	35	60	53	99	134	173	185	165
		Handicap	6	0	0	0	0	3	4	4	3
Salem Avenue (On-Street)											
B	Monitored for Park Use Only	--	--	0	0	0	0	0	0	0	0
Ridge Avenue (On-Street)											
C	Monitored for Park Use Only	--	--	0	0	0	2	1	3	14	12
TOTAL			191	35	60	53	101	138	180	203	180
Percent Occupied			100%	18.3%	31.4%	27.7%	52.9%	72.3%	94.2%	106.3%	94.2%
Bicycles											
Parked On Site		--	--	2	2	2	2	1	0	0	0

Key

- 100%-85% Occupied
- 85%-60% Occupied
- 60%-0% Occupied

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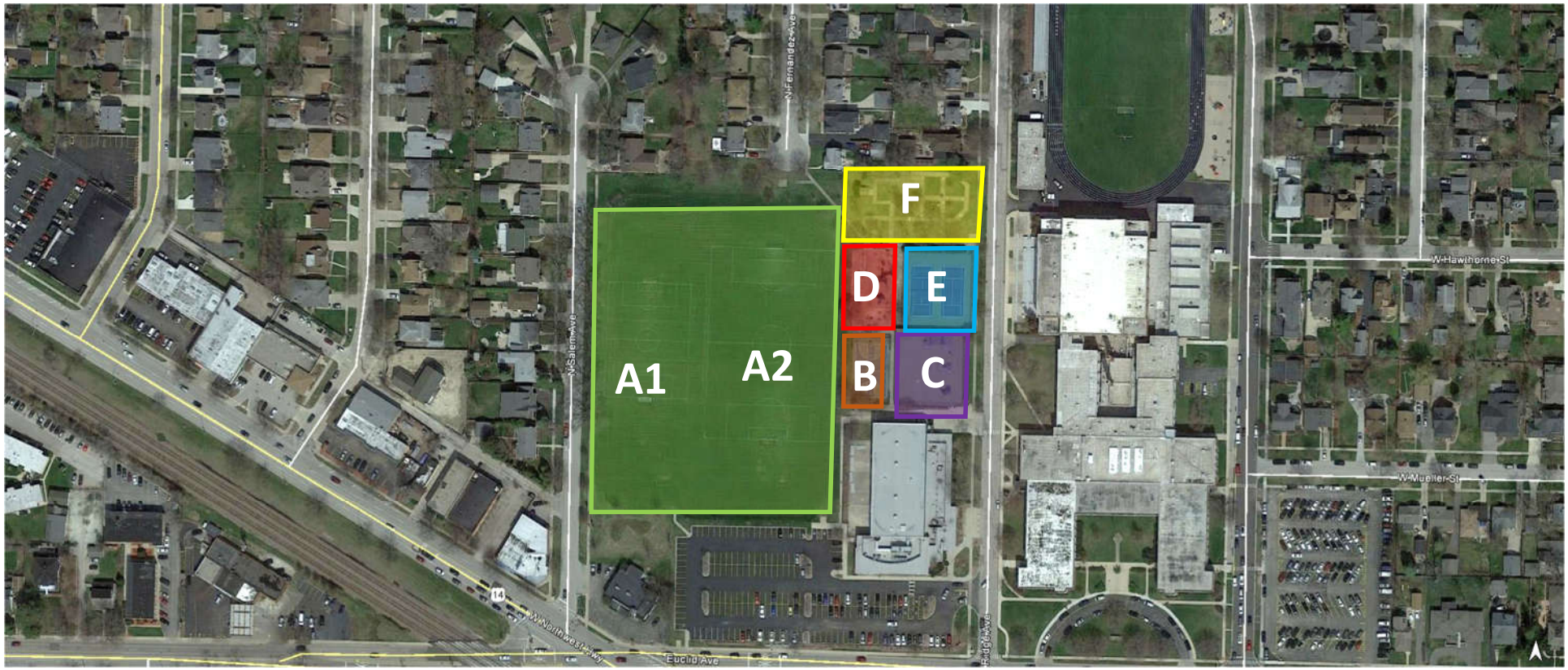

Tuesday, November 11, 2017								Wednesday, November 8, 2017											
		8 / 9 AM		10 AM		11AM		3PM		4 PM		5PM		6PM		7PM		8PM	
Activity/Use		Kids	Adults	Kids	Adults	Kids	Adults	Kids	Adults	Kids	Adults	Kids	Adults	Kids	Adults	Kids	Adults	Kids	Adults
A1	Sm Soccer Field	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A2	Lg Soccer Field	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B	Basketball Court	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C	Skate Park	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0
D	Playground	0	0	0	0	16	2	0	0	0	0	0	0	0	0	0	0	0	0
E	Tennis Courts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F	Safety Town	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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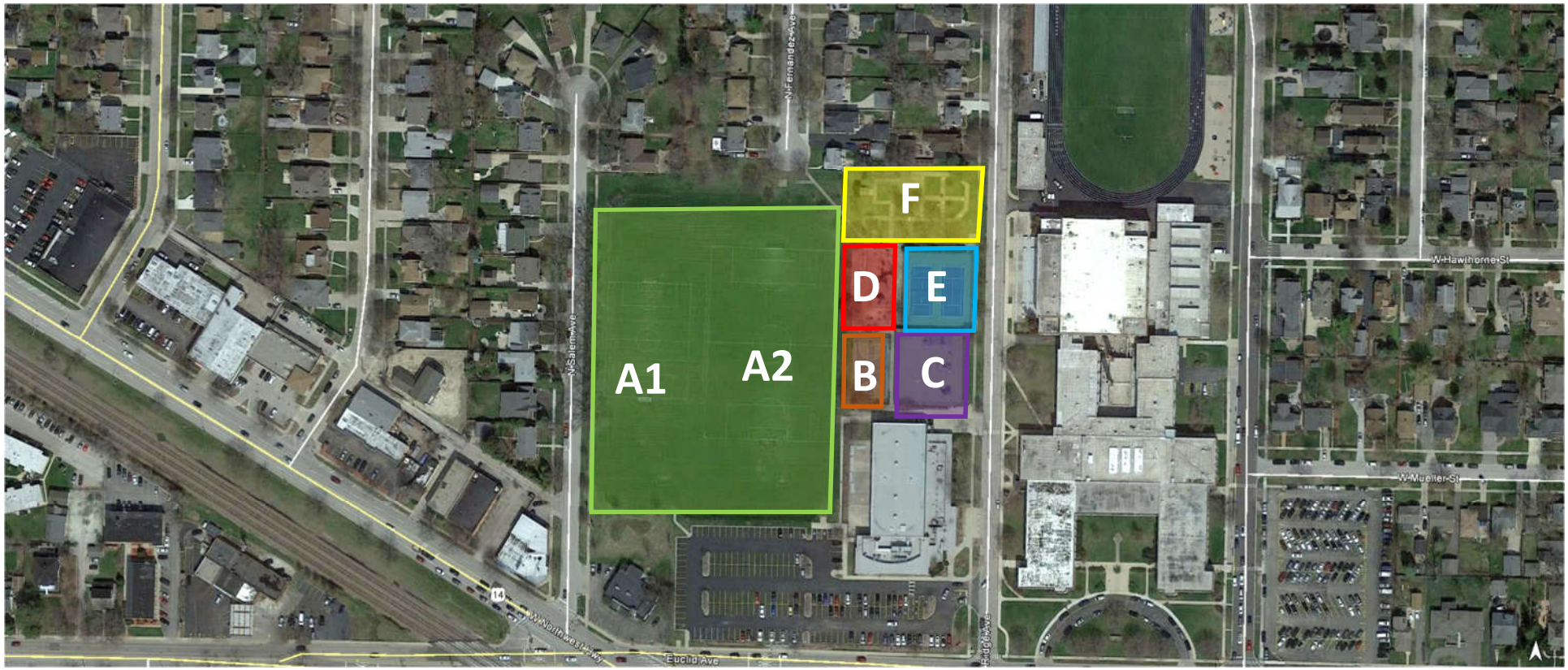
Exhibit 6A
Olympic Park Field / Activity Use
Weekday Observations



		9 AM		10 AM		11AM		12 PM		1PM		2PM		3PM		4PM	
Activity/Use		Kids	Adults	Kids	Adults	Kids	Adults	Kids	Adults	Kids	Adults	Kids	Adults	Kids	Adults	Kids	Adults
A1	Sm Soccer Field	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A2	Lg Soccer Field	0	0	0	0	0	0	0	0	0	0	0	0	0	2&dog	0	0
B	Basketball Court	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C	Skate Park	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D	Playground	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E	Tennis Courts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F	Safety Town	0	0	0	1&dog	0	0	0	0	0	0	0	0	2	1	0	0

GEWALT HAMILTON ASSOCIATES, INC.

Exhibit 6B
Olympic Park Field / Activity Use
Saturday Observations

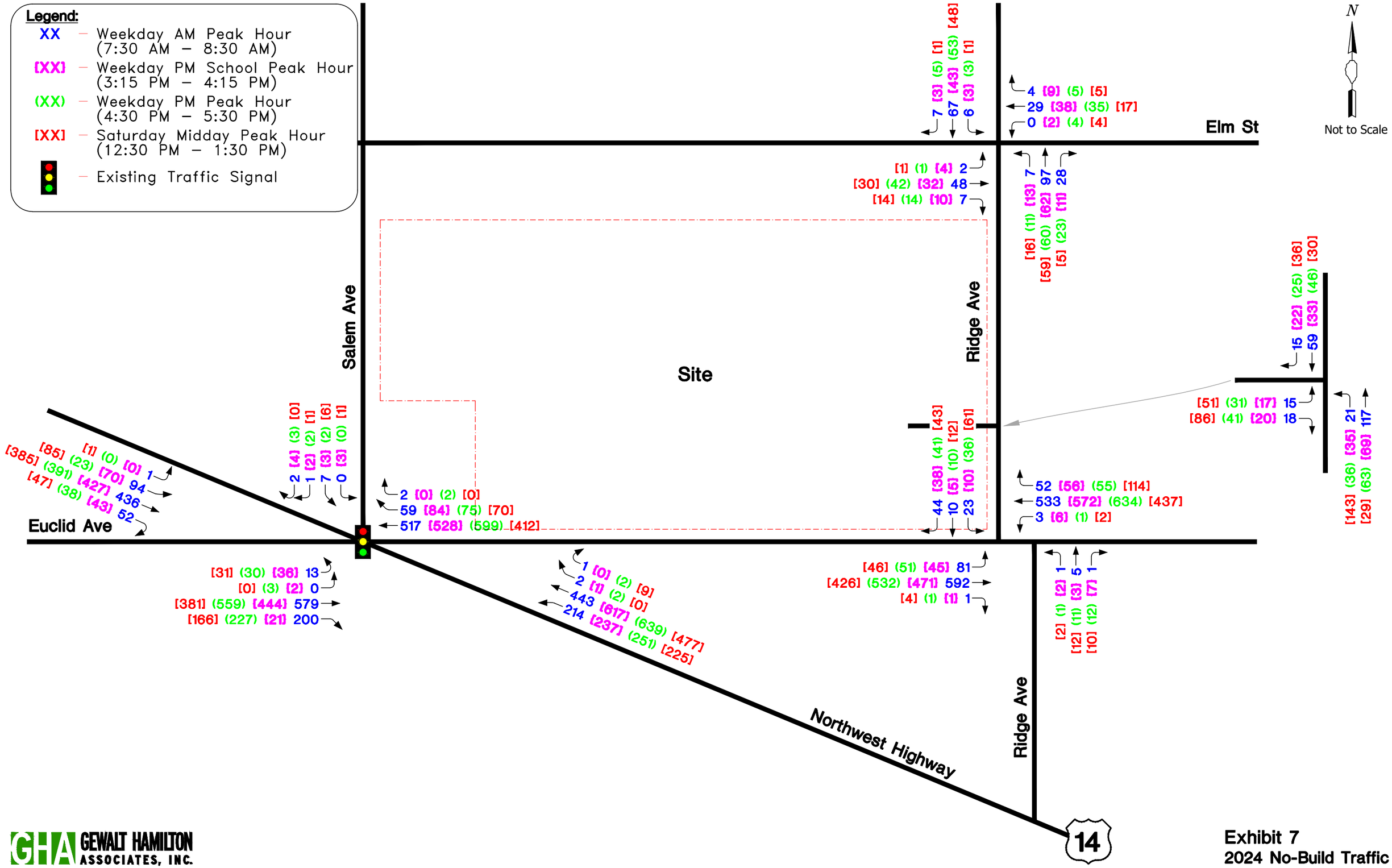


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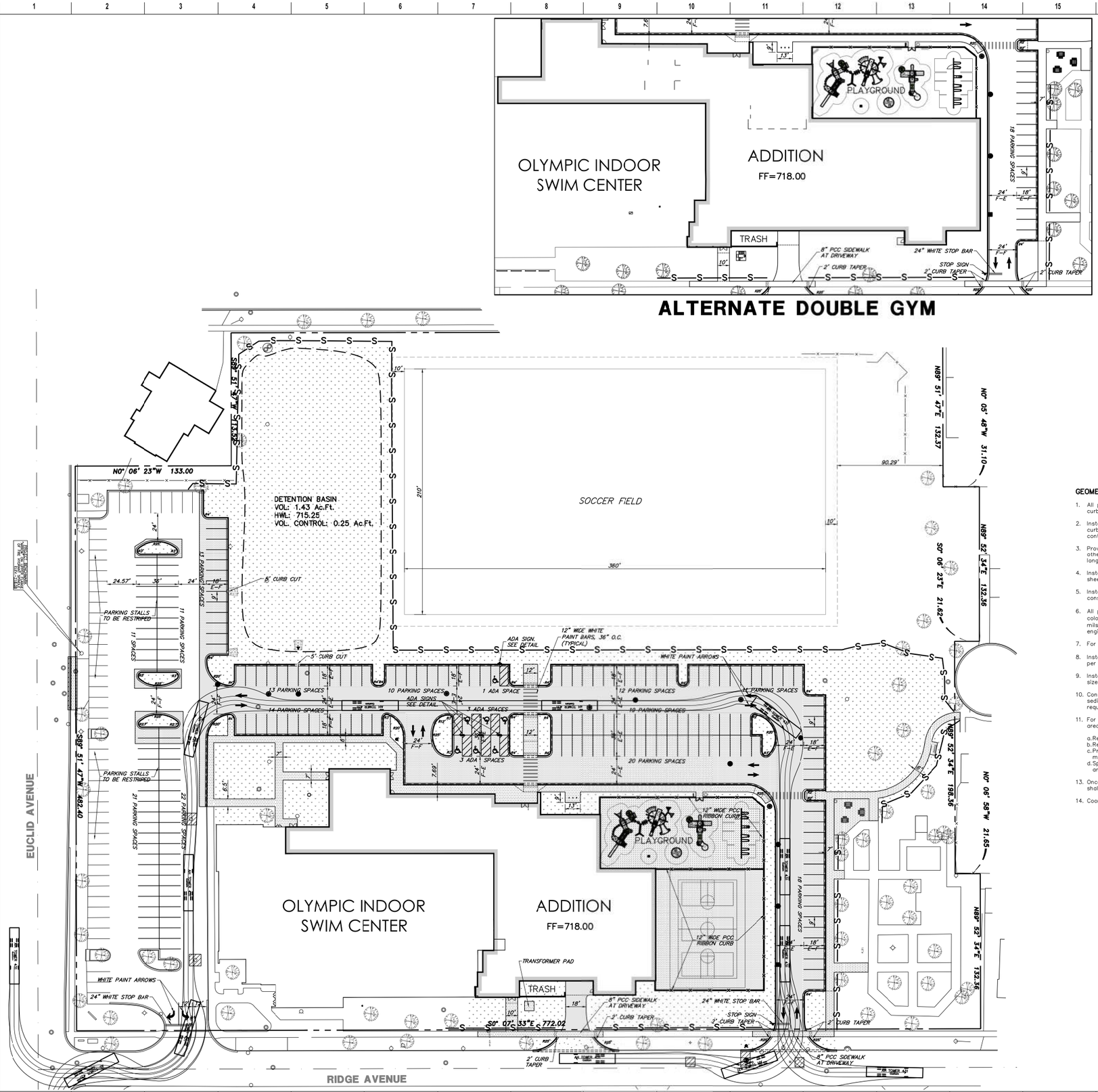
Exhibit 7
2024 No-Build Traffic



GRAPHIC SCALE

40 0 20 40

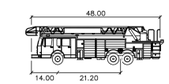
(IN FEET)
1 inch = 40 ft.

PROPOSED LEGEND

- HEAVY DUTY PAVEMENT — 1.25" HMA SURFACE, N50; 4" HMA BINDER, N50; 8" CA-6 STONE BASE; GEOTEXTILE FABRIC
- NORMAL DUTY PAVEMENT — 1.25" HMA SURFACE, N50; 2.25" HMA BINDER, N50; 10" CA-6 STONE BASE; GEOTEXTILE FABRIC
- PCC PAVEMENT — 8" PCC CONCRETE; 4" CA-6 BASE
- PCC SIDEWALK — 5" PCC CONCRETE; 4" CA-6 BASE
- ARTIFICIAL TURF — SEE DETAIL
- CLASS D PATCH — MATCH EX. PAVEMENT SECTION
- 6" TOPSOIL PLACEMENT & RESTORATION — SEE LANDSCAPE PLANS AND SPECIFICATIONS FOR RESTORATION DETAILS
- STONE RIP RAP, CLASS A1
- DETECTABLE WARNINGS
- B6.12 CURB & GUTTER (REGULAR)
- B6.12 CURB & GUTTER (DEPRESSED)
- B6.12 CURB & GUTTER (REVERSE PITCH)
- BARRIER CURB
- BARRIER CURB (DEPRESSED)
- INTEGRATED SIDEWALK/CONCRETE CURB
- FENCE
- TREE TRUNK PROTECTION FENCE
- PERIMETER EROSION BARRIER
- CONSTRUCTION FENCE
- RETAINING WALLS
- SUMMITS
- SLOPES
- SWALES
- OVERLAND FLOW ROUTE
- PROPOSED TREE

GEOMETRIC AND PAVING PLAN

1. All pavement dimensions are to edge of pavement, unless otherwise noted. E=edge of pavement, B=back of curb, F=face of curb. Radii dimensions are to back of curb.
2. Install all curb and sidewalk as shown. Note some curbs require reverse pitch gutter. Dowel new sidewalk and curb to existing and proposed curbs per general notes. When constructing a carriage walk, the proposed sidewalk contraction and expansion joints shall align with existing curb joints.
3. Provide 1.90% cross slope and 4.5% maximum longitudinal slope on all sidewalks and pedestrian path ways unless otherwise indicated. Illinois accessibility code requires a maximum constructed cross slope of 2.00% and longitudinal slope of 5.00%.
4. Install bituminous pavement as shown. Refer to detail sheet for specific pavement sections and general note sheet for construction, testing and compaction requirements.
5. Install PCC pavement as shown. Refer to detail sheet for specific pavement section and general notes for construction, testing and compaction requirements.
6. All parking lot stall markings shall be 4" Yellow paint and all other parking lot pavement markings shall be paint, color as noted, in accordance with Section 780 of the IDOT Standard Specifications. (Two single applications, 16 mils each required). Site pavement marking shall be coordinated with Site engineer. Contractor shall notify site engineer 48 hrs prior to installing pavement marking. Re-striping of entire existing parking lot is required.
7. For handicapped stall markings, refer to Handicapped Parking Stall and Sign Dimensioning Detail.
8. Install new signs and handicapped parking signs using 2" galvanized square tube post and telescoping post sleeve per IDOT standard. If posts are within pavement, core pavement accordingly.
9. Install transformer pad as shown. Pad shall be set 6" above finished grade. Refer to MEP plans for final pad size and design requirements.
10. Contractor shall install temporary erosion control seed and blanket as necessary to meet soil erosion and sediment control requirements. Refer to notes and details throughout the plan set for specific material requirements.
11. For final restoration, the contractor shall be responsible for restoring all disturbed turf areas and proposed turf areas as follows:
    a. Refer to Landscape plans and specifications for plant and tree material and installation requirements.
    b. Refer to Landscape plans for topsoil, seed and sod material and restoration requirements.
    c. Prior to placement of topsoil restoration area subgrade material shall be rototilled and re-compacted to a maximum of 80% standard proctor to a depth of 6".
    d. Spread a minimum of 6" of existing site salvaged screened topsoil or new pulverized topsoil on all disturbed areas. Compact to 80% standard proctor.
13. Once restoration has been completed, the contractor shall remove erosion control devices. Silt fence trenches shall be backfilled and restored in kind. Storm structures shall be cleaned of debris.
14. Coordinate Playground Equipment installation with underdrain and infill material.



AH TOWER 431 feet

	feet
Width	: 8.50
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 40.0

Exhibit 8

NO.	DATE	DESCRIPTION

ISSUANCE

FGM ARCHITECTS
CHICAGO OAK BROOK O'FALLON ST. LOUIS
GHA GEWALT HAMILTON ASSOCIATES, INC.
625 Forest Edge Drive • Vernon Hills, IL 60061
Tel: 847-478-9700 • Fax: 847-478-9701
GHA JOB # 5313.000

DATE:

WALTER E. GRAFF 062-048037 LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

PROFESSIONAL SEAL

EXPIRATION DATE:

DATE	01/08/17
DRAWN	PH, ES
CHECKED	DBY
APPROVED	JCD

PROFESSIONAL DESIGN FIRM: IL # 184-000350

OLYMPIC SWIM ADDITION AND RENOVATION

ARLINGTON HEIGHTS PARK DISTRICT

660 Ridge Ave
Arlington Heights, IL 60004

GEOMETRIC PLAN

SHEET NO.

C3

JOB NO. 17-2408.01

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Exhibit 9A

Project Traffic Characteristics - Single Gym

Olympic Indoor Swim Center Addition and Renovations – Arlington Heights, Illinois

Part A. Traffic Generation Calculations

	ITE Code	Units		Morning Peak Hour In	Morning Peak Hour Out	Morning Peak Hour Sum	Afternoon School Peak In	Afternoon School Peak Out	Afternoon School Peak Sum	Evening Peak Hour In	Evening Peak Hour Out	Evening Peak Hour Sum	Saturday Midday Peak Hour In	Saturday Midday Peak Hour Out	Saturday Midday Peak Hour Sum	Daily Sum
1. Indoor Swim Center																
A. Existing[1]	Local	45.2	KSF	36	33	69	57	37	94	79	72	151	179	137	316	1,440
B. Proposed Expansion[2] Single Gym	495	32	KSF	66	34	100	22	15	37	48	55	103	49	41	90	912
2. Soccer Fields[3]	488	1	Fields	1	0	1	11	7	18	32	17	49	20	21	41	72
Total Development (Existing and Proposed)				*103*	*67*	*170*	*90*	*59*	*149*	*159*	*144*	*303*	*248*	*199*	*447*	*2,424*

Notes:

[1] Peak hour volumes obtained from GHA intersection turning movement counts, November 2017. Daily trips estimated by interpolating between local data and ITE LUC 495 (Recreation Center) data.

Note: the weekday morning and afternoon school peaks also includes CLA traffic - observed at a minimum of 40 vehicles (20 in and 20 out) during these timeframes.

[2] ITE Trip Generation Manual, 10th Edition, 2017. Note: weekday afternoon school peak unavailable; therefore estimated by interpolation between local rates at ITE LUC 495 data (there is no ITE available data during this timeframe). Also, the Saturday midday peak hour estimates using the ITE LUC 495 rates appeared low due to low sample size. Therefore, Saturday midday peak hour volumes were estimated by interpolation between similar ITE LUC Codes, LUC 495 and LUC 492 (Health/Fitness Club).

[3] ITE Trip Generation Manual, 10th Edition, 2017. Note: weekday afternoon school peak unavailable; therefore estimated by interpolation between local rates at ITE LUC 488 data (there is no ITE available data during this timeframe).

Part B. Trip Distribution

Route & Direction	Arrive From/Depart To
Euclid Avenue	
- West of Northwest Highway	35%
- East of Ridge Avenue	25%
Northwest Highway	
- Northwest of Salem Avenue	10%
Salem Avenue	
- North of Euclid Avenue	--
Ridge Avenue	
- South of Euclid Avenue	5%
-North of Elm Street	20%
Elm Street	
- West of Ridge Avenue	5%
- East of Ridge Avenue	--
Totals =	100%

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Exhibit 9B

Project Traffic Characteristics - Double Gym

Olympic Indoor Swim Center Addition and Renovations – Arlington Heights, Illinois

Part A. Traffic Generation Calculations

	ITE Code	Units		Morning Peak Hour In	Morning Peak Hour Out	Morning Peak Hour Sum	Afternoon School Peak In	Afternoon School Peak Out	Afternoon School Peak Sum	Evening Peak Hour In	Evening Peak Hour Out	Evening Peak Hour Sum	Saturday Midday Peak Hour In	Saturday Midday Peak Hour Out	Saturday Midday Peak Hour Sum	Daily Sum
1. Indoor Swim Center																
A. Existing[1]	Local	45.2	KSF	36	33	69	57	37	94	79	72	151	179	137	316	1,440
B. Proposed Expansion[2] Double Gym	495	52.6	KSF	86	44	130	33	21	54	71	79	150	84	71	155	1,486
2. Soccer Fields[3]	488	1	Fields	1	0	1	11	7	18	32	17	49	20	21	41	72
Total Development (Existing and Proposed)				*123*	*77*	*200*	*101*	*65*	*166*	*182*	*168*	*350*	*283*	*229*	*512*	*2,998*

Notes:

[1] Peak hour volumes obtained from GHA intersection turning movement counts, November 2017. Daily trips estimated by interpolating between local data and ITE LUC 495 (Recreation Center) data.

Note: the weekday morning and afternoon school peaks also includes CLA traffic - observed at a minimum of 40 vehicles (20 in and 20 out) during these timeframes.

[2] ITE Trip Generation Manual, 10th Edition, 2017. Note: weekday afternoon school peak unavailable; therefore estimated by interpolation between local rates and ITE LUC 495 data (there is no ITE available data during this timeframe). Also, the Saturday midday peak hour estimates using the ITE LUC 495 rates appeared low due to low sample size. Therefore, Saturday midday peak hour volumes were estimated by interpolation between similar ITE LUC Codes, LUC 495 and LUC 492 (Health/Fitness Club).

[3] ITE Trip Generation Manual, 10th Edition, 2017. Note: weekday afternoon school peak unavailable; therefore estimated by interpolation between local rates at ITE LUC 488 data (there is no ITE available data during this timeframe).

Part B. Trip Distribution

Route & Direction	Arrive From/Depart To
Euclid Avenue	
- West of Northwest Highway	35%
- East of Ridge Avenue	25%
Northwest Highway	
- Northwest of Salem Avenue	10%
Salem Avenue	
- North of Euclid Avenue	--
Ridge Avenue	
- South of Euclid Avenue	5%
-North of Elm Street	20%
Elm Street	
- West of Ridge Avenue	5%
- East of Ridge Avenue	--
Totals =	100%

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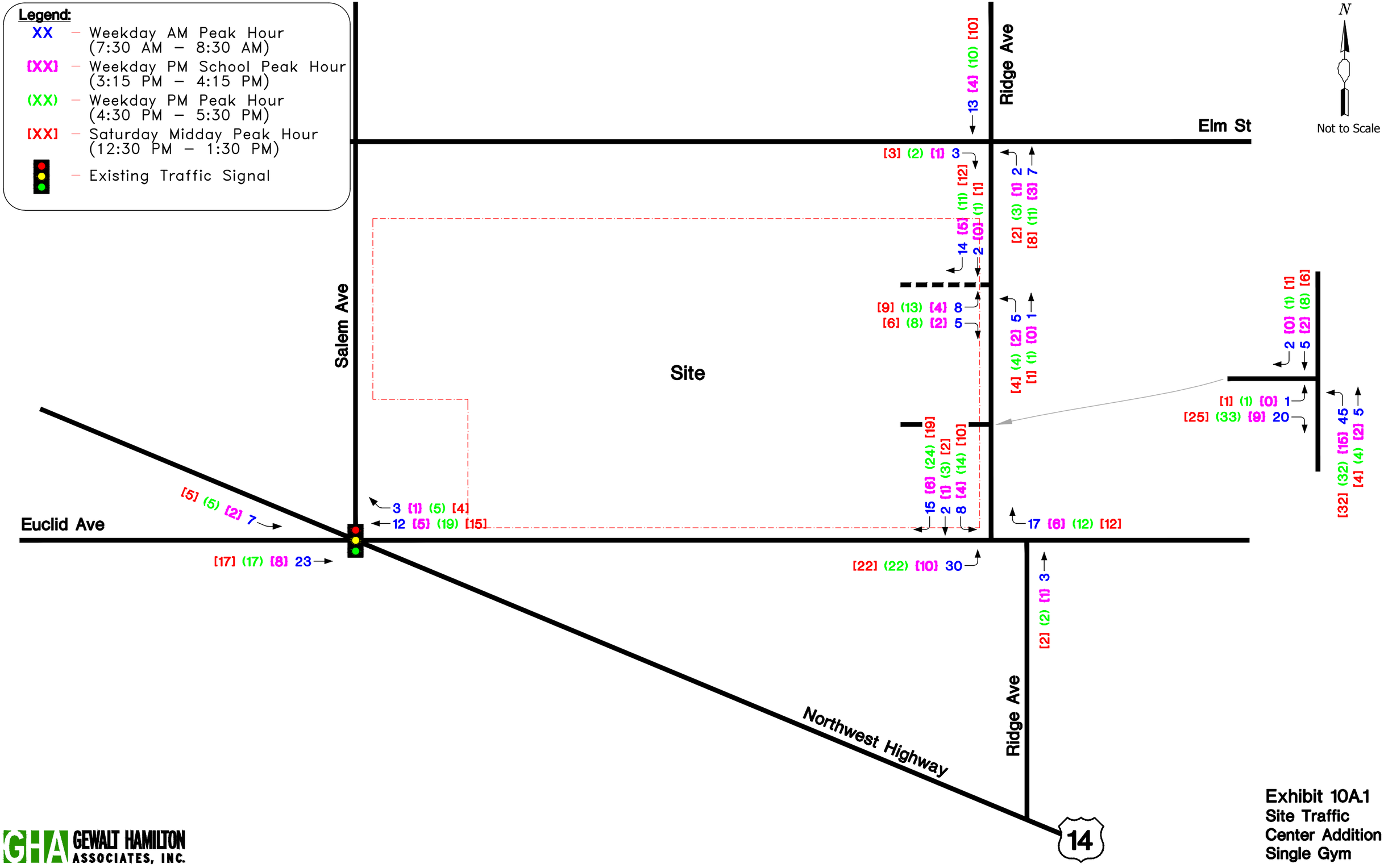

GEWALT HAMILTON ASSOCIATES, INC.

Exhibit 10A.1
Site Traffic
Center Addition
Single Gym

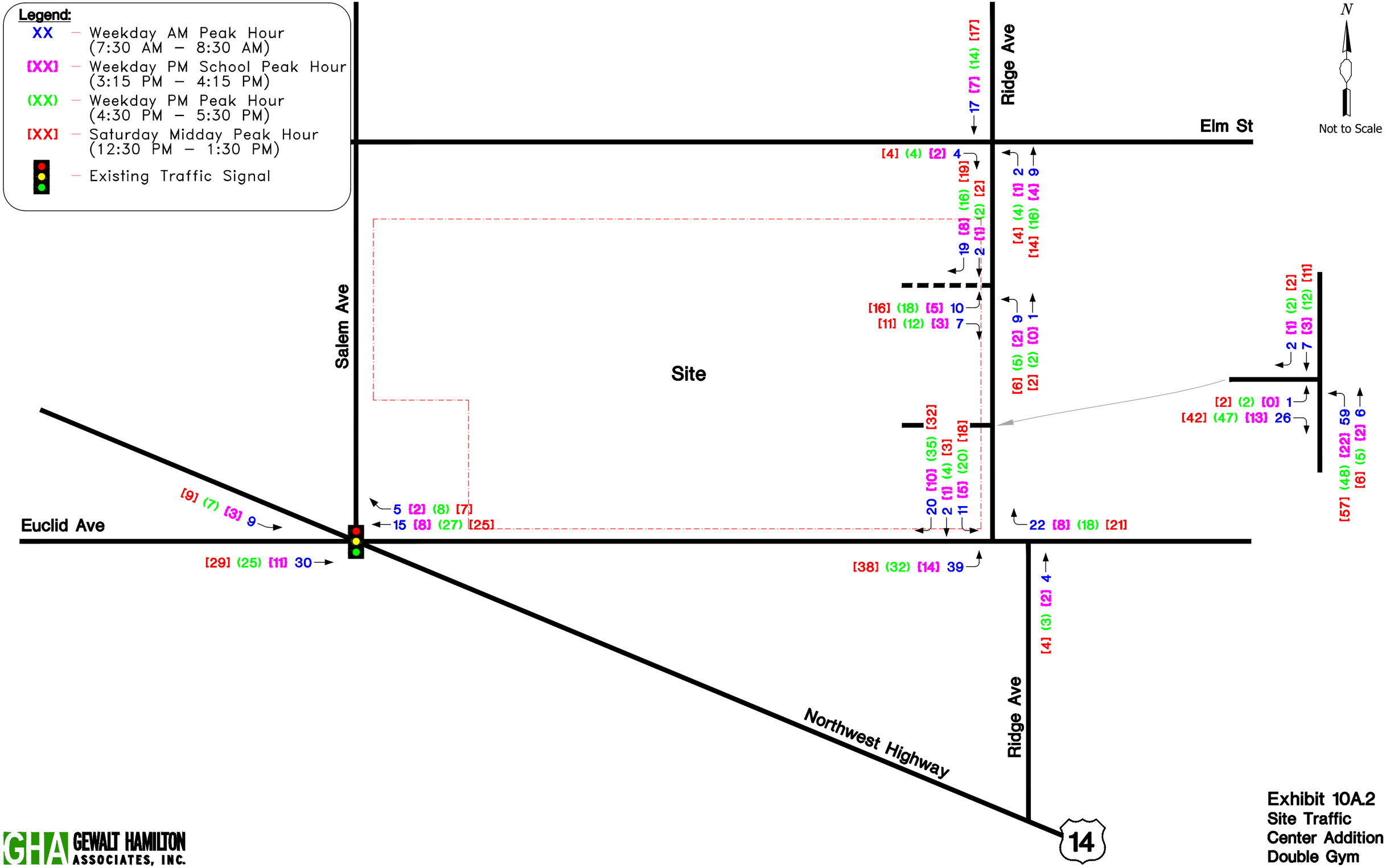

Exhibit 10A.2
Site Traffic
Center Addition
Double Gym

GEWALT HAMILTON ASSOCIATES, INC.

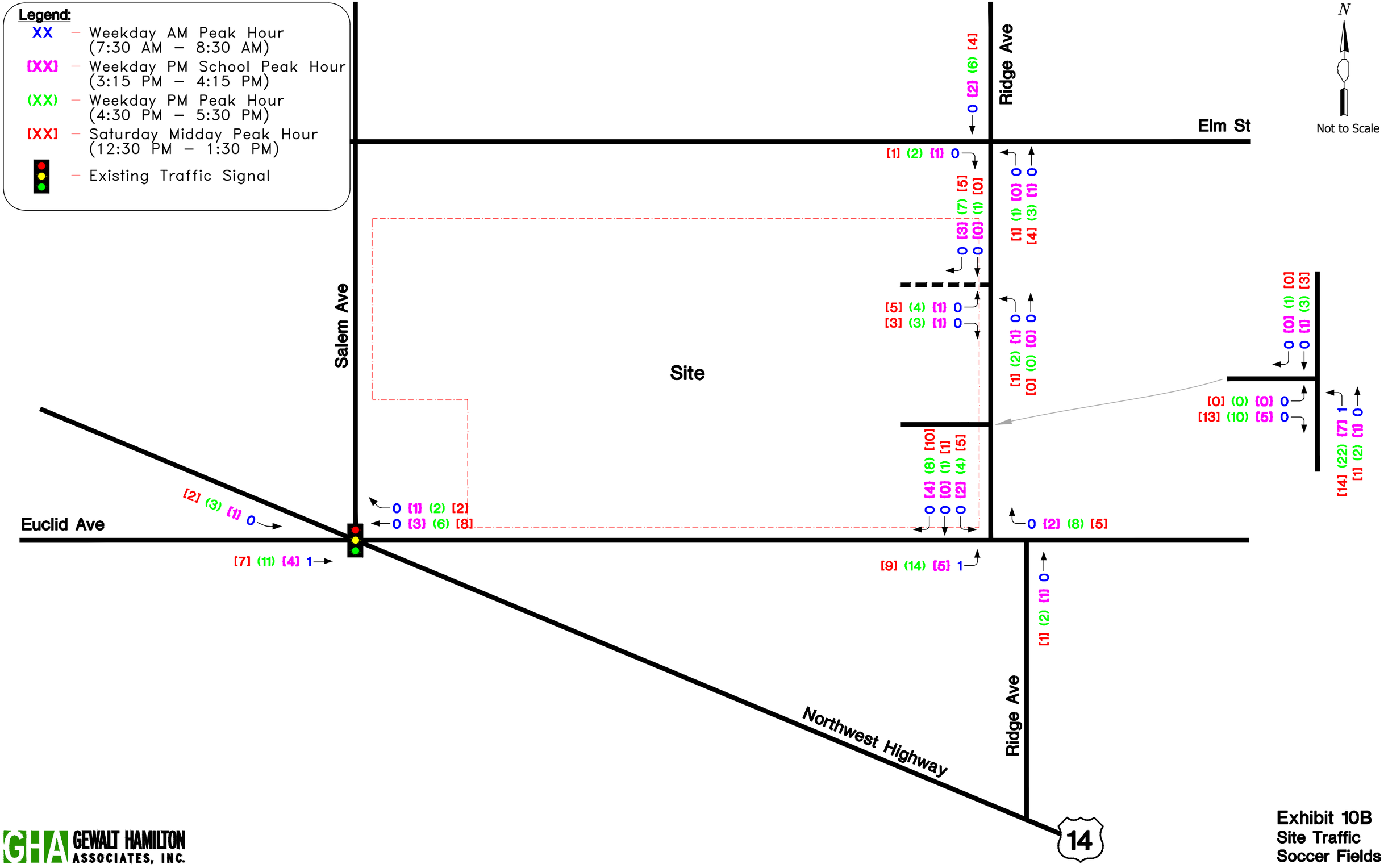

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Exhibit 10B
Site Traffic
Soccer Fields

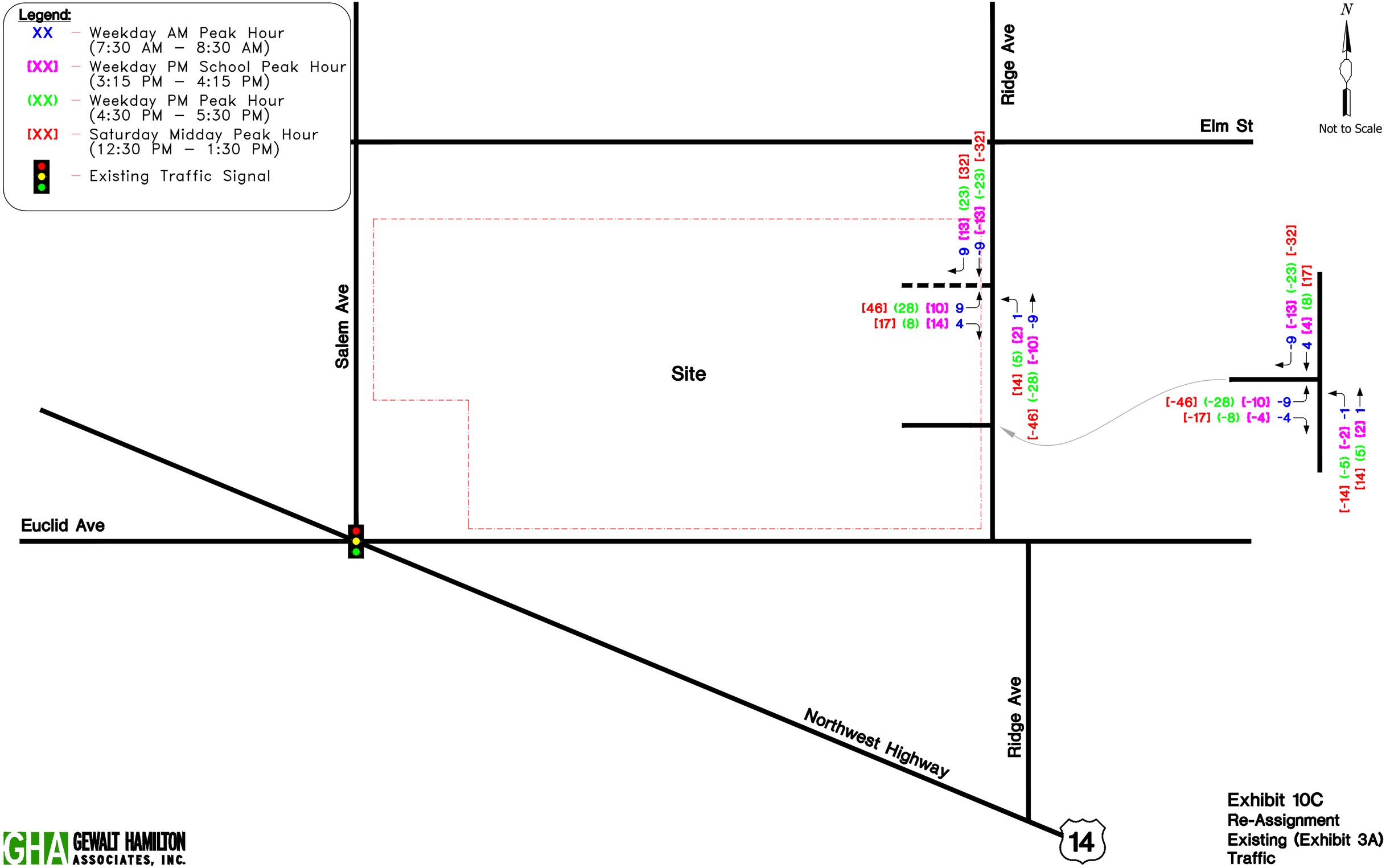

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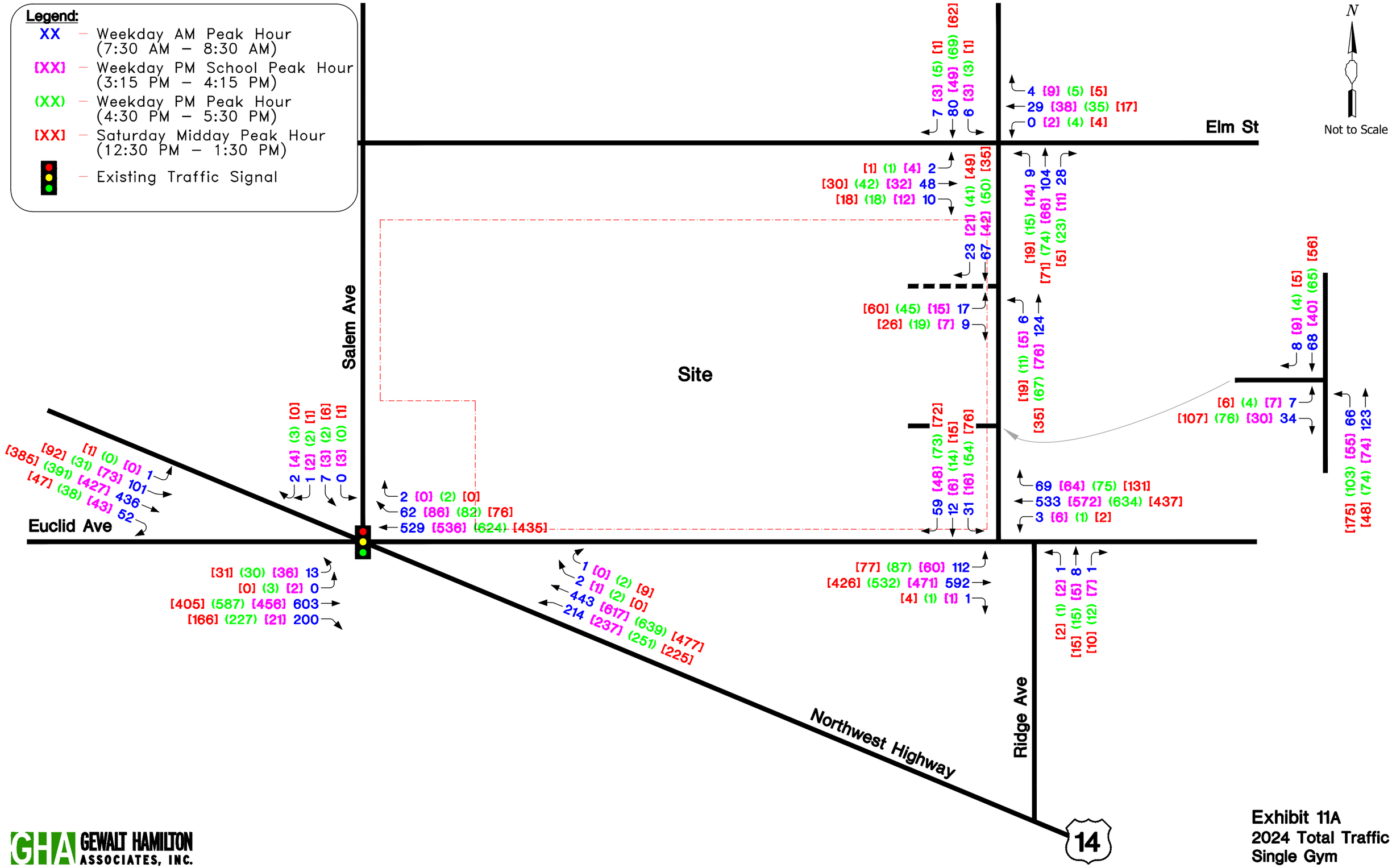
Exhibit 10C
Re-Assignment
Existing (Exhibit 3A)
Traffic



GEWALT HAMILTON ASSOCIATES, INC.

Exhibit 11A
2024 Total Traffic
Single Gym

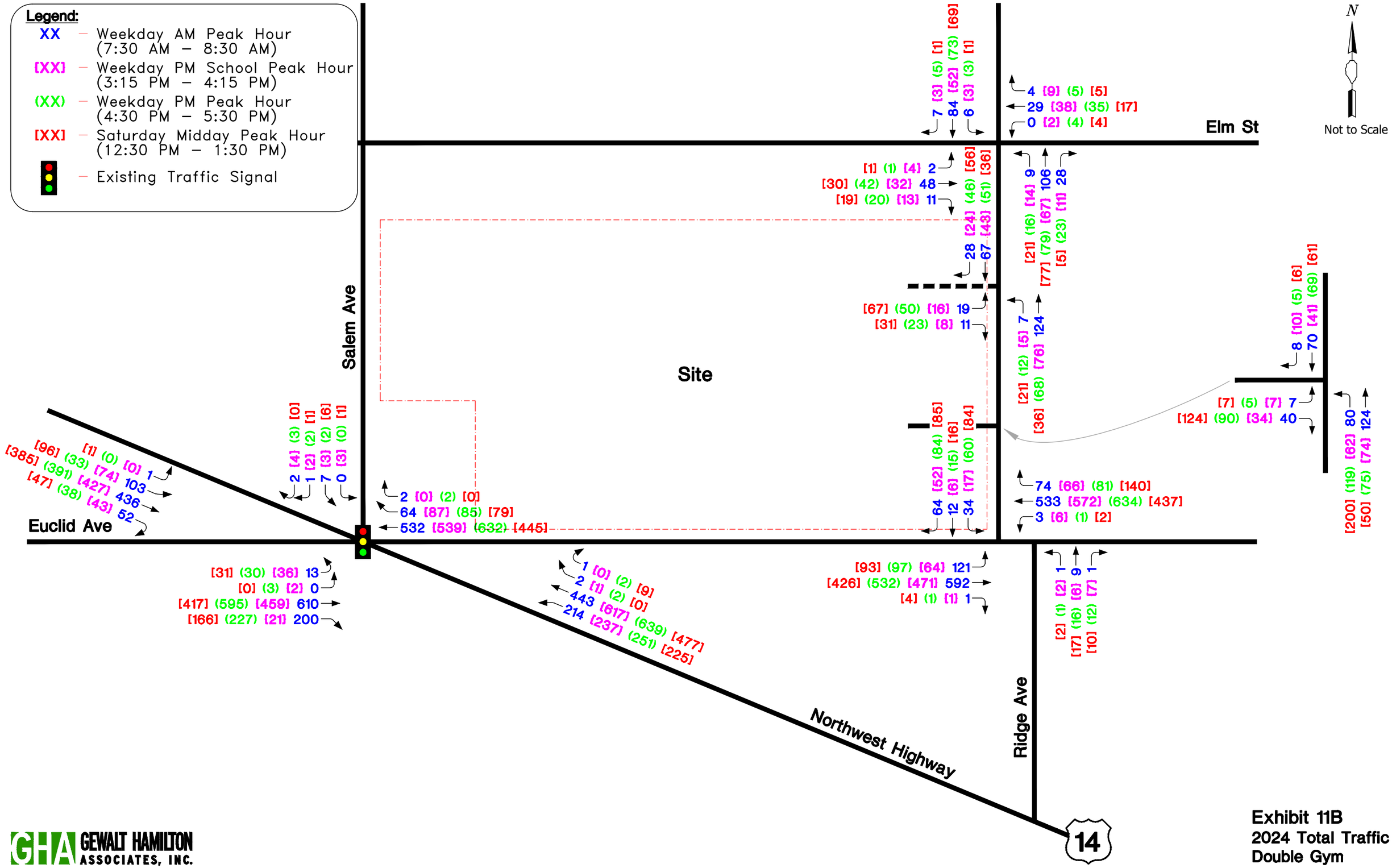


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Exhibit 11B
2024 Total Traffic
Double Gym

Exhibit 12
Intersection Capacity and Queue Analyses
Olympic Indoor Swim Center Addition and Renovations – Arlington Heights, Illinois

Part A. Parameters - Type of Traffic Control *(Source: Highway Capacity Manual 6th Edition)*

I. Traffic Signals

LOS	Delay (sec / veh)	Description
A	<10	All signal phases clear waiting vehicles without delay
B	>10 and < 20	Minimal delay experienced on select signal phases
C	>20 and < 35	Some delay experienced on several phases; often used as design criteria
D	>35 and < 55	Usually considered as the acceptable delay standard
E	>55 and < 80	Very long delays experienced during the peak hours
F	>80	Unacceptable delays experienced throughout the peak hours

II. Stop Sign

LOS	Delay (sec / veh)
A	< 10
B	>10 and < 15
C	>15 and < 25
D	>25 and < 35
E	>35 and < 50
F	>50

Part B. Results

	Roadway Conditions	LOS Per Movement By Approach (> = Shared Lane; - = Non Critical or not Allowed Movement)																		Intersection / Approach	
		Eastbound			Westbound			Northbound			Southbound			Southeastbound			Northwestbound			Delay	
		LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	(sec / veh)	LOS
1. Euclid Ave at NW Hwy/Salem Ave	**Signalized**																			**Intersection Delay**	
A. Weekday Morning Peak Hour																					
Existing Traffic (See *Exhibit 3*)	• Current	>	D	<	>	C	<	-	-	-	>	A	<	B	C	<	C	C	<	29.7	C
	• 95th Queue Length (ft)	-	380	-	-	265	-	-	-	-	-	-	-	87	231	-	181	215	-	-	-
Total Traffic (See *Exhibit 11A*)	• Current	>	D	<	>	C	<	-	-	-	>	A	<	B	C	<	C	C	<	30.6	C
Single Gym	• 95th Queue Length (ft)	-	415	-	-	284	-	-	-	-	-	-	-	94	240	-	186	222	-	-	-
Total Traffic (See *Exhibit 11B*)	• Current	>	D	<	>	C	<	-	-	-	>	A	<	B	C	<	C	C	<	30.7	C
Double Gym	• 95th Queue Length (ft)	-	420	-	-	286	-	-	-	-	-	-	-	95	240	-	186	222	-	-	-
B. Weekday School Peak Hour																					
Existing Traffic (See Exhibit 3)	• Current	>	D	<	>	D	<	-	-	-	>	A	<	B	C	<	B	C	<	29.8	C
	• 95th Queue Length (ft)	-	254	-	-	290	-	-	-	-	-	-	-	56	195	-	169	264	-	-	-
Total Traffic (See Exhibit 11A)	• Current	>	D	<	>	D	<	-	-	-	>	A	<	B	C	<	B	C	<	30.4	C
Single Gym	• 95th Queue Length (ft)	-	270	-	-	305	-	-	-	-	-	-	-	64	212	-	185	287	-	-	
Total Traffic (See *Exhibit 11B*)	• Current	>	D	<	>	D	<	-	-	-	>	A	<	B	C	<	B	C	<	30.5	C
Double Gym	• 95th Queue Length (ft)	-	272	-	-	307	-	-	-	-	-	-	-	65	213	-	186	289	-	-	
C. Weekday Evening Peak Hour																					
Existing Traffic (See Exhibit 3)	• Current	>	D	<	>	C	<	-	-	-	>	A	<	B	C	<	C	C	<	30.4	C
	• 95th Queue Length (ft)	-	398	-	-	307	-	-	-	-	-	-	-	29	198	-	206	298	-	-	-
Total Traffic (See Exhibit 11A)	• Current	>	D	<	>	C	<	-	-	-	>	A	<	B	C	<	C	C	<	31.6	C
Single Gym	• 95th Queue Length (ft)	-	441	-	-	339	-	-	-	-	-	-	-	36	204	-	215	313	-	-	
Total Traffic (See *Exhibit 11B*)	• Current	>	D	<	>	C	<	-	-	-	>	A	<	B	C	<	C	C	<	31.8	C
Double Gym	• 95th Queue Length (ft)	-	447	-	-	345	-	-	-	-	-	-	-	38	204	-	215	313	-	-	
D. Saturday Midday Peak Hour																					
Existing Traffic (See Exhibit 3)	• Current	>	D	<	>	C	<	-	-	-	>	E	<	B	C	<	B	B	<	25.1	C
	• 95th Queue Length (ft)	-	256	-	-	218	-	-	-	-	-	25	-	69	179	-	162	150	-	-	-
Total Traffic (See Exhibit 11A)	• Current	>	D	<	>	C	<	-	-	-	>	E	<	B	C	<	B	B	<	26.1	C
Single Gym	• 95th Queue Length (ft)	-	280	-	-	240	-	-	-	-	-	26	-	82	199	-	185	170	-	-	-
Total Traffic (See Exhibit 11B)	• Current	>	D	<	>	C	<	-	-	-	>	E	<	B	C	<	B	B	<	26.4	C
Double Gym	• 95th Queue Length (ft)	-	288	-	-	245	-	-	-	-	-	26	-	87	202	-	188	173	-	-	-
2. Euclid Ave at Ridge Ave	**TWSC - NB/SB Stops**																			**SB Approach Delay**	
A. Weekday Morning Peak Hour																					
Existing Traffic (See Exhibit 3)	• Current	A	-	-	A	-	-	>	F	B	>	E	<	-	-	-	-	-	-	47.6	E
	• 95th Queue Length (ft)	8	-	-	-	-	-	-	8	-	-	68	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11A)	• Current	A	-	-	A	-	-	>	F	B	>	F	<	-	-	-	-	-	-	112.9	F
Single Gym	• 95th Queue Length (ft)	8	-	-	-	-	-	-	8	-	-	145	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11B)	• Current	A	-	-	A	-	-	>	F	B	>	F	<	-	-	-	-	-	-	154.7	F
Double Gym	• 95th Queue Length (ft)	15	-	-	-	-	-	-	18	-	-	180	-	-	-	-	-	-	-	-	-
B. Weekday School Peak Hour																					
Existing Traffic (See Exhibit 3)	• Current	A	-	-	A	-	-	>	D	B	>	C	<	-	-	-	-	-	-	18.6	C
	• 95th Queue Length (ft)	5	-	-	-	-	-	-	3	-	-	15	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11A)	• Current	A	-	-	A	-	-	>	D	B	>	C	<	-	-	-	-	-	-	18.6	C
Single Gym	• 95th Queue Length (ft)	5	-	-	-	-	-	-	5	-	-	25	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11B)	• Current	A	-	-	A	-	-	>	D	B	>	C	<	-	-	-	-	-	-	23.1	C
Double Gym	• 95th Queue Length (ft)	5	-	-	-	-	-	-	5	-	-	28	-	-	-	-	-	-	-	-	-
C. Weekday Evening Peak Hour																					
Existing Traffic (See Exhibit 3)	• Current	A	-	-	A	-	-	>	D	B	>	E	<	-	-	-	-	-	-	37.2	E
	• 95th Queue Length (ft)	5	-	-	-	-	-	-	8	3	-	53	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11A)	• Current	A	-	-	A	-	-	>	E	B	>	F	<	-	-	-	-	-	-	94.9	F
Single Gym	• 95th Queue Length (ft)	5	-	-	-	-	-	-	13	3	-	153	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11B)	• Current	A	-	-	A	-	-	>	E	B	>	F	<	-	-	-	-	-	-	134.3	F
Double Gym	• 95th Queue Length (ft)	10	-	-	-	-	-	-	15	3	-	200	-	-	-	-	-	-	-	-	-
D. Saturday Midday Peak Hour																					
Existing Traffic (See Exhibit 3)	• Current	A	-	-	A	-	-	>	C	B	>	D	<	-	-	-	-	-	-	32.0	D
	• 95th Queue Length (ft)	5	-	-	-	-	-	-	5	3	-	63	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11A)	• Current	A	-	-	A	-	-	>	D	B	>	F	<	-	-	-	-	-	-	60.3	F
Single Gym	• 95th Queue Length (ft)	8	-	-	-	-	-	-	10	3	-	135	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11B)	• Current	A	-	-	A	-	-	>	D	B	>	F	<	-	-	-	-	-	-	90.7	F
Double Gym	• 95th Queue Length (ft)	8	-	-	-	-	-	-	13	3	-	190	-	-	-	-	-	-	-	-	-

Part B. Results (cont.)

	Roadway Conditions	LOS Per Movement By Approach (> = Shared Lane; - = Non Critical or not Allowed Movement)																		Intersection / Approach	
		Eastbound			Westbound			Northbound			Southbound			Southeastbound			Northwestbound			Delay	
		LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	(sec / veh)	LOS
3. Ridge Ave at Site Access	**TWSC - EB Stops**																			**EB Approach Delay**	
A. Weekday Morning Peak Hour																					
Existing Traffic (See Exhibit 3)	• Current	B	-	A	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	10.3	B
	• 95th Queue Length (ft)	5	-	3	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11A)	• Current	B	-	A	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	10.1	B
Single Gym	• 95th Queue Length (ft)	3	-	5	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11B)	• Current	C	-	A	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	10.2	B
Double Gym	• 95th Queue Length (ft)	3	-	8	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
B. Weekday School Peak Hour																					
Existing Traffic (See Exhibit 3)	• Current	B	-	A	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	9.9	A
	• 95th Queue Length (ft)	3	-	3	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11A)	• Current	B	-	A	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	9.4	A
Single Gym	• 95th Queue Length (ft)	3	-	3	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11B)	• Current	B	-	A	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	9.4	A
Double Gym	• 95th Queue Length (ft)	3	-	5	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-
C. Weekday Evening Peak Hour																					
Existing Traffic (See Exhibit 3)	• Current	B	-	A	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	9.7	A
	• 95th Queue Length (ft)	5	-	5	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11A)	• Current	B	-	A	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	9.3	A
Single Gym	• 95th Queue Length (ft)	-	-	8	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11B)	• Current	B	-	A	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	9.5	A
Double Gym	• 95th Queue Length (ft)	-	-	10	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
D. Saturday Midday Peak Hour																					
Existing Traffic (See Exhibit 3)	• Current	B	-	A	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	10.4	B
	• 95th Queue Length (ft)	10	-	8	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11A)	• Current	B	-	A	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	9.4	A
Single Gym	• 95th Queue Length (ft)	-	-	10	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11B)	• Current	B	-	A	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	9.6	A
Double Gym	• 95th Queue Length (ft)	3	-	13	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-
4. Ridge Ave at Elm St	**TWSC - NB/SB Stops**																			**NB Approach Delay**	
A. Weekday Morning Peak Hour																					
Existing Traffic (See Exhibit 3)	• Current	A	-	-	A	-	-	>	B	<	>	B	<	-	-	-	-	-	-	10.7	B
	• 95th Queue Length (ft)	-	-	-	-	-	-	-	20	-	-	13	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11A)	• Current	A	-	-	A	-	-	>	B	<	>	B	<	-	-	-	-	-	-	10.9	B
Single Gym	• 95th Queue Length (ft)	-	-	-	-	-	-	-	23	-	-	15	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11B)	• Current	A	-	-	A	-	-	>	B	<	>	B	<	-	-	-	-	-	-	10.9	B
Double Gym	• 95th Queue Length (ft)	-	-	-	-	-	-	-	23	-	-	15	-	-	-	-	-	-	-	-	-
B. Weekday School Peak Hour																					
Existing Traffic (See Exhibit 3)	• Current	A	-	-	A	-	-	>	B	<	>	B	<	-	-	-	-	-	-	10.2	B
	• 95th Queue Length (ft)	-	-	-	-	-	-	-	13	-	-	5	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11A)	• Current	A	-	-	A	-	-	>	B	<	>	B	<	-	-	-	-	-	-	10.3	B
Single Gym	• 95th Queue Length (ft)	-	-	-	-	-	-	-	13	-	-	8	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11B)	• Current	A	-	-	A	-	-	>	B	<	>	B	<	-	-	-	-	-	-	10.3	B
Double Gym	• 95th Queue Length (ft)	-	-	-	-	-	-	-	13	-	-	8	-	-	-	-	-	-	-	-	-
C. Weekday Evening Peak Hour																					
Existing Traffic (See Exhibit 3)	• Current	A	-	-	A	-	-	>	B	<	>	B	<	-	-	-	-	-	-	10.0	B
	• 95th Queue Length (ft)	-	-	-	-	-	-	-	10	-	-	8	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11A)	• Current	A	-	-	A	-	-	>	B	<	>	B	<	-	-	-	-	-	-	10.2	B
Single Gym	• 95th Queue Length (ft)	-	-	-	-	-	-	-	13	-	-	10	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11B)	• Current	A	-	-	A	-	-	>	B	<	>	B	<	-	-	-	-	-	-	10.3	B
Double Gym	• 95th Queue Length (ft)	-	-	-	-	-	-	-	15	-	-	10	-	-	-	-	-	-	-	-	-
D. Saturday Midday Peak Hour																					
Existing Traffic (See Exhibit 3)	• Current	A	-	-	A	-	-	>	A	<	>	A	<	-	-	-	-	-	-	9.8	A
	• 95th Queue Length (ft)	-	-	-	-	-	-	-	8	-	-	5	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11A)	• Current	A	-	-	A	-	-	>	B	<	>	A	<	-	-	-	-	-	-	10.0	B
Single Gym	• 95th Queue Length (ft)	-	-	-	-	-	-	-	10	-	-	8	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11B)	• Current	A	-	-	A	-	-	>	B	<	>	A	<	-	-	-	-	-	-	10.1	B
Double Gym	• 95th Queue Length (ft)	-	-	-	-	-	-	-	13	-	-	8	-	-	-	-	-	-	-	-	-
5. Ridge Ave at New Site Access	**TWSC - EB Stops**																			**EB Approach Delay**	
A. Weekday Morning Peak Hour																					
Total Traffic (See Exhibit 11A)	• Planned	>	B	<	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	10.6	B
Single Gym	• 95th Queue Length (ft)	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11B)	• Planned	>	B	<	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	10.7	B
Double Gym	• 95th Queue Length (ft)	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B. Weekday School Peak Hour																					
Total Traffic (See Exhibit 11A)	• Planned	>	A	<	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	9.5	A
Single Gym	• 95th Queue Length (ft)	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11B)	• Planned	>	A	<	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	9.5	A
Double Gym	• 95th Queue Length (ft)	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C. Weekday Evening Peak Hour																					
Total Traffic (See Exhibit 11A)	• Planned	>	A	<	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	9.9	A
Single Gym	• 95th Queue Length (ft)	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11B)	• Planned	>	B	<	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	10.0	B
Double Gym	• 95th Queue Length (ft)	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D. Saturday Midday Peak Hour																					
Total Traffic (See Exhibit 11A)	• Planned	>	A	<	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	9.7	A
Single Gym	• 95th Queue Length (ft)	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 11B)	• Planned	>	A	<	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	9.8	A
Double Gym	• 95th Queue Length (ft)	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit 13A
Future Parking Demand - Single Gymnasium
Olympic Indoor Swim Center Additions & Renovations
Arlington Heights, Illinois
Weekday

	Parking Description	Parking Type	Parking Supply	8:00 AM	9:00 AM	10:00 AM	11:00 AM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM
Existing Conditions													
Main Parking Lot													
A	Parking Lot	Regular	185	35	26*	21	28	55	27	35	63	45	23
		Handicap	6	0	0	1	2	0	0	0	2	3	0
Salem Avenue (On-Street)													
B	Monitored for Park Use Only	--	--	0	0	0	0	0	0	0	0	0	0
Ridge Avenue (On-Street)													
C	Monitored for Park Use Only	--	--	0	0	0	0	0	1	0	3	2	0
	TOTAL		191	35	26	22	30	55	28	35	68	50	23
	Percent Occupied		100%	18.3%	13.6%	11.5%	15.7%	28.8%	14.7%	18.3%	35.6%	26.2%	12.0%
Proposed Fitness Center													
	ITE LUC 495 Projected Demand - 161 Spaces	--	75	32	42	82	77	66	98	135	147	161	81
	Time of Day Distribution per ITE Parking Generation, 4th Edition, LUC 492			*20%*	*26%*	*51%*	*48%*	*41%*	*61%*	*84%*	*91%*	*100%*	*50%*
	Percent Occupied		100%	42.7%	56.0%	109.3%	102.7%	88.0%	130.7%	180.0%	196.0%	214.7%	108.0%
	Total (Existing and Proposed)		266	67	68	104	107	121	126	170	215	211	104
	Percent Occupied		100%	25.2%	25.6%	39.1%	40.2%	45.5%	47.4%	63.9%	80.8%	79.3%	39.1%
	Total Available		-	199	198	162	159	145	140	96	51	55	162

Notes: * Includes One (1) Bus.

Key
- 100%-85% Occupied
- 85%-60% Occupied
- 60%-0% Occupied

Note: An additional 60 parking spaces are available on-street (15 on Salem Avenue and 45 on Ridge Avenue) in close proximity of the site, which could readily accommodate overflow parking, if needed.

GEWALT HAMILTON ASSOCIATES, INC.

Exhibit 13B
Future Parking Demand - Single Gymnasium
Olympic Indoor Swim Center Additions & Renovations
Arlington Heights, Illinois
Saturday

Parking Description		Parking Type	Parking Supply	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM
Existing Conditions											
Main Parking Lot											
A	Parking Lot	Regular	185	35	60	53	99	134	173	185	165
		Handicap	6	0	0	0	0	3	4	4	3
Salem Avenue (On-Street)											
B	Monitored for Park Use Only	--	--	0	0	0	0	0	0	0	0
Ridge Avenue (On-Street)											
C	Monitored for Park Use Only	--	--	0	0	0	2	1	3	14	12
TOTAL			191	35	60	53	101	138	180	203	180
Percent Occupied			100%	18.3%	31.4%	27.7%	52.9%	72.3%	94.2%	106.3%	94.2%
Proposed Fitness Center											
ITE Projected Demand - 64 Spaces		--	75	60	61	64	56	52	50	47	49
Time of Day Distribution per ITE Parking Generation, 4th Edition, LUC 492				*94%*	*95%*	*100%*	*87%*	*82%*	*78%*	*73%*	*77%*
Percent Occupied			100%	80.0%	81.3%	85.3%	74.7%	69.3%	66.7%	62.7%	65.3%
Total (Existing and Proposed)			266	95	121	117	157	190	230	250	229
Percent Occupied			100%	35.7%	45.5%	44.0%	59.0%	71.4%	86.5%	94.0%	86.1%
Total Available			-	171	145	149	109	76	36	16	37

Key
- 100%-85% Occupied
- 85%-60% Occupied
- 60%-0% Occupied

Note: An additional 60 parking spaces are available on-street (15 on Salem Avenue and 45 on Ridge Avenue) in close proximity of the site, which could readily accommodate overflow parking, if needed.

GEWALT HAMILTON ASSOCIATES, INC.

Exhibit 14A
Future Parking Demand - Double Gymnasium
Olympic Indoor Swim Center Additions & Renovations
Arlington Heights, Illinois
Weekday

	Parking Description	Parking Type	Parking Supply	8:00 AM	9:00 AM	10:00 AM	11:00 AM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM
Existing Conditions													
Main Parking Lot													
A	Parking Lot	Regular	185	35	26*	21	28	55	27	35	63	45	23
		Handicap	6	0	0	1	2	0	0	0	2	3	0
Salem Avenue (On-Street)													
B	Monitored for Park Use Only	--	--	0	0	0	0	0	0	0	0	0	0
Ridge Avenue (On-Street)													
C	Monitored for Park Use Only	--	--	0	0	0	0	0	1	0	3	2	0
	TOTAL		191	35	26	22	30	55	28	35	68	50	23
	Percent Occupied		100%	18.3%	13.6%	11.5%	15.7%	28.8%	14.7%	18.3%	35.6%	26.2%	12.0%
Proposed Fitness Center													
	ITE LUC 495 Projected Demand - 265 Spaces	--	75	53	69	135	127	109	162	223	241	265	133
	Time of Day Distribution per ITE Parking Generation, 4th Edition, LUC 492			*20%*	*26%*	*51%*	*48%*	*41%*	*61%*	*84%*	*91%*	*100%*	*50%*
	Percent Occupied		100%	70.7%	92.0%	180.0%	169.3%	145.3%	216.0%	297.3%	321.3%	353.3%	177.3%
	Total (Existing and Proposed)		266	88	95	157	157	164	190	258	309	315	156
	Percent Occupied		100%	33.1%	35.7%	59.0%	59.0%	61.7%	71.4%	97.0%	116.2%	118.4%	58.6%
	Total Available		-	178	171	109	109	102	76	8	-43	-49	110

Notes: * Includes One (1) Bus.

Key
- 100%-85% Occupied
- 85%-60% Occupied
- 60%-0% Occupied

Note: An additional 60 parking spaces are available on-street (15 on Salem Avenue and 45 on Ridge Avenue) in close proximity of the site, which could readily accommodate overflow parking, if needed.

GEWALT HAMILTON ASSOCIATES, INC.

Exhibit 14B
Future Parking Demand - Double Gymnasium
Olympic Indoor Swim Center Additions & Renovations
Arlington Heights, Illinois
Saturday

	Parking Description	Parking Type	Parking Supply	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM
Existing Conditions											
Main Parking Lot											
A	Parking Lot	Regular	185	35	60	53	99	134	173	185	165
		Handicap	6	0	0	0	0	3	4	4	3
Salem Avenue (On-Street)											
B	Monitored for Park Use Only	--	--	0	0	0	0	0	0	0	0
Ridge Avenue (On-Street)											
C	Monitored for Park Use Only	--	--	0	0	0	2	1	3	14	12
TOTAL			191	35	60	53	101	138	180	203	180
Percent Occupied			100%	18.3%	31.4%	27.7%	52.9%	72.3%	94.2%	106.3%	94.2%
Proposed Fitness Center											
ITE Projected Demand - 106 Spaces		--	75	100	101	106	92	87	83	77	82
Time of Day Distribution per ITE Parking Generation, 4th Edition, LUC 492				*94%*	*95%*	*100%*	*87%*	*82%*	*78%*	*73%*	*77%*
Percent Occupied			100%	133.3%	134.7%	141.3%	122.7%	116.0%	110.7%	102.7%	109.3%
Total (Existing and Proposed)			266	135	161	159	193	225	263	280	262
Percent Occupied			100%	50.8%	60.5%	59.8%	72.6%	84.6%	98.9%	105.3%	98.5%
Total Available			-	131	105	107	73	41	3	-14	4

Key
- 100%-85% Occupied
- 85%-60% Occupied
- 60%-0% Occupied

Note: An additional 60 parking spaces are available on-street (15 on Salem Avenue and 45 on Ridge Avenue) in close proximity of the site, which could readily accommodate overflow parking, if needed.

GEWALT HAMILTON ASSOCIATES, INC.

Appendices

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Appendix A
Existing Traffic Count Summaries

GEWALT HAMILTON ASSOCIATES, INC.

Euclid Avenue at Northwest Highway & Salem Ave (5-legged intersection) - TMC

Tue Nov 7, 2017
Full Length (6AM-9AM, 3PM-7PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 468354, Location: 42.088386, -87.992568

GEWALT HAMILTON ASSOCIATES, INC.

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive,
Vernon Hills, IL, 60061, US

Leg	Euclid Ave							Euclid Ave							Salem Ave						
Direction	Eastbound							Westbound							Southbound						
Time	HL	L	T	BR	U	App	Ped*	HL	T	BR	R	U	App	Ped*	L	BL	R	HR	U	App	Ped*
2017-11-07 6:00AM	1	0	48	17	0	**66**	0	0	31	3	0	0	**34**	0	0	0	0	1	0	**1**	0
6:15AM	5	0	65	32	0	**102**	0	0	55	7	0	0	**62**	1	0	0	0	0	0	**0**	1
6:30AM	4	0	98	25	0	**127**	0	0	56	12	0	0	**68**	1	0	0	0	0	0	**0**	3
6:45AM	8	0	94	36	0	**138**	0	0	82	7	0	0	**89**	0	0	0	0	2	0	**2**	1
Hourly Total	18	0	305	110	0	**433**	0	0	224	29	0	0	**253**	2	0	0	0	3	0	**3**	5
7:00AM	3	0	146	56	0	**205**	0	0	63	5	0	0	**68**	0	1	0	0	1	0	**2**	1
7:15AM	4	0	171	57	0	**232**	0	0	111	8	0	0	**119**	0	0	0	0	0	0	**0**	0
7:30AM	2	0	172	42	0	**216**	0	0	124	9	0	0	**133**	0	0	3	0	0	0	**3**	0
7:45AM	5	0	111	56	0	**172**	0	0	118	11	1	0	**130**	0	0	3	1	0	0	**4**	0
Hourly Total	14	0	600	211	0	**825**	0	0	416	33	1	0	**450**	0	1	6	1	1	0	**9**	1
8:00AM	3	0	141	47	0	**191**	0	0	104	11	1	0	**116**	1	0	0	0	1	0	**1**	1
8:15AM	3	0	132	48	0	**183**	0	0	138	24	0	0	**162**	0	0	1	0	1	0	**2**	0
8:30AM	4	0	95	45	0	**144**	0	0	93	10	0	0	**103**	0	0	0	0	0	0	**0**	1
8:45AM	8	0	120	50	0	**178**	0	0	116	12	0	0	**128**	0	0	1	0	2	0	**3**	2
Hourly Total	18	0	488	190	0	**696**	0	0	451	57	1	0	**509**	1	0	2	0	4	0	**6**	4
3:00PM	6	0	103	40	0	**149**	0	0	111	11	0	0	**122**	0	1	0	1	0	0	**2**	0
3:15PM	4	0	111	60	0	**175**	0	0	104	21	0	0	**125**	0	0	1	0	0	0	**1**	0
3:30PM	9	2	121	48	0	**180**	0	0	137	20	0	0	**157**	1	1	2	1	0	0	**4**	2
3:45PM	15	0	97	46	0	**158**	0	0	98	21	0	0	**119**	1	0	1	1	1	0	**3**	1
Hourly Total	34	2	432	194	0	**662**	0	0	450	73	0	0	**523**	2	2	4	3	1	0	**10**	3
4:00PM	7	0	100	49	0	**156**	0	0	171	19	0	0	**190**	1	1	0	1	2	0	**4**	2
4:15PM	8	0	117	63	0	**188**	0	0	97	16	0	0	**113**	1	1	0	0	0	0	**1**	2
4:30PM	10	3	128	52	0	**193**	0	0	159	25	1	0	**185**	0	0	0	0	1	0	**1**	0
4:45PM	6	0	135	62	0	**203**	0	0	117	21	1	0	**139**	1	0	1	0	1	0	**2**	3
Hourly Total	31	3	480	226	0	**740**	0	0	544	81	2	0	**627**	3	2	1	1	4	0	**8**	7
5:00PM	4	0	114	39	0	**157**	0	0	147	11	0	0	**158**	2	0	1	1	1	0	**3**	1
5:15PM	9	0	120	66	0	**195**	0	0	155	15	0	0	**170**	0	0	0	1	0	0	**1**	0
5:30PM	7	0	109	47	0	**163**	0	0	123	21	0	0	**144**	1	0	1	0	0	0	**1**	0
5:45PM	3	1	105	58	0	**167**	0	1	111	12	0	0	**124**	1	0	0	0	0	0	**0**	0
Hourly Total	23	1	448	210	0	**682**	0	1	536	59	0	0	**596**	4	0	2	2	1	0	**5**	1
6:00PM	5	5	97	41	0	**148**	0	0	98	16	0	0	**114**	3	0	0	0	0	0	**0**	1
6:15PM	8	8	93	31	0	**140**	0	0	104	14	0	0	**118**	0	0	0	0	0	0	**0**	0
6:30PM	5	6	89	34	0	**134**	0	0	81	11	0	0	**92**	2	0	0	0	1	0	**1**	0
6:45PM	4	4	79	35	0	**122**	0	0	68	15	1	0	**84**	0	0	0	0	1	0	**1**	0
Hourly Total	22	23	358	141	0	**544**	0	0	351	56	1	0	**408**	5	0	0	0	2	0	**2**	1
Total	160	29	3111	1282	0	**4582**	0	1	2972	388	5	0	**3366**	17	5	15	7	16	0	**43**	22
% Approach	3.5%	0.6%	67.9%	28.0%	0%	**-**	-	0%	88.3%	11.5%	0.1%	0%	**-**	-	11.6%	34.9%	16.3%	37.2%	0%	**-**	-
% Total	1.0%	0.2%	19.4%	8.0%	0%	**28.6%**	-	0%	18.6%	2.4%	0%	0%	**21.0%**	-	0%	0.1%	0%	0.1%	0%	**0.3%**	-
Lights	153	28	3059	1225	0	**4465**	-	1	2929	367	5	0	**3302**	-	4	15	7	14	0	**40**	-
% Lights	95.6%	96.6%	98.3%	95.6%	0%	**97.4%**	-	100%	98.6%	94.6%	100%	0%	**98.1%**	-	80.0%	100%	100%	87.5%	0%	**93.0%**	-
Articulated Trucks	2	1	15	9	0	**27**	-	0	11	11	0	0	**22**	-	0	0	0	0	0	**0**	-
% Articulated Trucks	1.3%	3.4%	0.5%	0.7%	0%	**0.6%**	-	0%	0.4%	2.8%	0%	0%	**0.7%**	-	0%	0%	0%	0%	0%	**0%**	-
Buses and Single-Unit Trucks	5	0	37	40	0	**82**	-	0	32	10	0	0	**42**	-	0	0	0	1	0	**1**	-
% Buses and Single-Unit Trucks	3.1%	0%	1.2%	3.1%	0%	**1.8%**	-	0%	1.1%	2.6%	0%	0%	**1.2%**	-	0%	0%	0%	6.3%	0%	**2.3%**	-
Bicycles on Road	0	0	0	8	0	**8**	-	0	0	0	0	0	**0**	-	1	0	0	1	0	**2**	-
% Bicycles on Road	0%	0%	0%	0.6%	0%	**0.2%**	-	0%	0%	0%	0%	0%	**0%**	-	20.0%	0%	0%	6.3%	0%	**4.7%**	-
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	13	-	-	-	-	-	-	18
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	76.5%	-	-	-	-	-	-	81.8%
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	4	-	-	-	-	-	-	4
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	23.5%	-	-	-	-	-	-	18.2%

*Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

Euclid Avenue at Northwest Highway & Salem Ave (5-legged intersection) - TMC

Tue Nov 7, 2017
Full Length (6AM-9AM, 3PM-7PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 468354, Location: 42.088386, -87.992568

GEWALT HAMILTON ASSOCIATES, INC.

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive,
Vernon Hills, IL, 60061, US

Leg	US-14							US-14							
Direction	Southeastbound							Northwestbound							
Time	HL	BL	T	HR	U	App	Ped*	BL	T	BR	HR	U	App	Ped*	Int
2017-11-07 6:00AM	0	9	75	2	0	**86**	0	11	32	0	0	0	**43**	0	**230**
6:15AM	0	10	77	4	0	**91**	0	22	42	0	0	0	**64**	0	**319**
6:30AM	0	14	85	3	0	**102**	0	33	63	1	0	0	**97**	0	**394**
6:45AM	1	14	88	10	0	**113**	0	39	63	0	0	0	**102**	0	**444**
Hourly Total	1	47	325	19	0	**392**	0	105	200	1	0	0	**306**	0	**1387**
7:00AM	0	22	120	10	0	**152**	0	41	86	0	1	0	**128**	0	**555**
7:15AM	0	15	102	8	0	**125**	0	51	81	0	0	0	**132**	0	**608**
7:30AM	0	18	106	13	0	**137**	0	59	92	0	0	0	**151**	0	**640**
7:45AM	0	22	122	13	0	**157**	0	43	113	0	0	0	**156**	0	**619**
Hourly Total	0	77	450	44	0	**571**	0	194	372	0	1	0	**567**	0	**2422**
8:00AM	1	24	91	8	0	**124**	0	54	106	1	0	0	**161**	0	**593**
8:15AM	0	26	102	16	0	**144**	0	51	117	1	1	0	**170**	0	**661**
8:30AM	0	11	128	19	0	**158**	0	52	112	1	0	0	**165**	0	**570**
8:45AM	1	13	97	5	0	**116**	1	49	96	1	1	0	**147**	0	**572**
Hourly Total	2	74	418	48	0	**542**	1	206	431	4	2	0	**643**	0	**2396**
3:00PM	0	12	84	8	0	**104**	2	54	138	4	0	0	**196**	1	**573**
3:15PM	0	19	75	15	0	**109**	0	55	125	1	0	1	**182**	0	**592**
3:30PM	0	9	109	4	0	**122**	0	54	180	0	0	0	**234**	1	**697**
3:45PM	0	25	113	15	0	**153**	0	70	142	0	0	0	**212**	1	**645**
Hourly Total	0	65	381	42	0	**488**	2	233	585	5	0	1	**824**	3	**2507**
4:00PM	0	15	115	8	0	**138**	0	50	149	0	0	0	**199**	1	**687**
4:15PM	0	19	122	9	0	**150**	0	55	164	2	0	0	**221**	2	**673**
4:30PM	0	13	93	9	0	**115**	0	64	149	0	1	0	**214**	0	**708**
4:45PM	0	13	108	11	0	**132**	0	57	135	0	0	0	**192**	1	**668**
Hourly Total	0	60	438	37	0	**535**	0	226	597	2	1	0	**826**	4	**2736**
5:00PM	0	10	91	9	0	**110**	1	62	175	0	1	0	**238**	2	**666**
5:15PM	0	20	86	8	0	**114**	0	59	158	2	0	0	**219**	1	**699**
5:30PM	0	23	75	6	0	**104**	0	62	125	1	1	0	**189**	1	**601**
5:45PM	1	16	87	8	0	**112**	0	39	140	0	2	0	**181**	0	**584**
Hourly Total	1	69	339	31	0	**440**	1	222	598	3	4	0	**827**	4	**2550**
6:00PM	0	12	91	6	0	**109**	0	36	126	3	1	0	**166**	1	**537**
6:15PM	0	13	81	6	0	**100**	0	63	137	1	3	0	**204**	0	**562**
6:30PM	0	16	82	2	0	**100**	0	24	115	0	0	0	**139**	0	**466**
6:45PM	0	12	80	7	0	**99**	0	35	99	0	5	0	**139**	0	**445**
Hourly Total	0	53	334	21	0	**408**	0	158	477	4	9	0	**648**	1	**2010**
Total	4	445	2685	242	0	**3376**	4	1344	3260	19	17	1	**4641**	12	**16008**
% Approach	0.1%	13.2%	79.5%	7.2%	0%	**-**	-	29.0%	70.2%	0.4%	0.4%	0%	**-**	-	**-**
% Total	0%	2.8%	16.8%	1.5%	0%	**21.1%**	-	8.4%	20.4%	0.1%	0.1%	0%	**29.0%**	-	**-**
Lights	4	427	2609	237	0	**3277**	-	1316	3175	18	17	1	**4527**	-	15611
% Lights	100%	96.0%	97.2%	97.9%	0%	**97.1%**	-	97.9%	97.4%	94.7%	100%	100%	**97.5%**	-	97.5%
Articulated Trucks	0	10	24	1	0	**35**	-	4	26	0	0	0	**30**	-	114
% Articulated Trucks	0%	2.2%	0.9%	0.4%	0%	**1.0%**	-	0.3%	0.8%	0%	0%	0%	**0.6%**	-	0.7%
Buses and Single-Unit Trucks	0	8	47	3	0	**58**	-	24	59	1	0	0	**84**	-	267
% Buses and Single-Unit Trucks	0%	1.8%	1.8%	1.2%	0%	**1.7%**	-	1.8%	1.8%	5.3%	0%	0%	**1.8%**	-	1.7%
Bicycles on Road	0	0	5	1	0	**6**	-	0	0	0	0	0	**0**	-	16
% Bicycles on Road	0%	0%	0.2%	0.4%	0%	**0.2%**	-	0%	0%	0%	0%	0%	**0%**	-	0.1%
Pedestrians	-	-	-	-	-	-	4	-	-	-	-	-	-	7	
% Pedestrians	-	-	-	-	-	-	100%	-	-	-	-	-	-	58.3%	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	5	
% Bicycles on Crosswalk	-	-	-	-	-	-	0%	-	-	-	-	-	-	41.7%	-

*Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U:

Euclid/Northwest Hwy/SalemAve (5-legged intersection) - TMC

Sat Nov 4, 2017
Full Length (10AM-2PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 468367, Location: 42.088376, -87.992538

GEWALT HAMILTON ASSOCIATES, INC.

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive,
Vernon Hills, IL, 60061, US

Leg	Euclid Ave							Euclid Ave							Salem Ave						
Direction	Eastbound							Westbound							Southbound						
Time	HL	L	T	BR	U	**App**	Ped*	HL	T	BR	R	U	**App**	Ped*	L	BL	R	HR	U	**App**	Ped*
2017-11-04 10:00AM	5	0	70	41	0	**116**	0	0	72	14	0	0	**86**	0	0	1	0	2	0	**3**	0
10:15AM	11	0	84	46	0	**141**	0	0	67	13	0	0	**80**	0	0	2	0	0	0	**2**	0
10:30AM	4	0	94	34	0	**132**	0	0	83	18	1	0	**102**	0	0	0	0	0	0	**0**	0
10:45AM	3	0	64	40	0	**107**	0	0	79	19	0	0	**98**	0	0	0	0	0	0	**0**	0
Hourly Total	23	0	312	161	0	**496**	0	0	301	64	1	0	**366**	0	0	3	0	2	0	**5**	0
11:00AM	7	0	73	27	0	**107**	0	0	69	10	0	0	**79**	0	1	0	0	1	0	**2**	0
11:15AM	12	0	92	31	0	**135**	0	0	103	15	0	0	**118**	1	0	1	1	0	0	**2**	1
11:30AM	10	0	91	37	0	**138**	0	0	75	11	0	0	**86**	3	0	1	0	0	0	**1**	2
11:45AM	5	0	103	52	0	**160**	0	0	90	11	0	0	**101**	0	1	3	0	0	0	**4**	0
Hourly Total	34	0	359	147	0	**540**	0	0	337	47	0	0	**384**	4	2	5	1	1	0	**9**	3
12:00PM	3	0	82	40	0	**125**	0	0	99	26	0	0	**125**	0	0	1	0	0	0	**1**	1
12:15PM	8	0	89	47	0	**144**	0	0	81	9	0	0	**90**	0	0	0	0	0	0	**0**	0
12:30PM	3	0	86	43	0	**132**	0	0	74	17	0	0	**91**	0	1	1	0	0	0	**2**	2
12:45PM	7	0	71	37	0	**115**	0	0	92	20	2	0	**114**	0	1	1	1	1	0	**4**	1
Hourly Total	21	0	328	167	0	**516**	0	0	346	72	2	0	**420**	0	2	3	1	1	0	**7**	4
1:00PM	4	0	78	42	0	**124**	0	0	101	21	0	0	**122**	0	1	0	1	0	0	**2**	0
1:15PM	6	0	72	41	0	**119**	0	2	99	26	0	0	**127**	0	0	0	0	3	0	**3**	0
1:30PM	4	0	107	49	0	**160**	0	0	81	12	1	0	**94**	0	0	2	0	0	0	**2**	0
1:45PM	5	1	87	21	0	**114**	0	0	78	11	0	0	**89**	2	0	0	0	0	0	**0**	2
Hourly Total	19	1	344	153	0	**517**	0	2	359	70	1	0	**432**	2	1	2	1	3	0	**7**	2
Total	97	1	1343	628	0	**2069**	0	2	1343	253	4	0	**1602**	6	5	13	3	7	0	**28**	9
% Approach	4.7%	0%	64.9%	30.4%	0%	**-**	-	0.1%	83.8%	15.8%	0.2%	0%	**-**	-	17.9%	46.4%	10.7%	25.0%	0%	**-**	-
% Total	1.2%	0%	16.7%	7.8%	0%	**25.8%**	-	0%	16.7%	3.2%	0%	0%	**20.0%**	-	0.1%	0.2%	0%	0.1%	0%	**0.3%**	-
Lights	96	1	1337	623	0	**2057**	-	2	1336	250	4	0	**1592**	-	5	13	3	7	0	**28**	-
% Lights	99.0%	100%	99.6%	99.2%	0%	**99.4%**	-	100%	99.5%	98.8%	100%	0%	**99.4%**	-	100%	100%	100%	100%	0%	**100%**	-
Articulated Trucks	0	0	0	0	0	**0**	-	0	1	1	0	0	**2**	-	0	0	0	0	0	**0**	-
% Articulated Trucks	0%	0%	0%	0%	0%	**0%**	-	0%	0.1%	0.4%	0%	0%	**0.1%**	-	0%	0%	0%	0%	0%	**0%**	-
Buses and Single-Unit Trucks	1	0	6	5	0	**12**	-	0	6	2	0	0	**8**	-	0	0	0	0	0	**0**	-
% Buses and Single-Unit Trucks	1.0%	0%	0.4%	0.8%	0%	**0.6%**	-	0%	0.4%	0.8%	0%	0%	**0.5%**	-	0%	0%	0%	0%	0%	**0%**	-
Bicycles on Road	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-
% Bicycles on Road	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	5	-	-	-	-	-	-	8
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	83.3%	-	-	-	-	-	-	88.9%
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	1	-	-	-	-	-	-	1
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	16.7%	-	-	-	-	-	-	11.1%

*Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

Euclid/Northwest Hwy/SalemAve (5-legged intersection) - TMC

Sat Nov 4, 2017
Full Length (10AM-2PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 468367, Location: 42.088376, -87.992538

GEWALT HAMILTON ASSOCIATES, INC.

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive,
Vernon Hills, IL, 60061, US

Leg Direction	US-14 Southeastbound							US-14 Northwestbound							
Time	HL	BL	T	HR	U	**App**	Ped*	BL	T	BR	HR	U	**App**	Ped*	**Int**
2017-11-04 10:00AM	1	16	76	6	0	**99**	0	38	82	0	1	0	**121**	0	**425**
10:15AM	0	18	96	10	0	**124**	0	32	118	0	2	0	**152**	0	**499**
10:30AM	0	10	89	4	0	**103**	0	44	101	0	1	0	**146**	0	**483**
10:45AM	0	13	126	7	0	**146**	0	53	107	1	1	0	**162**	0	**513**
Hourly Total	1	57	387	27	0	**472**	0	167	408	1	5	0	**581**	0	**1920**
11:00AM	2	14	112	7	0	**135**	0	30	119	0	2	0	**151**	2	**474**
11:15AM	0	19	92	13	0	**124**	0	44	121	0	3	0	**168**	1	**547**
11:30AM	0	22	101	14	0	**137**	0	48	126	0	1	0	**175**	0	**537**
11:45AM	1	21	88	6	0	**116**	1	60	115	0	2	0	**177**	0	**558**
Hourly Total	3	76	393	40	0	**512**	1	182	481	0	8	0	**671**	3	**2116**
12:00PM	0	20	91	12	0	**123**	0	65	99	0	3	0	**167**	0	**541**
12:15PM	1	25	71	2	0	**99**	0	47	80	0	2	0	**129**	0	**462**
12:30PM	0	8	104	6	0	**118**	0	41	95	0	0	0	**136**	0	**479**
12:45PM	0	17	97	4	0	**118**	2	57	84	0	3	0	**144**	0	**495**
Hourly Total	1	70	363	24	0	**458**	2	210	358	0	8	0	**576**	0	**1977**
1:00PM	0	27	87	7	0	**121**	0	49	103	0	1	0	**153**	0	**522**
1:15PM	1	11	88	3	0	**103**	0	33	103	0	7	0	**143**	1	**495**
1:30PM	0	14	96	4	0	**114**	0	50	91	1	1	0	**143**	0	**513**
1:45PM	0	19	94	7	0	**120**	0	34	121	0	4	0	**159**	0	**482**
Hourly Total	1	71	365	21	0	**458**	0	166	418	1	13	0	**598**	1	**2012**
Total	6	274	1508	112	0	**1900**	3	725	1665	2	34	0	**2426**	4	**8025**
% Approach	0.3%	14.4%	79.4%	5.9%	0%	**-**	-	29.9%	68.6%	0.1%	1.4%	0%	**-**	-	**-**
% Total	0.1%	3.4%	18.8%	1.4%	0%	**23.7%**	-	9.0%	20.7%	0%	0.4%	0%	**30.2%**	-	**-**
Lights	6	267	1491	110	0	**1874**	-	722	1649	2	34	0	**2407**	-	7958
% Lights	100%	97.4%	98.9%	98.2%	0%	**98.6%**	-	99.6%	99.0%	100%	100%	0%	**99.2%**	-	99.2%
Articulated Trucks	0	4	3	0	0	**7**	-	1	1	0	0	0	**2**	-	11
% Articulated Trucks	0%	1.5%	0.2%	0%	0%	**0.4%**	-	0.1%	0.1%	0%	0%	0%	**0.1%**	-	0.1%
Buses and Single-Unit Trucks	0	2	14	2	0	**18**	-	2	15	0	0	0	**17**	-	55
% Buses and Single-Unit Trucks	0%	0.7%	0.9%	1.8%	0%	**0.9%**	-	0.3%	0.9%	0%	0%	0%	**0.7%**	-	0.7%
Bicycles on Road	0	1	0	0	0	**1**	-	0	0	0	0	0	**0**	-	1
% Bicycles on Road	0%	0.4%	0%	0%	0%	**0.1%**	-	0%	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	-	-	3	-	-	-	-	-	-	4	
% Pedestrians	-	-	-	-	-	-	100%	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	0%	-	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

Euclid Ave & Ridge Ave (both north & south legs) - TMC
Tue Nov 7, 2017
Full Length (6AM-9AM, 3PM-7PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 468346, Location: 42.088316, -87.990149

GEWALT HAMILTON ASSOCIATES, INC.

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive,
Vernon Hills, IL, 60061, US

Leg	Euclid Ave						Euclid Ave						Ridge Ave						Ridge Ave						
Direction	Eastbound						Westbound						Northbound						Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2017-11-07 6:00AM	1	53	0	0	**54**	0	0	36	1	0	**37**	0	0	0	0	0	**0**	0	1	3	3	0	**7**	0	**98**
6:15AM	2	80	0	0	**82**	0	1	57	4	0	**62**	0	0	0	0	0	**0**	0	1	4	0	0	**5**	0	**149**
6:30AM	2	104	0	0	**106**	0	0	73	2	0	**75**	0	0	0	0	0	**0**	0	4	1	0	0	**5**	1	**186**
6:45AM	4	109	1	0	**114**	0	1	75	4	0	**80**	0	1	0	0	0	**1**	0	2	2	0	0	**4**	1	**199**
Hourly Total	9	346	1	0	**356**	0	2	241	11	0	**254**	0	1	0	0	0	**1**	0	8	10	3	0	**21**	2	**632**
7:00AM	9	144	1	0	**154**	0	1	64	2	0	**67**	0	0	0	0	0	**0**	0	6	2	1	0	**9**	1	**230**
7:15AM	9	156	0	0	**165**	0	0	111	2	0	**113**	0	0	1	0	0	**1**	0	4	4	3	0	**11**	0	**290**
7:30AM	18	161	0	0	**179**	0	0	124	6	0	**130**	0	0	0	0	0	**0**	0	5	2	5	0	**12**	0	**321**
7:45AM	18	136	0	0	**154**	0	0	143	3	0	**146**	1	0	1	0	0	**1**	0	1	2	0	0	**3**	0	**304**
Hourly Total	54	597	1	0	**652**	0	1	442	13	0	**456**	1	0	2	0	0	**2**	0	16	10	9	0	**35**	1	**1145**
8:00AM	18	133	1	0	**152**	0	1	106	8	0	**115**	0	1	1	0	0	**2**	0	3	0	5	0	**8**	2	**277**
8:15AM	27	139	0	0	**166**	0	2	140	35	0	**177**	0	0	3	1	0	**4**	1	6	3	20	0	**29**	0	**376**
8:30AM	6	107	1	0	**114**	0	1	103	11	0	**115**	0	0	2	0	0	**2**	0	15	4	13	0	**32**	1	**263**
8:45AM	13	106	1	0	**120**	0	1	121	3	0	**125**	0	1	1	2	0	**4**	1	5	3	3	0	**11**	1	**260**
Hourly Total	64	485	3	0	**552**	0	5	470	57	0	**532**	0	2	7	3	0	**12**	2	29	10	41	0	**80**	4	**1176**
3:00PM	5	112	1	0	**118**	0	0	127	3	0	**130**	0	0	1	1	0	**2**	2	6	1	6	0	**13**	0	**263**
3:15PM	19	113	0	0	**132**	1	2	122	15	0	**139**	0	1	1	1	0	**3**	0	1	1	8	0	**10**	0	**284**
3:30PM	13	118	0	0	**131**	0	1	129	20	0	**150**	0	1	1	2	0	**4**	3	2	2	12	0	**16**	1	**301**
3:45PM	8	112	0	0	**120**	0	2	138	14	0	**154**	0	0	1	1	0	**2**	0	4	1	9	0	**14**	0	**290**
Hourly Total	45	455	1	0	**501**	1	5	516	52	0	**573**	0	2	4	5	0	**11**	5	13	5	35	0	**53**	1	**1138**
4:00PM	5	106	1	0	**112**	0	1	153	7	0	**161**	0	0	0	3	0	**3**	2	3	1	8	0	**12**	0	**288**
4:15PM	8	121	0	0	**129**	0	1	140	6	0	**147**	0	0	0	1	0	**1**	2	4	1	8	0	**13**	0	**290**
4:30PM	11	148	0	0	**159**	0	1	149	11	0	**161**	0	0	0	2	0	**2**	0	3	1	5	0	**9**	0	**331**
4:45PM	18	135	0	0	**153**	0	0	131	24	0	**155**	0	0	2	1	0	**3**	0	13	1	9	0	**23**	1	**334**
Hourly Total	42	510	1	0	**553**	0	3	573	48	0	**624**	0	0	2	7	0	**9**	4	23	4	30	0	**57**	1	**1243**
5:00PM	8	103	0	0	**111**	0	0	152	12	0	**164**	0	0	6	8	0	**14**	0	7	3	8	0	**18**	0	**307**
5:15PM	14	126	1	0	**141**	0	0	161	8	0	**169**	0	1	3	1	0	**5**	0	5	3	10	0	**18**	0	**333**
5:30PM	7	132	2	1	**142**	0	1	138	13	0	**152**	0	0	1	3	0	**4**	0	1	4	5	0	**10**	0	**308**
5:45PM	13	126	1	0	**140**	0	1	109	22	0	**132**	0	0	2	0	0	**2**	0	10	0	13	0	**23**	1	**297**
Hourly Total	42	487	4	1	**534**	0	2	560	55	0	**617**	0	1	12	12	0	**25**	0	23	10	36	0	**69**	1	**1245**
6:00PM	9	95	0	0	**104**	0	0	105	9	0	**114**	0	0	3	2	0	**5**	1	21	1	10	0	**32**	0	**255**
6:15PM	7	105	0	0	**112**	0	1	103	5	0	**109**	0	0	0	2	0	**2**	0	4	4	6	0	**14**	0	**237**
6:30PM	6	104	1	0	**111**	0	0	99	7	0	**106**	0	0	2	0	0	**2**	0	4	0	3	0	**7**	0	**226**
6:45PM	7	88	0	0	**95**	0	0	80	7	0	**87**	0	0	0	9	0	**9**	0	2	1	1	0	**4**	1	**195**
Hourly Total	29	392	1	0	**422**	0	1	387	28	0	**416**	0	0	5	13	0	**18**	1	31	6	20	0	**57**	1	**913**
Total	285	3272	12	1	**3570**	1	19	3189	264	0	**3472**	1	6	32	40	0	**78**	12	143	55	174	0	**372**	11	**7492**
% Approach	8.0%	91.7%	0.3%	0%	**-**	-	0.5%	91.8%	7.6%	0%	**-**	-	7.7%	41.0%	51.3%	0%	**-**	-	38.4%	14.8%	46.8%	0%	**-**	-	**-**
% Total	3.8%	43.7%	0.2%	0%	**47.7%**	-	0.3%	42.6%	3.5%	0%	**46.3%**	-	0.1%	0.4%	0.5%	0%	**1.0%**	-	1.9%	0.7%	2.3%	0%	**5.0%**	-	**-**
Lights	283	3192	12	1	**3488**	-	19	3126	263	0	**3408**	-	6	28	39	0	**73**	-	140	53	173	0	**366**	-	7335
% Lights	99.3%	97.6%	100%	100%	**97.7%**	-	100%	98.0%	99.6%	0%	**98.2%**	-	100%	87.5%	97.5%	0%	**93.6%**	-	97.9%	96.4%	99.4%	0%	**98.4%**	-	97.9%
Articulated Trucks	0	27	0	0	**27**	-	0	20	0	0	**20**	-	0	1	1	0	**2**	-	1	0	1	0	**2**	-	51
% Articulated Trucks	0%	0.8%	0%	0%	**0.8%**	-	0%	0.6%	0%	0%	**0.6%**	-	0%	3.1%	2.5%	0%	**2.6%**	-	0.7%	0%	0.6%	0%	**0.5%**	-	0.7%
Buses and Single-Unit Trucks	2	53	0	0	**55**	-	0	43	1	0	**44**	-	0	3	0	0	**3**	-	2	1	0	0	**3**	-	105
% Buses and Single-Unit Trucks	0.7%	1.6%	0%	0%	**1.5%**	-	0%	1.3%	0.4%	0%	**1.3%**	-	0%	9.4%	0%	0%	**3.8%**	-	1.4%	1.8%	0%	0%	**0.8%**	-	1.4%
Bicycles on Road	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	1	0	0	**1**	-	1
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	1.8%	0%	0%	**0.3%**	-	0%
Pedestrians	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	9	-	-	-	-	-	10	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	75.0%	-	-	-	-	-	90.9%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	1	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	25.0%	-	-	-	-	-	9.1%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Euclid Ave & Ridge Ave (both north & south legs) - TMC
Sat Nov 4, 2017
Full Length (10AM-2PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 468364, Location: 42.088304, -87.990149

GEWALT HAMILTON ASSOCIATES, INC.

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive,
Vernon Hills, IL, 60061, US

Leg	Euclid Ave						Euclid Ave						Ridge Ave						Ridge Ave						
Direction	Eastbound						Westbound						Northbound						Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2017-11-04 10:00AM	1	83	0	0	**84**	0	1	86	9	0	**96**	0	0	0	3	0	**3**	0	8	1	4	0	**13**	0	**196**
10:15AM	7	99	0	0	**106**	0	0	73	11	0	**84**	0	0	1	4	0	**5**	0	8	0	2	0	**10**	0	**205**
10:30AM	7	93	0	0	**100**	0	1	92	5	0	**98**	0	0	0	3	0	**3**	0	3	3	10	0	**16**	0	**217**
10:45AM	7	72	2	0	**81**	0	0	93	7	0	**100**	0	1	0	0	0	**1**	0	9	1	9	0	**19**	0	**201**
Hourly Total	22	347	2	0	**371**	0	2	344	32	0	**378**	0	1	1	10	0	**12**	0	28	5	25	0	**58**	0	**819**
11:00AM	6	79	0	0	**85**	0	0	86	17	0	**103**	0	0	0	5	0	**5**	0	7	1	6	0	**14**	0	**207**
11:15AM	6	109	1	0	**116**	0	1	101	11	0	**113**	0	0	1	5	0	**6**	0	8	1	9	0	**18**	0	**253**
11:30AM	6	109	0	0	**115**	0	0	94	5	0	**99**	0	1	2	2	0	**5**	0	7	1	3	0	**11**	0	**230**
11:45AM	15	105	4	0	**124**	0	0	94	34	0	**128**	0	0	1	2	0	**3**	0	6	0	9	0	**15**	0	**270**
Hourly Total	33	402	5	0	**440**	0	1	375	67	0	**443**	0	1	4	14	0	**19**	0	28	3	27	0	**58**	0	**960**
12:00PM	10	97	0	0	**107**	1	0	107	10	0	**117**	0	0	1	3	0	**4**	2	17	3	8	0	**28**	3	**256**
12:15PM	9	103	2	0	**114**	0	0	87	8	0	**95**	0	0	1	4	0	**5**	0	6	2	10	0	**18**	1	**232**
12:30PM	9	93	0	0	**102**	0	0	98	25	0	**123**	0	0	6	4	0	**10**	0	9	2	8	0	**19**	1	**254**
12:45PM	7	91	3	0	**101**	0	2	107	35	0	**144**	0	1	2	5	0	**8**	0	14	4	6	0	**24**	1	**277**
Hourly Total	35	384	5	0	**424**	1	2	399	78	0	**479**	0	1	10	16	0	**27**	2	46	11	32	0	**89**	6	**1019**
1:00PM	16	85	0	0	**101**	0	0	115	32	0	**147**	0	0	3	1	0	**4**	0	19	3	9	0	**31**	0	**283**
1:15PM	8	85	0	0	**93**	0	0	101	22	0	**123**	0	1	1	0	0	**2**	0	19	3	20	0	**42**	2	**260**
1:30PM	9	104	0	0	**113**	0	0	89	16	0	**105**	0	0	2	3	0	**5**	0	6	4	8	0	**18**	0	**241**
1:45PM	16	102	1	0	**119**	0	1	103	22	0	**126**	1	0	3	2	0	**5**	0	1	2	3	0	**6**	0	**256**
Hourly Total	49	376	1	0	**426**	0	1	408	92	0	**501**	1	1	9	6	0	**16**	0	45	12	40	0	**97**	2	**1040**
Total	139	1509	13	0	**1661**	1	6	1526	269	0	**1801**	1	4	24	46	0	**74**	2	147	31	124	0	**302**	8	**3838**
% Approach	8.4%	90.8%	0.8%	0%	**-**	-	0.3%	84.7%	14.9%	0%	**-**	-	5.4%	32.4%	62.2%	0%	**-**	-	48.7%	10.3%	41.1%	0%	**-**	-	**-**
% Total	3.6%	39.3%	0.3%	0%	**43.3%**	-	0.2%	39.8%	7.0%	0%	**46.9%**	-	0.1%	0.6%	1.2%	0%	**1.9%**	-	3.8%	0.8%	3.2%	0%	**7.9%**	-	**-**
Lights	139	1496	13	0	**1648**	-	6	1513	269	0	**1788**	-	4	24	45	0	**73**	-	147	31	122	0	**300**	-	3809
% Lights	100%	99.1%	100%	0%	**99.2%**	-	100%	99.1%	100%	0%	**99.3%**	-	100%	100%	97.8%	0%	**98.6%**	-	100%	100%	98.4%	0%	**99.3%**	-	99.2%
Articulated Trucks	0	4	0	0	**4**	-	0	2	0	0	**2**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	6
% Articulated Trucks	0%	0.3%	0%	0%	**0.2%**	-	0%	0.1%	0%	0%	**0.1%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.2%
Buses and Single-Unit Trucks	0	9	0	0	**9**	-	0	11	0	0	**11**	-	0	0	1	0	**1**	-	0	0	1	0	**1**	-	22
% Buses and Single-Unit Trucks	0%	0.6%	0%	0%	**0.5%**	-	0%	0.7%	0%	0%	**0.6%**	-	0%	0%	2.2%	0%	**1.4%**	-	0%	0%	0.8%	0%	**0.3%**	-	0.6%
Bicycles on Road	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	1	0	**1**	-	1
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0.8%	0%	**0.3%**	-	0%
Pedestrians	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	6	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	75.0%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	25.0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Ridge Ave & Olympic Indoor Swim Center Access - TMC
Tue Nov 7, 2017
Full Length (6AM-9AM, 3PM-7PM)
All Classes (Lights, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 468352, Location: 42.088662, -87.990205

GEWALT HAMILTON ASSOCIATES, INC.

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive,
Vernon Hills, IL, 60061, US

Leg Direction	Olympic Indoor Swim Eastbound					Ridge Ave Northbound					Ridge Ave Southbound					
Time	L	R	U	App	Ped*	L	T	U	App	Ped*	T	R	U	App	Ped*	Int
2017-11-07 6:00AM	0	0	0	**0**	0	1	1	0	**2**	0	7	0	0	**7**	0	**9**
6:15AM	0	0	0	**0**	0	3	3	0	**6**	0	6	0	0	**6**	0	**12**
6:30AM	1	2	0	**3**	0	1	3	0	**4**	0	6	1	0	**7**	0	**14**
6:45AM	2	2	0	**4**	2	3	5	0	**8**	1	6	4	0	**10**	1	**22**
Hourly Total	3	4	0	**7**	2	8	12	0	**20**	1	25	5	0	**30**	1	**57**
7:00AM	0	2	0	**2**	1	1	12	0	**13**	0	10	3	0	**13**	0	**28**
7:15AM	0	2	0	**2**	0	0	12	0	**12**	0	9	1	0	**10**	1	**24**
7:30AM	2	3	0	**5**	0	6	19	0	**25**	0	9	1	0	**10**	0	**40**
7:45AM	1	1	0	**2**	0	6	17	0	**23**	0	10	4	0	**14**	1	**39**
Hourly Total	3	8	0	**11**	1	13	60	0	**73**	0	38	9	0	**47**	2	**131**
8:00AM	1	3	0	**4**	1	4	24	0	**28**	0	4	3	0	**7**	9	**39**
8:15AM	11	13	0	**24**	1	10	49	1	**60**	0	17	7	0	**24**	29	**108**
8:30AM	2	1	0	**3**	0	0	19	0	**19**	0	28	1	0	**29**	1	**51**
8:45AM	1	0	0	**1**	0	0	17	0	**17**	0	12	3	0	**15**	2	**33**
Hourly Total	15	17	0	**32**	2	14	109	1	**124**	0	61	14	0	**75**	41	**231**
3:00PM	0	6	0	**6**	0	1	6	0	**7**	0	7	0	0	**7**	0	**20**
3:15PM	3	3	0	**6**	1	10	23	0	**33**	2	9	4	0	**13**	9	**52**
3:30PM	9	10	0	**19**	9	12	26	1	**39**	0	8	7	0	**15**	50	**73**
3:45PM	4	4	0	**8**	0	10	11	0	**21**	0	7	10	0	**17**	8	**46**
Hourly Total	16	23	0	**39**	10	33	66	1	**100**	2	31	21	0	**52**	67	**191**
4:00PM	1	3	0	**4**	0	3	9	0	**12**	0	9	1	0	**10**	0	**26**
4:15PM	0	0	0	**0**	0	1	12	0	**13**	0	13	1	0	**14**	2	**27**
4:30PM	2	4	0	**6**	1	6	16	0	**22**	0	7	2	0	**9**	0	**37**
4:45PM	12	13	0	**25**	0	25	20	0	**45**	0	11	17	0	**28**	1	**98**
Hourly Total	15	20	0	**35**	1	35	57	0	**92**	0	40	21	0	**61**	3	**188**
5:00PM	8	8	0	**16**	0	6	18	0	**24**	0	11	2	0	**13**	0	**53**
5:15PM	3	3	0	**6**	0	7	19	0	**26**	0	13	4	0	**17**	0	**49**
5:30PM	1	2	0	**3**	0	10	11	0	**21**	0	8	3	0	**11**	0	**35**
5:45PM	5	13	0	**18**	0	26	10	0	**36**	0	14	13	1	**28**	0	**82**
Hourly Total	17	26	0	**43**	0	49	58	0	**107**	0	46	22	1	**69**	0	**219**
6:00PM	22	23	0	**45**	1	11	10	0	**21**	0	11	5	0	**16**	0	**82**
6:15PM	7	7	0	**14**	1	5	8	0	**13**	0	5	0	0	**5**	0	**32**
6:30PM	1	1	0	**2**	0	6	9	0	**15**	0	7	0	0	**7**	0	**24**
6:45PM	2	2	0	**4**	0	8	5	0	**13**	0	2	2	0	**4**	0	**21**
Hourly Total	32	33	0	**65**	2	30	32	0	**62**	0	25	7	0	**32**	0	**159**
Total	101	131	0	**232**	18	182	394	2	**578**	3	266	99	1	**366**	114	**1176**
% Approach	43.5%	56.5%	0%	**-**	-	31.5%	68.2%	0.3%	**-**	-	72.7%	27.0%	0.3%	**-**	-	**-**
% Total	8.6%	11.1%	0%	**19.7%**	-	15.5%	33.5%	0.2%	**49.1%**	-	22.6%	8.4%	0.1%	**31.1%**	-	**-**
Lights	100	129	0	**229**	-	181	386	2	**569**	-	263	98	1	**362**	-	1160
% Lights	99.0%	98.5%	0%	**98.7%**	-	99.5%	98.0%	100%	**98.4%**	-	98.9%	99.0%	100%	**98.9%**	-	98.6%
Buses and Single-Unit Trucks	0	2	0	**2**	-	1	8	0	**9**	-	2	1	0	**3**	-	14
% Buses and Single-Unit Trucks	0%	1.5%	0%	**0.9%**	-	0.5%	2.0%	0%	**1.6%**	-	0.8%	1.0%	0%	**0.8%**	-	1.2%
Bicycles on Road	1	0	0	**1**	-	0	0	0	**0**	-	1	0	0	**1**	-	2
% Bicycles on Road	1.0%	0%	0%	**0.4%**	-	0%	0%	0%	**0%**	-	0.4%	0%	0%	**0.3%**	-	0.2%
Pedestrians	-	-	-	-	17	-	-	-	-	3	-	-	-	-	114	
% Pedestrians	-	-	-	-	94.4%	-	-	-	-	100%	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	5.6%	-	-	-	-	0%	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Ridge Ave & Olympic Indoor Swim Center Access - TMC
Sat Nov 4, 2017
Full Length (10AM-2PM)
All Classes (Lights, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 468363, Location: 42.088647, -87.990196

GEWALT HAMILTON ASSOCIATES, INC.

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive,
Vernon Hills, IL, 60061, US

Leg	Olympic Indoor Swim					Ridge Ave					Ridge Ave					
Direction	Eastbound					Northbound					Southbound					
Time	L	R	U	App	Ped*	L	T	U	App	Ped*	T	R	U	App	Ped*	Int
2017-11-04 10:00AM	8	9	0	**17**	0	7	3	0	**10**	0	2	5	0	**7**	0	**34**
10:15AM	2	5	0	**7**	0	12	7	0	**19**	0	5	2	0	**7**	0	**33**
10:30AM	3	7	0	**10**	0	8	4	0	**12**	0	10	2	0	**12**	0	**34**
10:45AM	5	14	0	**19**	0	8	6	0	**14**	0	4	2	0	**6**	0	**39**
Hourly Total	18	35	0	**53**	0	35	20	0	**55**	0	21	11	0	**32**	0	**140**
11:00AM	3	6	1	**10**	0	18	4	0	**22**	0	9	2	0	**11**	0	**43**
11:15AM	5	10	0	**15**	0	10	8	1	**19**	0	6	4	1	**11**	0	**45**
11:30AM	4	7	0	**11**	0	4	9	0	**13**	0	5	2	0	**7**	2	**31**
11:45AM	1	7	0	**8**	0	44	6	1	**51**	0	8	18	0	**26**	1	**85**
Hourly Total	13	30	1	**44**	0	76	27	2	**105**	0	28	26	1	**55**	3	**204**
12:00PM	13	22	0	**35**	6	13	8	0	**21**	0	7	3	0	**10**	1	**66**
12:15PM	6	11	0	**17**	0	8	10	0	**18**	0	6	3	0	**9**	2	**44**
12:30PM	5	12	0	**17**	0	28	12	0	**40**	0	7	11	0	**18**	2	**75**
12:45PM	12	15	0	**27**	1	39	3	1	**43**	0	8	19	1	**28**	0	**98**
Hourly Total	36	60	0	**96**	7	88	33	1	**122**	0	28	36	1	**65**	5	**283**
1:00PM	16	29	0	**45**	0	39	11	0	**50**	0	6	8	0	**14**	1	**109**
1:15PM	18	30	0	**48**	1	30	2	0	**32**	0	10	6	0	**16**	5	**96**
1:30PM	3	10	0	**13**	0	22	5	0	**27**	0	7	6	0	**13**	0	**53**
1:45PM	4	1	0	**5**	0	31	9	0	**40**	0	5	9	0	**14**	3	**59**
Hourly Total	41	70	0	**111**	1	122	27	0	**149**	0	28	29	0	**57**	9	**317**
Total	108	195	1	**304**	8	321	107	3	**431**	0	105	102	2	**209**	17	**944**
% Approach	35.5%	64.1%	0.3%	**-**	-	74.5%	24.8%	0.7%	**-**	-	50.2%	48.8%	1.0%	**-**	-	**-**
% Total	11.4%	20.7%	0.1%	**32.2%**	-	34.0%	11.3%	0.3%	**45.7%**	-	11.1%	10.8%	0.2%	**22.1%**	-	**-**
Lights	108	195	1	**304**	-	321	107	3	**431**	-	104	102	2	**208**	-	943
% Lights	100%	100%	100%	**100%**	-	100%	100%	100%	**100%**	-	99.0%	100%	100%	**99.5%**	-	99.9%
Bicycles on Road	0	0	0	**0**	-	0	0	0	**0**	-	1	0	0	**1**	-	1
% Bicycles on Road	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	1.0%	0%	0%	**0.5%**	-	0.1%
Pedestrians	-	-	-	-	7	-	-	-	-	0	-	-	-	-	17	
% Pedestrians	-	-	-	-	87.5%	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	12.5%	-	-	-	-	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Elm Street at Ridge Avenue - TMC
Tue Nov 7, 2017
Full Length (6AM-9AM, 3PM-7PM)
All Classes (Lights, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road)
All Movements
ID: 468359, Location: 42.093006, -87.990189

GEWALT HAMILTON ASSOCIATES, INC.

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg	Elm St						Elm St						Ridge Ave						Ridge Ave						
Direction	Eastbound						Westbound						Northbound						Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2017-11-07 6:00AM	0	2	0	0	2	1	2	0	1	0	3	0	0	1	0	0	1	0	0	3	0	0	3	0	9
6:15AM	0	4	0	0	4	0	0	1	0	0	1	0	0	3	0	0	3	0	0	3	0	0	3	0	11
6:30AM	0	5	0	0	5	0	1	0	0	0	1	0	0	2	0	0	2	0	1	4	0	0	5	0	13
6:45AM	0	13	1	0	14	0	1	2	1	0	4	0	1	4	1	0	6	0	1	5	0	0	6	1	30
Hourly Total	0	24	1	0	25	1	4	3	2	0	9	0	1	10	1	0	12	0	2	15	0	0	17	1	63
7:00AM	0	8	2	0	10	1	1	4	0	0	5	0	0	6	0	0	6	0	0	9	0	0	9	0	30
7:15AM	0	8	0	0	8	1	1	2	0	0	3	0	1	3	3	0	7	1	0	6	1	0	7	1	25
7:30AM	1	11	0	0	12	0	1	3	1	0	5	0	0	12	6	0	18	0	3	6	0	0	9	0	44
7:45AM	0	15	3	0	18	0	0	3	2	0	5	0	0	16	3	0	19	0	4	13	0	0	17	1	59
Hourly Total	1	42	5	0	48	2	3	12	3	0	18	0	1	37	12	0	50	1	7	34	1	0	42	2	158
8:00AM	1	8	0	0	9	0	0	7	0	0	7	0	0	8	5	0	13	0	0	15	4	0	19	0	48
8:15AM	0	12	1	0	13	2	0	9	1	0	10	0	3	28	9	0	40	1	2	11	0	0	13	3	76
8:30AM	1	11	1	0	13	0	0	9	1	0	10	1	2	16	3	0	21	0	0	7	1	0	8	0	52
8:45AM	0	12	3	0	15	0	0	3	0	0	3	0	1	11	1	0	13	2	0	4	0	0	4	4	35
Hourly Total	2	43	5	0	50	2	0	28	2	0	30	1	6	63	18	0	87	3	2	37	5	0	44	7	211
3:00PM	1	9	0	0	10	1	1	6	0	0	7	1	0	4	1	0	5	0	3	4	2	0	9	2	31
3:15PM	1	7	3	0	11	0	1	9	4	0	14	0	0	9	2	0	11	1	0	11	1	0	12	0	48
3:30PM	1	7	1	0	9	0	0	7	3	0	10	1	5	19	2	0	26	0	0	9	1	0	10	1	55
3:45PM	1	8	3	0	12	0	1	13	2	0	16	0	4	15	1	0	20	2	1	11	1	0	13	0	61
Hourly Total	4	31	7	0	42	1	3	35	9	0	47	2	9	47	6	0	62	3	4	35	5	0	44	3	195
4:00PM	1	9	1	0	11	0	0	8	0	0	8	0	1	4	3	0	8	0	2	6	0	0	8	0	35
4:15PM	0	9	2	0	11	0	1	11	0	0	12	1	0	7	3	0	10	0	1	6	1	0	8	4	41
4:30PM	1	6	1	0	8	0	2	10	0	0	12	0	2	8	3	0	13	1	1	5	2	0	8	1	41
4:45PM	1	10	4	0	15	0	2	5	1	0	8	0	5	16	2	0	23	0	2	14	0	0	16	0	62
Hourly Total	3	34	8	0	45	0	5	34	1	0	40	1	8	35	11	0	54	1	6	31	3	0	40	5	179
5:00PM	0	7	2	0	9	0	2	12	0	0	14	0	2	17	8	0	27	0	0	5	0	0	5	0	55
5:15PM	0	9	5	0	14	0	0	4	1	0	5	0	1	13	3	0	17	0	1	11	0	0	12	0	48
5:30PM	1	12	1	0	14	0	2	9	1	0	12	1	2	8	3	0	13	0	1	9	3	0	13	0	52
5:45PM	0	10	4	0	14	0	1	10	2	0	13	0	2	10	2	0	14	0	1	18	2	0	21	0	62
Hourly Total	1	38	12	0	51	0	5	35	4	0	44	1	7	48	16	0	71	0	3	43	5	0	51	0	217
6:00PM	0	10	2	0	12	0	1	11	1	0	13	0	3	14	9	0	26	0	0	9	0	0	9	0	60
6:15PM	0	7	1	0	8	0	0	9	1	0	10	0	6	10	0	0	16	0	0	3	0	0	3	0	37
6:30PM	0	9	0	0	9	0	1	13	1	0	15	0	3	4	0	0	7	0	1	2	0	0	3	0	34
6:45PM	0	3	0	0	3	0	0	6	0	0	6	0	1	4	1	0	6	0	2	4	0	0	6	1	21
Hourly Total	0	29	3	0	32	0	2	39	3	0	44	0	13	32	10	0	55	0	3	18	0	0	21	1	152
Total	11	241	41	0	293	6	22	186	24	0	232	5	45	272	74	0	391	8	27	213	19	0	259	19	1175
% Approach	3.8%	82.3%	14.0%	0%	-	-	9.5%	80.2%	10.3%	0%	-	-	11.5%	69.6%	18.9%	0%	-	-	10.4%	82.2%	7.3%	0%	-	-	-
% Total	0.9%	20.5%	3.5%	0%	24.9%	-	1.9%	15.8%	2.0%	0%	19.7%	-	3.8%	23.1%	6.3%	0%	33.3%	-	2.3%	18.1%	1.6%	0%	22.0%	-	-
Lights	10	230	40	0	280	-	22	178	21	0	221	-	45	268	73	0	386	-	26	209	18	0	253	-	1140
% Lights	90.9%	95.4%	97.6%	0%	95.6%	-	100%	95.7%	87.5%	0%	95.3%	-	100%	98.5%	98.6%	0%	98.7%	-	96.3%	98.1%	94.7%	0%	97.7%	-	97.0%
Buses and Single-Unit Trucks	1	7	1	0	9	-	0	4	2	0	6	-	0	2	1	0	3	-	1	2	1	0	4	-	22
% Buses and Single-Unit Trucks	9.1%	2.9%	2.4%	0%	3.1%	-	0%	2.2%	8.3%	0%	2.6%	-	0%	0.7%	1.4%	0%	0.8%	-	3.7%	0.9%	5.3%	0%	1.5%	-	1.9%
Bicycles on Road	0	4	0	0	4	-	0	4	1	0	5	-	0	2	0	0	2	-	0	2	0	0	2	-	13
% Bicycles on Road	0%	1.7%	0%	0%	1.4%	-	0%	2.2%	4.2%	0%	2.2%	-	0%	0.7%	0%	0%	0.5%	-	0%	0.9%	0%	0%	0.8%	-	1.1%
Pedestrians	-	-	-	-	-	6	-	-	-	-	-	5	-	-	-	-	-	8	-	-	-	-	-	19	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Elm Street at Ridge Avenue - TMC
Sat Nov 4, 2017
Full Length (10AM-2PM)
All Classes (Lights, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 468369, Location: 42.093039, -87.99021

GEWALT HAMILTON ASSOCIATES, INC.

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive,
Vernon Hills, IL, 60061, US

Leg	Elm St						Elm St						Ridge Ave						Ridge Ave						
Direction	Eastbound						Westbound						Northbound						Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2017-11-04 10:00AM	2	8	2	0	12	0	0	6	0	0	6	0	3	6	2	0	11	0	1	4	1	0	6	0	35
10:15AM	0	8	0	0	8	0	0	1	0	0	1	0	0	5	2	0	7	0	0	4	1	0	5	0	21
10:30AM	0	4	1	0	5	0	0	7	1	0	8	0	0	2	1	0	3	0	2	7	0	0	9	2	25
10:45AM	1	6	2	0	9	0	0	4	1	0	5	0	0	10	3	0	13	2	0	4	1	0	5	0	32
Hourly Total	3	26	5	0	34	0	0	18	2	0	20	0	3	23	8	0	34	2	3	19	3	0	25	2	113
11:00AM	0	3	2	0	5	0	1	6	0	0	7	0	2	4	1	0	7	2	0	7	1	0	8	2	27
11:15AM	1	6	1	0	8	1	0	3	0	0	3	0	1	7	3	0	11	0	1	8	1	0	10	0	32
11:30AM	0	3	2	0	5	1	1	5	0	0	6	0	3	8	1	0	12	0	0	0	0	0	0	0	23
11:45AM	1	5	4	0	10	0	1	10	2	0	13	0	0	4	0	0	4	0	3	18	2	0	23	0	50
Hourly Total	2	17	9	0	28	2	3	24	2	0	29	0	6	23	5	0	34	2	4	33	4	0	41	2	132
12:00PM	1	5	2	0	8	0	0	7	1	0	8	0	2	13	3	0	18	0	1	6	1	0	8	0	42
12:15PM	0	9	0	0	9	0	2	8	1	0	11	0	1	11	1	0	13	0	2	3	1	0	6	1	39
12:30PM	1	7	3	0	11	0	1	5	2	0	8	0	3	6	0	0	9	0	1	12	0	0	13	0	41
12:45PM	0	7	4	0	11	0	1	1	2	0	4	0	3	13	1	0	17	0	0	16	0	0	16	0	48
Hourly Total	2	28	9	0	39	0	4	21	6	0	31	0	9	43	5	0	57	0	4	37	2	0	43	1	170
1:00PM	0	10	4	0	14	0	1	7	0	0	8	0	3	13	0	0	16	0	0	7	0	0	7	0	45
1:15PM	0	5	3	0	8	2	1	3	1	0	5	0	3	13	3	0	19	0	0	13	1	0	14	0	46
1:30PM	0	4	2	0	6	0	0	10	0	0	10	0	1	7	2	0	10	1	1	8	1	0	10	0	36
1:45PM	0	9	2	0	11	0	2	3	0	0	5	0	1	8	0	0	9	0	0	7	0	0	7	0	32
Hourly Total	0	28	11	0	39	2	4	23	1	0	28	0	8	41	5	0	54	1	1	35	2	0	38	0	159
Total	7	99	34	0	140	4	11	86	11	0	108	0	26	130	23	0	179	5	12	124	11	0	147	5	574
% Approach	5.0%	70.7%	24.3%	0%	-	-	10.2%	79.6%	10.2%	0%	-	-	14.5%	72.6%	12.8%	0%	-	-	8.2%	84.4%	7.5%	0%	-	-	-
% Total	1.2%	17.2%	5.9%	0%	24.4%	-	1.9%	15.0%	1.9%	0%	18.8%	-	4.5%	22.6%	4.0%	0%	31.2%	-	2.1%	21.6%	1.9%	0%	25.6%	-	-
Lights	7	96	34	0	137	-	11	86	11	0	108	-	26	130	22	0	178	-	12	124	11	0	147	-	570
% Lights	100%	97.0%	100%	0%	97.9%	-	100%	100%	100%	0%	100%	-	100%	100%	95.7%	0%	99.4%	-	100%	100%	100%	0%	100%	-	99.3%
Buses and Single-Unit Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	1	-	0	0	0	0	0	-	1
% Buses and Single-Unit Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	4.3%	0%	0.6%	-	0%	0%	0%	0%	0%	-	0.2%
Bicycles on Road	0	3	0	0	3	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	3
% Bicycles on Road	0%	3.0%	0%	0%	2.1%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.5%
Pedestrians	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	5	-	-	-	-	-	5	
% Pedestrians	-	-	-	-	-	75.0%	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	25.0%	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Appendix B
CMAP Projections

GEWALT HAMILTON ASSOCIATES, INC.

Chicago Metropolitan
Agency for Planning

233 South Wacker Drive
Suite 800
Chicago, Illinois 60606

312 454 0400
www.cmap.illinois.gov

November 2, 2017

Lynn M. Means, P.E., PTOE
Senior Transportation Engineer
Gewalt Hamilton Associates
625 Forest Edge Drive
Vernon Hills, IL 60061

Subject: Euclid Avenue @ Northwest Highway
IDOT

Dear Ms. Means:

In response to a request made on your behalf and dated November 2, 2017, we have developed year 2040 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Current ADT	Year 2040 ADT
Euclid Ave West of NW Highway	12,550	13,700
Euclid Ave East of NW Highway	12,200	13,500
NW Highway from Wilke Rd to Arlington Hts Rd	16,700	18,400

Traffic projections are developed using existing ADT data provided in the request letter and the results from the October 2017 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2040 socioeconomic projections and assumes the implementation of the GO TO 2040 Comprehensive Regional Plan for the Northeastern Illinois area.

If you have any questions, please call me at (312) 386-8806.

Sincerely,

Jose Rodriguez, PTP, AICP
Senior Planner, Research & Analysis

cc: Quigley (IDOT)
S:\AdminGroups\ResearchAnalysis\TrafficForecasts_CY2017\ArlingtonHeights\ck-98-17\ck-98-17.docx

Appendix C
Capacity Analysis Worksheets

GEWALT HAMILTON ASSOCIATES, INC.

Lane Group	EBL2	EBT	EBR	WBT	WBR	WBR2	SBL	SBR	SBR2	SEL2	SEL	SET
Lane Configurations												
Traffic Volume (vph)	13	559	193	499	57	2	7	1	2	1	91	421
Future Volume (vph)	13	559	193	499	57	2	7	1	2	1	91	421
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)			0		0		0	0			210	
Storage Lanes			0		0		1	0			1	
Taper Length (ft)							25				145	
Satd. Flow (prot)	0	3357	0	3465	0	0	1760	0	0	0	1704	3452
Flt Permitted		0.938					0.966				0.454	
Satd. Flow (perm)	0	3152	0	3465	0	0	1760	0	0	0	814	3452
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		36					147					10
Link Speed (mph)		30		30			30					30
Link Distance (ft)		1259		341			382					755
Travel Time (s)		28.6		7.8			8.7					17.2
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
Heavy Vehicles (%)	7%	2%	7%	2%	7%	0%	0%	0%	0%	0%	6%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	805	0	587	0	0	10	0	0	0	97	496
Turn Type	custom	NA		NA			Prot			custom	pm+pt	NA
Protected Phases		4		8			10				1	6
Permitted Phases	7									1	6	
Detector Phase	7	4		8			10			1	1	6
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0			3.0			3.0	3.0	15.0
Minimum Split (s)	14.0	14.0		14.0			9.0			8.5	8.5	21.0
Total Split (s)	20.0	60.0		40.0			15.0			15.0	15.0	55.0
Total Split (%)	13.8%	41.4%		27.6%			10.3%			10.3%	10.3%	37.9%
Yellow Time (s)	4.5	4.5		4.5			4.5			4.5	4.5	4.5
All-Red Time (s)	1.5	1.5		1.5			1.5			0.0	0.0	1.5
Lost Time Adjust (s)		0.0		0.0			0.0				0.0	0.0
Total Lost Time (s)		6.0		6.0			6.0				4.5	6.0
Lead/Lag	Lead			Lag						Lead	Lead	Lag
Lead-Lag Optimize?	Yes			Yes						Yes	Yes	Yes
Recall Mode	None	None		None			None			None	None	Max
Act Effct Green (s)		41.1		41.1			5.6				59.7	49.5
Actuated g/C Ratio		0.34		0.34			0.05				0.50	0.41
v/c Ratio		0.73		0.49			0.05				0.21	0.35
Control Delay		36.9		32.4			0.4				16.8	26.2
Queue Delay		0.0		0.0			0.0				0.0	0.0
Total Delay		36.9		32.4			0.4				16.8	26.2
LOS		D		C			A				B	C
Approach Delay		36.9		32.4			0.4					24.6
Approach LOS		D		C			A					C
Queue Length 50th (ft)		263		181			0				33	128
Queue Length 95th (ft)		380		265			0				87	231
Internal Link Dist (ft)		1179		261			302					675
Turn Bay Length (ft)											210	
Base Capacity (vph)		1458		1219			269				498	1435

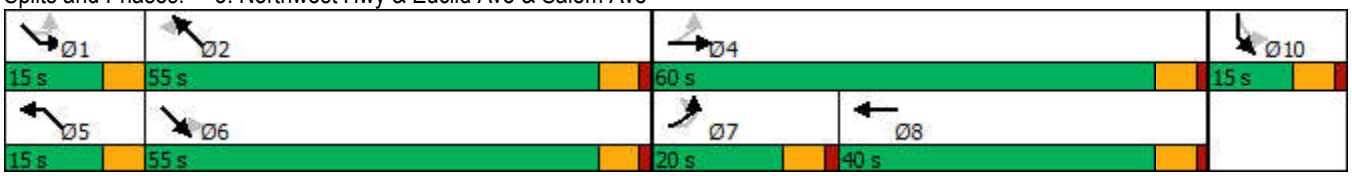
Lane Group	SER	NWL	NWT	NWR	NWR2
Lane Configurations					
Traffic Volume (vph)	50	207	428	2	1
Future Volume (vph)	50	207	428	2	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Storage Length (ft)	0	225		0	
Storage Lanes	0	1		0	
Taper Length (ft)		145			
Satd. Flow (prot)	0	1770	3436	0	0
Flt Permitted		0.394			
Satd. Flow (perm)	0	734	3436	0	0
Right Turn on Red	Yes				Yes
Satd. Flow (RTOR)					
Link Speed (mph)			30		
Link Distance (ft)			699		
Travel Time (s)			15.9		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	5%	0%	0%
Shared Lane Traffic (%)					
Lane Group Flow (vph)	0	218	454	0	0
Turn Type		pm+pt	NA		
Protected Phases		5	2		
Permitted Phases		2			
Detector Phase		5	2		
Switch Phase					
Minimum Initial (s)		3.0	15.0		
Minimum Split (s)		8.5	21.0		
Total Split (s)		15.0	55.0		
Total Split (%)		10.3%	37.9%		
Yellow Time (s)		4.5	4.5		
All-Red Time (s)		0.0	1.5		
Lost Time Adjust (s)		0.0	0.0		
Total Lost Time (s)		4.5	6.0		
Lead/Lag		Lead	Lag		
Lead-Lag Optimize?		Yes	Yes		
Recall Mode		None	Max		
Act Effct Green (s)		62.8	51.0		
Actuated g/C Ratio		0.53	0.43		
v/c Ratio		0.46	0.31		
Control Delay		20.3	25.6		
Queue Delay		0.0	0.0		
Total Delay		20.3	25.6		
LOS		C	C		
Approach Delay			23.9		
Approach LOS			C		
Queue Length 50th (ft)		79	115		
Queue Length 95th (ft)		181	215		
Internal Link Dist (ft)			619		
Turn Bay Length (ft)		225			
Base Capacity (vph)		480	1467		

Lane Group	EBL2	EBT	EBR	WBT	WBR	WBR2	SBL	SBR	SBR2	SEL2	SEL	SET
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		0.55		0.48			0.04				0.19	0.35

Intersection Summary

Area Type: Other
Cycle Length: 145
Actuated Cycle Length: 119.5
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 29.7 — Intersection LOS: C
Intersection Capacity Utilization 78.0% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 3: Northwest Hwy & Euclid Ave & Salem Ave



Lane Group	SER	NWL	NWT	NWR	NWR2
Starvation Cap Reductn		0	0		
Spillback Cap Reductn		0	0		
Storage Cap Reductn		0	0		
Reduced v/c Ratio		0.45	0.31		

Intersection Summary

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	18	21	117	59	15
Future Vol, veh/h	15	18	21	117	59	15
Conflicting Peds, #/hr	40	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	50	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	55	55	55	55	55
Heavy Vehicles, %	0	0	0	4	2	0
Mvmt Flow	27	33	38	213	107	27

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	452	123	136	0	-	0
Stage 1	123	-	-	-	-	-
Stage 2	329	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	569	933	1461	-	-	-
Stage 1	907	-	-	-	-	-
Stage 2	734	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	550	931	1458	-	-	-
Mov Cap-2 Maneuver	550	-	-	-	-	-
Stage 1	878	-	-	-	-	-
Stage 2	733	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.3	1.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1458	-	550	931	-	-
HCM Lane V/C Ratio	0.026	-	0.05	0.035	-	-
HCM Control Delay (s)	7.5	0	11.9	9	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	81	569	1	3	513	52	1	5	1	23	10	44
Future Vol, veh/h	81	569	1	3	513	52	1	5	1	23	10	44
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	115	-	-	110	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	1	4	0	0	2	0	0	60	0	0	0	0
Mvmt Flow	95	669	1	4	604	61	1	6	1	27	12	52

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	665	0	0	671	0	0	1536	1534	672	1507	1504	635
Stage 1	-	-	-	-	-	-	861	861	-	643	643	-
Stage 2	-	-	-	-	-	-	675	673	-	864	861	-
Critical Hdwy	4.11	-	-	4.1	-	-	7.1	7.1	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	6.1	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	6.1	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.2	-	-	3.5	4.54	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	929	-	-	929	-	-	96	87	459	100	123	482
Stage 1	-	-	-	-	-	-	353	302	-	465	472	-
Stage 2	-	-	-	-	-	-	447	376	-	352	375	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	929	-	-	928	-	-	72	78	458	86	110	482
Mov Cap-2 Maneuver	-	-	-	-	-	-	72	78	-	86	110	-
Stage 1	-	-	-	-	-	-	317	271	-	418	470	-
Stage 2	-	-	-	-	-	-	387	374	-	308	336	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.2	0	50.2	47.6
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	77	458	929	-	-	928	-	-	171
HCM Lane V/C Ratio	0.092	0.003	0.103	-	-	0.004	-	-	0.53
HCM Control Delay (s)	56.4	12.9	9.3	-	-	8.9	-	-	47.6
HCM Lane LOS	F	B	A	-	-	A	-	-	E
HCM 95th %tile Q(veh)	0.3	0	0.3	-	-	0	-	-	2.7

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	46	7	0	28	4	7	97	28	6	67	7
Future Vol, veh/h	2	46	7	0	28	4	7	97	28	6	67	7
Conflicting Peds, #/hr	4	0	1	1	0	4	2	0	1	1	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	0	2	0	0	7	0	0	3	0	0	2	0
Mvmt Flow	3	60	9	0	36	5	9	126	36	8	87	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	45	0	0	70	0	0	161	117	67	196	119	45
Stage 1	-	-	-	-	-	-	72	72	-	43	43	-
Stage 2	-	-	-	-	-	-	89	45	-	153	76	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.53	6.2	7.1	6.52	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.53	-	6.1	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.53	-	6.1	5.52	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.027	3.3	3.5	4.018	3.3
Pot Cap-1 Maneuver	1576	-	-	1544	-	-	809	771	1002	767	771	1031
Stage 1	-	-	-	-	-	-	943	833	-	976	859	-
Stage 2	-	-	-	-	-	-	923	855	-	854	832	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1570	-	-	1543	-	-	729	766	1000	642	766	1025
Mov Cap-2 Maneuver	-	-	-	-	-	-	729	766	-	642	766	-
Stage 1	-	-	-	-	-	-	940	831	-	970	856	-
Stage 2	-	-	-	-	-	-	820	852	-	696	830	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0	10.7	10.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	804	1570	-	-	1543	-	-	772
HCM Lane V/C Ratio	0.213	0.002	-	-	-	-	-	0.135
HCM Control Delay (s)	10.7	7.3	0	-	0	-	-	10.4
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.8	0	-	-	0	-	-	0.5

Lane Group	EBL2	EBL	EBT	EBR	WBT	WBR	SBL2	SBL	SBR	SBR2	SEL	SET
Lane Configurations												
Traffic Volume (vph)	35	2	429	20	510	81	3	3	2	4	68	412
Future Volume (vph)	35	2	429	20	510	81	3	3	2	4	68	412
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0		0		0		0	0		210	
Storage Lanes		0		0		0		1	0		1	
Taper Length (ft)		25						25			145	
Satd. Flow (prot)	0	0	3512	0	3504	0	0	1728	0	0	1805	3496
Flt Permitted			0.727					0.976			0.383	
Satd. Flow (perm)	0	0	2563	0	3504	0	0	1728	0	0	728	3496
Right Turn on Red				Yes						Yes		
Satd. Flow (RTOR)			3					147				8
Link Speed (mph)			30		30			30				30
Link Distance (ft)			1259		341			382				755
Travel Time (s)			28.6		7.8			8.7				17.2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	2%	0%	1%	0%	0%	0%	0%	0%	0%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	516	0	629	0	0	12	0	0	72	483
Turn Type	custom	pm+pt	NA		NA		Perm	Prot			pm+pt	NA
Protected Phases		7	4		8			10			1	6
Permitted Phases	7	4					10				6	
Detector Phase	7	7	4		8		10	10			1	6
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0		8.0		3.0	3.0			3.0	15.0
Minimum Split (s)	14.0	14.0	14.0		14.0		9.0	9.0			8.5	21.0
Total Split (s)	20.0	20.0	60.0		40.0		15.0	15.0			15.0	55.0
Total Split (%)	13.8%	13.8%	41.4%		27.6%		10.3%	10.3%			10.3%	37.9%
Yellow Time (s)	4.5	4.5	4.5		4.5		4.5	4.5			4.5	4.5
All-Red Time (s)	1.5	1.5	1.5		1.5		1.5	1.5			0.0	1.5
Lost Time Adjust (s)			0.0		0.0			0.0			0.0	0.0
Total Lost Time (s)			6.0		6.0			6.0			4.5	6.0
Lead/Lag	Lead	Lead			Lag						Lead	Lag
Lead-Lag Optimize?	Yes	Yes			Yes						Yes	Yes
Recall Mode	None	None	None		None		None	None			None	Max
Act Effct Green (s)			29.2		29.2			5.6			58.9	49.7
Actuated g/C Ratio			0.26		0.26			0.05			0.53	0.45
v/c Ratio			0.76		0.68			0.05			0.16	0.31
Control Delay			44.9		40.2			0.5			13.4	21.7
Queue Delay			0.0		0.0			0.0			0.0	0.0
Total Delay			44.9		40.2			0.5			13.4	21.7
LOS			D		D			A			B	C
Approach Delay			44.9		40.2			0.5				20.6
Approach LOS			D		D			A				C
Queue Length 50th (ft)			164		196			0			17	97
Queue Length 95th (ft)			254		290			0			56	195
Internal Link Dist (ft)			1179		261			302				675
Turn Bay Length (ft)											210	
Base Capacity (vph)			1275		1141			278			512	1580

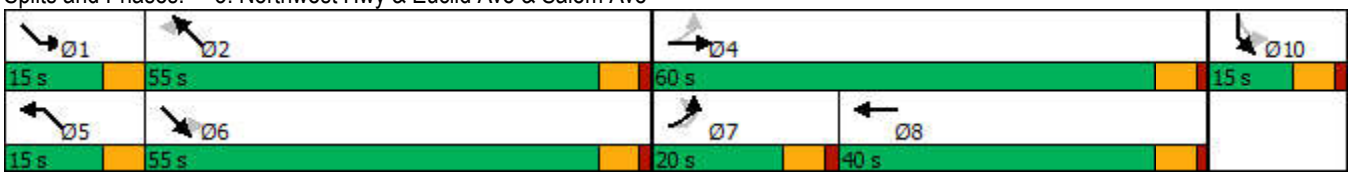
Lane Group	SER	NWL	NWT	NWR
Lane Configurations				
Traffic Volume (vph)	42	229	596	1
Future Volume (vph)	42	229	596	1
Ideal Flow (vphpl)	1900	1900	1900	1900
Storage Length (ft)	0	225		0
Storage Lanes	0	1		0
Taper Length (ft)		145		
Satd. Flow (prot)	0	1770	3539	0
Flt Permitted		0.401		
Satd. Flow (perm)	0	747	3539	0
Right Turn on Red	Yes			
Satd. Flow (RTOR)				
Link Speed (mph)			30	
Link Distance (ft)			699	
Travel Time (s)			15.9	
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	2%	2%	0%
Shared Lane Traffic (%)				
Lane Group Flow (vph)	0	244	635	0
Turn Type		pm+pt	NA	
Protected Phases		5	2	
Permitted Phases		2		
Detector Phase		5	2	
Switch Phase				
Minimum Initial (s)		3.0	15.0	
Minimum Split (s)		8.5	21.0	
Total Split (s)		15.0	55.0	
Total Split (%)		10.3%	37.9%	
Yellow Time (s)		4.5	4.5	
All-Red Time (s)		0.0	1.5	
Lost Time Adjust (s)		0.0	0.0	
Total Lost Time (s)		4.5	6.0	
Lead/Lag		Lead	Lag	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode		None	Max	
Act Effct Green (s)		64.7	54.9	
Actuated g/C Ratio		0.59	0.50	
v/c Ratio		0.46	0.36	
Control Delay		16.3	21.0	
Queue Delay		0.0	0.0	
Total Delay		16.3	21.0	
LOS		B	C	
Approach Delay			19.7	
Approach LOS			B	
Queue Length 50th (ft)		63	128	
Queue Length 95th (ft)		169	264	
Internal Link Dist (ft)			619	
Turn Bay Length (ft)		225		
Base Capacity (vph)		537	1764	

Lane Group	EBL2	EBL	EBT	EBR	WBT	WBR	SBL2	SBL	SBR	SBR2	SEL	SET
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			0.40		0.55			0.04			0.14	0.31

Intersection Summary

Area Type: Other
Cycle Length: 145
Actuated Cycle Length: 110.2
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 29.8 — Intersection LOS: C
Intersection Capacity Utilization 82.7% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 3: Northwest Hwy & Euclid Ave & Salem Ave



Lane Group	SER	NWL	NWT	NWR
Starvation Cap Reductn		0	0	
Spillback Cap Reductn		0	0	
Storage Cap Reductn		0	0	
Reduced v/c Ratio		0.45	0.36	

Intersection Summary

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	20	35	69	33	22
Future Vol, veh/h	17	20	35	69	33	22
Conflicting Peds, #/hr	67	2	10	0	0	10
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	50	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	25	29	51	101	49	32

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	345	77	91	0	-	0
Stage 1	75	-	-	-	-	-
Stage 2	270	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	656	990	1517	-	-	-
Stage 1	953	-	-	-	-	-
Stage 2	780	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	620	979	1503	-	-	-
Mov Cap-2 Maneuver	620	-	-	-	-	-
Stage 1	909	-	-	-	-	-
Stage 2	772	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	2.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1503	-	620	979	-	-
HCM Lane V/C Ratio	0.034	-	0.04	0.03	-	-
HCM Control Delay (s)	7.5	0	11.1	8.8	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	454	1	6	551	56	2	3	7	10	5	38
Future Vol, veh/h	45	454	1	6	551	56	2	3	7	10	5	38
Conflicting Peds, #/hr	1	0	5	5	0	1	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	115	-	-	110	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	2	0	0	1	0	0	0	14	0	0	0
Mvmt Flow	46	468	1	6	568	58	2	3	7	10	5	39

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	627	0	0	474	0	0	1198	1205	474	1176	1176	599
Stage 1	-	-	-	-	-	-	566	566	-	610	610	-
Stage 2	-	-	-	-	-	-	632	639	-	566	566	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.34	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.426	3.5	4	3.3
Pot Cap-1 Maneuver	965	-	-	1099	-	-	164	185	567	170	193	505
Stage 1	-	-	-	-	-	-	513	511	-	485	488	-
Stage 2	-	-	-	-	-	-	472	474	-	513	511	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	964	-	-	1094	-	-	141	174	564	159	182	504
Mov Cap-2 Maneuver	-	-	-	-	-	-	141	174	-	159	182	-
Stage 1	-	-	-	-	-	-	486	484	-	461	485	-
Stage 2	-	-	-	-	-	-	428	471	-	479	484	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0.1	18.5	18.6
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	159	564	964	-	-	1094	-	-	320
HCM Lane V/C Ratio	0.032	0.013	0.048	-	-	0.006	-	-	0.171
HCM Control Delay (s)	28.4	11.5	8.9	-	-	8.3	-	-	18.6
HCM Lane LOS	D	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	0	0.2	-	-	0	-	-	0.6

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	31	10	2	37	9	13	62	11	3	43	3
Future Vol, veh/h	4	31	10	2	37	9	13	62	11	3	43	3
Conflicting Peds, #/hr	1	0	3	3	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	25	16	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	5	38	12	2	45	11	16	76	13	4	52	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	57	0	0	53	0	0	140	118	48	156	119	52
Stage 1	-	-	-	-	-	-	57	57	-	56	56	-
Stage 2	-	-	-	-	-	-	83	61	-	100	63	-
Critical Hdwy	4.35	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.425	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1413	-	-	1566	-	-	835	776	1027	815	775	1021
Stage 1	-	-	-	-	-	-	960	851	-	961	852	-
Stage 2	-	-	-	-	-	-	930	848	-	911	846	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1412	-	-	1562	-	-	783	769	1023	739	768	1020
Mov Cap-2 Maneuver	-	-	-	-	-	-	783	769	-	739	768	-
Stage 1	-	-	-	-	-	-	953	845	-	956	850	-
Stage 2	-	-	-	-	-	-	869	846	-	815	840	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.3	10.2	10
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	796	1412	-	-	1562	-	-	778
HCM Lane V/C Ratio	0.132	0.003	-	-	0.002	-	-	0.077
HCM Control Delay (s)	10.2	7.6	0	-	7.3	0	-	10
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	0.2

Lane Group	EBL2	EBL	EBT	EBR	WBT	WBR	WBR2	SBL	SBR	SBR2	SEL	SET
Lane Configurations												
Traffic Volume (vph)	29	3	540	219	578	72	2	2	2	3	22	378
Future Volume (vph)	29	3	540	219	578	72	2	2	2	3	22	378
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0		0		0		0	0		210	
Storage Lanes		0		0		0		1	0		1	
Taper Length (ft)		25						25			145	
Satd. Flow (prot)	0	0	3419	0	3495	0	0	1694	0	0	1719	3531
Flt Permitted			0.848					0.986			0.377	
Satd. Flow (perm)	0	0	2905	0	3495	0	0	1694	0	0	682	3531
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)			44					147				8
Link Speed (mph)			30		30			30				30
Link Distance (ft)			1259		341			382				755
Travel Time (s)			28.6		7.8			8.7				17.2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	1%	1%	1%	6%	0%	0%	0%	0%	5%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	816	0	672	0	0	7	0	0	23	428
Turn Type	custom	pm+pt	NA		NA			Prot			pm+pt	NA
Protected Phases		7	4		8			10			1	6
Permitted Phases	7	4									6	
Detector Phase	7	7	4		8			10			1	6
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0		8.0			3.0			3.0	15.0
Minimum Split (s)	14.0	14.0	14.0		14.0			9.0			8.5	21.0
Total Split (s)	20.0	20.0	60.0		40.0			15.0			15.0	55.0
Total Split (%)	13.8%	13.8%	41.4%		27.6%			10.3%			10.3%	37.9%
Yellow Time (s)	4.5	4.5	4.5		4.5			4.5			4.5	4.5
All-Red Time (s)	1.5	1.5	1.5		1.5			1.5			0.0	1.5
Lost Time Adjust (s)			0.0		0.0			0.0			0.0	0.0
Total Lost Time (s)			6.0		6.0			6.0			4.5	6.0
Lead/Lag	Lead	Lead			Lag						Lead	Lag
Lead-Lag Optimize?	Yes	Yes			Yes						Yes	Yes
Recall Mode	None	None	None		None			None			None	Max
Act Effct Green (s)			44.5		44.5			5.5			57.3	49.4
Actuated g/C Ratio			0.36		0.36			0.04			0.47	0.40
v/c Ratio			0.76		0.53			0.03			0.06	0.30
Control Delay			37.7		32.7			0.3			17.7	27.0
Queue Delay			0.0		0.0			0.0			0.0	0.0
Total Delay			37.7		32.7			0.3			17.7	27.0
LOS			D		C			A			B	C
Approach Delay			37.7		32.7			0.3				26.5
Approach LOS			D		C			A				C
Queue Length 50th (ft)			273		212			0			8	116
Queue Length 95th (ft)			398		307			0			29	198
Internal Link Dist (ft)			1179		261			302				675
Turn Bay Length (ft)											210	
Base Capacity (vph)			1308		1271			260			429	1421

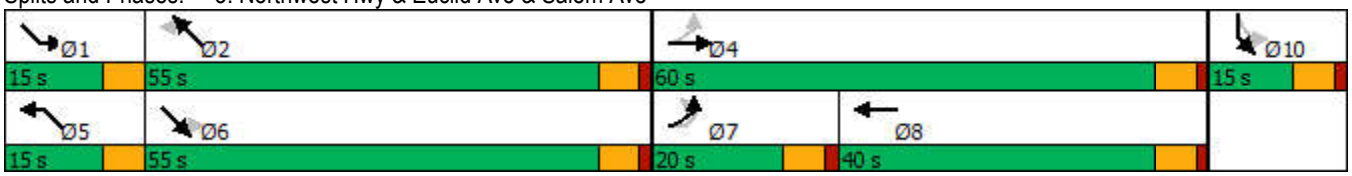
Lane Group	SER	NWL	NWT	NWR	NWR2
Lane Configurations					
Traffic Volume (vph)	37	242	617	2	2
Future Volume (vph)	37	242	617	2	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Storage Length (ft)	0	225		0	
Storage Lanes	0	1		0	
Taper Length (ft)		145			
Satd. Flow (prot)	0	1770	3571	0	0
Flt Permitted		0.415			
Satd. Flow (perm)	0	773	3571	0	0
Right Turn on Red	Yes				Yes
Satd. Flow (RTOR)					
Link Speed (mph)			30		
Link Distance (ft)			699		
Travel Time (s)			15.9		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	2%	1%	0%	0%
Shared Lane Traffic (%)					
Lane Group Flow (vph)	0	249	640	0	0
Turn Type		pm+pt	NA		
Protected Phases		5	2		
Permitted Phases		2			
Detector Phase		5	2		
Switch Phase					
Minimum Initial (s)		3.0	15.0		
Minimum Split (s)		8.5	21.0		
Total Split (s)		15.0	55.0		
Total Split (%)		10.3%	37.9%		
Yellow Time (s)		4.5	4.5		
All-Red Time (s)		0.0	1.5		
Lost Time Adjust (s)		0.0	0.0		
Total Lost Time (s)		4.5	6.0		
Lead/Lag		Lead	Lag		
Lead-Lag Optimize?		Yes	Yes		
Recall Mode		None	Max		
Act Effct Green (s)		65.5	58.0		
Actuated g/C Ratio		0.53	0.47		
v/c Ratio		0.50	0.38		
Control Delay		22.3	24.8		
Queue Delay		0.0	0.0		
Total Delay		22.3	24.8		
LOS		C	C		
Approach Delay			24.1		
Approach LOS			C		
Queue Length 50th (ft)		101	177		
Queue Length 95th (ft)		206	298		
Internal Link Dist (ft)			619		
Turn Bay Length (ft)		225			
Base Capacity (vph)		496	1681		

Lane Group	EBL2	EBL	EBT	EBR	WBT	WBR	WBR2	SBL	SBR	SBR2	SEL	SET
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			0.62		0.53			0.03			0.05	0.30

Intersection Summary

Area Type: Other
Cycle Length: 145
Actuated Cycle Length: 123.1
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 30.4 Intersection LOS: C
Intersection Capacity Utilization 94.2% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 3: Northwest Hwy & Euclid Ave & Salem Ave



Lane Group	SER	NWL	NWT	NWR	NWR2
Starvation Cap Reductn		0	0		
Spillback Cap Reductn		0	0		
Storage Cap Reductn		0	0		
Reduced v/c Ratio		0.50	0.38		

Intersection Summary

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	31	41	54	63	46	25
Future Vol, veh/h	31	41	54	63	46	25
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	50	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	41	54	71	83	61	33

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	304	79	95	0	-	0
Stage 1	79	-	-	-	-	-
Stage 2	225	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	692	987	1512	-	-	-
Stage 1	949	-	-	-	-	-
Stage 2	817	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	657	986	1511	-	-	-
Mov Cap-2 Maneuver	657	-	-	-	-	-
Stage 1	902	-	-	-	-	-
Stage 2	816	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	3.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1511	-	657	986	-	-
HCM Lane V/C Ratio	0.047	-	0.062	0.055	-	-
HCM Control Delay (s)	7.5	0	10.8	8.9	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0.2	-	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	51	512	1	1	610	55	1	11	12	36	10	41
Future Vol, veh/h	51	512	1	1	610	55	1	11	12	36	10	41
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	115	-	-	110	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	1	0	0	1	0	0	10	0	0	0	0
Mvmt Flow	52	522	1	1	622	56	1	11	12	37	10	42

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	678	0	0	523	0	0	1305	1307	523	1290	1279	650
Stage 1	-	-	-	-	-	-	627	627	-	652	652	-
Stage 2	-	-	-	-	-	-	678	680	-	638	627	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.6	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.6	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.6	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.09	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	923	-	-	1054	-	-	138	154	558	142	167	473
Stage 1	-	-	-	-	-	-	475	464	-	460	467	-
Stage 2	-	-	-	-	-	-	445	439	-	468	479	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	923	-	-	1054	-	-	114	145	558	125	157	473
Mov Cap-2 Maneuver	-	-	-	-	-	-	114	145	-	125	157	-
Stage 1	-	-	-	-	-	-	448	438	-	434	467	-
Stage 2	-	-	-	-	-	-	396	439	-	421	452	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0	22.2	37.2
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	142	558	923	-	-	1054	-	-	198
HCM Lane V/C Ratio	0.086	0.022	0.056	-	-	0.001	-	-	0.448
HCM Control Delay (s)	32.7	11.6	9.1	-	-	8.4	-	-	37.2
HCM Lane LOS	D	B	A	-	-	A	-	-	E
HCM 95th %tile Q(veh)	0.3	0.1	0.2	-	-	0	-	-	2.1

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	41	14	4	34	5	11	60	23	3	53	5
Future Vol, veh/h	1	41	14	4	34	5	11	60	23	3	53	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	25	16	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	1	46	16	4	38	6	12	67	26	3	59	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	44	0	0	62	0	0	138	108	55	153	113	41
Stage 1	-	-	-	-	-	-	56	56	-	49	49	-
Stage 2	-	-	-	-	-	-	82	52	-	104	64	-
Critical Hdwy	4.35	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.425	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1429	-	-	1554	-	-	837	786	1018	819	781	1036
Stage 1	-	-	-	-	-	-	961	852	-	969	858	-
Stage 2	-	-	-	-	-	-	931	856	-	907	846	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1429	-	-	1554	-	-	782	783	1017	744	778	1036
Mov Cap-2 Maneuver	-	-	-	-	-	-	782	783	-	744	778	-
Stage 1	-	-	-	-	-	-	960	851	-	968	855	-
Stage 2	-	-	-	-	-	-	860	853	-	813	845	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.7	10	10
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	830	1429	-	-	1554	-	-	792
HCM Lane V/C Ratio	0.126	0.001	-	-	0.003	-	-	0.086
HCM Control Delay (s)	10	7.5	0	-	7.3	0	-	10
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0.3

Lane Group	EBL2	EBT	EBR	WBT	WBR	SBL2	SBL	SBR	SEL2	SEL	SET	SER
Lane Configurations												
Traffic Volume (vph)	30	368	160	398	68	1	6	1	1	82	372	45
Future Volume (vph)	30	368	160	398	68	1	6	1	1	82	372	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)			0		0		0	0		210		0
Storage Lanes			0		0		1	0		1		0
Taper Length (ft)							25			145		
Satd. Flow (prot)	0	3397	0	3491	0	0	1789	0	0	1770	3506	0
Flt Permitted		0.880					0.958			0.478		
Satd. Flow (perm)	0	2998	0	3491	0	0	1789	0	0	891	3506	0
Right Turn on Red			Yes									Yes
Satd. Flow (RTOR)		47									10	
Link Speed (mph)		30		30			30				30	
Link Distance (ft)		1259		341			382				755	
Travel Time (s)		28.6		7.8			8.7				17.2	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	1%	2%	1%	2%	0%	0%	0%	0%	2%	1%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	570	0	475	0	0	8	0	0	85	426	0
Turn Type	custom	NA		NA		Perm	Prot		custom	pm+pt	NA	
Protected Phases		4		8			10			1	6	
Permitted Phases	7					10			1	6		
Detector Phase	7	4		8		10	10		1	1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0		3.0	3.0		3.0	3.0	15.0	
Minimum Split (s)	14.0	14.0		14.0		9.0	9.0		8.5	8.5	21.0	
Total Split (s)	20.0	60.0		40.0		15.0	15.0		15.0	15.0	55.0	
Total Split (%)	13.8%	41.4%		27.6%		10.3%	10.3%		10.3%	10.3%	37.9%	
Yellow Time (s)	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5		1.5	1.5		0.0	0.0	1.5	
Lost Time Adjust (s)		0.0		0.0			0.0			0.0	0.0	
Total Lost Time (s)		6.0		6.0			6.0			4.5	6.0	
Lead/Lag	Lead			Lag					Lead	Lead	Lag	
Lead-Lag Optimize?	Yes			Yes					Yes	Yes	Yes	
Recall Mode	None	None		None		None	None		None	None	Max	
Act Effct Green (s)		29.9		29.9			6.1			59.0	49.6	
Actuated g/C Ratio		0.28		0.28			0.06			0.54	0.46	
v/c Ratio		0.66		0.49			0.08			0.16	0.27	
Control Delay		35.9		34.8			55.9			12.6	20.3	
Queue Delay		0.0		0.0			0.0			0.0	0.0	
Total Delay		35.9		34.8			55.9			12.6	20.3	
LOS		D		C			E			B	C	
Approach Delay		35.9		34.8			55.9				19.0	
Approach LOS		D		C			E				B	
Queue Length 50th (ft)		164		140			5			21	86	
Queue Length 95th (ft)		256		218			25			69	179	
Internal Link Dist (ft)		1179		261			302				675	
Turn Bay Length (ft)										210		
Base Capacity (vph)		1531		1156			150			592	1605	

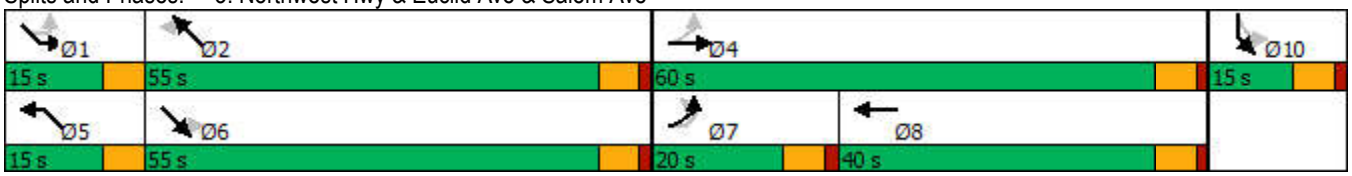
Lane Group	NWL	NWT	NWR2
Lane Configurations			
Traffic Volume (vph)	217	461	9
Future Volume (vph)	217	461	9
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	225		
Storage Lanes	1		
Taper Length (ft)	145		
Satd. Flow (prot)	1787	3564	0
Flt Permitted	0.440		
Satd. Flow (perm)	828	3564	0
Right Turn on Red			Yes
Satd. Flow (RTOR)		147	
Link Speed (mph)		30	
Link Distance (ft)		699	
Travel Time (s)		15.9	
Peak Hour Factor	0.98	0.98	0.98
Heavy Vehicles (%)	1%	1%	0%
Shared Lane Traffic (%)			
Lane Group Flow (vph)	221	479	0
Turn Type	pm+pt	NA	
Protected Phases	5	2	
Permitted Phases	2		
Detector Phase	5	2	
Switch Phase			
Minimum Initial (s)	3.0	15.0	
Minimum Split (s)	8.5	21.0	
Total Split (s)	15.0	55.0	
Total Split (%)	10.3%	37.9%	
Yellow Time (s)	4.5	4.5	
All-Red Time (s)	0.0	1.5	
Lost Time Adjust (s)	0.0	0.0	
Total Lost Time (s)	4.5	6.0	
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	None	Max	
Act Effct Green (s)	64.2	54.4	
Actuated g/C Ratio	0.59	0.50	
v/c Ratio	0.38	0.26	
Control Delay	14.4	13.4	
Queue Delay	0.0	0.0	
Total Delay	14.4	13.4	
LOS	B	B	
Approach Delay		13.7	
Approach LOS		B	
Queue Length 50th (ft)	59	63	
Queue Length 95th (ft)	162	150	
Internal Link Dist (ft)		619	
Turn Bay Length (ft)	225		
Base Capacity (vph)	582	1858	

Lane Group	EBL2	EBT	EBR	WBT	WBR	SBL2	SBL	SBR	SEL2	SEL	SET	SER
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		0.37		0.41			0.05			0.14	0.27	

Intersection Summary

Area Type: Other
Cycle Length: 145
Actuated Cycle Length: 108.7
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 25.1 — Intersection LOS: C
Intersection Capacity Utilization 80.9% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 3: Northwest Hwy & Euclid Ave & Salem Ave



Lane Group	NWL	NWT	NWR2
Starvation Cap Reductn	0	0	
Spillback Cap Reductn	0	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	0.38	0.26	

Intersection Summary

Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	51	86	143	29	30	36
Future Vol, veh/h	51	86	143	29	30	36
Conflicting Peds, #/hr	8	4	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	50	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	59	99	164	33	34	41

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	426	61	77	0	-	0
Stage 1	57	-	-	-	-	-
Stage 2	369	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	589	1010	1535	-	-	-
Stage 1	971	-	-	-	-	-
Stage 2	704	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	522	1004	1532	-	-	-
Mov Cap-2 Maneuver	522	-	-	-	-	-
Stage 1	863	-	-	-	-	-
Stage 2	703	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	6.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1532	-	522	1004	-	-
HCM Lane V/C Ratio	0.107	-	0.112	0.098	-	-
HCM Control Delay (s)	7.6	0	12.8	9	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.4	-	0.4	0.3	-	-

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	46	410	4	2	421	114	2	12	10	61	12	43
Future Vol, veh/h	46	410	4	2	421	114	2	12	10	61	12	43
Conflicting Peds, #/hr	4	0	0	0	0	4	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	115	-	-	110	-	-	-	-	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, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	48	432	4	2	443	120	2	13	11	64	13	45

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	567	0	0	436	0	0	1066	1101	434	1053	1043	507
Stage 1	-	-	-	-	-	-	530	530	-	511	511	-
Stage 2	-	-	-	-	-	-	536	571	-	542	532	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1015	-	-	1134	-	-	202	214	626	206	231	570
Stage 1	-	-	-	-	-	-	536	530	-	549	540	-
Stage 2	-	-	-	-	-	-	532	508	-	528	529	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1011	-	-	1134	-	-	171	203	626	185	219	568
Mov Cap-2 Maneuver	-	-	-	-	-	-	171	203	-	185	219	-
Stage 1	-	-	-	-	-	-	511	505	-	521	537	-
Stage 2	-	-	-	-	-	-	477	505	-	482	504	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	0	18.9	32
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	198	626	1011	-	-	1134	-	-	252
HCM Lane V/C Ratio	0.074	0.017	0.048	-	-	0.002	-	-	0.485
HCM Control Delay (s)	24.6	10.8	8.7	-	-	8.2	-	-	32
HCM Lane LOS	C	B	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.2	0.1	0.2	-	-	0	-	-	2.5

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	29	14	4	16	5	16	59	5	1	48	1
Future Vol, veh/h	1	29	14	4	16	5	16	59	5	1	48	1
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	25	16	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	1	31	15	4	17	5	17	63	5	1	51	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	22	0	0	46	0	0	97	71	39	103	76	22
Stage 1	-	-	-	-	-	-	41	41	-	28	28	-
Stage 2	-	-	-	-	-	-	56	30	-	75	48	-
Critical Hdwy	4.35	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.425	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1456	-	-	1575	-	-	890	823	1038	882	818	1061
Stage 1	-	-	-	-	-	-	979	865	-	994	876	-
Stage 2	-	-	-	-	-	-	961	874	-	939	859	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1456	-	-	1575	-	-	842	820	1038	824	815	1059
Mov Cap-2 Maneuver	-	-	-	-	-	-	842	820	-	824	815	-
Stage 1	-	-	-	-	-	-	978	864	-	993	873	-
Stage 2	-	-	-	-	-	-	899	871	-	865	858	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.2	9.8	9.7
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	835	1456	-	-	1575	-	-	819
HCM Lane V/C Ratio	0.102	0.001	-	-	0.003	-	-	0.065
HCM Control Delay (s)	9.8	7.5	0	-	7.3	0	-	9.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.2

Lane Group	EBL2	EBT	EBR	WBT	WBR	WBR2	SBL	SBR	SBR2	SEL2	SEL	SET
Lane Configurations												
Traffic Volume (vph)	13	603	200	529	62	2	7	1	2	1	101	436
Future Volume (vph)	13	603	200	529	62	2	7	1	2	1	101	436
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)			0		0		0	0			210	
Storage Lanes			0		0		1	0			1	
Taper Length (ft)							25				145	
Satd. Flow (prot)	0	3362	0	3465	0	0	1760	0	0	0	1704	3452
Flt Permitted		0.939					0.966				0.433	
Satd. Flow (perm)	0	3160	0	3465	0	0	1760	0	0	0	777	3452
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		34					147					10
Link Speed (mph)		30		30			30					30
Link Distance (ft)		1259		341			382					755
Travel Time (s)		28.6		7.8			8.7					17.2
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
Heavy Vehicles (%)	7%	2%	7%	2%	7%	0%	0%	0%	0%	0%	6%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	860	0	624	0	0	10	0	0	0	107	514
Turn Type	custom	NA		NA			Prot			custom	pm+pt	NA
Protected Phases		4		8			10				1	6
Permitted Phases	7									1	6	
Detector Phase	7	4		8			10			1	1	6
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0			3.0			3.0	3.0	15.0
Minimum Split (s)	14.0	14.0		14.0			9.0			8.5	8.5	21.0
Total Split (s)	20.0	60.0		40.0			15.0			15.0	15.0	55.0
Total Split (%)	13.8%	41.4%		27.6%			10.3%			10.3%	10.3%	37.9%
Yellow Time (s)	4.5	4.5		4.5			4.5			4.5	4.5	4.5
All-Red Time (s)	1.5	1.5		1.5			1.5			0.0	0.0	1.5
Lost Time Adjust (s)		0.0		0.0			0.0				0.0	0.0
Total Lost Time (s)		6.0		6.0			6.0				4.5	6.0
Lead/Lag	Lead			Lag						Lead	Lead	Lag
Lead-Lag Optimize?	Yes			Yes						Yes	Yes	Yes
Recall Mode	None	None		None			None			None	None	Max
Act Effct Green (s)		45.3		45.3			5.5				60.0	49.4
Actuated g/C Ratio		0.37		0.37			0.04				0.49	0.40
v/c Ratio		0.73		0.49			0.05				0.24	0.37
Control Delay		36.7		31.8			0.4				18.4	28.2
Queue Delay		0.0		0.0			0.0				0.0	0.0
Total Delay		36.7		31.8			0.4				18.4	28.2
LOS		D		C			A				B	C
Approach Delay		36.7		31.8			0.4					26.5
Approach LOS		D		C			A					C
Queue Length 50th (ft)		289		194			0				40	145
Queue Length 95th (ft)		415		284			0				94	240
Internal Link Dist (ft)		1179		261			302					675
Turn Bay Length (ft)											210	
Base Capacity (vph)		1409		1268			265				465	1384

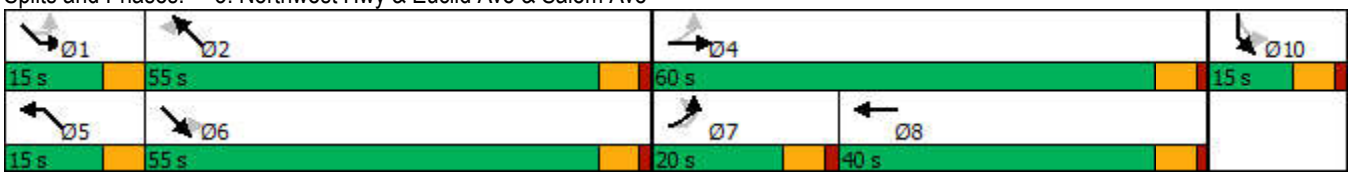
Lane Group	SER	NWL	NWT	NWR	NWR2
Lane Configurations					
Traffic Volume (vph)	52	214	443	2	1
Future Volume (vph)	52	214	443	2	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Storage Length (ft)	0	225		0	
Storage Lanes	0	1		0	
Taper Length (ft)		145			
Satd. Flow (prot)	0	1770	3436	0	0
Flt Permitted		0.377			
Satd. Flow (perm)	0	702	3436	0	0
Right Turn on Red	Yes				Yes
Satd. Flow (RTOR)					
Link Speed (mph)			30		
Link Distance (ft)			699		
Travel Time (s)			15.9		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	5%	0%	0%
Shared Lane Traffic (%)					
Lane Group Flow (vph)	0	225	469	0	0
Turn Type		pm+pt	NA		
Protected Phases		5	2		
Permitted Phases		2			
Detector Phase		5	2		
Switch Phase					
Minimum Initial (s)		3.0	15.0		
Minimum Split (s)		8.5	21.0		
Total Split (s)		15.0	55.0		
Total Split (%)		10.3%	37.9%		
Yellow Time (s)		4.5	4.5		
All-Red Time (s)		0.0	1.5		
Lost Time Adjust (s)		0.0	0.0		
Total Lost Time (s)		4.5	6.0		
Lead/Lag		Lead	Lag		
Lead-Lag Optimize?		Yes	Yes		
Recall Mode		None	Max		
Act Effct Green (s)		62.6	50.7		
Actuated g/C Ratio		0.51	0.41		
v/c Ratio		0.51	0.33		
Control Delay		23.0	27.8		
Queue Delay		0.0	0.0		
Total Delay		23.0	27.8		
LOS		C	C		
Approach Delay			26.2		
Approach LOS			C		
Queue Length 50th (ft)		91	132		
Queue Length 95th (ft)		186	222		
Internal Link Dist (ft)			619		
Turn Bay Length (ft)		225			
Base Capacity (vph)		447	1407		

Lane Group	EBL2	EBT	EBR	WBT	WBR	WBR2	SBL	SBR	SBR2	SEL2	SEL	SET
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		0.61		0.49			0.04				0.23	0.37

Intersection Summary

Area Type: Other
Cycle Length: 145
Actuated Cycle Length: 123.7
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 30.6 — Intersection LOS: C
Intersection Capacity Utilization 80.3% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 3: Northwest Hwy & Euclid Ave & Salem Ave



Lane Group	SER	NWL	NWT	NWR	NWR2
Starvation Cap Reductn		0	0		
Spillback Cap Reductn		0	0		
Storage Cap Reductn		0	0		
Reduced v/c Ratio		0.50	0.33		

Intersection Summary

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	34	66	123	68	8
Future Vol, veh/h	7	34	66	123	68	8
Conflicting Peds, #/hr	40	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	50	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	55	55	55	55	55
Heavy Vehicles, %	0	0	0	4	2	0
Mvmt Flow	13	62	120	224	124	15

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	638	134	141	0	-	0
Stage 1	134	-	-	-	-	-
Stage 2	504	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	444	920	1455	-	-	-
Stage 1	897	-	-	-	-	-
Stage 2	611	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	400	918	1452	-	-	-
Mov Cap-2 Maneuver	400	-	-	-	-	-
Stage 1	811	-	-	-	-	-
Stage 2	610	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	2.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1452	-	400	918	-	-
HCM Lane V/C Ratio	0.083	-	0.032	0.067	-	-
HCM Control Delay (s)	7.7	0	14.3	9.2	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.1	0.2	-	-

Intersection	
Int Delay, s/veh	9.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	112	592	1	3	533	69	1	8	1	31	12	59
Future Vol, veh/h	112	592	1	3	533	69	1	8	1	31	12	59
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	115	-	-	110	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	1	4	0	0	2	0	0	60	0	0	0	0
Mvmt Flow	132	696	1	4	627	81	1	9	1	36	14	69

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	708	0	0	698	0	0	1679	1678	699	1643	1638	668
Stage 1	-	-	-	-	-	-	962	962	-	676	676	-
Stage 2	-	-	-	-	-	-	717	716	-	967	962	-
Critical Hdwy	4.11	-	-	4.1	-	-	7.1	7.1	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	6.1	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	6.1	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.2	-	-	3.5	4.54	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	895	-	-	908	-	-	76	70	443	81	102	462
Stage 1	-	-	-	-	-	-	310	268	-	446	456	-
Stage 2	-	-	-	-	-	-	424	358	-	308	337	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	895	-	-	907	-	-	50	59	442	63	87	462
Mov Cap-2 Maneuver	-	-	-	-	-	-	50	59	-	63	87	-
Stage 1	-	-	-	-	-	-	264	228	-	380	454	-
Stage 2	-	-	-	-	-	-	348	357	-	251	287	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0	73.7	112.9
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	58	442	895	-	-	907	-	-	135
HCM Lane V/C Ratio	0.183	0.003	0.147	-	-	0.004	-	-	0.889
HCM Control Delay (s)	80.4	13.2	9.7	-	-	9	-	-	112.9
HCM Lane LOS	F	B	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	0.6	0	0.5	-	-	0	-	-	5.8

Intersection	
Int Delay, s/veh	7.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	48	10	0	29	4	9	104	28	6	80	7
Future Vol, veh/h	2	48	10	0	29	4	9	104	28	6	80	7
Conflicting Peds, #/hr	4	0	1	1	0	4	2	0	1	1	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	0	2	0	0	7	0	0	3	0	0	2	0
Mvmt Flow	3	62	13	0	38	5	12	135	36	8	104	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	47	0	0	76	0	0	175	123	71	206	127	47
Stage 1	-	-	-	-	-	-	76	76	-	45	45	-
Stage 2	-	-	-	-	-	-	99	47	-	161	82	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.53	6.2	7.1	6.52	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.53	-	6.1	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.53	-	6.1	5.52	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.027	3.3	3.5	4.018	3.3
Pot Cap-1 Maneuver	1573	-	-	1536	-	-	792	766	997	756	764	1028
Stage 1	-	-	-	-	-	-	938	830	-	974	857	-
Stage 2	-	-	-	-	-	-	912	854	-	846	827	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1567	-	-	1535	-	-	699	761	995	625	759	1022
Mov Cap-2 Maneuver	-	-	-	-	-	-	699	761	-	625	759	-
Stage 1	-	-	-	-	-	-	935	828	-	968	854	-
Stage 2	-	-	-	-	-	-	792	851	-	680	825	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	10.9	10.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	794	1567	-	-	1535	-	-	763
HCM Lane V/C Ratio	0.231	0.002	-	-	-	-	-	0.158
HCM Control Delay (s)	10.9	7.3	0	-	0	-	-	10.6
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.9	0	-	-	0	-	-	0.6

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	9	6	124	67	23
Future Vol, veh/h	17	9	6	124	67	23
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	55	55	55	55	55	55
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	31	16	11	225	122	42

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	390	143	164	0	-	0
Stage 1	143	-	-	-	-	-
Stage 2	247	-	-	-	-	-
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	614	905	1414	-	-	-
Stage 1	884	-	-	-	-	-
Stage 2	794	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	608	905	1414	-	-	-
Mov Cap-2 Maneuver	608	-	-	-	-	-
Stage 1	876	-	-	-	-	-
Stage 2	794	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1414	-	686	-	-
HCM Lane V/C Ratio	0.008	-	0.069	-	-
HCM Control Delay (s)	7.6	0	10.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Lane Group	EBL2	EBL	EBT	EBR	WBT	WBR	SBL2	SBL	SBR	SBR2	SEL	SET
Lane Configurations												
Traffic Volume (vph)	36	2	456	21	536	86	3	3	2	4	73	427
Future Volume (vph)	36	2	456	21	536	86	3	3	2	4	73	427
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0		0		0		0	0		210	
Storage Lanes		0		0		0		1	0		1	
Taper Length (ft)		25						25			145	
Satd. Flow (prot)	0	0	3512	0	3504	0	0	1728	0	0	1805	3496
Flt Permitted			0.729					0.976			0.363	
Satd. Flow (perm)	0	0	2570	0	3504	0	0	1728	0	0	690	3496
Right Turn on Red				Yes						Yes		
Satd. Flow (RTOR)			3					147				8
Link Speed (mph)			30		30			30				30
Link Distance (ft)			1259		341			382				755
Travel Time (s)			28.6		7.8			8.7				17.2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	2%	0%	1%	0%	0%	0%	0%	0%	0%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	547	0	661	0	0	12	0	0	78	500
Turn Type	custom	pm+pt	NA		NA		Perm	Prot			pm+pt	NA
Protected Phases		7	4		8			10			1	6
Permitted Phases	7	4					10				6	
Detector Phase	7	7	4		8		10	10			1	6
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0		8.0		3.0	3.0			3.0	15.0
Minimum Split (s)	14.0	14.0	14.0		14.0		9.0	9.0			8.5	21.0
Total Split (s)	20.0	20.0	60.0		40.0		15.0	15.0			15.0	55.0
Total Split (%)	13.8%	13.8%	41.4%		27.6%		10.3%	10.3%			10.3%	37.9%
Yellow Time (s)	4.5	4.5	4.5		4.5		4.5	4.5			4.5	4.5
All-Red Time (s)	1.5	1.5	1.5		1.5		1.5	1.5			0.0	1.5
Lost Time Adjust (s)			0.0		0.0			0.0			0.0	0.0
Total Lost Time (s)			6.0		6.0			6.0			4.5	6.0
Lead/Lag	Lead	Lead			Lag						Lead	Lag
Lead-Lag Optimize?	Yes	Yes			Yes						Yes	Yes
Recall Mode	None	None	None		None		None	None			None	Max
Act Effct Green (s)			32.2		32.2			5.6			59.1	49.7
Actuated g/C Ratio			0.28		0.28			0.05			0.52	0.44
v/c Ratio			0.75		0.66			0.05			0.18	0.33
Control Delay			43.6		39.2			0.5			14.7	23.3
Queue Delay			0.0		0.0			0.0			0.0	0.0
Total Delay			43.6		39.2			0.5			14.7	23.3
LOS			D		D			A			B	C
Approach Delay			43.6		39.2			0.5				22.1
Approach LOS			D		D			A				C
Queue Length 50th (ft)			176		208			0			20	108
Queue Length 95th (ft)			270		305			0			64	212
Internal Link Dist (ft)			1179		261			302				675
Turn Bay Length (ft)											210	
Base Capacity (vph)			1243		1147			274			481	1537

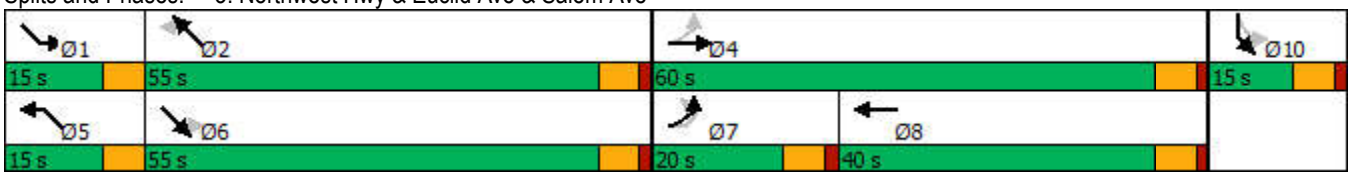
Lane Group	SER	NWL	NWT	NWR
Lane Configurations				
Traffic Volume (vph)	43	237	617	1
Future Volume (vph)	43	237	617	1
Ideal Flow (vphpl)	1900	1900	1900	1900
Storage Length (ft)	0	225		0
Storage Lanes	0	1		0
Taper Length (ft)		145		
Satd. Flow (prot)	0	1770	3539	0
Flt Permitted		0.386		
Satd. Flow (perm)	0	719	3539	0
Right Turn on Red	Yes			
Satd. Flow (RTOR)				
Link Speed (mph)			30	
Link Distance (ft)			699	
Travel Time (s)			15.9	
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	2%	2%	0%
Shared Lane Traffic (%)				
Lane Group Flow (vph)	0	252	657	0
Turn Type		pm+pt	NA	
Protected Phases		5	2	
Permitted Phases		2		
Detector Phase		5	2	
Switch Phase				
Minimum Initial (s)		3.0	15.0	
Minimum Split (s)		8.5	21.0	
Total Split (s)		15.0	55.0	
Total Split (%)		10.3%	37.9%	
Yellow Time (s)		4.5	4.5	
All-Red Time (s)		0.0	1.5	
Lost Time Adjust (s)		0.0	0.0	
Total Lost Time (s)		4.5	6.0	
Lead/Lag		Lead	Lag	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode		None	Max	
Act Effct Green (s)		64.5	54.8	
Actuated g/C Ratio		0.57	0.48	
v/c Ratio		0.50	0.38	
Control Delay		18.7	22.9	
Queue Delay		0.0	0.0	
Total Delay		18.7	22.9	
LOS		B	C	
Approach Delay			21.7	
Approach LOS			C	
Queue Length 50th (ft)		72	144	
Queue Length 95th (ft)		185	287	
Internal Link Dist (ft)			619	
Turn Bay Length (ft)		225		
Base Capacity (vph)		508	1711	

Lane Group	EBL2	EBL	EBT	EBR	WBT	WBR	SBL2	SBL	SBR	SBR2	SEL	SET
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		0.58			0.04			0.16	0.33

Intersection Summary

Area Type: Other
Cycle Length: 145
Actuated Cycle Length: 113.3
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 30.4 — Intersection LOS: C
Intersection Capacity Utilization 85.3% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 3: Northwest Hwy & Euclid Ave & Salem Ave



Lane Group	SER	NWL	NWT	NWR
Starvation Cap Reductn		0	0	
Spillback Cap Reductn		0	0	
Storage Cap Reductn		0	0	
Reduced v/c Ratio		0.50	0.38	

Intersection Summary

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	30	55	74	40	9
Future Vol, veh/h	7	30	55	74	40	9
Conflicting Peds, #/hr	67	2	10	0	0	10
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	50	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	44	81	109	59	13

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	414	78	82	0	-	0
Stage 1	76	-	-	-	-	-
Stage 2	338	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	599	988	1528	-	-	-
Stage 1	952	-	-	-	-	-
Stage 2	727	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	553	977	1513	-	-	-
Mov Cap-2 Maneuver	553	-	-	-	-	-
Stage 1	889	-	-	-	-	-
Stage 2	720	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	3.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1513	-	553	977	-	-
HCM Lane V/C Ratio	0.053	-	0.019	0.045	-	-
HCM Control Delay (s)	7.5	0	11.6	8.9	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	60	471	1	6	572	64	2	5	7	16	6	48
Future Vol, veh/h	60	471	1	6	572	64	2	5	7	16	6	48
Conflicting Peds, #/hr	1	0	5	5	0	1	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	115	-	-	110	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	2	0	0	1	0	0	0	14	0	0	0
Mvmt Flow	62	486	1	6	590	66	2	5	7	16	6	49

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	657	0	0	492	0	0	1280	1285	492	1253	1252	625
Stage 1	-	-	-	-	-	-	616	616	-	636	636	-
Stage 2	-	-	-	-	-	-	664	669	-	617	616	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.34	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.426	3.5	4	3.3
Pot Cap-1 Maneuver	940	-	-	1082	-	-	144	166	553	150	174	488
Stage 1	-	-	-	-	-	-	481	485	-	469	475	-
Stage 2	-	-	-	-	-	-	453	459	-	481	485	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	939	-	-	1077	-	-	118	153	550	136	161	487
Mov Cap-2 Maneuver	-	-	-	-	-	-	118	153	-	136	161	-
Stage 1	-	-	-	-	-	-	447	451	-	438	472	-
Stage 2	-	-	-	-	-	-	399	456	-	438	451	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.1	21.8	22.6
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	141	550	939	-	-	1077	-	-	276
HCM Lane V/C Ratio	0.051	0.013	0.066	-	-	0.006	-	-	0.261
HCM Control Delay (s)	31.9	11.6	9.1	-	-	8.4	-	-	22.6
HCM Lane LOS	D	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0	0.2	-	-	0	-	-	1

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	32	12	2	38	9	14	66	11	3	49	3
Future Vol, veh/h	4	32	12	2	38	9	14	66	11	3	49	3
Conflicting Peds, #/hr	1	0	3	3	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	25	16	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	5	39	15	2	46	11	17	80	13	4	60	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	58	0	0	57	0	0	148	122	51	161	124	53
Stage 1	-	-	-	-	-	-	60	60	-	57	57	-
Stage 2	-	-	-	-	-	-	88	62	-	104	67	-
Critical Hdwy	4.35	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.425	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1411	-	-	1560	-	-	825	772	1023	809	770	1020
Stage 1	-	-	-	-	-	-	957	849	-	960	851	-
Stage 2	-	-	-	-	-	-	925	847	-	907	843	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1410	-	-	1556	-	-	768	765	1019	730	763	1019
Mov Cap-2 Maneuver	-	-	-	-	-	-	768	765	-	730	763	-
Stage 1	-	-	-	-	-	-	950	843	-	955	849	-
Stage 2	-	-	-	-	-	-	856	845	-	806	837	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.3	10.3	10.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	789	1410	-	-	1556	-	-	772
HCM Lane V/C Ratio	0.141	0.003	-	-	0.002	-	-	0.087
HCM Control Delay (s)	10.3	7.6	0	-	7.3	0	-	10.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	0.3

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	7	5	76	42	21
Future Vol, veh/h	15	7	5	76	42	21
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	68	68	68	68	68	68
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	10	7	112	62	31

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	204	78	93	0	-	0
Stage 1	78	-	-	-	-	-
Stage 2	126	-	-	-	-	-
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	784	983	1501	-	-	-
Stage 1	945	-	-	-	-	-
Stage 2	900	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	780	983	1501	-	-	-
Mov Cap-2 Maneuver	780	-	-	-	-	-
Stage 1	940	-	-	-	-	-
Stage 2	900	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	0.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1501	-	835	-	-
HCM Lane V/C Ratio	0.005	-	0.039	-	-
HCM Control Delay (s)	7.4	0	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Lane Group	EBL2	EBL	EBT	EBR	WBT	WBR	WBR2	SBL	SBR	SBR2	SEL	SET
Lane Configurations												
Traffic Volume (vph)	30	3	587	227	624	82	2	2	2	3	31	391
Future Volume (vph)	30	3	587	227	624	82	2	2	2	3	31	391
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0		0		0		0	0		210	
Storage Lanes		0		0		0		1	0		1	
Taper Length (ft)		25						25			145	
Satd. Flow (prot)	0	0	3426	0	3490	0	0	1694	0	0	1719	3531
Flt Permitted			0.838					0.986			0.349	
Satd. Flow (perm)	0	0	2877	0	3490	0	0	1694	0	0	632	3531
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)			41					147				8
Link Speed (mph)			30		30			30				30
Link Distance (ft)			1259		341			382				755
Travel Time (s)			28.6		7.8			8.7				17.2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	1%	1%	1%	6%	0%	0%	0%	0%	5%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	873	0	730	0	0	7	0	0	32	442
Turn Type	custom	pm+pt	NA		NA			Prot			pm+pt	NA
Protected Phases		7	4		8			10			1	6
Permitted Phases	7	4									6	
Detector Phase	7	7	4		8			10			1	6
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0		8.0			3.0			3.0	15.0
Minimum Split (s)	14.0	14.0	14.0		14.0			9.0			8.5	21.0
Total Split (s)	20.0	20.0	60.0		40.0			15.0			15.0	55.0
Total Split (%)	13.8%	13.8%	41.4%		27.6%			10.3%			10.3%	37.9%
Yellow Time (s)	4.5	4.5	4.5		4.5			4.5			4.5	4.5
All-Red Time (s)	1.5	1.5	1.5		1.5			1.5			0.0	1.5
Lost Time Adjust (s)			0.0		0.0			0.0			0.0	0.0
Total Lost Time (s)			6.0		6.0			6.0			4.5	6.0
Lead/Lag	Lead	Lead			Lag						Lead	Lag
Lead-Lag Optimize?	Yes	Yes			Yes						Yes	Yes
Recall Mode	None	None	None		None			None			None	Max
Act Effct Green (s)			49.8		49.8			5.5			57.5	49.2
Actuated g/C Ratio			0.39		0.39			0.04			0.45	0.38
v/c Ratio			0.76		0.54			0.03			0.09	0.33
Control Delay			37.8		32.2			0.3			18.9	29.3
Queue Delay			0.0		0.0			0.0			0.0	0.0
Total Delay			37.8		32.2			0.3			18.9	29.3
LOS			D		C			A			B	C
Approach Delay			37.8		32.2			0.3				28.6
Approach LOS			D		C			A				C
Queue Length 50th (ft)			304		236			0			13	135
Queue Length 95th (ft)			441		339			0			36	204
Internal Link Dist (ft)			1179		261			302				675
Turn Bay Length (ft)											210	
Base Capacity (vph)			1241		1354			256			391	1360

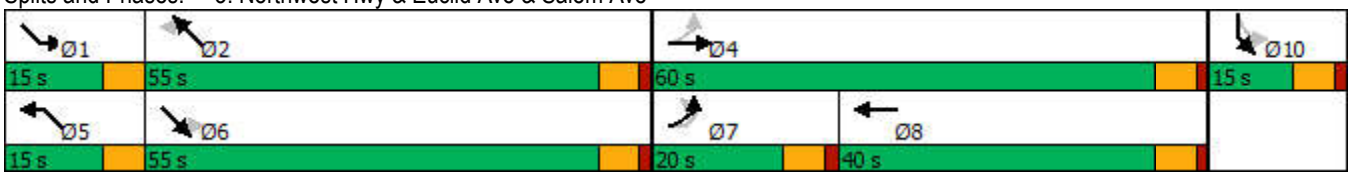
Lane Group	SER	NWL	NWT	NWR	NWR2
Lane Configurations					
Traffic Volume (vph)	38	251	639	2	2
Future Volume (vph)	38	251	639	2	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Storage Length (ft)	0	225		0	
Storage Lanes	0	1		0	
Taper Length (ft)		145			
Satd. Flow (prot)	0	1770	3571	0	0
Flt Permitted		0.398			
Satd. Flow (perm)	0	741	3571	0	0
Right Turn on Red	Yes				Yes
Satd. Flow (RTOR)					
Link Speed (mph)			30		
Link Distance (ft)			699		
Travel Time (s)			15.9		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	2%	1%	0%	0%
Shared Lane Traffic (%)					
Lane Group Flow (vph)	0	259	663	0	0
Turn Type		pm+pt	NA		
Protected Phases		5	2		
Permitted Phases		2			
Detector Phase		5	2		
Switch Phase					
Minimum Initial (s)		3.0	15.0		
Minimum Split (s)		8.5	21.0		
Total Split (s)		15.0	55.0		
Total Split (%)		10.3%	37.9%		
Yellow Time (s)		4.5	4.5		
All-Red Time (s)		0.0	1.5		
Lost Time Adjust (s)		0.0	0.0		
Total Lost Time (s)		4.5	6.0		
Lead/Lag		Lead	Lag		
Lead-Lag Optimize?		Yes	Yes		
Recall Mode		None	Max		
Act Effct Green (s)		64.9	57.4		
Actuated g/C Ratio		0.51	0.45		
v/c Ratio		0.56	0.41		
Control Delay		25.9	27.5		
Queue Delay		0.0	0.0		
Total Delay		25.9	27.5		
LOS		C	C		
Approach Delay			27.1		
Approach LOS			C		
Queue Length 50th (ft)		123	212		
Queue Length 95th (ft)		215	313		
Internal Link Dist (ft)			619		
Turn Bay Length (ft)		225			
Base Capacity (vph)		459	1598		

Lane Group	EBL2	EBL	EBT	EBR	WBT	WBR	WBR2	SBL	SBR	SBR2	SEL	SET
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			0.70		0.54			0.03			0.08	0.33

Intersection Summary

Area Type: Other
Cycle Length: 145
Actuated Cycle Length: 128.2
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 31.6 — Intersection LOS: C
Intersection Capacity Utilization 97.1% — ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 3: Northwest Hwy & Euclid Ave & Salem Ave



Lane Group	SER	NWL	NWT	NWR	NWR2
Starvation Cap Reductn		0	0		
Spillback Cap Reductn		0	0		
Storage Cap Reductn		0	0		
Reduced v/c Ratio		0.56	0.41		

Intersection Summary

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	76	103	74	65	4
Future Vol, veh/h	4	76	103	74	65	4
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	50	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	5	100	136	97	86	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	459	90	92	0	-	0
Stage 1	90	-	-	-	-	-
Stage 2	369	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	564	973	1515	-	-	-
Stage 1	939	-	-	-	-	-
Stage 2	704	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	509	972	1514	-	-	-
Mov Cap-2 Maneuver	509	-	-	-	-	-
Stage 1	849	-	-	-	-	-
Stage 2	703	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	4.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1514	-	509	972	-	-
HCM Lane V/C Ratio	0.09	-	0.01	0.103	-	-
HCM Control Delay (s)	7.6	0	12.1	9.1	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0	0.3	-	-

Intersection	
Int Delay, s/veh	10

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	87	532	1	1	634	75	1	15	12	54	14	73
Future Vol, veh/h	87	532	1	1	634	75	1	15	12	54	14	73
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	115	-	-	110	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	1	0	0	1	0	0	10	0	0	0	0
Mvmt Flow	89	543	1	1	647	77	1	15	12	55	14	74

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	724	0	0	544	0	0	1454	1448	544	1423	1410	686
Stage 1	-	-	-	-	-	-	722	722	-	688	688	-
Stage 2	-	-	-	-	-	-	732	726	-	735	722	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.6	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.6	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.6	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.09	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	888	-	-	1035	-	-	109	126	543	115	140	451
Stage 1	-	-	-	-	-	-	421	420	-	440	450	-
Stage 2	-	-	-	-	-	-	416	418	-	414	434	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	888	-	-	1035	-	-	77	113	543	93	126	451
Mov Cap-2 Maneuver	-	-	-	-	-	-	77	113	-	93	126	-
Stage 1	-	-	-	-	-	-	379	378	-	396	450	-
Stage 2	-	-	-	-	-	-	336	418	-	349	391	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0	29.8	94.9
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	110	543	888	-	-	1035	-	-	165
HCM Lane V/C Ratio	0.148	0.023	0.1	-	-	0.001	-	-	0.872
HCM Control Delay (s)	43.3	11.8	9.5	-	-	8.5	-	-	94.9
HCM Lane LOS	E	B	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	0.5	0.1	0.3	-	-	0	-	-	6.1

Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	42	18	4	35	5	15	74	23	3	69	5
Future Vol, veh/h	1	42	18	4	35	5	15	74	23	3	69	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	25	16	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	1	47	20	4	39	6	17	82	26	3	77	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	45	0	0	67	0	0	151	112	58	164	119	42
Stage 1	-	-	-	-	-	-	59	59	-	50	50	-
Stage 2	-	-	-	-	-	-	92	53	-	114	69	-
Critical Hdwy	4.35	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.425	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1427	-	-	1547	-	-	821	782	1014	805	775	1034
Stage 1	-	-	-	-	-	-	958	850	-	968	857	-
Stage 2	-	-	-	-	-	-	920	855	-	896	841	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1427	-	-	1547	-	-	752	779	1013	718	772	1034
Mov Cap-2 Maneuver	-	-	-	-	-	-	752	779	-	718	772	-
Stage 1	-	-	-	-	-	-	957	849	-	967	854	-
Stage 2	-	-	-	-	-	-	830	852	-	787	840	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.7	10.2	10.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	814	1427	-	-	1547	-	-	783
HCM Lane V/C Ratio	0.153	0.001	-	-	0.003	-	-	0.109
HCM Control Delay (s)	10.2	7.5	0	-	7.3	0	-	10.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	45	19	11	67	50	41
Future Vol, veh/h	45	19	11	67	50	41
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	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	59	25	14	88	66	54

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	209	93	120	0	-	0
Stage 1	93	-	-	-	-	-
Stage 2	116	-	-	-	-	-
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	779	964	1468	-	-	-
Stage 1	931	-	-	-	-	-
Stage 2	909	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	771	964	1468	-	-	-
Mov Cap-2 Maneuver	771	-	-	-	-	-
Stage 1	922	-	-	-	-	-
Stage 2	909	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	1.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1468	-	820	-	-
HCM Lane V/C Ratio	0.01	-	0.103	-	-
HCM Control Delay (s)	7.5	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Lane Group	EBL2	EBT	EBR	WBT	WBR	SBL2	SBL	SBR	SEL2	SEL	SET	SER
Lane Configurations												
Traffic Volume (vph)	31	405	166	435	76	1	6	1	1	92	385	47
Future Volume (vph)	31	405	166	435	76	1	6	1	1	92	385	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)			0		0		0	0		210		0
Storage Lanes			0		0		1	0		1		0
Taper Length (ft)							25			145		
Satd. Flow (prot)	0	3405	0	3490	0	0	1789	0	0	1770	3506	0
Flt Permitted		0.877					0.958			0.441		
Satd. Flow (perm)	0	2995	0	3490	0	0	1789	0	0	822	3506	0
Right Turn on Red			Yes									Yes
Satd. Flow (RTOR)		43									10	
Link Speed (mph)		30		30			30				30	
Link Distance (ft)		1259		341			382				755	
Travel Time (s)		28.6		7.8			8.7				17.2	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	1%	2%	1%	2%	0%	0%	0%	0%	2%	1%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	614	0	522	0	0	8	0	0	95	441	0
Turn Type	custom	NA		NA		Perm	Prot		custom	pm+pt	NA	
Protected Phases		4		8			10			1	6	
Permitted Phases	7					10			1	6		
Detector Phase	7	4		8		10	10		1	1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0		3.0	3.0		3.0	3.0	15.0	
Minimum Split (s)	14.0	14.0		14.0		9.0	9.0		8.5	8.5	21.0	
Total Split (s)	20.0	60.0		40.0		15.0	15.0		15.0	15.0	55.0	
Total Split (%)	13.8%	41.4%		27.6%		10.3%	10.3%		10.3%	10.3%	37.9%	
Yellow Time (s)	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5		1.5	1.5		0.0	0.0	1.5	
Lost Time Adjust (s)		0.0		0.0			0.0			0.0	0.0	
Total Lost Time (s)		6.0		6.0			6.0			4.5	6.0	
Lead/Lag	Lead			Lag					Lead	Lead	Lag	
Lead-Lag Optimize?	Yes			Yes					Yes	Yes	Yes	
Recall Mode	None	None		None		None	None		None	None	Max	
Act Effct Green (s)		34.0		34.0			6.2			59.5	49.7	
Actuated g/C Ratio		0.30		0.30			0.05			0.53	0.44	
v/c Ratio		0.66		0.50			0.08			0.19	0.28	
Control Delay		35.4		33.9			58.8			14.5	22.5	
Queue Delay		0.0		0.0			0.0			0.0	0.0	
Total Delay		35.4		33.9			58.8			14.5	22.5	
LOS		D		C			E			B	C	
Approach Delay		35.4		33.9			58.8				21.1	
Approach LOS		D		C			E				C	
Queue Length 50th (ft)		182		157			5			26	96	
Queue Length 95th (ft)		280		240			26			82	199	
Internal Link Dist (ft)		1179		261			302				675	
Turn Bay Length (ft)										210		
Base Capacity (vph)		1475		1166			144			540	1549	

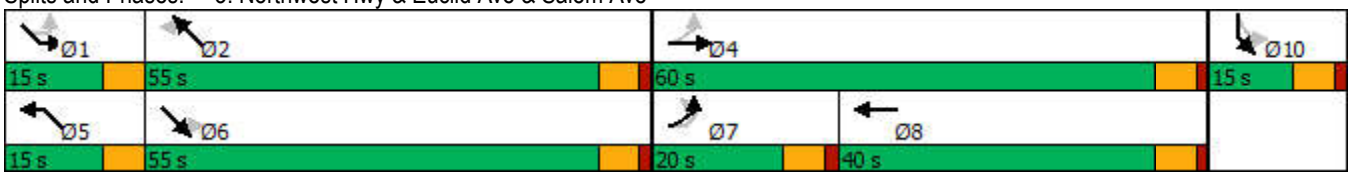
Lane Group	NWL	NWT	NWR2
Lane Configurations			
Traffic Volume (vph)	225	477	9
Future Volume (vph)	225	477	9
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	225		
Storage Lanes	1		
Taper Length (ft)	145		
Satd. Flow (prot)	1787	3564	0
Flt Permitted	0.437		
Satd. Flow (perm)	822	3564	0
Right Turn on Red			Yes
Satd. Flow (RTOR)		147	
Link Speed (mph)		30	
Link Distance (ft)		699	
Travel Time (s)		15.9	
Peak Hour Factor	0.98	0.98	0.98
Heavy Vehicles (%)	1%	1%	0%
Shared Lane Traffic (%)			
Lane Group Flow (vph)	230	496	0
Turn Type	pm+pt	NA	
Protected Phases	5	2	
Permitted Phases	2		
Detector Phase	5	2	
Switch Phase			
Minimum Initial (s)	3.0	15.0	
Minimum Split (s)	8.5	21.0	
Total Split (s)	15.0	55.0	
Total Split (%)	10.3%	37.9%	
Yellow Time (s)	4.5	4.5	
All-Red Time (s)	0.0	1.5	
Lost Time Adjust (s)	0.0	0.0	
Total Lost Time (s)	4.5	6.0	
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	None	Max	
Act Effct Green (s)	63.5	51.7	
Actuated g/C Ratio	0.56	0.46	
v/c Ratio	0.42	0.29	
Control Delay	17.0	15.6	
Queue Delay	0.0	0.0	
Total Delay	17.0	15.6	
LOS	B	B	
Approach Delay		16.1	
Approach LOS		B	
Queue Length 50th (ft)	68	72	
Queue Length 95th (ft)	185	170	
Internal Link Dist (ft)		619	
Turn Bay Length (ft)	225		
Base Capacity (vph)	556	1713	

Lane Group	EBL2	EBT	EBR	WBT	WBR	SBL2	SBL	SBR	SEL2	SEL	SET	SER
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		0.42		0.45			0.06			0.18	0.28	

Intersection Summary

Area Type: Other
Cycle Length: 145
Actuated Cycle Length: 112.9
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 26.1 — Intersection LOS: C
Intersection Capacity Utilization 83.9% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 3: Northwest Hwy & Euclid Ave & Salem Ave



Lane Group	NWL	NWT	NWR2
Starvation Cap Reductn	0	0	
Spillback Cap Reductn	0	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	0.41	0.29	

Intersection Summary

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	107	175	48	56	5
Future Vol, veh/h	6	107	175	48	56	5
Conflicting Peds, #/hr	8	4	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	50	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	123	201	55	64	6

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	534	73	72	0	-	0
Stage 1	69	-	-	-	-	-
Stage 2	465	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	510	995	1541	-	-	-
Stage 1	959	-	-	-	-	-
Stage 2	636	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	440	989	1538	-	-	-
Mov Cap-2 Maneuver	440	-	-	-	-	-
Stage 1	828	-	-	-	-	-
Stage 2	635	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1538	-	440	989	-	-
HCM Lane V/C Ratio	0.131	-	0.016	0.124	-	-
HCM Control Delay (s)	7.7	0	13.3	9.2	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.5	-	0	0.4	-	-

Intersection	
Int Delay, s/veh	8.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	77	426	4	2	437	131	2	15	10	76	15	72
Future Vol, veh/h	77	426	4	2	437	131	2	15	10	76	15	72
Conflicting Peds, #/hr	4	0	0	0	0	4	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	115	-	-	110	-	-	-	-	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, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	81	448	4	2	460	138	2	16	11	80	16	76

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	602	0	0	452	0	0	1191	1218	450	1163	1151	533
Stage 1	-	-	-	-	-	-	612	612	-	537	537	-
Stage 2	-	-	-	-	-	-	579	606	-	626	614	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	985	-	-	1119	-	-	166	182	613	173	200	551
Stage 1	-	-	-	-	-	-	484	487	-	532	526	-
Stage 2	-	-	-	-	-	-	504	490	-	475	486	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	981	-	-	1119	-	-	125	166	613	147	182	549
Mov Cap-2 Maneuver	-	-	-	-	-	-	125	166	-	147	182	-
Stage 1	-	-	-	-	-	-	444	447	-	486	523	-
Stage 2	-	-	-	-	-	-	421	487	-	413	446	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	0	23.2	60.3
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	160	613	981	-	-	1119	-	-	223
HCM Lane V/C Ratio	0.112	0.017	0.083	-	-	0.002	-	-	0.769
HCM Control Delay (s)	30.3	11	9	-	-	8.2	-	-	60.3
HCM Lane LOS	D	B	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	0.4	0.1	0.3	-	-	0	-	-	5.4

Intersection	
Int Delay, s/veh	6.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	30	18	4	17	5	19	71	5	1	62	1
Future Vol, veh/h	1	30	18	4	17	5	19	71	5	1	62	1
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	25	16	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	1	32	19	4	18	5	20	76	5	1	66	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	23	0	0	51	0	0	108	75	42	113	82	23
Stage 1	-	-	-	-	-	-	44	44	-	29	29	-
Stage 2	-	-	-	-	-	-	64	31	-	84	53	-
Critical Hdwy	4.35	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.425	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1455	-	-	1568	-	-	876	819	1034	869	812	1060
Stage 1	-	-	-	-	-	-	975	862	-	993	875	-
Stage 2	-	-	-	-	-	-	952	873	-	929	855	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1455	-	-	1568	-	-	816	816	1034	801	809	1058
Mov Cap-2 Maneuver	-	-	-	-	-	-	816	816	-	801	809	-
Stage 1	-	-	-	-	-	-	974	861	-	992	872	-
Stage 2	-	-	-	-	-	-	875	870	-	842	854	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.1	10	9.8
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	825	1455	-	-	1568	-	-	812
HCM Lane V/C Ratio	0.123	0.001	-	-	0.003	-	-	0.084
HCM Control Delay (s)	10	7.5	0	-	7.3	0	-	9.8
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0.3

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	60	26	19	35	35	49
Future Vol, veh/h	60	26	19	35	35	49
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	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	69	30	22	40	40	56

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	152	68	96	0	-	0
Stage 1	68	-	-	-	-	-
Stage 2	84	-	-	-	-	-
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	840	995	1498	-	-	-
Stage 1	955	-	-	-	-	-
Stage 2	939	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	827	995	1498	-	-	-
Mov Cap-2 Maneuver	827	-	-	-	-	-
Stage 1	941	-	-	-	-	-
Stage 2	939	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	2.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1498	-	871	-	-
HCM Lane V/C Ratio	0.015	-	0.113	-	-
HCM Control Delay (s)	7.4	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Lane Group	EBL2	EBT	EBR	WBT	WBR	WBR2	SBL	SBR	SBR2	SEL2	SEL	SET
Lane Configurations												
Traffic Volume (vph)	13	610	200	532	64	2	7	1	2	1	103	436
Future Volume (vph)	13	610	200	532	64	2	7	1	2	1	103	436
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)			0		0		0	0			210	
Storage Lanes			0		0		1	0			1	
Taper Length (ft)							25				145	
Satd. Flow (prot)	0	3362	0	3465	0	0	1760	0	0	0	1704	3452
Flt Permitted		0.939					0.966				0.431	
Satd. Flow (perm)	0	3160	0	3465	0	0	1760	0	0	0	773	3452
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		34					147					10
Link Speed (mph)		30		30			30					30
Link Distance (ft)		1259		341			382					755
Travel Time (s)		28.6		7.8			8.7					17.2
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
Heavy Vehicles (%)	7%	2%	7%	2%	7%	0%	0%	0%	0%	0%	6%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	867	0	629	0	0	10	0	0	0	109	514
Turn Type	custom	NA		NA			Prot			custom	pm+pt	NA
Protected Phases		4		8			10				1	6
Permitted Phases	7									1	6	
Detector Phase	7	4		8			10			1	1	6
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0			3.0			3.0	3.0	15.0
Minimum Split (s)	14.0	14.0		14.0			9.0			8.5	8.5	21.0
Total Split (s)	20.0	60.0		40.0			15.0			15.0	15.0	55.0
Total Split (%)	13.8%	41.4%		27.6%			10.3%			10.3%	10.3%	37.9%
Yellow Time (s)	4.5	4.5		4.5			4.5			4.5	4.5	4.5
All-Red Time (s)	1.5	1.5		1.5			1.5			0.0	0.0	1.5
Lost Time Adjust (s)		0.0		0.0			0.0				0.0	0.0
Total Lost Time (s)		6.0		6.0			6.0				4.5	6.0
Lead/Lag	Lead			Lag						Lead	Lead	Lag
Lead-Lag Optimize?	Yes			Yes						Yes	Yes	Yes
Recall Mode	None	None		None			None			None	None	Max
Act Effct Green (s)		45.9		45.9			5.5				60.0	49.4
Actuated g/C Ratio		0.37		0.37			0.04				0.48	0.40
v/c Ratio		0.73		0.49			0.05				0.25	0.37
Control Delay		36.6		31.7			0.4				18.7	28.5
Queue Delay		0.0		0.0			0.0				0.0	0.0
Total Delay		36.6		31.7			0.4				18.7	28.5
LOS		D		C			A				B	C
Approach Delay		36.6		31.7			0.4					26.8
Approach LOS		D		C			A					C
Queue Length 50th (ft)		293		196			0				42	147
Queue Length 95th (ft)		420		286			0				95	240
Internal Link Dist (ft)		1179		261			302					675
Turn Bay Length (ft)											210	
Base Capacity (vph)		1402		1279			264				461	1377

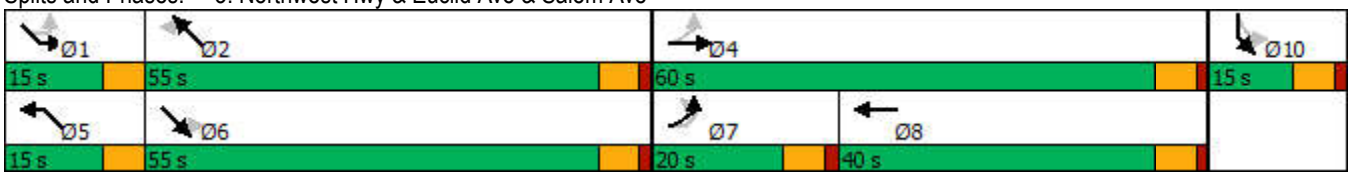
Lane Group	SER	NWL	NWT	NWR	NWR2
Lane Configurations					
Traffic Volume (vph)	52	214	443	2	1
Future Volume (vph)	52	214	443	2	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Storage Length (ft)	0	225		0	
Storage Lanes	0	1		0	
Taper Length (ft)		145			
Satd. Flow (prot)	0	1770	3436	0	0
Flt Permitted		0.377			
Satd. Flow (perm)	0	702	3436	0	0
Right Turn on Red	Yes				Yes
Satd. Flow (RTOR)					
Link Speed (mph)			30		
Link Distance (ft)			699		
Travel Time (s)			15.9		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	5%	0%	0%
Shared Lane Traffic (%)					
Lane Group Flow (vph)	0	225	469	0	0
Turn Type		pm+pt	NA		
Protected Phases		5	2		
Permitted Phases		2			
Detector Phase		5	2		
Switch Phase					
Minimum Initial (s)		3.0	15.0		
Minimum Split (s)		8.5	21.0		
Total Split (s)		15.0	55.0		
Total Split (%)		10.3%	37.9%		
Yellow Time (s)		4.5	4.5		
All-Red Time (s)		0.0	1.5		
Lost Time Adjust (s)		0.0	0.0		
Total Lost Time (s)		4.5	6.0		
Lead/Lag		Lead	Lag		
Lead-Lag Optimize?		Yes	Yes		
Recall Mode		None	Max		
Act Effct Green (s)		62.5	50.6		
Actuated g/C Ratio		0.50	0.41		
v/c Ratio		0.51	0.34		
Control Delay		23.3	28.1		
Queue Delay		0.0	0.0		
Total Delay		23.3	28.1		
LOS		C	C		
Approach Delay			26.5		
Approach LOS			C		
Queue Length 50th (ft)		93	134		
Queue Length 95th (ft)		186	222		
Internal Link Dist (ft)			619		
Turn Bay Length (ft)		225			
Base Capacity (vph)		445	1399		

Lane Group	EBL2	EBT	EBR	WBT	WBR	WBR2	SBL	SBR	SBR2	SEL2	SEL	SET
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		0.62		0.49			0.04				0.24	0.37

Intersection Summary

Area Type: Other
Cycle Length: 145
Actuated Cycle Length: 124.3
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 30.7 — Intersection LOS: C
Intersection Capacity Utilization 80.4% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 3: Northwest Hwy & Euclid Ave & Salem Ave



Lane Group	SER	NWL	NWT	NWR	NWR2
Starvation Cap Reductn		0	0		
Spillback Cap Reductn		0	0		
Storage Cap Reductn		0	0		
Reduced v/c Ratio		0.51	0.34		

Intersection Summary

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	40	80	124	70	8
Future Vol, veh/h	7	40	80	124	70	8
Conflicting Peds, #/hr	40	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	50	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	55	55	55	55	55
Heavy Vehicles, %	0	0	0	4	2	0
Mvmt Flow	13	73	145	225	127	15

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	692	137	144	0	-	0
Stage 1	137	-	-	-	-	-
Stage 2	555	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	413	917	1451	-	-	-
Stage 1	895	-	-	-	-	-
Stage 2	579	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	364	915	1448	-	-	-
Mov Cap-2 Maneuver	364	-	-	-	-	-
Stage 1	791	-	-	-	-	-
Stage 2	578	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1448	-	364	915	-	-
HCM Lane V/C Ratio	0.1	-	0.035	0.079	-	-
HCM Control Delay (s)	7.8	0	15.2	9.3	-	-
HCM Lane LOS	A	A	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.1	0.3	-	-

Intersection	
Int Delay, s/veh	13.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	121	592	1	3	533	74	1	9	1	34	12	64
Future Vol, veh/h	121	592	1	3	533	74	1	9	1	34	12	64
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	115	-	-	110	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	1	4	0	0	2	0	0	60	0	0	0	0
Mvmt Flow	142	696	1	4	627	87	1	11	1	40	14	75

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	714	0	0	698	0	0	1705	1704	699	1667	1661	671
Stage 1	-	-	-	-	-	-	982	982	-	679	679	-
Stage 2	-	-	-	-	-	-	723	722	-	988	982	-
Critical Hdwy	4.11	-	-	4.1	-	-	7.1	7.1	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	6.1	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	6.1	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.2	-	-	3.5	4.54	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	891	-	-	908	-	-	73	67	443	78	98	460
Stage 1	-	-	-	-	-	-	302	262	-	445	454	-
Stage 2	-	-	-	-	-	-	421	355	-	300	330	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	891	-	-	907	-	-	47	56	442	58	82	460
Mov Cap-2 Maneuver	-	-	-	-	-	-	47	56	-	58	82	-
Stage 1	-	-	-	-	-	-	254	220	-	374	452	-
Stage 2	-	-	-	-	-	-	340	354	-	239	277	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.7	0	80.7	154.7
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	55	442	891	-	-	907	-	-	126
HCM Lane V/C Ratio	0.214	0.003	0.16	-	-	0.004	-	-	1.027
HCM Control Delay (s)	87.4	13.2	9.8	-	-	9	-	-	154.7
HCM Lane LOS	F	B	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	0.7	0	0.6	-	-	0	-	-	7.2

Intersection	
Int Delay, s/veh	7.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	48	11	0	29	4	9	106	28	6	84	7
Future Vol, veh/h	2	48	11	0	29	4	9	106	28	6	84	7
Conflicting Peds, #/hr	4	0	1	1	0	4	2	0	1	1	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	0	2	0	0	7	0	0	3	0	0	2	0
Mvmt Flow	3	62	14	0	38	5	12	138	36	8	109	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	47	0	0	77	0	0	178	123	71	208	128	47
Stage 1	-	-	-	-	-	-	76	76	-	45	45	-
Stage 2	-	-	-	-	-	-	102	47	-	163	83	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.53	6.2	7.1	6.52	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.53	-	6.1	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.53	-	6.1	5.52	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.027	3.3	3.5	4.018	3.3
Pot Cap-1 Maneuver	1573	-	-	1535	-	-	789	766	997	754	763	1028
Stage 1	-	-	-	-	-	-	938	830	-	974	857	-
Stage 2	-	-	-	-	-	-	909	854	-	844	826	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1567	-	-	1534	-	-	693	761	995	621	758	1022
Mov Cap-2 Maneuver	-	-	-	-	-	-	693	761	-	621	758	-
Stage 1	-	-	-	-	-	-	935	828	-	968	854	-
Stage 2	-	-	-	-	-	-	784	851	-	676	824	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	10.9	10.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	793	1567	-	-	1534	-	-	762
HCM Lane V/C Ratio	0.234	0.002	-	-	-	-	-	0.165
HCM Control Delay (s)	10.9	7.3	0	-	0	-	-	10.7
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.9	0	-	-	0	-	-	0.6

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	11	7	124	67	28
Future Vol, veh/h	19	11	7	124	67	28
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	55	55	55	55	55	55
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	20	13	225	122	51

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	399	148	173	0	-	0
Stage 1	148	-	-	-	-	-
Stage 2	251	-	-	-	-	-
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	607	899	1404	-	-	-
Stage 1	880	-	-	-	-	-
Stage 2	791	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	600	899	1404	-	-	-
Mov Cap-2 Maneuver	600	-	-	-	-	-
Stage 1	870	-	-	-	-	-
Stage 2	791	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.7	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1404	-	683	-	-
HCM Lane V/C Ratio	0.009	-	0.08	-	-
HCM Control Delay (s)	7.6	0	10.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Lane Group	EBL2	EBL	EBT	EBR	WBT	WBR	SBL2	SBL	SBR	SBR2	SEL	SET
Lane Configurations												
Traffic Volume (vph)	36	2	459	21	539	87	3	3	2	4	74	427
Future Volume (vph)	36	2	459	21	539	87	3	3	2	4	74	427
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0		0		0		0	0		210	
Storage Lanes		0		0		0		1	0		1	
Taper Length (ft)		25						25			145	
Satd. Flow (prot)	0	0	3512	0	3504	0	0	1728	0	0	1805	3496
Flt Permitted			0.729					0.976			0.363	
Satd. Flow (perm)	0	0	2570	0	3504	0	0	1728	0	0	690	3496
Right Turn on Red				Yes						Yes		
Satd. Flow (RTOR)			3					147				8
Link Speed (mph)			30		30			30				30
Link Distance (ft)			1259		341			382				755
Travel Time (s)			28.6		7.8			8.7				17.2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	2%	0%	1%	0%	0%	0%	0%	0%	0%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	550	0	666	0	0	12	0	0	79	500
Turn Type	custom	pm+pt	NA		NA		Perm	Prot			pm+pt	NA
Protected Phases		7	4		8			10			1	6
Permitted Phases	7	4					10				6	
Detector Phase	7	7	4		8		10	10			1	6
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0		8.0		3.0	3.0			3.0	15.0
Minimum Split (s)	14.0	14.0	14.0		14.0		9.0	9.0			8.5	21.0
Total Split (s)	20.0	20.0	60.0		40.0		15.0	15.0			15.0	55.0
Total Split (%)	13.8%	13.8%	41.4%		27.6%		10.3%	10.3%			10.3%	37.9%
Yellow Time (s)	4.5	4.5	4.5		4.5		4.5	4.5			4.5	4.5
All-Red Time (s)	1.5	1.5	1.5		1.5		1.5	1.5			0.0	1.5
Lost Time Adjust (s)			0.0		0.0			0.0			0.0	0.0
Total Lost Time (s)			6.0		6.0			6.0			4.5	6.0
Lead/Lag	Lead	Lead			Lag						Lead	Lag
Lead-Lag Optimize?	Yes	Yes			Yes						Yes	Yes
Recall Mode	None	None	None		None		None	None			None	Max
Act Effct Green (s)			32.5		32.5			5.6			59.1	49.7
Actuated g/C Ratio			0.29		0.29			0.05			0.52	0.44
v/c Ratio			0.75		0.66			0.05			0.18	0.33
Control Delay			43.5		39.2			0.5			14.8	23.5
Queue Delay			0.0		0.0			0.0			0.0	0.0
Total Delay			43.5		39.2			0.5			14.8	23.5
LOS			D		D			A			B	C
Approach Delay			43.5		39.2			0.5				22.3
Approach LOS			D		D			A				C
Queue Length 50th (ft)			177		210			0			21	109
Queue Length 95th (ft)			272		307			0			65	213
Internal Link Dist (ft)			1179		261			302				675
Turn Bay Length (ft)											210	
Base Capacity (vph)			1240		1149			274			480	1533

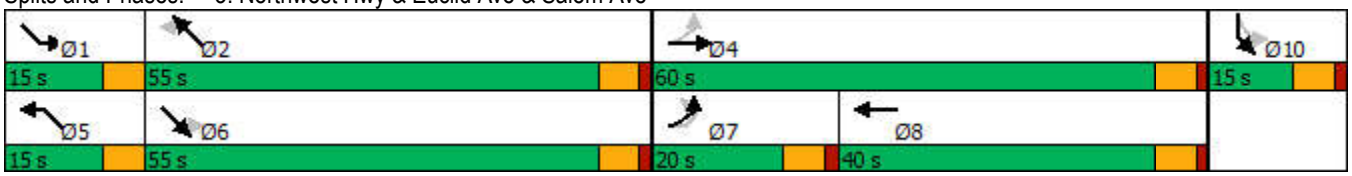
Lane Group	SER	NWL	NWT	NWR
Lane Configurations				
Traffic Volume (vph)	43	237	617	1
Future Volume (vph)	43	237	617	1
Ideal Flow (vphpl)	1900	1900	1900	1900
Storage Length (ft)	0	225		0
Storage Lanes	0	1		0
Taper Length (ft)		145		
Satd. Flow (prot)	0	1770	3539	0
Flt Permitted		0.386		
Satd. Flow (perm)	0	719	3539	0
Right Turn on Red	Yes			
Satd. Flow (RTOR)				
Link Speed (mph)			30	
Link Distance (ft)			699	
Travel Time (s)			15.9	
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	2%	2%	0%
Shared Lane Traffic (%)				
Lane Group Flow (vph)	0	252	657	0
Turn Type		pm+pt	NA	
Protected Phases		5	2	
Permitted Phases		2		
Detector Phase		5	2	
Switch Phase				
Minimum Initial (s)		3.0	15.0	
Minimum Split (s)		8.5	21.0	
Total Split (s)		15.0	55.0	
Total Split (%)		10.3%	37.9%	
Yellow Time (s)		4.5	4.5	
All-Red Time (s)		0.0	1.5	
Lost Time Adjust (s)		0.0	0.0	
Total Lost Time (s)		4.5	6.0	
Lead/Lag		Lead	Lag	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode		None	Max	
Act Effct Green (s)		64.5	54.8	
Actuated g/C Ratio		0.57	0.48	
v/c Ratio		0.50	0.39	
Control Delay		18.9	23.0	
Queue Delay		0.0	0.0	
Total Delay		18.9	23.0	
LOS		B	C	
Approach Delay			21.9	
Approach LOS			C	
Queue Length 50th (ft)		73	145	
Queue Length 95th (ft)		186	289	
Internal Link Dist (ft)			619	
Turn Bay Length (ft)		225		
Base Capacity (vph)		507	1706	

Lane Group	EBL2	EBL	EBT	EBR	WBT	WBR	SBL2	SBL	SBR	SBR2	SEL	SET
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		0.58			0.04			0.16	0.33

Intersection Summary

Area Type: Other
Cycle Length: 145
Actuated Cycle Length: 113.6
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 30.5 — Intersection LOS: C
Intersection Capacity Utilization 85.5% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 3: Northwest Hwy & Euclid Ave & Salem Ave



Lane Group	SER	NWL	NWT	NWR
Starvation Cap Reductn		0	0	
Spillback Cap Reductn		0	0	
Storage Cap Reductn		0	0	
Reduced v/c Ratio		0.50	0.39	

Intersection Summary

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	34	62	74	41	10
Future Vol, veh/h	7	34	62	74	41	10
Conflicting Peds, #/hr	67	2	10	0	0	10
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	50	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	50	91	109	60	15

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	436	80	85	0	-	0
Stage 1	78	-	-	-	-	-
Stage 2	358	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	581	986	1524	-	-	-
Stage 1	950	-	-	-	-	-
Stage 2	712	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	533	975	1509	-	-	-
Mov Cap-2 Maneuver	533	-	-	-	-	-
Stage 1	881	-	-	-	-	-
Stage 2	705	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	3.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1509	-	533	975	-	-
HCM Lane V/C Ratio	0.06	-	0.019	0.051	-	-
HCM Control Delay (s)	7.5	0	11.9	8.9	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.1	0.2	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	64	471	1	6	572	66	2	6	7	17	6	52
Future Vol, veh/h	64	471	1	6	572	66	2	6	7	17	6	52
Conflicting Peds, #/hr	1	0	5	5	0	1	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	115	-	-	110	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	2	0	0	1	0	0	0	14	0	0	0
Mvmt Flow	66	486	1	6	590	68	2	6	7	18	6	54

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	659	0	0	492	0	0	1291	1295	492	1262	1261	626
Stage 1	-	-	-	-	-	-	624	624	-	637	637	-
Stage 2	-	-	-	-	-	-	667	671	-	625	624	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.34	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.426	3.5	4	3.3
Pot Cap-1 Maneuver	939	-	-	1082	-	-	142	164	553	148	172	488
Stage 1	-	-	-	-	-	-	477	481	-	469	475	-
Stage 2	-	-	-	-	-	-	451	458	-	476	481	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	938	-	-	1077	-	-	115	151	550	133	158	487
Mov Cap-2 Maneuver	-	-	-	-	-	-	115	151	-	133	158	-
Stage 1	-	-	-	-	-	-	441	445	-	436	472	-
Stage 2	-	-	-	-	-	-	394	455	-	431	445	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.1	0.1	22.6	23.1
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	140	550	938	-	-	1077	-	-	275
HCM Lane V/C Ratio	0.059	0.013	0.07	-	-	0.006	-	-	0.281
HCM Control Delay (s)	32.3	11.6	9.1	-	-	8.4	-	-	23.1
HCM Lane LOS	D	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0	0.2	-	-	0	-	-	1.1

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	32	13	2	38	9	14	67	11	3	52	3
Future Vol, veh/h	4	32	13	2	38	9	14	67	11	3	52	3
Conflicting Peds, #/hr	1	0	3	3	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	25	16	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	5	39	16	2	46	11	17	82	13	4	63	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	58	0	0	58	0	0	149	122	51	163	125	53
Stage 1	-	-	-	-	-	-	60	60	-	57	57	-
Stage 2	-	-	-	-	-	-	89	62	-	106	68	-
Critical Hdwy	4.35	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.425	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1411	-	-	1559	-	-	824	772	1023	806	769	1020
Stage 1	-	-	-	-	-	-	957	849	-	960	851	-
Stage 2	-	-	-	-	-	-	923	847	-	905	842	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1410	-	-	1555	-	-	764	765	1019	726	762	1019
Mov Cap-2 Maneuver	-	-	-	-	-	-	764	765	-	726	762	-
Stage 1	-	-	-	-	-	-	950	843	-	955	849	-
Stage 2	-	-	-	-	-	-	850	845	-	803	836	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.3	10.3	10.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	788	1410	-	-	1555	-	-	770
HCM Lane V/C Ratio	0.142	0.003	-	-	0.002	-	-	0.092
HCM Control Delay (s)	10.3	7.6	0	-	7.3	0	-	10.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	0.3

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	8	5	76	43	24
Future Vol, veh/h	16	8	5	76	43	24
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	68	68	68	68	68	68
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	12	7	112	63	35

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	207	81	98	0	-	0
Stage 1	81	-	-	-	-	-
Stage 2	126	-	-	-	-	-
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	781	979	1495	-	-	-
Stage 1	942	-	-	-	-	-
Stage 2	900	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	777	979	1495	-	-	-
Mov Cap-2 Maneuver	777	-	-	-	-	-
Stage 1	937	-	-	-	-	-
Stage 2	900	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	0.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1495	-	834	-	-
HCM Lane V/C Ratio	0.005	-	0.042	-	-
HCM Control Delay (s)	7.4	0	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Lane Group	EBL2	EBL	EBT	EBR	WBT	WBR	WBR2	SBL	SBR	SBR2	SEL	SET
Lane Configurations												
Traffic Volume (vph)	30	3	595	227	632	85	2	2	2	3	33	391
Future Volume (vph)	30	3	595	227	632	85	2	2	2	3	33	391
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0		0		0		0	0		210	
Storage Lanes		0		0		0		1	0		1	
Taper Length (ft)		25						25			145	
Satd. Flow (prot)	0	0	3426	0	3490	0	0	1694	0	0	1719	3531
Flt Permitted			0.835					0.986			0.347	
Satd. Flow (perm)	0	0	2866	0	3490	0	0	1694	0	0	628	3531
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)			40					147				8
Link Speed (mph)			30		30			30				30
Link Distance (ft)			1259		341			382				755
Travel Time (s)			28.6		7.8			8.7				17.2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	1%	1%	1%	6%	0%	0%	0%	0%	5%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	881	0	742	0	0	7	0	0	34	442
Turn Type	custom	pm+pt	NA		NA			Prot			pm+pt	NA
Protected Phases		7	4		8			10			1	6
Permitted Phases	7	4									6	
Detector Phase	7	7	4		8			10			1	6
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0		8.0			3.0			3.0	15.0
Minimum Split (s)	14.0	14.0	14.0		14.0			9.0			8.5	21.0
Total Split (s)	20.0	20.0	60.0		40.0			15.0			15.0	55.0
Total Split (%)	13.8%	13.8%	41.4%		27.6%			10.3%			10.3%	37.9%
Yellow Time (s)	4.5	4.5	4.5		4.5			4.5			4.5	4.5
All-Red Time (s)	1.5	1.5	1.5		1.5			1.5			0.0	1.5
Lost Time Adjust (s)			0.0		0.0			0.0			0.0	0.0
Total Lost Time (s)			6.0		6.0			6.0			4.5	6.0
Lead/Lag	Lead	Lead			Lag						Lead	Lag
Lead-Lag Optimize?	Yes	Yes			Yes						Yes	Yes
Recall Mode	None	None	None		None			None			None	Max
Act Effct Green (s)			50.3		50.3			5.5			57.6	49.2
Actuated g/C Ratio			0.39		0.39			0.04			0.45	0.38
v/c Ratio			0.77		0.54			0.03			0.10	0.33
Control Delay			38.1		32.3			0.3			19.1	29.5
Queue Delay			0.0		0.0			0.0			0.0	0.0
Total Delay			38.1		32.3			0.3			19.1	29.5
LOS			D		C			A			B	C
Approach Delay			38.1		32.3			0.3				28.7
Approach LOS			D		C			A				C
Queue Length 50th (ft)			309		241			0			14	135
Queue Length 95th (ft)			447		345			0			38	204
Internal Link Dist (ft)			1179		261			302				675
Turn Bay Length (ft)											210	
Base Capacity (vph)			1230		1364			255			387	1354

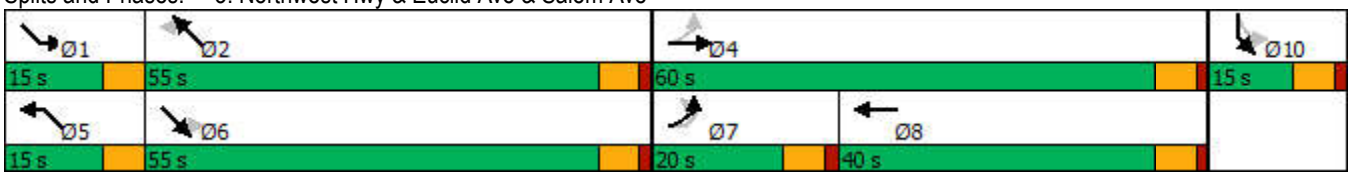
Lane Group	SER	NWL	NWT	NWR	NWR2
Lane Configurations					
Traffic Volume (vph)	38	251	639	2	2
Future Volume (vph)	38	251	639	2	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Storage Length (ft)	0	225		0	
Storage Lanes	0	1		0	
Taper Length (ft)		145			
Satd. Flow (prot)	0	1770	3571	0	0
Flt Permitted		0.398			
Satd. Flow (perm)	0	741	3571	0	0
Right Turn on Red	Yes				Yes
Satd. Flow (RTOR)					
Link Speed (mph)			30		
Link Distance (ft)			699		
Travel Time (s)			15.9		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	2%	1%	0%	0%
Shared Lane Traffic (%)					
Lane Group Flow (vph)	0	259	663	0	0
Turn Type		pm+pt	NA		
Protected Phases		5	2		
Permitted Phases		2			
Detector Phase		5	2		
Switch Phase					
Minimum Initial (s)		3.0	15.0		
Minimum Split (s)		8.5	21.0		
Total Split (s)		15.0	55.0		
Total Split (%)		10.3%	37.9%		
Yellow Time (s)		4.5	4.5		
All-Red Time (s)		0.0	1.5		
Lost Time Adjust (s)		0.0	0.0		
Total Lost Time (s)		4.5	6.0		
Lead/Lag		Lead	Lag		
Lead-Lag Optimize?		Yes	Yes		
Recall Mode		None	Max		
Act Effct Green (s)		64.9	57.3		
Actuated g/C Ratio		0.50	0.45		
v/c Ratio		0.57	0.42		
Control Delay		26.1	27.7		
Queue Delay		0.0	0.0		
Total Delay		26.1	27.7		
LOS		C	C		
Approach Delay			27.3		
Approach LOS			C		
Queue Length 50th (ft)		123	212		
Queue Length 95th (ft)		215	313		
Internal Link Dist (ft)			619		
Turn Bay Length (ft)		225			
Base Capacity (vph)		457	1589		

Lane Group	EBL2	EBL	EBT	EBR	WBT	WBR	WBR2	SBL	SBR	SBR2	SEL	SET
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			0.72		0.54			0.03			0.09	0.33

Intersection Summary

Area Type: Other
Cycle Length: 145
Actuated Cycle Length: 128.7
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 31.8 — Intersection LOS: C
Intersection Capacity Utilization 97.3% — ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 3: Northwest Hwy & Euclid Ave & Salem Ave



Lane Group	SER	NWL	NWT	NWR	NWR2
Starvation Cap Reductn		0	0		
Spillback Cap Reductn		0	0		
Storage Cap Reductn		0	0		
Reduced v/c Ratio		0.57	0.42		

Intersection Summary

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	90	119	75	69	5
Future Vol, veh/h	5	90	119	75	69	5
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	50	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	118	157	99	91	7

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	509	96	99	0	-	0
Stage 1	96	-	-	-	-	-
Stage 2	413	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	528	966	1507	-	-	-
Stage 1	933	-	-	-	-	-
Stage 2	672	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	469	965	1506	-	-	-
Mov Cap-2 Maneuver	469	-	-	-	-	-
Stage 1	829	-	-	-	-	-
Stage 2	671	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	4.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1506	-	469	965	-	-
HCM Lane V/C Ratio	0.104	-	0.014	0.123	-	-
HCM Control Delay (s)	7.7	0	12.8	9.3	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0	0.4	-	-

Intersection	
Int Delay, s/veh	15.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	97	532	1	1	634	81	1	16	12	60	15	84
Future Vol, veh/h	97	532	1	1	634	81	1	16	12	60	15	84
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	115	-	-	110	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	1	0	0	1	0	0	10	0	0	0	0
Mvmt Flow	99	543	1	1	647	83	1	16	12	61	15	86

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	730	0	0	544	0	0	1483	1474	544	1447	1433	689
Stage 1	-	-	-	-	-	-	742	742	-	691	691	-
Stage 2	-	-	-	-	-	-	741	732	-	756	742	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.6	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.6	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.6	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.09	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	883	-	-	1035	-	-	104	122	543	110	135	449
Stage 1	-	-	-	-	-	-	411	411	-	438	449	-
Stage 2	-	-	-	-	-	-	411	415	-	403	425	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	883	-	-	1035	-	-	69	108	543	87	120	449
Mov Cap-2 Maneuver	-	-	-	-	-	-	69	108	-	87	120	-
Stage 1	-	-	-	-	-	-	365	365	-	389	449	-
Stage 2	-	-	-	-	-	-	321	415	-	334	377	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0	31.8	134.3
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	105	543	883	-	-	1035	-	-	159
HCM Lane V/C Ratio	0.165	0.023	0.112	-	-	0.001	-	-	1.02
HCM Control Delay (s)	46	11.8	9.6	-	-	8.5	-	-	134.3
HCM Lane LOS	E	B	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	0.6	0.1	0.4	-	-	0	-	-	8

Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	42	20	4	35	5	16	79	23	3	73	5
Future Vol, veh/h	1	42	20	4	35	5	16	79	23	3	73	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	25	16	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	1	47	22	4	39	6	18	88	26	3	81	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	45	0	0	69	0	0	154	113	59	168	121	42
Stage 1	-	-	-	-	-	-	60	60	-	50	50	-
Stage 2	-	-	-	-	-	-	94	53	-	118	71	-
Critical Hdwy	4.35	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.425	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1427	-	-	1545	-	-	817	781	1012	800	773	1034
Stage 1	-	-	-	-	-	-	957	849	-	968	857	-
Stage 2	-	-	-	-	-	-	918	855	-	891	840	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1427	-	-	1545	-	-	745	778	1011	710	770	1034
Mov Cap-2 Maneuver	-	-	-	-	-	-	745	778	-	710	770	-
Stage 1	-	-	-	-	-	-	956	848	-	967	854	-
Stage 2	-	-	-	-	-	-	824	852	-	777	839	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.7	10.3	10.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	810	1427	-	-	1545	-	-	780
HCM Lane V/C Ratio	0.162	0.001	-	-	0.003	-	-	0.115
HCM Control Delay (s)	10.3	7.5	0	-	7.3	0	-	10.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.6	0	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	23	12	68	51	46
Future Vol, veh/h	50	23	12	68	51	46
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	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	66	30	16	89	67	61

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	219	98	128	0	-	0
Stage 1	98	-	-	-	-	-
Stage 2	121	-	-	-	-	-
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	769	958	1458	-	-	-
Stage 1	926	-	-	-	-	-
Stage 2	904	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	760	958	1458	-	-	-
Mov Cap-2 Maneuver	760	-	-	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	904	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	1.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1458	-	813	-	-
HCM Lane V/C Ratio	0.011	-	0.118	-	-
HCM Control Delay (s)	7.5	0	10	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Lane Group	EBL2	EBT	EBR	WBT	WBR	SBL2	SBL	SBR	SEL2	SEL	SET	SER
Lane Configurations												
Traffic Volume (vph)	31	417	166	445	79	1	6	1	1	96	385	47
Future Volume (vph)	31	417	166	445	79	1	6	1	1	96	385	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)			0		0		0	0		210		0
Storage Lanes			0		0		1	0		1		0
Taper Length (ft)							25			145		
Satd. Flow (prot)	0	3408	0	3487	0	0	1789	0	0	1770	3506	0
Flt Permitted		0.876					0.958			0.438		
Satd. Flow (perm)	0	2995	0	3487	0	0	1789	0	0	816	3506	0
Right Turn on Red			Yes									Yes
Satd. Flow (RTOR)		42									10	
Link Speed (mph)		30		30			30				30	
Link Distance (ft)		1259		341			382				755	
Travel Time (s)		28.6		7.8			8.7				17.2	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	1%	2%	1%	2%	0%	0%	0%	0%	2%	1%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	627	0	535	0	0	8	0	0	99	441	0
Turn Type	custom	NA		NA		Perm	Prot		custom	pm+pt	NA	
Protected Phases		4		8			10			1	6	
Permitted Phases	7					10			1	6		
Detector Phase	7	4		8		10	10		1	1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0		3.0	3.0		3.0	3.0	15.0	
Minimum Split (s)	14.0	14.0		14.0		9.0	9.0		8.5	8.5	21.0	
Total Split (s)	20.0	60.0		40.0		15.0	15.0		15.0	15.0	55.0	
Total Split (%)	13.8%	41.4%		27.6%		10.3%	10.3%		10.3%	10.3%	37.9%	
Yellow Time (s)	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5		1.5	1.5		0.0	0.0	1.5	
Lost Time Adjust (s)		0.0		0.0			0.0			0.0	0.0	
Total Lost Time (s)		6.0		6.0			6.0			4.5	6.0	
Lead/Lag	Lead			Lag					Lead	Lead	Lag	
Lead-Lag Optimize?	Yes			Yes					Yes	Yes	Yes	
Recall Mode	None	None		None		None	None		None	None	Max	
Act Effct Green (s)		35.0		35.0			6.2			59.6	49.7	
Actuated g/C Ratio		0.31		0.31			0.05			0.52	0.44	
v/c Ratio		0.66		0.50			0.08			0.20	0.29	
Control Delay		35.4		33.8			59.4			15.0	23.0	
Queue Delay		0.0		0.0			0.0			0.0	0.0	
Total Delay		35.4		33.8			59.4			15.0	23.0	
LOS		D		C			E			B	C	
Approach Delay		35.4		33.8			59.4				21.6	
Approach LOS		D		C			E				C	
Queue Length 50th (ft)		187		161			5			28	97	
Queue Length 95th (ft)		288		245			26			87	202	
Internal Link Dist (ft)		1179		261			302				675	
Turn Bay Length (ft)										210		
Base Capacity (vph)		1462		1169			143			533	1536	

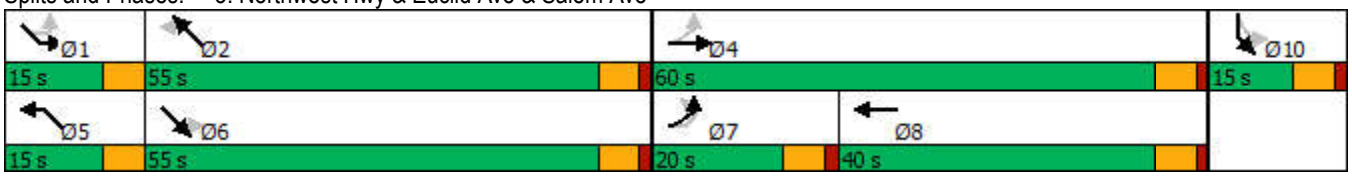
Lane Group	NWL	NWT	NWR2
Lane Configurations			
Traffic Volume (vph)	225	477	9
Future Volume (vph)	225	477	9
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	225		
Storage Lanes	1		
Taper Length (ft)	145		
Satd. Flow (prot)	1787	3564	0
Flt Permitted	0.437		
Satd. Flow (perm)	822	3564	0
Right Turn on Red			Yes
Satd. Flow (RTOR)		147	
Link Speed (mph)		30	
Link Distance (ft)		699	
Travel Time (s)		15.9	
Peak Hour Factor	0.98	0.98	0.98
Heavy Vehicles (%)	1%	1%	0%
Shared Lane Traffic (%)			
Lane Group Flow (vph)	230	496	0
Turn Type	pm+pt	NA	
Protected Phases	5	2	
Permitted Phases	2		
Detector Phase	5	2	
Switch Phase			
Minimum Initial (s)	3.0	15.0	
Minimum Split (s)	8.5	21.0	
Total Split (s)	15.0	55.0	
Total Split (%)	10.3%	37.9%	
Yellow Time (s)	4.5	4.5	
All-Red Time (s)	0.0	1.5	
Lost Time Adjust (s)	0.0	0.0	
Total Lost Time (s)	4.5	6.0	
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	None	Max	
Act Effct Green (s)	63.4	51.6	
Actuated g/C Ratio	0.56	0.45	
v/c Ratio	0.42	0.29	
Control Delay	17.6	16.0	
Queue Delay	0.0	0.0	
Total Delay	17.6	16.0	
LOS	B	B	
Approach Delay		16.5	
Approach LOS		B	
Queue Length 50th (ft)	70	74	
Queue Length 95th (ft)	188	173	
Internal Link Dist (ft)		619	
Turn Bay Length (ft)	225		
Base Capacity (vph)	550	1696	

Lane Group	EBL2	EBT	EBR	WBT	WBR	SBL2	SBL	SBR	SEL2	SEL	SET	SER
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		0.43		0.46			0.06			0.19	0.29	

Intersection Summary

Area Type: Other
Cycle Length: 145
Actuated Cycle Length: 113.9
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 26.4 — Intersection LOS: C
Intersection Capacity Utilization 84.6% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 3: Northwest Hwy & Euclid Ave & Salem Ave



Lane Group	NWL	NWT	NWR2
Starvation Cap Reductn	0	0	
Spillback Cap Reductn	0	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	0.42	0.29	

Intersection Summary

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	124	200	50	61	6
Future Vol, veh/h	7	124	200	50	61	6
Conflicting Peds, #/hr	8	4	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	50	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	143	230	57	70	7

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	601	80	79	0	-	0
Stage 1	76	-	-	-	-	-
Stage 2	525	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	467	986	1532	-	-	-
Stage 1	952	-	-	-	-	-
Stage 2	598	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	393	980	1529	-	-	-
Mov Cap-2 Maneuver	393	-	-	-	-	-
Stage 1	803	-	-	-	-	-
Stage 2	597	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.6	6.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1529	-	393	980	-	-
HCM Lane V/C Ratio	0.15	-	0.02	0.145	-	-
HCM Control Delay (s)	7.8	0	14.4	9.3	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.5	-	0.1	0.5	-	-

Intersection	
Int Delay, s/veh	13.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	93	426	4	2	437	140	2	17	10	84	16	85
Future Vol, veh/h	93	426	4	2	437	140	2	17	10	84	16	85
Conflicting Peds, #/hr	4	0	0	0	0	4	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	115	-	-	110	-	-	-	-	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, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	98	448	4	2	460	147	2	18	11	88	17	89

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	611	0	0	452	0	0	1237	1261	450	1203	1190	538
Stage 1	-	-	-	-	-	-	646	646	-	542	542	-
Stage 2	-	-	-	-	-	-	591	615	-	661	648	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	978	-	-	1119	-	-	154	172	613	163	189	547
Stage 1	-	-	-	-	-	-	464	470	-	528	523	-
Stage 2	-	-	-	-	-	-	497	485	-	455	469	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	974	-	-	1119	-	-	110	154	613	134	169	545
Mov Cap-2 Maneuver	-	-	-	-	-	-	110	154	-	134	169	-
Stage 1	-	-	-	-	-	-	417	423	-	473	520	-
Stage 2	-	-	-	-	-	-	401	482	-	385	422	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.6	0	25.5	90.7
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	148	613	974	-	-	1119	-	-	211
HCM Lane V/C Ratio	0.135	0.017	0.101	-	-	0.002	-	-	0.923
HCM Control Delay (s)	33.1	11	9.1	-	-	8.2	-	-	90.7
HCM Lane LOS	D	B	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	0.5	0.1	0.3	-	-	0	-	-	7.6

Intersection	
Int Delay, s/veh	7.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	30	19	4	17	5	21	77	5	1	69	1
Future Vol, veh/h	1	30	19	4	17	5	21	77	5	1	69	1
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	25	16	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	1	32	20	4	18	5	22	82	5	1	73	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	23	0	0	52	0	0	112	75	42	117	83	23
Stage 1	-	-	-	-	-	-	44	44	-	29	29	-
Stage 2	-	-	-	-	-	-	68	31	-	88	54	-
Critical Hdwy	4.35	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.425	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1455	-	-	1567	-	-	870	819	1034	864	811	1060
Stage 1	-	-	-	-	-	-	975	862	-	993	875	-
Stage 2	-	-	-	-	-	-	947	873	-	925	854	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1455	-	-	1567	-	-	805	816	1034	791	808	1058
Mov Cap-2 Maneuver	-	-	-	-	-	-	805	816	-	791	808	-
Stage 1	-	-	-	-	-	-	974	861	-	992	872	-
Stage 2	-	-	-	-	-	-	862	870	-	832	853	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.1	10.1	9.9
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	822	1455	-	-	1567	-	-	810
HCM Lane V/C Ratio	0.133	0.001	-	-	0.003	-	-	0.093
HCM Control Delay (s)	10.1	7.5	0	-	7.3	0	-	9.9
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	0.3

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	67	31	21	36	36	56
Future Vol, veh/h	67	31	21	36	36	56
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	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	77	36	24	41	41	64

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	162	73	105	0	-	0
Stage 1	73	-	-	-	-	-
Stage 2	89	-	-	-	-	-
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	829	989	1486	-	-	-
Stage 1	950	-	-	-	-	-
Stage 2	934	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	815	989	1486	-	-	-
Mov Cap-2 Maneuver	815	-	-	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	934	-	-	-	-	-

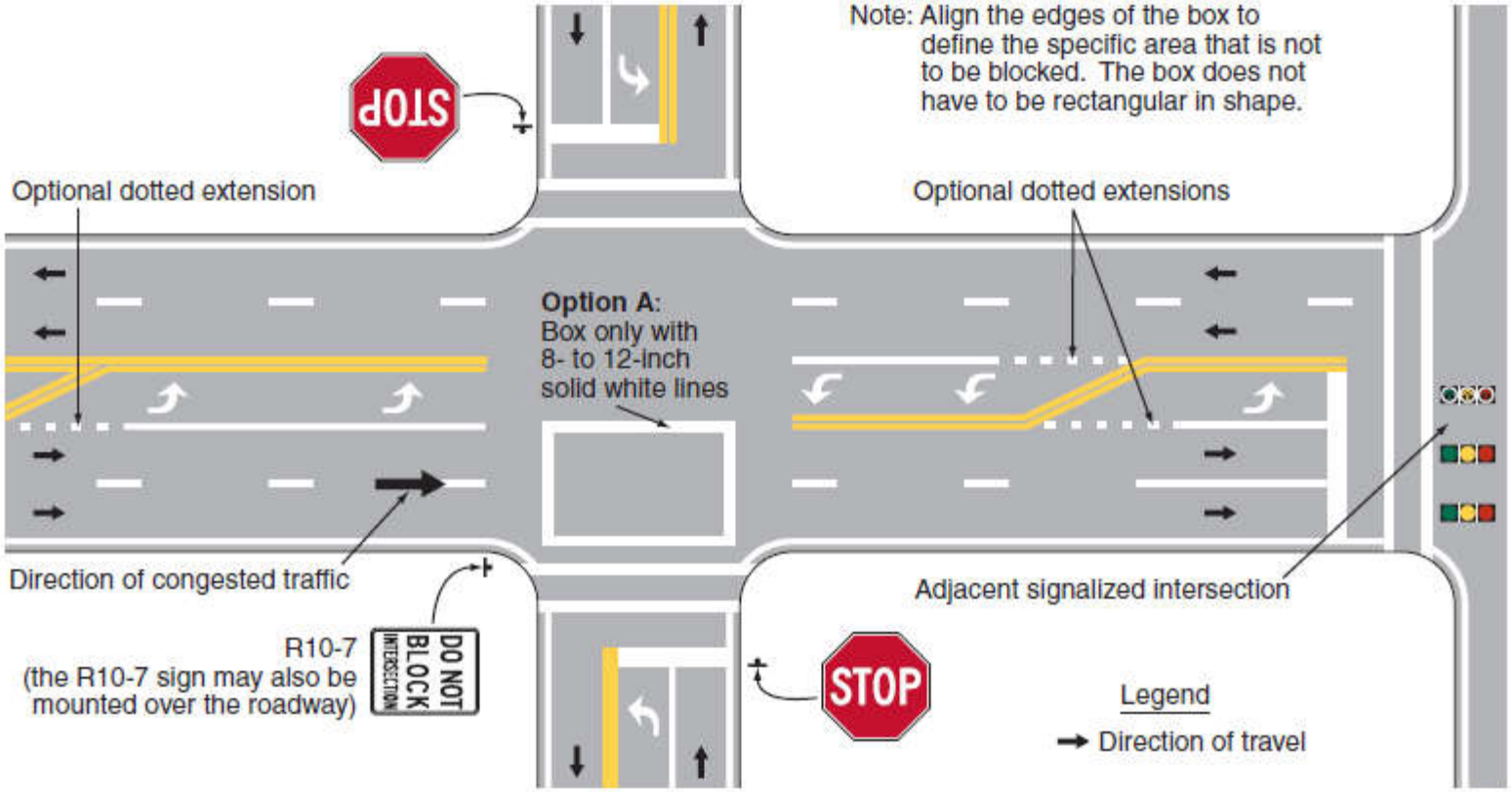
Approach	EB	NB	SB
HCM Control Delay, s	9.8	2.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1486	-	863	-	-
HCM Lane V/C Ratio	0.016	-	0.131	-	-
HCM Control Delay (s)	7.5	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-

Appendix D
MUTCD – Do Not Block Intersection Exhibit

GEWALT HAMILTON ASSOCIATES, INC.

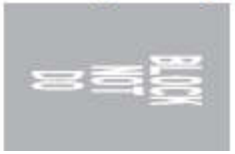
Figure 3B-18. Do Not Block Intersection Markings



Option B:
Box with "DO NOT BLOCK," "KEEP CLEAR," or similar text only message

Option C:
Box with 4- to 6-inch solid white crosshatch lines

Option D:
"DO NOT BLOCK," "KEEP CLEAR," or similar text only message (no box)



Village of Arlington Heights
Building & Life Safety Department

Interoffice Memorandum

To: Sam Hubbard, Development Planner, Planning and Community Development

From: Deb Pierce, Plan Reviewer, Building & Life Safety Department

Subject: 660 N Ridge Ave – PUD Amendment, Parking Variation

PC#: 18-002

Date: January 22, 2018

Sam:

I have reviewed the documents submitted for the above referenced project and offer the following comments:

1. Show the gymnasium addition on Sheet A100.
2. Provide a Site Plan showing the location of the additions and the distances to the lot lines.
3. What is the proposed construction type for the additions?
4. Provide a height and area calculation for the building including all allowable increases. IBC Section 503
5. Provide an occupant load calculation per floor. Include a calculation to show the provided egress width at each exit.
6. Based on the height of the roof, permanent access to the RTU's is required to be provided.

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JAN 22 2018
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

Village of Arlington Heights, IL
Department of Building & Life Safety

Fire Safety Division

Date: 1/19/2018 P.C. Number: 18-002 Round 1

Project Name: Arlington Heights Park District

Project Location: 660 N Ridge

Planning Department Contact: Sam Hubbard, Planning and Community Development

General Comments:

The information provided is conceptual only and subject to a formal plan review.

1. All currently adopted codes are required to be followed.

2. Fire department connections shall be fully visible and located at the main front entrance of the building and within a maximum travel distance of 100 feet to the nearest fire hydrant.

3. Buildings or facilities having a gross building area of more than 62,000 square feet shall be provided with two separate and approved fire apparatus access roads.

4. A complete NFPA compliant fire suppression system is required. Supervised indicating control valves shall be provided at the point of connection to the riser on each floor.

5. An approved water supply capable of supplying the required fire flow for fire protection shall be provided.

6. Fire protection equipment and service rooms shall be identified in an approved manner.

7. Approved access shall be provided and maintained for all fire protection equipment to permit immediate safe operation and maintenance of such equipment.

8. Buildings shall have approved radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building.

9. In buildings and structures where standby power is required or furnished to operate an elevator the operation shall comply with current code requirements.

10. A fully functional fire alarm shall be installed per NFPA 72. The alarm annunciator panel shall be located at the front entrance.

11. Shop drawings for fire alarm systems shall be submitted for review and approval prior to system installation.

12. Visible alarm notification appliances shall be provided in public areas and common areas. A visible exterior weatherproof alarm notification device shall be located within closest proximity to the front main entrance of the building or tenant space.

13. A zoning indicator panel and the associated controls, or, fire alarm control panel shall be located within the closest proximity to the front main entrance.

14. A key box (Know Box) shall be provided and contain keys to gain necessary access as required by the fire code official.

15. Each location of a fire department communication device shall be an independent zone from the control panel in the fire command room.

16. Fire pumps, if provided, shall be installed in accordance with the Fire Code and NFPA 20 and shall comply with all current code requirements including a minimum of two water mains located in different streets.

17. Exit signs shall be illuminated at all times and have emergency power backup.

18. In order to be considered part of an accessible means of egress, an elevator shall comply with the emergency operation and signaling device requirements.

19. Aerial fire apparatus access roads shall have a minimum unobstructed width of 26 feet exclusive of shoulders, in the immediate vicinity of any building or portion of building more than 30 feet in height.

20. Buildings shall have approved address numbers.

21. Fire department connections shall be installed in accordance with the NFPA standard applicable to the system design. The location of fire department connections shall be approved.

22. Fire department connections shall be located on the street side of buildings, fully visible and recognizable from the street or nearest point of fire department vehicle access or as otherwise approved a visible Location.

23. Signs shall be posted on both sides of an approach of any fire lane stating NO PARKING – FIRE LANE". Signs shall have arrows indicating the area of parking restriction.

24. Fire lane signs shall be white with red three-inch letters. The dimensions of the sign shall be 12 inches horizontally and 18 inches vertically. These signs shall be installed so that the top of the sign is no less than 6 feet nor more than 6 feet above grade.

25. Material Safety Data Sheets (MSDS) for all hazardous materials shall be either readily available on the premises as a paper copy, or where *approved,* shall be permitted to be readily retrievable by electronic access.

26. Individual containers of hazardous materials, cartons or packages shall be marked or labeled in accordance with applicable federal regulations. Buildings, rooms and spaces containing hazardous materials shall be identified by hazard warning signs in accordance with Section 2703.5.44

27. *Persons* responsible for the operation of areas in which hazardous materials are stored, dispensed, handled or used shall be familiar with the chemical nature of the materials and the appropriate mitigating actions necessary in the event of a fire, leak or spill. Responsible *persons* shall be designated and trained to be liaison personnel for the fire department.

Date January 19, 2018

Reviewed By: _____
Fire Safety Supervisor

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JAN 19 2018
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

Village of Arlington Heights
Public Works Department

Memorandum

To: Sam Hubbard, Planning and Community Development

From: Cris Papierniak, Assistant Director of Public Works

Date: January 26, 2018

Subject: 660 N Ridge Ave, P.C. #18-002 Round 1

Regarding the proposed PUD Amendment, PW has the following comments:

1. Coordinate the relocation of the existing hydrant (removal & relocation) with the VAHPW Water Distribution Unit at 847-368-5800.
2. There should be no spacer between the hydrant and auxiliary valve, change the "Fire Hydrant Detail" on C10 to reflect this change.
3. Replace the existing 4" domestic backflow device. It is obsolete.
4. Replace the existing 6" fire backflow device. It is obsolete.
5. Verify the condition of all existing utility structures that we reconnected to, to ensure they don't need replacement.
6. Verify the condition of the public sidewalk abutting the project. Correct any structural or ponding water problems.
7. All roadway patches shall be 2' wider than the utility excavations for surface course only.

VAHPW has no further comments at this time.

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FEB 01 2018
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

C: File

ENGINEERING DEPARTMENT

PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

Petition #: P.C. 18-002
Petitioner: Arlington Heights Park District
410 N. Arlington Heights Rd.
Arlington Heights, IL 60004
Owner: Arlington Heights Park District
410 N. Arlington Heights Rd.
Arlington Heights, IL 60004
Contact Person: Ben Rea, Director of Parks
Address: 410 N. Arlington Heights Rd.
Arlington Heights, IL 60004
Phone #: (847) 506-7145
Fax #: (847) 577-3050
E-Mail: brea@ahpd.org

P.I.N.# 0330229039
Location: 660 North Ridge Avenue
Rezoning: ____ Current: P-L Proposed: P-L
Subdivision: ____
# of Lots: ____ Current: ____ Proposed: ____
PUD: ____ For: ____
Special Use: ____ For: ____
Land Use Variation: ____ For: ____

Land Use: P-L Current: P-L
Proposed: P-L
Site Gross Area: ____
# 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 ____
   e. CCHD X

	YES	NO	COMMENTS
3. R.O.W. DEDICATIONS?		X	
4. SITE PLAN ACCEPTABLE?		X	
5. PRELIMINARY PLAT ACCEPTABLE?			N/A
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	

GENERAL COMMENTS ATTACHED

PLANS PREPARED BY: G.H.A.
DATE OF PLANS: 01-08-2017

Director — Date: 2/1/18

RECEIVED
FEB 01 2018
PLANNING & COMMUNITY DEVELOPMENT DEPARTMENT

PLAN COMMISSION PC #18-002
Arlington Heights Park District - Olympic Park Redevelopment
660 N. Ridge Ave.
PUD Amendment, Parking Variation
Round 1

1. 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.

2. Provide an engineer's estimate of construction cost for full site improvements to complete the calculation for plan review, inspection, and other fees.

3. Final engineering plans shall be georeferenced by using State Plane Coordinate System – Illinois East. Below are details about projection:

    i. Projected Coordinate System: NAD_1983_StatePlane_Illinois_East_FIPS_1201_Feet
        a. Projection: Transverse_Mercator
        b. False_Easting: 984250.00000000
    2. False_Northing:0.00000000
    3. Central_Meridian: -88.33333333
        a. Scale_Factor: 0.99997500
    4. Latitude_Of_Origin: 36.66666667
        a. Linear Unit: Foot_US

    b. Geographic Coordinate System: GCS_North_American_1983
        a. Datum: D_North_American_1983
    2. Prime Meridian: Greenwich
        a. Angular Unit: Degree

4. The proposed detention facility will be a private system and as such will not be the Village's responsibility to maintain. The basin requires a 1-foot freeboard with an overflow weir at the 6" line. Provide calculations for sizing the weir.

5. An Onsite Utility Maintenance Agreement must be provided prior to final engineering approval.

6. According to the Stormwater Management Report, the basin, at 1.43 ac-ft of storage, is sized to meet Village detention requirements for the newly disturbed 3.79 acres (1.07 ac-ft of storage) as well as the previously permitted work from 2003 (0.30 ac-ft of storage). Modify the Drainage Exhibit to show the 1.77 ac of tributary area as described in the last paragraph of 2. Existing Conditions from the Report. Delineate the area as described in the report. Since the volume for the 2003 project is also included in the new basin, the release rate can be calculated including that area also. Any flow from disturbed area not tributary to the new basin, such as the area east of the new building addition(?), should be considered offsite flow and incorporated into the ultimate release rate calculations.

7. The MWRD release rate being used (0.36 cfs) is much lower than the Village's allowable release rate of 0.18 cfs/acre, which comes to 0.68 cfs for the proposed 3.79 acre project area. Using this low of a release

rate will require a larger basin to accommodate the 100-yr storm. Re-run Village detention volume calculations using the lower release rate.

8. The storm sewer design does not allow for the first flush to enter the volume control facility. Re-design.

9. Modify the fire truck movement exhibit on Sheet C3 to have the vehicle use the drive aisle closest to the building along the west side. Add an exhibit showing the same track going counter-clockwise around the building.

10. Fire lanes adjacent to buildings must have a minimum pavement width as directed by the Fire Department to accommodate the tower truck's outriggers. 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.

11. The Plat of Survey provided does not show a new public utility easement for the storm sewer that was relocated for the 2003 building expansion. Provide a Plat of Easement that vacates the portion of the existing easement that now goes through the building and dedicates a new easement following the path of the new (2003) storm sewer main around the south side of the building.

12. The building addition will encroach upon existing public utility easements north of the existing building. Include required vacations of public easements for the building addition in the Plat of Easement.

13. Sheet C3: The parking spaces can be reduced to 16.5' in depth to the face of curb, allowing for 1.5' of overhang, along curbs adjacent to grass. Where curbs are adjacent to sidewalks, the same can be done as long as the sidewalk is correspondingly widened 1.5'.

14. Sheet C3: The proposed work within the Euclid Avenue ROW will require a permit review from the Cook County Department of Transportation and Highways.

15. Sheet C4: The note for the water main 'tee' says "…install tee with stainless steel mission couplings." Mission couplings cannot be used for water main work. Revise note.

16. The site development introducing the additional uses besides predominately swimming activity for this site needs to provide a proposed schedule of programed and unplanned activities for the building. In the traffic report introductory remarks related to existing attendance to this facility, cited 300 weekday patrons, and 600 weekend visitors to the building were referenced. The projected volumes increasing to 2424 to 2998 attendees based upon the base or alternate build proposal is increasing the patronage by 5 to 10 fold. If known programs, classes, activities, leagues, special events, swim meets etc. could be identified into a theoretical schedule, along with a projected pool usage based upon seasonal fluctuation history, this would clarify building usage and associated traffic demand.

17. Are the traffic count values provided in the report reflecting the traffic generated from the cross access the Christian Liberty Academy is doing on Park District property, for their morning, lunch, and afternoon pick-up and drop-off functions? What provisions for accident management or liability exists between the two parcels?
18. With the introduction of an additional site driveway north of the proposed building expansion, what does this opening align with on the opposite side of the street? How will the continuing encroachment of Christian Liberty traffic affect this new driveway operation?

19. It is unclear in the report on Exhibit #9 how the breakout for and AADT is being represented in the column 'Daily Sum' for clear values representing both weekday and weekend Daily AADT. The tally indicated on the Daily sum line for existing traffic counts of 1440/day differs from the tallies stated in #1 above that were provided on page one of the report.

20. While the report indicates the counts were adjusted for a 0.5 % annual growth factor per year, and these adjustments are shown at the major intersections, no revisions to the counts into and out of the site seem to have been made.

21. Is the use of the soccer field open to the general public anytime, or must the field be reserved to be used, or is it just allowed for league or youth soccer games.

22. The traffic report indicates the existing parking supply is increasing from 191 existing parking stalls to 264 proposed parking spaces, a gain of 73 additional stalls. How many stalls are required based upon Village Code, and is a proposed variation being requested?

23. The identification of the intersection levels of service for the intersection of Ridge Avenue at Euclid Avenue suggesting an increase in back-up from 50-60 ft, to 180-200 ft in length is not acceptable. Review of the geometric alignment of the north leg to provide a separate right and left /through orientation should be considered, along with signage on Euclid Avenue for not blocking Ridge Avenue.

24. The parking stall analysis that concludes that the required on-site parking demand for Saturdays is anticipated to be lower than weekday demand for fitness center use by up to 40% needs to be explained and sourced for reference to defend this statement. There is no basis upon which a reduction for not only the gymnasium, but proposed classes, multipurpose rooms, walking track, that has been provided.

25. The site lighting photometric site lighting plan must be provided at a larger scale that is legible, along with catalog cuts of all exterior lighting fixtures pole mounted in the parking lot, or mounted onto the building. Fixtures should be 'Dark Sky' compliant.

2/1/18

James J. Massarelli, P.E. Date
Director of Engineering

Arlington Heights Fire Department
Plan Review Sheet

P. C. Number 18-002

Project Name Olympic Park Redelevopment

Project Location 660 N. Ridge Ave

Planning Department Contact Sam Hubbard

General Comments

Round 1

1. The building is to be sprinkled.

2. The Fire Department Connection (FDC) is to be clearly visible, easily accessed and located at the main front entrance.

3. A fire hydrant is to be located within 100' of the Fire Department Connection.

4. A Knox Box is to be located the main front entrance.

5. A fully operational annunciator panel or alarm panel is to be located at the front door.

6. Reference 2009 International Fire Code - sections 503 and Appendix D for fire lane expectations.

NOTE: PLAN IS CONCEPTUAL ONLY SUBJECT TO DETAILED PLAN REVIEW

Date January 26, 2018 Reviewed By: LT. Mark Aleckson

Arlington Heights Fire Department

ARLINGTON HEIGHTS POLICE DEPARTMENT

Community Services Bureau

RECEIVED
FEB 01 2018
PLANNING & COMMUNITY DEVELOPMENT DEPARTMENT

DEPARTMENT PLAN REVIEW SUMMARY

Olympic Park Redevelopment
660 N Ridge Ave.
PC #18-002

Round 1 Review Comments **01/31/2018**

1. **Character of use:**
   The character of use is consistent with the area.

2. **Are lighting requirements adequate?**
   Lighting should be up to Village of Arlington Heights Code. Special attention should be given to those outside common areas- playground and surrounding area, parking lot, areas around the building- especially entries/exits. These areas should be illuminated specifically during hours of darkness for safety, to deter criminal activity and increase surveillance/visibility- potentially reducing theft, trespassing, vandalism, and other criminal activity. Landscaping should provide open sightlines to increase natural surveillance and avoid creating ambush locations and havens for illegal activities- theft, trespassing, vandalism, underage drinking, drug use, etc.

3. **Present traffic problems?**
   The additional of a driveway around the exterior of the building should alleviate traffic issues.

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:**
   -Please ensure that there is an emergency information/contact card on file with the Arlington Heights Police Department and that it is up-to-date. Agent contact information must be provided to the Arlington Heights Police Department during all construction phases. The form is attached. Please complete and return. This allows police department personnel to contact an agent during emergency situations or for suspicious/criminal activity on the property during all hours.
   -It appears there is a fence around the playground. If this area is for park district patron use only during business hours- any access gates to this area should be locked/secured nightly to reduce unauthorized access- i.e. theft, trespassing, vandalism, underage drinking etc.- to the area after hours. Consider installing a fence higher than 4 feet, one that allows natural surveillance of the property but limits access to unauthorized persons.
   -Access control to the building and/or classroom areas must be considered. Consider numbering the exterior doors.

-The desks adjacent to the two vestibule entrances to the facility should be staffed during business hours to monitor people entering and leaving the building, if both doors are to remain used as facility entrances.

- The babysitting area doorway is immediately adjacent to an entrance into the facility, consider moving that area (around the corner) or moving the doorway so it is not so close to the entrance.

- The addition of Trespass signage is recommended. Consider posting no trespassing / loitering/ no un-authorized use signage. The Arlington Heights Police Dept. has and utilizes trespass warning forms under qualifying circumstances when requested by property management.

#272

Brandi Romag, Crime Prevention Officer
Community Services Bureau

Approved by:

Supervisor's Signature

HEALTH SERVICES DEPARTMENT

PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

Petition #: P.C. 18-002
Petitioner: Arlington Heights Park District
410 N. Arlington Heights Rd.
Arlington Heights, IL 60004
Owner: Arlington Heights Park District
410 N. Arlington Heights Rd.
Arlington Heights, IL 60004
Contact Person: Ben Rea, Director of Parks
Address: 410 N. Arlington Heights Rd.
Arlington Heights, IL 60004
Phone #: (847) 506-7145
Fax #: (847) 577-3050
E-Mail: brea@ahpd.org

P.I.N.# 0330229039
Location: 660 North Ridge Avenue
Rezoning: ____ Current: P-L Proposed: P-L
Subdivision: ____
# of Lots: ____ Current: ____ Proposed: ____
PUD: ____ For: ____
Special Use: ____ For: ____
Land Use Variation: ____ For: ____

Land Use: P-L Current: P-L
Proposed: P-L
Site Gross Area: ____
# of Units Total: ____
1BR: 2BR: 3BR: 4BR:

(Petitioner: Please do not write below this line.)

1. GENERAL COMMENTS:

- See the attached accessibility comments.
- Building permit plans must comply with the attached Food Service Plan Review Requirements.

Sean Freres, LEHP 1/26/18
Environmental Health Officer Date

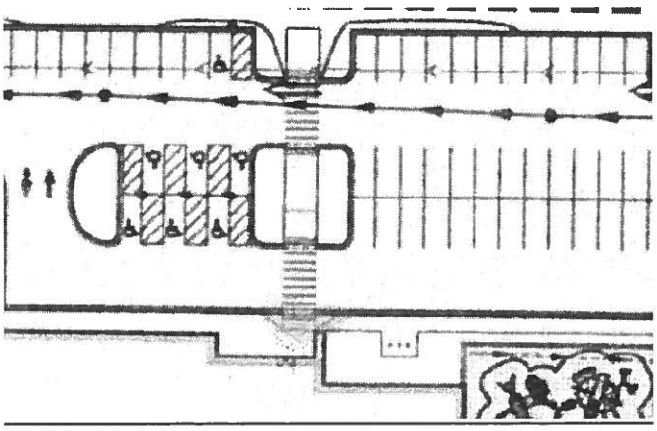
James McCalister 1/26/18 Director
Date

Plan Review for Accessibility

Address:	Arlington Heights Park District Olympic Park Redevelopment 660 N. Ridge Avenue PUD Amendment, Parking Variation P.C. #18-002 Round 1
Submitted to:	Sam Hubbard, Planning & Community Development
Submitted by:	David Robb, Disability Services Coordinator (847) 368-5793
Date:	January 24, 2018
Re:	Illinois Accessibility Code (IAC)

Sheet C3

1. Relocate those ADA Reserved Parking Spaces furthest away from the designated accessible route and curb ramp to those parking spaces that are closest to the designated accessible route and curb ramp. Per IAC Sections 400.310(c)(2) and (a)(1)(A).



Village of Arlington Heights
Health & Human Services Department
33 S. Arlington Heights Rd.
Arlington Heights, IL 60005
(847) 368-5760

Food Service Plan Review Requirements

The Village of Arlington Heights has adopted the Illinois Department of Public Health Food Service Sanitation Code. Copies may be obtained by visiting www.idph.state.il.us or calling 630/293-6800.

For a complete plan review, drawings to scale must be submitted containing the information noted below. This list, while not necessarily complete, highlights areas of concern and common reasons for plan rejection.

1. Floor Plan for Operation. Designation of various areas (service areas, food preparation, dry storage, numbers and locations of seats, restrooms, break areas, etc).

2. General Layout. Location of equipment fixtures (cross-reference to an equipment schedule) including distances above the floor, between other pieces of equipment, whether on legs or casters, etc.

3. Food Service Equipment. All equipment must be commercial and listed with NSF or equivalent in both construction and installation. Used equipment must be inspected for approval prior to installation. Equipment schedules must contain manufacturer and model numbers for each piece of food service equipment. Equipment spec sheets are required for all new equipment.

4. Plumbing fixtures. Location and type must be shown in overhead and schematic design. Include provisions for drainage from condensate for refrigerators and freezers, ice machines, soda or water stations, steam tables, etc. The location of all floor drains and sinks must also be shown. All 3 compartment sinks, dish machines, prep sinks, ice machines, steam tables, and condensate lines must have an air-gap (open-site drain) on the waste line. All hub drains, floor sinks, and floor drains must be located on the toe-edge of, or adjacent to, the equipment to facilitate cleaning. Facilities cooking or performing food prep must have a grease trap. Newly constructed facilities having cooking that produces grease or vapors, or where 3 compartment sinks or food prep sinks are located in two or more areas are required to have an exterior grease trap. Dish machines and garbage grinders may not drain through the grease trap. All ice machines must be air cooled.

5. Sinks. Sinks that are mandatory to be installed include:

- three compartment sink with integral drain boards
- mop/utility sink
- hand sink in preparation areas (including bars) and dish areas (more than one may be required)
- food prep sink (depending on type of operation)

Hot and cold running water are required at all sinks. The water must be tempered by means of a mixing valve. A metering faucet must provide at least 10 seconds of running water.

6. Ventilation Requirements. Adequate ventilation must be provided throughout the facility to remove excessive heat, steam, vapors, smoke, fumes, and noxious odors. Submit specifics on ventilation hoods for Fire Code review.

7. Floors, Walls, and Ceilings. The surfaces in all food preparation, dishwashing rooms, and toilet rooms must be smooth, light colored, non-porous, and easily cleanable. Ceiling tiles may not contain fissures, and must be vinyl coated above food prep areas. Cove base must be provided at all floor/wall junctures. Grouting for all floor tiles must be sealed to be non-porous. Non-slip finishes may only be installed in traffic areas, not under equipment.

8. Lighting. Artificial light sources must be installed to provide at least 20 footcandles of light in all food prep areas, dish areas, and wash rooms. All walk-in refrigeration/freezer units, dry storage areas, dining rooms during cleaning, and other areas must be provided with at least 10 footcandles of light. All light fixtures over, near, or within food preparation, display, or service areas, and dish areas, must be shielded to prevent broken glass from falling onto food. This includes heat lamps.

9. Dry Storage Areas. A minimum of 25% of the food preparation area must be set aside for dry storage. Provide calculations showing how the dry storage requirement is met. Show dimensions and numbers of tiers for each shelving unit. All shelving must be at least 6 inches above the floor, and 18 inches below the ceiling. Remember that carry-out operations require more storage space for disposable containers.

10. Other Storage Areas. Provide storage for the following and indicate their locations: refrigerated and frozen storage, both clean and dirty dish storage, kitchen utensils, employee belongings and coats, and all cleaning supplies and toxic chemicals. Provide a mop and broom storage rack over the mop/utility sink.

11. Garbage and Refuse Disposal. An adequately sized solid waste storage site must be provided. The area must be paved, curbed, and graded to the front to prevent the accumulation of liquids. Visual screening for the area must be provided.

12. Outer Openings. No doors or windows may be left open and unscreened. All doors must be self-closing and tight-fitting. Provide screening of at least 16 mesh per inch for any windows to be opened. Air curtains and self-closing automatic windows must be installed on drive-through windows. Doors to outdoor dining areas must have operable air curtains installed above if outdoor wait staff are provided.

13. Other Concerns. All conduits and plumbing pipes must be installed inside the walls. If this is not possible, they must be at least 1 inch from the wall and 6 inches above the floor to facilitate cleaning.

14. Menu. A copy of the proposed menu must be submitted.

15. Smoking. No smoking is allowed in any enclosed space, including bars, private offices, or outdoor dining areas. Smoking is not allowed within 15 feet of any door, and ashtrays and other smoking materials may not be within 15 feet of the doors.

16. Certified Food Service Manager. At least one IDPH certified Food Service Manager must be present at all times foods are handled in high-risk establishments. Medium risk establishments need at least one certified Manager on staff.

Installation Standards for Food Service Equipment

Equipment must be mounted with a minimum of 6 inches of clear space underneath. In lieu of the clear space, equipment may be equipped with casters or placed on a raised solid masonry or sealed metal platform. The platform must be at least 2 inches high, sealed at all edges, and sealed to the floor. Necessary space for air intake must be provided for any units that need ventilation. If fresh air if provided, any air intake openings must be screened with a minimum of 16 mesh per inch screening.

Equipment that is not easily moveable must also be sealed to the wall, or meet the following minimum clearances to facilitate cleaning:

- When the distance to be cleaned is less than 2 feet in length, the width of the clear unobstructed space must not be less than 5 inches.
- When the distance to be cleaned is between 2 and 4 feet, the width of the clear unobstructed space must not be less than 8 inches.
- When the distance to be cleaned is greater than 4 feet, the width of the clear unobstructed space must not be less than 12 inches.

Other Considerations

A valid Business License is required to operate a food service facility in the Village of Arlington Heights. Contact the Licensing Coordinator in the Building Department at 847/368-5560.

A special use permit may be required for your location. Contact the Planning & Community Development Department at 847/368-5200 to inquire about the requirements.

No alcoholic beverages may be sold without first obtaining a Village Liquor License. Contact the Liquor License Officer at 847/368-5100.

Other licenses may be required as well. It is up to the owner and/or operator of each facility to obtain all of the required State and Local licenses prior to opening.

An early consultation between the Health & Human Services Department and the persons planning to build and/or operate a food service establishment can be beneficial. We may also be able to answer any questions you may have during the process. Contact the Health & Human Services Department at 847/368-5760 or by fax at 847/368-5980.

PLANNING & COMMUNITY DEVELOPMENT DEPARTMENT

PETITIONER'S APPLICATION - ARLINGTON HEIGHTS PLAN COMMISSION

Petition #: P.C. 18-002
Petitioner: Arlington Heights Park District
410 N. Arlington Heights Rd.
Arlington Heights, IL 60004
Owner: Arlington Heights Park District
410 N. Arlington Heights Rd.
Arlington Heights, IL 60004
Contact Person: Ben Rea, Director of Parks
Address: 410 N. Arlington Heights Rd.
Arlington Heights, IL 60004
Phone #: (847) 506-7145
Fax #: (847) 577-3050
E-Mail: brea@ahpd.org

P.I.N.# 0330229039
Location: 660 North Ridge Avenue
Rezoning: _____ Current: P-L Proposed: P-L
Subdivision: _____
# of Lots: _____ Current: _____ Proposed: _____
PUD: _____ For: _____
Special Use: _____ For: _____
Land Use Variation: _____ For: _____

Land Use: P-L Current: P-L
Proposed: P-L
Site Gross Area: _____
# of Units Total: _____
1BR: 2BR: 3BR: 4BR:

(Petitioner: Please do not write below this line.)

	YES	NO	
1.	X		COMPLIES WITH COMPREHENSIVE PLAN?
2.	X		COMPLIES WITH THOROUGHFARE PLAN?
3.	X		VARIATIONS NEEDED FROM ZONING REGULATIONS? (See below.)
4.		X	VARIATIONS NEEDED FROM SUBDIVISION REGULATIONS? (See below.)
5.		X	SUBDIVISION REQUIRED?
6.		X	SCHOOL/PARK DISTRICT CONTRIBUTIONS REQUIRED? (See below.)

Comments:

PLEASE SEE ATTACHED COMMENTS.

Sam Hubbard 2.1.18
Date

Planning & Community Development Dept. Review

January 31, 2018

REVIEW ROUND 1

Project: Olympic Park PUD Amendment – 660 N. Ridge Ave.

Case Number: PC 18-001

General:

7. The following approvals are needed:
    - **Amendment to PUD Ordinances #78-19 and #03-036 to allow a building addition and site changes on the subject property.**
    - **Special Use Permit to allow a "Community Center, Recreation Building".**

8. Please provide a written justification for the required Special Use Permit addressing each of the approval criteria outlined below:
    - **That said special use is deemed necessary for the public convenience at this location.**
    - **That such case will not, under the circumstances of the particular case, be detrimental to the health, safety, morals or general welfare of persons residing or working in the vicinity.**
    - **That the proposed use will comply with the regulations and conditions specified in this ordinance for such use, and with the stipulations and conditions made a part of the authorization granted by the Village Board of Trustees.**

9. The following variations have been identified:
    - **Variation to Section 11.4, Schedule of Parking Requirements, to reduce the required amount of off-site parking from ___ spaces to 264 spaces. The extent of this variation will be determined once detailed information on the size of the interior spaces has been provided.**

10. Please provide a written justification for the required variation addressing each of the hardship criteria outlined below:
    - **That 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.**
    - **The variation, if granted, will not alter the essential character of the locality.**

11. Has a meeting with the surrounding neighborhood been held? If so, please provide a summary of the meeting. If not, a neighborhood meeting will be required prior to appearing before the Plan Commission and a summary of the meeting (attendance, date/time/location, record of topics discussed and concerns raised by the residents) must be provided for staff.

12. Please provide catalog cut sheets for all proposed light fixtures within the parking area, as well as all proposed building mounted light fixtures.

13. Please outline the total number of future employees in both the base bid and alternate bid scenario (only current number of employees was provided).

14. Please outline the maximum number of staff that will be working within the proposed nursery at any one time.

15. The Wheeling Township Assessor's office has been provided with information on the proposed development and has complied a list of all PIN #'s of property within 250' of the subject property. Please obtain the list from the Assessor's office and prior to looking up the addresses associated with each PIN, please provide the list to me so that I can double check to ensure that all necessary PIN's have been included on the list. In addition, please note that when the mailing is sent out, it must go to the **taxpayer of record of each PIN**, and not to the actual property address of the PIN.

16. Please ensure that all plans and/or studies to be resubmitted as a result of the Round 1 Department review comments include a revision date.

Site Plan:

17. Please revise Sheet C3 of the civil plans to include the below Zoning Matrix table and fill in all data that is missing and verify that the data included on the chart is accurate:

Zoning Matrix

	Existing	Proposed - Base Bid	Proposed - Alternate Bid	P-L District Required
Lot Size	436,374 sq. ft.	436,374 sq. ft.	436,374 sq. ft.	No Limit
Lot Width	482.4'	482.4'	482.4'	No Limit
Setbacks				
North (rear)				30'
South (front)				15'
East (exterior side)				10'
West (exterior side)				10'
F.A.R.				250%
Building Lot Coverage				No Limit
Impervious Surface Coverage				No Limit
Building Height				No Limit
Off-street Parking Spaces	191	264	264	TBD
Bicycle Parking Spaces	34			
Total Building Square Footage				N/A
Building Foundation (sq. ft.)				N/A

18. Please provide details for all proposed fences.

19. Provide parking space width dimensions within all proposed parking rows.

20. Within the northernmost parking row, it appears a variations is needed for a landscape island that does not contain a shade tree (where pedestrian path leads from the building to safety town). Please find a way to add the required shade tree to the parking lot island or clarify if a variation is requested (and provide the necessary response to the hardship criteria).

21. There is a small existing 8' x 10' concreate area adjacent to the sidewalk in the southwest corner of the site. It is unclear why this concrete area is necessary. Please remove this area and replace it with greenspace. Additionally, the outline of the former asphalt driveway entrance along Euclid, although proposed for removal, still appears on all site plans. Please add a note to the demolition plan that clarifies this area will be returned to greenspace and remove the outline from all other plans (both civil and landscaping).

22. Other than the transformer proposed on the east side of the building and the rooftop mechanical units, are any above ground utility or mechanical units proposed on the site (HVAC equipment, generators, utility pedestals, transformers, etc.)?

Building:

23. A Design Commission appearance is required for the proposed improvements. Appearance before the Design Commission has been tentatively scheduled for February 13th.

24. Will the building addition incorporate any new basement areas? If so, a proposed basement plan shall be provided.

25. Please revise the floor plans to assign room numbers to each space/room within the existing and proposed building. For all rooms/spaces (both existing and proposed), provide a separate table with the square footage of each space and the corresponding occupancy calculation and maximum occupant load per building code standards.

26. Provide the square footage and maximum bather load for each existing and proposed pool per IPHD standards.

27. Are there any bleachers within the facility? Please provide occupancy calculations for all bleacher areas.

28. Please revise the elevations to provide a value for the areas labeled "EQ" so that overall height can be determined. The elevations should include a height dimension for the overall height of the building as measured at its tallest point, including measurements to both the roofline and top of parapet wall (if applicable).

29. Where will the electric and gas meters be located on the building? Has landscaping been incorporated to screen these elements?

Traffic/Parking:

30. How will the dump truck access the proposed trash enclosure area along the eastern elevation? It appears that the dump truck will need to utilize the public street for turning movements to back up into the trash enclosure space.

31. The traffic study has a gap within the programing/swimming pool usage between 3:00pm-4:00pm. How are the pools used during this time?

32. Per the recently adopted bicycle parking ordinance, 2% of the overall building occupancy shall be used to determine the required number of bicycle parking spaces. Please provide the overall building occupancy to calculate the required bicycle parking spaces. Additionally, please note on the site plan how many bicycle parking spaces exist along the eastern side of the building (1 post = 2 spaces) and clarify how many are proposed along the western side of the building.

33. Please revise the projected future parking demand to be based on the ITE parking generation rates per the proposed uses and not per the Village parking requirement. Additionally, the future parking demand did not factor in the proposed warm water pool.

34. If a parking deficit is projected during peak times, please provide a strategy for where these cars will park (assuming that scheduling conflicts for major events cannot be avoided). No analysis was included outlining how many spaces are available within the surrounding street network.

Prepared by: _____

Olympic Swim Addition
660 N. Ridge Avenue
PC 18-002
January 31, 2018

Landscape Comments

1) The ends of all parking rows and every twenty spaces must include a landscape island which contains a 4" caliper shade tree. (Chapter 28, section 6.15-1.2b). Increase the size of the proposed trees from 3.5 inch to 4 inch caliper. In addition, provide trees in islands where the trees are absent.

2) Per Chapter 28, Section 6.15 a three foot high screen must be provided adjacent to parking areas along the public right of way. Infill or provide the code required screen where it is absent. The landscaping should not obstruct site lines.

3) Provide additional landscaping adjacent to the parking lot expansion on the west and the north in order to buffer parking area from the residential district.

4) Per Chapter 28, Section 6.15-3 landscaping is required along the perimeter of the detention basin. Provide landscaping along Salem Avenue. In addition, indicate the proposed seed mix for the floor of the basin.

5) Any utility meters or mechanical units must be screened with landscaping or another appropriate method of screening. Identify the size and species of the proposed landscaping adjacent to the trash area along Ridge Avenue.

6) Please provide a detailed planting plan and indicate the proposed species.

FGM ARCHITECTS

February 14, 2018

Sam Hubbard
Development Planner
Village of Arlington Heights
33 S. Arlington Heights Road
Arlington Heights, IL 60005

RE: Arlington Heights Park District
Olympic Indoor Swim Center Addition and Renovations
660 North Ridge Avenue
Arlington Heights, IL 60005
PC# 18-002

Dear Mr. Hubbard,

Please find attached a copy of the comments and initial responses from the Arlington Heights Park District (AHPD) and FGM Architects for the project referenced above. In addition, we are resubmitting ten (10) copies of the following items for review:

- Item 4: Revised Plat of Survey
- Items 11a-b: Revised Engineering Plans
- Item 11c: Revised Floor Plans and Code Compliance Plans
- Items 11d-f: Revised Elevations and Sections
- Items 11g-i: Revised Landscape Plans
- Item 11h: Revised Site Lighting Photometric Plans and Catalog Cut Sheets
- Item 13: Engineer's Opinion of Probable Costs for Site Work
- Item 14: Revised Stormwater Report

We are continuing to refine and update Item 12: Traffic Study and will submit under separate cover as soon as possible.

If there are any questions, or if additional information is required, please do not hesitate to contact me at directly at (312) 948-8436 or davidy@fgmarchitects.com.

Respectfully Submitted,

David B. Yandel, AIA
Principal

XC: Ben Rea, AHPD

Arlington Heights Park District
Olympic Indoor Swim Center Addition and Renovations
660 North Ridge Avenue
Arlington Heights, IL 60005
PC# 18-002

Building & Life Safety Department – Deb Pierce, Plan Reviewer

1. Show the gymnasium addition on Sheet A100.
    a. Petitioner Response: Sheet A100 has been revised to show the gymnasium addition.
2. Provide a Site Plan showing the location of the additions and the distances to the lot lines.
    a. Petitioner Response: Sheet C3 has been revised. The addition footprint edge has been shaded and dimensions have been added.
3. What is the proposed construction type for the additions?
    a. Petitioner Response: Type IIB
4. Provide a height and area calculation for the building including all allowable increases. IBC Section 503.
    a. Petitioner Response: Additional information provided on Sheets G1.0.2 – G1.0.6.
5. Provide an occupant load calculation per floor. Include a calculation to show the provided egress width at each exit.
    a. Petitioner Response: Sheets G1.0.2 – G1.0.6 have been updated to include an occupant load calculation per floor. Egress width at each exit has been indicated.
6. Based on the height of the roof, permanent access to the RTU's is required to be provided.
    a. Petitioner Response: A ladder to the roof has been provided with access through a roof hatch. Please confirm if any additional access is required.

Fire Safety Division, Fire Safety Supervisor

1. All currently adopted codes are required to be followed.
    a. Petitioner Response: Will comply.
2. Fire department connections shall be fully visible and located at the main front entrance of the building and within a minimum travel distance of 100 feet to the nearest fire hydrant.
    a. Petitioner Response: The existing fire department connection has been labeled on sheet C4 and is located on Ridge Avenue just north of the existing entrance behind the bicycle racks. The fire department connection is 91.4 feet from an existing fire hydrant on Ridge Avenue.
3. Buildings or facilities having a gross building area of more than 62,000 square feet shall be provided with two separate and approved fire apparatus access roads.
    a. Petitioner Response: Please clarify comment. Fire apparatus access is available from two locations from Ridge Avenue.
4. A complete NFPA compliant fire suppression system is required. Supervised indicating control valves shall be provided at the point of connection to the riser on each floor.
    a. Petitioner Response: Will comply.

5. An approved water supply capable of supplying the required fire flow for fire protection shall be provided.
    a. Petitioner Response: Will comply.
6. Fire protection equipment and service rooms shall be identified in an approved manner.
    a. Petitioner Response: Will comply.
7. Approved access shall be provided and maintained for all fire protection equipment to permit immediate safe operation and maintenance of such equipment.
    a. Petitioner Response: Will comply.
8. Buildings shall have approved radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building.
    a. Petitioner Response: Will comply.
9. In buildings and structures where standby power is required or furnished to operate an elevator, the operation shall comply with current code requirements.
    a. Petitioner Response: Will comply.
10. A fully functional fire alarm shall be installed per NFPA 72. The alarm annunciator panel shall be located at the front entrance.
    a. Petitioner Response: Will comply.
11. Shop drawings for fire alarm systems shall be submitted for review and approval prior to system installation.
    a. Petitioner Response: Will comply.
12. Visible alarm notification appliances shall be provided in public areas and common areas. A visible exterior weatherproof alarm notification device shall be located within closest proximity to the front main entrance of the building or tenant spaces.
    a. Petitioner Response: Will comply.
13. A zoning indicator panel and the associated controls, or fire alarm control panel shall be located within closest proximity to the front main entrance.
    a. Petitioner Response: Will comply.
14. A key box (Knox Box) shall be provided and contain keys to gain necessary access as required by the fire code official.
    a. Petitioner Response: Will comply.
15. Each location of a fire department communication device shall be an independent zone from the control panel in the fire command room.
    a. Petitioner Response: Will comply.
16. Fire pumps, if provided, shall be installed in accordance with the Fire Code and NFPA 20 and shall comply with all current code requirements including a minimum of two water mains located in different streets.
    a. Petitioner Response: Not applicable.
17. Exit signs shall be illuminated at all times and have emergency power backup.
    a. Petitioner Response: Will comply.

18. In order to be considered part of an accessible means of egress, an elevator shall comply with the emergency operation and signaling device requirements
    a. Petitioner Response: Not applicable
19. Aerial fire apparatus access roads shall have a minimum unobstructed width of 26 feet exclusive of shoulders, in the immediate vicinity of any building or portion of building more than 30 feet in height.
    a. Petitioner Response: The site plan has been updated to provide a 26-foot wide fire lane access road along the west and north side of the proposed building.
20. Buildings shall have approved address numbers.
    a. Petitioner Response: Will comply. Sizes, types, and locations will be reviewed prior to installation.
21. Fire department connections shall be installed in accordance with the NFPA standard applicable to the system design. The location of the fire department connections shall be approved.
    a. Petitioner Response: Will comply. Types and locations will be reviewed prior to installation.
22. Fire department connections shall be located on the street side of buildings, fully visible, and recognizable from the street or nearest point of fire department vehicle access or as otherwise approved a visible location.
    a. Petitioner Response: The existing fire department connection has been labeled on sheet C4 and is located on Ridge Avenue just north of the existing entrance behind the bicycle racks. The fire department connection is 91.4 feet from an existing fire hydrant on Ridge Avenue
23. Signs shall be posted on both sides of an approach of any fire lane stating "NO PARKING – FIRE LANE". Signs shall have arrows indicating the area of parking restriction.
    a. Petitioner Response: Signs have been shown on Sheet C3.
24. Fire lane signs shall be white with red three-inch letters. The dimensions of the sign shall be 12 inches horizontally and 18 inches vertically. These signs shall be installed so that the top of the sign is no less than 6 feet nor more than 6 feet above grade.
    a. Petitioner Response: A detail has been provided on sheet C9.
25. Material Safety Data Sheets (MSDS) for all hazardous materials shall be either readily available on the premises as a paper copy, or where approved, shall be permitted to be readily retrievable by electronic access.
    a. Petitioner Response: Will comply.
26. Individual containers of hazardous materials, cartons or packages shall be marked or labeled in accordance with applicable federal regulations. Buildings, rooms, and spaces containing hazardous materials shall be identified by hazard warning signs in accordance with Section 2703.5.44.
    a. Petitioner Response: Will comply.
27. Persons responsible for the operations of areas in which hazardous materials are stored, dispensed, handled, or used shall be familiar with the chemical nature of the materials and the appropriate mitigating actions necessary in the event of a fire, leak, or spill. Responsible persons shall be designated and trained to be liaison personnel for the fire department.
    a. Petitioner Response: Will comply.

Public Works Department

1. Coordinate the relocation of the existing hydrant (removal and relocation) with the VAHPW Water Distribution Unit at 847-368-5800.
    a. Petitioner Response: Note 18 on sheet C2 has been updated.
2. There should be no spacer between the hydrant and auxiliary valve, change the Fire Hydrant Detail on C10 to reflect this change.
    a. Petitioner Response: Detail on Sheet C10 revised.
3. Replace the existing 4" domestic backflow device. It is obsolete.
    a. Petitioner Response: Will comply.
4. Replace the existing 6" domestic backflow device. It is obsolete.
    a. Petitioner Response: Will comply.
5. Verify the condition of all existing utility structures that we reconnected to, to ensure they don't need replacement.
    a. Petitioner Response: Will comply.
6. Verify the condition of the public sidewalk abutting the project. Correct any structural or ponding water problems.
    a. Petitioner Response: Will comply.
7. All roadway patches shall be 2' wider than the utility excavations for surface course only.
    a. Petitioner Response: The utility trench pavement repair detail on sheet C11 has been updated.

Engineering Department

1. 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.
    a. Petitioner Response: Acknowledged.
2. Provide an engineer's estimate of construction cost for full site improvements to complete the calculation for plan review, inspection, and other fees.
    a. Petitioner Response: An engineer's opinion of probable cost for the base bid project has been completed and issued separately.
3. Final engineering pans shall be georeferenced by using State Plane Coordinate System – Illinois East.
    a. Petitioner Response: Will comply.
4. The proposed detention facility will be a private system and as such will not be the Village's responsibility to maintain. The basin requires a 1-foot freeboard with an overflow weir at the 6" line. Provide calculations for the weir.
    a. Petitioner Response: The detention calculations have been updated and include a Village HWL = 714.70, 40-foot wide grass overflow weir at 715.20, and a perimeter protection level to 716.00. Please refer to the updated drainage report issued separately.

5. The Onsite Utility Maintenance Agreement must be provided prior to the final engineering approval.
    a. Petitioner Response: Please refer to Maintenance Plan listed on sheet C8.
6. According to the Stormwater Management Report, the basin at 1.43 ac-ft of storage, is sized to meet Village detention requirements for the newly disturbed 3.79 acres (1.07 ac-ft of storage) as well as the previously permitted work from 2003 (0.30 ac-ft of storage). Modify the Drainage Exhibit to show the 1.77 ac of tributary area as described in the report. Since the volume for the 2003 project is also included in the new basin, the release rate can be calculated including that area also. Any flow from disturbed area not tributary to the new basin, such as the area east of the new building addition(?), should be considered offsite flow and incorporated into the ultimate release rate calculations.
    a. Petitioner Response: Sheet C8 drainage exhibit and stormwater report have been updated to incorporate the 2003 improvements within the new detention calculations eliminating some of the overlaps of areas. A swale has been added along the east side of the building to collect potential off-site flows.
7. The MWRD release rate being used (0.36 cfs) is much lower than the Village's allowable release rate of 0.18 cfs/acre, which comes to 0.68 cfs for the proposed 3.79-acre project area. Using this low of a release rate will require a larger basin to accommodate the 100-yr storm. Re-run Village detention volume calculations using the lower release rate.
    a. Petitioner Response: We have opted not to use the MWRD Legacy method and have recalculated both the Village and MWRD requirements. Please refer to the updated stormwater management report, issued separately.
8. The storm sewer design does not allow for the first flush to enter the volume control facility. Re-design.
    a. Petitioner Response: The proposed storm sewer system has been disconnected from the existing storm system and the detention basin has been revised to provide for the new improvements to be routed through a pretreatment basin. A portion of the previous detention catchment still uses the existing storm sewer system and bypasses the pretreatment.
9. Modify the fire truck movement exhibit on Sheet C3 to have the vehicle use the drive aisle closest to the building along the west side. Add an exhibit showing the same track going counter-clockwise around the building.
    a. Petitioner Response: An auto-turn exhibit sheet C12 has been added to the plan set to show the requested vehicle movements.
10. Fire lanes adjacent to the building must have a minimum pavement width as directed by the Fire Department to accommodate the tower truck's outriggers. 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.
    a. Petitioner Response: The heavy-duty pavement section has been revised to increase the surface course to 2", but per discussions with the Village the binder course can remain as N-50.
11. The Plat of Survey provided does not show a new public utility easement for the storm sewer that was relocated for the 2003 building expansion. Provide a Plat of Easement that vacates the portion of the existing easement that now goes through the building and dedicates a new easement following the path of the new (2003) storm sewer main around the south side of the building.
    a. Petitioner Response: Will comply.

12. The building addition will encroach upon existing public utility easements north of the existing building. Include required vacations of public easements for the building addition in the Plat of Easement.
    a. Petitioner Response: Will comply.
13. Sheet C3: The parking spaces can be reduced to 16.5' in depth to the face of the curb, allowing for 1.5' of overhang, along curbs adjacent to the grass. Where curbs are adjacent to sidewalks, the same can be done as long as the sidewalk is correspondingly widened 1.5'.
    a. Petitioner Response: Thank you, we have incorporated this into the revised plans as we increased the fire lane aisle.
14. Sheet C3: The proposed work within the Euclid Avenue ROW will require a permit review from the Cook County Department of Transportation and Highways.
    a. Petitioner Response: We concur.
15. Sheet C4: The note for the water main 'tee' says "…install tee with stainless steel mission couplings." Mission couplings cannot be used for water main work. Revise note.
    a. Petitioner Response: Note 18 on sheet C2 and call out note on sheet C4 have been updated.
16. The site development introducing the additional uses besides predominantly swimming activity for this site needs to provide a proposed schedule of programmed and unplanned activities for the building. In the traffic report introductory remarks related to existing attendance to this facility, cited 300 weekday patrons, and 600 weekend visitors to the building were referenced. The projected volumes increasing to 2,424 to 2,998 attendees based upon that base or alternate build proposal is increasing the patronage by 5 to 10 fold. If known programs, classes, activities, leagues, special events, swim meets, etc. could be identified into a theoretical schedule, along with a projected pool usage based upon seasonal fluctuation history, this would clarify building usage and associated traffic demand.
    a. Petitioner Response: To provide clarification, the referenced daily traffic volumes presented in the Traffic Impact and Parking Study represent both entering and exiting vehicles for patrons, staff and drop-off/pick-up operations and are <u>not</u> a direct representation of attendance. For example, for the Single Gym option, there are projected to be 2,424 trips (1,212 entering and 1,212 exiting), which also includes existing traffic at 1,440 on a daily basis (720 entering and 720 exiting).
17. Are the traffic count values provided in the report reflecting the traffic generated from the cross access the Christian Liberty Academy is doing on Park District property, for their morning, lunch, and afternoon pick-up and drop-off functions? What provisions for accident management or liability exists between the two parcels.
    a. Petitioner's Response: Yes, the traffic volumes as presented in the Traffic Impact and Parking Study, include the Christian Liberty Academy (CLA) traffic using the Park District property (turns entering and exiting), as well as through volumes on Ridge Avenue.
18. With the introduction of an additional site driveway north of the proposed building expansion, what does this opening align with on the opposite side of the street? How will the continuing encroachment of Christian Liberty traffic affect this new driveway operation?
    a. Petitioner Response: The new opening north of the building expansion aligns with the north edge of the entry plaza to the CLA gymnasium. There is an access road to the CLA track and athletic field approximately 50 feet north of the new opening.
    b. Petitioner Response: As summarized in the Traffic Impact and Parking Study, both access driveways will operate at acceptable levels of service under future conditions and both

gym options evaluated. As previously noted, the future traffic volumes (to be conservative) assumed continued use of the Park District property by CLA.

19. It is unclear in the report on Exhibit #9 how the breakout for and AADT is being represented in the column "Daily Sum" for clear values representing both weekday and weekend Daily AADT. The tally indicated on the Daily Sum line for existing traffic counts of 1,440/day differs from the tallies stated in #1 above that were provided on page one of the report.

    a. Petitioner's Response: As previously noted, the attendance information differs from the daily trip generations estimates presented in the study. The 1,440 trips per day including both entering and exiting traffic (720 in and 720 out). It includes all staff, patrons, as well as drop-off/pick-up trips. So, if a person in attendance was dropped-off and picked-up, they would represent 4 trips on a daily basis (1 entering and 1 exiting for the drop-off and then 1 entering and 1 exiting for the pick-up).

20. While the report indicates the counts were adjusted for a 0.5% annual growth factor per year and these adjustments are shown at the major intersections, no revisions to the counts into and out of the site seem to have been made.

    a. Petitioner's Response: That is correct. The 0.5% annual compounded growth rate was used to develop background, or ambient, growth in traffic conditions within the study area <u>without</u> the site traffic. Therefore, no adjustments for turning volumes into and out of the site access driveways are performed to develop the No-Build (future traffic volumes without site traffic). The site specific traffic volumes related to the proposed development are then added separately to directly evaluate the impacts associated with the development.

21. Is the use of the soccer field open to the general public anytime or must the field be reserved to be used, or is it just allowed for league or youth soccer games?

    a. Petitioner Response: The field is available for use by the general public outside of reserved times for youth soccer games.

22. The traffic report indicates the existing parking supply is increasing from 191 existing parking stalls to 264 proposed parking spaces, a gain of 73 additional stalls. How many stalls are required based upon Village Code, and is a proposed variation being requested?

    a. Petitioner's Response: Based on Village Code, 128 parking stalls are required for the single gym alternative (32,000 square-foot addition) and 210 stalls are required for the double gym alterative (52,600 square-foot addition). Seventy-five (75) additional stalls are provided; therefore, a variation is being requested.

23. The identification of the intersection levels of service for the intersection of Ridge Avenue at Euclid Avenue suggesting an increase in back-up from 50-60 ft to 180-200 ft in length is not acceptable. Review of the geometric alignment of the north leg to provide a separate right and left/through orientation should be considered, along with signage on Euclid Avenue for not blocking Ridge Avenue.

    a. Petitioner Response: As stated in the Traffic Impact and Parking Study, the future traffic volume projections and corresponding capacity analyses were based on a conservative analysis scenario, as they assumed the continued heavy use of the southern access, as well as heavy distribution to Ridge Avenue to/from Euclid Avenue. The multiple site access alternatives, as well as the adjacent roadway network, i.e., connection of Ridge Avenue to Elm Street which provides connections to Northwest Highway to the west (via Kasper Avenue, Kennicott Avenue, etc.) as well as to Euclid Avenue to the east (via Walnut Avenue, Chestnut Avenue, etc.), offer site flexibility. It is anticipated that should there be significant queuing on Ridge Avenue, vehicles will choose to use the adjacent roadway network to find the quickest, most direct route to/from their origin/destination.

b. Accordingly, it is recommended that the traffic be evaluated after construction/opening of the expanded facility to determine if the additional mitigation measures (widening for turn lane separation on Ridge Avenue southbound at Euclid Avenue and/or signing on Euclid Avenue) is warranted.

24. The parking stall analysis that concludes that the required on-site parking demand for Saturdays is anticipated to be lower than weekday demand for fitness center use by up to 40% needs to be explained and sourced for reference to defend this statement. There is no basis upon which a reduction for not only the gymnasium, but proposed classes, multipurpose rooms, walking track, that has been provided.

    a. Petitioner's Response: The Traffic Impact and Parking Study has been updated to provide additional clarification and estimates using the ITE Parking Generation rates for the proposed expansion.

25. The site lighting photometric plan must be presented at a larger scale that is legible, along with catalog cuts of all exterior lighting fixtures pole mounted in the parking lot, or mounted onto the building. Fixtures shall be 'Dark Sky' compliant.

    a. Petitioner's Response: See revised site lighting photometric plan and attached copy of catalog cut sheets for the exterior pole mounted light fixtures.

Fire Department – Lt. Mark Aleckson

1. The building is to be sprinklered.

    a. Petitioner Response: Will comply.

2. The Fire Department Connections (FCD) is to be clearly visible, easily accessed, and located at the main front entrance.

    a. Petitioner Response: Per Fire safety notes 2 and 22 above, the intent is to use the existing fire department connection located on Ridge Avenue.

3. A fire hydrant is to be located within 100' of the Fire Department Connection.

    a. Petitioner Response: Will comply. The existing fire hydrant is 91.4 feet from the existing fire connection.

4. A Knox Box is to be located at the main front entrance.

    a. Petitioner Response: Will comply. Final location to be reviewed.

5. A fully operational annunciator panel or alarm panel is to be located at the front door.

    a. Petitioner Response: Will comply. Final location to be reviewed.

6. Reference 2009 International Fire Code – Section 503 and Appendix D for fire lane expectations.

    a. Petitioner Response: Will review.

Community Services Bureau – Brandi Romag, Crime Prevention Officer

1. Character of Use: The character of use is consistent with the area.
    a. Petitioner Response: Acknowledged.
2. Are lighting requirements adequate? Lighting should be up to the Village of Arlington Heights Code. Special attention should be given to those outside common areas, playgrounds, and surrounding areas, parking lots, areas around the building – especially entries/exits. These areas should be illuminated specifically during hours of darkness for safety, to deter criminal activity, and increase surveillance/visibility – potentially reducing theft, trespassing, vandalism, and other criminal activity. Landscaping should provide open sightlines to increase natural surveillance and avoid creating ambush locations and havens for illegal activities – theft, trespassing, vandalism, underage drinking, drug use, etc.
    a. Petitioner Response: Acknowledged.
3. Present traffic problems? The addition of a driveway around the exterior of the building should alleviate traffic issues.
    a. Petitioner Response: Acknowledged.
4. Traffic accidents at particular location? This is not a problem area in relation to traffic accidents.
    a. Petitioner Response: Acknowledged.
5. Traffic problems that may be created by the development. This development should not create any additional traffic problems.
    a. Petitioner Response: Acknowledged.
6. General Comments:
    a. Please ensure that there is an emergency information / contact card on file with the Arlington Heights Police Department and that is up to date. Agent contact information must be provided to the Arlington Heights Police Department during all construction phases. The form is attached. Please complete and return. This allows police department personnel to contact an agent during emergency situations or for suspicious/criminal activity on the property during all hours.
        i. Petitioner Response: Will complete and return form.
    b. It appears there is a fence around the playground. If this area is for park district patron use only during business hours – any access gates to this area should be locked, secured nightly to reduce unauthorized access – i.e. theft, trespassing, vandalism, underage drinking, etc. – to the area after hours. Consider installing a fence higher than 4 feet, one that allows natural surveillance of the property but limits access to unauthorized patrons.
        i. Petitioner Response: The park and playground is open to all residents during normal hours. The fence is primarily to prevent children from entering the adjacent parking areas.
    c. Access control to the building and/or classroom areas must be considered. Consider numbering the exterior doors.
        i. Petitioner Response: Access control is under consideration. Exterior doors can be numbered.

d. The desks adjacent to the two vestibule entrances to the facility should be staffed during business hours to monitor people entering and leaving the building, if both doors are to remain used as facility entrances.

    i. Petitioner Response: The new main entrance to the facility is located on the west side of the building and this desk will be staffed during normal business hours. The existing entrance will be used on a limited basis for special events and this desk is being renovated as part of the staff offices.

e. The babysitting area doorway is immediately adjacent to an entrance into the facility, consider moving that area (around the corner) or moving the doorway so that is not so close to the entrance.

    i. Petitioner Response: Will review. Doorway is currently located directly across from the main desk to maintain line of sight.

f. The addition of Trespass signage is recommended. Consider posting no trespassing / loitering / no un-authorized use signage. The Arlington Heights Police Dept. has and utilizes trespass warning forms under qualifying circumstances when requested by property management.

    i. Petitioner Response: Will consider.

Health Services Department – Sean Freres, LEHP, Environmental Health Officer and James McCalister, Director

1. See attached accessibility comments.
    a. Petitioner Response: See responses.
2. Building permit plans must comply with the attached Food Service Plan Review Requirements.
    a. Petitioner Response: No food service is being proposed for this facility.

Accessibility – David Robb, Disability Services Coordinator

1. Relocate these ADA Reserved Parking Spaces furthest away from the designated accessible route and curb ramp to those parking spaces that are closest to the designated accessible route and curb ramp. Per IAC Sections 400.310(c)(2) and (a)(1)(A).
    a. Petitioner Response: The parking stall locations have been updated. It is proposed to keep the one space closest to the athletic fields, as originally shown.

Planning & Community Development Department – Sam Hubbard

1. Complies with Comprehensive Plan – Yes.
2. Complies with Thoroughfare Plan – Yes
3. Variations Needed from Zoning Regulations – Yes
4. Variations Need from Subdivision Regulations – No
5. Subdivision Required? – No
6. School / Park District Contribution Required? – No

General:

7. The following approvals are needed:
    a. Amendment to PUD Ordinances #78-19 and #03-036 to allow a building addition and site changes on the subject property.
    b. Special Use Permit to allow a "Community Center, Recreation Building".
8. Please provide a written justification for the required Special Use Permit addressing each of the approval criteria outlined below:
    a. That said special use is deemed necessary for the public convenience at this location.
        i. Petitioner's Response: The proposed renovations to the Olympic Indoor Recreation Center present a unique opportunity for the Park District to provide the residents of Arlington Heights with a one stop fitness experience located in the center of town. The proposed facility enhancements provide additional aquatic opportunities, an indoor walking/running track, fitness center, and two additional programming spaces, all providing residents a means to improve their health.
    b. That such case will not, under the circumstances of the particular case, be detrimental to the health, safety, morals or general welfare of persons residing or working in the vicinity.
        i. Petitioner's Response: The proposed renovations will not be a detriment to residents living adjacent or near the center. The park district held three public meetings and is proposing a design that best meets the needs of not only the immediate residents, but the entire community.
    c. That the proposed use will comply with the regulations and conditions specified in this ordinance for such use, and with the stipulations and conditions made a part of the authorization granted by the Village Board of Trustees.
        i. Petitioner's Response: The proposed improvements and use of the Olympic Recreation Center will comply with the regulations, conditions, and stipulations set forth by the Village Board of Trustees upon project authorization.
9. The following variations have been identified:
    a. Variation to Section 11.4, Schedule of Parking Requirements, to reduce the required amount of off-site parking from __ spaces to 264 spaces. The extent of this variation will be determined once detailed information on the size of the interior spaces has been provided.
10. Please provide a written justification for the required variation addressing each of the hardship criteria outlined below:
    a. That 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.
        i. Petitioner's Response: The Park District desires to maintain as much green space as possible. The additional parking spaces required per Village ordinance would restrict the park district's ability to maintain green space and further impact the present use of the park site. In addition, the Park District will coordinate facility programming to prevent multiple large participant events from occurring at the same time.
    b. The plight of the owner is due to unique circumstances.
        i. Petitioner's Response: The Park District is striving to meet the needs of the adjacent residents as voiced in the public meetings. The requirement of additional parking spaces would place parking closer to adjacent homes and would negatively impact their views or experience in relation to the park site.

c. The variation, if granted, will not alter the essential character of the locality.

i. Petitioner's Response: If granted, the variation will improve the character and appearance of the site by allowing additional greenspace to be maintained.

11. Has a meeting with the surrounding neighborhood been held? If so, please provide a summary of the meeting. If not, a neighborhood meeting will be required prior to appearing before the Plan Commission and a summary of the meeting (attendance, date/time/location, record of topics discussed and concerns raised by the residents) must be provided for staff.

a. Petitioner's Response: Meetings / Open Houses were held with the community on three separate dates and times, to get a broad overview of patrons and to provide neighbors and opportunity to attend. Meetings / Open Houses were held on 12/3/17, 12/5/17 and 12/6/17. In addition, this project was discussed and open comments received at the Arlington Heights Park District Board Meetings on 12/12/17 and 1/9/18. Copies of the comments received are attached for information and reference.

12. Please provide catalog cut sheets for all proposed light fixtures within the parking area, as well as all proposed building mounted light fixtures.

a. Petitioner's Response: Will comply.

13. Please outline the total number of future employees in both the base bid and alternate bid scenario (only current number of employees was provided).

a. Petitioner's Response: For both the base bid (single gym) and alternate bid (double gym), there will be 2 additional full-time employees. The total number of full-time and part-time employees is summarized as follows.

i. Full Time:

1. Current – 4

2. Future – 6

ii. Part Time:

1. Current – 75

2. Future – 125

iii. Maximum present at one time:

1. Current – 25

2. Future – 35

14. Please outline the maximum number of staff that will be working within the proposed nursery at any one time.

a. Petitioner's Response: The maximum number of staff in the babysitting area will be two (2).

15. The Wheeling Township Assessor's office has been provided with information on the proposed development and has compiled a list of all PIN #'s of property within 250' of the subject property. Please obtain the list from the Assessor's office and prior to looking up the addresses associated with each PIN, please provide the list to me so that I can double check to ensure that all necessary PIN's have been included on the list. In addition, please note that when the mailing is sent out, it must go to the taxpayer of record of each PIN, and not to the actual property address of the PIN.

a. Petitioner's Response: Will comply.

16. Please ensure that all plans and/or studies to be resubmitted as a result of the Round 1 Department review comments include a revision date.

a. Petitioner's Response: Will comply.

Site Plan:

17. Please revise Sheet C3 of the civil plans to include the below Zoning Matrix table and fill in all data that is missing and verify that the data included on the chart is accurate.
    a. Petitioner's Response: The zoning matrix has been added to the plans.
18. Please provide details for all proposed fences.
    a. Petitioner's Response: Please refer to sheet C11 for the respective fence details.
19. Provide parking space width dimensions within all proposed parking rows.
    a. Petitioner's Response: Will comply.
20. Within the northernmost parking row, it appears a variation is needed for a landscape island that does not contain a shade tree (where pedestrian path leads from the building to safety town). Please find a way to add the required shade tree to the parking lot island or clarify if a variation is requested (and provide the necessary response to the hardship criteria).
    a. Petitioner's Response: See revised plan. The island has been enlarged and a shade tree has been added.
21. There is a small existing 8' x 10' concreate area adjacent to the sidewalk in the southwest corner of the site. It is unclear why this concrete area is necessary. Please remove this area and replace it with greenspace. Additionally, the outline of the former asphalt driveway entrance along Euclid, although proposed for removal, still appears on all site plans. Please add a note to the demolition plan that clarifies this area will be returned to greenspace and remove the outline from all other plans (both civil and landscaping).
    a. Petitioner's Response: It appears that this was an old portion of the original sidewalk into the project site that was not removed during a past project. The plans have been updated to remove this portion of the sidewalk since we are pursuing a permit with CCHD for the driveway removal.
22. Other than the transformer proposed on the east side of the building and the rooftop mechanical units, are any above ground utility or mechanical units proposed on the site (HVAC equipment, generators, utility pedestals, transformers, etc.)?
    a. Petitioner's Response: A temporary electrical transformer will be required during the construction phase of the project and will be located near the northeast corner of the existing building. The gas meter is proposed to be relocated from the north side of the existing building to the northeast corner of the existing building. An emergency generator will be located within the enclosure on the east side of the building. No additional above ground utility or mechanical units are proposed.

Building:

23. A Design Commission appearance is required for the proposed improvements. Appearance before the Design Commission has been tentatively scheduled for February 13th.
    a. Petitioner's Response: Understood.
24. Will the building addition incorporate any new basement areas? If so, a proposed basement plan shall be provided.
    a. Petitioner's Response: There is no new basement area as part of the addition. The existing basement plan has been provided for reference.
25. Please revise the floor plans to assign room numbers to each space/room within the existing and proposed building. For all rooms/spaces (both existing and proposed), provide a separate table with the square footage of each space and the corresponding occupancy calculation and maximum occupant load per building code standards.

a. Petitioner's Response: Additional information provided on Sheets G1.0.2 – G1.0.6.

26. Provide the square footage and maximum bather load for each existing and proposed pool per IPHD standards.

    a. Petitioner's Response: Additional information provided on Sheets G1.0.2 – G1.0.6.

27. Are there any bleachers within the facility? Please provide occupancy calculations for all bleacher areas.

    a. Petitioner's Response: There are existing bleachers in the main pool area that will remain unchanged. There are bleachers planned for the gymnasium(s). The occupancy count for the facility, including existing the pool, gymnasium, and associated bleachers, will be provided based on final selections.

28. Please revise the elevations to provide a value for the areas labeled "EQ" so that overall height can be determined. The elevations should include a height dimension for the overall height of the building as measured at its tallest point, including measurements to both the roofline and top of parapet wall (if applicable).

    a. Petitioner's Response: Will comply.

29. Where will the electric and gas meters be located on the building? Has landscaping been incorporated to screen these elements?

    a. Petitioner's Response: See above and responses to landscape comments below. Above ground equipment will be screened in accordance with requirements.

Traffic/Parking:

30. How will the dump truck access the proposed trash enclosure area along the eastern elevation? It appears that the dump truck will need to utilize the public street for turning movements to back up into the trash enclosure space.

    a. Petitioner's Response: The current understanding is that garbage and recycling trucks will pull forward into the driveway, roll out trash and recycling containers to the front of the truck, complete the disposal, and then back out of the driveway.

31. The traffic study has a gap within the programing/swimming pool usage between 3:00pm-4:00pm. How are the pools used during this time?

    a. Petitioner's Response: There is currently no formal programming or future plans for programming during that timeframe, other than drop in use for the pools, fitness center or gym. Parents are typically picking-up kids at that timeframe, so it is scheduled as "down time".

32. Per the recently adopted bicycle parking ordinance, 2% of the overall building occupancy shall be used to determine the required number of bicycle parking spaces. Please provide the overall building occupancy to calculate the required bicycle parking spaces. Additionally, please note on the site plan how many bicycle parking spaces exist along the eastern side of the building (1 post = 2 spaces) and clarify how many are proposed along the western side of the building.

    a. Petitioner's Response: The current occupancy count and bicycle parking counts are as follows:

        i. Base Bid: 1,316 occupants x 0.02 = 26.32 (27 bicycle parking spaces required)

        ii. Alternate Bid: 1,534 occupants x 0.02 = 30.68 (31 bicycle parking spaces required)

    b. There is a total of 26 bicycle parking posts proposed, including 17 existing and 9 new. This provides a total of 52 bicycle parking spaces.

33. Please revise the projected future parking demand to be based on the ITE parking generation rates per the proposed uses and not per the Village parking requirement. Additionally, the future parking demand did not factor in the proposed warm water pool.
    a. Petitioner's Response: The Traffic Impact and Parking Study has been revised to project future parking demand for the proposed uses based on the ITE Parking Generation rates, including the Warm Water Pool demand.
34. If a parking deficit is projected during peak times, please provide a strategy for where these cars will park (assuming that scheduling conflicts for major events cannot be avoided). No analysis was included outlining how many spaces are available within the surrounding street network.
    a. Petitioner's Response: Overflow parking is anticipated to occur within the adjacent roadway network on-street parking supply, should it be necessary. There are currently no viable options (via existing agreements) or public parking lots within an acceptable walking distance to accommodate overflow parking. The Traffic Impact and Parking Study has been updated to include an estimate of the available parking supply within the surrounding street network.

Landscape Comments

1. The ends of all parking rows and every twenty spaces must include a landscape island which contains a 4" caliper shade tree. (Chapter 28, section 6.15-1.2b). Increase the size of the proposed trees from 3.5 inch to 4- inch caliper. In addition, provide trees in islands where the trees are absent.
    a. Petitioner Response: Sizes of trees revised to 4-inches. Request variance for existing row of parking that was originally 20 spaces and is now 21 and 22 spaces as a result of the reconfigured parking lot and drive aisles. The parking to the west is less than 20 spaces and the overall layout meets the intent of the ordinance.
2. Per Chapter 28, section 6.15 a three foot high screen must be provided adjacent to parking areas along the public right of way. Infill or provide the code required screen where it is absent. The landscaping should not obstruct site lines.
    a. Petitioner Response: See revised landscape plan.
3. Provide additional landscaping adjacent to the parking lot expansion on the west and north in order to buffer parking area from the residential district.
    a. Petitioner Response: See revised landscape plan. A berm with landscaping is provided on the west of the parking lot and additional landscaping is provided on the north.
4. Per Chapter 28, Section 6.15-3 landscaping is required along the perimeter of the detention basin. Provide landscaping along Salem Avenue. In addition, indicate the proposed seed mix for the floor of the basin.
    a. Petitioner Response: See revised landscape plan, including proposed seed mix.
5. Any utility meters or mechanical units must be screened with landscaping or another appropriate method of screening. Identify the size and species of the proposed landscaping adjacent to the trash area along Ridge Avenue.
    a. Petitioner Response: See revised landscape plan.
6. Please provide a detailed planting plan and indicate the proposed species.
    a. Petitioner Response: See revised landscape plan.

END OF COMMENTS

Village of Arlington Heights
Building & Life Safety Department

Interoffice Memorandum

To: Sam Hubbard, Development Planner, Planning and Community Development

From: Deb Pierce, Plan Reviewer, Building & Life Safety Department

Subject: 660 N Ridge Ave – PUD Amendment, Parking Variation

PC#: 18-002 - Round 2

Date: February 22, 2018

Sam:

I have reviewed the documents submitted for the above referenced project and offer the following comment:

1. The elevator in the new addition shall be provided for fire department emergency access to all floors. The elevator car shall be of such a size and arrangement to accommodate an ambulance stretcher in its horizontal, open position, provided the cab size shall be not less than **60 inches by 85 inches**, to accommodate an ambulance stretcher in its horizontal, open position; and shall be identified by the International Symbol for emergency medical services (Star of Life). The Symbol shall be not less than 3 inches high and shall be placed inside on both sides of the hoist way door frame.

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PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

Village of Arlington Heights, IL
Department of Building & Life Safety

Fire Safety Division

Date: 2/19/2018 P.C. Number: 18-002 Round 2

Project Name: Arlington Heights Park District

Project Location: 660 N Ridge

Planning Department Contact: Sam Hubbard, Planning and Community Development

General Comments:

The information provided is conceptual only and subject to a formal plan review.

1. No additional comments.

Date February 19, 2018

Reviewed By: _____
Fire Safety Supervisor

Village of Arlington Heights
Public Works Department

Memorandum

To: Sam Hubbard, Planning and Community Development

From: Cris Papierniak, Assistant Director of Public Works

Date: February 21, 2018

Subject: 660 N Ridge Ave, P.C. #18-002 Round 2

Regarding the proposed PUD Amendment, PW has the following comments:

1. The proposed construction is acceptable.

   VAHPW has no further comments at this time.

VAHPW has no further comments at this time.

C: File

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PLAN COMMISSION PC #18-002
Arlington Heights Park District - Olympic Park Redevelopment
660 N. Ridge Ave.
PUD Amendment, Parking Variation
Round 2 (Amended)

These amended comments include comments about the Traffic Impact and Parking Study, which was provided for review after the original Round 2 comments were completed:

26. The response by the petitioner to comments #1-4, 6-10, 12-15, 17, 18, 21 & 25 are acceptable.

27. The response provided by the petitioner to Comment #5 is not acceptable. An Onsite Utility Maintenance Agreement must be provided prior to final engineering approval. The Maintenance Plan on Sheet C8 only covers the items associated with the stormwater management facilities. The Park District has provided OUMA's for multiple previous projects.

28. The response provided by the petitioner to Comment #11 is noted. Attached for reference is the Plat of Easement Checklist. A Plat of Easement and Abrogation showing everything on one plat is acceptable.

29. The response provided by the petitioner to Comment #16 is not satisfactory. The reply provided is confusing and does not give a clear demarcation of site generated traffic. From the response, the ADT volumes in the traffic report only represent actual manual or traffic counter data for arrivals and depatures of visitors, staff, and drop off and pick up activity into the property, is that correct? Please address the following comments:

    a.) The report originally indicated 300 weekday attendees and patrons, what ADT does this result in for trip generation? For the 600 weekend attendees and patrons what ADT does the current site generate? What would be the calculated ITE daily traffic from this facility for both weekday and weekend ADT's based upon just the total 42,500 square footage of the existing building today?
    b.) Based upon the proposed new build out, what would the proposed trip generation for this facility for both weekday and weekend ADT's be based upon the ITE values, for just the proposed gross square footage of the facility, (for the one gym and two gym alternates)?
    c.) The response to the previous comment indicates that based upon the statement above, for the single gym option there are projected to be 2,424 daily trips (1212 in and 1212 out). The way the sentence is worded, my understanding of the numbers is; 2,424 total trips, 1,440 partial trips generated from other portions of the facility, (i.e. the trips generated by the 300 weekday attendees, employees, & patrons 'plus' the drop-off and pick-up's occurring, is this correct?). The resulting 984 partial trips are the remaining trips generated by the gym use, is this correct? Although the report says the value doubles if both gyms, (i.e. other basketball floor) are added. However reducing the total ADT of 2,998, by the 1,440 trips, (existing weekday patron traffic) leaves 1558 trips generate for the two gym proposal rather than 1968, (984 X 2)? Are there any values being projected based upon performance at another facility, (i.e. Pioneer Park, or Camelot Park gym), or are they based solely upon ITE projections?
    d.) Is this projection of adding these additional gyms, not formally allotted for within the ITE Recreational Community Center, (495) land use code?
    e.) The last time a comment was made we specifically requested a table of scheduled events, projected staff counts and programed activities, or special use areas, to help assess a more refined trip generation value for this sports complex.

30. The response provided by the petitioner to Comment #19 is not satisfactory. A breakout for both weekday and weekend AADT must be provided for site generated traffic. However, if more events, basketball youth leagues, or nightly men's leagues will escalate the ITE projections, or other data available based

upon other AHPD facilities that augments or gives more detailed values based upon facility use that may be provided as well. If possible, the distinction between 'attendee' and 'generated trips', (i.e. employees, patrons driving themselves/family and staying, and a value of drop-off & pick-up double counting should be provided.) If there is information that could help define this from other facilities in the district, such a Pioneer or Camelot Park for this drop-off and pick-up trip generation verses cars that just come in and out once, that would be helpful.

31. The response provided by the petitioner to Comment #20 is not satisfactory. The count data provided in Exhibit 7 showing a 0.5% per year growth rate has been indicated for 'through' traffic volumes. However, it does not appear to have been applied to turning movements at the Ridge and Euclid Avenues intersection. The data at the Ridge and Elm intersection, is similarly affected on three legs at that location, and the counts in into the site driveway show a reduction in the 2024 'No Build' condition.

32. The response provided by the petitioner to Comment #22 is not satisfactory. It is unclear if the evaluation of the parking count total that builds upon the previous variation that permitted the required parking to be reduced by 127 parking stalls should be the starting point since the capacity of the lot is being exceeded. Based upon the total site Village code required parking with no variation would be 446 stalls for the one gym alternative, and 528 stalls for the double gym proposal. The 246 parking stalls proposed only provides 59% of the parking for a one gym design, and 50% of the parking for the 2 gym proposal.

33. The response provided by the petitioner to Comment #23 is not satisfactory. The suggestion that southbound traffic has the alternative to circulate northerly out of this site to Elm Street to gain access to Northwest Highway or Euclid Avenue is unacceptable. These neighborhoods north, west, and east should not have to be negatively impacted by site generated traffic that detours because one of the routes traffic distributes to has capacity limitations. The other more poignant topic is that the anticipated backup for southbound Ridge Avenue traffic at Euclid Avenue is going to block both inbound and outbound traffic with a 3-4 car queue. The provision in the ordinance for evaluation once the facility is open and fully functioning, and based upon a lower level of service at the Ridge Avenue and Euclid Avenue intersection, and measures to improve capacity should include participation by the Park District.

34. The response provided by the petitioner to Comment #24 is not satisfactory. Table 3 in the Traffic Impact and Parking Study indicates a severe shortfall for weekday required parking, and interpolates a Saturday parking rate, that seems too low, especially based upon the existing observed parking occupancy in the lot currently. Does this Saturday rate make allowances for the influx of the parking resulting from swim meet events? The magnitude of the parking variation requested provides no concrete contingency plan to manage overflow, should the proposed number of stalls being provided prove to be inadequate. Areas of the site that could support land-banked parking to expand into should be identified, or other parking concepts proposed to compensate for future deficiencies. Do not include the 15 parking stalls along Salem Avenue. The west side of Ridge Avenue between Euclid Avenue and Vine Street has an existing ordinance restricting Parking, and the 12 stalls between Vine and Elm Streets should also not be identified for spillover parking to offset the on-site parking lot parking deficiencies.

3/2/18

James J. Massarelli, P.E. Date
Director of Engineering

Attachments: Plat of Easement Checklist (2 pages)

Plat of Easement Checklist

- Legal description of proposed easement area
- Owner's Certificate
- Notary signature block
- Surveyor's Certificate
- Village Board signature block
- Village Collector signature block
- Director of Engineering signature block
- Utility signature blocks
- Easement Provisions

Sample Village signature blocks:

Under the authority provided by 65 ILCS 5/11-12 as amended by the State Legislature of the State of Illinois and Ordinance adopted by the Village Board of the Village of Arlington Heights, Illinois, this plat was given approval by the Village of Arlington Heights AND MUST BE RECORDED WITHIN SIX MONTHS OF THE DATE OF APPROVAL BY THE VILLAGE BOARD, OTHERWISE IT IS NULL AND VOID.

APPROVED by the Village Board of Trustees at a meeting held

_____ , 20__

By: _____
Village President

Attest:_____
Village Clerk

APPROVED by the Village Collector on _____, 20__

_____

APPROVED by the Director of Engineering on _____, 20__

_____

Sample utility signature blocks:

COMMONWEALTH EDISON COMPANY
EASEMENT APPROVED AND ACCEPTED

BY: _____ DATE: _____, 20__

TITLE: _____

AMERITECH/SBC
EASEMENT APPROVED AND ACCEPTED

BY: _____ DATE: _____, 20__

TITLE: _____

NICOR GAS
EASEMENT APPROVED AND ACCEPTED
BY: _____ DATE: _____, 20__

TITLE: _____

COMCAST CABLE
EASEMENT APPROVED AND ACCEPTED

BY: _____ DATE: _____, 20__

TITLE: _____

WIDE OPEN WEST, LLC
EASEMENT APPROVED AND ACCEPTED

BY: _____ DATE: _____, 20__

TITLE: _____

Arlington Heights Fire Department
Plan Review Sheet

P. C. Number 18-002

Project Name Olympic Park Redelevopment

Project Location 660 N. Ridge Ave

Planning Department Contact Sam Hubbard

General Comments

Round 2

The Fire Department as no additional comments at this time.

NOTE: PLAN IS CONCEPTUAL ONLY SUBJECT TO DETAILED PLAN REVIEW

Date February 19, 2018 Reviewed By: LT. Mark Aleckson

Arlington Heights Fire Department

ARLINGTON HEIGHTS POLICE DEPARTMENT

Community Services Bureau

DEPARTMENT PLAN REVIEW SUMMARY

Olympic Park Redevelopment
660 N Ridge Ave.
PC #18-002

Round 2 Review Comments **02/22/2018**

1. **Character of use:**
   Nothing Further.

2. **Are lighting requirements adequate?**
   Nothing Further.

3. **Present traffic problems?**
   Nothing Further.

4. **Traffic accidents at particular location?**
   Nothing Further.

5. **Traffic problems that may be created by the development.**
   Nothing Further.

6. **General comments:**
   Nothing Further.

#272

Brandi Romag, Crime Prevention Officer
Community Services Bureau

Approved by:

#557

Supervisor's Signature

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FEB 23 2018
PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

Village of Arlington Heights
Health & Human Services Department

Memorandum

To: Sam Hubbard, Development Planner

From: Sean Freres, Environmental Health Officer

Date: February 20, 2018

Re: PC# 18-002. AHPD Olympic Park, 660 N. Ridge Ave. Round 2

- No comments from Health & Human Services at this time.

Planning & Community Development Dept. Review

March 6, 2018

REVIEW ROUND 2

Project: Olympic Park PUD Amendment – 660 N. Ridge Ave.

Case Number: PC 18-001

General:

35. The responses to comments #7, #8, #10, #12-#17, #19-#21, #23-#28, and #30-#32 are acceptable.

36. The response to comment #9 is noted. Based on the floor plan data, the parking variation has been clarified as outlined below:
    - **Variation to Section 11.4, Schedule of Parking Requirements, to reduce the required amount of off-site parking from 757 spaces to 266 spaces.**

37. The response to comment #11 is noted, however, no summary of the issues brought up at each neighborhood meeting was provided. In addition, please outline how the public was made aware of these meetings (individual invitations sent?). Also, please clarify who was invited (i.e. were all property owners within 250' of Olympic Park sent and invitation for the neighborhood meetings?).

38. The response to comment #18 is noted. However, there are inconsistencies between the civil plans, landscape plans, and floor plans/elevations relative to the outdoor storage area at the southwest corner of the building. The civil plans show this area as entirely paved with normal heavy duty pavement and a fence around the perimeter (will this fence be the same as the 48" tall fence around the playground?). The landscape plan appears to show some sort of specialty paving in this area. The architectural plans show an 8' tall wall with a door that encloses a portion of this area, which wall and door is not reflected on either the civil or landscape plans. Please clarify what is proposed in this area. Additionally, please confirm what is stored in this area and whether the items stored (which items I assume would be inside of the 8' tall solid walls as opposed to the 48" tall fence) will be completely screened by the 8' tall walls.

39. The response to comment #29 is noted. Will landscaping screen the utility meters on the northeast side of the building? If not, additional landscape plantings should be added.

40. The response to #33 is noted. Staff notes that under the "alternate bid" (double gym) scenario, the projected parking demand exceeds supply and relies on street parking to meet demand. Please identify areas on site where landbanked parking could be constructed, and provide a plan showing how this parking would be constructed. A condition of approval may be recommended to the Plan Commission that would require landbanked parking (as indicated on the plan that you will prepare) be constructed at the request of the Village should it be determined that a parking shortage exists on the property.

41. Based on the traffic study, queued cars are expected to block access into the southern driveway entrance during peak times. One solution proposed in the traffic study was that automobile traffic may opt to use the northern access point for ingress/egress to the site if the southern access point is blocked, another solution was to post "Do Not Block" signage by the southern driveway. Please evaluate the possibility for a Right-in/Right-out only orientation for the southern driveway, which would eliminate the potential for inbound stacking at this location.

42. The traffic study also contemplates the potential widening of southbound Ridge Avenue at Euclid from one lane to two lanes, with a shared through/left turn lane, and a separate right turn lane. If traffic still opts to use the southern driveway entrance, and if a "Do Not Block" sign is ineffective, the Park District will be required to propose and implement a solution, for review and approval by the Village. Such solution could be through a right-in/right-out re-orientation of the southern driveway entrance, or potentially, the Village may require the widening of Ridge Ave., at the cost of the Park District, to address the problem.

Prepared by: _____

Olympic Swim Addition
660 N. Ridge Avenue
PC 18-002
March 5, 2018

Landscape Comments

1) Provide three foot high shrubs in the northeast corner within the landscape island in order to buffer the parking area. Pursuant to Chapter 28, Section 6.15, a three foot high screen is required adjacent to parking areas along the public right of way.

2) Adjacent to the parking lot expansion on the north side please substitute the proposed Dogwood and Nine Bark shrubs with a six foot high evergreen. In addition, extend the screen to the east towards Ridge Avenue. Per Chapter 28, Section 6.15 such screening for a parking area shall be six feet high if adjoining a residential district and the screen shall provide year round opacity.

FGM ARCHITECTS

March 9, 2018

Sam Hubbard
Development Planner
Village of Arlington Heights
33 S. Arlington Heights Road
Arlington Heights, IL 60005

RE: Arlington Heights Park District
Olympic Indoor Swim Center Addition and Renovations
660 North Ridge Avenue
Arlington Heights, IL 60005
PC# 18-002

Dear Mr. Hubbard,

Please find attached a copy of the comments and initial responses from the Arlington Heights Park District (AHPD) and FGM Architects for the project referenced above. We are continuing to refine and update Item 12: Traffic Study and will submit under separate cover as soon as possible.

If there are any questions, or if additional information is required, please do not hesitate to contact me at directly at (312) 948-8436 or davidy@fgmarchitects.com.

Respectfully Submitted,

David B. Yandel, AIA
Principal

XC: Ben Rea, AHPD

Arlington Heights Park District
Olympic Indoor Swim Center Addition and Renovations
660 North Ridge Avenue
Arlington Heights, IL 60005
PC# 18-002
March 9, 2018

Building & Life Safety Department – Deb Pierce, Plan Reviewer

1. The elevator in the new addition shall be provided for fire department emergency access to all floors. The elevator car shall be of such as size and arrangement to accommodate an ambulance stretcher in its horizontal, open position, provided the cab size shall be not less than 60 inches by 85 inches, to accommodate an ambulance stretcher in its horizontal, open position; and shall be identified by the International Symbol for Emergency Medical Services (Star of Life). The symbol shall be not less than 3 inches high and shall be placed on both sides of the hoistway door frame.

    a. **Round 2 Petitioner Response: There are currently two (2) elevators in the existing building that serve the First Floor and Basement Level. The passenger elevator does not currently comply with the size requirements above and a variance will be requested. The freight elevator is sized accordingly but is not in full compliance with the requirements above and is not intended for everyday use. The new passenger elevator will serve the First Floor and Second Floor and will be in compliance with the requirements outlined above.**

Fire Safety Division, Fire Safety Supervisor

1. No additional comments.

    a. **Round 2 Petitioner Response: Acknowledged.**

Public Works Department

1. The proposed construction is acceptable. VAHPW has no further comments at this time.

    a. **Round 2 Petitioner Response: Acknowledged.**

Engineering Department

1. 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.

    a. Round 1 Petitioner Response: Acknowledged.

    b. **Round 2 Petitioner Response: Response above is acceptable to VAH.**

2. Provide an engineer's estimate of construction cost for full site improvements to complete the calculation for plan review, inspection, and other fees.

    a. Petitioner Response: An engineer's opinion of probable cost for the base bid project has been completed and issued separately.

    b. **Round 2 Petitioner Response: Response above is acceptable to VAH.**

3. Final engineering pans shall be georeferenced by using State Plane Coordinate System – Illinois East.

a. Petitioner Response: Will comply.

b. Round 2 Petitioner Response: Response above is acceptable to VAH.

4. The proposed detention facility will be a private system and as such will not be the Village's responsibility to maintain. The basin requires a 1-foot freeboard with an overflow weir at the 6" line. Provide calculations for the weir.

   a. Petitioner Response: The detention calculations have been updated and include a Village HWL = 714.70, 40-foot wide grass overflow weir at 715.20, and a perimeter protection level to 716.00. Please refer to the updated drainage report issued separately.

   b. Round 2 Petitioner Response: Response above is acceptable to VAH.

5. The Onsite Utility Maintenance Agreement must be provided prior to the final engineering approval.

   a. Petitioner Response: Please refer to Maintenance Plan listed on sheet C8.

   b. Round 2 Petitioner Response: The Onsite Utility Maintenance Agreement (OUMA) will be provided to VAH under separate cover. A sample has been provided to the Petitioner by VAH.

6. According to the Stormwater Management Report, the basin at 1.43 ac-ft of storage, is sized to meet Village detention requirements for the newly disturbed 3.79 acres (1.07 ac-ft of storage) as well as the previously permitted work from 2003 (0.30 ac-ft of storage). Modify the Drainage Exhibit to show the 1.77 ac of tributary area as described in the report. Since the volume for the 2003 project is also included in the new basin, the release rate can be calculated including that area also. Any flow from disturbed area not tributary to the new basin, such as the area east of the new building addition(?), should be considered offsite flow and incorporated into the ultimate release rate calculations.

   a. Petitioner Response: Sheet C8 drainage exhibit and stormwater report have been updated to incorporate the 2003 improvements within the new detention calculations eliminating some of the overlaps of areas. A swale has been added along the east side of the building to collect potential off-site flows.

   b. Round 2 Petitioner Response: Response above is acceptable to VAH.

7. The MWRD release rate being used (0.36 cfs) is much lower than the Village's allowable release rate of 0.18 cfs/acre, which comes to 0.68 cfs for the proposed 3.79-acre project area. Using this low of a release rate will require a larger basin to accommodate the 100-yr storm. Re-run Village detention volume calculations using the lower release rate.

   a. Petitioner Response: We have opted not to use the MWRD Legacy method and have recalculated both the Village and MWRD requirements. Please refer to the updated stormwater management report, issued separately.

   b. Round 2 Petitioner Response: Response above is acceptable to VAH.

8. The storm sewer design does not allow for the first flush to enter the volume control facility. Re-design.

   a. Petitioner Response: The proposed storm sewer system has been disconnected from the existing storm system and the detention basin has been revised to provide for the new improvements to be routed through a pretreatment basin. A portion of the previous detention catchment still uses the existing storm sewer system and bypasses the pretreatment.

   b. Round 2 Petitioner Response: Response above is acceptable to VAH.

9. Modify the fire truck movement exhibit on Sheet C3 to have the vehicle use the drive aisle closest to the building along the west side. Add an exhibit showing the same track going counter-clockwise around the building.
    a. Petitioner Response: An auto-turn exhibit sheet C12 has been added to the plan set to show the requested vehicle movements.
    b. Round 2 Petitioner Response: Response above is acceptable to VAH.
10. Fire lanes adjacent to the building must have a minimum pavement width as directed by the Fire Department to accommodate the tower truck's outriggers. 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.
    a. Petitioner Response: The heavy-duty pavement section has been revised to increase the surface course to 2", but per discussions with the Village the binder course can remain as N-50.
    b. Round 2 Petitioner Response: Response above is acceptable to VAH.
11. The Plat of Survey provided does not show a new public utility easement for the storm sewer that was relocated for the 2003 building expansion. Provide a Plat of Easement that vacates the portion of the existing easement that now goes through the building and dedicates a new easement following the path of the new (2003) storm sewer main around the south side of the building.
    a. Petitioner Response: Will comply.
    b. Round 2 Petitioner Response: The Petitioner has provided an updated Plat of Survey with Plat of Easement. VAH has provided a Plat of Easement Checklist and the Petitioner will submit a revised copy for record.
12. The building addition will encroach upon existing public utility easements north of the existing building. Include required vacations of public easements for the building addition in the Plat of Easement.
    a. Petitioner Response: Will comply.
    b. Round 2 Petitioner Response: Response above is acceptable to VAH.
13. Sheet C3: The parking spaces can be reduced to 16.5' in depth to the face of the curb, allowing for 1.5' of overhang, along curbs adjacent to the grass. Where curbs are adjacent to sidewalks, the same can be done as long as the sidewalk is correspondingly widened 1.5'.
    a. Petitioner Response: Thank you, we have incorporated this into the revised plans as we increased the fire lane aisle.
    b. Round 2 Petitioner Response: Response above is acceptable to VAH.
14. Sheet C3: The proposed work within the Euclid Avenue ROW will require a permit review from the Cook County Department of Transportation and Highways.
    a. Petitioner Response: We concur.
    b. Round 2 Petitioner Response: Response above is acceptable to VAH.
15. Sheet C4: The note for the water main 'tee' says "…install tee with stainless steel mission couplings." Mission couplings cannot be used for water main work. Revise note.
    a. Petitioner Response: Note 18 on sheet C2 and call out note on sheet C4 have been updated.
    b. Round 2 Petitioner Response: Response above is acceptable to VAH.

16. The site development introducing the additional uses besides predominantly swimming activity for this site needs to provide a proposed schedule of programmed and unplanned activities for the building. In the traffic report introductory remarks related to existing attendance to this facility, cited 300 weekday patrons, and 600 weekend visitors to the building were referenced. The projected volumes increasing to 2,424 to 2,998 attendees based upon that base or alternate build proposal is increasing the patronage by 5 to 10 fold. If known programs, classes, activities, leagues, special events, swim meets, etc. could be identified into a theoretical schedule, along with a projected pool usage based upon seasonal fluctuation history, this would clarify building usage and associated traffic demand.

    a. Round 1 Petitioner Response: To provide clarification, the referenced daily traffic volumes presented in the Traffic Impact and Parking Study represent both entering and exiting vehicles for patrons, staff and drop-off/pick-up operations and are <u>not</u> a direct representation of attendance. For example, for the Single Gym option, there are projected to be 2,424 trips (1,212 entering and 1,212 exiting), which also includes existing traffic at 1,440 on a daily basis (720 entering and 720 exiting).

    b. Round 2 Comment: The above response is unsatisfactory…

        i. Round 2 Petitioner Response: Petitioner will, accordingly, update the Traffic Impact and Parking Study to provide additional information and clarification related to the weekday and Saturday ADT calculations. The revised study will be provided under separate cover prior to the Plan Commission meeting scheduled for March 14, 2018. Petitioner will provide the requested table of scheduled events.

17. Are the traffic count values provided in the report reflecting the traffic generated from the cross access the Christian Liberty Academy is doing on Park District property, for their morning, lunch, and afternoon pick-up and drop-off functions? What provisions for accident management or liability exists between the two parcels.

    a. Petitioner's Response: Yes, the traffic volumes as presented in the Traffic Impact and Parking Study, include the Christian Liberty Academy (CLA) traffic using the Park District property (turns entering and exiting), as well as through volumes on Ridge Avenue.

    b. Round 2 Petitioner Response: Response above is acceptable to VAH.

18. With the introduction of an additional site driveway north of the proposed building expansion, what does this opening align with on the opposite side of the street? How will the continuing encroachment of Christian Liberty traffic affect this new driveway operation?

    a. Petitioner Response: The new opening north of the building expansion aligns with the north edge of the entry plaza to the CLA gymnasium. There is an access road to the CLA track and athletic field approximately 50 feet north of the new opening.

    b. Petitioner Response: As summarized in the Traffic Impact and Parking Study, both access driveways will operate at acceptable levels of service under future conditions and both gym options evaluated. As previously noted, the future traffic volumes (to be conservative) assumed continued use of the Park District property by CLA.

    c. Round 2 Petitioner Response: Responses above are acceptable to VAH.

19. It is unclear in the report on Exhibit #9 how the breakout for and AADT is being represented in the column "Daily Sum" for clear values representing both weekday and weekend Daily AADT. The tally indicated on the Daily Sum line for existing traffic counts of 1,440/day differs from the tallies stated in #1 above that were provided on page one of the report.

    a. Round 1 Petitioner's Response: As previously noted, the attendance information differs from the daily trip generations estimates presented in the study. The 1,440 trips per day including both entering and exiting traffic (720 in and 720 out). It includes all staff, patrons, as well as drop-off/pick-up trips. So, if a person in attendance was dropped-off and

picked-up, they would represent 4 trips on a daily basis (1 entering and 1 exiting for the drop-off and then 1 entering and 1 exiting for the pick-up).

b. **Round 2 Comment: The above response is unsatisfactory…**

   i. **Round 2 Petitioner Response: As previously noted, Petitioner will update the Traffic Impact and Parking study to provide additional information and clarification related to the weekday and Saturday ADT calculations.**

20. While the report indicates the counts were adjusted for a 0.5% annual growth factor per year and these adjustments are shown at the major intersections, no revisions to the counts into and out of the site seem to have been made.

    a. Round 1 Petitioner's Response: That is correct. The 0.5% annual compounded growth rate was used to develop background, or ambient, growth in traffic conditions within the study area <u>without</u> the site traffic. Therefore, no adjustments for turning volumes into and out of the site access driveways are performed to develop the No-Build (future traffic volumes without site traffic). The site-specific traffic volumes related to the proposed development are then added separately to directly evaluate the impacts associated with the development.

    b. **Round 2 Comment: The above response is unsatisfactory…**

       i. **Round 2 Petitioner Response: Petitioner will, accordingly, update the Traffic Impact and Parking Study to reflect a 0.5% compounded annual growth rate to the local (non-school and park district) traffic using Ridge Avenue. This increase is anticipated to be less than 5 vehicles per direction during the peak hours and will not materially impact the findings or recommendations contained within the study.**

21. Is the use of the soccer field open to the general public anytime or must the field be reserved to be used, or is it just allowed for league or youth soccer games?

    a. Petitioner Response: The field is available for use by the general public outside of reserved times for youth soccer games.

    b. **Round 2 Petitioner Response: Response above is acceptable to VAH.**

22. The traffic report indicates the existing parking supply is increasing from 191 existing parking stalls to 264 proposed parking spaces, a gain of 73 additional stalls. How many stalls are required based upon Village Code, and is a proposed variation being requested?

    a. Round 1 Petitioner's Response: Based on Village Code, 128 parking stalls are required for the single gym alternative (32,000 square-foot addition) and 210 stalls are required for the double gym alterative (52,600 square-foot addition). Seventy-five (75) additional stalls are provided; therefore, a variation is being requested.

    b. **Round 2 Comment: The above response is unsatisfactory…**

       i. **Round 2 Petitioner Response: Petitioner will, accordingly, update the Traffic Impact and Parking Study to reflect the total parking demand required per Village Code, not considering the previously approved variance.**

23. The identification of the intersection levels of service for the intersection of Ridge Avenue at Euclid Avenue suggesting an increase in back-up from 50-60 ft to 180-200 ft in length is not acceptable. Review of the geometric alignment of the north leg to provide a separate right and left/through orientation should be considered, along with signage on Euclid Avenue for not blocking Ridge Avenue.

    a. Round 1 Petitioner Response: As stated in the Traffic Impact and Parking Study, the future traffic volume projections and corresponding capacity analyses were based on a conservative analysis scenario, as they assumed the continued heavy use of the southern access, as well as heavy distribution to Ridge Avenue to/from Euclid Avenue. The multiple

site access alternatives, as well as the adjacent roadway network, i.e., connection of Ridge Avenue to Elm Street which provides connections to Northwest Highway to the west (via Kasper Avenue, Kennicott Avenue, etc.) as well as to Euclid Avenue to the east (via Walnut Avenue, Chestnut Avenue, etc.), offer site flexibility. It is anticipated that should there be significant queuing on Ridge Avenue, vehicles will choose to use the adjacent roadway network to find the quickest, most direct route to/from their origin/destination.

b. Round 1 Petitioner's Response: Accordingly, it is recommended that the traffic be evaluated after construction/opening of the expanded facility to determine if the additional mitigation measures (widening for turn lane separation on Ridge Avenue southbound at Euclid Avenue and/or signing on Euclid Avenue) is warranted.

c. Round 2 Comment: The above response is unsatisfactory…

i. Round 2 Petitioner Response: The Traffic Impact and Parking Study will be updated to include additional analyses, considering the southbound entrance as a right-in/right-out only access. The Petitioner would propose a phased implementation, with signage and supplemental striping as the first step. Future improvements could include modifications at the Euclid Avenue and Ridge Avenue intersection, which would be subject to participation with an agreement between the AHPD, CLA and the Village.

24. The parking stall analysis that concludes that the required on-site parking demand for Saturdays is anticipated to be lower than weekday demand for fitness center use by up to 40% needs to be explained and sourced for reference to defend this statement. There is no basis upon which a reduction for not only the gymnasium, but proposed classes, multipurpose rooms, walking track, that has been provided.

a. Round 1 Petitioner's Response: The Traffic Impact and Parking Study has been updated to provide additional clarification and estimates using the ITE Parking Generation rates for the proposed expansion.

b. Round 2 Comment: The above response is unsatisfactory…

i. Round 2 Petitioner Response: Petitioner will, accordingly, update the Traffic and Parking Study to include a more conservative projection for Saturday parking demand, since specific data for Land Use Code (LUC) 495, Recreational Community Center is not available for a Saturday. The higher weekday numbers will be used in the calculations.

25. The site lighting photometric plan must be presented at a larger scale that is legible, along with catalog cuts of all exterior lighting fixtures pole mounted in the parking lot, or mounted onto the building. Fixtures shall be 'Dark Sky' compliant.

a. Petitioner's Response: See revised site lighting photometric plan and attached copy of catalog cut sheets for the exterior pole mounted light fixtures.

b. Round 2 Petitioner Response: Response above is acceptable to VAH.

<u>Fire Department – Lt. Mark Aleckson</u>

1. The Fire Department has no additional comments at this time.

a. Round 2 Petitioner Response: Acknowledged.

<u>Community Services Bureau – Brandi Romag, Crime Prevention Officer</u>

1. Character of Use: Nothing further

a. Round 2 Petitioner Response: Acknowledged.

2. Are lighting requirements adequate? Nothing further
    a. **Round 2 Petitioner Response: Acknowledged.**
3. Present traffic problems? Nothing further
    a. **Round 2 Petitioner Response: Acknowledged.**
4. Traffic accidents at particular location? Nothing further
    a. **Round 2 Petitioner Response: Acknowledged.**
5. Traffic problems that may be created by the development. Nothing further
    a. **Round 2 Petitioner Response: Acknowledged.**
6. General Comments: Nothing further
    a. **Round 2 Petitioner Response: Acknowledged.**

Health Services Department – Sean Freres, LEHP, Environmental Health Officer and James McCalister, Director

1. No comments from Health & Human Services at this time.
    a. **Round 2 Petitioner Response: Acknowledged.**

Accessibility – David Robb, Disability Services Coordinator

1. No additional comments received.
    a. **Round 2 Petitioner Response: Acknowledged.**

Planning & Community Development Department – Sam Hubbard

1. Complies with Comprehensive Plan – Yes.
2. Complies with Thoroughfare Plan – Yes
3. Variations Needed from Zoning Regulations – Yes
4. Variations Need from Subdivision Regulations – No
5. Subdivision Required? – No
6. School / Park District Contribution Required? – No

General:

7. The following approvals are needed:
    a. Amendment to PUD Ordinances #78-19 and #03-036 to allow a building addition and site changes on the subject property.
    b. Special Use Permit to allow a "Community Center, Recreation Building".
    c. **Round 2 Petitioner Response: Response above is acceptable to VAH.**
8. Please provide a written justification for the required Special Use Permit addressing each of the approval criteria outlined below:
    a. That said special use is deemed necessary for the public convenience at this location.
        i. Petitioner's Response: The proposed renovations to the Olympic Indoor Recreation Center present a unique opportunity for the Park District to provide the

residents of Arlington Heights with a one stop fitness experience located in the center of town. The proposed facility enhancements provide additional aquatic opportunities, an indoor walking/running track, fitness center, and two additional programming spaces, all providing residents a means to improve their health.

b. That such case will not, under the circumstances of the particular case, be detrimental to the health, safety, morals or general welfare of persons residing or working in the vicinity.

   i. Petitioner's Response: The proposed renovations will not be a detriment to residents living adjacent or near the center. The park district held three public meetings and is proposing a design that best meets the needs of not only the immediate residents, but the entire community.

c. That the proposed use will comply with the regulations and conditions specified in this ordinance for such use, and with the stipulations and conditions made a part of the authorization granted by the Village Board of Trustees.

   i. Petitioner's Response: The proposed improvements and use of the Olympic Recreation Center will comply with the regulations, conditions, and stipulations set forth by the Village Board of Trustees upon project authorization.

d. Round 2 Petitioner Response: Responses above are acceptable to VAH.

9. The following variations have been identified:

   a. Variation to Section 11.4, Schedule of Parking Requirements, to reduce the required amount of off-site parking from __ spaces to 264 spaces. The extent of this variation will be determined once detailed information on the size of the interior spaces has been provided.

   b. Round 2 Comment: The response to comment #9 is noted. Based on the floor plan data, the parking variation has been clarified as outlined below: **"Variation to Section 11.4, Schedule of Parking Requirements, to reduce the required amount of off-site parking from 757 spaces to 266 spaces."**

      i. Round 2 Petitioner Response: Acknowledged.

10. Please provide a written justification for the required variation addressing each of the hardship criteria outlined below:

   a. That 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.

      i. Petitioner's Response: The Park District desires to maintain as much green space as possible. The additional parking spaces required per Village ordinance would restrict the park district's ability to maintain green space and further impact the present use of the park site. In addition, the Park District will coordinate facility programming to prevent multiple large participant events from occurring at the same time.

   b. The plight of the owner is due to unique circumstances.

      i. Petitioner's Response: The Park District is striving to meet the needs of the adjacent residents as voiced in the public meetings. The requirement of additional parking spaces would place parking closer to adjacent homes and would negatively impact their views or experience in relation to the park site.

   c. The variation, if granted, will not alter the essential character of the locality.

      i. Petitioner's Response: If granted, the variation will improve the character and appearance of the site by allowing additional greenspace to be maintained.

   d. Round 2 Petitioner Response: Responses above are acceptable to VAH.

11. Has a meeting with the surrounding neighborhood been held? If so, please provide a summary of the meeting. If not, a neighborhood meeting will be required prior to appearing before the Plan Commission and a summary of the meeting (attendance, date/time/location, record of topics discussed and concerns raised by the residents) must be provided for staff.
    a. Petitioner's Response: Meetings / Open Houses were held with the community on three separate dates and times, to get a broad overview of patrons and to provide neighbors and opportunity to attend. Meetings / Open Houses were held on 12/3/17, 12/5/17 and 12/6/17. In addition, this project was discussed and open comments received at the Arlington Heights Park District Board Meetings on 12/12/17 and 1/9/18. Copies of the comments received are attached for information and reference.
    b. Round 2 Comment: The response to comment #11 is noted, however, no summary of the issues brought up at each neighborhood meeting was provided. In addition, please outline how the public was made aware of these meetings (individual invitations sent?). Also, please clarify who was invited (i.e. were all property owners within 250' of Olympic Park sent and invitation for the neighborhood meetings?).
        i. Round 2 Petitioner Response: See attached Documents from AHPD that include a copy of the invitation list and summary of issues discussed.
12. Please provide catalog cut sheets for all proposed light fixtures within the parking area, as well as all proposed building mounted light fixtures.
    a. Petitioner's Response: Will comply.
    b. Round 2 Petitioner Response: Response above is acceptable to VAH.
13. Please outline the total number of future employees in both the base bid and alternate bid scenario (only current number of employees was provided).
    a. Petitioner's Response: For both the base bid (single gym) and alternate bid (double gym), there will be 2 additional full-time employees. The total number of full-time and part-time employees is summarized as follows.
        i. Full Time:
            1. Current – 4
            2. Future – 6
        ii. Part Time:
            1. Current – 75
            2. Future – 125
        iii. Maximum present at one time:
            1. Current – 25
            2. Future – 35
    b. Round 2 Petitioner Response: Response above is acceptable to VAH.
14. Please outline the maximum number of staff that will be working within the proposed nursery at any one time.
    a. Petitioner's Response: The maximum number of staff in the babysitting area will be two (2).
    b. Round 2 Petitioner Response: Response above is acceptable to VAH.
15. The Wheeling Township Assessor's office has been provided with information on the proposed development and has compiled a list of all PIN #'s of property within 250' of the subject property. Please obtain the list from the Assessor's office and prior to looking up the addresses associated

with each PIN, please provide the list to me so that I can double check to ensure that all necessary PIN's have been included on the list. In addition, please note that when the mailing is sent out, it must go to the taxpayer of record of each PIN, and not to the actual property address of the PIN.

a. Petitioner's Response: Will comply.

b. Round 2 Petitioner Response: Response above is acceptable to VAH. This step is currently in process.

16. Please ensure that all plans and/or studies to be resubmitted as a result of the Round 1 Department review comments include a revision date.

    a. Petitioner's Response: Will comply.

    b. Round 2 Petitioner Response: Response above is acceptable to VAH.

<u>Site Plan:</u>

17. Please revise Sheet C3 of the civil plans to include the below Zoning Matrix table and fill in all data that is missing and verify that the data included on the chart is accurate.

    a. Petitioner's Response: The zoning matrix has been added to the plans.

    b. Round 2 Petitioner Response: Response above is acceptable to VAH.

18. Please provide details for all proposed fences.

    a. Petitioner's Response: Please refer to sheet C11 for the respective fence details.

    b. Round 2 Comments: The response to comment #18 is noted. However, there are inconsistencies between the civil plans, landscape plans, and floor plans/elevations relative to the outdoor storage area at the southwest corner of the building. The civil plans show this area as entirely paved with normal heavy-duty pavement and a fence around the perimeter (will this fence be the same as the 48" tall fence around the playground?). The landscape plan appears to show some sort of specialty paving in this area. The architectural plans show an 8' tall wall with a door that encloses a portion of this area, which wall and door is not reflected on either the civil or landscape plans. Please clarify what is proposed in this area. Additionally, please confirm what is stored in this area and whether the items stored (which items I assume would be inside of the 8' tall solid walls as opposed to the 48" tall fence) will be completely screened by the 8' tall walls.

        i. Round 2 Petitioner Response: This area of the site has been in development based on project requirements. The current design includes a concrete paved sun deck enclosed by a six-foot-high decorative metal fence and landscape screening. There may be times when the 3-tier portable bleachers (approximately 30-inches high) will be temporarily stored in this area when not in use. The area previously labeled as outdoor storage has been enclosed as a pool equipment room and will be part of the building addition. These revisions are in progress and copies of the drawings can be provided upon request.

19. Provide parking space width dimensions within all proposed parking rows.

    a. Petitioner's Response: Will comply.

    b. Round 2 Petitioner Response: Response above is acceptable to VAH.

20. Within the northernmost parking row, it appears a variation is needed for a landscape island that does not contain a shade tree (where pedestrian path leads from the building to safety town). Please find a way to add the required shade tree to the parking lot island or clarify if a variation is requested (and provide the necessary response to the hardship criteria).

    a. Petitioner's Response: See revised plan. The island has been enlarged and a shade tree has been added.

    b. Round 2 Petitioner Response: Response above is acceptable to VAH.

21. There is a small existing 8' x 10' concreate area adjacent to the sidewalk in the southwest corner of the site. It is unclear why this concrete area is necessary. Please remove this area and replace it with greenspace. Additionally, the outline of the former asphalt driveway entrance along Euclid, although proposed for removal, still appears on all site plans. Please add a note to the demolition plan that clarifies this area will be returned to greenspace and remove the outline from all other plans (both civil and landscaping).

    a. Petitioner's Response: It appears that this was an old portion of the original sidewalk into the project site that was not removed during a past project. The plans have been updated to remove this portion of the sidewalk since we are pursuing a permit with CCHD for the driveway removal.

    b. Round 2 Petitioner Response: Response above is acceptable to VAH.

22. Other than the transformer proposed on the east side of the building and the rooftop mechanical units, are any above ground utility or mechanical units proposed on the site (HVAC equipment, generators, utility pedestals, transformers, etc.)?

    a. Petitioner's Response: A temporary electrical transformer will be required during the construction phase of the project and will be located near the northeast corner of the existing building. The gas meter is proposed to be relocated from the north side of the existing building to the northeast corner of the existing building. An emergency generator will be located within the enclosure on the east side of the building. No additional above ground utility or mechanical units are proposed.

    b. Round 2 Petitioner Response: Response above is acceptable to VAH.

<u>Building:</u>

23. A Design Commission appearance is required for the proposed improvements. Appearance before the Design Commission has been tentatively scheduled for February 13th.

    a. Petitioner's Response: Understood.

    b. Round 2 Petitioner Response: The meeting with the Design Commission was held on February 13, 2018 and a follow-up meeting is scheduled for March 13, 2018.

24. Will the building addition incorporate any new basement areas? If so, a proposed basement plan shall be provided.

    a. Petitioner's Response: There is no new basement area as part of the addition. The existing basement plan has been provided for reference.

    b. **Round 2 Petitioner Response: Response above is acceptable to VAH.**

25. Please revise the floor plans to assign room numbers to each space/room within the existing and proposed building. For all rooms/spaces (both existing and proposed), provide a separate table with the square footage of each space and the corresponding occupancy calculation and maximum occupant load per building code standards.

    a. Petitioner's Response: Additional information provided on Sheets G1.0.2 – G1.0.6.

    b. Round 2 Petitioner Response: Response above is acceptable to VAH.

26. Provide the square footage and maximum bather load for each existing and proposed pool per IPHD standards.
    a. Petitioner's Response: Additional information provided on Sheets G1.0.2 – G1.0.6.
    b. Round 2 Petitioner Response: Response above is acceptable to VAH.
27. Are there any bleachers within the facility? Please provide occupancy calculations for all bleacher areas.
    a. Petitioner's Response: There are existing bleachers in the main pool area that will remain unchanged. There are bleachers planned for the gymnasium(s). The occupancy count for the facility, including existing the pool, gymnasium, and associated bleachers, will be provided based on final selections.
    b. Round 2 Petitioner Response: Response above is acceptable to VAH.
28. Please revise the elevations to provide a value for the areas labeled "EQ" so that overall height can be determined. The elevations should include a height dimension for the overall height of the building as measured at its tallest point, including measurements to both the roofline and top of parapet wall (if applicable).
    a. Petitioner's Response: Will comply.
    b. Round 2 Petitioner Response: Drawings have been updated and response above is acceptable to VAH.
29. Where will the electric and gas meters be located on the building? Has landscaping been incorporated to screen these elements?
    a. Petitioner's Response: See above and responses to landscape comments below. Above ground equipment will be screened in accordance with requirements.
    b. Round 2 Comments: Will landscaping screen the utility meters on the northeast side of the building? If not, additional landscape plantings should be added.
        i. Round 2 Petitioner Response: Yes. Landscaping and plantings will be included to screen utilities, meters, etc. on the east side of the building.

<u>Traffic/Parking:</u>

30. How will the dump truck access the proposed trash enclosure area along the eastern elevation? It appears that the dump truck will need to utilize the public street for turning movements to back up into the trash enclosure space.
    a. Petitioner's Response: The current understanding is that garbage and recycling trucks will pull forward into the driveway, roll out trash and recycling containers to the front of the truck, complete the disposal, and then back out of the driveway.
    b. Round 2 Petitioner Response: Response above is acceptable to VAH.
31. The traffic study has a gap within the programing/swimming pool usage between 3:00pm-4:00pm. How are the pools used during this time?
    a. Petitioner's Response: There is currently no formal programming or future plans for programming during that timeframe, other than drop in use for the pools, fitness center or gym. Parents are typically picking-up kids at that timeframe, so it is scheduled as "down time".
    b. Round 2 Petitioner Response: Response above is acceptable to VAH.
32. Per the recently adopted bicycle parking ordinance, 2% of the overall building occupancy shall be used to determine the required number of bicycle parking spaces. Please provide the overall building occupancy to calculate the required bicycle parking spaces. Additionally, please note on

the site plan how many bicycle parking spaces exist along the eastern side of the building (1 post = 2 spaces) and clarify how many are proposed along the western side of the building.

a. Petitioner's Response: The current occupancy count and bicycle parking counts are as follows:

   i. Base Bid: 1,316 occupants x 0.02 = 26.32 (27 bicycle parking spaces required)

   ii. Alternate Bid: 1,534 occupants x 0.02 = 30.68 (31 bicycle parking spaces required)

b. There is a total of 26 bicycle parking posts proposed, including 17 existing and 9 new. This provides a total of 52 bicycle parking spaces.

c. Round 2 Petitioner Response: Responses above are acceptable to VAH.

33. Please revise the projected future parking demand to be based on the ITE parking generation rates per the proposed uses and not per the Village parking requirement. Additionally, the future parking demand did not factor in the proposed warm water pool.

    a. Petitioner's Response: The Traffic Impact and Parking Study has been revised to project future parking demand for the proposed uses based on the ITE Parking Generation rates, including the Warm Water Pool demand.

    b. Round 2 Comments: Staff notes that under the "alternate bid" (double gym) scenario, the projected parking demand exceeds supply and relies on street parking to meet demand. Please identify areas on site where land banked parking could be constructed, and provide a plan showing how this parking would be constructed. A condition of approval may be recommended to the Plan Commission that would require land banked parking (as indicated on the plan that you will prepare) be constructed at the request of the Village should it be determined that a parking shortage exists on the property.

       i. Round 2 Petitioner Response: The Petitioner is open to including land banked parking but please note that this may reduce the amount of greenspace and/or reduce the size of buffer zones on the north side of the property between the new facility and the residential neighborhood. Options for land banked parking will be provided under separate cover prior to the Plan Commission meeting scheduled for March 14, 2018.

34. If a parking deficit is projected during peak times, please provide a strategy for where these cars will park (assuming that scheduling conflicts for major events cannot be avoided). No analysis was included outlining how many spaces are available within the surrounding street network.

    a. Petitioner's Response: Overflow parking is anticipated to occur within the adjacent roadway network on-street parking supply, should it be necessary. There are currently no viable options (via existing agreements) or public parking lots within an acceptable walking distance to accommodate overflow parking. The Traffic Impact and Parking Study has been updated to include an estimate of the available parking supply within the surrounding street network.

    b. Round 2 Petitioner Response: Responses above are acceptable to VAH.

35. Round 2 Comment 41. Based on the traffic study, queued cars are expected to block access into the southern driveway entrance during peak times. One solution proposed in the traffic study was that automobile traffic may opt to use the northern access point for ingress/egress to the site if the southern access point is blocked, another solution was to post "Do Not Block" signage by the southern driveway. Please evaluate the possibility for a Right-in/Right-out only orientation for the southern driveway, which would eliminate the potential for inbound stacking at this location.

    a. **Round 2 Petitioner Response: Additional review and study will be conducted. The Petitioner would propose a phased implementation with signage and striping as the first**

step. Future improvements could be associated with the reconfiguration of the Euclid and Ridge intersection as noted below.

36. Round 2 Comment 42. The traffic study also contemplates the potential widening of southbound Ridge Avenue at Euclid from one lane to two lanes, with a shared through/left turn lane, and a separate right turn lane. If traffic still opts to use the southern driveway entrance, and if a "Do Not Block" sign is ineffective, the Park District will be required to propose and implement a solution, for review and approval by the Village. Such solution could be through a right-in/right-out re-orientation of the southern driveway entrance, or potentially, the Village may require the widening of Ridge Ave., at the cost of the Park District, to address the problem.

    a. **Round 2 Petitioner Response: The Petitioner is in general agreement with this approach and would want to ensure that all parties impacted by any revisions to the Euclid and Ridge intersection are involved in the solution. This includes VAH, AHPD, and CLA.**

<u>Landscape Comments</u>

1. Provide three-foot-high shrubs in the northeast corner within the landscape island in order to buffer the parking area. Pursuant to Chapter 28, Section 6.15, a three-foot-high screen is required adjacent to parking areas along the public right of way.

    a. **Round 2 Petitioner Response: Will comply.**

2. Adjacent to the parking lot expansion on the north side, please substitute the proposed Dogwood and Nine Bark shrubs with six-foot-high evergreen. In addition, extend the screen to the east towards Ridge Avenue. Per Chapter 28, Section 6.15 such screening for a parking area shall be six feet high if adjoining a residential district and the screen shall provide year-round opacity.

    a. **Round 2 Petitioner Response: The Petitioner will revised the proposed landscape plantings as indicated but would like to further review the area directly north of the new parking and drive aisle as this area (Safety Town) has many mature trees that would not work well with the proposed landscape screen.**

END OF ROUND 2 COMMENTS AND RESPONSES

Item: South Arlington Heights Road Corridor Plan - PC#18-004

Department: Planning & Community Development

BACKGROUND

In 2015, the Comprehensive Plan was adopted by the Village Board, which included a section on Corridors. There were several corridors designated for further study and recommendations to improve each. The Village is in the process of implementing improvements to the Rand Road Corridor and the Northwest Highway Corridor. The South Arlington Heights Road corridor is being reviewed as a priority corridor given the high importance of facilitating improvements as a gateway to the Village.

The South Arlington Heights Road Corridor Plan is intended to outline various improvements for the area, and provide a vision for future redevelopment of sites. Several recommendations are made with action items to implement each recommendation.

ATTACHMENTS:

Description	Type
Staff Memo	Memorandum
Public Notice	Exhibits
Comprehensive Plan Subcommittee Minutes - 12-13-17	Minutes
South Arlington Heights Road Corridor Plan - March 2018	Exhibits
Survey Results	Exhibits
Survey Response Analysis of General Comments	Exhibits
Letter of Support	Correspondence

Memorandum

To: *Members of the Plan Commission*

From: *Bill Enright, Deputy Director Planning and Community Development*

Date: *March 9, 2018*

RE: *Plan Commission Public Hearing – March 14, 2018*

South Arlington Heights Road Corridor Plan

In 2015, the Comprehensive Plan was adopted by the Village Board, which included a section on Corridors. There were several corridors designated for further study and recommendations to improve each. The Village is in the process of implementing improvements to the Rand Road Corridor and the Northwest Highway Corridor. The South Arlington Heights Road corridor is being reviewed as a priority corridor given the high importance of facilitating improvements as a gateway to the Village.

The draft corridor plan outlines several recommendations to begin implementing in 2018. Some of the highlights include the following:

1. Amending the Comprehensive Plan for the east side of Arlington Heights Road from I-90 to Seegers Road to Mixed Use.
2. Establishing an Overlay Zoning District to meet the desired vision for the area as a mixed use corridor.
3. Commencing the process of establishing funding mechanisms to facilitate redevelopment of private property and implement public improvements.

Comprehensive Plan Subcommittee

The Subcommittee met on December 13, 2017 to discuss the proposed corridor plan. As reflected in the minutes attached, the Subcommittee was supportive of the Plan and recommended approval to the Plan Commission.

Public Outreach

In September 2017, the Village Planning Department invited businesses and property owners in the corridor to attend a presentation at the Double Tree hotel. Concepts for improvements were presented, and as a follow up, the Village conducted an on line survey to gauge what is important to the community. To date, the Village has received 605 responses to the survey. The results were very informative and have been included in this packet. Results of the survey indicate that:

1. Better pedestrian mobility is needed;
2. Redevelopment of land along the east side of Arlington Heights Road is of high importance;
3. More restaurants and entertainment uses are desired.

Over the past several weeks, staff has met or spoken with individually with several stakeholders such as hotel management/ownership and property owners of large parcels which could redevelop. Staff also reached out to School Districts 59 and 214 to discuss the plan and possible funding. In addition, as part of the survey staff allowed for persons to provide their email address for future notices and updates regarding the Plan. Staff has notified 220 email addresses of the date of the Plan Commission hearing, and had also previously sent an email blast to inform those who provided emails that the draft plan was on the Village web site for review.

The corridor plan is intended to outline various improvements for the area, and provide a vision for future redevelopment of sites. Several recommendations are made with action items to implement each recommendation. The next step thereafter is a Plan Commission public hearing. In addition to notice in the newspaper,

NOTICE OF
PUBLIC HEARING
NOTICE IS HEREBY GIVEN THAT THE PLAN COMMISSION OF THE VILLAGE OF ARLINGTON HEIGHTS WILL CONDUCT A PUBLIC HEARING ON WEDNESDAY, MARCH 14, 2018, AT 7:30 P.M. In the Municipal Building, 33 South Arlington Heights Road, Arlington Heights, Illinois to consider Petition No. 18-004, An Amendment to the Comprehensive Plan adopting the South Arlington Heights Road Corridor Plan.
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.
Terry Ennes, Chairman
ARLINGTON HEIGHTS
PLAN COMMISSION
Published in Daily Herald
February 27, 2018 (4494269)

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 715, Act 5, Section 1 and 5. That a notice of which the annexed printed slip is a true copy, was published February 27, 2018 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 Paula Baltzer
Authorized Agent

Control # 4494269

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PLANNING & COMMUNITY
DEVELOPMENT DEPARTMENT

REPORT OF THE PROCEEDINGS OF

The COMPREHENSIVE PLAN SUBCOMMITTEE

OF THE VILLAGE OF ARLINGTON HEIGHTS PLAN COMMISSION

HELD AT VILLAGE HALL ON: **December 13, 2017**

Project Title: Comprehensive Plan Amendment – South Arlington Heights Road Corridor Plan

Petitioner: Village of Arlington Heights
33 S. Arlington Heights Road
Arlington Heights, IL

Requested Action:

- Amendment to the Comprehensive Plan adopting the South Arlington Heights Road Corridor Plan

Attendees: George Drost, , Chair, Plan Commissioner
Jim Tinaglia, Trustee
Mary Jo Warskow, Plan Commissioner
Joe Lorenzini, Plan Commissioner
John Sigalos, Plan Commissioner
Terry Ennes, Plan Commissioner
Bill Enright, Deputy Director Planning

Presentation

B. Enright summarized the draft corridor plan goals and objectives. This corridor was designated as a priority corridor in the 2015 Comprehensive Plan for the Village. Staff has since developed a plan to guide future public and private improvements along the corridor. The plan represents a 5 to 10 year vision for the area to enhance this important gateway into the Village. Staff made a presentation to the business community along the corridor in September and invited over 150 property and business owners. The presentation was held at the Double Tree Hotel and attended by approximately 20 person. Staff then conducted an on line survey and over 600 persons responded. The results of the survey are summarized in the staff report.

Meeting Discussion

Commissioner Drost asked about the budget implications of some of the proposals.

B. Enright indicated that there are several options that will be explored depending on what elements are implemented. Some improvements can occur as parcels redevelop, while others will require other funding sources such as Special Service Areas, Tax Increment Financing, General Fund, among others.

Trustee Tinaglia added that the State is sharing less revenue with municipalities, so that local funding will be necessary. He thinks the Board will be supportive of these types of improvements which will enhance the corridor.

Commissioner Lorenzini asked about the business district tax concept.

B. Enright indicated that that is typically an additional sales tax for goods purchased within the defined business district.

Commissioner Warskow had concerns with the impact of a TIF district on residents.

B. Enright indicated that if a TIF district were created, it would have minimal impact as the EAV is such a small percentage of the overall EAV of the overlapping taxing districts that the impact is small for residents. TIF is not a definitive idea for this area but may be explored if it's determined necessary to fund projects to improve the corridor.

Commissioner Ennes thought that the survey was interesting. He thought that maybe a followup survey that we more scientific focusing on prioritize projects should be looked at.

Commissioner Drost asked if staff could summarize and quantify the written responses to the survey that were more open ended questions.

Commissioner Warskow asked that the Plan incorporate language on promoting sustainable development in the area.

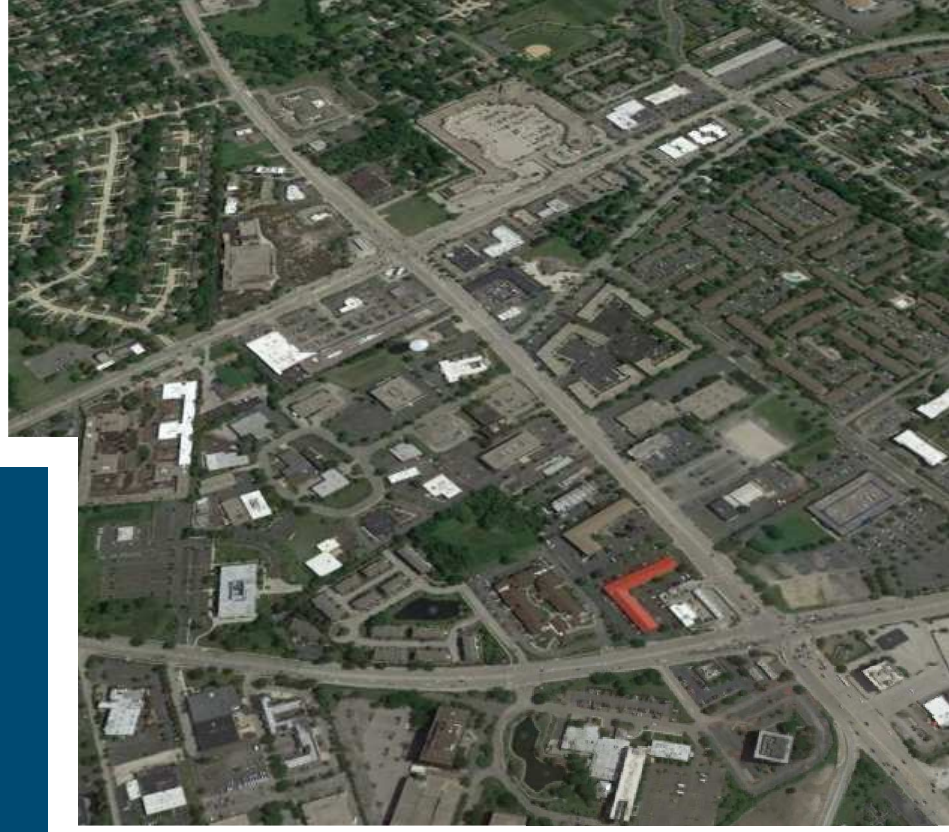
All subcommittee members were supportive of the plan and recommended moving forward to Plan Commission for a public hearing.

The meeting adjourned at 7.15pm.

George Drost, Chair
Comprehensive Plan Subcommittee
Bill Enright, Recorder

SOUTH ARLINGTON HEIGHTS ROAD CORRIDOR PLAN

I-90 TO NOYES



2018

Prepared by the Village of Arlington Heights
Department of Planning and Community Development

Village of Arlington Heights

33 South Arlington Heights Road
Arlington Heights, Illinois 60005-1499

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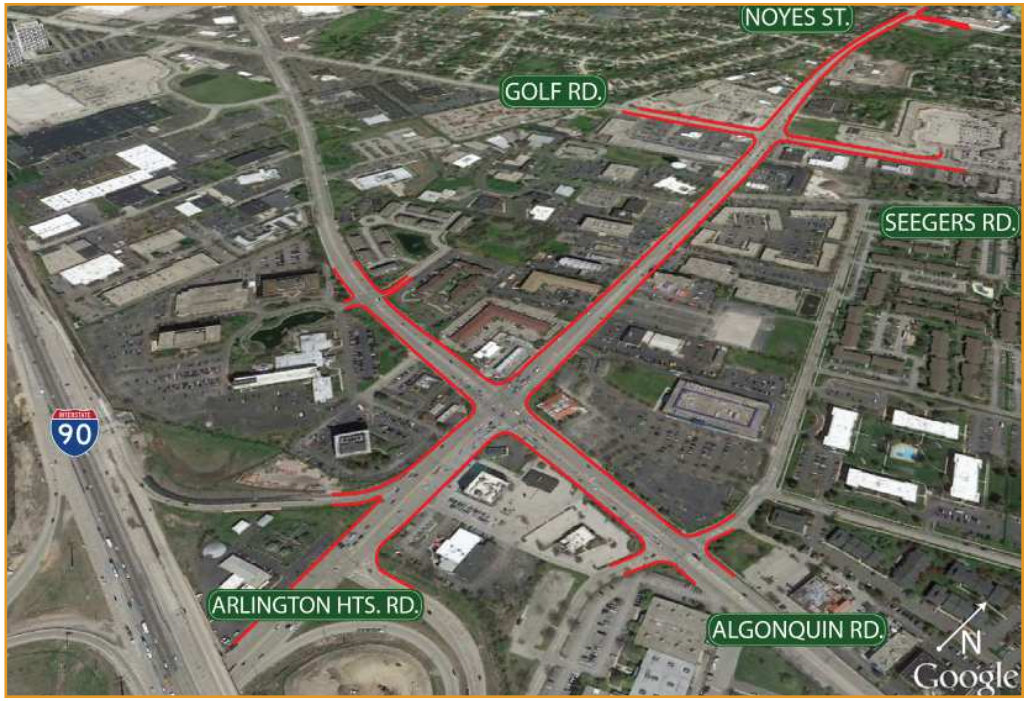
Introduction

Study Area

The South Arlington Heights Road Corridor Plan outlines the Village's vision and strategies for improvements to this important Gateway to the Village. In adopting the 2015 Comprehensive Plan for the Village, this gateway was identified by the Board as a priority corridor to improve upon the many existing positive qualities that the corridor offers while improving the gateway through beautification, redevelopment, walkability, and by establishing an identity for the area. The 1.2 mile long corridor begins at the southern border of the Village at the Jane Adams Tollway extending north to Noyes Street. The corridor consists of various commercial uses including 7 hotels with close to 1,000 rooms, which serve as an economic engine for the corridor. Unique to the corridor is the Mitsuwa Marketplace at Algonquin Road, which provides a marketplace for Japanese foods and retail items. In addition, the area is served by a full access interchange at I-90 and Arlington Heights Road, providing great access to the corridor.

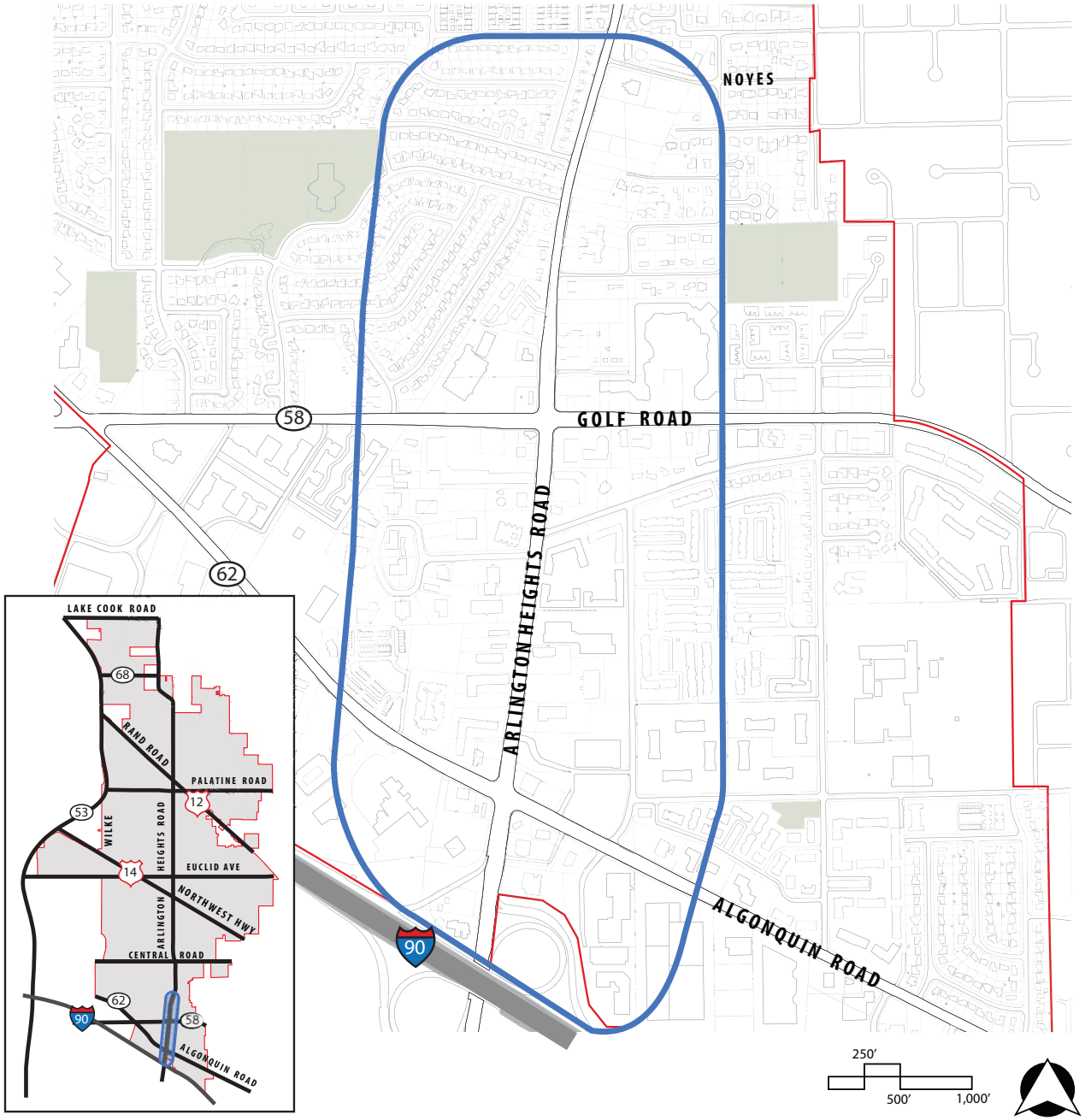
The Plan establishes recommendations to address current conditions and implement improvements to the corridor as the primary Gateway to the Village.



Key Issues

- Gateway into Village of Arlington Heights
- Loss of greenery when Arlington Heights Road was widened from I90 to Golf Road
- Overhead utility lines along west side of roadway from I90 to Golf Road
- Potential for redevelopment of larger sites comprising approximately 30 acres of land
- Multiple driveways and traffic conflicts; poor pedestrian access

Introduction



Introduction

Community Input

In September, 2017 the Village held an informational meeting at the Double Tree hotel for the business community to present preliminary concepts for improvements to the corridor. Over 100 property owners and businesses were invited to the presentation which allowed an opportunity for those attending to provide early input into the concepts for improvements in the corridor. Approximately 25 persons attended this meeting.

As a follow up to the meeting, the Village posted on the Village web page a preference survey relating to the concepts proposed. Over the course of the next two months, 604 responses were recieved with 85% of respondents answering yes to whether improvements are needed to the corridor. Other responses were as follows:

- 85% of respondents answered that the improvements presented would be either somewhat or very beneficial;
- Improvements to pedestrian walkability and redevelopment of land along the east side of Arlington Heights Road were weighted highest in terms of improvements;
- More restaurants and entertainment venues were rated highest in terms of priority;

Are Improvements Needed?	
Yes	85%
No	6%
Not Sure	8%

Rate Improvements	
Improvement	Importance
Landscaped Medians	6.4/10
Focal Points	6.9/10
Bury ComEd Utilities	6.8/10
Redevelop Parcels	7.9/10
Pedestrian Improvements	7.9/10

Land Use Priorities	
Restaurants	88%
Multifamily	41%
Hotels	31%
Retail	82%
Entertainment	85%
Offices	58%

Comprehensive Plan Survey 2015

In developing the 2015 Village wide Comprehensive Plan, an on-line survey was conducted and over 500 responses were received. Responding to corridor enhancement survey questions, the following responses were submitted:

- 90% of respondents strongly agreed or agreed that the Village should improve the appearance of certain corridors along major roadways.
- 77% strongly agreed or agreed that commercial areas along some major streets lack landscaping.

Chapter

1 Introduction

As illustrated in the map at right, there are several corridors which were identified for improvement in the 2015 Comprehensive Plan. Improvements are scheduled to commence in 2018 along the Rand Road corridor as well as the Northwest Highway corridor. These improvements include identification features and extensive landscaping. Further improvements are recommended in a phased approach over several years.

The improvements recommended in the South Arlington Heights Road Corridor Plan should also be phased over time. Certain improvements are short term, such as the recently installed decorative "Welcome" banners, while others are longer term such as improvements related to redevelopment. Certain improvements will be more difficult to attain, such as the burial of overhead power lines due to cost and feasibilty.

"With approximately 30 acres of land to redevelop, the character of the corridor will likely undergo significant change over the next several years."

Summary of Findings

In 2018 the Village should commence via the Capital Improvement Plan budget, outlining improvements over a 5 year time frame. These improvements could be funded by a combination of Tax Increment Financing, Special Service Area and possibly general funds. Other sources should be explored as well but are limited. Also an Overlay Zoning District should be adopted establishing development standards for the area. Village coordination with property owners and businesses should continue, and the Village should also continue to facilitate with developers redevelopment of the several parcels along the corridor.

Comprehensive Plan

The Comprehensive Plan is a document which establishes an overall strategy to guide the growth and development of the community. It is a policy statement aimed at the unified and coordinated physical and social development of the Village. The Comprehensive Plan consists of the Comprehensive Plan Map which indicates proposed land uses in the Community, and the text of the Comprehensive Plan, including Goals and Policies. There are several companion documents which focus on more specific areas of implementation such as the Downtown Master Plan. In addition, the Plan identified several Corridor Study areas including the South Arlington Heights Road Corridor.

Characteristics of corridors include: developed in a linear fashion along major routes; residential areas directly abutting with little or no screening; businesses developed incrementally with little relationship or connection to each other; and showing signs of age, deterioration, poor maintenance, vacant buildings and vacant sites. Therefore the purpose of this corridor study is to address these issues which exist to various extents along this corridor.

The 2015 Comprehensive Plan outlined a primary goal and four objectives for all corridors in the Village:

Corridor Plan Goal: To improve upon existing conditions which detract from the overall functioning of the corridor.

Objective 1: Develop a strong and positive image and appearance which establishes a unified image and sense of place which reinforces and supports commercial and economic activities along the corridor.

Objective 2: Create a system of on and off street parking facilities which adequately serve the needs of commercial uses within the corridor in a safe and functional manner.

Objective 3: Promote a safe and effective traffic circulation system which adequately accommodates the varied types of traffic movement utilizing the corridor.

Objective 4: That development activities within the corridor be compatible with adjacent non residential and residential uses.

Specific Objectives for the South Arlington Heights Road Corridor:

Objective 1: Develop development standards for land parcels along the east side of Arlington Heights Road.

Objective 2: Enhance pedestrian access and "walkability" within the corridor.

Objective 3: Develop a plan for enhanced landscaping and gateway features.

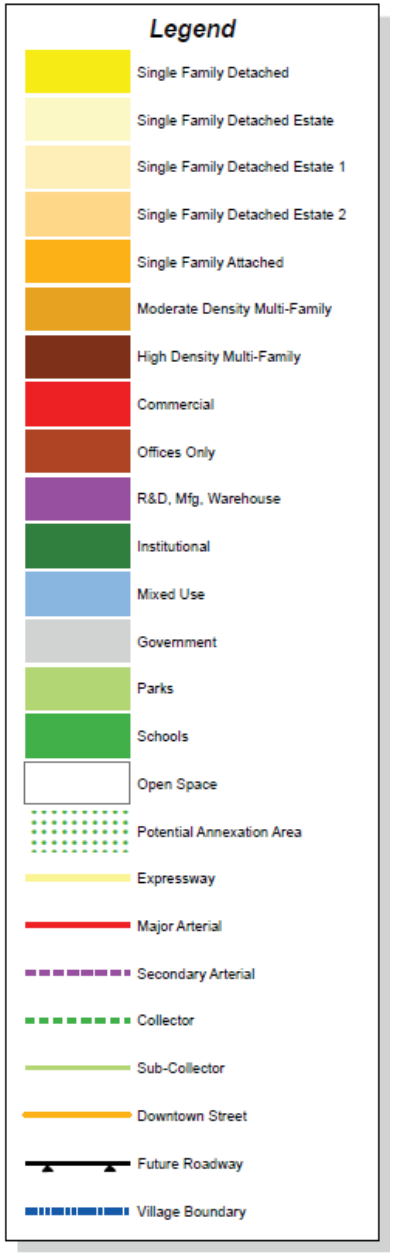
Objective 4: Explore burial or relocation of overhead utility power lines.

Objective 5: Develop a coordinated marketing plan for the businesses in the corridor.

Objective 6: Identify various funding mechanisms to implement the Plan.

Objective 7: Promote sustainable development and efficient use of land parcels.

Comprehensive Plan 2015- Corridor



Zoning

The current zoning along the corridor consists primarily of commercial districts such as B2 and B3, OT (Offices), and some properties are zoned M2 Manufacturing. Adjacent zoning includes R6 Multi Family to the east along Tonne Drive.

In order to facilitate redevelopment, the Village should evaluate the use of overlay zones to better address the vision for the area. Overlay Zoning has been successfully utilized in several locations in the Village to promote development consistent with an overall plan for an area.

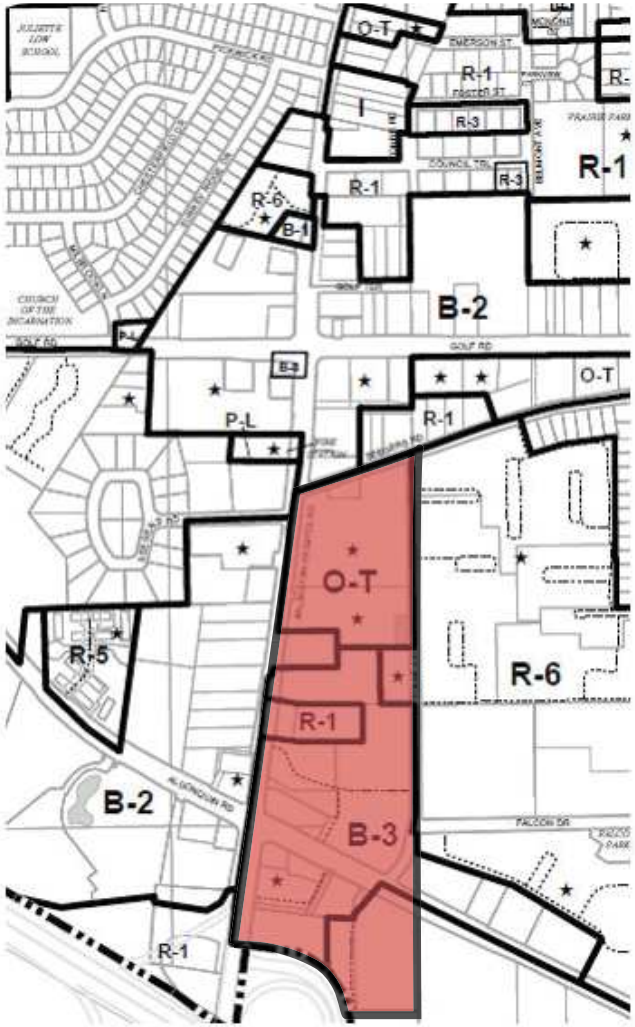
Overlay Zones establish zoning criteria specific to a location / area and address items such as building setbacks, land uses, building height, landscaping, sustainable development, parking and access and pedestrian mobility.

> "An Overlay Zoning District is a mapped area with restrictions beyond those in the underlying zoning. An overlay district is used to achieve planning objectives, which may not be achieved through the underlying zoning. Where conflicts arise between the overlay district and the underlying zoning, the overlay district restrictions shall apply."

Overall, the Village should encourage new development with more flexible zoning regulations in order to facilitate development. Possible boundaries for an Overlay zoning district are illustrated on the facing page as highlighted.

Zoning

Zoning Map



ZONING DISTRICT DESCRIPTIONS:

B-1 - BUSINESS DISTRICT LIMITED RETAIL

B-2 - GENERAL BUSINESS DISTRICT

B-3 - GENERAL SERVICE, WHOLESALE AND MOTOR VEHICLE DISTRICT

B-4 - LIMITED SERVICE DISTRICT

B-5 - DOWNTOWN DISTRICT

I - INSTITUTIONAL DISTRICT

M-1 - RESEARCH, DEVELOPMENT AND LIGHT MANUFACTURING DISTRICT

M-2 - LIMITED HEAVY MANUFACTURING DISTRICT

O-P - OFF-STREET PARKING DISTRICT

O-R - OFFICE AND RESEARCH DISTRICT

O-T - OFFICE TRANSITIONAL DISTRICT

P-L - PUBLIC LAND DISTRICT

R-E - ONE-FAMILY DWELLING DISTRICT

R-1 - ONE-FAMILY DWELLING DISTRICT

R-2 - ONE-FAMILY DWELLING DISTRICT

R-3 - ONE-FAMILY DWELLING DISTRICT

R-4 - TWO-FAMILY DWELLING DISTRICT

R-5 - MULTIPLE-FAMILY DWELLING DISTRICT

R-6 - MULTIPLE-FAMILY DWELLING DISTRICT

R-7 - MULTIPLE-FAMILY DWELLING DISTRICT

VILLAGE BOUNDARY
PRIVATE ROADS
RAILROADS
LAKES AND STREAMS
LOTS
ZONING DISTRICTS
RIGHT-OF-WAY (R.O.W.)
RIGHT-OF-WAY (R.O.W.) WITH PRESCRIPTION

ZONING AMENDMENTS:

DETAILS REGARDING THESE SITES ARE FILED IN THE PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT

▲ OVERLAY ZONING DISTRICT

★ PLANNED UNIT DEVELOPMENT (P.U.D.) OR PLANNED DEVELOPMENT

Current Conditions

Current Land Uses

The 1.2 mile long corridor includes a variety of commercial uses including 7 hotels with 993 rooms total. The corridor serves as the largest concentration of hotel rooms in the Village, which generate over $900,000 annually in hotel / food and beverage taxes. In addition, the corridor includes Mitsuwa Market, and several office complexes including a regional office for OHSA. In total the corridor includes almost 2.2 million square feet of commercial space as depicted in the table below.

One of the main attributes of the gateway is the full access interchange at Arlington Heights Road and I-90, which provides excellent access to O'Hare International Airport, which is just 6 miles southeast. Characteristics of the Corridor as outlined in the 2015 Comprehensive Plan include:

- Large roadway pavement 6 to 9 traffic lanes
- Overhead utility lines on west side of road
- Lack of identity
- Buildings of various setbacks; 1 to 5 floors height, lack of uniformity.

Positive Attributes of Corridor include:

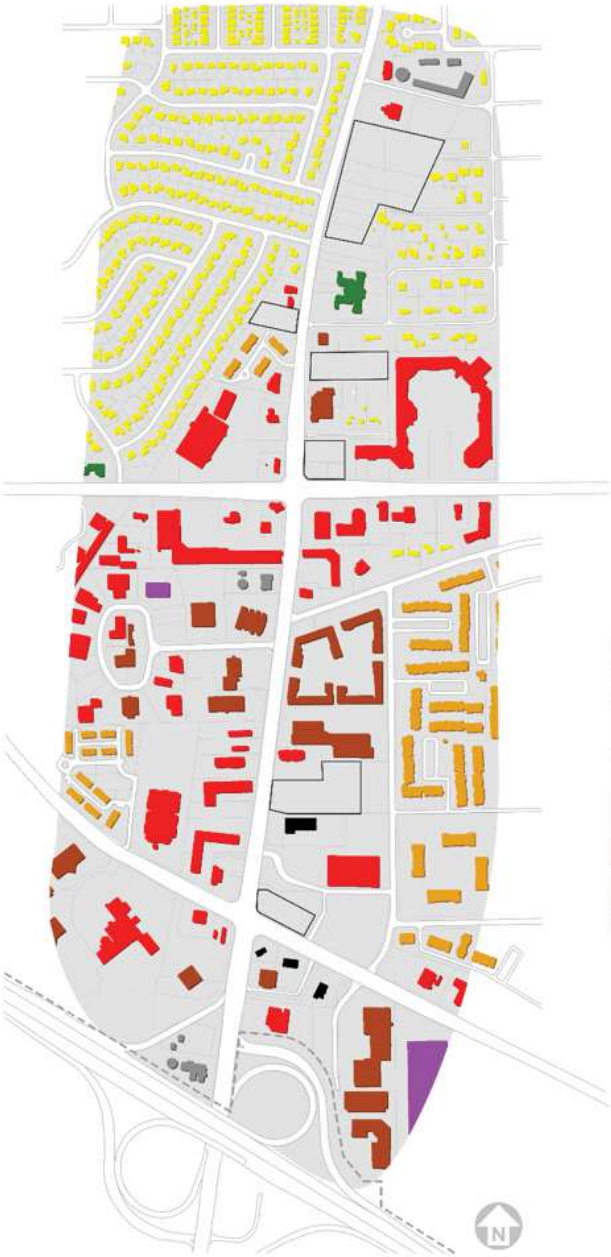
- Great Access (I90)
- High Traffic Volumes
- Seven Hotels with over 900 rooms
- Economic Impact (Value of Land)
- Development Opportunities

The total square feet of property has an equalized assessed value of just over $83.0 Million, which equates to real estate taxes of approximately $8.30 million annually. Of that, 12% is allocated to the Village, or $1.0 million annually.

Use	***Square Footage***
Retail	363,561
Industrial	304,506
Hospitality	455,731
Office	740,378
Flex Space	73,424
Healthcare	161,133
Vacant	73,844
Other	9,145
Total	***2,181,722***

Current Conditions

Land Uses



Long Term Vision

Vision

The Long Term Vision for this corridor includes both public improvements and private redevelopment. The Village should pursue a strategy that facilitates economic development via public enhancements to the corridor in addition to actively working with property owners of development sites.

Components of this vision include:

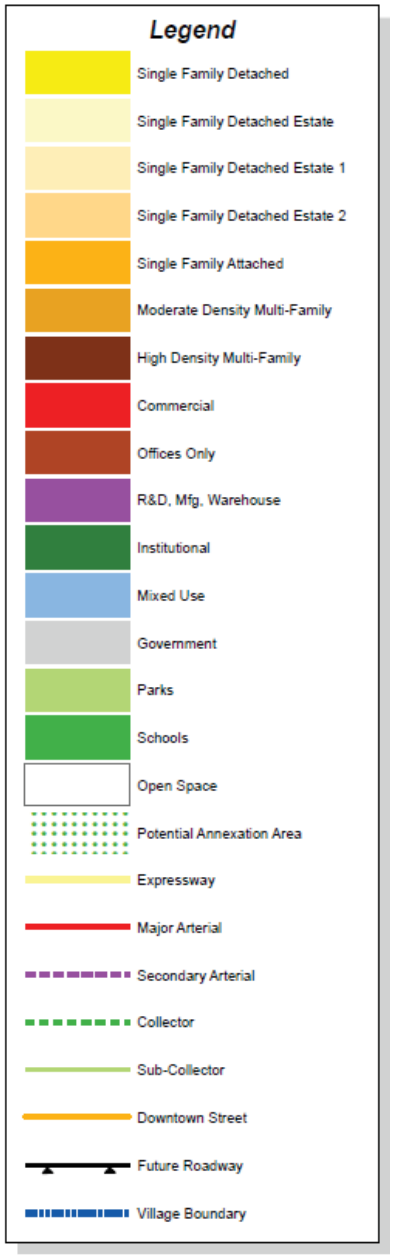
- Amending the Comprehensive Plan to allow for flexibility in development, including adopting an Overlay Zone to guide redevelopment.
- Corridor Enhancements such as landscaping improvements, mobility improvements for pedestrians, and creating an identity / branding for the corridor.

Comprehensive Plan – Proposed

One of the first steps to facilitate development is amending the Comprehensive Plan Future Land Use Map. The current land use map (see p.6) separates land uses by categories such as commercial, offices, and government. The proposed land use plan (at right) would re-designate all parcels along the east side of Arlington Heights Road from I-90 to Seegers Road to Mixed Use. This Mixed Use area would extend east to Tonne Drive. Mixed uses should include retail, restaurants, entertainment and residential uses. The rental apartment development market is currently strong and can serve as a driving force to any mixed use development proposals.

Long Term Vision

Comprehensive Plan - Proposed



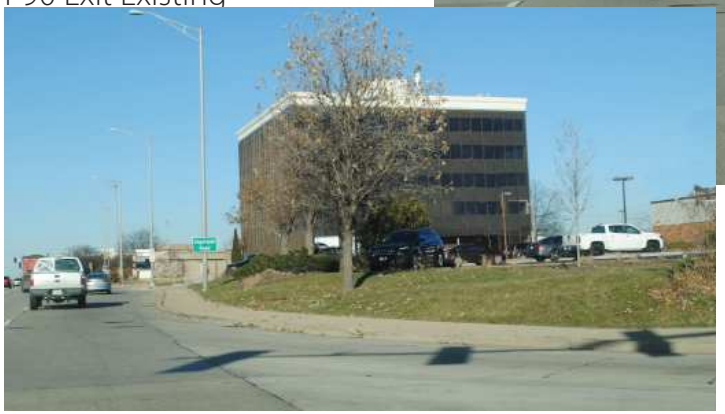
Long Term Vision

Landscaping - Focal Points

In order to create a positive identity for the corridor, enhancements such as landscaping and focal points should be designed and implemented in coordination with new development. Focal points are illustrated in the map at right at major intersections and entryways to the corridor area. This can include a higher level of tiered landscaping as well as decorative features such as artistic lighting. New landscaped parkways can be created by moving the carriage walk sidewalks back 8 to 10 feet to provide a landscaped buffer between the road and new sidewalks.

I-90 Exit with Proposed Gateway Feature

I-90 Exit Existing



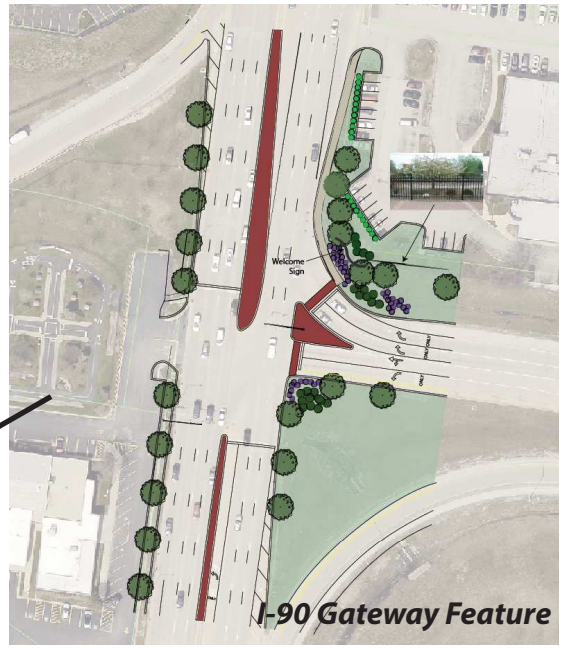
Long Term Vision

Corridor Enhancements

Entryways/ Focal Points

Intersection

Algonquin Road Intersection Improvements



I-90 Gateway Feature

Example of branding from Rand Road Corridor

Long Term Vision

Landscaping - Medians

In addition, landscaped medians along Arlington Heights Road can provide for enhanced safety by directing autos and trucks to protected left turn lanes rather than the current system of dual left turn lanes. Adding greenery to the center roadway can also break up the massing of the concrete roadway. Installing landscaped medians will require IDOT approval and will need to maintain access to abutting properties.

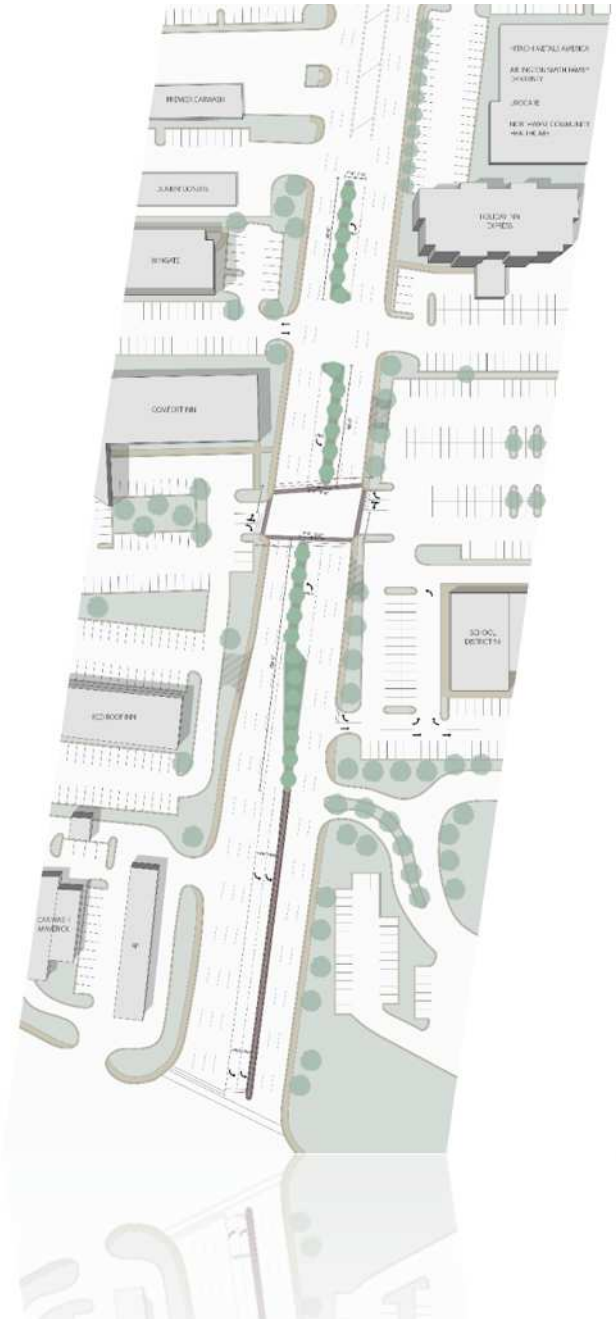
Median islands can be phased in over time, depending on timing of redevelopment, funding, and IDOT approvals. The illustration at right depicts islands along the southern portion of Arlington Heights Road from Algonquin Road north to the Holiday Inn. This concept includes a new traffic signal in front of the former Wellington site, which is critical to installing the medians as depicted.

The Village should work with adjacent property owners to encourage sharing of driveways to minimize curb cuts and driveways. With redevelopment of parcels, especially on the east side of Arlington Heights Road, cross access easements should be required to enhance vehicular and pedestrian movements within each property.

Long Term Vision

Existing

With Improvements



Long Term Vision

One significant negative feature of the corridor are the ComEd overhead power lines on the west side of Arlington Heights Road. Several communities have worked with ComEd on burial or relocating similar power lines in order to enhance the aesthetics of the area. Not only would relocation or burial improve the aesthetics of this corridor, it would also create space to move the current carriage walk sidewalks 8 to 10 feet from the roadway. However, burial or relocation is very expensive and the feasibility of implementing is difficult and complex.

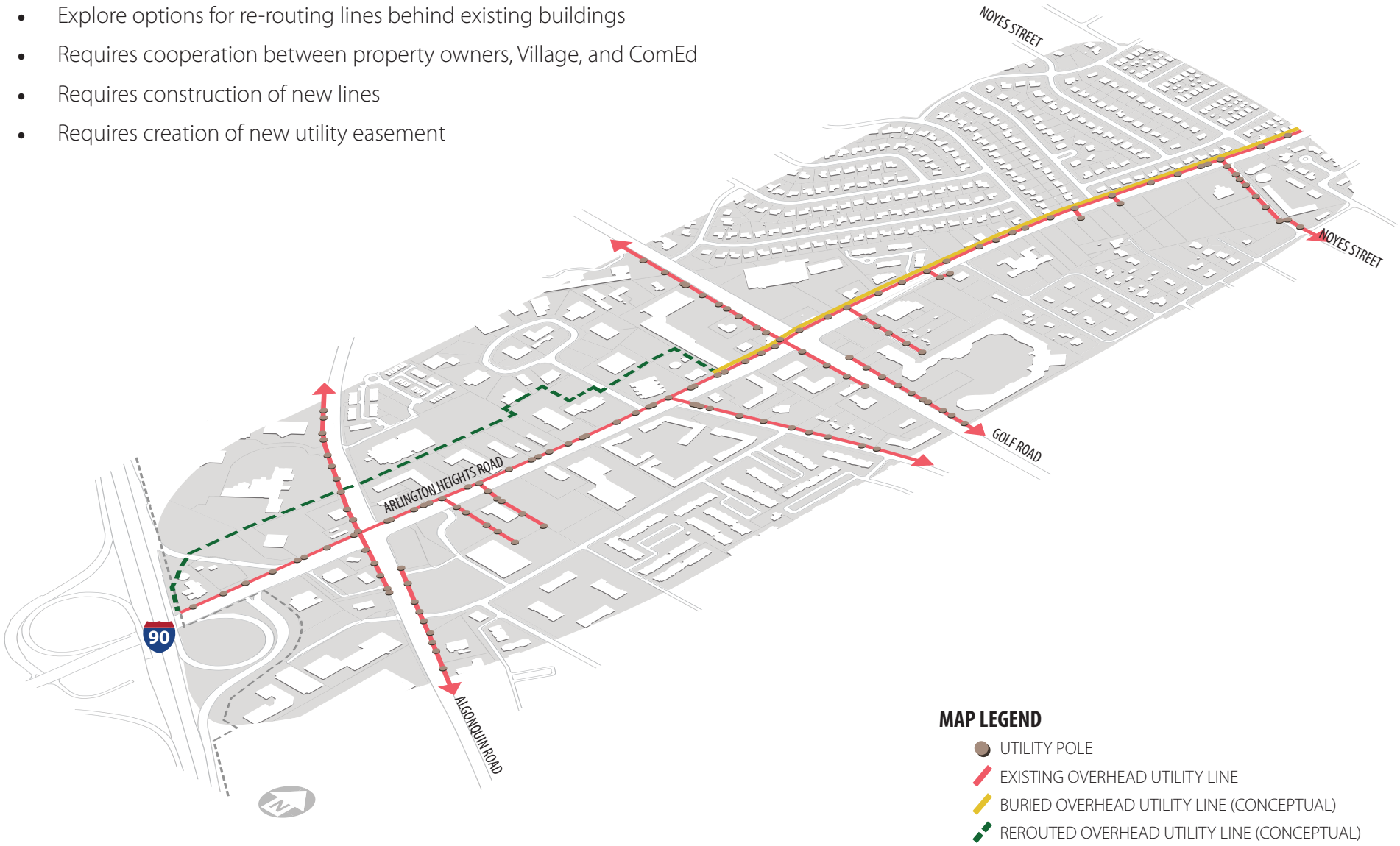
One option to explore is creating an easement along the rear of the properties so that the power lines can be relocated behind the properties which front on the west side of Arlington Heights Road. The illustration on the facing page depicts a possible route for related power lines.

Existing Conditions - Southbound Arlington Heights Road at Golf Road

Long Term Vision

Utility Poles - Current and Proposed

- Explore options for re-routing lines behind existing buildings
- Requires cooperation between property owners, Village, and ComEd
- Requires construction of new lines
- Requires creation of new utility easement



Long Term Vision

Mobility

Pedestrian improvements to enhance walking the corridor was rated the highest in importance in the community preference survey. On a scale of 1 to 10, pedestrian improvements rated an 8.7 average, just ahead of "redevelopment of parcels" in level of importance. The current corridor is auto dominated with as many as 9 lanes of traffic at the intersections of Golf Road and Arlington Heights Road and Algonquin Road and Arlington Heights Road. In between there are 6 traffic lanes with multiple curb cuts. The existing sidewalks are "carriage walks" which directly abut the roadway with no separation other than the curb. This provides for a very uneasy experience for pedestrians being so close to auto and truck traffic traveling at fairly high speeds. Due to the large cross sections of the roadways, crossing the intersection is not inviting. Several issues exist which must be addressed to improve connectivity and make pedestrians feel safe when walking the area.

Issues are identified below with possible solutions / improvements proposed:

Issue	***Proposed Improvement***
Carriage Walk Sidewalks	Set back new sidewalks 8 to 10 feet off of roadway and include a landscaped parkway separating the roadway from the sidewalk.
Connectivity between Private properties	Work with property owners on providing additional pathways / interconnections between private properties to allow for options for pedestrians to circulate.
New Crosswalks	Advocate for new traffic signal and pedestrian crosswalk in front of School District 59 site as part of redevelopment of site.
Existing Traffic Signals / Pedestrian Crossings	Replace striped crosswalks with wider 12 foot wide stamped and colorized concrete crossings to draw attention to the crosswalk. Evaluate with IDOT the current timing of the pedestrian activated crossing timed signals to assure adequate timing for pedestrians to cross.
Bike Routes	Implement the "Sidepath" off street bike path along Golf Road.

Midblock Traffic Signal / Pedestrian Crosswalk

A major component of enhancing pedestrian mobility is a new mid block traffic signal on Arlington Heights Road approximately 625 feet north of Algonquin Road. A new signal would serve as a primary entry into new development on the east side of Arlington Heights Road at the School District 59 / former Wellington sites. The signal would also serve two hotels on the west side of Arlington Heights Road.

Subject to IDOT approval, this signal would be timed with the signal at Algonquin Road, similar to the traffic signal in front of the Double Tree Hotel, which is approximately 725 feet west of Arlington Heights Road. There is also a signal on Algonquin Road approximately 675 feet east of Arlington Heights Road at Tonne Drive. A new intersection would not only serve pedestrians, but also allow for other properties to benefit via cross access easements on private property. Further, curb cuts on Arlington Heights Road could be reduced and combined to limit the number of cuts onto Arlington Heights Road. These are benefits that IDOT takes into consideration when approving new signals.

Public Transit

Public transit is available via Pace bus routes and the Pace Call-n-Ride service. Exiting routes are in the map on page 23. Although there is no Pace bus route from this corridor north to the Downtown Metra train station, the Call-n-Ride provides service to the area for persons who need transit to the Metra station. Unfortunately, a PACE bus route used to run north to downtown Arlington Heights but that service was cut years ago due to lack of ridership. With redevelopment of this corridor, the Village should reach out to PACE and evaluate if this route could be reinstated if warranted.

Long Term Vision

Improving Pedestrian Walkability

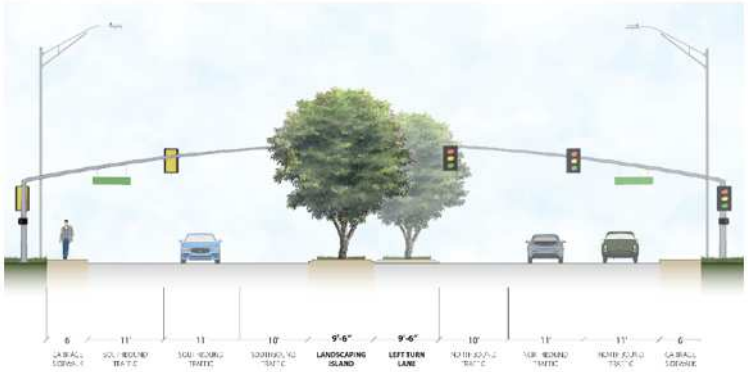
Transportation

- Proposed intersection and crossing location improvements at Golf & Arlington Heights Rd.

Long Term Vision

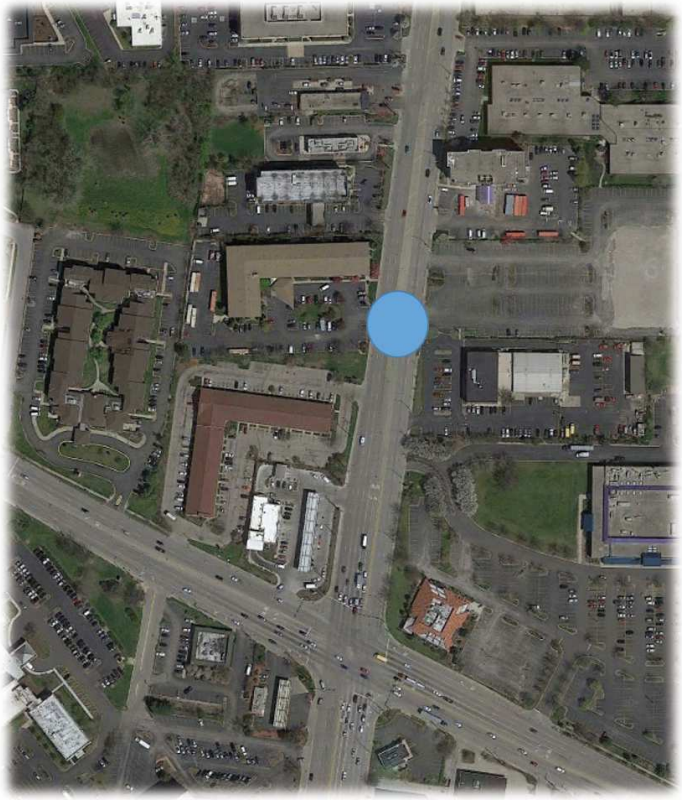
Midblock Crosswalk / Traffic Signal

Proposed



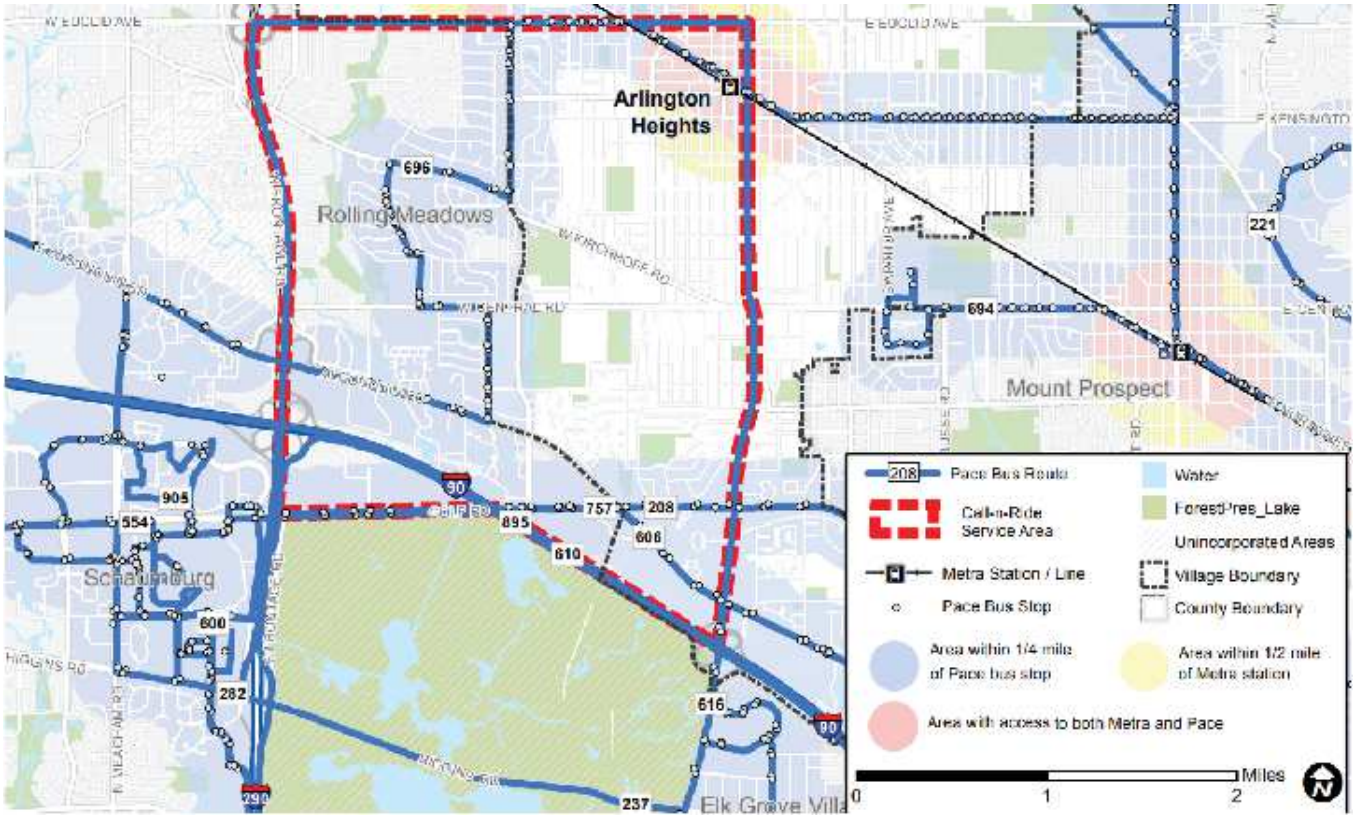
Current

Long Term Vision



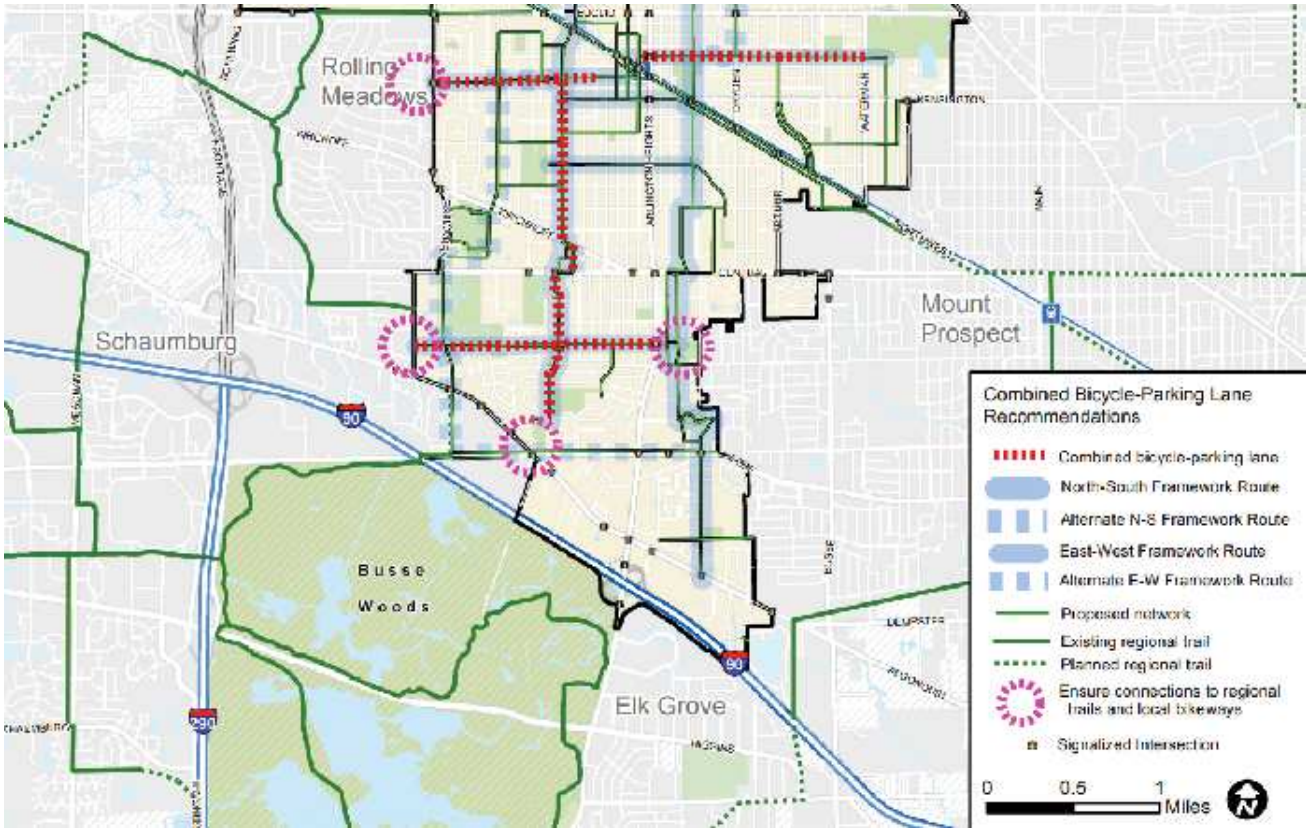
Transit Access

The map below illustrates existing transit options serving the corridor. Several East/West routes serve the area, but there is no route connecting to downtown Arlington Heights/Metra. The Township has a Call N ride service for a portion of the area. The Village should work with PACE regarding location/space needs for new bus stop shelters. In addition, as new development is built, the Village should discuss with PACE reinstating the Arlington Heights Road route to downtown.



Bicycle Infrastructure

In 2017, the Village Board approved the Bicycle and Pedestrian Policy Plan for the Village. The map below illustrates existing and proposed routes in the south end of the Village. Golf Road has been designated as an East/West Framework Route, therefore redevelopment of properties along Golf Road should include implementation of this new bike route. Please refer to the Bicycle and Pedestrian Plan for more detailed information.



Long Term Vision

Development Opportunities

There are seven development opportunity areas as depicted in the map on the facing page totaling approximately 60 acres of land. These properties represent a great opportunity to transform the corridor and implement the ideas put forth in this Plan.

The Village is actively seeking to redevelop portions of TIF 4 at Golf Road and Arlington Heights Road, and several other areas identified are being actively marketed to developers by the current owners.

This section of the Plan provides details regarding the development sites and how they could develop. Sustainable development practices shall be evaluated with each project

Long Term Vision

Vacant Office Land
- 7.0 Acres

TIF IV
- 19.7 Acres

Office Complex
- 8.2 Acres

Former Wellington Restaurant (SD 59)
- 6.5 Acres

Former Yanni's Restaurant (Yamasho Inc.)
- 4.0 Acres

Southeast Corner of Arlington Heights Rd. and Algonquin Rd.
- 15.0 Acres

Elk Grove Township Property
- 2.5 Acres

Vacant Office Land

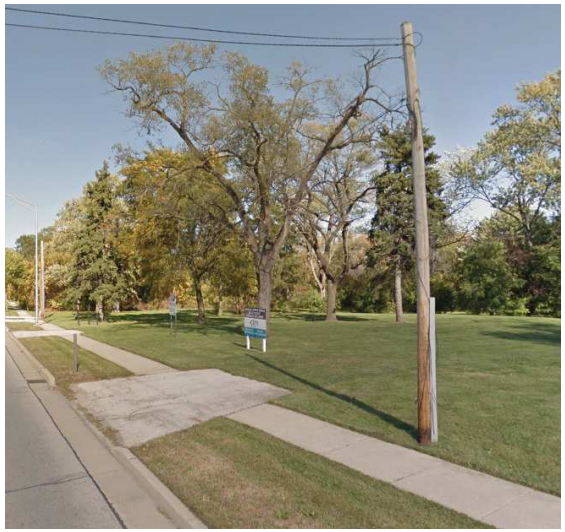
There are several parcels of vacant land under the ownership of two separate owners. The southern 2.0 acres is being marketed for sale and several medical office developers have shown interest in developing. The northern 5.0 acres does not appear to be on the market and there has been very few inquiries about developing.

Both areas are designated as Offices Only on the Comprehensive Plan which allows for 1 or 2 floor development for professional offices or medical offices. Institutional uses such as the recent Autumn Leaves memory care facility, should also be considered for these sites.

Key Development Standards

- Up to 2 floors
- Extensive landscaping buffer along the rear adjacent to single family homes
- Cross access easements interconnecting properties
- Office uses, medical or professional; Institutional uses such as care facilities

Long Term Vision



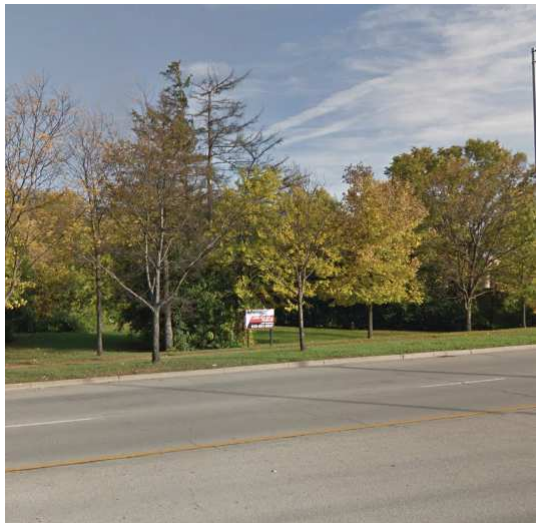
Tax Increment Financing District 4

Almost 20 acres of land comprise this development opportunity, which is included in TIF District #4 established in 2002. Since that time the Village has attempted to facilitate redevelopment of the multiple parcels, including acquiring several parcels. Currently the Village is working with a developer for the 1.4 acre corner for a Taco Bell and Wendy's. In addition, in late 2017 the Village hired a consulting firm to evaluate the highest and best use for the remainder of the area. The results of this study will form a basis for moving forward with possible additional redevelopment. The area is designated for Commercial, however mixed land uses may be considered based on market conditions.

Key Development Standards

- Focal point at NE corner of Arlington Heights Road and Golf Road
- Move sidewalks 8 to 10 feet from roadways and create landscaped parkways.
- Consolidation of parcels for redevelopment
- Mixed uses may be considered such as commercial, multi family housing, senior housing
- Up to 4 or 5 floors height
- Extensive landscaping to provide buffer to adjacent residential properties to north and east
- Implement bike route sidepath along north side of Golf Road
- Commercial Frontage

Long Term Vision



Office Complex

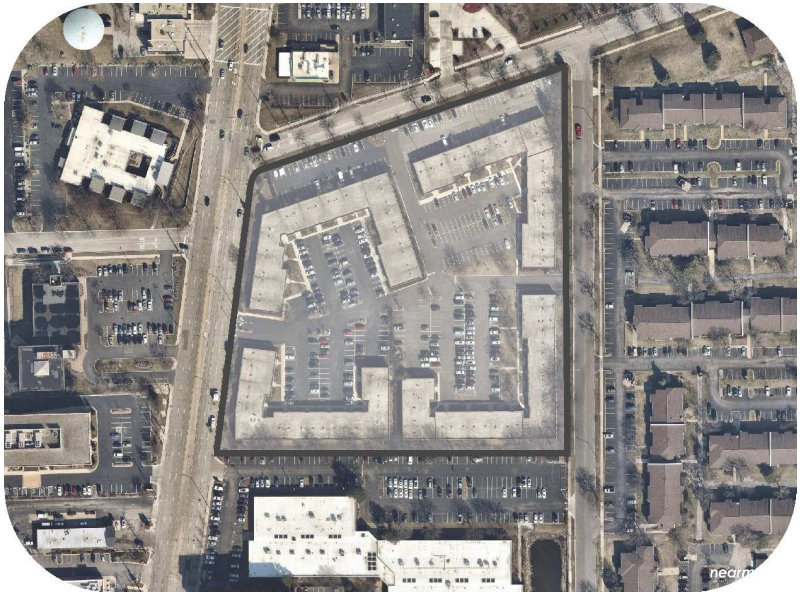
This single story office complex is approximately 40 years old and the current owner is evaluating redevelopment options. Current zoning is OT Offices which allows office uses only. The property, which is 8.2 acres, is suited to more intensive use possibly including commercial and residential land uses.

The property has access to three streets, however left turns onto Arlington Heights Road are difficult and pose safety concerns. Redevelopment should take advantage of Seegers Road for access for southbound turning movements onto Arlington Heights Road.

Key Development Standards

- Mixed use; commercial along Arlington Heights Road, residential to rear along Tonne Drive.
- Potential for landscaped median along portion of Arlington Heights Road while maintaining access to abutting properties
- Up to 4 or 5 floors height
- Primary access points on Seegers Road and Arlington Heights Road
- Possible cross access with property to south

Long Term Vision



Former Wellington Restaurant (School District 59)

This site is the current location of School District 59 administration offices, which are relocating to Elk Grove Village. In addition, several years ago the school district acquired the former Wellington banquet hall with the intention to redevelop for a new administration building and maintenance yard. However, with the decision to relocate, the school district decided to list the whole site for sale via closed bid. A developer has the property under contract and is evaluating options to redevelop the site, possibly for mixed uses.

Redevelopment of this site provides a great opportunity to begin addressing many of the goals of this corridor plan including the following:

Key Development Standards

- New mid block traffic signal and pedestrian crosswalks
- Mixed use development with commercial, entertainment, and residential land uses
- Enhance connectivity of properties to the north and south for safer pedestrian and auto access and circulation
- Enhanced corridor landscaping and lighting
- Relocation of carriage walk sidewalks by setting back 8 to 109 feet from roadway, including new parkways with trees
- Partial installation of new landscape medians within the center of Arlington Heights Road
- Up to 4 or 5 floors height
- Commercial Frontage

Long Term Vision

Long Term Vision

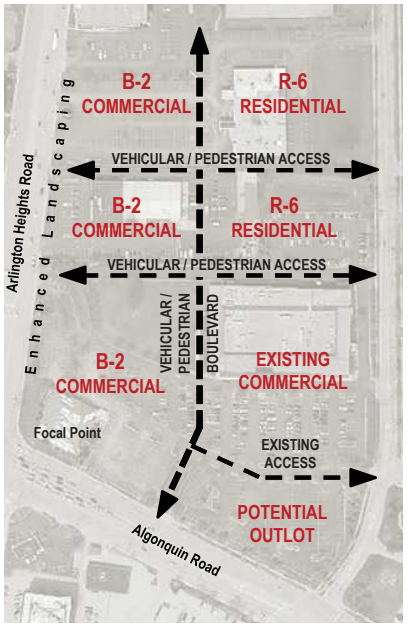
Former Yanni's Restaurant (Yamasho Inc.) - 4.0 Acres

This highly visible site includes two parcels. One parcel is the former Yanni's Restaurant at the NE corner of Arlington Heights Road and Algonquin Road. A private developer has acquired the site and plans to construct a 6,000 square foot building for a food court featuring Asian cuisine. The second parcel is owned by Yamasho Inc. and is adjacent to the west of the Mitsuwa Center. This site was once planned for a hotel, however the site sits vacant.

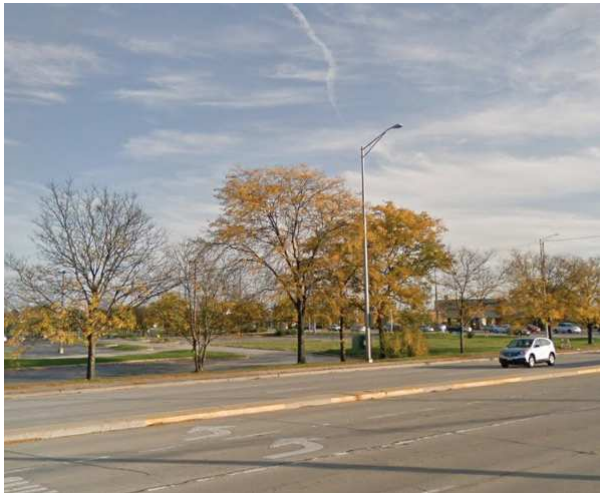
These two parcels provide an opportunity to link to and interconnect with the School District 59 sites to the north by providing cross access for pedestrians and autos. The graphic in the lower right corner depicts this concept which would benefit all the subject properties by enhancing access to existing and proposed traffic signals. Development of these sites should focus on commercial uses, preferably restaurants given the great visibility.

Key Development Standards

- Develop a focal point at the NE Corner of Arlington Heights Road and Algonquin Road
- Move carriage walk 8 to 10 feet off of roadways and provide a landscaped parkway
- Cross access easements; create private "boulevard" north/south for pedestrians and vehicles as illustrated below
- Focus on commercial uses especially restaurant and retail, up to 2 floors height



Long Term Vision



Long Term Vision

Southeast corner of Arlington Heights Rd. and Algonquin Rd.

This redevelopment site consists of several parcels owned by multiple property owners totalling up to 15 acres. The portion of the site near the Southeast corner of the intersection is owned by Bradford Allen Real Estate. This includes the 5 floor office building, former Cash for Gold commercial building, the vacant drive through bank, and the former Appleby's restaurant site. The current owner is actively seeking developers to redevelop these parcels for commercial and or mixed uses. The area for redevelopment could also include the existing Guitar Center retail building and site, as well as the one story office building to the east at 145 E. Algonquin Road. The Daily Herald may be looking for investment in their office building as well.

This prominent location along the I-90 corridor provides yet another great opportunity to enhance the corridor. As envisioned in the STAR Line Master Plan, approved in 2009, the area should redevelop for higher density, preferably mixed uses including restaurants, retail, residential and possibly entertainment. If the market warrants, a new hotel unique to the area could be considered given the access, visibility, and proximity to O'Hare.

Key Development Standards

- Mixed use commercial, restaurants, retail, hotel, residential, entertainment uses
- High density up to 10 to 12 floors (However, the STAR Line Master Plan called for up to 25 floors with transit options)
- Consolidate access points
- Move sidewalks 8 to 10 feet off roadways and create landscaped parkways
- Key access at Tonne Road and Algonquin Road
- Create focal points at corners of site at Arlington Heights Road and Algonquin Road; at Tonne Road and Algonquin Road; at I-90 off ramp at Arlington Heights Road

Long Term Vision

Long Term Vision

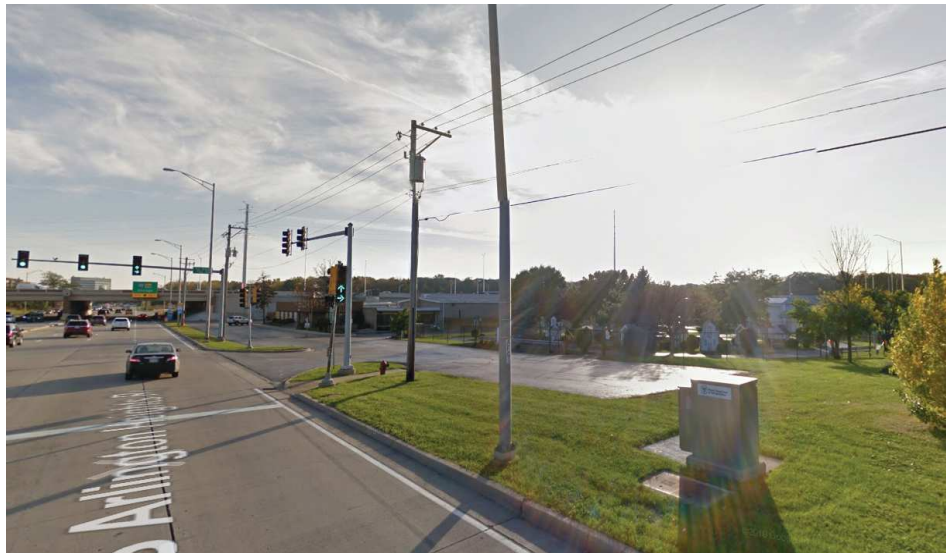
Elk Grove Township Site

This 2.5 acre site is the former location of the Elk Grove Township offices, and is currently being marketed for sale. The parcel is irregularly shaped but has great visibility to I-90 and Arlington Heights Road. There is a full access traffic signal serving the site on Arlington Heights Road. Currently zoned R-1 residential, the site is suitable for commercial zoning. As a gateway into the village, this site provides an opportunity to enhance the appearance of the southernmost portion of the corridor.

Key Development Standards

- Commercial uses, multiple floors depending on design and parking
- Enhanced landscaping along Arlington Heights Road as a focal point
- Provide new sidewalk along roadway 8 to 10 feet from road.

Long Term Vision



Long Term Vision

Phasing of Improvements

Public and Private Improvements

Phasing of improvements will depend on funding, timing of redevelopment of private parcels, IDOT approvals and level of feasibility. Certain improvements can move forward quickly, such as the recent installation of the new "Welcome" decorative banners along the corridor. Others will be linked to new development, which could take several years. The table below lists various improvements, public or private, short term or longer term, and level / degree of feasibility.

Several recommendations are outlined in the following section. Each include "actions" which need to take place in order to facilitate improvements. Much depends on the availability of funding therefore the Village should in 2018 fully explore funding options and make recommendations to the Board on moving forward with establishing funding sources to expedite improvements. This process should include recommending items in the 5 year Capital Improvement Plan.

Item	***Term***	***Feasibility***
Decorative banners	Short	High
Focal Points / Identification Features	Longer	High
New Sidewalks 8-10 feet off roadway	Longer	High
New mid block traffic signal /Ped crosswalks	Longer	Moderate/High
Burial of Com Ed Utility lines	Longer	Lower
New landscaped medians	Longer	Moderate/High
Enhanced crosswalks	Short	Moderate/High
Redevelopment of Parcels	Longer	High

Preliminary Cost Estimate

Improvement	***Low Estimate***	***High Estimate***	***Number/Amount***
Landscaped Medians	$125,000	$200,000	600-1,000 Linear Feet
Tollway Gateway	$81,000	$165,000	-
Entryways/Focal Points	$105,000	$175,000	7 locations
Banners	$25,000	$50,000	-
Traffic Signal	$250,000	$350,000	-
Crosswalks	$200,000	$225,000	1500 Linear Feet/ 18,000 Square Feet
Sidewalks	$250,000	$300,000	17,400 Linear Feet
Intersections	$100,000	$200,000	3 locations
Contingency	$227,200	$333,000	20% of estimate
Subtotal	***$1,363,200***	***$1,998,000***	-
Power Lines	$2,500,000	$5,000,000	-
Total	***$3,863,200***	***$6,998,000***	-

Funding

There are numerous public and private improvements identified in this study such as landscaping, signage, pedestrian enhancements, traffic signal, focal points, power lines burial/relocation, and private development/redevelopment of parcels. Several sources of funds which should be explored for improvements necessary to implement this Plan, including developer funds.

However, given the extent of public improvements, public funds will likely be necessary as well. Depending on the type and scope of public improvements, funding sources may be available such as: Tax Increment Financing, Special Service Areas, Special Assessments, Business Districts, Sales Tax Revenue Sharing, General Funds, and State and Federal Grants. Multiple funding options may prove effective in facilitating the recommendations of this plan. The following summarizes several tools potentially available subject to further study and analysis. Also included is an evaluation of their effectiveness as a funding source for various improvements.

Special Service Area

An SSA is a property tax that can be used to fund a wide range of services and physical improvements within a specific geographical area. In addition, State Statute defines special services as "all forms of services pertaining to the government and affairs of the municipality." Items such as marketing, special events, seasonal decorations, maintenance and general upkeep of area can be included. Public improvements can be funded such as streets, sewers, landscaping, parking, lighting, among other items. When establishing an SSA, specific projects and costs must be known at the time of approval. Public hearings are required to establish a SSA and if a majority of property owners within the proposed SSA object to the SSA it cannot be established.

Tax Increment Financing

Tax Increment Financing is a development tool that allows for incremental real estate taxes generated by new development to fund public and private improvements in a defined geographic area. The area must be found to be blighted pursuant to State Statute and the municipality must approve a Redevelopment Plan for the TIF District. The process to consider a TIF includes a public meeting of the impacted taxing districts and a public hearing of the municipality. TIF district's last for 23 years.

Business District

A Business District allows for an additional sales tax up to 1% for a specific geographic area. The funds generated can be used for a range of redevelopment activities such as land acquisition, infrastructure, marketing, among others. The municipality must find that the area is blighted per State Statute and public hearing must be held to consider a Business District. They can last up to 23 years.

General Fund

The Village could allocate a certain percentage of the Village share of property taxes from new development towards improvements in the area.

Funding

Sales Tax Revenue Sharing

The Village currently has a program to share a portion of Village sales tax revenue generated by large sales tax generators such as auto dealerships and big box retailers. These funds are used to reimburse a retailer for extraordinary development costs.

State and Federal Grants

Grants typically can be used for public improvements however due to current fiscal limitations these types of grants are limited. State and Federal

Grants

Grants typically can be used for public improvements however due to current fiscal limitations these types of grants are limited.

Evaluation of Funding Options

The matrix below evaluates the funding options as they correlate to the categories on a scale of 1 (Low) to 5 (High). A score of 0 (No) indicates that funding via that category is not allowed by Statute. The scores are based on the usefulness of each category, and the potential funds generated by that option.

	Marketing/Events	***Infrastructure***	***Maintenence***	***Redevelopment***
Special Service Area	High (5)	High (5)	High (5)	Low (2)
TIF	High (5)	High (5)	No (0)	High (5)
Business District	High (5)	Moderate (3)	High (4)	Low (1)
General Fund	High (5)	Low (1)	Moderate (3)	Low (1)
Sales Tax Share	No (0)	Moderate (3)	Low (1)	Moderate (3)
Grants	No (0)	Low (2)	No (0)	No (0)

A review of funding options as they relate to the goals of this corridor plan indicate that the two most effective tools to implement the objectives are Tax Increment Financing and Special Service Area. Municipalities have used these two tools in combination to address certain items based on timing, scope and cost. Both require a public process to approve and include specific goals and objectives as well as improvements to be considered.

Summary

The following recommendations are made in order to implement the corridor goals and objectives stated in this Plan:

Recommendation 1: Sidewalks
Carriage walk sidewalks should be move 8 to 10 feet from roadway to create a parkway separating the new sidewalks from the roadway providing a safer pedestrian environment.

Action: As property redevelops, require new sidewalks meeting standard. Improvement could be installed via Special Service Area.

Recommendation 2: Traffic Signal
A new mid block traffic signal should be pursued approximately 625 feet north of Alqonquin Road to provide a centralized main access point for future redevelopment of the Wellington's and School District 59 site.

Action: Meet with IDOT officials regarding feasibility. Pursue with redevelopment of SD 59 site and commission feasibility study.

Recommendation 3: Pedestrian Crossing
As part of a new traffic signal, pedestrian crossings should be included to provide a safe mid block crossing.

Action: Meet with IDOT officials. Pursue with redevelopment of SD 59 site.

Recommendation 4: Pedestrian Crossings at Major Intersections
Enhanced pedestrian crossing should be provided that are 10 feet wide and colorized concrete. Crosswalk timing systems should be evaluated to provide adequate time for pedestrians to cross.

Action: Meet with IDOT to discuss pedestrian enhancements at intersections.

Recommendation 5: Decorative Banners
Install on existing light poles in corridor.

Action: Design long term permanent banner polls.

Recommendation 6: Focal Points
Develop design options for focal points at intersections and entryways to corridor.

Action: Prepare design details and cost estimates.

Recommendation 7: Funding Options
Explore funding options, in particular Tax Increment Financing and Special Service Areas.

Action: Meet with property owners for preliminary discussions regarding an SSA and TIF.

Recommendation 8: Amend Comprehensive Plan
Amend Comprehensive Plan for are along east side of Arlington Heights Road from I-90 to Seegers Road.
Action: Include amendment in Ordinance approving this corridor plan.

Recommendation 9: Overlay Zoning District
Develop overlay zoning district with development standards and permitted uses specific to this corridor.
Action: Begin developing development standards and commence text amendment public process.

Recommendation 10: Coordinate with IDOT
Coordinate with IDOT early in process on public improvements which require IDOT approvals.
Action: Meet with IDOT to discuss concepts.

Recommendation 11: Coordinate with ComEd
Coordinate with ComEd on possible relocation or burial of overhead utility lines along the west side of Arlington Heights Road.
Action: Meet with ComEd officials to discuss options and feasibility.

Recommendation 12: Landscape Islands in Medians
Detailed design of new landscape islands in median along Arlington Heights Road.
Action: Constructions details for medians when ready to implement.

Recommendation 13: Identity/Branding
Work with business community in corridor area on creating an identity and branding for the corridor to market the area.
Action: Work with property and businesses in the corridor on a branding image for area.

Recommendation 14: Promotion
Promote area to developers and desired businesses such as restaurants and entertainment uses.
Action: Create brochure to market the area.

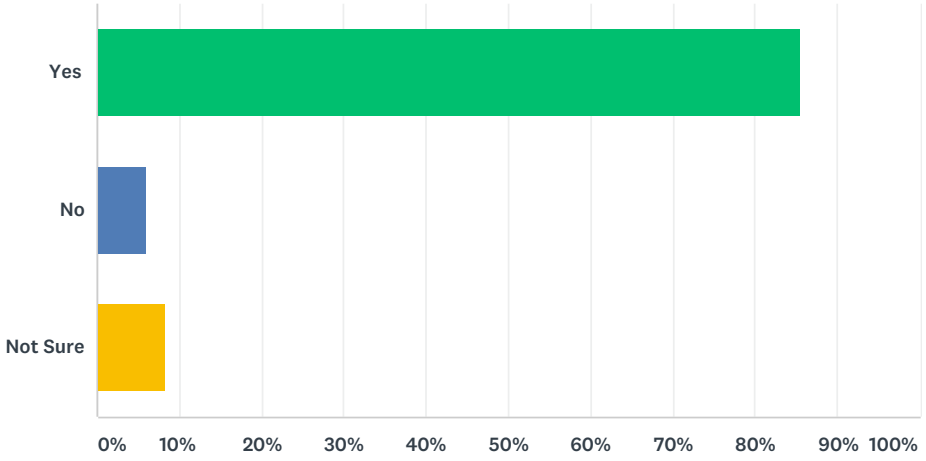
Recommendation 15: Coordinate with the Illinois Tollway Authority
Coordinate with the Illinois Tollway Authority on proposed cloverleaf landscaping improvements planned by the Tollway for interchanges such as I-90 and Arlington Heights Road.

Village of Arlington Heights

Prepared by the Department of Planning and Community Development

Q1 Do you think improvements are needed to the Corridor?

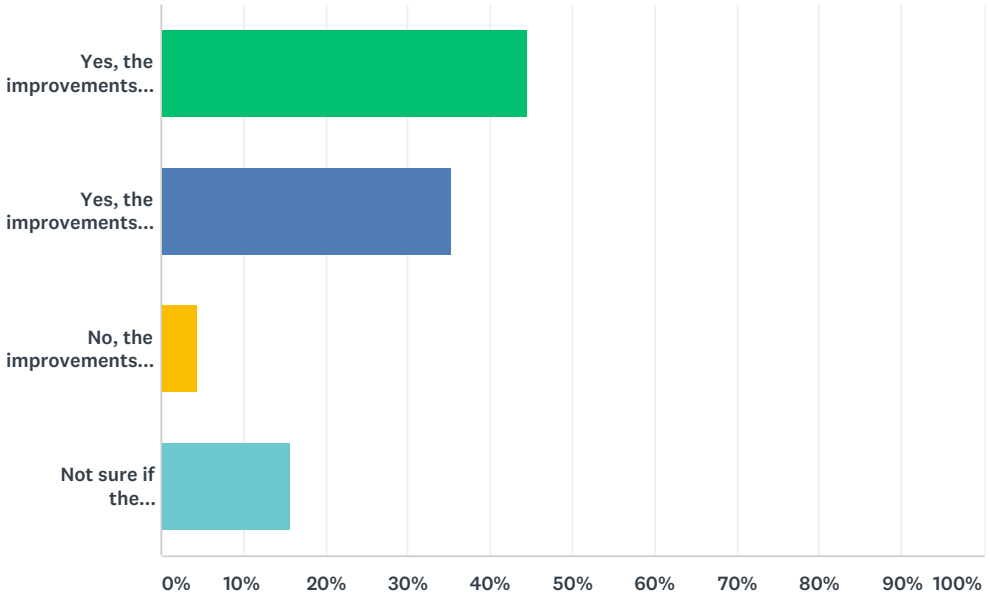
Answered: 603 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	85.57%	516
No	5.97%	36
Not Sure	8.46%	51
TOTAL		603

Q2 Did you like the proposed concepts for improvements to the corridor that were presented?

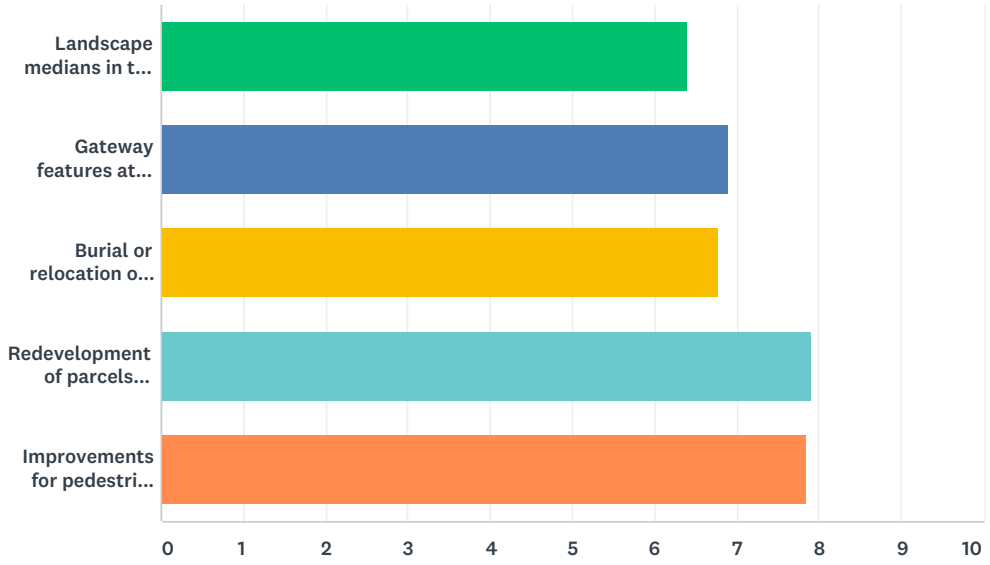
Answered: 596 Skipped: 8



ANSWER CHOICES	RESPONSES	
Yes, the improvements would be very beneficial	44.46%	265
Yes, the improvements would be somewhat beneficial	35.40%	211
No, the improvements would not be beneficial	4.36%	26
Not sure if the improvements would be beneficial	15.77%	94
TOTAL		596

Q3 Please rate each improvement listed below on a scale of 1 to 10 with 1 being not important and 10 being very important.

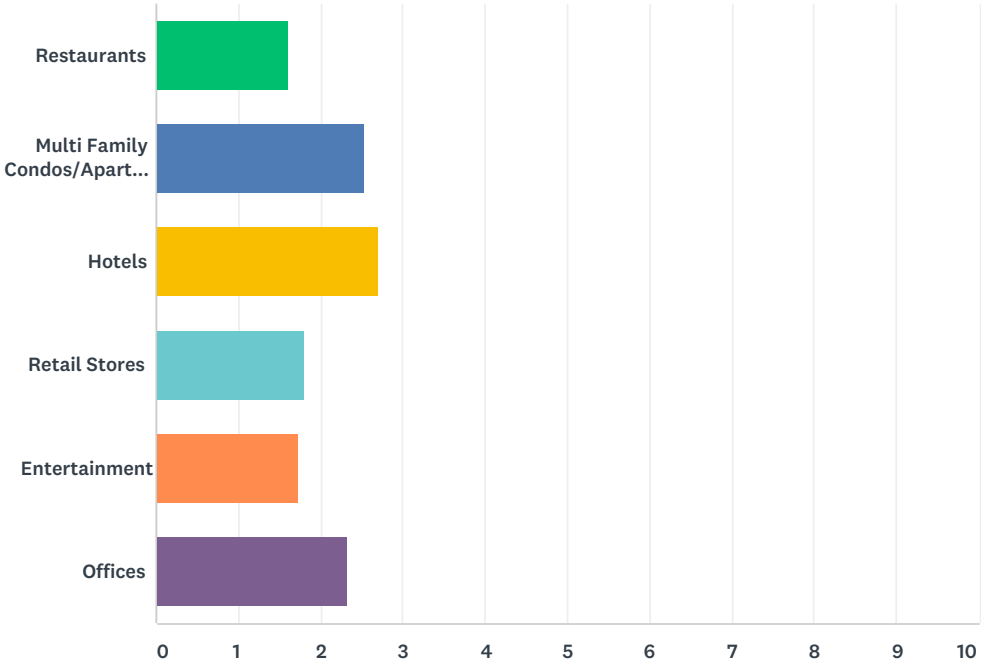
Answered: 603 Skipped: 1



	1	2	3	4	5	6	7	8	9	10	TOTAL	WEIGHTE AVERAGI
Landscape medians in the middle of Arlington Heights Road	10.13% 61	4.49% 27	6.64% 40	4.98% 30	10.80% 65	5.81% 35	14.29% 86	13.62% 82	7.81% 47	21.43% 129	602	6.
Gateway features at entries to the corridor such as landscaping and focal points.	6.99% 42	3.83% 23	4.49% 27	4.33% 26	10.32% 62	6.32% 38	12.98% 78	16.64% 100	10.32% 62	23.79% 143	601	6.
Burial or relocation of overhead power lines along Arlington Heights Road	7.82% 47	3.16% 19	5.49% 33	5.32% 32	10.98% 66	6.82% 41	13.48% 81	10.98% 66	10.98% 66	24.96% 150	601	6.
Redevelopment of parcels along the east side of Arlington Heights Road	3.49% 21	1.99% 12	1.33% 8	2.82% 17	6.81% 41	4.32% 26	9.97% 60	19.77% 119	15.45% 93	34.05% 205	602	7.
Improvements for pedestrians to walk the area in a safe manner	3.65% 22	1.50% 9	3.32% 20	4.15% 25	6.98% 42	6.64% 40	7.64% 46	12.46% 75	12.62% 76	41.03% 247	602	7.

Q4 What land uses would you like to see more of in or near the corridor?

Answered: 602 Skipped: 2



	HIGH PRIORITY	MEDIUM PRIORITY	LOWER PRIORITY	NOT SURE	(NO LABEL)	TOTAL	WEIGHTED AVERAGE
Restaurants	52.90% 310	35.15% 206	9.90% 58	1.54% 9	0.51% 3	586	1.62
Multi Family Condos/Apartments	12.84% 76	27.53% 163	54.22% 321	4.73% 28	0.68% 4	592	2.53
Hotels	6.51% 38	24.32% 142	63.87% 373	4.28% 25	1.03% 6	584	2.69
Retail Stores	40.74% 242	41.75% 248	14.98% 89	1.85% 11	0.67% 4	594	1.80
Entertainment	47.91% 286	36.68% 219	10.89% 65	3.85% 23	0.67% 4	597	1.73
Offices	15.60% 93	42.95% 256	35.74% 213	4.70% 28	1.01% 6	596	2.33

Q5 In terms of establishing an identity for the corridor, one idea is to brand the corridor as "The Gateway District". Please provide any comments on this idea or any other branding concepts that come to mind.

Answered: 332 Skipped: 273

#	RESPONSES	DATE
1	Generally fine but vague. Consider referencing Southern, Southtown or Southside in the name so people know what you're talking about	11/10/2017 12:11 PM
2	na	10/19/2017 9:50 AM
3	Street light upgrades.	10/3/2017 6:16 AM
4	NA	10/3/2017 6:11 AM
5	Great Idea	10/2/2017 12:49 PM
6	I think there is much needed improvement to this area of Arlington Heights. Beautifying this area as well as draw restaurants/ businesses as this is the entrance to our town is very important to our community and is mostly overlooked.	10/2/2017 12:19 PM
7	We have been residents for the past 10 years in this area of Arlington heights. This would be a major reason for us to stay . Please follow through with your proposals. Finally a plan for this side of town !	9/30/2017 9:13 AM
8	This is where I live and would like it to be more like downtown AH.	9/30/2017 8:50 AM
9	I see this area as the entryway to Arlington Heights. It should have a welcome arch or other signage welcoming people to AH. The Gateway District doesn't make the connection to AH.	9/29/2017 9:03 PM
10	I like it!	9/29/2017 6:52 PM
11	The area is just ugly. We tell our friends that it is Elk Grove, and coming from 90, Arlington Heights begins at Kirchhoff. There is old school signage and a lot of concrete. A median with trees would break up the aesthetic, as would zoning changes that enforced uniform signage, any green space that could be squeezed in, and financial encouragement for larger corporations to replace the small strip malls.	9/29/2017 1:56 PM
12	love it	9/29/2017 12:18 PM
13	Retails and commercial buildings are abundant and empty in Arlington Heights. If you read the news, retail is dying. Just because if you build it, they will come does not work. Build green recreational space that everyone can enjoy. Promote healthy living by inviting residents to move it - which will bring more residents in the neighborhood. Concentrate restaurants in the same area like downtown Arlington Heights to draw people as destination for restaurants scene. Have a bigger planning goal of developing a town rather project by project- let see what happens. It seems this town is known for small sightedness. Consult urban planning expert - just building and having the buildings empty is not an improvement.	9/29/2017 7:30 AM
14	Seems like a giant waste of money.	9/29/2017 5:42 AM
15	I personally do not like the name. There are many "Gateways" into Arlington Hts.	9/28/2017 10:46 PM
16	Not sure sure I like it as it is very vague.	9/28/2017 10:45 PM
17	I like that!	9/28/2017 8:50 PM
18	none	9/28/2017 8:38 PM
19	fill in the vacant remodel where needed. hotel/restaurant is near toll way easy in /and out the median needs touch up old wellington space careful planning would be nice	9/28/2017 5:33 PM
20	I like the idea.	9/28/2017 12:25 PM
21	good enough	9/28/2017 11:29 AM

22	I feel that Arlington Heights is to over developed, undermaintained, and overtaxed. There is way too much retail space that is vacant, in and around Arlington Heights.	9/28/2017 11:02 AM
23	Doesn't sound terribly inviting to me. Sounds like a penal colony.	9/28/2017 10:26 AM
24	this has no identity, gateway to what?	9/28/2017 10:00 AM
25	N/A	9/28/2017 8:55 AM
26	Gateway to what? I could go months with out passing 80% of AH on a daily basis to get to where i need to. 20% cause i live in AH.	9/28/2017 6:46 AM
27	fine	9/28/2017 6:18 AM
28	Sonds ok.	9/27/2017 10:41 PM
29	Gateway District isn't bad. Arlington South?	9/27/2017 9:52 PM
30	"The Gateway District" sounds pretentious.	9/27/2017 9:47 PM
31	:)	9/27/2017 8:59 PM
32	Gateway to what? Entertainment? Shopping? Eating? Living? Very vague	9/27/2017 8:57 PM
33	Not sure what that means. How about something simpler like “Welcome to Arlington Heights” or “Enjoy Arlington Heights”	9/27/2017 8:42 PM
34	Interesting but not an eye opener	9/27/2017 8:19 PM
35	This would be positive but would require making the area look less industrial	9/27/2017 8:12 PM
36	Pushing multi-family towards the downtown area takes advantage of public transportation. Adding multi-family to this area will create crime areas. Using the TIF by Marianos for multi-family will attract longer term residents.	9/27/2017 7:49 PM
37	as long as the "gateway" is leading to an awesome downtown.	9/27/2017 7:46 PM
38	None	9/27/2017 7:27 PM
39	None	9/27/2017 7:27 PM
40	the branding and the name Gateway District is both a good idea and a good name as it is the entrance from O'Hare and business travel.	9/27/2017 6:18 PM
41	The Gateway to what, exactly?	9/27/2017 4:49 PM
42	I think of 90s computers and St. Louis. What is this the gateway to? I am strongly in favor of planting trees and a park. Arlington has plenty of oversized empty parking lots and vacant store fronts. It's becoming an eyesore. I would hate to see new construction in addition to the empty facilities already littering the town. I can support new construction if the old buildings are removed and that the new buildings will be occupied and maintained. I want to see all new areas professionally landscaped and maintained to reflect the residential neighborhoods and pride in community.	9/27/2017 4:38 PM
43	Put elks everywhere like egv did. Tacky.	9/27/2017 4:24 PM
44	The Welcome Region	9/27/2017 3:11 PM
45	The mix of hotels in this strip are odd. The security concerns at a few of them cast a shadow over the rest. I have hesitated to have work colleagues stay here because I wouldn't feel safe having them walk in this area. I have them stay in Schaumburg along 62. Any medians can not be a haven for soliciting or pan handling. See example of Higgins and I53 interchange.	9/27/2017 11:07 AM
46	This does not impart a feeling of unity with the rest of the village. We are not a gateway. This area is either part of Arlington Heights, or it's not. Why not just call it like it is? "South Arlington Corridor" or something to that effect. I don't want to be in a gateway area, implying that you can get to other parts of town by passing through. You want people to stay, not to feel that they are just seeing pretty landscaping while they drive to Woodfield, downtown AH, or other areas.	9/27/2017 10:57 AM
47	Money should be spent on fixing flooding and sewer issue before it is spent anywhere else. There are so many empty retail spaces that look awful. Put in green space or retention pond and fill existing stores and office space throughout village. Fix what is broken. STOP building more. The town looks awful and most people are upset that govt doesn't listen or fix problems..... like sewers, flooding, empty retailers and office space.	9/27/2017 10:48 AM

48	Gateway District is just OK...something with South in it would be better and can be made in to an acronym. SGD: South Gateway District or something along those lines.	9/27/2017 10:30 AM
49	could be developed like the rte 59 corridor off 90 which seems to have mixed use and some success	9/27/2017 10:24 AM
50	Gateway is fine but maybe a term related to Arlington	9/27/2017 10:05 AM
51	N/A	9/27/2017 9:51 AM
52	Seems ok. I think branding this area is a smart idea and could contribute to its success.	9/27/2017 8:51 AM
53	I feel like the term "gateway" tends to have more of a negative association, since it is most commonly used in reference to gateway drugs.	9/27/2017 8:51 AM
54	I like The Gateway	9/27/2017 8:39 AM
55	A Taste of AH: shop, dine, do business, have fun.	9/27/2017 7:58 AM
56	Branding can be beneficial to the community.	9/27/2017 7:52 AM
57	I don't think branding has much of an effect so I am not in favor of spending a lot of money on branding.	9/27/2017 7:47 AM
58	It seems very generic. And if it is generic and not memorable, it doesn’t really achieve the goal of branding. Build upon the branding our town already has organically developed with our amazing downtown and the Arlington park race track. Let people know that this area is ALSO part of Arlington Heights.	9/27/2017 7:12 AM
59	Sounds good but people need to know it Arlington Heights. So something like "Arlington Heights Gateway District" to me sounds better. Maybe with our motto underneath or somewhere on signage.	9/27/2017 6:41 AM
60	Gateway sounds like a pass through and not part of town. That would only reinforce that people don't know it is part of arlington heights	9/27/2017 5:53 AM
61	Great idea	9/27/2017 5:18 AM
62	Great idea!!	9/27/2017 1:18 AM
63	Don't love it. "South Arlington Heights" seems fine. Greater Mitsuwa Arlington. Isn't there a lake somewhere around there?	9/26/2017 10:32 PM
64	Sounds fine to me	9/26/2017 10:26 PM
65	I think it should be called something relating to the fact that it's the original Arlington Heights.	9/26/2017 10:14 PM
66	Fine	9/26/2017 10:13 PM
67	Not super appealing	9/26/2017 10:04 PM
68	Not that great	9/26/2017 9:56 PM
69	I like it. It would be nice for folks getting off of the highway to know what town they are in.	9/26/2017 9:55 PM
70	Not really an identifying and compelling Brand name.	9/26/2017 9:48 PM
71	Not sure about Gateway. Other cities have things like the Gaslight district which is more historical, so a historical tie to the area might be interesting. Assuming AH would hire someone for branding recommendations.	9/26/2017 9:40 PM
72	"The Gateway District" seems rather bland....but I don't feel a name is entirely necessary in the first place.	9/26/2017 9:39 PM
73	Either that or Southern Gateway	9/26/2017 9:37 PM
74	OI	9/26/2017 9:34 PM
75	Don't quite understand this and why it's needed. It's Arlington Heights.	9/26/2017 9:33 PM
76	it's a waste of time developing a name for it	9/26/2017 9:22 PM
77	I absolutely don't like that name. Isn't inviting, doesn't feel welcoming or that it's an entry into a warm family town.	9/26/2017 9:17 PM
78	I'm not sure what that means. How will the visitors know what that means?? Gateway to what? Where? etc. Confusing.	9/26/2017 9:15 PM

79	Like it!	9/26/2017 9:11 PM
80	Ok	9/26/2017 9:01 PM
81	Heighten your senses	9/26/2017 8:49 PM
82	I know of that area, particularly the red roof inn to be a spot for troublemakers. Gateway could imply some negative things.. gateway to drugs, prostitution, etc.. both of which do occur in that area. I think Arlington Heights can think of something more creative than the “gateway” district.	9/26/2017 8:45 PM
83	Could do better	9/26/2017 8:38 PM
84	It sounds luxurious	9/26/2017 8:31 PM
85	N/A	9/26/2017 8:11 PM
86	Why? What does 'The Gateway District' mean or reference? How does it connect to the AH community? It seems unrelated and random.	9/26/2017 8:05 PM
87	Hurry, your losing people going to Schaumburg	9/26/2017 8:02 PM
88	Fresh and New	9/26/2017 7:34 PM
89	I think a brand for the area is important, and I like "The Gateway District" idea.	9/26/2017 7:09 PM
90	Better branding: Interstate 90 Corporate Corridor	9/26/2017 6:54 PM
91	A name is just a name. The proper development and use of land is the priority	9/26/2017 6:53 PM
92	Something with south in the name. South point, southern gateway shopping. How would you know were it is?	9/26/2017 6:41 PM
93	It's good	9/26/2017 6:36 PM
94	SoGo - South of Golf	9/26/2017 6:26 PM
95	South Arlington	9/26/2017 6:19 PM
96	That's nice, as a resident of the south end of Arlington Heights, we would WELCOME any improvements. Would love to have a little shopping area we could walk to.	9/26/2017 6:16 PM
97	The Gateway is a fantastic name	9/26/2017 6:13 PM
98	Right now this is one of my least favorite parts of AH despite living quite close to it. I think the branding is fine but success is less dependent on the name and more on the quality of shops and restaurants that go in place.	9/26/2017 6:05 PM
99	That’s fine	9/26/2017 5:50 PM
100	None	9/26/2017 5:49 PM
101	As the residents in the north and south of our Village always seem to feel slighted I think any branding needs to include direction. For example South Arlington's Gateway. District sounds too regimental and not the tone the Village of Good Neughbors need to set.	9/26/2017 5:46 PM
102	No need	9/26/2017 5:41 PM
103	That works. It should mirror the Arlington heights Dundee corridor naming	9/26/2017 5:32 PM
104	I don't care for "district " perhaps just "the gateway".	9/26/2017 5:10 PM
105	I think The Gateway undersells the location. Rather than being an entrance to something (would like to know what), brandin as a destination could be beneficial if branding is required at all.	9/26/2017 4:53 PM
106	Not really necessary	9/26/2017 4:19 PM
107	I like the name. Makes sense because it is the gateway to Arlington Heights from I-90	9/26/2017 4:18 PM
108	Green spaces, consider art installations like Skokie, bicycle access. Perhaps look to build off culture of Mitsuwa and other Asian characteristics.	9/26/2017 4:10 PM
109	Not sure if I love the name	9/26/2017 4:06 PM
110	NA	9/26/2017 3:51 PM
111	Uptown	9/26/2017 3:50 PM
112	That sounds great!	9/26/2017 3:50 PM

113	If this gets called the Gateway District, I would hope that there will be businesses that attract people to visit. I understand that Condos can increase the tax base, but a few restaurants added back to the area would be nice. Applebees, Yanni's and Higley's Family Restaurant have all left the area over the last decade or so, and I would like to see some places to eat come back to the area.	9/26/2017 3:34 PM
114	That name would be okay.	9/26/2017 3:33 PM
115	Reminds me of Gateway computers. On its own, it doesn't really mean anything at all. People will constantly ask "Gateway to what?". Definitely needs a better name.	9/26/2017 3:25 PM
116	Na	9/26/2017 3:02 PM
117	It sounds too grandiose when it should merely emulate the downtown area behind the train depot.	9/26/2017 3:00 PM
118	Sounds good.	9/26/2017 2:57 PM
119	Not entirely sure what that means.	9/26/2017 2:54 PM
120	No, how does that work. It does not identify anything about Arlington Heights	9/26/2017 2:54 PM
121	N/a	9/26/2017 2:50 PM
122	Gateway to what? If it's a gateway then you need to have some material connections to something else, like the downtown part of Arlington Heights or the race track. Maybe start an Arlington Heights trolley between the areas. Why not give it it's own identity rather than being a gateway to something else? If you think about the city of Chicago, each area has it's own personality and identity. Take some cues from that. How does this area of Arlington Heights see itself and its personality? Other ideas ... what historically is significant about the area? Maybe brand it after that. Or maybe something about it being southern like "South Town", "South Village Center". Or "The Prairie District" or "Prairie Village", which is all about the nature of Illinois and it's prairies, but also named after the "Prairie Park" area located just east of the area.	9/26/2017 2:48 PM
123	It doesn't need branding. Term "gateway" can infer keeping things in or out. Not a fan of either words "gateway" or "district"	9/26/2017 2:46 PM
124	Why? This is not an inlet with one way in and out. Insulting to rest of community. Why does it need a name?	9/26/2017 2:36 PM
125	Feels a bit like an airport	9/26/2017 2:25 PM
126	Makes sense, since you exit the highway and get to downtown Arlington heights through "the gateway"	9/26/2017 1:50 PM
127	No branding need just something that says welcome to arlington	9/26/2017 1:31 PM
128	Waste of money	9/26/2017 1:21 PM
129	I would focus on corporate offices and employment. Try to make it more of a hub like Rosemont or Schaumburg.	9/26/2017 1:01 PM
130	Does AH really NEED this or just want this? I believe this money could be put to better use	9/26/2017 12:53 PM
131	At times, O'Hare layovers are bussed to this area for an overnight at the hotel. This could be the business district, layover district, or leadership district.	9/26/2017 12:49 PM
132	No sure	9/26/2017 12:48 PM
133	Until the crime is addressed in these areas its going to be known as the Get-Away District, because we all want to get away from it as soon as possible to avoid all the crime and violence in that area.	9/26/2017 12:45 PM
134	That's ok.	9/26/2017 12:44 PM
135	I think this is a great idea!	9/26/2017 12:40 PM
136	Arlington Gateway - idea for a name	9/26/2017 12:33 PM
137	sounds like a good name. Maybe something that indicates it's the south part of the village, since I think of Rt 53/NW Hwy as a gateway as well.	9/26/2017 12:23 PM
138	Södermalm	9/26/2017 12:23 PM
139	None	9/26/2017 12:22 PM
140	Södermalm	9/26/2017 12:20 PM

141	Addition of a lot more green space with trees.	9/26/2017 12:17 PM
142	Not sure I like the name. Makes me think of "gateway drugs" which we don't want associated with AH.	9/26/2017 12:07 PM
143	What is it the gateway to???	9/26/2017 12:07 PM
144	Like this identity	9/26/2017 12:06 PM
145	I like the idea of branding the corridor, not sure the gateway district is the best name.	9/26/2017 12:06 PM
146	N/A	9/26/2017 12:02 PM
147	None	9/26/2017 11:59 AM
148	The word "district" implies seperations, multiple sections of the Village. We are one village. It also implies a single access to the village.....what would the northern part of town be called? The western part? The eastern part?	9/26/2017 11:56 AM
149	Sounds good	9/26/2017 11:54 AM
150	AH I-90 Area	9/26/2017 11:54 AM
151	.	9/26/2017 11:46 AM
152	Ok	9/26/2017 11:41 AM
153	Like it. Have to clean up the hotels down there though. A lot of undesirable customers and crime right off the expressway.	9/26/2017 11:29 AM
154	Expansion of the original downtown Arlington Heights when the Arlington Theater existed. Outdoor concert venue (park area with lawn and bandshell), local restaurants or area for food trucks to give a more local feel to our village.	9/26/2017 11:26 AM
155	Like it	9/26/2017 11:24 AM
156	Sounds pretty good. Honestly, I'm not sure many would "get it" but it seems appropriate.	9/26/2017 11:09 AM
157	It looks awful when you enter and see everything empty, rundown and all people walking around from the hotels. Does not represent the so called “upscale look and feel” that is being attempted to be projected.	9/26/2017 11:08 AM
158	Any corridor that is implemented needs to have great access from all points. Large medians along this current route do nothing but hinder access. The identity IMO needs to be of a modern approach with sleek clean areas. This is basically a blank slate to really sett he tone entering the village from the south and needs to be given a facelift that could be incorporated through the village going forward.	9/26/2017 10:57 AM
159	None that I can think of	9/26/2017 10:55 AM
160	like the idea	9/26/2017 10:50 AM
161	It's the first thing you see off of 90 - it needs A LOT improvement	9/26/2017 10:43 AM
162	Love it.	9/26/2017 10:33 AM
163	sounds great!	9/26/2017 10:29 AM
164	Good idea.	9/26/2017 10:08 AM
165	doesn't matter	9/26/2017 9:47 AM
166	"The Gateway" was used in old Jefferson park in Chicago.	9/26/2017 7:42 AM
167	Branding is not necessary. Attaching a fancy name will not mean anything else the corridor develops into a place people want to visit.	9/26/2017 7:06 AM
168	n/a	9/26/2017 6:54 AM
169	I would rather see it called "South Village" or "South Town". The name should complement the "Downtown" and "Uptown" names we use now.	9/25/2017 7:11 PM
170	Sounds good.	9/25/2017 12:54 PM
171	Work Arlington Heights into the name or logo so Gateway District is identified with Arlington	9/25/2017 9:31 AM
172	It doesn't seem very catchy - what does it mean?	9/25/2017 9:25 AM

173	"South Centre" where as by the train area is more the "City Centre", "AH CBD", "Southern High Street", "Southern Midtown" "Southern Heights", "Upper South Heights"	9/25/2017 8:57 AM
174	Arlington heights is a great community, let's attract businesses with lower taxes so vacant lots can be filled	9/25/2017 8:10 AM
175	I don't think that giving the area its own name is important. The improvements are important.	9/25/2017 7:46 AM
176	Sounds good	9/25/2017 6:22 AM
177	Heritage District	9/25/2017 6:15 AM
178	Currently we have a truly generic and commercial look. Not welcoming but industrial at best. Making it a bit more family friendly will be a great improvement while adding to the 'feel' of a neighborhood and welcoming place. Warming it up, making it available for holiday decorating, almost like bringing the downtown feel throughout the town a bit more. Custom retail with affordable rents will help remove the stigma of the big box stores and such.	9/25/2017 6:04 AM
179	Good idea, we need more signage welcoming visitors into Arlington Heights	9/25/2017 5:13 AM
180	I think it's unnecessary to brand the area. What's the point of having a beautiful looking street if every time it rains it's covered in a foot of water due to our outdated sewer systems!	9/25/2017 2:03 AM
181	I think it's unnecessary to brand the area. What's the point of having a beautiful looking street if every time it rains it's covered in a foot of water due to our outdated sewer systems!	9/25/2017 2:03 AM
182	How about "Gateway to the Heights"	9/24/2017 9:38 PM
183	Sounds Lame. There's more than one gateway to the Village.	9/24/2017 8:58 PM
184	N/A	9/24/2017 4:00 PM
185	sounds good	9/24/2017 3:28 PM
186	it's ok but not great.	9/24/2017 6:33 AM
187	Unsure.	9/23/2017 9:06 PM
188	Branding is not important. Let's work to get some tax dollars paid to the city.	9/23/2017 5:56 PM
189	Gateway District is not a very welcoming name. It almost has a dark drug-like feel to it. I would be leary of visiting the Gateway District. However, something more welcoming like the South Arlington Entertainment District. South Arlington Restaurant Row. Or even just Arlington Heights Southern Corridor.	9/23/2017 4:07 PM
190	I like the branding idea, but not sure about the name.	9/23/2017 9:36 AM
191	“South Arlington”, “South Arlington Gateway”	9/23/2017 7:34 AM
192	remove existing officescapes---they are tired and not to grade level. Enough hotels are there. Need a residential focus which supports existing / new restaurants. The corridor will fail if no one lives within it. Make Arlington Hts road a boulevard with trees in the median, trees lining the sidewalks. Get rid of the commercial focus from Algonquin north of Golf, ensure living is not super dense---NOTHING HIGHER THAN 4 stories tall.	9/23/2017 7:18 AM
193	I feel it's pretty accurate and describes the area well.	9/23/2017 6:48 AM
194	Gateway to “”. Model after Northbrook	9/22/2017 11:25 PM
195	Why brand the area?! Why spend monies you don't have?!	9/22/2017 10:38 PM
196	South Arlington	9/22/2017 8:54 PM
197	I'd like a name that has more connection with Arlington Heights. "The Gateway District" sounds like St. Louis or "A Gateway Drug." More like "Arlington Heights South," "The South Arlington District," or "The Arlington Heights Corridor."	9/22/2017 11:43 AM
198	Just because you name something does not mean it will make it better.	9/22/2017 12:01 AM
199	I think it sounds good since it is a lot of commercial. It would be nice to use the space for entertainment and restaurants, bars, boutiques - more like a mini downtown	9/21/2017 2:33 PM
200	Do other districts have names? See, no one really pays attention to that.	9/21/2017 11:17 AM

201	I'm cautious about the transient vibe and consequently, crime possibilities. This area right now feels like a sketchy pit stop for gas w/ easy access to hotels for overnights. I believe this area can benefit more by being viewed as a entertainment/family friendly area by adding "nicer" restaurants, retail shops, kid play establishments and more street lighting in the areas between hotels.	9/21/2017 8:17 AM
202	I think all of this is great but one of the biggest issues has to do with what high school that area feeds into a lot of people I know don't want to live there because it goes into Rolling Meadows instead of Hersey or Prospect	9/21/2017 6:21 AM
203	To be honest, I don't like the name. It makes me think of "gateway" drugs. I would love to see something about being a strong community of acceptance and diversity " or something about safety	9/21/2017 6:19 AM
204	Since this gateway enters into suburbs that are exceptionally family-oriented, I think the focus should be on restaurants and entertainment venues that are available to all ages. Meaning family restaurants children's play areas indoor especially as I feel our area is lacking in good indoor play facilities	9/21/2017 6:09 AM
205	Sounds negative	9/21/2017 5:55 AM
206	Lower Arlington or Lower Arlington Corridor	9/20/2017 9:49 PM
207	Gateway District has a negative connotation in my mind, e.g. drugs. I would favor Uptown.	9/20/2017 9:40 PM
208	Not sure about branding... but it needs police presence. I don't feel that area is safe	9/20/2017 9:40 PM
209	Brand it on what it is, not where it can take you. South Arlington Heights needs its own identity - we have great neighbors and good neighborhoods - don't brand us as just a place to drive through.	9/20/2017 9:05 PM
210	How about 'Access to Arlington'	9/20/2017 7:24 PM
211	It is important to remember what fast food chains and apartments can bring to a neighborhood. This is not more of the things we want to bring to the area where more police attention is provided directly off of 90.	9/20/2017 7:02 PM
212	Sounds fitting.	9/20/2017 6:47 PM
213	It's fine, but what really matters is what the area is like	9/20/2017 6:31 PM
214	The name doesn't sound appealing!	9/20/2017 5:14 PM
215	Why does it need a name? Welcome to Arlington Heights works fine.	9/20/2017 4:57 PM
216	Gateway seems to imply that the district would be something you pass through-don't spend a lot of time in, something you drive through to get to the other parts of town or somewhere else. Is there something in the history of AH or that area specifically that would lead to some naming ideas?	9/20/2017 4:53 PM
217	Brick paver side walks. Planters. Decorative street lights.	9/20/2017 4:34 PM
218	South Town Centre South Village Centre South Arboretum	9/20/2017 3:38 PM
219	No comment	9/20/2017 3:35 PM
220	This area should look as nice as downtown and north Arlington. This area has always been promised improvements that always fall through. Empty promises. We are the forgotten ones. We need a good clean up and our area needs to live up to the beautiful Arlington heights reputation!!! It's a bit sad that we pay the same taxes as others in other beautiful Arlington Heights neighborhoods do - and we are considered the 'slump' part of the village. Not worth it in my eyes unless we start to see a change. South Surrey Ridge needs your attention as well!	9/20/2017 3:29 PM
221	None	9/20/2017 2:23 PM
222	Concerned about additional traffic volume and slower throughput While traversing the road (double impact)	9/20/2017 2:15 PM
223	I do not like the use of the Gateway District. Generally the only time I hear the word gateway is in relation to drug use and that has a negative connotation to it. Also, the hotels in the area already show up in the blotters with issues with drugs, crime, and prostitution, so for me that would add to the negative side of it	9/20/2017 2:03 PM
224	I like it. Has more of an industrial edge feeling which is what that area is.	9/20/2017 2:00 PM
225	Not a big fan but I don’t have a better suggestion right now. Makes me think of gateway drugs or GD for short.	9/20/2017 1:45 PM

226	Anything that will make it Warming, inviting...grew up in that area and was always so cold and depressing	9/20/2017 1:43 PM
227	Many more serious issues to address in Arlington Heights. This is a waste of money. MY tax dollars.	9/20/2017 1:31 PM
228	Branding: "the process of creating a relationship or a connection between a company's product and emotional perception of the customer for the purpose of generating segregation among competition and building loyalty among customers." How exactly does "the gateway district" create any type of relationship with the people of Arlington Heights? I don't think it's a very successful concept.	9/20/2017 1:29 PM
229	Really dislike the idea of adding another stoplight in that area.	9/20/2017 12:11 PM
230	n/a	9/20/2017 8:36 AM
231	Ok	9/20/2017 6:35 AM
232	What does it refer to? Being a gateway to other cities? Wouldn't calling it something with arlington heights in it help build the AH brand? AH gateway perhaps?	9/20/2017 6:11 AM
233	Not Necessary. It's appeal will come from it's function, not it's form. Call it anything you want, just make sure it has what people want.	9/19/2017 11:34 PM
234	Don't waste money on branding. Spend it on creating a good space.	9/19/2017 10:42 PM
235	Welcome to Arlington Heights	9/19/2017 10:14 PM
236	That name does not resonate with me as a resident.	9/19/2017 9:23 PM
237	People are already drawn to Arlington Heights for the downtown area, so this gateway area could be a nice extension of that..also bringing condos as opposed to office buildings would cultivate a greater investment in the neighborhood for those who buy in.	9/19/2017 9:04 PM
238	What does "the Gateway District" even mean? If you surveyed people, my guess is no one would have a clue. You need to make it more meaningful - "Arlington Heights - a great place to visit/live" or "Welcome to Arl Heights - a vibrant/welcoming community" - something along those lines. This southern corridor is currently more likely known as "a jumble of places I have no interested in visiting," or "a great place to hire a prostitute and get caught in a sting operation" if local police blotters are accurate. The area needs a cohesive identity - is it the entertainment district? What makes it special and elevates it from its current low-end feel?	9/19/2017 8:36 PM
239	Please include affordable housing in any development plans.	9/19/2017 8:06 PM
240	.	9/19/2017 8:00 PM
241	N/A	9/19/2017 7:43 PM
242	The street lights installed in the downtown area would be great to also install along Arlington Heights Road as well as Northwest Highway and other important arteries. They are very attractive, would help improve the appearance of the proposed changes and would provide a unifying identity within Arlington Heights.	9/19/2017 7:34 PM
243	Good name	9/19/2017 7:23 PM
244	I like it.	9/19/2017 7:13 PM
245	The word "district" makes me think of school ____ or park ____.	9/19/2017 7:11 PM
246	I would be fine with this branding.	9/19/2017 7:11 PM
247	Don't use the word "south" as there is already an attached stigma to the "south side of the Village". Gateway Corridor is great, and is very neutral.	9/19/2017 7:05 PM
248	No ideas	9/19/2017 6:46 PM
249	Welcome to Arlington Heights	9/19/2017 3:52 PM
250	I'm not sure of the viability of this area for commercial or residential nor whether it is even necessary. Additional beautification or green space would be helpful especially along entry corridors.	9/19/2017 3:49 PM
251	Too generic. The Heights.	9/19/2017 3:13 PM
252	Arlington Mile	9/19/2017 2:58 PM

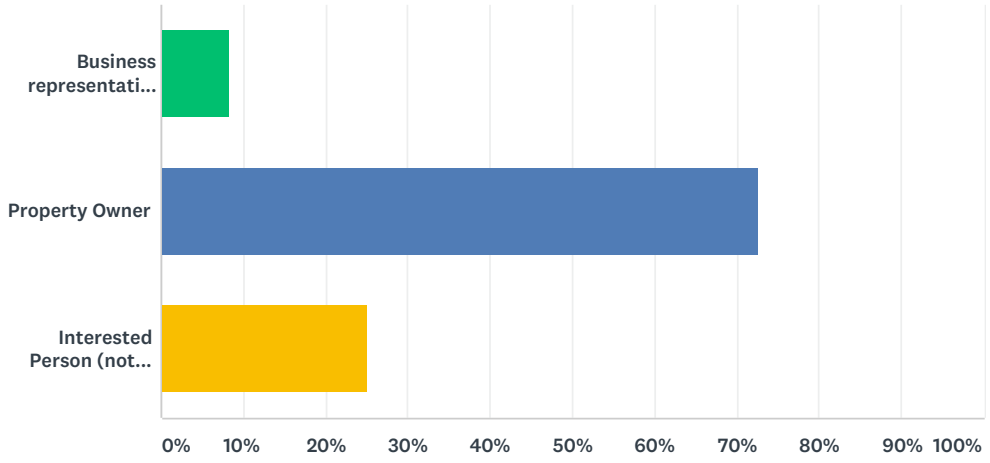
253	Arlington Mile	9/19/2017 2:58 PM
254	I do not have any better suggestions but will naming this district come up again in discussion before finalizing?	9/19/2017 1:34 PM
255	Should be something related to AH, use our history to market the village	9/19/2017 1:26 PM
256	Good name	9/19/2017 1:21 PM
257	I like it.	9/19/2017 12:29 PM
258	No additional comments	9/19/2017 12:27 PM
259	none	9/19/2017 12:26 PM
260	Unnecessary to brand at all.	9/19/2017 12:10 PM
261	Keep it simple	9/19/2017 12:09 PM
262	I don't think there needs to be a new name created for this area. I think that promoting the gateway as Arlington Heights is best.	9/19/2017 12:05 PM
263	what does that even mean?	9/19/2017 12:05 PM
264	none\	9/19/2017 11:51 AM
265	Rosemont generates a lot of economic benefits for its entertainment, restaurants and retail offerings which are easily accessible of interstate 90. Arlington Heights Road can offer the same economic benefits to Arlington Heights if this corridor serves a similar purpose to Rosemont. The south side of Arlington Heights as limited options for entertainment, restaurants and retail at this time.	9/19/2017 11:29 AM
266	It's ok	9/19/2017 11:05 AM
267	It's ok	9/19/2017 10:54 AM
268	Good idea	9/19/2017 10:47 AM
269	I think it's a good theme.	9/19/2017 10:38 AM
270	mixed use of restaurants/stores/entertainment	9/19/2017 10:32 AM
271	No comments	9/19/2017 10:26 AM
272	I like the idea of the gateway district but its success will come down to execution on that idea. That area of Arlington is diverse and I really enjoy all the unique shops and food options that area has to offer. I don't think you can get that any where else (outside of the neighborhoods in Chicago).	9/19/2017 10:20 AM
273	Gateway to what? AH, good food, nice housing?	9/19/2017 10:02 AM
274	Not sure this wording is the best idea...very non-specific. More research should be done into choosing a better name for this area	9/19/2017 10:00 AM
275	I think gateway is a terrible word...	9/19/2017 9:57 AM
276	"Gateway" is often used when referencing drugs, I do not like this term as part of the new branding.	9/19/2017 9:52 AM
277	I don't know anything about branding	9/19/2017 9:46 AM
278	Gateway district sounds ok. Whatever you want to call it, it needs improvement ASAP.	9/19/2017 9:29 AM
279	Go back to target and beg them to invest. Otherwise this idea just becomes Rolling Medows with an abandoned Dominic's.	9/19/2017 9:26 AM
280	Look, AH has no open space. It's sad, really. More buildings more buildings more buildings. Those lovely open parcels on the east side of AH Rd south of Starbucks could have been snapped up by the VAH and used as a creative model for open space. More offices, more mumtifamy housing along a crowded road, etc will not encourage pedestrians, it will just add to more crowding and mireif the same. Look at what Schaumburg has done with their open spaces due to careful planning. Now THAT is a destination for people and families. And guess what? Almost NO buildings at that site on busy Schaumburg Road.	9/19/2017 9:23 AM
281	Dislike this- makes me think of St. Louis	9/19/2017 9:09 AM
282	That works	9/19/2017 8:58 AM

283	NA	9/19/2017 8:49 AM
284	.	9/19/2017 8:47 AM
285	Really isn't a gateway to much besides the neighborhoods that lead to the downtown area.	9/19/2017 8:45 AM
286	Gateway to WHAT? Gateway to AH to Gateway to the crime in the south part of AH?	9/19/2017 8:43 AM
287	Gateway to what?	9/19/2017 8:42 AM
288	I like the name "The Gateway District".	9/19/2017 8:42 AM
289	Sounds like the name of a movie. Ugh.	9/19/2017 8:29 AM
290	It would be great if the look would tie into the look of down town. And in the future bring the same look to the north side (Dundee & AH road). Giving our wonderful but long town a sense of oneness. Helping to stop the which side of the tracks do you live. This looks great and look forward to supporting the village as this moves forward	9/19/2017 8:26 AM
291	No strong feelings either way	9/19/2017 8:20 AM
292	Gateway District is somewhat bland and predictable. I think something catchier will engage residents interests in this project much more.	9/19/2017 8:19 AM
293	Why brand it at all? "Arlington Heights" is clear and straight-forward.	9/19/2017 8:17 AM
294	Sounds nice. Don't really have an opinion.	9/19/2017 8:13 AM
295	I don't like it ....what would you build, a gateway to drive thru to get to the city??? not really appealing.	9/18/2017 5:39 PM
296	The idea of branding the district positive and one that could elevate our village to a more contemporary area bringing young families and professionals to the area, however the word "Gateway" feels off. That needs work. So many negative connotations or nicknames come to mind from that word. There has to be something better. Maybe offer a contest to the neighborhood or local citizens or see if a branding agency could do it pro-bono or a local college marketing department could work on it and village take a vote.	9/18/2017 2:30 PM
297	Focus on being more technology conscious and environmentally conscious by adding electric car charging stations for vehicles like Teslas. Also add solar panels where possible to reinforce a brand image immediately to anyone visiting AH from I-90 that we are a future forward thinking community that is desirable to professional millennials for economic opportunities	9/17/2017 8:04 PM
298	Beautification should be a priority	9/16/2017 9:23 AM
299	Maybe something a little "classier sounding".	9/16/2017 7:11 AM
300	If the already vacant land was developed and the many homeless people around there were relocated, it would have a big impact on the appearance as you drive north on Arlington Heights Road. No other major changes are needed.	9/15/2017 5:32 PM
301	Last Chance for Civilization.	9/15/2017 4:41 PM
302	Nice branding	9/15/2017 2:15 PM
303	I don't know about marketing concepts. But I do feel that this area of the village is a massive ugly concrete. if there is some way to get more landscaping and trees into it as well as sidewalks that would be a big step forward.	9/15/2017 12:11 PM
304	No major thoughts on this	9/15/2017 11:50 AM
305	Could be construed as an illegal drug zone...	9/15/2017 10:26 AM
306	Berlin has there brandenburg gate and Paris has the arch and Eiffel tower Tokyo also has the radio tower.	9/15/2017 10:12 AM
307	n/a	9/15/2017 9:24 AM
308	Gateway District is better than what it is now but it really doesn't have an identity. What does it mean to someone who has never been to the town? Not much. Needs to be something that has an identity like the old restaurant row in wheeling.	9/15/2017 9:24 AM
309	No comment	9/15/2017 9:12 AM
310	I think this is a great idea!	9/15/2017 8:38 AM

311	"Gateway" seems boring, but I don't have an alternative.	9/15/2017 8:35 AM
312	You might need everything mentioned in #4 in order to keep up with and compete with surrounding communities. "The Gateway District" concept could mean an approach that provides a glimpse of what is to come as one continues to explore AH, which might require small enhancements all the way to downtown.	9/15/2017 7:56 AM
313	The Gateway District provides no identity whatsoever. How about the Southern Cross?	9/15/2017 7:27 AM
314	Gateway District isn't bad. Definitely don't use "Uptown" as shown in some of the graphics in the presentation. There are other areas of the village closer to downtown that could use that designation if redeveloped.	9/15/2017 7:13 AM
315	Sounds okay	9/15/2017 5:57 AM
316	Gateway says nothing about Arlington Heights. South Arlington Heights is all you need.	9/15/2017 5:52 AM
317	it makes sense to call it that	9/14/2017 11:55 PM
318	Good	9/14/2017 8:22 PM
319	I like it.	9/14/2017 7:59 PM
320	Green space like a park with a fountain that ties into the overall feel of all of Arlington Heights.	9/14/2017 7:42 PM
321	Would be nice to put it more green space and a park visible from AH road to help establish the feel for the rest of the community.	9/14/2017 7:38 PM
322	Waste of tax payer funds	9/14/2017 6:59 PM
323	I like it.	9/14/2017 11:16 AM
324	Don't love but don't hate it.	9/14/2017 9:13 AM
325	Sorry, I didn't see the presentation so it is difficult to comment.	9/14/2017 8:50 AM
326	More people coming to our area	9/13/2017 2:57 PM
327	The Doorway District better than a gate - but a front door inviting people in to AH. -	9/13/2017 1:48 PM
328	The corridor should accommodate regional international companies. Currently we do not specifically zone or retail specifically to foreign employees of said companies nor do we cater to their culture.	9/13/2017 1:43 PM
329	No opinion.	9/13/2017 1:36 PM
330	Gateway is a means to a destination and not a destination itself. Not trying to take away from the downtown, but would like to make the south side somewhat of a destination as well...	9/13/2017 1:05 PM
331	Not too thrilled with "The Gateway District"	9/13/2017 12:44 PM
332	Arlington Heights Gateway	9/13/2017 12:44 PM

Q6 Please indicate which of the following apply to you (Check all that apply)

Answered: 599 Skipped: 5



ANSWER CHOICES	RESPONSES	
Business representative or business owner	8.35%	50
Property Owner	72.62%	435
Interested Person (not representing a business or property owner)	25.21%	151
Total Respondents: 599		

Q7 Please use the space below for additional comments.

Answered: 226 Skipped: 379

#	RESPONSES	DATE
1	Village has many other needs that should come before this redevelopment. It should be deprioritized.	11/30/2017 1:13 PM
2	Resident of Southern AH but not business owner	11/10/2017 12:11 PM
3	Landscape islands are fine as long as the roadway does not become reduced in size. Arlington Heights Road from the expressway thru and past Golf Road is extremely busy during work hours.	10/20/2017 8:57 AM
4	na	10/19/2017 9:50 AM
5	Please keep minimal disruption to traffic flow. It's a major thoroughfare for north south route through town from a major highway.	10/3/2017 11:43 AM
6	Need safe bicycle crosswalk to the south to Elk Grove Village and Busse Woods in the Tollway interchange.	10/3/2017 6:16 AM
7	NA	10/3/2017 6:11 AM
8	As a former A.H. resident for 31 yrs, this area needs alot of work.....it has been an eyesore for way too many years.	10/1/2017 2:59 AM
9	Firmly behind project !	9/30/2017 9:13 AM
10	In addition to significant pedestrian upgrades, I would like to see improvements for bicyclists, as well.	9/30/2017 8:35 AM
11	This area is the primary entrance off 90 for those visiting our town and it is a blighted area. Frankly it is an embarrassment to our town. The sooner this is corrected the better for AH.	9/29/2017 9:03 PM
12	We love walking around downtown Arlington heights and would love having another area in which to walk around and visit shops and restaurants too!	9/29/2017 6:52 PM
13	N/A	9/29/2017 1:56 PM
14	We need some family entertainment places like a Gameworks/Dave & Busters. I am tired of traveling to Schaumburg to do anything. Also more family themed restaurants like Red Robin or TGIF.	9/29/2017 12:35 PM
15	A bus that ran down Arlington Heights road the length of the village would be helpful to bring folks into and out of the area via train. We are locked into having to drive everywhere in A.H. That would help to compete with other villages.	9/29/2017 11:25 AM
16	If you are going to try and raise property taxes for residents of Arlington Heights it is not worth it. Restaurants, entertainment, hotels, and office space will be used more by non-residents than residents. That doesn't mean residents of AH should foot the financial burden.	9/29/2017 11:15 AM
17	No cheap apartments or section 8.	9/29/2017 10:59 AM
18	Have an overall goal for the town, not project by project. More green recreational space for people to live in. Rather than mediocre, try to be known for something.	9/29/2017 7:30 AM
19	This is a great plan; I hope it gets implemented!	9/28/2017 8:50 PM
20	none	9/28/2017 8:38 PM
21	resident over 25 years. like to see nice clean up I miss the Restaurant .	9/28/2017 5:33 PM
22	additional park space could be beneficial	9/28/2017 11:29 AM
23	When landscaping the medians please use judgement and foresee growth of the foliage and how it will impact visibility. Also, limit the addition of stoplights. Traffic coming off the expressway that stops too frequently is annoying and cause traffic issues.	9/28/2017 10:26 AM

24	If AH has available funds, use them towards other projects that would benefit the town. Not areas that are just of golf rd. It is just a thru traffic area, a means to go home/ to work or other. No one has ever said, AH would be great of they had a giant sign on golf/AH rd intersection.	9/28/2017 6:46 AM
25	thanks for allowing our input	9/28/2017 6:18 AM
26	Not in favor of a mid-block traffic light. Not sure a cross walk is necessary, this area does not seem to attract a lot of pedestrians.	9/27/2017 10:41 PM
27	Na	9/27/2017 9:52 PM
28	I think it is good to give this section some attention.	9/27/2017 9:41 PM
29	This area of southern AH relies heavily on Schaumburg for entertainment, dining and shopping options. Schaumburg is closer than northern AH or Palatine, so any additional commercial space could potentially be a great source of tax revenue for the village. Rosemont is packed on weekends, and This area could benefit from overflow as it is right odd is 90	9/27/2017 8:57 PM
30	N/a	9/27/2017 8:12 PM
31	I'm a resident of Arlington Heights and saw the Facebook post.	9/27/2017 7:49 PM
32	priority should be to bring mixed use/retail to downtown.	9/27/2017 7:46 PM
33	None	9/27/2017 7:27 PM
34	None	9/27/2017 7:27 PM
35	Any improvement would help. The current southern exposure/entrance for such an otherwise nice town is abysmal.	9/27/2017 6:18 PM
36	We have so much development. Might there be the possibility of a botanical / sculpture garden with walkways?	9/27/2017 4:38 PM
37	Need to adjust current traffic setup so that southbound drivers on AH Rd can reach businesses on NE corner of AH Rd	9/27/2017 3:11 PM
38	cost vs benefit is unknown.	9/27/2017 11:45 AM
39	Easier and safer way to exit Jewel/Starbucks north on AH road is worth looking into. Maybe clearer Uturn at AH/Golf (exit south then Uturn back north at the light?)	9/27/2017 11:07 AM
40	For residents, we need Park District facilities with programs that are closer to us, with programming that is available for working families. We need parks, and we need places to go that allow residents to gather. More options for restaurants, entertainment, and recreation are key in this area.	9/27/2017 10:57 AM
41	Getting rid of electrical/telephone lines should be priority #1 for improving the aesthetics of the area.	9/27/2017 10:30 AM
42	If hotels are a preference please look at higher end hotels. I feel like there are a lot of problems around that area because if the hotels. I don't want to see prostitution or other vagrancy. The hotels also seem to attract places for aggressive, out of town solicitorsto come in our neighborhoods. Perhaps change laws regarding solicitors in AH and then the problem may go away. Other surrounding suburbs don't allow them.	9/27/2017 10:05 AM
43	A general cleanup, fix up, spruce up would look good. Filling some unused buildings with people or business.	9/27/2017 9:34 AM
44	Glad to see some resources being put into planning for the southern tip of AH. I would hope that restaurants and other consumer businesses are built rather than multi-family housing.	9/27/2017 8:51 AM
45	Neighbors adjacent to "vacant office land" do not want additional apartments near the neighborhood. This neighborhood has been showing up to school board meetings with concerns about property value declines associated with lower school test scores, which the school board says is coming from children bused in from area apartments. I love the idea of focal points/gateways/landscaping to beautify the entry to Arlington Heights, assuming there is reasonable plan for funding.	9/27/2017 8:39 AM
46	I would really like to see the focus be on transportation especially Arlington Heights Road it's a thorough fare. So, although close to 90 is the gateway, many cars travel from 90 all the way through the village . There should be a larger emphasis on helping to make traffic moves smoothly north to south all the way through the village. Left turn lanes would be helpful.	9/27/2017 7:47 AM

47	Definitely need redevelopment in this area.	9/27/2017 7:14 AM
48	Not sure what the plan is to tie into 90's bus route to/from Schaumburg but if there are plans to be a stop nearby, maybe add ample parking for drivers to park for O'hare or commuters connecting to the el at River or Cumberland. Could add more revenue if you charge a few bucks to park.	9/27/2017 6:41 AM
49	Cleaning up the hotels that already are there and additional police presence to help the area grow without an increase in the crime already happening	9/27/2017 5:53 AM
50	Na	9/27/2017 5:18 AM
51	I would like to see more high quality elderly residences in our area, so that families can be close to their parents, in addition to Luther Village - which is nice but limiting. It would be nice if there were a variety of high quality well-run assisted living enterprises, at different price points.	9/26/2017 10:26 PM
52	I'd much rather any tif money or tax money go to improving rec park.	9/26/2017 10:23 PM
53	NA	9/26/2017 10:13 PM
54	I think these are good ideas. Economic development and new businesses help our tax base. I think the VAH can be more accommodating and flexible to businesses in general when it comes to licensing, inspection, zoning, etc. We also want the right businesses down there. The AH Police spend a fair amount of time on Algonquin so we don't need to add to that.	9/26/2017 9:55 PM
55	I'd like to see this part of Arlington Heights improved. Lately there have been many transient people in this section of the village such as people with signs asking for handouts as well as many criminal issues with some of the hotels. I'd like true improvements to ensure that this end of the village is as nice (safe, fun, draws people in) as the downtown and northern Arlington Heights areas.	9/26/2017 9:54 PM
56	The medians idea is a great idea. Some of the undeveloped areas would be nice to see redeveloped. I know some of the hotels have some seedy reputations. Getting rid of the cash for gold would be a huge plus. I think tearing down the Yanni's was a good choice.	9/26/2017 9:40 PM
57	Na	9/26/2017 9:34 PM
58	If this area were made to match the style, decor and landscaping of downtown, it would be a huge improvement!	9/26/2017 9:33 PM
59	the state wastes enough money yet somehow has grant money available? no TIF districts, short term gain, long term financial loss.	9/26/2017 9:22 PM
60	This is not something that is needed.	9/26/2017 9:17 PM
61	With all the crime that happens at the hotels, prostitution drugs shootings. I would say safety is a concern and will need to be addressed. If you make the area nice safety needs to be a big part of the conversation.	9/26/2017 9:01 PM
62	Clean up the riff-raf over there.	9/26/2017 8:45 PM
63	If there are plans for residential, more restaurants need to be built that are easily accessible	9/26/2017 8:38 PM
64	I think beautification of this corridor is an excellent idea and much needed	9/26/2017 7:08 PM
65	The crime in southern Arlington Heights needs to be addressed, needs to be pushed out of that area of town. No more drugs and prostitution at hotels along South Arl Hts Rd and Algonquin. Restrict the type of low income people who can live in the subsidized housing to non-criminals, preferably elderly folks.	9/26/2017 6:54 PM
66	The area can certainly be improved. A somewhat jumble of traffic lights and businesses that don't seem to mesh Greenery, buried power lines and some additional office or multi use buildings will be an improvement	9/26/2017 6:53 PM
67	Need to do something. This area of Arlington Heights has been neglected. Needs immediate attention	9/26/2017 6:41 PM
68	What ever you do. You need to get rid of the existing crap called International plaza. It is a dump. Has no positive showing for the south side. The only reason it exists is because it's cheep rent . All cash business. No sales tax revenue. It should have been bulldozed 20 years ago.	9/26/2017 6:41 PM
69	Na	9/26/2017 6:36 PM
70	We must deal with the International Plaza once and for all! It is prime Arlington Heights real estate and a poor representation of what this village is about. Eye sore. Get rid of it!	9/26/2017 6:20 PM

71	The changes would be welcome currently it looks very rough with any parts of south Arlington Heights	9/26/2017 6:13 PM
72	Do whatever draws businesses and the associated tax revenue, and keeps congestion down for drivers	9/26/2017 5:50 PM
73	Keep traffic flowing	9/26/2017 5:49 PM
74	I am hoping this South side of our beautiful can be developed and not only embraced by the local residents, but by all of the community.	9/26/2017 5:46 PM
75	Schools are already crowded. No more $ for this and then park district wants money. Taxes are high enough	9/26/2017 5:41 PM
76	Whatever results need to be upscale. Retail is lacking in the area. Restaurant business in the CBD is excelling because the area is beautiful. Needs to be consistent	9/26/2017 5:32 PM
77	Hopefully that whole area gets cleaned up. The crime at some of those hotels is an embarrassment to our village. It will be hard to maintain or attract businesses of any sort if there isn't a plan to reduce the crime especially at the Red Roof.	9/26/2017 5:10 PM
78	None	9/26/2017 4:53 PM
79	Would prefer efforts and money spent 1) on downtown to establish an identity and drive additional small, local businesses into vacancies, and 2) on improving overall walkability and cycling-ability throughout town.	9/26/2017 4:19 PM
80	I live in the "gateway district" and I am concerned about the neighborhood and the current direction that it is heading in. It needs major attention fast!	9/26/2017 4:18 PM
81	Need more police presence on this end of town now but even more once this area is developed.	9/26/2017 3:50 PM
82	Please try to do this with as little tax burden as possible on residents.	9/26/2017 3:34 PM
83	Na	9/26/2017 3:02 PM
84	I like AH's progressive thinking	9/26/2017 3:00 PM
85	Why aren't industrial uses being considered? This is a far more stable real property use than retail, and I'm not sure of the utility of hotels in this area. Traffic is already a serious problem in this area, so more multi-family housing is inappropriate, in my opinion.	9/26/2017 2:54 PM
86	none	9/26/2017 2:50 PM
87	Prioritize people and connecting people via quality public transit rather than heavily prioritizing cars and tons of parking. Make it a diverse living space that can accommodate people of all ages, jobs, interests.	9/26/2017 2:48 PM
88	I oppose adding a new intersection/light with such close proximity to A.H. Rd and Algonquin. Its already very congested during rush hours especially and lights at Golf, Algonquin, and both 90 exits are very poorly timed. I drive through daily to Northwest Point business park. Also, for the brick paved pathways, although aesthetically pleasing, may not be the best use of funds. The intersection gets severely worn from the weight of commercial traffic. In regards to pedestrian safety, south of Algonquin along AH Rd lacks this into Elk Grove. There are often pedestrians or bicycles on A.H. road during rush hours. Will be nice to see long overdue improvements to this forgotten part of the village.	9/26/2017 2:46 PM
89	A fountain and park feature at golf and AH rd would be beautiful!	9/26/2017 2:40 PM
90	There is entirely too many empty stores and not enough good ones. We could've had Deer Park and all we have is a weird collection of stores and empty storefronts.	9/26/2017 2:36 PM
91	Another thing that needs to be addressed is the crime in that area. I would never suggest a relative stay in one of the existing hotels because of crime. There are armed robberies at the gas stations and cars broken into. This needs to be addressed for the plan to be successful.	9/26/2017 2:35 PM
92	I think making the area more attractive will only bring more revenue to the city. People will want to come here with their families. Also adding more entertainment will draw a diverse crowd.	9/26/2017 2:03 PM
93	It is difficult to see how this will greatly improve the day to day for the vast majority of AH residents. It is disappointing to see plans for a major building project when Lake Arlington and other existing community spaces really need some attention. I am also not in favor of using tax increase for this!	9/26/2017 1:59 PM

94	Any opportunity to bring money into the city and improve the schools and city itself is what I would like to see. Having grown up in the northwest suburbs and moving back last year after a 10 year stint in a Chicago I don't see why Arlington Heights can't come close to a city like the northern suburbs. But of course I wouldn't want taxes to go up and if this corridor brings in more revenue for the city, I think it's a great idea. It'd be nicer to see parks and shops, but if real estate brings in more revenue then anything to better the city. But a place to go in southern AH would be nice. There are too many plazas and not enough places to hang out that give you the community feeling like the local downtown areas do. Sorry for the random comment that went in a lot of directions :-)	9/26/2017 1:50 PM
95	Not interested in this at all if this plan would cause any type of property tax increase - either a "special assessment" as discussed on the slides, or an increase in the collection of any of the current property taxes based upon assessed value.	9/26/2017 1:31 PM
96	.	9/26/2017 1:01 PM
97	Bike lanes?	9/26/2017 12:59 PM
98	We waste enough of the taxpayers money on projects like this	9/26/2017 12:53 PM
99	AH is misrepresented when exiting 90 west. It looks low income and worn down. It definitely needs to be revitalized for our visitors.	9/26/2017 12:49 PM
100	No comment	9/26/2017 12:48 PM
101	So dangerous coming out on golf rd from shopping area with the dialysis office! Need something to be done.	9/26/2017 12:38 PM
102	What about blighted areas and crime in the area? Motel 6 area and apartments near golf and ah roads	9/26/2017 12:33 PM
103	Resident in a different part of AH	9/26/2017 12:23 PM
104	None	9/26/2017 12:22 PM
105	Adding space is an important factor of looking higher end. Anyone can just cram business and stuff in spaces and that does not look classy.	9/26/2017 12:17 PM
106	Please don't forget about the north side of Arlington heights. We also have a lot of vacant commercial areas also. From talking to a lot of fellow homeowners we all feel that the village brushes aside us in favor of the southern side of our city.	9/26/2017 12:10 PM
107	You’re doin great	9/26/2017 12:07 PM
108	I have lived in Heritage Park for over 40 years and believe that it is time for this area to receive as much attention and enhancement from the village as possible, we have been overlooked for way too long	9/26/2017 12:06 PM
109	None	9/26/2017 12:02 PM
110	None	9/26/2017 11:59 AM
111	The village should seriously consider an area for low income/ senior housing and homeless housing. This is a wealthy town so I feel a bit can be set aside for the less fortunate.	9/26/2017 11:56 AM
112	The BP Station on Algonquin & Arlington Heights Rd does not have signs saying right turn only. Drivers are driving on the wrong side of the road because the median is too high to get over. (Walgreens down the block does this.) Also, the SIDEWALKS MUST BE CLEARED IN THE WINTER BECAUSE YOU CAN HIT PEOPLE, A LOT OF PEOPLE WALK IN THIS AREA TO GET THE BUS ON ALGONQUIN. A Pace Bus Bench Would be Nice at Algonquin & Arlington Heights along with tree, bush and weed control by the former Bank of America. More Police patrols or red light cameras because drivers blow the turn lights on Algonquin and Arlington Heights Road and on Golf and Arlington Heights Road. Enforce that all driveways (exits are clear of bushes, snow, etc... so drivers can see people and cars better. Have better lighting on Algonquin by Popeye's	9/26/2017 11:54 AM
113	Can our school districts handle the extra students if many condos were built on that land? As an Arlington Heights resident we avoid that area due to traffic. Would medians cause problems for traffic? Very excited to see the changes unfold.	9/26/2017 11:30 AM
114	This area definitely needs to be cleaned up. The landscape changes are great and are in line with what other cities are doing. Should be incorporated more even north on Arlington Heights Rd. Need to clean up more of the crime down there by the hotels though before I'd frequent restaurants etc.	9/26/2017 11:29 AM

115	Everyone wants some restaurants, as do I but some kind of entertainment center to draw people in similar to what Rosemont has done would be a much bigger draw than just a cleanup with some restaurants.	9/26/2017 10:57 AM
116	Na	9/26/2017 10:55 AM
117	Same as above	9/26/2017 10:43 AM
118	None	9/26/2017 10:33 AM
119	Fountains, statues and the like could help improve the atmosphere of this proposed area.	9/26/2017 10:08 AM
120	I am concerned about even more traffic if developed for hotels, businesses, housing.	9/26/2017 9:47 AM
121	Green space is extremely important in having a community look "polished."	9/26/2017 7:42 AM
122	The area needs safe, dedicated bike trails.	9/26/2017 7:12 AM
123	This is wonderful! Thank you for sharing the plan with our community!	9/26/2017 7:07 AM
124	Work with Elk Grove Village to extend a sidewalk or multi-use path connecting to Busse Woods. No pedestrian access under the I-90 bridge is currently provided but people use it anyway.	9/26/2017 7:06 AM
125	n/a	9/26/2017 6:54 AM
126	With the exit and entrances ramps for I-90 now completed and with our close proximity to O'Hare airport we should have no problem attracting businesses to this area. We should be attracting technology-oriented companies, service-oriented companies, healthcare-oriented companies, insurance-oriented companies. It should become an area off the expressway like Naperville, Lisle, Deerfield, Schaumburg. With office buildings that can generate business tax dollars, business real estate tax dollars, etc and can keep our residential real estate taxes from increasing. Companies love to have their names on the buildings so they can be seen along the expressways to convey presence and advertising. They should have buried the overhead power lines rather than put in the taller poles the last time.	9/25/2017 7:11 PM
127	Need to have all of Arlington Heights looking good. Not just certain parts.	9/25/2017 12:54 PM
128	I'm very excited about this project - something definitely needs to be done. There is a lot of visibility to this area, and it doesn't look very nice when you are driving through.	9/25/2017 9:25 AM
129	Please do not let in any lower income housing as well as motels. On your slide presentation "improving pedestrian walkways" you see the eyesore motel next to the gas station on the corner of AH Rd. and Algonquin. Motel 8 or Red Roof, I don't know what it is all I know is it attracts drug addicts and prostitution. Right around the corner from those nice townhomes. I look forward to seeing some plantings and greenways as you exit 90. This will be a tremendous improvement. Setting the tone and appeal of Arlington Heights as you enter our town.	9/25/2017 8:57 AM
130	The planning and improvements should go all the way up to Central Road.	9/25/2017 7:46 AM
131	Improve families that appeal to teenage kids; park gym or facilities to have indoor sports and events	9/25/2017 6:15 AM
132	Do not allow any low rent motels/cheap hotels to be built. The Red Roof Inn is nothing but problems with gangs and prostitution.	9/25/2017 6:05 AM
133	I look forward to seeing how things progress with this plan.	9/25/2017 6:04 AM
134	I think these are all positive and much needed improvements to the south side of Arl Hghts.	9/25/2017 5:13 AM
135	There are much more important things the city could be spending money on!! Focus on the structural needs first and cosmetic needs if there's still money left over. Sewers, park district improvement, hasbrook park is a dump! Create a city with tangible assets not artifical expensive cosmetic projects that are extremely expensive and contribute nothing to the city. For example the extremely expensive statue and fountain that was built at dunton park that is a very nice hang out spot for our homeless population.....!!	9/25/2017 2:03 AM
136	There are much more important things the city could be spending money on!! Focus on the structural needs first and cosmetic needs if there's still money left over. Sewers, park district improvement, hasbrook park is a dump! Create a city with tangible assets not artifical expensive cosmetic projects that are extremely expensive and contribute nothing to the city. For example the extremely expensive statue and fountain that was built at dunton park that is a very nice hang out spot for our homeless population.....!!	9/25/2017 2:03 AM

137	Don't hit the general fund up for funding the improvements.	9/24/2017 8:58 PM
138	Improving the corridor is a great idea.	9/23/2017 9:06 PM
139	The corner of Golf and Arlington Heights Roads has been vacant too long. Try to get a tax-paying tenant in there. No TIFs.	9/23/2017 5:56 PM
140	I think the Strip mall with exsports fitness on golf should be renovated into a more engaging entertainment area. Like streets of wood field. However, a big box store like target or Walmart should NOT go in there. Maybe some sort of fitness theme would work. Adding a parkour gym, laser tag/bowling restaurant, a movie theater, Dave and Busters like place. Also the corner the Northeast corner of Golf and Arlington Heights should add more greenery and/or parks to the area. Something people would want to take pictures by like in Rosemont. If a beautiful green area were complimented with good restraints and entertainment people would go out of their way to enjoy the space. PLEASE!!!!PLEASE!!!!PLEASE!!!! DO NOT PUT IN ANOTHER BANK!!!! I'll write it again: DO. NOT. PUT. IN. ANOTHER. BANK!!!!	9/23/2017 4:07 PM
141	The Village Design Commission should be part of the review and approval process	9/23/2017 10:55 AM
142	For retail, you could build on the big draw of that area, Mitsuwa, and try to attract more higher-end ethnic supermarkets, plus ethnic restaurants, bakeries, dance clubs, etc. In other words, embrace the diversity of the area and plan accordingly. I have neighbors who travel to ethnic grocery stores in Niles every week. This could be an ethnic corridor that draws people from all over.	9/23/2017 9:36 AM
143	Supporting bicycle traffic in this area is very important also, and is not done well right now. All of the potential new uses for the various locations within this district would benefit from this.	9/23/2017 7:34 AM
144	see above, concept needs to be on a people focus, not heights that developers want to cram in in the interest of density. In fact, success says single family homes, a park like lake Arlington and town homes, all spread out in keeping with the rest of Arlington downtown. You'll make a mistake if it is tall and dense because that is the opposite of what you need to accomplish.	9/23/2017 7:18 AM
145	The reputation of the hotels on the east side of Arlington Heights Road is dismal at very best. When people in other suburbs know that there are problems there, then something needs to be done about this area.	9/23/2017 5:58 AM
146	The area is thriving - leave it alone!	9/22/2017 10:38 PM

147	Various comments from Pace staff: • Pace operates fixed-route bus service on Algonquin Road and Golf Road, intersecting the Arlington Heights Road corridor. • Improvements to the Route 208 bus stops on Golf Road and the Route 606/757 bus stops on Algonquin Road should be incorporated into any redevelopment opportunities, or roadway/sidewalk improvements, near Arlington Heights Road. o Pace would like to retain farside bus stops at both Golf/Arlington Heights (Route 208) and Algonquin/Arlington Heights (Route 606). o A bus shelter should be considered for the farside eastbound Route 606 bus stop at Algonquin/Arlington Heights Road (SE Corner; 16 weekday boardings). o Pace recommends that the Village permit advertising (ad) shelters. Revenue generated from Ad shelters allows Pace to provide and maintain these shelters. Additionally, Pace offers a variety of advertising shelter styles. Currently, the only shelter style permitted in Arlington Heights is Pace's standard non-advertising unit. The ad shelter program will allow the Village to choose from various shelter styles to match the streetscape of the south Arlington Heights Road corridor. Nice, new ad shelter models will look nice in a gateway area. • Were additional mid-block crossings considered? Along Arlington Heights Road, consider a mid-block crossing approximately .25 miles between Algonquin Road and Golf Road and another mid-block crossing approximately .25 miles between Golf Road and Noyes Street. Slide 15 and 16 show a potential mid-block crossing which might be too close to the existing signalized intersections. These additional mid-block crossings should be signalized, if possible, and include crosswalks, countdown signals, and a pedestrian refuge island. These improvements would greatly improve walkability in this area. • The Corridor Plan Goal is to improve upon existing conditions which detracts from the overall functioning of the corridor. With three thru lanes in each direction and dual left turn lanes at the major intersections, it appears the major function of the corridor is to move cars and trucks as efficiently as possible. Arlington Heights Road is under IDOT's jurisdiction and is classified as a Minor Arterial. As an Arterial, the road's function is to move traffic. As a Minor Arterial, it is recognized there will be lower speeds and access to property along the corridor. But still, the purpose of the road is to move traffic. Under Process, one of the bullet points is to develop a Corridor Plan to enhance Walkability for Pedestrians. This would be a great enhancement as the current conditions are not very pedestrian friendly. There are existing sidewalks, but they are adjacent to the roadway. Walking along any of the roads does not feel safe and it is very noisy from the traffic. Right-of-way may be limited, but any ability to separate the sidewalk from the roadway would be beneficial. • The Village had completed a Star Line Master Plan for the SE quadrant of Arlington heights Road and Algonquin Road. The proposed 'STAR' line master plan area should remain on the table to support a long term, future I-90 express bus station. Land use support and pedestrian access are required to support any future station. The proposed Star Line station was further east of Arlington Heights Road serving both the Arlington Heights TOD and Northwest Point. While it's a major investment, a true center line station should not be off the table (ie: I-35 in Minneapolis) in the long-term. For now, if the village continues to pursue updating the master plan concept, it will greatly support and justify any potential I-90 improvements in the future. As with the master plan concepts, transit supportive land use, pedestrian access, improved street crossings should continue to be a strong focus of the planning efforts. • Seegers and Arlington Heights Road is a dangerous intersection during peak hours. When traffic is backed up on northbound Arlington Heights Road, Drivers trying to turn from southbound Arlington Heights Road to eastbound Seegers cannot see oncoming traffic from the outside northbound lane.	9/22/2017 3:30 PM
148	The Village has forced business out multiple times. Denied plans because of parking issues. Did not listen to local residents and business owners. What makes this time the charm?	9/22/2017 12:01 AM
149	Open green spaces are inviting, especially when landscaped well. Walkways and benches would also be inviting.	9/21/2017 8:27 PM
150	n/a	9/21/2017 2:33 PM
151	Please no more fast food restaurants.	9/21/2017 8:31 AM
152	We love living in Arlington Heights!	9/21/2017 6:19 AM
153	I would recommend family oriented activities, things that draw people out in AH are Family focused. I understand the anticipated future plans for multi family housing however the stigma of that area will remain that way until its family orientated. There is a negative connotation with living on the "south end" for whatever reason and to make that a destination area safe and fun for AH families to spend time would do wonders for bringing the community together and lifting that area up.	9/21/2017 6:17 AM

154	I would love to see a section that has an indoor play place for children a pottery making place for children and adults. There is a place in st-charles called the Fun Republic. It is a phenomenal business idea and if we could get something closer here that could serve Arlington Heights Elk Grove Mount Prospect and Schaumburg I think that would be a really phenomenal idea	9/21/2017 6:09 AM
155	Glad to see Arlington Heights looking at all ends of the Village for improvement. Great potential	9/21/2017 5:55 AM
156	Bringing more upscale business and businesses pertaining to natural health and healthy eating would be great. Avoid cash for gold, payday loans, etc, etc.	9/20/2017 9:40 PM
157	Condos and town homes, invest in this type of infrastructure and retail and business will follow.	9/20/2017 7:24 PM
158	Will this increase our taxes, and if so, by how much? Don't tax people out of AH for aesthetics.	9/20/2017 6:47 PM
159	None	9/20/2017 4:57 PM
160	Excited about the possibilities for cleaning up this corridor. We live in AH now and forget that there are shops n restaurants in that area. We head downtown AH, north around 12/Palatine and don't even think about it. It's very hodge podge now so a more unified look would be great!	9/20/2017 4:53 PM
161	I feel like I took this survey several years ago. I'm guessing if these improvements come to pass our taxes will go up.	9/20/2017 4:34 PM
162	None	9/20/2017 3:35 PM
163	Please don't make this another empty promise. Follow through on this. South Arlington needs serious help.	9/20/2017 3:29 PM
164	Hi	9/20/2017 2:23 PM
165	We need 100% make that portion of Arlington Heights as nice as the rest of Arlington Heights so it does not look like the forgotten sad side of town. Most people don't even realize that it is part of AH :(	9/20/2017 2:03 PM
166	Overall, appreciate the proposal and great presentation. I have very large concerns about tax implications. Taxing seems to be the answer to everything in this state. I do hope folks consider the future. Retail and boutique shops are dying. This is evident downtown outside of the small intersection of Vail/Campbell. Hopefully we don't overbuild a plan or rely on the theory of mixed use residential/retail buildings for something that doesn't appear sustainable in a suburbs ecosystem. I think making it look better and figuring out ways to promote service business and restaurants is the way to go. Last comment, please don't put in more lights. This is not a small area where people will walk a lot or bar/restaurant hop. Save that experience for downtown. Thanks for opening up to input!	9/20/2017 2:00 PM
167	None	9/20/2017 1:31 PM
168	n/a	9/20/2017 8:36 AM
169	Enjoy entertainment options are lacking and should be a high priority.	9/20/2017 6:35 AM
170	Office space is overbuilt. Brick and mortar retail is dying. Focus on entertainment. The whole stretch from Coopershawk to the Rackhouse is perfect. There are already plenty of hotels and free parking, prime high visibility sites, and tons of traffic.	9/19/2017 11:34 PM
171	Good luck	9/19/2017 10:14 PM
172	Do something with International Plaza!!! Ugh!	9/19/2017 9:04 PM
173	1. the first step would be to hold existing businesses in the corridor to a higher standard - set some guidelines and help them improve the look of their businesses 2. Vet any new businesses to make sure they fit in with the identify you want for the area. We have enough tacky fast-food restaurants, low-end hotels and retail, and outdated-looking offices. Let's step it up a notch, quality-wise. 2. Green space is wonderful as are planted medians, but I think you need to address the above items first. I do like more greenery - Mt. Prospect does a nice job along Northwest Highway (putting Arlington Heights to shame). 4. On a side note, since we're talking about upgrading the appearance of the Village, what's the deal with all the dead plants and the fencing that was removed from along Davis Street. It looks terrible and we've seen no communication about why all the plants were killed and fencing removed. Is something more visually appealing being installed? Please use the Village web site for more communication about things like this. Thanks.	9/19/2017 8:36 PM
174	Why doesn't the Arlington heights library put a branch in? The south side has lots of family and low income who could benefit from a library branch	9/19/2017 8:32 PM

175	.	9/19/2017 8:00 PM
176	N/A	9/19/2017 7:43 PM
177	I'm happy the Village of Arlington Heights is looking at ways to improve some of the less athestheicaly pleasing areas.	9/19/2017 7:34 PM
178	NA	9/19/2017 7:13 PM
179	I'd love to see some breweries come into the Arlington Heights area.	9/19/2017 7:11 PM
180	It's been a long time coming, thank you for bringing this area into the fold. Restaurants are desperately needed, as well as safe access to them. I love each idea, especially the landscaped islands and burying those awful ComEd lines.	9/19/2017 7:05 PM
181	It's very shabby and dated, but I don't know the best way to improve it. Arlington Heights is about families, so I would suggest keeping that in mind.	9/19/2017 6:46 PM
182	I can appreciate that the village sees this as an "eye sore" especially coming off of I-90.	9/19/2017 1:34 PM
183	Need a gas station on east side of street	9/19/2017 1:26 PM
184	Let’s make it happen.	9/19/2017 12:29 PM
185	Appearance and offerings in this area definitely need an upgrade to match the feel of the rest of village. Some great things are happening downtown, but let's not overlook this area is key. The strip mall at NE corner of AH Rd/Golf is terrible. Would love to see that demolished and see a different mix of mid-high scale retailers/restaurants in there. Take a look at The Glen in Glenview and Streets of Woodfield, as examples.	9/19/2017 12:27 PM
186	While a light for pedestrian crossing would be nice, it would impede the flow on AH Road, which can get backed up. Also, a multiuse path for bicycle accommodations would be nice - more connectivity between this area and the residential to the north.	9/19/2017 12:26 PM
187	Na	9/19/2017 11:29 AM
188	I would not be in favor if any increase in taxes or assessments for this project	9/19/2017 11:05 AM
189	Central road is in deplorable condition.	9/19/2017 10:38 AM
190	Thanks	9/19/2017 10:02 AM
191	xx	9/19/2017 10:00 AM
192	n/a	9/19/2017 9:52 AM
193	I think it's a great idea to revitalize the area, and things like landscaping can make a big difference. I'd hope that this can be done by grants and private investment. I would not want to see a big increase in my property taxes to fund this.	9/19/2017 9:46 AM
194	We need an anchor store like Target.	9/19/2017 9:29 AM
195	Na	9/19/2017 9:26 AM
196	Na	9/19/2017 9:23 AM
197	N/A	9/19/2017 8:58 AM
198	Na	9/19/2017 8:49 AM
199	Improving the overall appearance of the area will go a long way, but many of the hotel rooms you speak of are not the type that will bring people spending money into the area. They're used for transients and cause nothing but problems and currently serve to keep people out of that area.	9/19/2017 8:45 AM
200	Something to drive away crime in area of south tip of AH	9/19/2017 8:43 AM
201	"Entertainment" i.e. clubs would be an anti-improvement. Stick with family-oriented entertainment with earlier closing times than bars.	9/19/2017 8:29 AM
202	Support this project	9/19/2017 8:26 AM
203	This area of town looks pretty sad. I think this would be very beneficial.	9/19/2017 8:20 AM
204	Leaving in Central Arlington Hts nothing draws me to this area unless I am hopping on the highway. Making the area feel safer and have engaging retails concepts would make me want to spend time there.	9/19/2017 8:19 AM

205	We definitely need something to let people know they are entering Arlington Heights. Some signs that show continuing to the downtown area as well would be beneficial to downtown stores. parking in downtown Ah is still a huge problem....the only place I can park in on the top of the ramp in the parking garage, or below the theater parking in downtown. Do businesses ask workers to park elsewhere so there is room for patrons at the stores and restaurants. Maybe there could be separate parking for them nearby instead of using all the parking spaces especially in the theater parking lot. Those cars NEVER move....	9/18/2017 5:39 PM
206	I have been renting in this area for five years and ready to buy and stay in the southern portion of Arlington Heights. I've always thought the area needed some love and a face-lift. You may want to change the survey to include renters.	9/18/2017 2:30 PM
207	The area east of NTB Tires needs development. Combine this area with Lowes to get access from Arlington heights road. Make it a bigger retail area.	9/16/2017 7:11 AM
208	The area needs several stop lights on Arlington Heights Rd. to allow for safe entrance and exits to whatever ends up being put there. Landscaped medians will only block visibility and will suffer from road salt. The high crime rate needs to be addressed as a priority. Find a way to eliminate the volume of homeless people begging for handouts at the corner of Arlington Heights Rd and Algonquin.	9/15/2017 7:29 PM
209	The "improvements" will replace higher paid white collar professionals working in the existing offices, who have more money to spend around town, with low paying retail service jobs. Is that what the Village of Arlington Heights wants?	9/15/2017 5:32 PM
210	NA	9/15/2017 11:50 AM
211	Need to make sure area is family friendly and reduces current problems with illegal behavior and make sure no flooding in existing neighborhhood	9/15/2017 10:26 AM
212	I would love to see a fountain or some sort of architectural point of interest at the NE corner of Arlington Heights Rd. This corner has been dead for way too long!	9/15/2017 9:24 AM
213	With all the hotels in the area between I90 & Golf there's alot of opportunity for development that is unique to A.H. No more strip malls or fast food!!!!! Get creative.	9/15/2017 9:24 AM
214	I'd rather have wider lanes in lieu of landscaped islands. I'd rather have a functional area if I had to choose between practical & and more landscaped islands. Isn't it easier to repair cables and wires in they are not buried?	9/15/2017 9:12 AM
215	Please fix this area! I've lived in this area for over 20 years and it needs help. It has so much potential since it is so close to the highway. Thanks for all you do!	9/15/2017 8:38 AM
216	I presume this would reduce the criminal involvement in that area, which means this important aspect should be considered too.	9/15/2017 7:56 AM
217	Whatever development takes place, please do something about the sketchy and scummy Motel 6.	9/15/2017 7:27 AM
218	More greenery and/or artwork would be a nice attraction along the corridor.	9/15/2017 5:57 AM
219	Just take a look at other successful suburbs like Naperville and quit bringing in low-class businesses that are allowed to have terrible looking facades and window displays. And get rid of that disgraceful Happiness is Puppies - Arlington Heights is constantly ridiculed for not seeing how that place does nothing but profit off the poor dogs in puppy mills.	9/15/2017 5:52 AM
220	that area has always looked like it didn't belong to the rest of AH. i would like to see it looking like a thriving part of our village. it almost looks industrial now, it has that atmosphere.	9/14/2017 11:55 PM
221	looking forward to seeing improvement	9/13/2017 2:57 PM
222	Create a gateway that demonstrates a friendly and convenient destination for travelers. Also create a company friendly vibe that drives regional headquarters to visit & stay within our area.	9/13/2017 1:43 PM
223	If landscape medians are done, we need to have input and where they go and what type and frequency of turn lanes are needed. We have a lot of visitors in and out of our property and we want to ensure easy access. Safety is a primary issue of visitors crossing the street and walking on sidewalks. Snow removal on sidewalks need to be addressed as visitors walk on the sidewalks to go to hotels and places to eat. This is an issue up and down the corridor. We would like more hotels and places to eat rather than residential and entertainment.	9/13/2017 1:36 PM
224	No more motels. There are too many shady establishments in the area.	9/13/2017 1:05 PM
225	n/a	9/13/2017 12:44 PM

226	I believe safe passage at the intersection of Arlington Heights & Algonquin is the paramount issue. Not only to support walkabilty for our hotel visitors but also to encourage the business center developments that are now trying to encourage millennial employees. In addition, this gateway experience sets the tone for visitors to set an opinion of the entire Arlington Heights community as a destination for living, working or visiting.	9/13/2017 12:44 PM

2017 Corridor Survey – Written Response Summary

Summary Table

Comment Type	*Number*
Null	50
Support	47
Aesthetics	21
Roadway Concerns	20
Safety Concerns	18
Funding	18
Restaurant, Retail, and Entertainment	18
Pedestrian and Bicycle Infrastructure	13
Hotel Concerns	12
Green Space	10
Opposed	8
Retail Concerns	6
Multi-Family Concerns	6
Public Transit	5
International Plaza	5
Family Friendly Uses	4
Assisted Living/ Senior Housing	3
Industrial/Business Support	3
Residential Support	2
Other Concerns	19

From the survey, Staff collected 226 written responses supplementing the information provided in prior questions. Some of these responses were simple comments, while others were longer paragraphs covering multiple topics. These responses have been generalized into multiple categories in order to analyze which issues were most important to survey respondents. Due to the multi-topic nature of many responses, the total number of comments exceeds the total number of responses. The typography of comments, and a brief explanation of the comments covered by their respective categories, is as follows:

2017 Corridor Survey – Written Response Summary

Null/Not Applicable – 50

Comments in this category were blank, or otherwise indicated that it was a null response.

Support – 47

Comments in this category indicated overall support for the plan, the proposal, or that there was a need for improvement in the corridor.

Aesthetics – 21

These comments specifically expressed displeasure at the current aesthetic condition of the corridor or stated that aesthetic improvements were needed. Many focused on the overhead utility lines, or the condition of existing properties and landscaping.

Roadway Concerns – 20

These comments concerned traffic and roadway design concerns, primarily focused on the impact proposed changes (namely the proposed mid-block traffic signal and landscaped medians) would have on traffic flow. Other comments in this category expressed concern with the existing conditions of the roadway, including ease of turning movements, signage, traffic, and lighting.

Safety Concerns – 18

These comments underscored a concern with security in the corridor. Most comments focused on the aforementioned hotels, while others cited crimes in the area ("armed robbery", "cars broken into", and the presence of "riff-raff" were specifically mentioned). Other comments mentioned a lack of traffic safety, and requested better traffic enforcement.

Funding – 18

These comments expressed concern about funding for the project, with the overwhelming majority stating that they would not support an increase in taxes in order to accomplish the goals outlined by the project. One comment specified that they would not support a Special Assessment or TIF District, and another expressed opposition to using the general fund to finance improvements.

Restaurant, Retail, and Entertainment – 18

These comments generally expressed support and desire for additional restaurant, entertainment, and retail establishments on the corridor. Beyond a general wish for more of these establishments, some respondents articulated a desire for a "walking and shopping experience" similar to those afforded by other retail hubs in the Village.

Pedestrian and Bicycle Infrastructure – 13

Comments in this category expressed concerns related to pedestrian and bicycle infrastructure, specifically the current lack thereof. A recurring theme in these comments was the lack of a bicycle and pedestrian connection under I-90 to Elk Grove, and an indication that despite the lack of these formal facilities at present many individuals still travel that route, presenting a hazard.

2017 Corridor Survey – Written Response Summary

Hotel Concerns – 12

These comments highlighted opposition to any additional hotel uses being added to the corridor, or expressed displeasure at how existing hotels were being run. The primary reason cited by these respondents was that existing hotels are "seedy", or that they bring "drugs and prostitution" into the Village. Specific hotels named include Motel 6 and the Red Roof Inn.

Green Space – 10

These comments expressed a desire for additional green space to be incorporated into the corridor. The scale of this desire ranged from coordinated landscaping along the roadway, to the addition of park facilities and plazas.

Opposed – 8

These comments clearly expressed opposition to any changes to the corridor, on the basis of financial cost or citing a lack of necessity.

Retail Concerns – 6

Comments in this category expressed opposition to the addition of new retail uses to the corridor. The common impression shared by these respondents was that there are currently many retail facilities vacant, both along the corridor and in the Village as a whole, and considering market trends this type of use may not be viable. Some respondents suggested greater emphasis on restaurant and/or entertainment uses.

Multi-family Concerns – 6

These comments showed opposition to adding any additional multi-family units. The areas of concern specifically were the impact these units would have on the school districts, on traffic, and the types of units that would be built (for the latter, one respondent stated "no cheap apartments or Section 8").

Public Transit – 5

These comments related to a desire for increased public transit options. Most expressed a desire for a bus route to and from Downtown, and others suggested that integration with the PACE Bus Rapid Transit line on I-90 through creation of a formal bus stop or park and ride facility.

International Plaza – 5

These comments expressed displeasure at the state of International Plaza specifically, stating that they would like to improvement or demolition of the shopping center.

Family Friendly Uses – 4

These comments specifically mentioned adding "family friendly" use types to the corridor, primarily through business recruitment. Other comments mentioned improving safety (overall and related to transportation) so they would feel safer bringing their children to the area.

2017 Corridor Survey – Written Response Summary

Assisted Living/Senior Housing – 3

These comments mentioned that an assisted living or senior housing facility would be a desired use type on the corridor.

Industrial/Business Support – 3

These comments expressed support for adding additional business or industrial facilities along the corridor, with a focus on the tax-revenue it could generate.

Residential Support – 2

These comments expressed support for adding non-age specific housing to the corridor.

Other Concerns – 19

These comments covered a wide range of topics, many unrelated to the corridor. Comments that did refer to the corridor were not easily generalizable into the other categories, however these observations are listed below:

- "The planning and improvements should go all the way up to Central Road"
- "The Village Design Commission should be part of the review and approval process"
- "For retail, you could build on the big draw to that area, Mitsuwa…this could be an ethnic corridor that draws people from all over"
- "Why doesn't the Arlington Heights Library put a branch in? The south side has lots of family and low-income [sic] who could benefit from a library branch"
- "I'd love to see some breweries come into the Arlington Heights area"
- "I'd rather have wider lanes in lieu of landscaped islands"

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March 7, 2018

Messrs. William Enright and Charles Witherington-Perkins
Planning and Community Development Department
Village of Arlington Heights
33 South Arlington Heights Road
Arlington Heights, Illinois 60005

Re: **South Arlington Heights Road Corridor Plan**

Gentlemen:

I am writing to express our opinion of the proposed 2018 South Arlington Heights Road Corridor Plan on behalf of Bradford Allen Realty, the owner (through its various subsidiaries) of a site on the southeast corner of Arlington Heights and Algonquin Roads.

We have read the materials provided to us by—and have met with—members of the Planning and Community Development Department. Subsequent to our meeting, and after a thorough review of what is being proposed, we lend our full support to the proposed Plan.

In our opinion, amending the Comprehensive Plan in such a well-thought-out manner as has been presented will underpin the entire Corridor Plan. If properly executed, and adequately funded, the strategies articulated will clearly achieve the stated objectives. We believe that the suggested short and long-term street-level enhancements will dramatically better the overall appearance of the Corridor, reduce or eliminate the current banality of the area, and bring a true sense of place that is currently lacking. Further, the creation of a more pedestrian friendly environment through "traffic-calming" devices will improve circulation and, perhaps, provide the street life that is clearly needed.

The proposed increase in density and allowance for mixed use development on ours and other area sites suggested in the Plan will give the property owners' the ability to create a mixed-use environment and true full-time community within the Corridor. At the same time, these changes will increase property values in, and adjacent to, the Corridor, providing the maximum benefit to both current and future businesses and residents of Arlington Heights.

Specifically, in the case of our site, a full redevelopment of these highly visible "keystone" parcels will allow for the realization of their highest-and-best use; and can act as a significant catalyst to future area development and the eventual fulfillment of the Village's vision for the entire Corridor. As importantly, the proposed increased density will provide the critical mass and support a properly contextual overall design that will be a prominent "Gateway" for the Village and will serve as the perfect bookend to the well-known and highly successful redevelopment of Downtown Arlington Heights.

We look forward to the eventual realization of the profound changes that the Plan proposes and we look forward to working closely with you as the Plan evolves.

Very truly yours,

Jeffrey A. Bernstein

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