Village of Lemont
Planning and Zoning Commission

418 Main Street · Lemont, Illinois 60439
phone 630-257-1595 · fax 630-257-1598

PLANNING & ZONING COMMISSION
Regular Meeting
Wednesday, July 20, 2016
6:30 p.m.

I. CALL TO ORDER

A. Pledge of Allegiance

B. Verify Quorum

C. Approval of Minutes June 15, 2016 meeting

II. CHAIRMAN'S COMMENTS

III. PUBLIC HEARINGS

A. 16-05 23 E Logan St. Variation

B. 16-06 13769 Main St. Special Use and Variation

IV. ACTION ITEMS

V. GENERAL DISCUSSION

A. Update from Village Board

VI. AUDIENCE PARTICIPATION

VII. ADJOURNMENT

Village of Lemont
Planning and Zoning Commission
Regular Meeting of June 15, 2016

A meeting of the Planning and Zoning Commission for the Village of Lemont was held at 6:30 p.m. on Wednesday, June 15, 2016 in the second floor Board Room of the Village Hall, 418 Main Street, Lemont, Illinois.

I. CALL TO ORDER

A. Pledge of Allegiance

Chairman Spinelli called the meeting to order at 6:33 p.m. He then led the Pledge of Allegiance.

B. Verify Quorum

Upon roll call the following were:
Present: Andrysiak, Maher, McGleam, Sanderson, Zolecki, Spinelli
Absent: Kwasneski

Village Planner Heather Valone and Village Trustee Ron Stapleton were also present.

C. Approval of Minutes for the May 18, 2016 Meeting

Commissioner Maher made a motion, seconded by Commissioner Andrysiak to approve the minutes from the May 18, 2016 meeting with no changes. A voice vote was taken:
Ayes: All
Nays: None
Motion passed

II. CHAIRMAN'S COMMENTS

Chairman Spinelli greeted the audience. He then asked everyone in the audience to please stand and raise his/her right hand. He then administered the oath.

III. PUBLIC HEARINGS

None

IV. ACTION ITEMS

A. 23 E. Logan St. Administrative Decision Appeal

Mrs. Valone stated Ken McClafferty submitted a building permit for 23 E. Logan Street. The property is currently vacant but the applicant is proposing to construct a single-family home on the subject parcel. The proposed driveway from the applicants request would access from east Logan Street. The UDO requires homes in the R-4A district to access via the alley, if an alley provides access. Staff reviewed the building permit and found that the property does have access from an alley. The applicant is appealing the administrative decision by staff to require the property have alley access rather than street access.

There has not been an administrative appeal since at least 2008, so she will provide some background on administrative decisions and appeals. UDO section l7.40.060 describe administrative appeals as made by the Planning and Economic Development Director when there are clear objective approval criteria and UDO standards that require no discretion. An example of something that would require more discretion would be a special use, variation or a PUD. Administrative decisions are interpreting the UDO as it is written and intended. An appeal of an administrative decision is when an applicant is contesting that the UDO was interpreted incorrectly by the Planning and Economic Director. Thus the Planning and Zoning review tonight is limited to reviewing the code as it is interpreted, written, and intended in the UDO.

Mrs. Valone said the subject property is located two lots west of Brown Park along the east portion of Logan Street. An alley runs between Custer and Logan Street with access from Park Place. She showed on the overhead the subject property. The pavement terminates roughly 50 feet east of the subject property. The subject property is located in the R-4A district. The purpose of the zoning district is to regulate the height, building coverage and impervious surface of residential dwelling units in the older established neighborhoods of the Village. Specifically the districts restrictions are intended to prevent the overcrowding of land, to ensure proper living conditions, assure the adequate provision of light, air and open spaces and to foster and preserve the natural character and quality of the existing neighborhood, while providing property owners opportunities for infill development on vacant lots or redevelopment of lots with existing structures. In particular this district is intended to prevent the further proliferation of structures that do not conform to the general height, bulk, and scale of existing structures.

According to UDO 17.07.020.F.2, “if an existing alley provides access to the lot in question, then detached and attached garages shall be accessed from the alley”. The UDO defines alley as “a public or private right-of-way primarily designed to serve as a secondary access to the side or rear of those properties whose principal frontage is on some other street”. The standard width of an alley is as depicted in Appendix G detail sheet LS-5 is 16 feet.

Mrs. Valone stated the applicant submitted a building permit for single-family home with an attached garage accessing off of Logan Street on April 14, 2016. Staff denied the permit on April 19th because alley access was required. The permit had multiple items in addition to the driveway access which did not meet the UDO standards

including the proposed maximum square footage of the home. The applicant filed an appeal on May 14th. Per the UDO standard "an appeal to the Planning and Zoning Commission may be taken by any person aggrieved by any order, requirement decision or determination made by an administrative official charged with the enforcement of this ordinance.

The future land use for the subject property as defined in the Lemont 2030 Comprehensive Plan is Infill Residential (IR). The purpose of the IR is to ensure any new development or redevelopment will be consistent with the established character of the surrounding neighborhood. The subject property is one of the last remaining vacant properties along the north block face of E. Logan Street, from Park Place to Brown. The neighboring properties to the west are serviced by detached garages that have driveway access from the alley. The property to the east, 21 E. Logan, was developed in 1968 and the driveway provides access rather than the alley. The driveway was replaced in 2000, however the R-4A standards had not been incorporated into the UDO at that time and thus the property was not subject to the same alley access requirements.

The subject property was originally part of one large lot improved with one single-family home. The lot was comprised of the subject property and the neighboring property to the west. The original home from the larger lot is situated on 15 E. Logan. When the property was one large lot there was a single driveway that accessed it. Sometime between 2007 and 2008 this driveway was removed and replaced with only a service walk however, the driveway apron remains. In 2008 the owner of the property at the time subdivided the lot into two lots. The lot to the west, 15 E. Logan, constructed a detached garage in 2011 after the subdivision. At that time the alley was paved only 12 feet past 15 E. Logan, west lot line. 15 E. Logan thus extended the alley across the entire lot to the property line it shares with 23 E. Logan. Although the alley was not paved across the entire lot, staff found that the alley did provide access to the property.

The permit application for 23 E. Logan was reviewed for alley access from the survey provided by the applicant. The survey indicates that the alley is paved to the property line between 15 and 23 E. Logan Street. As the subject property was not separated from the paved alley by another property or any distance, staff found that the alley does provide access to the subject property. Though the alley is not paved across the entire rear lot line, the alley is only required to be extended along the subject property not across other private properties. The applicant submitted a cost estimate for the proposed alley access. The Village Engineer evaluated the estimate. The estimate to have the alley extended so access is from the alley is roughly $4,200. This does not create an economic hardship as the increased cost is not significant over what the cost would be for a normal driveway. Additionally, an economic hardship is not a justification to overturn an administrative decision.

Mrs. Valone said the applicant has provided a secondary reason as to why he does not want to provide an alley access. He feels it will aggravate the drainage issues that

exist in the rear of the lot and alley. The Village Engineer reviewed the area and finds that the pavement will not aggravate the drainage issues nor improve them. However, as this is an administrative appeal the drainage issue is not a justification to overturn an administrative appeal.

Staff remains convinced that the existing alley, paved to the west lot line, does provide access. The interpretation is consistent with past precedent, as evidenced by the requirement for 15 E. Logan Street to access from the alley. Staff also believes this interpretation is consistent with the general purpose and intent of the R-4A district and the IR future land. The UDO requirements for the R-4A district are vastly different than the normal R-4 district. The UDO regulates more aspects of development in the R-4A district. The purpose of the zoning district and the regulations are to protect the unique characteristics of these neighborhoods. The two most visible restrictions are size of homes and driveway access. Additionally, the majority of the homes along the north block face of E Logan Street from Park Place to Brown Park have driveways that access the alley. The cost to alter the drive and utilize the alley does not create an economic hardship for the applicant. Thus, staff is recommending denial of the appeal.

Chairman Spinelli asked if any of the Commissioners had questions for staff at this time.

Commissioner Andrysiak asked if there was a plat of subdivision for the houses that are there currently. He said he wanted to know how the alley was established and who is responsible to take care of the alley.

Mrs. Valone stated it is a public alley as it is defined on their survey and was established a long time ago.

Commissioner Andrysiak said he had gone out to view the property. Based on the ordinances he would have made the same decision as staff and denied the application. However, after looking at the property he wonders if the property was vacated and the Village vacated the alley, half of the alley would go to the property to the north and half to the south. With this though we are asking the developer to pay for paving the whole alley which does not seem fair. When talking about precedence, at one time when the house to the north was built someone felt it was better for them to access from the street. When he looked at the houses on this block 70% of them have driveways that go out to the street. Most of them have connection to the alley but there is no room to turn around in the alley. He stated in regards to water runoff, the lot next to it is like a foot higher. When water is not in motion there is not too much of a problem, but if it is coming down that hill there could be a problem with erosion. There are berms that are built there already. If you disrupt that back end then it will disrupt the water flow and the neighbors are going to be complaining. There may not be a problem in the summer but in the winter when that snow is pushed all the way down to the end then you will flood the neighbors out. If it is his decision he would allow a driveway from the front.

Commissioner Maher stated they are not here tonight to hear a variance request. The only thing they are voting on is if staff made a right decision based off of the UDO. If the answer is yes then the applicant would have to come back in for a variance.

Commissioner Andrysiak said he feels that a driveway coming off the front is a better deal. So maybe then they need to look at the interpretation of the word "access".

Commissioner Sanderson stated at the beginning of his comment he had stated that he agreed with staff's recommendation for denial.

Commissioner Andrysiak said he feels that the driveway access from the front would be better.

Chairman Spinelli stated that may be, but the UDO requires lots in the R-4A district that have alley access are required to access the alley for a driveway. That is what they are determining as to whether staff interpreted the ordinance properly. If the applicant does not like their decision he has the ability to ask for a variance.

Commissioner Andrysiak apologized that he misunderstood.

Commissioner McGleam asked if it has to be an improved alley.

Mrs. Valone said it does not have to been an improved alley.

Commissioner Zolecki stated they are not approving a variance, but what they are referencing is that they would have to extend the alley on the actual property itself.

Commissioner Sanderson said if it was a development and they had to extend a street then they would extend the whole street.

Commissioner Zolecki asked about Commissioner Andrysiak's reference to 70% of the lots having front street access.

Mrs. Valone stated she thinks he was looking at the whole block. What staff limited their review to was limited to a portion of this block. The park gives a significant break to the whole block. If you compared the homes on one side of the block to the other side of the block it is a huge change. The alley significantly changes the character of this area. She is not sure why the alley was not continued on the other side of Brown Park.

Discussion continued in regards to the 70% calculation.

Mrs. Valone said there is a definition of "alley" in the staff report.

Chairman Spinelli asked if there were any more questions for staff. None responded. He then asked if the applicant wanted to come up and make a presentation.

Ken McClafferty, applicant, stated for financial hardship the Village Engineer came up with about $4,000. They had provided numbers and the alley in the back they had come up with $10,000 with an additional $5,000 for a retaining wall that would have to go up between the garage and the house due to the elevation. It is their interpretation that an alley has to have an entrance and an exit. When you look at Warner which is R-4A, they wanted the people and waste management to use the alleys. All those garages on the alley are not even facing the alley so when people back out they are going further into the alley. So they would have to pave further into the alley. There are sandbags at the end of the alley because the property to the north is getting water. There will less impervious surface if they have to access the alley.

Chairman Spinelli said they are here because there is an appeal of the administrative decision. They are here to determine whether staff interpreted and applied the ordinance properly. They cannot take hardship into consideration because they are not hearing a variance request. If it is determined tonight that they agree with staff then their next recourse would be to come back and ask for a variance. He cannot speak for his fellow Commissioners as to whether a variance would be approved, but until they are asked to rule on such a request they can only vote on what is being presented tonight.

Mr. McClafferty stated they are putting in more concrete and asphalt.

Chairman Spinelli said that may be a very valid argument for a variance request. Staff's decision was based on the R-4A zoning district and it clearly states in the code that a lot that has alley access is required to access the alley.

Mr. McClafferty asked even if it is a dead end alley.

Chairman Spinelli stated whether it dead ends or not it is still a dedicated right-of-way. The Commission can only vote on the appeal and not hardships as to why he might not agree with the appeal.

Mr. McClafferty said he thought they would take into consideration the hardships. His argument was in regards to staff's interpretation of what an alley was.

Commissioner Andrysiak asked if this would go before the Village Board.

Mrs. Valone stated with the appeal request the Commission's decision is final. If he comes in for a variation then he would go before the Planning and Zoning, Committee of the Whole, and then Village Board.

Mr. McClafferty asked how long that process is.

Mrs. Valone said it is roughly a 90 day process.

Chairman Spinelli asked if there was anyone else in the audience that wanted to make a comment or ask questions. None responded. He then asked if there was any more questions or comments from the Commissioners.

Commissioner McGleam asked if the Village had a program to build alleys.

Trustee Stapleton stated there is a program for resurfacing. He feels the reason why this alley didn't go any further was because there were no more garages after that.

Commissioner McGleam asked if the Village had standards when a developer is asked to construct an alley.

Mrs. Valone said they are in the UDO and are accessible via online.

Chairman Spinelli asked since the lot to the east, adjacent to Brown Park, has access from the street, would the applicant have to extend the alley all the way to their property line.

Mrs. Valone stated they would only have to extend it to where their alley access would be. So it would depend on where they had placed the garage.

Commissioner Maher asked if the lot to the east had a dedicated easement for an alley behind that house.

Mrs. Valone said she did pull their plat and they do have a dedicated alley there.

Commissioner Maher asked if they had an engineering standard for dual entry points for an alley

Mrs. Valone stated they do not have anything for either way. There is requirements for thickness and width of an alley.

Commissioner McGleam asked if the Village takes over maintenance of it after it is developed.

Mrs. Valone stated yes.

Commissioner Andrysiak asked what would happen if they agreed with the applicant.

Mrs. Valone said then they would not have to construct an alley and then that changes how staff enforces this policy. So if they had someone else who had an alley that did not come across the entirety rear lot then that would change how they would interpret this requirement.

Chairman Spinelli stated it is like Commissioner Sanderson stated that if a developer was coming in they would have to build a street meeting Village standards up to their property.

Discussion continued in regards to if it was a variance request.

Chairman Spinelli asked if there were any further questions or comments. None responded. He then called for a motion for recommendation.

Commissioner Maher made a motion, seconded by Commission Andrysiak to approve the administrative appeal for 23 E. Logan Street. A roll call vote was taken:
Ayes: Andrysiak
Nays: Maher, Zolecki, Sanderson, McGleam, Spinelli
Motion denied

V. GENERAL DISCUSSION

A. Update from Village Board

Mrs. Valone said Fox Meadows did not make it to the June 13th meeting. The COW had required them to reduce to 27 lots. They submitted the rest of the plans with 27 lots but their landscape plan showed 28 lots. Since then they have submitted the corrected plans and should be on the June 27th agenda. Since the Paradise Park annexation agreement does include all of the plans for Paradise Park they will have to amend that agreement so it will be a public hearing.

Chairman Spinelli asked if they did comply with the Planning and Zoning conditions.

Mrs. Valone stated at the COW they did not comply with them but they have since.

Mrs. Valone said for the 480 5th Street variations, it had sparked a lot of discussion not only for this Commission but also for the Village Board. The Board is doing an analysis to understand not just this area, but what other areas in the Village are not serviced properly by utilities. The applicant had requested to wait to hear how that analysis turns out before he goes before the Village Board. It might be discussed at the July COW. Since the Planning and Zoning Commission did not recommend approval the applicant would need a super majority to have it passed by the Village Board.

Mrs. Valone stated the UDO Amendments were approved on the June 13th. Equestrian Meadows did comply with all the Commission's conditions and should be going before the Board on June 27th for approval.

Commissioner Andrysiak asked what was going on with the Ozinga property.

Mrs. Valone said Ozinga, without a permit, had paved a significant portion of their site. They claim that in their lease they were to clean up the berm on the outside so they added that in along with their concrete pad. They did not apply for a permit with the Village or MWRD. So they needed to come in and apply for a site development and they had indicated that they wanted to increase their stock pile materials. That is not permitted without a special use. So they have two processes going.

Trustee Stapleton stated the new Dunkin Donuts is open and Hamilton's Pub is now under new ownership.

VI. AUDIENCE PARTICIPATION

None

VII. ADJOURNMENT

Chairman Spinelli asked if there were any more questions or comments. None responded. He then called for a motion to adjourn.

Commissioner Sanderson made a motion, seconded by Commissioner McGleam to adjourn the meeting. A voice vote was taken:
Ayes: All
Nays: None
Motion passed

Minutes prepared by Peggy Halper

Village of Lemont
Planning & Economic Development Department

418 Main Street · Lemont, Illinois 60439
phone 630-257-1595 · fax 630-257-1598

TO: Planning & Zoning Commission

FROM: Heather Valone, Village Planner

THRU: Charity Jones, AICP, Planning & Economic Development Director

SUBJECT: Case 16-05 23 E Logan St. Variation

DATE: July 8, 2016

SUMMARY

Ken McClafferty, on behalf of the owner Mako Properties Inc., is requesting a variation to allow driveway access in the Single-Family Preservation and Infill District (R-4A) via the street rather than via the alley. Staff is recommending denial of the variation.

PROPERTY INFORMATION

Case No.	16-05
Project Name	23 E Logan St.

General Information	
Applicant	Ken McClafferty
Status of Applicant	Builder, acting on behalf of the owner.
Requested Actions:	Variation to allow for driveway access from the street in the R-4A district.
Site Location	23 E Logan St. (PIN 22-29-105-015-0000)
Existing Zoning	R-4A (Single-Family Preservation & Infill District)
Size	.14 ac
Existing Land Use	Vacant
Surrounding Land Use/Zoning	North: R-4A (Detached single-family residence)
	South: R-4A (Detached single-family residence)
	East: R-4A (Detached single-family residence)
	West: R-4A (Detached single-family residence)
Comprehensive Plan 2030	The Comprehensive Plan classifies this site infill Residential (INF)

BACKGROUND

The subject property is currently vacant; the applicant is proposing to construct a single-family home on the subject property. The subject property is located two lots west of Brown Park along Logan St. An alley runs between Custer St. and Logan St. with access from Park Pl. The alley right-of-way terminates roughly 50 ft east of the subject property where Brown Park is located. Per UDO §17.07.020.F.2 "if an existing alley provides access to the lot in question, then detached and attached garages shall be accessed from the alley." The UDO defines alley as "a public or private right-of-way primarily designed to serve as a secondary access to the side or rear of those properties whose principal frontage is on some other street". The standard width of an alley as depicted in UDO Appendix G detail sheet LS-5 is 16ft.

The applicant submitted a building permit for a single-family home with a two-car attached garage accessing off E Logan St. on April 14, 2016. Staff denied the permit on April 19, 2016 because of the alley access requirement. The permit had multiple items in addition to the driveway access which did not meet UDO standards including the proposed maximum square footage of the home. The applicant filed the appeal May 14, 2016. The PZC denied the appeal on June 15, 2016 finding that the alley does provide access to the subject property.

STANDARDS FOR VARIATIONS

UDO Section 17.04.150.D states that variation requests must be consistent with the following three standards to be approved:

1. The variation is in harmony with the general purpose and intent of the Unified Development Ordinance;

   Analysis. The general purpose of the UDO is specified in UDO Section 17.01.050. Of the eight components listed, six are either not applicable to or unaffected by the variation request.

- ***Ensuring adequate natural light, air, privacy, and access to property.*** The proposed variation would not negatively impact light or air to the property. The variation would allow for access to the property from the street rather than from the alley. The property has the same accessibility from either the street or alley.

- ***Protecting the character of established residential neighborhoods.*** The proposed variation is not consistent with the established neighborhood character. The majority of the properties surrounding the subject property have detached garages with driveways that access via the alley. Those homes that do have driveways with street access also have detached garages located in the rear of these properties. The proposed two-car front load garage and driveway is not consistent with the neighborhood. See Standard 3 for further discussion.

2. The plight of the owner is due to unique circumstances, and thus strict enforcement of the Unified Development Ordinance would result in practical difficulties or impose exceptional hardships due to the special and unique conditions that are not generally found on other properties in the same zoning district;

   Analysis. The UDO states that in making a determination whether there are unique circumstances, practical difficulties, or particular hardships in a variation petition, the Planning and Zoning Commission shall take into consideration the factors listed in UDO §17.04.150.D.2.

   - ***Particular physical surroundings, shape, or topographical conditions results in a particular hardship upon the owner as distinguished from a mere inconvenience.*** The subject property is the last remaining vacant properties along the E Logan St. from Park Pl. to Brown Park. The subject property has similar lot size, shape, and topographical conditions as the surrounding properties. The subject property gradually slopes down from the front (south) property line to the rear (north) property line, similar to the surrounding properties to the east and west. The properties to the north of the subject site gradually slope down from the rear (south) property lines to the front (north) property lines. The physical characteristics of the subject property are not unique when compared to the surrounding properties.

     The applicant submitted a cost estimate for the proposed alley access. The applicant estimates that the total cost for the construction of the alley, driveway/ apron, and retaining wall at $17,325. The applicant also estimated that the cost for the street access driveway $1,400. The Village Engineer reviewed the estimates and commented that the costs for the alley access were too high and the estimate for the street access driveway was too low**.**

     The Village Engineer provided an alternative cost estimate. The cost to the applicant, per the Village Engineer, to pave the driveway from E Logan St. and the corresponding sidewalk alterations is estimated at $5,850. The estimated alley pavement extension is $8,000 at a minimum. The estimated cost for a driveway from a detached garage to the alley is $1,100. Thus, the total cost for the alley and driveway access is roughly $9,100. This is an increase of $3,200 when compared to the $5,850 for the driveway access from E Logan St. The

detached garage, as shown on the *Alternative Site Design: No Variation* document, does require either a retention wall or a larger concrete base. This additional cost is $3,375. The total estimated cost difference between the alley and street access alternatives with the retaining wall is $6,625. This does not create an economic hardship. Additionally these costs would equally applicable to all the other similar adjacent properties, not unique to the subject property.

- ***The conditions upon which the petition for variation is based would not be applicable generally to other property within the same zoning district***. The properties to the west of the subject property along Logan Street all have vehicle access through the alley rather than the street. The alley behind the property to the west (15 E Logan St.), prior to 2011, was not paved across the entire rear property line. 15 E Logan St. constructed a detached garage in 2011. At that time, the alley was paved only 12 ft past 15 E Logan St.'s west lot line. The homeowner for 15 E Logan St. was required to extend the alley across the entire lot to the property line it shares with 23 E Logan St. Staff sees no distinction between the condition of 23 E. Logan St. and 15 E. Logan St, or any other lots along the alley in question.

  The paved alley currently terminates at the west property line of the subject property (the east property line of 15 E. Logan Street). The applicant has indicated that since the alley is not a through alley that it prevents the use of the alley to this property. The neighboring lots to the west are able to enter and exit their properties effectively via the alley terminates. Currently, 15 E Logan St. is the terminus of the paved portion of the alley. The property owner is able to access their garage even though the alley does not extend past its east property line. Thus, the conditions of the subject property are similar to the neighboring properties that currently utilize the alley for driveway access.

- ***The alleged difficulty or hardship has not been created by any person presently having an interest in the property.*** The alleged hardship is partially created by the current owner of the property as he subdivided a larger property to create 23 E Logan St. The subject property was originally part of one large lot improved with a single-family home. The lot was comprised of the subject property and the property that is now known as 15 E Logan St. The original home is situated on the 15 E Logan St. parcel. In 2008 Mako Properties Inc., subdivided the larger property to create two smaller properties. When the property was only one large lot there was a single driveway that accessed from E Logan St. Sometime between 2008 and 2009 the driveway was removed and replaced with only a service walk since the driveway would have been located partially on the 15 E. Logan St. lot and partially on the 23 E. Logan St lot. The driveway apron still remains in the parkway.

  However had 15 E Logan St. not extended the alley to the east property line it shares with the subject property there would not have been alley access to 23 E Logan St. The subject property in that scenario would have been separated from the paved alley by another private property. The administrative interpretation of the alley access requirement has been to not require people to extend alleys across other private properties to reach their property. The alley access is only require if the paved alley is adjacent to the subject property.

- ***The granting of the variation will not be detrimental to the public welfare or injurious to other property or improvements in the neighborhood in which the subject project is located.*** The request will not be detrimental to public welfare or injurious to other properties or improvements.

- ***The variation will not impair an adequate supply of light and air to adjacent properties or substantially increase congestion in the public street or increase the danger of fire or endanger the public safety or substantially diminish or impair property values within the neighborhood.*** The variation would not endanger public safety, substantially impair property values, diminish adequate supply of light or air, or increase the danger of fire or congestion.

3. The variation will not alter the essential character of the locality and will not be a substantial detriment to adjacent property.

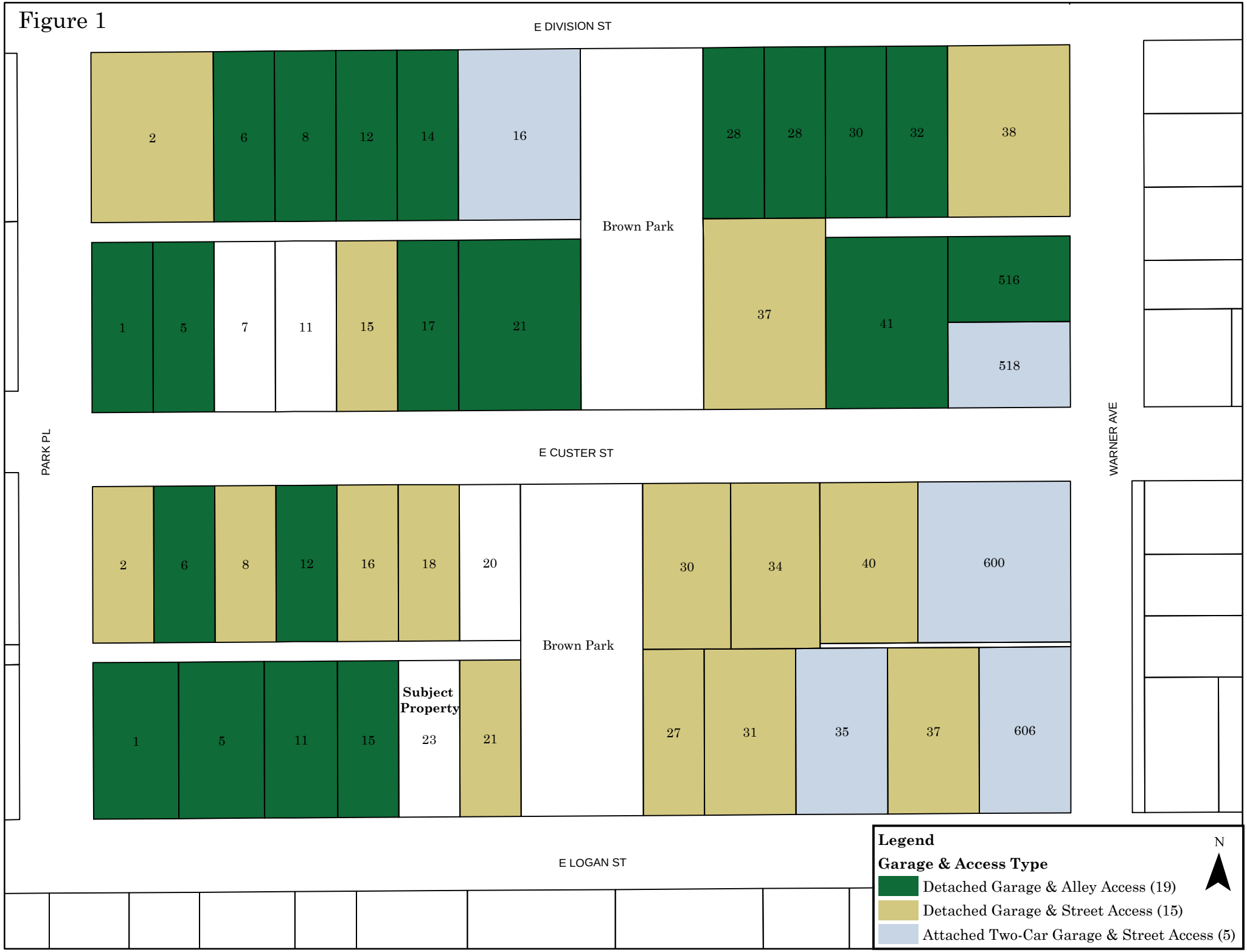
   Analysis. The requested variation will alter the essential character of the area. The subject property is located in the R-4A zoning district; the purpose of this zoning district is:

   > "to regulate the height, building coverage, and impervious surface coverage of residential dwelling units in the older established neighborhoods of the Village.
   > Specifically, the district's restrictions are intended to prevent the overcrowding of land, ensure proper living conditions, assure the adequate provision of light, air and open spaces, and to foster and preserve the nature, character, and quality of existing neighborhoods, while providing property owners opportunities for infill development on vacant lots or redevelopment of lots with existing structures. In particular this district is intended to prevent the further proliferation of structures that do not conform to the general height, bulk, and scale of existing structures."

   The future land use for the subject property as defined by the Lemont 2030 Comprehensive plan is Infill Residential (IR). The purpose of the IR future land use is to ensure any new development or redevelopment will be consistent with the established character of the surrounding neighborhood, similar to the intent and propose of the R-4A district. The R-4A properties, unlike the standard R-4 properties, have a number of unique standards due to the size of the lots, the older established homes that have been constructed, and the intent and purpose of the R-4A zoning district. Two of the most visible standards that the R-4A regulates are the driveway placement and the size of the homes

   The surrounding properties have detached garages rather than attached garages. The proposed attached two-car front loading garage is inconsistent with the majority of the surrounding neighborhood (Figure 1). There are 40 homes within a two block area of the along E Division St., E Custer St, and E Logan St, bound to the west by Park Pl. and Warner Ave to the east. Of those 40 homes, 20 (50%) have detached garages that access via the alley, 15 (38%) have detached garages in the rear of the property that have street access, and five (13%) have attached two car garages that access via

Figure 1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E LOGAN ST
Legend
Garage & Access Type
Detached Garage & Alley Access (19)
Detached Garage & Street Access (15)
Attached Two-Car Garage & Street Access (5)
N

the street. Nine homes along Logan Street from Brown Drive to Warner Avenue do not have alley access. If these properties are removed from the study area, the percentage of existing homes with detached garages increases substantially; 65% of the homes have detached garages with alley access, 29% of homes have a detached garage in the rear of the property that accesses via the street, and 6% of homes have attached two-car garages with street access. The proposed garage and driveway does not conform to either of typical driveway or garage configurations that currently exist in the neighborhood.

Currently, the property to the east of the subject property (21 E Logan St.) is the only home with a driveway that interrupts the sidewalk on the north block face of E Logan St from Park Pl. to Brown Park. The apron in the parkway at 15 E Logan St., although present, narrows to a roughly four foot service walk once on the property. The sidewalks on the subject property's block face of E Logan St. are important due to the fact that there is no sidewalk on the south side of E Logan St. from Ridge Rd. to Warner Ave. These sidewalks along this block face of E Logan St. are the only pedestrian friendly access to Brown Park.

Additionally, the proposed variation request could create the basis of another variation application. The proposed home as it is currently depicted in the submitted architectural plans exceeds the maximum permitted square footage for R-4A homes. The R-4A properties are limited in size to conform to the existing homes. The maximum square footage a home that can be built on the subject property is 2,626.43 s.f. The proposed home with the attached two-car garage exceeds the maximum area by 192.93 s.f. The removal of the attached garage would reduce the home area, by 189.98 s.f. The proposed driveway and garage are not consistent with the neighborhood characterizes or the R-4A standards; granting the variation may trigger the applicant to request another variation from the UDO maximum home size restrictions to allow the building to be constructed as currently shown in the architectural plans.

ANALYSIS

Stromwater/ Drainage. The applicant has indicated that providing alley access would aggravate the drainage issues that exist in the rear of the lot and alley. The Village Engineer has reviewed the site design for the alley access finds that construction of the alley will not aggravate the rear yard drainage. The Engineer's review finds that the paving of the alley would not aggravate nor improve the drainage issues of the subject property or the property to

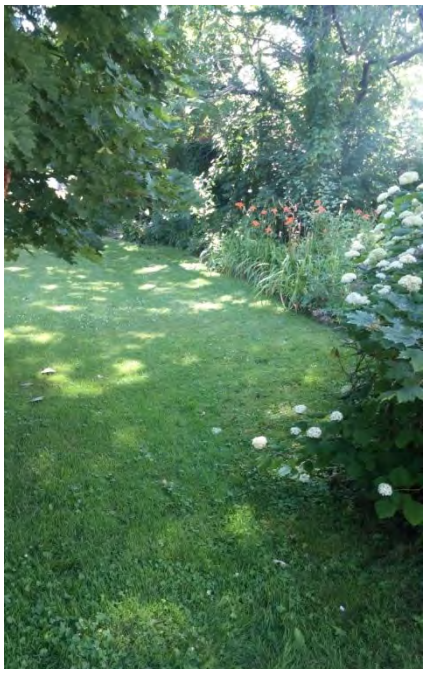


Figure 2 The current grass alley behind the subject property after July 7, 2016 rain event.

Figure 3 The rear of the subject property after July 7, 2016 rain event.

the north (rear). Though the alley extension represents an increase in impervious area, it is not a significant increase to create stormwater issues since the property to the north is already lower and accepting a portion subject property's runoff. The home on the northwest side of the alley constructed an asphalt edge that interrupts the stormwater and directs the stormwater to the grass area behind the subject property. This berm was likely intentionally created by the neighbor to direct more stormwater to the subject property as the site has been vacant for years. The Village Engineer's full comments are attached.

The property was visited by staff the morning after a large rain event on July 8, 2016 Figures 2 and 3 show that there was little to no pooling of water in the rear yards of the subject property or on the neighboring property to the north. The only pooling water observed was in a portion of the alley to the west of the subject property where a neighbor constructed an asphalt edge because their property naturally sits lower than the surrounding properties. The edge contained the water to the alley portion only as shown in Figure 4.

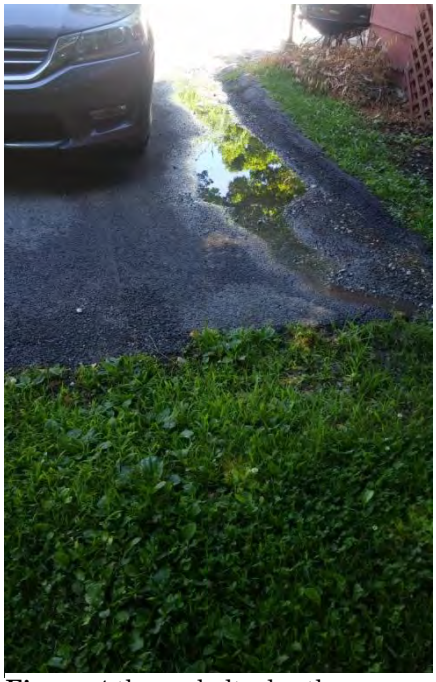


Figure 4 the asphalt edge the neighboring property constructed directs stormwater from the July 7, 2016 rain event towards the subject property.

CONCLUSION

The UDO requires that the applicant demonstrate consistency with all three of the variation standards contained within §17.04.150.D. and staff finds the variation does not meet all the standards for granting variations. Staff recommends denial of the variation. The driveway access and proposed attached front loading two-car garage is not consistent with the character of the neighborhood. The property is not unique from the neighboring properties that already utilize the alley for driveway access; the UDO requirement to provide alley access has also recently been enforced on a nearly identical property immediately west of the subject site. The construction of the alley access does not create an economic hardship and the paving the alley will not aggravate drainage issues in the rear yards of the subject property or the neighboring property to the north (rear).

Although staff recommends denial of the proposed variation, if the PZC concludes that the standards for a variation have been met by the applicant, staff would recommend that the variation require a detached garage located in the rear of the property, rather than the proposed front loading attached garage, to better conform to the character of the area.

ATTACHMENTS

1. Site photographs
2. Village Engineer Comments
3. Applicant submissions

Attachment 1 Site Photos

Figure 1 The subject lot vacant taken from E Logan St. facing north.

Figure 2 The rear of 23 E Logan St. taken from mid parcel.

Figure 3 Taken from the rear of the subject property looking south.

Figure 4 Alley entrance from Park Pl. looking east.

Figure 5 Neighboring properties to the west of the subject property whose driveways access from the alley.

Figure 6 Additional properties along the alley with driveway access.

Figure 7 The alley terminating at the property line between 23 and 15 E Logan St.

Attachment 2

VILLAGE OF LEMONT
418 Main Street, Lemont, Illinois 60439
Phone: 630/257-2532 ◆ Fax: 630/257-1598

Memorandum

To: Heather Valone, Village Planner

From: James L. Cainkar, P.E., P.L.S. cc: 16262

Date: July 12, 2016

Re: **Case No. 16-05**
23 E. Logan

Heather:

The price for the alley load garage of $1,100.00 appears reasonable. The alley would be 50' long x 14' wide = 80 sq. I estimate the cost for the alley extension to be 80 sy x $100.00/sy = $8,000.00.
The front load garage for Logan Street requires a driveway (and new sidewalk) that is 90 SqYd. The estimated cost for this work is 90 SqYd x $65.00/SqYd = $5,850.00.

The retaining wall (monolithic with garage floor) is shown to be constructed at $100.00 per face square foot. This appears high, somewhere in the $75.00 per face square foot is probably more reasonable.

The paving of the alley will add some impervious flow to the lot to the north, but that is the natural lay of the land, and the area to the north is grass. The alley paving will not aggravate drainage in the alley, nor improve them.

There is an asphalt berm on the north edge of the paved alley on the lot to the west which interrupts rain water and drains it to the grass area behind this lot (23 E Logan). The asphalt berm is intentional. An additional berm would not likely be needed, if the alley is extended further east. These asphalt "berms" (edges) are located all over the Village where the downstream owner has a garage and he does not want the upstream flow to enter the garage. If the alley flow is not directed toward a garage, than there is no need for this protective berm.

Thank you,

James L. Cainkar, P.E., P.L.S.
Frank Novotny & Associates, Inc.

JLC/kes

Attachment 3

Village of Lemont
Planning & Economic Development Department
418 Main Street Lemont, Illinois 60439
phone (630) 257-1595
fax (630) 257-1598

Variation Application Form

APPLICANT INFORMATION

KENNETH MCCLAFFERTY
Applicant Name

SHORLAN GROUP
Company/Organization

16540 PASTURE DRIVE LEMONT
Applicant Address

312-437-6397
Telephone & Fax

shorlan@me.com
E-mail

CHECK ONE OF THE FOLLOWING:

_____ Applicant is the owner of the subject property and is the signer of this application.
_____ Applicant is the contract purchaser of the subject property.
_____ Applicant is acting on behalf of the beneficiary of a trust.
__X__ Applicant is acting on behalf of the owner.

PROPERTY INFORMATON

23 E LOGAN LEMONT
Address of Subject Property/Properties

-29-105-015-0000
Parcel Identification Number of Subject Property/Properties

50 X 127
Size of Subject Property/Properties

DESCRIPTION OF REQUEST

REQUEST TO BE PERMITTED TO BUILD A SINGLE FAMILY HOME WITH AN ATTACHED
Brief description of the proposed variation
GARAGE THAT WOULD ACCESS FROM LOGAN INSTEAD OF THE ALLEY

REQUIRED DOCUMENTS

See Form 500-A, *Variation Application Checklist of Required Materials,* for items that must accompany this application.

FOR OFFICE USE ONLY

Application received on: _____ By: _____

Application deemed complete on: _____ By: _____

Current Zoning: _____

Fee Amount Enclosed: _____ Escrow Amount Enclosed: _____

Variation Application Form

Village of Lemont

APPLICATION FEE & ESCROW

Application Fee = $250 (per zoning lot)

Fee is non-refundable. A zoning lot is defined as "a single tract of land located within a single block that (at the time of filing for a building permit) is designated by its owner or developer as a tract to be used, developed, or built upon, under single ownership or control" (Unified Development Ordinance Chapter 17.02).

Required Escrow = $500

At the time of application, the applicant shall submit a check for the establishment of an escrow account. The escrow money shall be used to defray costs of public notice, consultants, or other direct costs incurred by the Village in association with the variation application. Additionally, should the applicant fail to remove the required public notice sign in a timely manner, the escrow account may be used to defray the costs of the sign's removal. After completion of the variation review process, any unused portion of the escrow account will be refunded upon request.

AFFIRMATION

I hereby affirm that I have full legal capacity to authorize the filing of this application and that all information and exhibits herewith submitted are true and correct to the best of my knowledge. I permit Village representatives to make all reasonable inspections and investigations of the subject property during the period of processing of this application. I understand that as part of this application I am required to establish an escrow account to pay for direct costs associated with the approval of this application, such as the fulfillment of public notice requirements, removal of the public notice sign, taking of minutes at the public hearing and fees for consultants hired by the Village to evaluate this application. I understand that the submitted fee is non-refundable and that any escrow amount leftover upon project completion will be refunded upon request. I understand that I am responsible for the posting of a public hearing sign and for the mailing of legal notice to all surrounding property owners as required by Village ordinances and state law.

Kenneth Mc Clafferty SP — JUNE 20th 2016

Signature of Applicant — Date

ILLINOIS — COOK

State — County

I, the undersigned, a Notary Public in and for the aforesaid County and State, do hereby certify that KENNETH MC CLAFFERTY is personally known to me to be the same person whose name is subscribed to the foregoing instrument, and that said person signed, sealed and delivered the above petition as a free and voluntary act for the uses and purposes set forth.

Susan M Dufault

Notary Signature

Given under my hand and notary seal this 20th day of JUNE A.D. 20 16.

My commission expires this 27th day of NOVEMBER A.D. 20 16.

OFFICIAL SEAL
SUSAN M DUFAULT
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES:11/27/16

Variation Criteria Worksheet

Unified Development Ordinance (UDO) Section 17.04.150.D.1 establishes the criteria that all applications for variations must meet. In addition, Section 17.04.150.D.2 of the Unified Development Ordinance requires that the Planning & Zoning Commission or Zoning Hearing Officer take the following conditions into consideration when determining whether a request qualifies for a variation. You may want to consider the following in your variation request:

- The particular physical surroundings, shape, or topographical condition of the specific property involved results in a particular hardship upon the owner, as distinguished from a mere inconvenience, if the strict letter of the regulations of the Unified Development Ordinance were fulfilled;
- The conditions upon which the petition for variation is based would not be applicable, generally, to other property within the same zoning classification;
- The alleged difficulty or hardship has not been created by any person presently having an interest in the property;
- The granting of the variation will not be detrimental to the public welfare or injurious to other property or improvements in the neighborhood in which the subject property is located; and
- The variation will not impair an adequate supply of light and air to adjacent properties, or substantially increase the congestion in the public streets, or increase the danger of fire, or endanger the public safety, or substantially diminish or impair property values within the neighborhood.

Please describe below how your variation request meets the criteria of UDO Section 17.04.150.D.1. Attach additional sheets if necessary.

UDO Section 17.04.150.D.1.a

The variation is in harmony with the general purpose and intent of the Unified Development Ordinance;

The property is in keeping with surrounding properties in the area.

There is an existing curb cut on Logan Street.

The variation would preserve green space where the alley is vacated.

Paving this part of the alley would make it harder for snowplowing and increase the risk of water problems for neighbors to the north.

UDO Section 17.04.150.D.1.b

The plight of the owner is due to unique circumstances and thus strict enforcement of the Unified Development Ordinance would result in practical difficulties or impose exceptional hardships due to the special and unusual conditions that are not generally found on other properties in the same zoning district; and

The alley pavement ends at the property line and would require the owner to pave behind the subject property to gain access to the property.
The alley dead ends and will create problems for homeowners and neighbors.
By forcing the owner to pave the alley it creates financial hardship.
The alley does not conform with ideal design elements for alleys.

UDO Section 17.04.150.D.1.c

The variation will not alter the essential character of the locality and will not be a substantial detriment to adjacent property.

The proposed plan is in keeping with the other homes in the area.
There is an existing curb cut in the front property on Logan.

Site Design: with Variation

TOPOGRAPHICAL SURVEY & SITE DEVELOPMENT PLAN

OF

LOT 2 IN OWNER'S RESUBDIVISION OF LOT 7 IN BLOCK 3 IN THE PARK ADDITION TO THE VILLAGE OF LEMONT IN SECTION 29, TOWNSHIP 37 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

COMMON ADDRESS: ~~19~~ 23 E LOGAN STREET
LEMONT

PIN: 22-29-105-015

LOT AREA: 6,306 SF

ZONED: R4A

RECEIVED
APR 1 1 2016
Village of Lemont
BUILDING DEPARTMENT

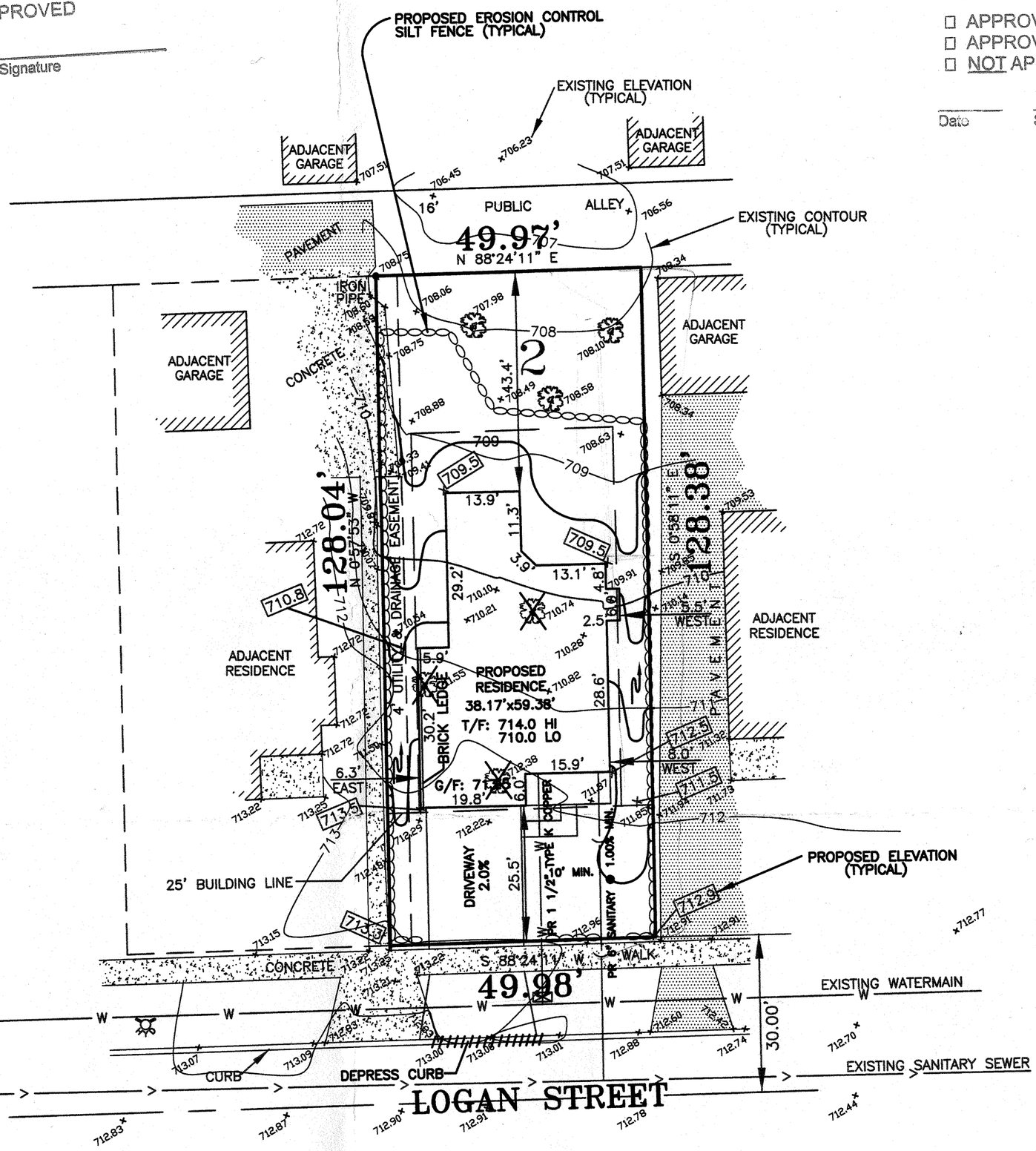
BEFORE YOU DIG!
CALL
1-800-892-0123
(Allow Two Working Days)
JULIE
The Illinois One-Call System
It's The Law

VILLAGE OF LEMONT
☐ APPROVED
☐ APPROVED AS NOTED
☐ NOT APPROVED

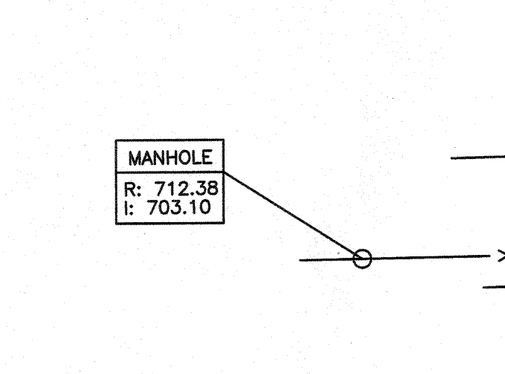
Date Signature

VILLAGE OF LEMONT
☐ APPROVED
☐ APPROVED AS NOTED
☐ NOT APPROVED

Date Signature



SCALE: 1" = 20'



NOTE: DEPENDING UPON CONFIGURATION, ATTACH FABRIC TO WIRE MESH W/ HOG RINGS, STEEL POSTS W/TIE WIRES, WOOD POSTS W/NAILS.

SILT FENCE DETAIL

NOTES:

1) WATER SERVICE SHALL BE 1 1/2" TYPE K COPPER PIPE.
2) SANITARY SERVICE SHALL BE 6" PVC (SDR 26) @ 1.00% MINIMUM.
3) MINIMUM HORIZONTAL SEPARATION OF 10.0 FEET SHALL BE MAINTAINED BETWEEN WATER AND SEWER SERVICES.
4) EROSION CONTROL TO BE APPLIED PER THE ILLINOIS PROCEDURES FOR URBAN SOIL EROSION AND SEDIMENTATION CONTROL MANUAL, LATEST EDITION.
5) LOCATION OF EXISTING SEWER AND WATER SERVICE STUBS TO BE VERIFIED BY CONTRACTOR.
6) ALL DOWNSPOUT AND SUMP PUMP DISCHARGE POINTS SHALL BE LOCATED WITHIN FIVE FEET OF THE FOUNDATION AND DIRECTED TOWARD THE FRONT OR REAR OF THE PROPERTY.

KDC CONSULTANTS, INC. PROFESSIONAL DESIGN FIRM 184-003604
16144 S. BELL ROAD HOMER GLEN, IL 60491
KEVIN D. CHAFFIN 035-003184
PROFESSIONAL LAND SURVEYOR
STATE OF ILLINOIS

LICENSE EXPIRATION 11-30-2016

DATED: MARCH 18, 2016	
REVISION	DATE
ORIGINAL	02/15/16
SITE PLAN	03/18/16

PREPARED BY:
KDC CONSULTANTS INC.
WWW.KDCCONSULTANTSINC.COM
16144 S. BELL ROAD
HOMER GLEN, ILLINOIS 60491
(708) 645-0545 Fax: 645-0546

PREPARED FOR:
SHORLAN

PROJECT
16-01-004 SP

PAGE 1 OF 1

Alternative Site Design: No variation

TOPOGRAPHICAL SURVEY & SITE DEVELOPMENT PLAN

OF

LOT 2 IN OWNER'S RESUBDIVISION OF LOT 7 IN BLOCK 3 IN THE PARK ADDITION TO THE VILLAGE OF LEMONT IN SECTION 29, TOWNSHIP 37 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

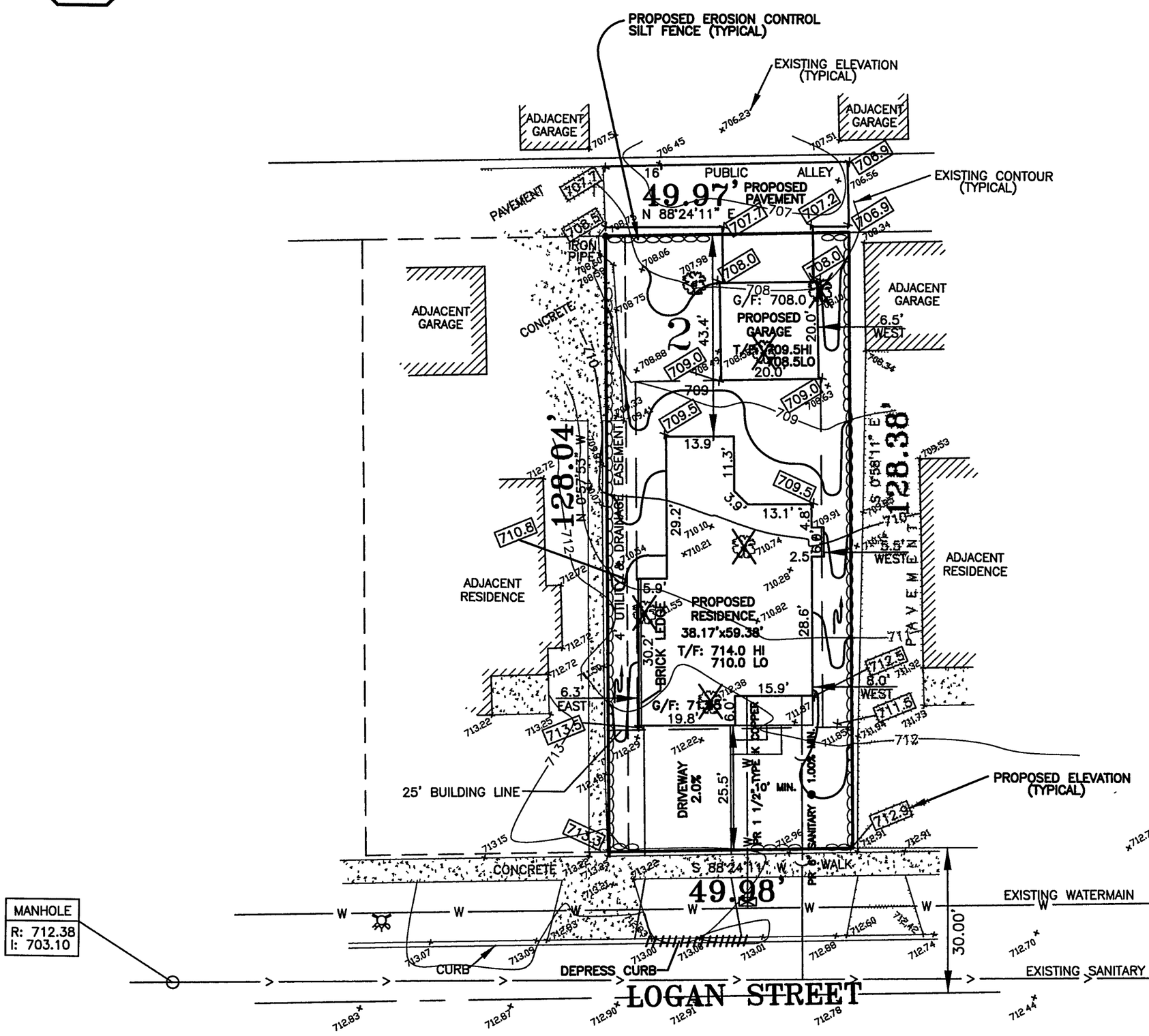
COMMON ADDRESS: 19 E LOGAN STREET
LEMONT

PIN: 22-29-105-015

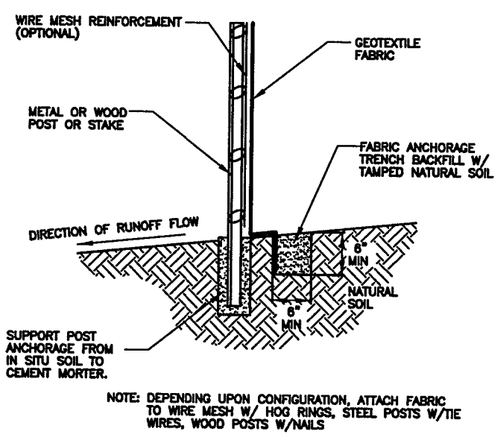
LOT AREA: 6,306 SF

ZONED: R4A

BEFORE YOU DIG! CALL 1-800-892-0123 (Allow Two Working Days) JULIE The Illinois One-Call System It's The Law



SCALE: 1" = 20'



NOTE: DEPENDING UPON CONFIGURATION, ATTACH FABRIC TO WIRE MESH W/ HOG RINGS, STEEL POSTS W/TIE WIRES, WOOD POSTS W/NAILS

SILT FENCE DETAIL

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6) ALL DOWNSPOUT AND SUMP PUMP DISCHARGE POINTS SHALL BE LOCATED WITHIN FIVE FEET OF THE FOUNDATION AND DIRECTED TOWARD THE FRONT OR REAR OF THE PROPERTY.

KDC CONSULTANTS, INC. PROFESSIONAL DESIGN FIRM 184.003464 16144 S BELL ROAD HOMER GLEN, IL 60491 KEVIN D. CHAFFIN 035-003184 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS

LICENSE EXPIRATION 11-30-2016

KEVIN D. CHAFFIN 035-003184 STATE OF ILLINOIS

DATED: JUNE 30, 2016	
REVISION	DATE
ORIGINAL	02/15/16
SITE PLAN	03/18/16
OWNER COMMENTS	06/30/16

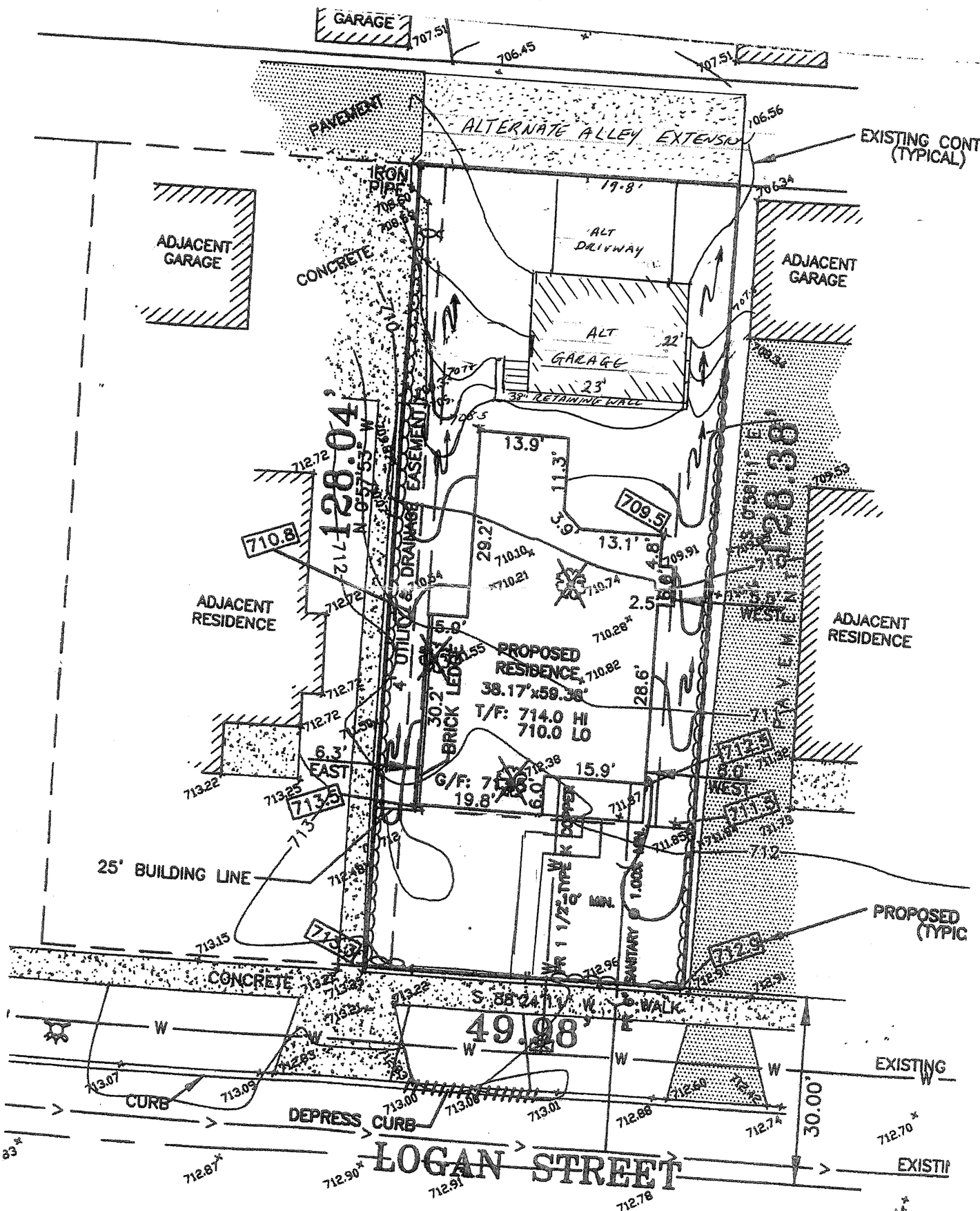
PREPARED BY:
KDC CONSULTANTS INC.
WWW.KDCCONSULTANTSINC.COM
16144 S. BELL ROAD
HOMER GLEN, ILLINOIS 60491
(708) 645-0545 Fax: 645-0546

PREPARED FOR.
SHORLAN

PROJECT 16-01-004 SP

PAGE 1 OF 1

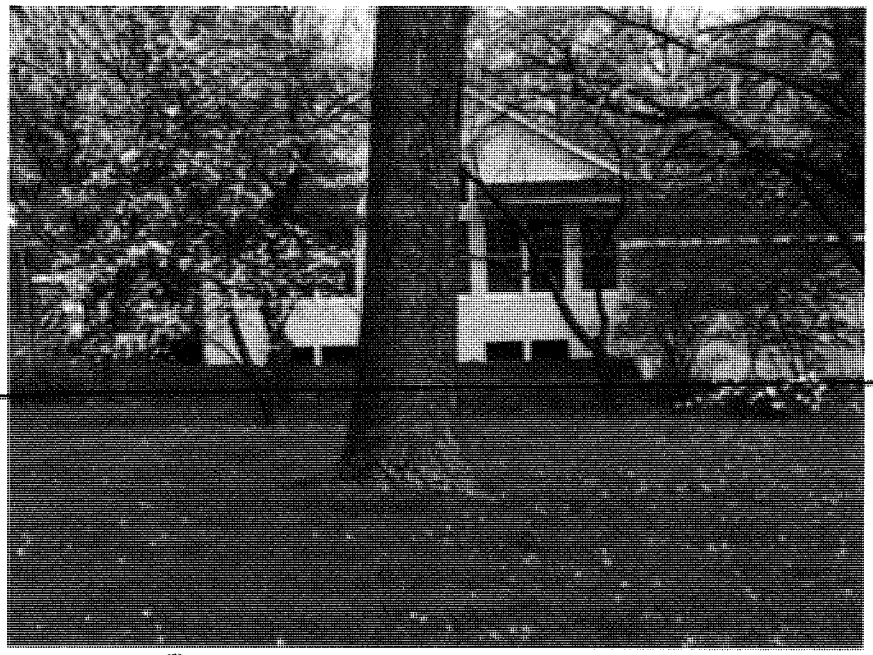
Detailed Alternative Site Design: Without Variation



B WITHOUT VARIATION

From: **Ken McClafferty** shorlan@me.com
Subject: #4
Date: April 20, 2016 at 3:45 PM
To: Ken Mcclafferty shorlan@me.com

PROPERTY TO THE REAR

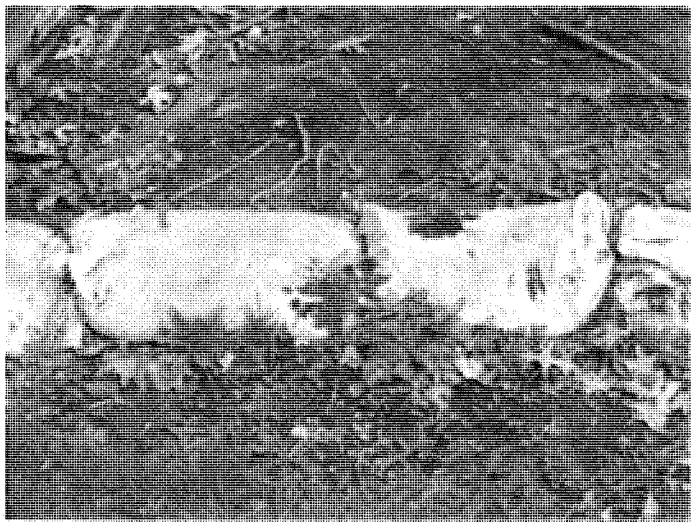


SUBJECT PROPERTY

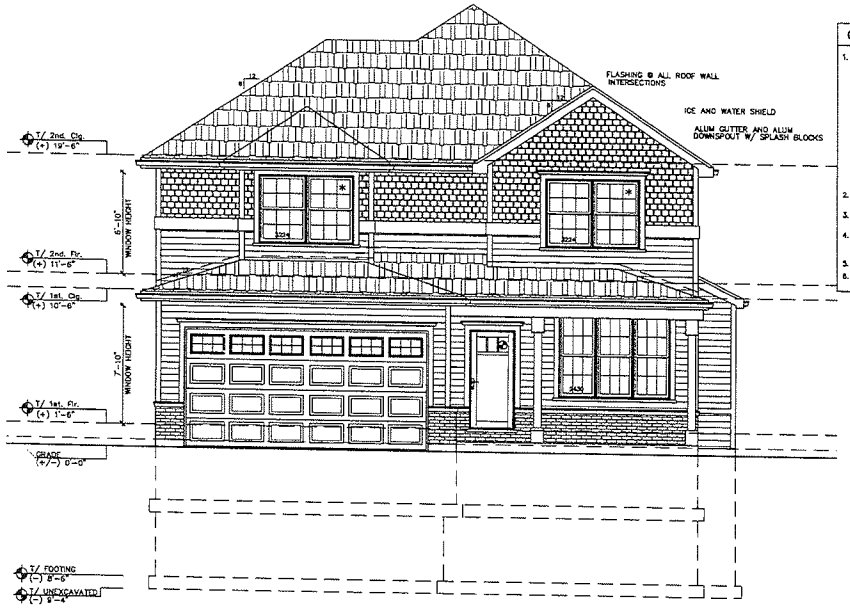
A

ASPHALT BERM (NORTH SIDE)

(B) Sand Bags



Sent from my iPhone



FRONT ELEVATION 1/4" = 1'-0"

@ SAFETY GLAZED
* EGRESS WINDOW

GENERAL NOTES
1. INCLUDED AS PART OF THESE DOCUMENTS IS THE "GENERAL CONDITIONS FOR CONSTRUCTION", AIA DOCUMENT A-201, ARTICLE 1 THRU 14 INCLUSIVE.
2. GENERAL CONTRACTORS AND SUBCONTRACTORS SHALL COMPLY WITH ALL CITY, STATE AND NATIONAL CODES AND ORDINANCES.
3. MAINTAIN THROUGHOUT THE CONSTRUCTION PERIOD, A CERTIFICATE OF INSURANCE FOR ALL LIABILITIES, WITH A HOLD HARMLESS CLAUSE, PROTECTING THE OWNER AND ARCHITECT.
4. ALL WORK SHALL COMPLY WITH THE REQUIREMENTS, POLICIES AND PROCEDURES OF THE OWNER.
5. ALL WORK SHALL BE OF THE HIGHEST QUALITY FOLLOWING THE CONTRACT DOCUMENTS, PROJECT SPECIFICATIONS AND RECOMMENDATIONS, AND THE BEST ACCEPTED TRADE PRACTICES AND STANDARDS.
6. THESE DRAWINGS INDICATE THE GENERAL SCOPE OF THE PROJECT IN TERMS OF THE ARCHITECTURAL DESIGN CONCEPT, DIMENSIONS, MAJOR ELEMENTS AND MATERIALS. THESE DRAWINGS DO NOT NECESSARILY INDICATE OR DESCRIBE ALL WORK REQUIRED FOR THE FULL COMPLETION OF THE PROJECT. THE GENERAL CONTRACTOR AND HIS SUBCONTRACTOR SHALL FURNISH ALL OF THOSE ITEMS AND LABOR REQUIRED FOR THE FULL COMPLETION OF THIS PROJECT. ACCEPTANCE BY THE OWNER SHALL BE CONDITIONS OF THE CONTRACT.
7. THE CONTRACTOR SHALL INVESTIGATE, VERIFY AND BE RESPONDISIBLE FOR ALL REQUIREMENTS OF THE PROJECT AND SHALL NOTIFY THE ARCHITECT OF ANY CONDITIONS CONTRARY TO THE CONSTRUCTION DOCUMENTS THAT REQUIRE MODIFICATION BEFORE PROCEEDING WITH THE WORK.
8. THE CONTRACTOR SHALL PROTECT ALL EXISTING SITE ELEMENTS FROM DAMAGE DUE TO THE CONSTRUCTION OPERATION, AND REPAIR OR REPLACE ANY ELEMENTS DAMAGED DURING THE PROJECT.
9. DRAWINGS AND SPECIFICATIONS ARE TO BE ISSUED TO THE SUBCONTRACTORS IN COMPLETE SETS SO THAT THE FULL EXTENT OF WORK IS SHOWN AND COORDINATION OF WORK IS MADE POSSIBLE.
10. THE GENERAL CONTRACTOR AND SUB-CONTRACTORS SHALL BE RESPONSIBLE FOR THE COORDINATION OF ALL INCOMING UTILITIES.

DIMENSIONS
11. DO NOT SCALE DRAWINGS, WRITTEN DIMENSIONS SHALL GOVERN. THESE DRAWINGS MAY HAVE BEEN REPRODUCED AT A SIZE DIFFERENT THAN ORIGINALLY DRAWN. DO NOT SCALE DRAWINGS.
12. THE GENERAL CONTRACTOR AND SUB-CONTRACTORS SHALL VERIFY ALL PARTITION LAYOUTS AND SHALL REPORT ANY DISCREPANCIES TO THE ARCHITECT IN WRITING BEFORE PROCEEDING WITH ANY FRAMING.
13. THE GENERAL CONTRACTOR AND SUB-CONTRACTORS SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL DIMENSIONS AND CONDITIONS BEFORE EXECUTION OF ANY WORK AND SHALL REPORT ANY DISCREPANCIES TO THE ARCHITECT IN WRITING.

COORDINATION
14. REFER TO SITE SURVEY FOR SITE INFORMATION. CONTRACTOR TO VERIFY ALL INFORMATION.
15. THE GENERAL CONTRACTOR SHALL COORDINATE ADDITIONAL SUPPORT OR CONCEALED BLOCKING FOR INSTALLATION OF HANDRAILS, MILLWORK, WALL PANELS, WINDOW TREATMENTS, GRAB BARS AND ALL OTHER SURFACE MOUNTED COMPONENTS.
16. THE GENERAL CONTRACTOR'S SUBCONTRACTORS SHALL COMPLETELY HOOK-UP AND CONNECT ALL EQUIPMENT AND FURNISH ALL NECESSARY APPENDAGES. THE COMPLETED SYSTEMS SHALL BE FULLY OPERATIONAL.
17. THE PREMISES SHALL BE KEPT IN A BROOM SWEPT FINISH CONDITION DURING ALL PHASES OF THE CONSTRUCTION. ALL CONTRACTORS AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR CLEANING UP AND DISPOSING OF THEIR LITTER AND LEFT OVER MATERIALS ON A REGULAR BASIS AND LEAVE THE PROJECT IN A BROOM FINISH CONDITION UPON COMPLETION OF THEIR PORTION OF THIS PROJECT.
18. ALL WORK SHALL BE COORDINATED WITH ALL OTHER TRADES IN ORDER TO AVOID INTERFERENCES, PRESERVE MAXIMUM HEAD ROOM AND AVOID OMISSIONS.
19. THE GENERAL CONTRACTOR SHALL PROVIDE TEMPORARY FENCING AND BARRICADES AROUND THE ENTIRE SITE AS REQUIRED BY THE CITY OF CHICAGO TO BE PROTECTED AND AT ANY OPENINGS THAT MIGHT PRESENT A HAZARD.

CODES AND STANDARDS
20. INTERIOR FINISHES SHALL NOT EXCEED CLASS 1, 0-25 FLAMESPREAD, 200 SMOKE.
21. RECESSED FIXTURES IN INSULATED CEILINGS MUST BE ENERGY APPROVED TYPE.
22. PROVIDE 1" MIN. CLEARANCE BETWEEN 'B' LABEL FLUES AND ANY COMBUSTIBLE MAT'L. PROVIDED THAT THE FIRST 3'-0" ABOVE THE FURNACE HAS 3" CLEARANCE.
23. LOW TEMPERATURE CHIMNEYS SHALL EXTEND TO A HEIGHT NOT LESS THAN 3'-0" ABOVE THE ROOF AT THE POINT OF INTERSECTION AND NOT LESS THAN 2'-0" ABOVE ANY ROOF WITHIN 10'-0" OF SUCH CHIMNEY EXCEPT CHIMNEYS ON A ROOF SLOPED MORE THAN 15 DEGREES MAY EXTEND NOT LESS THAN 2'-0" ABOVE THE RIDGE.
24. HANDRAIL HEIGHTS ON STAIRS SHALL BE 2'-10" ABOVE THE NOSING. HANDRAIL HEIGHTS AT LANDING SHALL BE 3'-0" A.F.F.
25. ALL DOORS USED IN CONNECTION WITH EXITS SHALL BE SO ARRANGED AS TO BE READILY OPENED WITHOUT USE OF A KEY FROM THE SIDE FROM WHICH EGRESS IS MADE.
26. ALL GLAZED DOORS, ALL SKYLIGHTS AND ALL GLAZED PANELS MORE THAN 18" IN WIDTH IMMEDIATELY ADJACENT TO ANY DOOR WHERE THE SILL OF THE GLAZED PANEL IS LESS THAN 24" ABOVE THE FLOOR SHALL BE GLAZED WITH SAFETY GLAZING MATERIALS. NO WINDOW SILLS SHALL HAVE A SILL HEIGHT OF LESS THAN 2'-0" ABOVE THE FLOOR UNLESS NOTED OTHERWISE.
27. ALL OPENINGS, IN FIRE RATED, FLOORS AND WALLS INCLUDING SPACES BETWEEN DUCTS, PIPES, CONDUIT, ETC. SHALL BE CLOSED OFF BY AN APPROVED FIRE SAFEING MATERIAL TO MAINTAIN FIRE RATING CONTINUITY OF THE FIRE RATED FLOOR AND WALL CONSTRUCTION. ALL OPENINGS AND PENETRATIONS SHALL BE SEALED TO PREVENT THE PASSAGE OF SMOKE AND FLAMES IN FIRE RATED ASSEMBLIES.

GENERAL ROOF NOTES

1. USE CANADIAN SPRUCE-PINE-FIR NO.1/NO.2 FOR ROOF RAFTERS THRU 2x10's. 2x12's ROOF RAFTERS SHALL BE HEM-FIR(N) FOR THE U.S. SPAN BOOK FOR MAJOR LUMBER SPECIES" 2006 EDITION. SNOW REGION. MEDIUM ROOF COVERING. NO CEILING. 30 PSF LIVE, 15 PSF DEAD:
   SPAN TABLES FOR SPRUCE-PINE-FIR NO.1/NO.2 FOR NORTHERN LUMBER:
   2x6 @ 16" O.C. = 11'-3" 2x8 @ 16" O.C. = 14'-3" 2x10 @ 16" O.C. = 17'-5"
   2x6 @ 12" O.C. = 13'-0" 2x8 @ 12" O.C. = 16'-5" 2x10 @ 12" O.C. = 20'-1"
   SPAN TABLES FOR HEM-FIR(N) NO.1/NO.2 FOR NORTHERN LUMBER:
   2x12 @ 16" O.C. = 21'-7"
   2x12 @ 12" O.C. = 24'-11"
   * CARPENTER CONTRACTOR NOTE: THE ABOVE SPAN TABLES ARE TO BE USED FOR REFERENCE FOR MAXIMUM ROOF RAFTER SPAN. IF SUBCONTRACTOR IS ABLE TO SHORTEN THE SPAN BY USE OF PURLINS OR OTHER METHODS HE IS ALLOWED TO DO SO AS LONG AS HE DOES NOT EXCEED RAFTER SPANS ALLOWED BY CODE. FURTHERMORE, IF RAFTER SPAN IN A ROOF AREA CHANGES FROM MAXIMUM SPAN TO A LESSOR SPAN, THE CONTRACTOR MAY MAKE THAT ADJUSTMENT (IE. 2x10's TO 2x8's) BY
2. HIP OR VALLEY RAFTERS EXCEEDING 24'-0" IN LENGTH SHALL BE 1 3/4" WIDE GANG LAM MEMBERS x RAFTER DEPTH PLUS 2" DEEP.
3. ALL HIP VALLEY CRIPPLE JACKS SHALL BE INSTALLED AND SHALL BE EQUAL IN DEPTH AND SPACING TO MAIN RAFTER FRAMING INTO HIP OR VALLEY RAFTER.
4. VERTICAL RIDGE SUPPORT USED FOR START OF FRAMING AS MARKED BY ____ SHALL BE LEFT IN PLACE AND SHALL BE MADE UP OF 2-2x6's IN T-FRAME MODE. IT SHALL BEAR ON FLAT 2x8's EXTENDED OVER BEARING WALL OR OVER 6 CEILING JOISTS.
5. COLLAR TIES SHALL BE INSTALLED PER LOCAL GOVERNING BUILDING CODES.
6. WHERE HIP RAFTERS FRAME PERPENDICULAR TO CEILING JOISTS PROVIDE SOLID BLOCKING AT 8'-0" O.C. BETWEEN JOISTS FOR A DISTANCE OF 10'-0" FROM EXTERIOR WALL.

RAFTER SCHEDULE

(A)	2 x 12 @ 16" O.C. (HEM-FIR (N)) MAX SPAN OF 22'-2"
(B)	2 x 12 @ 12" O.C. (HEM-FIR (N)) MAX SPAN OF 23'-9"
(C)	2 x 10 @ 16" O.C. (S.P.F. #2) MAX SPAN OF 16'-6"
(D)	2 x 10 @ 12" O.C. (S.P.F. #2) MAX SPAN OF 21'-4"
(E)	2 x 8 @ 16" O.C. (S.P.F. #2) MAX SPAN OF 15'-1"
(F)	2 x 8 @ 12" O.C. (S.P.F. #2) MAX SPAN OF 17'-3"
(G)	2 x 6 @ 16" O.C. (S.P.F. #2) MAX SPAN OF 11'-11"
(H)	2 x 6 @ 12" O.C. (S.P.F. #2) MAX SPAN OF 13'-4"

THE CONTRACTOR MUST CHECK ALL DIMENSIONS, DETAILS AND JOBSITE CONDITIONS AND BE RESPONSIBLE FOR THEM. THIS FIRM SHALL NOT BE HELD RESPONSIBLE FOR CONSTRUCTION METHODS OR MEANS BY THE CONTRACTOR AND OR ANY SUBCONTRACTOR AND THEIR TRADESMEN.

ALL TRADES MUST CONFORM TO CURRENT EXISTING CODES APPLYING TO THIS PROJECT. CONTRACTORS TO VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE CREDITING ANY WORK. REPORT ANY DISCREPANCIES AT ONCE. DO NOT SCALE DRAWINGS USE FIGURED DIMENSIONS ONLY.

* ALL BEDROOMS SHALL HAVE AT LEAST ONE "EGRESS WINDOW" SEE CODE BOOK.

@ UNIT GLASS AND/OR MULTIPLE UNIT GLASS SHALL BE INSULATED TEMPERED SAFETY GLASS PER ANSI SPECS.

EXTERIOR WINDOWS AND GLASS DOORS SHALL BE TESTED BY AN APPROVED INDEPENDENT LABORATORY AND BEAR A LABEL IDENTIFYING MANUFACTURER, PERFORMANCE CHARACTERISTICS AND APPROVED INSPECTION AGENCY TO INDICATE COMPLIANCE WITH AAMS/AAMA/NWWDA. IT SHALL BE DESIGNED TO A MINIMUM DESIGNED PRESSURE OF 30 LBS/FT.

ROOF LIVE LOAD =	30 PSF
HORIZONTAL WIND LOAD (90 MPH 3-SEC GUST) LESS THAN 30' =	15 PSF
30' TO 49' =	20 PSF
BALCONIES AND DECKS (EXTERIOR) =	60 PSF
GARAGES (PASSENGER CARS ONLY) =	50 PSF
ATTICS (NO STORAGE WITH ROOF SLOPE NOT STEEPER THAN 3/12 =	10 PSF
ATTICS (LIMITED ATTIC STORAGE) =	20 PSF
DWELLING UNITS (EXCEPT SLEEPING ROOMS) =	40 PSF
SLEEPING ROOMS =	30 PSF
STAIRS =	40 PSF
PARTITIONS OR WALLS (INTERIOR), HORIZONTALLY =	5 PSF

GEOGRAPHIC DESIGN CRITERIA
ROOF SNOW LOAD- 34 LBS.
WIND SPEED 90 MPH.
SEISMIC DESIGN CATEGORY - B
FROST LINE DEPTH - 42"
WINTER DESIGN TEMPERATURE = - 10 DEGREES FAHRENHEIT

GUTTERS AND DOWNSPOUTS MUST DISCHARGE A MINIMUM OF FIVE FEET(5') AWAY FROM THE BUILDING IN ACCORDANCE WITH THE APPROVED GRADING PLANS OR TO AN APPROVED DRAINAGE SYSTEM.

PROVIDE ICE BARRIER THAT CONSISTS OF AT LEAST TWO LAYERS OF UNDERLAYMENT CEMENTED TOGETHER OR OF A SELF-ADHERING POLYMER MODIFIED BITUMEN SHEET, THAT EXTENDS FROM THE EAVES EDGES TO A POINT AT LEAST 24 INCHES INSIDE THE EXTERIOR WALL LINE OF THE BUILDING.

NOTE: FLASHING (METAL OR PLASTIC) AND WEEP HOLES ABOVE ALL EXTERIOR DOORS AND WINDOWS OPENINGS IN THE MASONRY VENEER

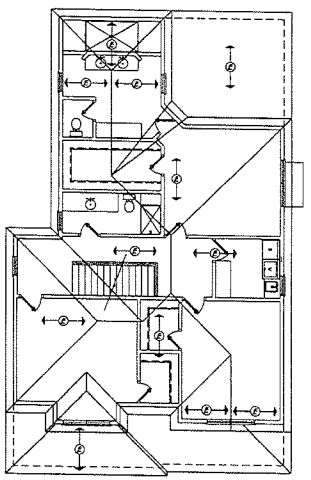
NOTE: ALL ROOF COUNTER FLASHING MUST BE BENT AND CUT INTO BRICK MORTAR JOINTS

NOTE:
1. ALL FLASHING SHALL COMPLY WITH SMACNA RECOMMENDATIONS FOR FLASHING
2. CONTRACTOR SHALL LOCATE AND INSTALL GUTTERS AND DOWNSPOUTS AS REQUIRED
3. INSTALL ICE AND WATER SHIELD 2'-0" FROM INTERIOR OF WALL TO GUTTER
4. FLASHING AT ALL ROOF VALLEYS
5. RAFTERS SPANNING MORE THAN 13'-0" MUST BE 2x10 CONST. OR 2x6's WITH A PURLIN WALL

PROVIDE A MAX. U-VALUE OF .30 FOR ALL DOORS AND WINDOWS.

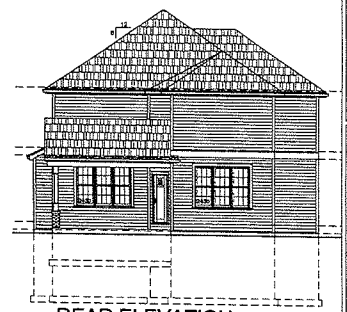
EACH STRUCTURE TO WHICH A STREET NUMBER HAS BEEN ASSIGNED SHALL HAVE SUCH NUMBER DISPLAYED IN A POSITION EASILY OBSERVED AND READABLE FROM THE PUBLIC WAY. ALL NUMBERS SHALL BE IN ARABIC NUMERALS AT LEAST 4" HIGH 1/2" STROKE

NOTE: FLASHING (METAL OR PLASTIC) AND WEEP HOLES ABOVE ALL EXTERIOR DOORS AND WINDOWS OPENINGS IN THE MASONRY VENEER

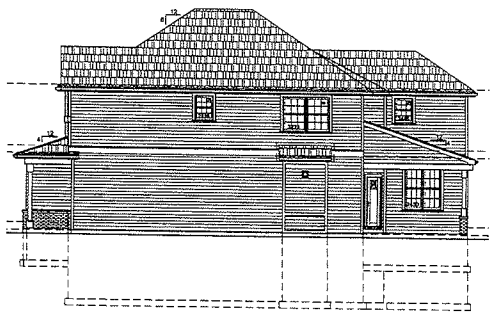


ROOF PLAN 1/8" = 1'-0"

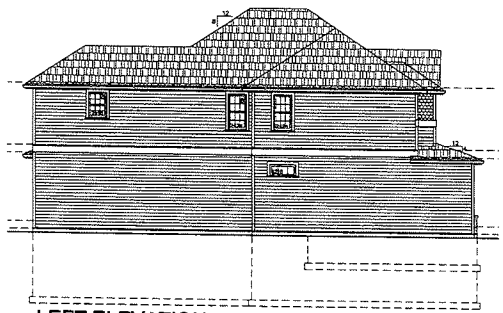
NOTE:
1. ALL FLASHING SHALL COMPLY WITH SMACNA RECOMMENDATIONS FOR FLASHING
2. CONTRACTOR SHALL LOCATE AND INSTALL GUTTERS AND DOWNSPOUTS AS REQUIRED
3. INSTALL ICE AND WATER SHIELD 2'-0" FROM INTERIOR OF WALL TO GUTTER
4. FLASHING AT ALL ROOF VALLEYS
5. ANY RAFTER SPANS OVER 13' SHALL BE 2x10'S OR PURLIN WALL SHALL BE BUILT TO SUPPORT RAFTERS
6. PROVIDE COLLAR TIES FOR ROOF RAFTERS @ 48" O.C.
7. VENTILATION OPENING SHALL BE PROVIDED WITH CORROSION-RESISTANT WIRE MESH, WITH ¼" MIN. TO ½" MAX OPENINGS



REAR ELEVATION 1/8" = 1'-0"



RIGHT ELEVATION 1/8" = 1'-0"



LEFT ELEVATION 1/8" = 1'-0"

Two Story Residence
Warner Ave.
Lemont, IL.

IJM ARCHITECTS
82 S. La Grange R
Suite 205
La Grange, IL. 605
f: 708-469-7674
p: 708-404-4452

PROJECT

A-1.0	ELEVATIONS
A-2.1	FIRST FLOOR PLAN
A-2.2	SECOND FLOOR PLAN
A-3.0	SECTIONS
E-1.0	ELECTRICAL

IAN JAMES MC DONNELL 001-020866 LICENSED ARCHITECT STATE OF ILLINOIS

DP DATE
3.31.2015

JOB #
2015-47

SHT #
A-1.0

CERTIFICATION

I HEREBY CERTIFY THAT THESE DRAWINGS WERE PREPARED UNDER MY DIRECT SUPERVISION, AND THAT THEY, TO THE BEST OF MY KNOWLEDGE, COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES OF THE GOVERNING BODY HAVING JURISDICTION.

IJM GROUP, INC. PROFESSIONAL DESIGN FIRM LICENSE NO. 184.006262 STATE OF ILLINOIS
EXP. 04.30.2016

IAN MCDONNELL - ILLINOIS REGISTRATION NO. 001-020866
LICENSE EXPIRES: 11.30.2016 DATE SIGNED

23 E LOGAN LEMONT Cost Estimate

SERVICES

Description	Cost	Sub Total
Engineer	$300	$300
Job prep (remove black dirt and clay)	$4,000	$4,000 $1,000
Base course Ca 6 stone @12" X 600s/f	$1,000	$6,800
Asphalt 3"to grade	$6,800	$800 $0
Misc (cleanup grade,sod)	$800	$0
Subtotal Alley		$12,900

ADDITIONAL WORK REQUIRED

Detached Garage Retaining wall	
Footings	$750
Walls	$4,500
Subtotal	**$5,250.00**

DETACHED GARAGE VERSUS ATTACHED CONCRETE DRIVE ONLY

Description	Attached	DETACHED	Difference
Garage floor	$800	$800.00	$0
Driveway/approach	$2,500	$1,100.00	$1400
Subtotal			

FINANCIAL OBLIGATION IF DETACHED GARAGE IS REQUIRED

Description		
Alley installation	$12,900	
Additional Concrete	$5,250	
Front driveway credit		1400
Subtotal		**16500**

TOTAL

		$16,500
Overage	5%	$825
	0%	
Total		**$17,325**

Village of Lemont
Planning & Economic Development Department

418 Main Street · Lemont, Illinois 60439
phone 630-257-1595 · fax 630-257-1598

TO: Planning & Zoning Commission

FROM: Heather Valone, Village Planner

THRU: Charity Jones, AICP, Planning & Economic Development Director

SUBJECT: Case 16-06 13769 Main St. Special Use and Variation

DATE: July 8, 2016

SUMMARY

Phil Fornaro, on behalf of the contract purchaser Main Street Lemont LLC., is requesting a special use to allow for the parking and storage of trucks and trailers at 13769 Main St. The applicant is also requesting a variation from the Lemont Unified Development Ordinance (UDO) Section 17.29.020 F 3. The purpose of the requested variation is to allow for the proposed detention ponds to be gravel rather than sod (grass). Staff is recommending approval with conditions for the special use and denial of the variation.

PROPERTY INFORMATION

Case No.	16-06
Project Name	13769 Main St. Special Use and Variation
General Information	
Applicant	Phil Fornaro
Status of Applicant	Attorney, acting on behalf of the contract purchaser.
Requested Actions:	A special use to allow for the parking and storage of trucks and trailers on the subject property; and a variation to allow for the proposed detention ponds to be gravel rather than sod.
Site Location	13769 Main St. (PIN 22-15-200-003-0000 and 22-15-200-015-0000)
Existing Zoning	M-3 (Heavy Manufacturing District)
Size	13.4 ac
Existing Land Use	K-Five asphalt and concrete paving company
Surrounding Land Use/Zoning	North: I-3 (Cook County Intensive Industrial District) railroad
	South: R-3 (Cook County Single Family District) Cog Hill
	East: I-1 (Cook County Restricted Industrial District) Undeveloped
	West: I-3 (Cook County Intensive Industrial District) Sprinkler Coating, Illini-Hi Reach, and Carroll Construction Supply
Comprehensive Plan 2030	The Comprehensive Plan classifies this site Industrial (IND)

BACKGROUND

The subject property is currently being operated for outdoor stockpiling of materials, processing of concrete and asphalt, and office for K-Five Construction Corporation. The applicant is purchasing the property to relocate their logistics/ trucking company. The site is proposed to be used for parking of between 150-200 trucks/trailers. The site plan indicates parking stalls for 156 trucks. The applicant has indicated that some of the truck parking/ storage areas may be leased to other trucking companies in the future. All existing buildings will remain on site. The existing 14,500 sf office building will be used for administrative and business operations for the applicant's business. Similar to the truck parking/storage areas, the applicant has indicated that some of the office space may be leased to other trucking companies for their administrative/business operations. The existing building to the south of the office building will be used for truck repair and maintenance. The other existing out buildings maybe be used for accessory uses.

The majority of the west half of the site is currently stockpiled materials; K-Five has applied for a site development permit to pave the site in preparation for the tuck parking and storage of containers/trailers. The paving of the site triggers stormwater detention requirements for both MWRD and the Village. The site already has ample aggregate material stockpiled from K-Five, thus the applicant is proposing that the detention ponds be constructed of non-compacted aggregate material that will not support being sodded.

SPECIAL USE

Consistency with Lemont 2030. The Comprehensive Plan map designates this area as Industrial (IND). Per Lemont 2030, the industrial future land use district is:

> "Characterized by well designed sites that include suitable buildings with functional features, screening for outdoor storage and equipment, and landscaping to create street-side 'curb appeal.'"

The proposed special use could be consistent with the industrial future land use district described within the Lemont 2030 Comprehensive Plan with a proper site design.

Compatibility with Existing Land Uses. The property to the north is the Canadian National railroad tracks. The properties to the west and south are undeveloped properties. The property to the west is zoned by Cook County for industrial uses. The property to the south is zoned residential and is part of Cog Hill Golf Club. The property to the east is developed with three buildings for industrial businesses; one of the businesses, Illini High Reach, includes outdoor storage of lift trucks. The proposed truck parking is situated on the west portion of the subject property and the existing buildings are along the east side of the property. Thus, the use is consistent with the existing properties as the office building and out buildings are near the neighboring industrial businesses' buildings to the east and the trucks are parked/stored by the undeveloped parcels. Staff sees no compatibility issues.

Traffic & Site Access. The applicant has indicated that the truck traffic will be restricted to Main St. east of the subject property and Route 83. The applicant has submitted a preliminary traffic study modeled after another larger truck facility in the Melrose Park (Attachment 6). The preliminary results indicate that the proposed truck and trailer parking/storage use will not generate a significant amount of traffic in the area. It is anticipated that the great majority of the site-generated traffic will be traveling to/from the east on Route 83 given the proximity of I55. The proposed traffic will result in an increase of less than two percent, which their traffic consultant has indicated is insignificant and will not be perceived by the drivers in the area. The outbound movements from the subject property's access drive should not require the applicant to install a stop sign. The proposed use's traffic can be accommodated by the adjacent roadways because the amount of traffic that will be generated will be low compared to the existing traffic volumes. Prior to being scheduled for a Village Board agenda for consideration, the applicant must submit a full traffic study to ensure preliminary and final findings match and that the entrance does not require the installation of a stop sign.

Landscaping. The applicant has indicated that other than the requested variation for the detention facilities, the subject property will comply with the required landscaping for M-3 districts. UDO 17.20.061.B requires M zoned properties along a public street to have either two plant units per 100 linear feet of street frontage or have a fence with a minimum of 95% opacity and a minimum height of six feet and at least one plant unit per 100 linear feet. The property only has 387 ft of frontage along Main St. A plant unit is a prescribed combination of canopy trees, evergreen trees, ornamental trees, and shrubs or grasses.

The applicant indicates in the letter received July 7, 2016 (Attachment 4) that the existing vegetation on the subject site is dense and therefore achieves the UDO landscaping requirements. Additionally, the area along Main St. has a significant grade change that would prevent new plantings or construction of a fence. Thus, the applicant is requesting that the full landscape credit for the existing vegetation for the subject property along Main St be given.

The existing tree survey for the area along Main St. depicts 105 trees (Attachment 5); of the 105 only 19 trees are located on the applicant's property, are in fair or good condition, and

are non-prohibited trees per Appendix F of the UDO. Of the surveyed trees, 59 are in IDOT's right-of-way.

Of the 19 trees on the subject site, 17 are located in the east 200 ft of frontage from the entrance of the site. The UDO requires plant units per 100 ft of frontage. The existing 19 trees exceed the minimum number of canopy trees required for the site, if the placement of the trees was less clustered. The existing trees would not meet UDO plant unit requirements a combination of plant types. Additionally, four of the 19 trees are on or near the boundary line with the Main Street right of way that could potentially be removed by IDOT at any given time. The remaining 187ft of frontage does not achieve all the minimum required landscaping per the UDO.

Based on these considerations, as well as topographic conditions and existing vegetation within the Main Street right of way, staff recommends accepting the applicant's existing canopy trees as fulfillment of the plant unit requirements for the east 200ft of frontage along Main St. For the remaining 187 feet of frontage along Main Street, staff recommends that the applicant add an additional nine juniper trees to achieve the UDO minimum required plant material and provide some all season screening of the site. In addition to the preserving the 19 credited existing trees and planting 9 new junipers, staff recommends that the applicant preserve the Elm trees on the site that are fair or good condition so as to maintain as much existing screening as possible, while removing the poor condition or dead trees of any species, as well as any prohibited species trees (Buckthorn, Black Locust, Boxelder, and Mulberry) on the site in accordance with the Village Arborist's review.

Site Design. The applicant is proposing to convert the existing stockpile areas into truck and trailer parking/ storage stalls. The parking area is located in the west and northwest portion of the subject property which is the buffered from Main St. by neighboring undeveloped properties. The proposed entrance to the truck parking is located 200 ft southwest of the office building. The existing eastern portion of the site will remain as is, with minor paving improvements. Thus the parking/storage use is buffered from Main St. and the developed parcels to the east. Staff recommends that the truck parking be restricted to the area shown on the parking layout, preventing trucks from being parked on the eastern portion of the subject property.

STANDARDS FOR VARIATIONS

UDO Section 17.04.150.D states that variation requests must be consistent with the following three standards to be approved:

1. The variation is in harmony with the general purpose and intent of the Unified Development Ordinance;

   Analysis. The general purpose of the UDO is specified in UDO Section 17.01.050. Of the eight components listed, six are either not applicable to or unaffected by the variation request.

   - ***Ensuring adequate natural light, air, privacy, and access to property.*** The proposed variation would not negatively impact light or air to the property.

- ***Maintaining and promoting economically vibrant and attractive commercial areas.*** The proposed variation would allow for visually unappealing detention ponds. The site is separated from Main St. by undeveloped vegetated spaces that currently act as a buffer for the subject property. However, the site is proposed to be raised and the neighboring properties could develop in the future revealing more of the site to Main St. and/or surrounding properties. Additionally, one of the goals of the Lemont 2030 Comprehensive Plan Our Community Character chapter is to develop design guidelines for industrial development. The UDO has not yet been updated to include such standards; however, minimal aesthetic appeal is still important for M Districts. Thus the variation for the detention ponds does not promote attractive commercial/ industrial areas.

2. The plight of the owner is due to unique circumstances, and thus strict enforcement of the Unified Development Ordinance would result in practical difficulties or impose exceptional hardships due to the special and unique conditions that are not generally found on other properties in the same zoning district;

   Analysis. The UDO states that in making a determination whether there are unique circumstances, practical difficulties, or particular hardships in a variation petition, the Planning and Zoning Commission shall take into consideration the factors listed in UDO §17.04.150.D.2.

   Particular physical surroundings, shape, or topographical conditions results in a particular hardship upon the owner as distinguished from a mere inconvenience. The subject property is located north of Main St and south of the railroad tracks. The properties to the east and south are heavily vegetated and are at a slightly higher elevation than the subject property; however, they are currently undeveloped. The applicant has proposed two non-compacted aggregate detention ponds, one located in the west corner of the property and the other in the northwest corner of the property along the railroad tracks.

   The top soil is rocky due to the topography of the area and the stockpiling of construction materials, which has removed most of the top soil from the site by the nature of its use. As such the site is not conducive to grass or other vegetation. However the property is proposed to be raised through the use of non-compacted aggregate fill to construct both the parking area and the detention facilities. As the fill has to be added to the subject property, a portion of proposed fill material could be top soil, which would allow the detention ponds to be sodded. There is an existing sodded detention pond located on the subject property near the east property line that appears to be surviving.

   The Village Ecologist reviewed the submittal and commented that the information provided does not show that implementation of vegetated detention facilities can be conclusively ruled out. The proposed plans indicate that two feet of fill will be added to the site. If the applicant uses clean fill it should be possible to get vegetation to establish even if the existing soils create a restrictive layer. If the proposed northwestern basin does not run into bedrock at the bottom, the Village Ecologist concludes that vegetation should be able to establish. There were no soil borings submitted to indicate that

bedrock is an issue. Additionally, the applicant's report states that the purpose of using the non-compacted aggregate is to promote infiltration into the soils, thus the soils must have some capacity to percolate.

The conditions upon which the petition for variation is based would not be applicable generally to other property within the same zoning district. The industrially zoned properties to the west and south are undeveloped and heavily vegetated. The neighboring properties to east are developed and do not appear to have detention ponds; their construction may have predated requirements for on-site detention. At the Maley Road Industrial Park, the M-3 zoned industrial uses are served by wet bottom detention basins; wet bottom detention basins are no longer permitted by the Village. Art Logistics, another industrial zoned property roughly a mile east of the subject property, is under construction and will include a sodded detention pond.

The granting of the variation will not be detrimental to the public welfare or injurious to other property or improvements in the neighborhood in which the subject project is located. The request will not be detrimental to public welfare or injurious to other properties or improvements. If the neighboring vacant parcel to the west were to develop in the future, the proposed detention ponds may detract from the visual appearance of the neighboring sites.

The variation will not impair an adequate supply of light and air to adjacent properties or substantially increase congestion in the public street or increase the danger of fire or endanger the public safety or substantially diminish or impair property values within the neighborhood. The variation would not endanger public safety, substantially impair property values, diminish adequate supply of light or air, or increase the danger of fire or congestion.

3. The variation will not alter the essential character of the locality and will not be a substantial detriment to adjacent property.

   Analysis. 91% of the subject property is currently covered by impervious surfaces. The detention ponds being sodded would reduce the lot coverage and increase green space. The neighboring developed properties are similar in lot coverage; however, the neighboring properties either have no detention facilities or wet bottom detention basins. The existing dry detention pond on the subject property is sodded and surrounded by plantings. The proposed variation is not consistent with the essential character of the existing detention pond on the subject property or the surrounding properties.

Engineering Comments. The Village Engineer has no objections to the use, or the use of the non-compacted aggregate detention facility surface.

Fire District Comments. The Fire Marshal generally approves of the plans. The majority of comments made relate to items determined during site development permitting. The Fire Marshal does comment that the truck repair building may require the installation of a sprinkler system.

CONCLUSION

The proposed variation for the detention ponds is not consistent with the neighboring developments or the existing dry detention pond on the subject property and the applicant has not demonstrated a hardship based on the physical characteristics of the property. The UDO requires that the applicant demonstrate consistency with all three of the variation standards contained within §17.04.150.D. and staff finds the variation does not meet the standards for granting variations. Staff recommends denial of the variation.

The applicant has provided preliminary information to demonstrate that the proposed special use for truck and trailer storage/parking will not affect traffic conditions; the applicant will comply with landscaping screening requirements for the property; and the proposed use is consistent with the existing surrounding properties. Thus, staff recommends approval of special use with the following conditions:

1. Prior to the application being reviewed by the Village Board, the applicant must submit a full traffic study to ensure preliminary and final findings match and that the entrance is under the stop sign control standards.

2. The applicant shall preserve the Elm trees on the site that are fair or good condition so as to maintain as much existing screening as possible, while removing the poor condition or dead trees of any species, as well as any prohibited species trees (Buckthorn, Black Locust, Boxelder, and Mulberry) on the site.

3. The applicant must submit a landscape plan for the site including the requirements from condition 2 above.

4. No parking or storing of trucks and trailers outside of the designated parking area, as shown in the submitted Parking Layout Plan.

ATTACHMENTS

1. Village Arborist Comments
2. Applicant submissions
3. Letter dated 7/3/2016 from Robert Fleck
4. Existing tree survey
5. Letter dated 7-12-2016 from KLOA
6. Traffic Study from KOLA * received at 4:17pm 7/15/2016. Note that staff has not reviewed the results. Staff will review and provide information at the PZC meeting*

Attachment 1

Urban Forest Management, Inc.

July 14, 2016

Ms. Heather Valone
Village Planner
Village of Lemont
418 Main Street
Lemont, Illinois 60439

RE: 13769 Main Street
Case 16-06 23 Special Use And Variation
Planting Requirements Review #1

Dear Heather:

As requested, I have reviewed the letter dated July 3, 2016 by Robert Fleck, landscape architect and a Tree Survey dated July 12, 2016. The following comments summarize this review:

1. The Tree Survey includes 105 trees. There are 46 trees on the property or that appear to be boundary line trees. Of the 46 trees, there are 19 that are of an acceptable condition and species (black walnut, catalpa, pagoda dogwood, Catalps, Hackberry, and black Cherry). Since the owner to be will not control the trees in the right-of-way, there is no guarantee that the 59 trees that are in the right-of-way will remain there in the future.
2. Credit could be given for the 19 trees. The trees on the property that are in poor condition or of unacceptable species should be removed. The Elms in good condition should be preserved. To keep the trees that are removed from suckering up from the stumps, the stumps would have to be treated with garlon by a licensed operator.
3. My recommendation is to require two plant units per 100 linear feet. If credit for the 19 trees is given, then I would accept the planting of nine Juniper Trees to fill in the area to screen the site from Main St.

Sincerely,
URBAN FOREST MANAGEMENT, INC.

Vice-President

960 Route 22, Suite 207 Fox River Grove, Illinois 60021 847-516-9708 FAX 847-516-9716

Attachment 2

Village of Lemont
Planning & Economic Development Department
418 Main Street Lemont, Illinois 60439
phone (630) 257-1595
fax (630) 257-1598

Special Use Application Form

APPLICANT INFORMATION

Main Street Lemont, LLC (please see Letter of Authorization attached as Exhibit A)
Applicant Name

Company/Organization

13769 Main St., Lemont, IL 60439
Applicant Address

773-406-3676
Telephone & Fax

sandra@maktranslogistics.com
E-mail

CHECK ONE OF THE FOLLOWING:

_____ Applicant is the owner of the subject property and is the signer of this application.
__x__ Applicant is the contract purchaser of the subject property.
_____ Applicant is acting on behalf of the beneficiary of a trust.
_____ Applicant is acting on behalf of the owner.

PROPERTY INFORMATON

13769 Main St., Lemont, IL 60439
Address of Subject Property/Properties

22-15-200-003-0000; 22-15-200-015-0000
Parcel Identification Number of Subject Property/Properties

13.4 Acres
Size of Subject Property/Properties

DESCRIPTION OF REQUEST

see attached Exhibit B
Brief description of the proposed special use

REQUIRED DOCUMENTS

See Form 501-A, *Special Use Application Checklist of Required Materials,* for items that must accompany this application.

FOR OFFICE USE ONLY

Application received on: _____ By: _____

Application deemed complete on: _____ By: _____

Current Zoning: _____

Fee Amount Enclosed: _____ Escrow Amount Enclosed: _____

Special Use Application Form

Village of Lemont

APPLICATION FEE & ESCROW

Application Fee = $500 for properties less than 10 acres, $750 for properties 10 acres or larger
Fee is non-refundable.

Required Escrow = $500
At the time of application, the applicant shall submit a check for the establishment of an escrow account. The escrow money shall be used to defray costs of public notice, consultants, or other direct costs incurred by the Village in association with the special use application. Additionally, should the applicant fail to remove the required public notice sign in a timely manner, the escrow account may be used to defray the costs of the sign's removal. After completion of the special use review process, any unused portion of the escrow account will be refunded upon request.

AFFIRMATION

I hereby affirm that I have full legal capacity to authorize the filing of this application and that all information and exhibits herewith submitted are true and correct to the best of my knowledge. I permit Village representatives to make all reasonable inspections and investigations of the subject property during the period of processing of this application. I understand that as part of this application I am required to establish an escrow account to pay for direct costs associated with the approval of this application, such as the fulfillment of public notice requirements, removal of the public notice sign, taking of minutes at the public hearing and fees for consultants hired by the Village to evaluate this application. I understand that the submitted fee is non-refundable and that any escrow amount leftover upon project completion will be refunded upon request. I understand that I am responsible for the posting of a public hearing sign and for the mailing of legal notice to all surrounding property owners as required by Village ordinances and state law.

Philip M Fornaro, as agent for Vic Podeski as member of Main Street Lemont LLC with authority — 6/27/16

Signature of Applicant — Date

Illinois — Cook

State — County

I, the undersigned, a Notary Public in and for the aforesaid County and State, do hereby certify that Philip M. Fornaro, agent is personally known to me to be the same person whose name is subscribed to the foregoing instrument, and that said person signed, sealed and delivered the above petition as a free and voluntary act for the uses and purposes set forth.

Notary Signature

Given under my hand and notary seal this 27th day of June A.D. 20 16.

My commission expires this 15th day of November A.D. 20 19.

MARY ANN BRYK
Official Seal
Notary Public - State of Illinois
My Commission Expires Nov 15, 2019

Table of Contents

Exhibit B

Applicant requests a special use for the property commonly known as 13769 Main St, Lemont, Il 60439 (hereinafter the "Subject Property") and currently zoned M-3 Heavy Manufacturing District (hereinafter "M-3") pursuant to the Lemont Unified Development Ordinance (hereinafter the "Zoning Ordinance"). Generally, the Subject Property is approximately 13.4 acres improved with an approximately 14,500 square foot building (hereinafter the "Structure") and auxiliary structures. The existing Structure will remain as part of the Applicant's business. The Applicant seeks a special use permit to operate a business consistent with the below description of the Applicant's proposed operations and consistent with the business license application that is attached to this statement.

The M-3 is designed to accommodate relatively large, self-contained and isolated areas intended to be used for industrial activities having potentially moderate to high land use intensity. The Applicant's proposed special use is consistent with the Subject Property's M-3 zoning designation.

Applicant's Proposed Use:

The Applicant intends to utilize the Subject Property for the storage of between 150-200 trucks, trailers and/or containers. The trucks, trailers and/or containers will primarily be owned by the Applicant. Although, the Applicant does anticipate that it may lease some of the parking spaces to other companies. However, the Applicant does not anticipate that anything other than trucks, trailers and/or containers will be stored on the Subject Property. The Subject Property will not be utilized to load and/or unload tractor-trailers. A drawing of the proposed site layout by Heuer and Associates, LLC has been attached to this application as Exhibit H to this application.

On occasion trailers, container and/or cabs will be switched. This will only be the switching of trailers, containers or cabs. It will not include the opening of trailers or containers and the transfer of materials between the same.

The applicant anticipates that a few parking spaces may be leased to other trucking companies.

The Applicant's business will be run from the main structure on the Subject Property. The Applicant plans to utilize the main structure for activities associated with its trailer and/or truck and other business operations. Specifically, the Applicant intends to utilize the main structure for office work, dispatch, truck leasing and truck sales. Additionally, one of the auxiliary buildings will be utilized for the repair of trucks, trailers and containers. The Applicant anticipates that it may lease a portion of the main structure to other trucking companies for similar uses.

If portions of the Subject Property are leased to other companies, the Applicant would ensure that each company would make application for a business license and comply with the

uses allowed upon the Subject Property. The Applicant requests that any subsequent business license requested that is consistent with the uses granted to Applicant be deemed allowable uses for those other companies that are requesting business licenses if and when the Applicant takes possession of the Subject Property.

Similar to Other Permitted and Special Uses in M-3 Zoning District:

The Applicant's proposed use is similar to a Freight Transportation Terminal (hereinafter an "FTT") which is listed as a permitted use in the M-3 Zoning District. A FTT is a facility utilized by freight companies, for among other things, the parking of trucks, trailers and containers attendant to freight service. This permitted use is quite similar to the Applicant's proposed use.

This Applicant's proposed use is also similar to and consistent with the Village's special use known as a Container Storage Yard, which is described as a facility for the parking and/or storage of containers or trailers where the parking areas are not attendant to the operation of a specific freight transportation terminal. The Applicant's operations will involve the storage of trucks, trailers and containers in a manner very similar to the storage of containers for trucking or shipping.

The Village also permits the sale, storage and service of heavy equipment as a permitted use in the M-3 zoning district. The sale, storage and service of heavy equipment is very similar to the sale, storage and service of trucks, trailers and containers. Additionally, the fact that the sale, storage and service of heavy equipment is allowed in the M-3 District demonstrates that the Applicant's use will not affect the character of the M-3 zoning district.

Finally, the Applicant's proposed use is similar to Vehicle Storage and Towing which is allowed as a special use in the M-3 zoning district. The towing and storage of vehicles is not dissimilar from the storage of trucks, trailers and containers. In fact, the Applicant's proposed use is less intensive because a towing lot would generate much more in and out traffic. This will not be the case with the Applicant's proposed use.

Traffic:

The Applicant does not anticipate an impact on local traffic. However, the Applicant is in the process of retaining a traffic consultant to conduct a traffic study of the area with regard to the impact of the Applicant's proposed operations. The traffic study will be provided when it is completed and we will supplement this application. Generally, the trucks, trailers and containers stored upon the Subject property will not cause a great impact on the surrounding area because the Subject Property will not be utilized to load and/or unload trucks. Trucks, trailers and containers will be stored on the Subject Property. Vehicles will enter and exit the Subject Property utilizing Route 83 to Main Street. Further, traffic will not proceed through the downtown area but will be directed to proceed through Willowbrook.

Business License Application Form

Village of Lemont
Planning & Economic Development Department
418 Main Street Lemont, Illinois 60439
phone (630) 257-1595
fax (630) 257-1598

LICENSEE / APPLICANT INFORMATON

MAIN STREET LEMONT LLC
Full Name

13769 MAIN ST
Home Address

LEMONT | IL | 60439
City | State | Zip Code

773 - 406 - 3676
Home Phone with Area Code | Mobile Number

BUSINESS INFORMATION

Maktrans Logistics Inc
Name of Business

Address of Business

Vic Doderski
Corporation or Registered Agent

708 - 526 - 2110
Business Telephone & Fax

Sandra @ maktranslogistics.com
Email | Web Address

DETAILED DESCRIPTION OF BUSINESS OPERATION: (Use additional pages if needed.)

truck and trailer parking, mechanic shop use, general office use.
trucking company, trailer leasing..

trucking
Business Category for Directory Purposes | North American Industrial Classification (NAICS) Code

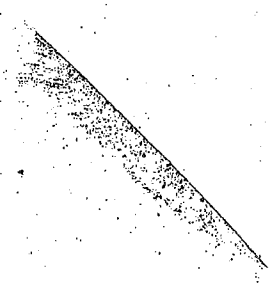
GENERAL INFORMATION

N/A
Illinois Sales Tax ID No. | Resale No. | Other No.

20-4719053
Federal I.D. No. | Exempt No.

7/1/16
Proposed Opening Date of Business

Building: ☒ Owned ☐ Leased



Business License Application Form

Village of Lemont

GENERAL INFORMATION - CONTINUED

Seating Capacity, If Applicable.

40 — 40+

Number of persons employed, inclusive of owner or owners | Number of vehicles operated in connection with business

*Food Service: ☐ Yes ☒ No *May require health inspections.

NOTE: Signs for your business require a permit. Application forms can be found at www.lemont.il.us.

ALARM/EMERGENCY INFORMATION:

Do you have an alarm? ☒ Yes ☐ No

What type of alarm? ☐ Burglar ☐ Panic ☐ Hold Up ☒ Fire

Is ringer located: ☐ Inside ☐ Outside How long before the ringer resets?

How is Southwest Central Dispatch alerted to the alarm?

☐ Direct to alarm board ☐ Phoned in by private alarm company

Alarm Company Name

Alarm Company Address

Alarm Company Phone

Do you have a cleaning service? ☐ Yes ☒ No If yes, please list times & days they are on premise.

EMERGENCY / KEY HOLDER NFORMATION:

Vic Dodevski

Full Name

773-406-3676

Home Phone | Mobile Phone

Alex Gjurcinov

Full Name

219-308-3182

Home Phone | Mobile Phone

Kire Petrovski

Full Name

773-796-0517

Home Phone | Mobile Phone

FEES:

An application fee shall be paid at time of application. An application shall not be considered complete and review will not occur until the application fee is paid. See below for complete fee structure. Application fee is $50 and is non-refundable.

Business License Application Fee = $50	=	50
Other License & Inspection Fees, as applicable, payable upon license issuance:		
Tobacco = $50	=	
Pool Tables = No. x $50	=	
Amusement Games = No. x $50	=	
Jukeboxes = No. x $50	=	
Vending Machines = No. x $25	=	
Video Games = No. x $72 (For Non-Payout Machines Only)	=	
Scavengers = $1,000 (Certificate of Insurance Required)	=	
Health Inspection Fees $280.00 (2 Inspections Per Year @ $140 each)	=	
TOTAL FEES	=	50 –

NOTE: A COMMERCIAL OCCUPANCY PERMIT IS ALSO REQUIRED FOR ALL NEW BUSINESSES. FILL OUT THE ATTACHED FORM AND RETURN WITH BUSINESS LICENSE APPLICATION. A BUSINESS LICENSE WILL NOT BE ISSUED UNTIL A CERTIFICATE OF OCCUPANY HAS BEEN GRANTED.

AFFIRMATION

I hereby affirm that I have full legal capacity to authorize the filing of this application and that all information submitted is true and correct to the best of my knowledge. As the owner of this business, I hereby certify that any activity on this property shall be in accordance with all applicable ordinances, codes, and policies of the Village of Lemont. I permit Village representatives to make all reasonable inspections and investigations of the subject property in accordance with Village codes.

[signature] 5/18/16

Signature of Owner/Applicant Date

Supplement to Main Street Lemont LLC
Business License Application date May 18, 2016
For the Property at 13769 Main Street, Lemont, IL 60439

In response to Ms. Heather Valone's additional clarifying questions, my client responds as follows:

1. Will the existing buildings on the subject property remain or would the potential purchaser remove the buildings and construct a new building?

Existing buildings are to remain.

2. How many trucks will be stored on the site? 150-200

What areas will be used for truck parking?

Please see the drawing attached as January 18, 2016, from Heuer and Associates with a proposed layout.

3. What routes will the trucks potentially take to access the site?

Route 83 to Main Street.

Through downtown or from Willowbrook?

From Willowbrook

4. Will there be any screening through fencing of the property or additional landscaping?

No additional landscaping

5. If they are proposing a fence what is the material and where will it be placed –

The fence/cable will be strictly along the east side of the large parking area where the grade differential was enough to warrant the placement of a 4' -5' chain link fence or a cable mounted on posts, driven into the existing ground. The total length of this will be approximately 600'. The remaining property perimeter will remain as is existing.

5. Will the trucking parking/ storage area be lit? What type of lighting? How many foot-candles will be visible at the property lines?

There are no immediate plans to provide additional lighting for the parking / storage area at this time.

Additional Request

As an additional supplement to the application, it is possible that the Purchaser will take possession of the Property after closing and prior to full paving of the parking lot. The Purchaser is also requesting that the Purchaser be allowed to operate from the Subject Property after the Closing consistent with the request in the Business License and this supplement, prior to the paving of the Subject Property.

PROJECT SUMMARY:

The Applicant makes application for the special use variations listed in Exhibit A so that it may rehabilitate and utilize the subject property, commonly known as 13769 Main St, Lemont IL 60439 (hereinafter the "Subject Property") as a truck parking facility, and accompanying services.

The Subject Property is an industrial parcel which is currently zoned M-3. The Subject Property is described in Exhibit B. Generally, the Subject Property is approximately 13.4 acres improved with an approximately 14,500 square foot building (hereinafter the "Structure") and auxiliary structures. The existing Structure will remain as part of the Applicant's business. There are no residential parcels abutting (or near) the Subject Property. There is no commonly owned or maintained common area.

The Applicant intends to utilize the Subject Property for the storage of between 150-200 trucks and/or trailers. The trucks and/or trailers will primarily be owned by the Applicant. Although, the Applicant does anticipate that it may lease some of the parking spaces to other companies. However, the Applicant does not anticipate that anything other than trucks and/or trailers will be stored on the Subject Property. The Subject Property will not be utilized to load and/or unload tractor-trailers.

In addition, the Applicant plans to utilize the Structure for activities associated with its trailer and/or truck storage and other business operations. Specifically, the Applicant intends to utilize the Structure for office work, dispatch, truck leasing and truck sales. Additionally, the Applicant anticipates that it may lease a portion of the Structure to other companies for uses requested in the application.

One of the auxiliary buildings will be utilized for the repair of trucks and containers.

The Subject Property will generally be secured by the railroad tracks to the north of the Subject Property. Additionally, a fence/cable will be placed along the east side of the large parking area where the grade differential is sufficient to warrant the placement of a 4' -5' chain link fence or a cable mounted on posts, driven into the existing ground. The total length of this will be approximately 600'. The remaining property perimeter will remain as is existing except as is otherwise required by the Village's Landscape Code.

Exhibit G

EXHIBIT B

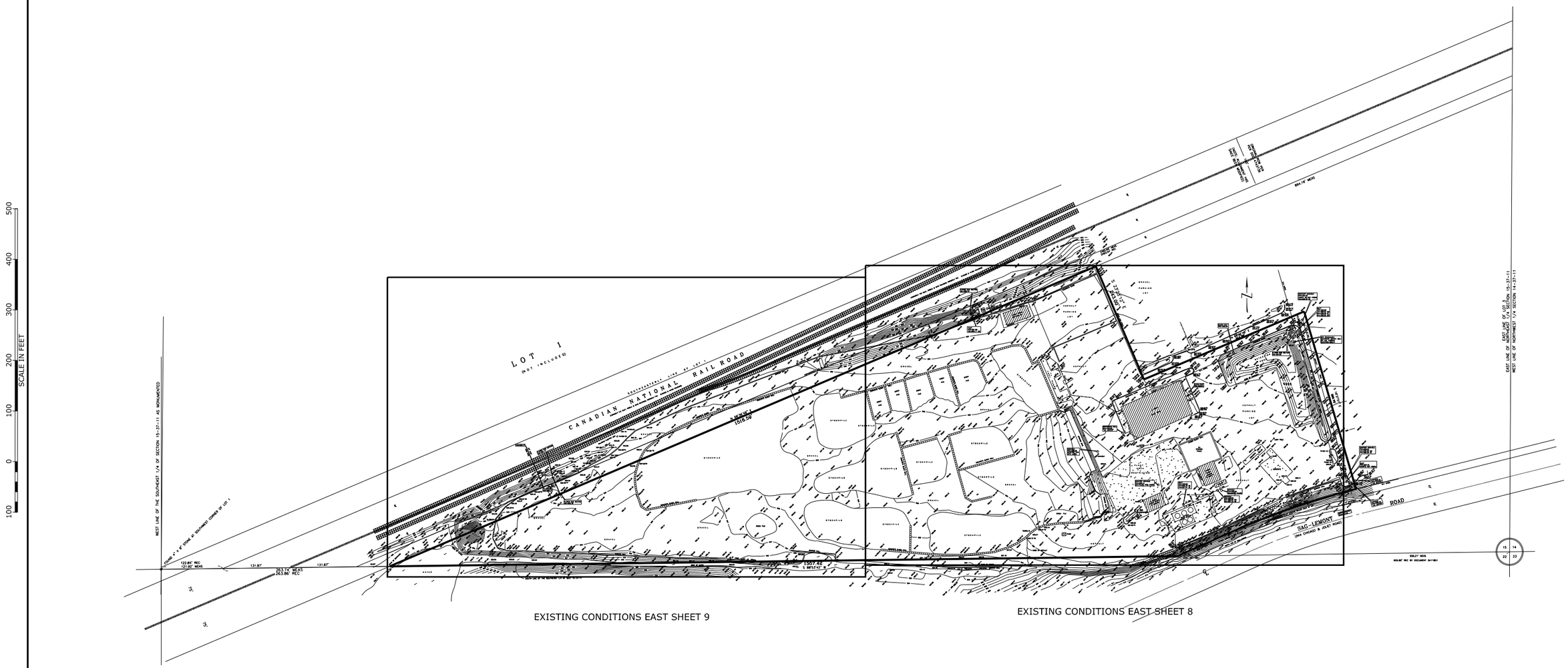
LEGAL DESCRIPTION

PART OF LOT 3 IN "JOSEPH N. PEW'S DIVISION" (EXCEPTING THE WEST 100.5 FEET OF THE EAST 120.5 FEET AND EXCEPT THE NORTHWESTERLY 25.0 FEET THEREOF) OF THAT PART OF SECTION 15, TOWNSHIP 37 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, LYING SOUTH OF THE ILLINOIS AND MICHIGAN CANAL, ACCORDING TO THE PLAT THEREOF RECORDED APRIL 21, 1911 AS DOCUMENT NUMBER 4743736, IN COOK COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS: BEGINNING AT THE POINT OF INTERSECTION OF THE SOUTHEASTERLY RIGHT-OF-WAY LINE OF THE GULF MOBILE AND OHIO RAILROAD WITH THE SOUTH LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 15, THENCE NORTH 66 DEGREES 36 MINUTES 48 SECONDS EAST ALONG THE SOUTHEASTERLY RIGHT-OF-WAY LINE OF SAID GULF MOBILE AND OHIO RAILROAD 1516.59 FEET; THENCE SOUTH 23 DEGREES 23 MINUTES 12 SECONDS EAST 243.00 FEET; THENCE NORTH 66 DEGREES 36 MINUTES 48 SECONDS EAST, 344.09 FEET; THENCE SOUTH 16 DEGREES 37 MINUTES 01 SECONDS EAST, 365.75 FEET TO THE NORTHERLY RIGHT-OF-WAY LINE OF THE SAG LEMONT HIGHWAY; THENCE SOUTHWESTERLY ALONG THE SAID NORTHERLY RIGHT-OF-WAY LINE OF A CURVE CONVEX TO THE NORTH HAVING A RADIUS OF 1452.40 FEET AN ARC DISTANCE OF 254.30 FEET TO A POINT OF TANGENT; THENCE CONTINUING ALONG SAID RIGHT-OF-WAY LINE SOUTH 65 DEGREES 37 MINUTES 09 SECONDS WEST, 123.07 FEET TO THE SOUTH LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 15; THENCE SOUTH 88 DEGREES 53 MINUTES 42 SECONDS WEST ALONG SAID SOUTH LINE, 1557.42 FEET TO THE PLACE OF BEGINNING ALL IN COOK COUNTY, ILLINOIS.

22-15-200-003-0000

22-15-200-015-0000

Exhibit H



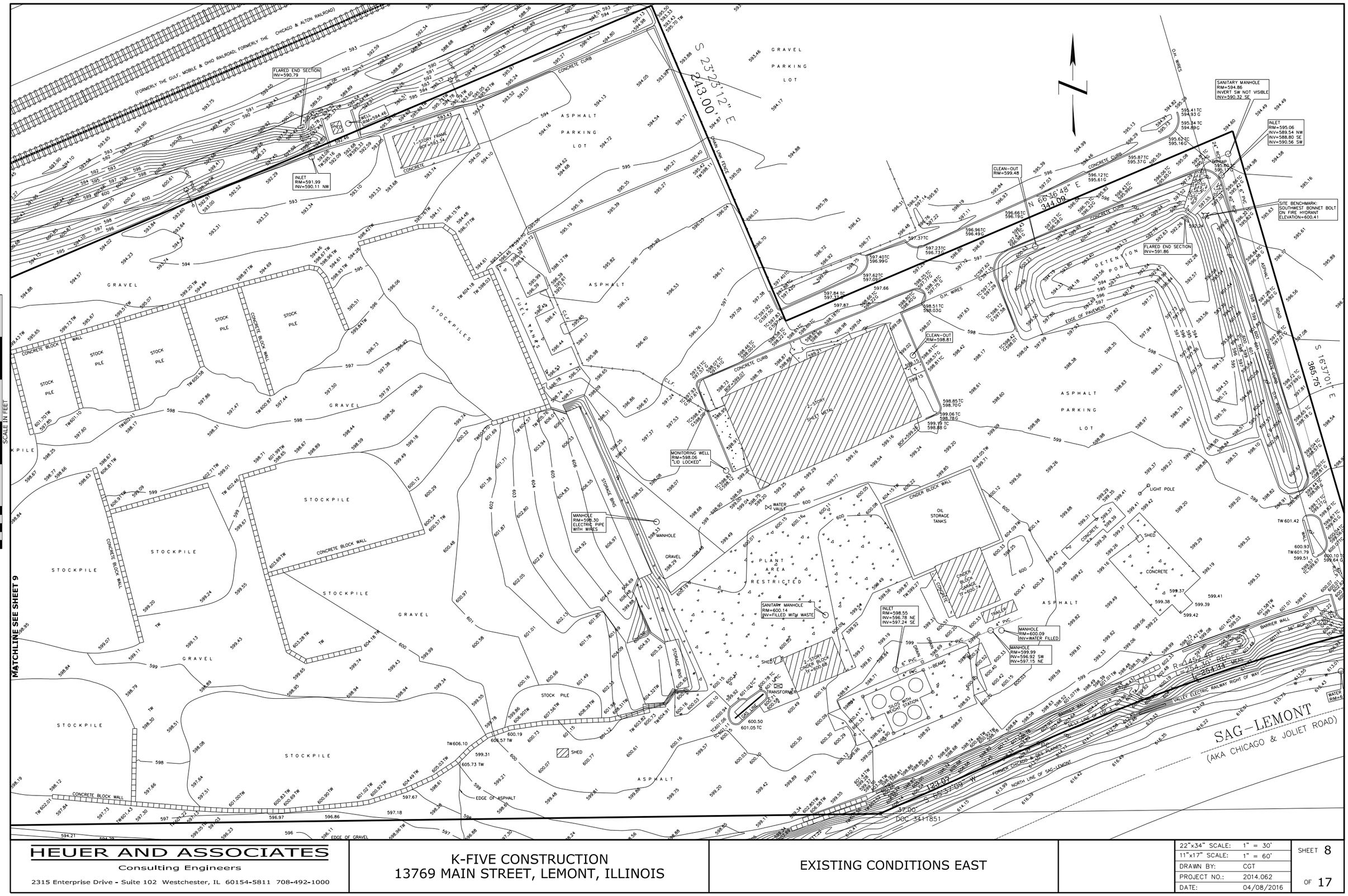
HEUER AND ASSOCIATES
Consulting Engineers
2315 Enterprise Drive - Suite 102 Westchester, IL 60154-5811 708-492-1000

K-FIVE CONSTRUCTION
13769 MAIN STREET, LEMONT, ILLINOIS

EXISTING CONDITIONS
OVERVIEW

22"x34" SCALE:	1" = 100'
11"x17" SCALE:	1" = 200'
DRAWN BY:	CGT
PROJECT NO.:	2014.062
DATE:	04/08/2016

SHEET 7
OF 17



HEUER AND ASSOCIATES Consulting Engineers 2315 Enterprise Drive - Suite 102 Westchester, IL 60154-5811 708-492-1000	K-FIVE CONSTRUCTION 13769 MAIN STREET, LEMONT, ILLINOIS	EXISTING CONDITIONS EAST	22"x34" SCALE: 1" = 30' 11"x17" SCALE: 1" = 60' DRAWN BY: CGT PROJECT NO.: 2014.062 DATE: 04/08/2016	SHEET 8 OF 17

LOT 1
(NOT INCLUDED)

SOUTHEASTERLY LINE OF LOT 1

CANADIAN NATIONAL RAIL ROAD
(FORMERLY THE GULF, MOBILE & OHIO RAILROAD; FORMERLY THE CHICAGO & ALTON RAILROAD)

N 66°36'48" E
1516.59'

S 88°53'42" W
1557.42'

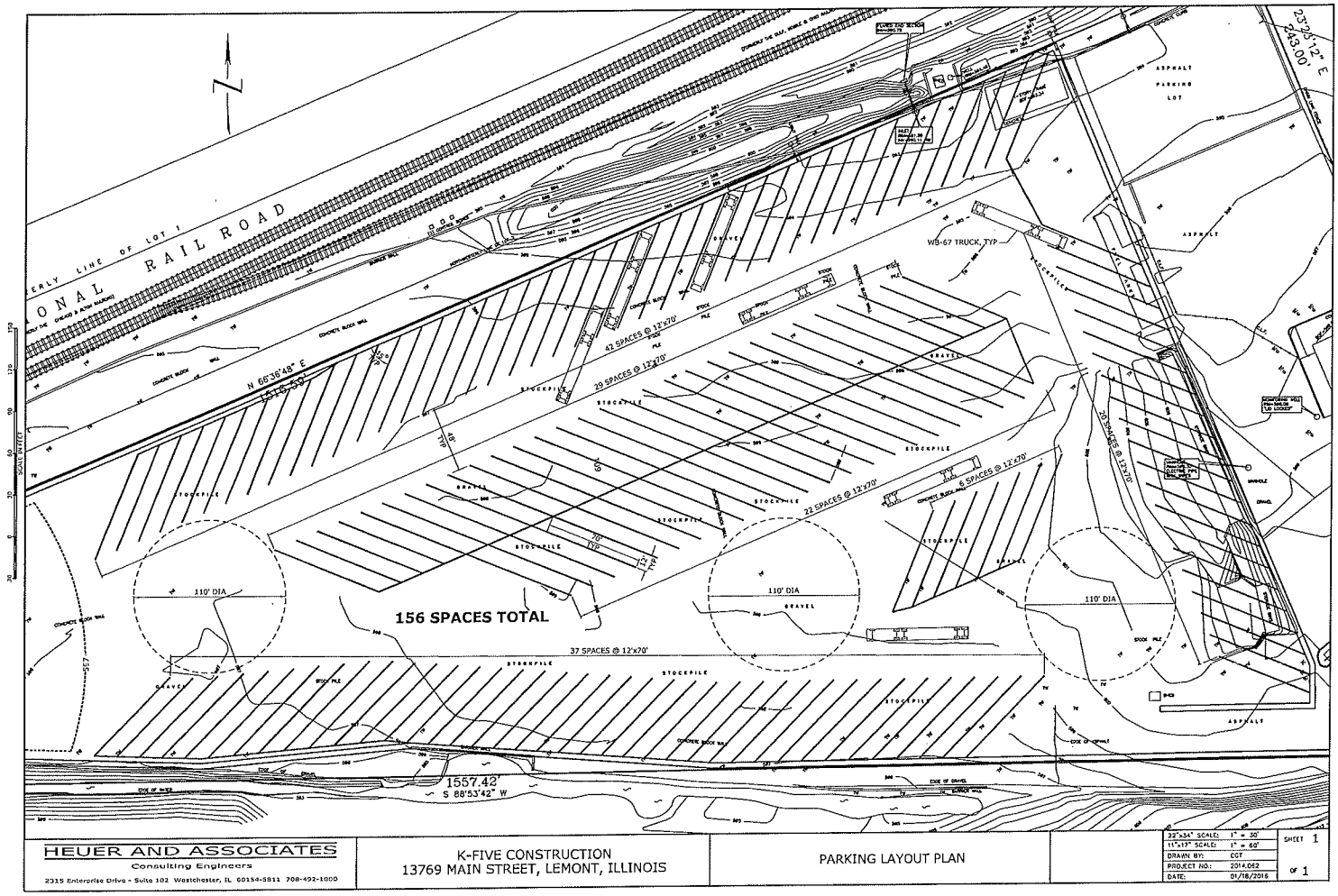
SCALE IN FEET
150 120 90 60 30 0 30

MATCHLINE SEE SHEET 8

HEUER AND ASSOCIATES Consulting Engineers 2315 Enterprise Drive - Suite 102 Westchester, IL 60154-5811 708-492-1000	K-FIVE CONSTRUCTION 13769 MAIN STREET, LEMONT, ILLINOIS
EXISTING CONDITIONS WEST	

22"x34" SCALE:	1" = 20'
11"x17" SCALE:	1" = 40'
DRAWN BY:	CGT
PROJECT NO.:	2014.062
DATE:	04/08/2016

SHEET 9 OF 17



HEUER AND ASSOCIATES Consulting Engineers 2315 Enterprise Drive - Suite 102 Westchester, IL 60154-5811 708-492-1000	K-FIVE CONSTRUCTION 13769 MAIN STREET, LEMONT, ILLINOIS	PARKING LAYOUT PLAN	22"x34" SCALE: 1" = 30' 11"x17" SCALE: 1" = 60' DRAWN BY: CGT PROJECT NO.: 2014.062 DATE: 01/18/2016 SHEET 1 OF 1

Exhibit I

Special Use Criteria Worksheet

Unified Development Ordinance (UDO) Section 17.04.140.C establishes the criteria for approval of special use requests; no special use will be recommended by the Planning & Zoning Commission unless it meets the following criteria.

Please describe below how your variation request meets the criteria of UDO Section 17.04.140.C. Attach additional sheets if necessary.

UDO Section 17.04.140.C.1
The special use is deemed necessary for the public convenience at that location:

The Subject Property has existed as an M-3 zoned parcel in harmony with the surrounding community for a period in excess of 20 years. Additionally, the use of Subject Property serves to strengthen the community tax base and is therefore a benefit to the community. Finally, the use of the Subject Property will serve to benefit the business community because it will provide a valuable and needed service to the business residents of the Village of Lemont.

UDO Section 17.04.140.C.2
The special use is so designed, located and proposed to be operated that the public health, safety and welfare will be protected:

The Subject Property has existed as an M-3 zoned parcel for over 20 years. The surrounding area is industrial in nature and well suited to the proposed special uses. Operation of the Subject Property pursuant to the special uses, if granted, will not change the essential character of the surrounding area because each of the requested special uses is consistent with the Village of Lemont's M-3 zoning designation. Further, the proposed use will actually improve the Subject Property since the currently existing piles of aggregate and other materials will be eliminated from the Subject Property. Also, the Subject Property will be fully paved and landscaped. This will eliminate any dust issues which had previously plagued the Subject Property. Finally, the Subject Property will be brought into conformity with the Village Code.

UDO Section 17.04.140.C3
The special use will not cause substantial injury to the value of other property in the neighborhood in which it is located:

The area surrounding the Subject Property is industrial in nature and zoned similarly to the Subject Property. None of the requested special uses will affect the surrounding area because the uses are consistent with the industrial (M-3 Zoning) nature of the area. In fact, the improvements

to the Subject Property will serve to increase the value of the Subject Property and the other properties in the vicinity of the Subject Property.

UDO Section 17.04.140.C4

The special use shall not create excessive demands on Village service or impair the ability of the Village to maintain the peace and provide adequate protection for its citizens:

The proposed special uses are consistent with the character of the surrounding area and therefore will not impose an additional demand on Village services. Further, the Subject Property will be surrounded on its eastern border of the large parking area by a fence/cable (4' to 5' chain link fence) which will assist in securing the Subject Property.

UDO Section 17.04.140.C.5

The special use is consistent with the standards enumerated elsewhere in the UDO for the specific use, including but not limited to, planned unit developments:

The Subject Property will be brought into code compliance and will be in compliance with each of the standards applicable to the proposed use.

UDO Section 17.04.140.C.6

The special use meets, as applicable, the standards for planned unit developments found in Chapter 17.08 of the UDO:

N/A

Village of Lemont
Planning & Economic Development Department
418 Main Street Lemont, Illinois 60439
phone (630) 257-1595
fax (630) 257-1598

Variation Application Form

APPLICANT INFORMATION

Main Street Lemont LLC (Please see Letter of Authorization attached as Exhibit A)
Applicant Name

Company/Organization

13769 Main St., Lemont, IL 60439
Applicant Address

(773) 406-3676
Telephone & Fax

sandra@maktranslogistics.com
E-mail

CHECK ONE OF THE FOLLOWING:

_____ Applicant is the owner of the subject property and is the signer of this application.
__X__ Applicant is the contract purchaser of the subject property.
_____ Applicant is acting on behalf of the beneficiary of a trust.
_____ Applicant is acting on behalf of the owner.

PROPERTY INFORMATON

13769 Main St., Lemont, IL 60439
Address of Subject Property/Properties

22-15-200-003-0000; 22-15-200-015-0000
Parcel Identification Number of Subject Property/Properties

13.4 Acres
Size of Subject Property/Properties

DESCRIPTION OF REQUEST

See Attached Exhibit B
Brief description of the proposed variation

REQUIRED DOCUMENTS

See Form 500-A, *Variation Application Checklist of Required Materiols,* for items that must accompany this application.

FOR OFFICE USE ONLY

Application received on: _____ By: _____

Application deemed complete on: _____ By: _____

Current Zoning: _____

Fee Amount Enclosed: _____ Escrow Amount Enclosed: _____

Variation Application Form
Village of Lemont

APPLICATION FEE & ESCROW

Application Fee = $250 (per zoning lot)
Fee is non-refundable. A zoning lot is defined as "a single tract of land located within a single block that (at the time of filing for a building permit) is designated by its owner or developer as a tract to be used, developed, or built upon, under single ownership or control" (Unified Development Ordinance Chapter 17.02).

Required Escrow = $500
At the time of application, the applicant shall submit a check for the establishment of an escrow account. The escrow money shall be used to defray costs of public notice, consultants, or other direct costs incurred by the Village in association with the variation application. Additionally, should the applicant fail to remove the required public notice sign in a timely manner, the escrow account may be used to defray the costs of the sign's removal. After completion of the variation review process, any unused portion of the escrow account will be refunded upon request.

AFFIRMATION

I hereby affirm that I have full legal capacity to authorize the filing of this application and that all information and exhibits herewith submitted are true and correct to the best of my knowledge. I permit Village representatives to make all reasonable inspections and investigations of the subject property during the period of processing of this application. I understand that as part of this application I am required to establish an escrow account to pay for direct costs associated with the approval of this application, such as the fulfillment of public notice requirements, removal of the public notice sign, taking of minutes at the public hearing and fees for consultants hired by the Village to evaluate this application. I understand that the submitted fee is non-refundable and that any escrow amount leftover upon project completion will be refunded upon request. I understand that I am responsible for the posting of a public hearing sign and for the mailing of legal notice to all surrounding property owners as required by Village ordinances and state law.

Philip M Fornaro as agent and attorney for Main Street Lemont LLC   6/27/16

Signature of Applicant   Date

Illinois   Cook

State   County

I, the undersigned, a Notary Public in and for the aforesaid County and State, do hereby certify that Philip Fornaro, agent is personally known to me to be the same person whose name is subscribed to the foregoing instrument, and that said person signed, sealed and delivered the above petition as a free and voluntary act for the uses and purposes set forth.

[signature]

Notary Signature

Given under my hand and notary seal this 27th day of June A.D. 20 16.

My commission expires this 15th day of November A.D. 20 19.

MARY ANN BRYK
Official Seal
Notary Public - State of Illinois
My Commission Expires Nov 15, 2019

Applicant requests a variation for the property commonly known as 13769 Main St, Lemont, Il 60439 (hereinafter the "Subject Property") and currently zoned a M-3 Heavy Manufacturing District (hereinafter "M-3") pursuant to the Lemont Unified Development Ordinance (hereinafter the "Zoning Ordinance"). The Applicant submits this application for variation in conjunction with its application for special use and also its application for business license. Generally, the Subject Property is approximately 13.4 acres and contains dry detention facilities, as defined by the Zoning Ordinance. The Applicant seeks a variation from the Village's requirement that all dry detention facilities on the Subject Property be sodded with living grass. Section 17.29.020(F)(3) of the Zoning Ordinance requires that all dry detention facilities be sodded with living grass. Applicant is requesting a variation from the grass requirement for dry detention facilities on the Subject Property.

The Metropolitan Water Reclamation District (hereinafter "MWRD") does not require the use of grass lining for dry detention facilities.

The Applicant seeks a variation which would be consistent with the MWRD's requirements, and would allow the Applicant to utilize uncompacted aggregate for the Subject Property's dry detention facilities. The use of the existing loose, uncompacted aggregate will continue to serve the function of retention of water and will not affect the surrounding parcels. Further, use of uncompacted aggregate for the dry detention facility will be consistent with other uses in the area. A green area requirement for the dry detention facility is not conducive to this type of industrial parcel. Additionally, green areas will be provided pursuant to the Village's Landscape Ordinance.

Please describe below how your variation request meets the criteria of UDO Section 17.04.150.D.1. Attach additional sheets if necessary.

UDO Section 17.04.150.D.1.a

The variation is in harmony with the general purpose and intent of the Unified Development Ordinance:

The Subject Property is zoned M-3 which is industrial. The character of the surrounding area is industrial with parcels which contain aggregate parking areas and dry detention facilities. Further, the function of the dry detention facilities will be unaffected if they are not lined with grass because they will function as planned. Properly functioning dry detention facilities are most important in this matter. Especially since requiring a green area in this area would be not be conducive and in accord with the M-3 zoning designation. Finally the MWRD does not require the lining of dry detention facilities with grass.

UDO Section 17.04.150.D.1.b

The plight of owner is due to unique circumstances and thus strict enforcement of the Unified Development Ordinance would result in practical difficulties or impose exceptional hardships due to special and unusual conditions that are not generally found on other properties in the same zoning district:

Requiring that the detention facilities on the Subject Property be lined with sod is impractical because the Subject Property, and the area's surrounding the Subject Property, are industrial properties which are zoned M-3. Keeping grass alive in such an environment will be difficult. Further, the required grass will contrast with the existing parcels and will not be consistent with other developments in the area.

UDO Section 17.04.150.D.1.c

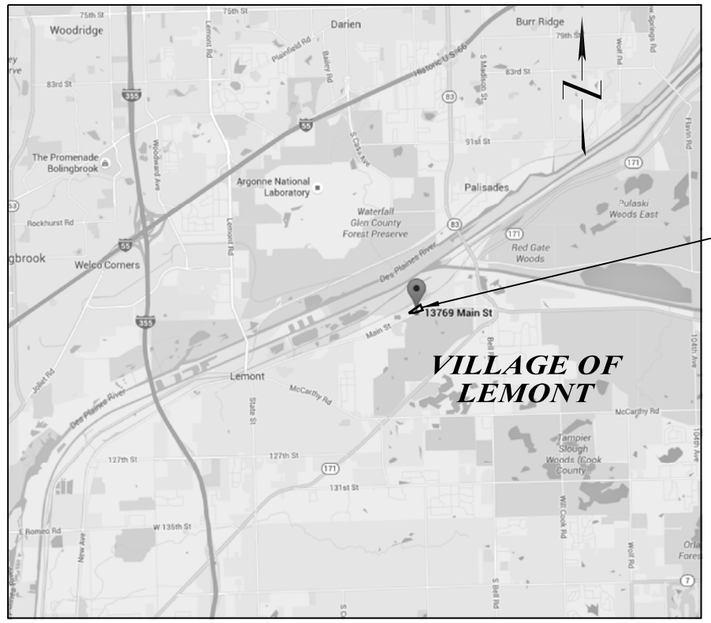
The variation will not alter the essential charter of the locality and will not be a substantial detriment to adjacent property.

The use of uncompacted aggregate for the detention facilities is consistent with the general characterizing of the surrounding area, and the M-3 zoning classification. The Subject Property and the surrounding parcels are industrial. Further, use of uncompacted aggregate is not out of character with the surrounding parcels. The Subject Property is surrounded by parcels which also contain aggregate materials which line drives, parking lots, and dry detention areas. Allowing the requested variation does not change the character of the area and is not detrimental to the area's property values. This is especially true in light of the extensive improvements to the Subject Property which will occur as a result of the proposed development. Finally, not utilizing grass will in no way affect the detention capacity of the proposed dry detention facilities.

GRADING AND PAVEMENT IMPROVEMENTS
K-FIVE CONSTRUCTION
13769 MAIN STREET
LEMONT, ILLINOIS

Call Before You Dig
JULIE
ILLINOIS ONE-CALL SYSTEM
800.892.0123

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



PROJECT LOCATION MAP

INDEX OF SHEETS

SHEET NO.	DRAWING TITLE
1	COVER SHEET, PROJECT LOCATION MAP, BENCHMARK, AND INDEX OF SHEETS
2-3	GENERAL NOTES AND SPECIFICATIONS
4	MWRD GENERAL NOTES
5-6	STORMWATER POLLUTION PREVENTION PLAN
7	EXISTING CONDITIONS OVERVIEW
8	EXISTING CONDITIONS EAST
9	EXISTING CONDITIONS WEST
10	DRAINAGE BASIN AREAS EXHIBIT
11	GRADING, DRAINAGE AND DETENTION PLAN EAST
12	GRADING AND DRAINAGE PLAN WEST
13	STORMWATER COLLECTION SYSTEM PLAN
14	MWRD EXHIBIT R
15-17	CONSTRUCTION DETAILS

SURVEYOR

PLAT OF SURVEY AND
TOPOGRAPHY PROVIDED BY:

SCHOMIG LAND SURVEYORS, LTD
909 EAST 31ST STREET
LA GRANGE PARK, IL 60526
PHONE:(708) 352-1452

SITE BENCH MARK

SITE BENCHMARK:

RAIL ROAD SPIKE IN EAST FACE OF POWER POLE
AT EAST END OF PROPERTY - SHOWN ON SHEET 9

ELEVATION=598.30 NGVD 1929
NAVD 1988 CONVERSION FACTOR -0.28

NAVD 1988 ELEVATION 598.02

PROJECT LOCATION DATA

COUNTY:	COOK
MUNICIPALITY:	LEMONT
TOWNSHIP:	LEMONT
SECTION:	SEC. 30, T37N, R11E
LATITUDE:	41° 41' 16"N
LONGITUDE:	87° 57' 16"W

THESE PLANS WERE PREPARED BY HEUER AND ASSOCIATES, P.C.
UNDER THE DIRECT SUPERVISION OF THOMAS A. HEUER, P.E.,
A REGISTERED PROFESSIONAL ENGINEER OF THE STATE OF ILLINOIS.

_____ DATE: _____
THOMAS A. HEUER, P.E.
REGISTRATION No. 062-037463
EXPIRATION DATE: 11/30/2017

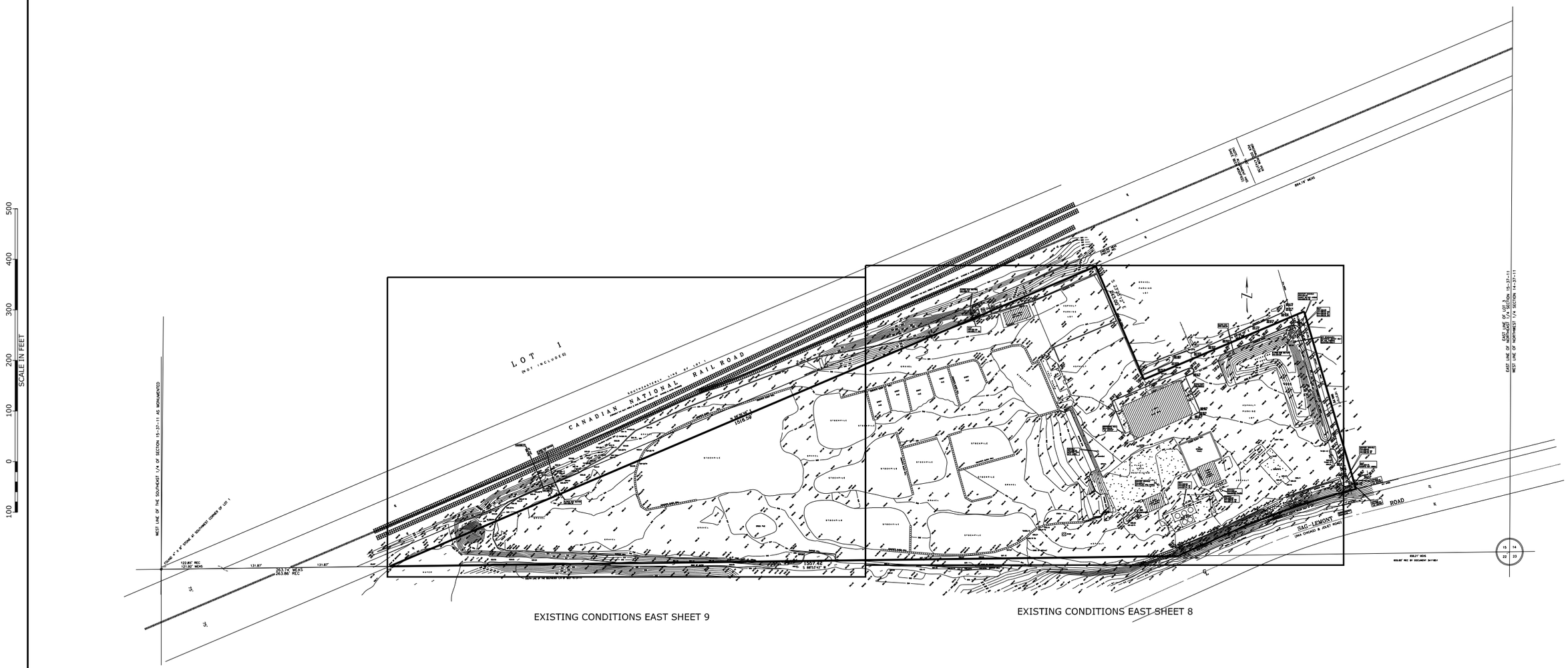
THOMAS A. HEUER 062-037463 LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

HEUER AND ASSOCIATES
Consulting Engineers
2315 Enterprise Drive - Suite 102 Westchester, IL 60154-5811 708-492-1000

K-FIVE CONSTRUCTION
13769 MAIN STREET, LEMONT, ILLINOIS

COVER SHEET, PROJECT LOCATION MAP, BENCHMARK, AND INDEX OF SHEETS

22"x34" SCALE:	Not to Scale
11"x17" SCALE:	Not to Scale
DRAWN BY:	CGT
PROJECT NO.:	2014.062
DATE:	04/08/2016

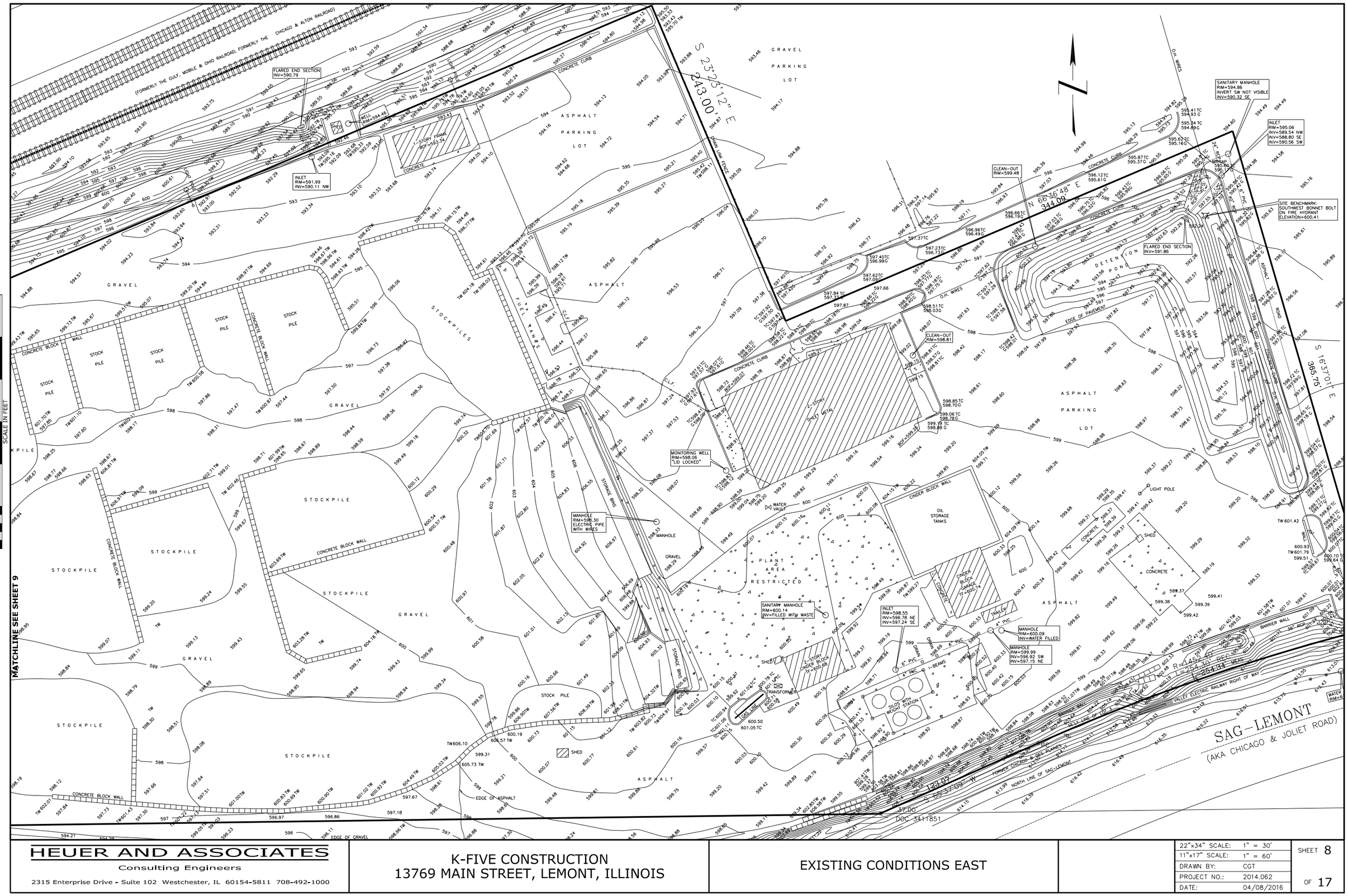


HEUER AND ASSOCIATES
Consulting Engineers
2315 Enterprise Drive - Suite 102 Westchester, IL 60154-5811 708-492-1000

K-FIVE CONSTRUCTION
13769 MAIN STREET, LEMONT, ILLINOIS

EXISTING CONDITIONS
OVERVIEW

22"x34" SCALE:	1" = 100'	SHEET 7
11"x17" SCALE:	1" = 200'	
DRAWN BY:	CGT	
PROJECT NO.:	2014.062	
DATE:	04/08/2016	OF 17



HEUER AND ASSOCIATES Consulting Engineers 2315 Enterprise Drive - Suite 102 Westchester, IL 60154-5811 708-492-1000	K-FIVE CONSTRUCTION 13769 MAIN STREET, LEMONT, ILLINOIS	EXISTING CONDITIONS EAST	22"x34" SCALE: 1" = 30' 11"x17" SCALE: 1" = 60' DRAWN BY: CGT PROJECT NO.: 2014.062 DATE: 04/08/2016	SHEET 8 OF 17

LOT 1
(NOT INCLUDED)

SOUTHEASTERLY LINE OF LOT 1

CANADIAN NATIONAL RAIL ROAD
(FORMERLY THE GULF, MOBILE & OHIO RAILROAD; FORMERLY THE CHICAGO & ALTON RAILROAD)

N 66°36'48" E
1516.59'

S 88°53'42" W
1557.42'

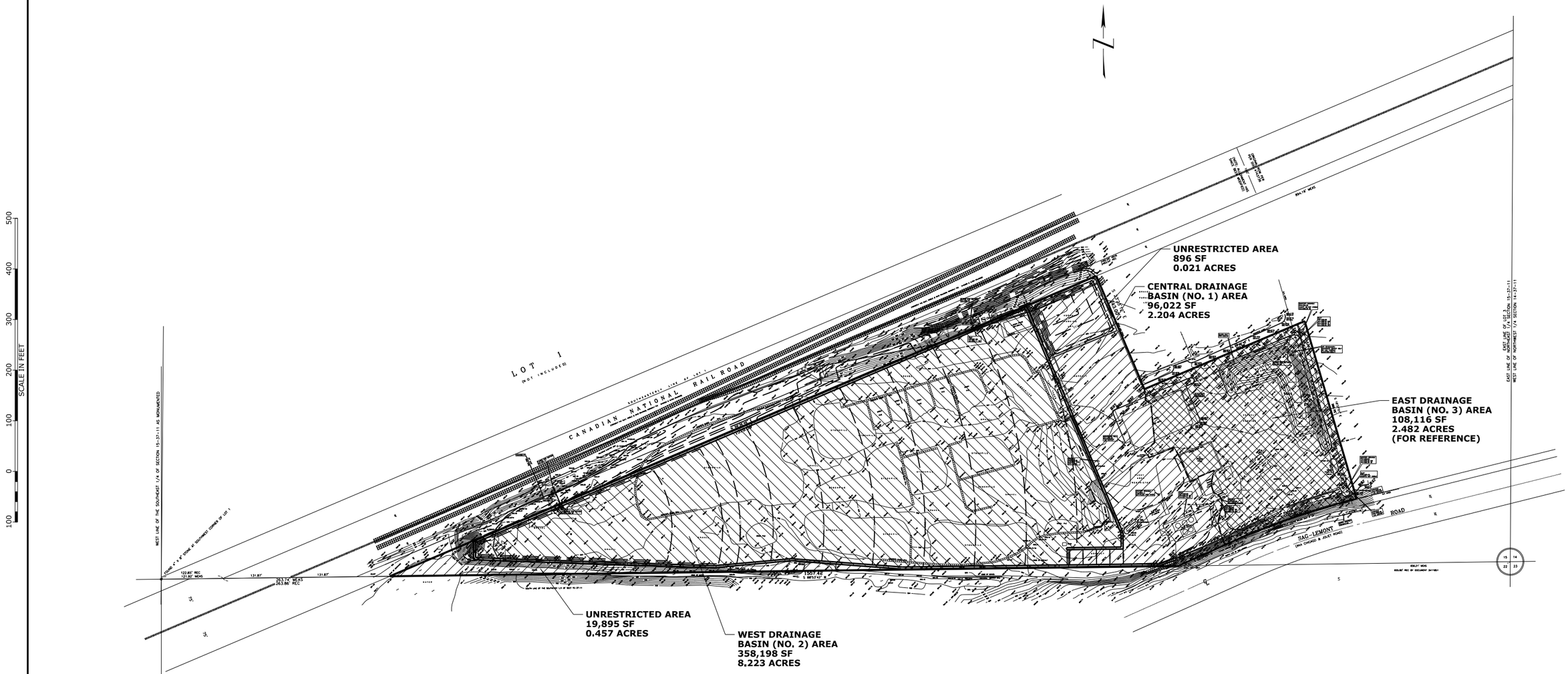
SCALE IN FEET
150 120 90 60 30 0 30

MATCHLINE SEE SHEET 8

HEUER AND ASSOCIATES Consulting Engineers 2315 Enterprise Drive - Suite 102 Westchester, IL 60154-5811 708-492-1000	K-FIVE CONSTRUCTION 13769 MAIN STREET, LEMONT, ILLINOIS
EXISTING CONDITIONS WEST	

22"x34" SCALE:	1" = 20'
11"x17" SCALE:	1" = 40'
DRAWN BY:	CGT
PROJECT NO.:	2014.062
DATE:	04/08/2016

SHEET 9 OF 17

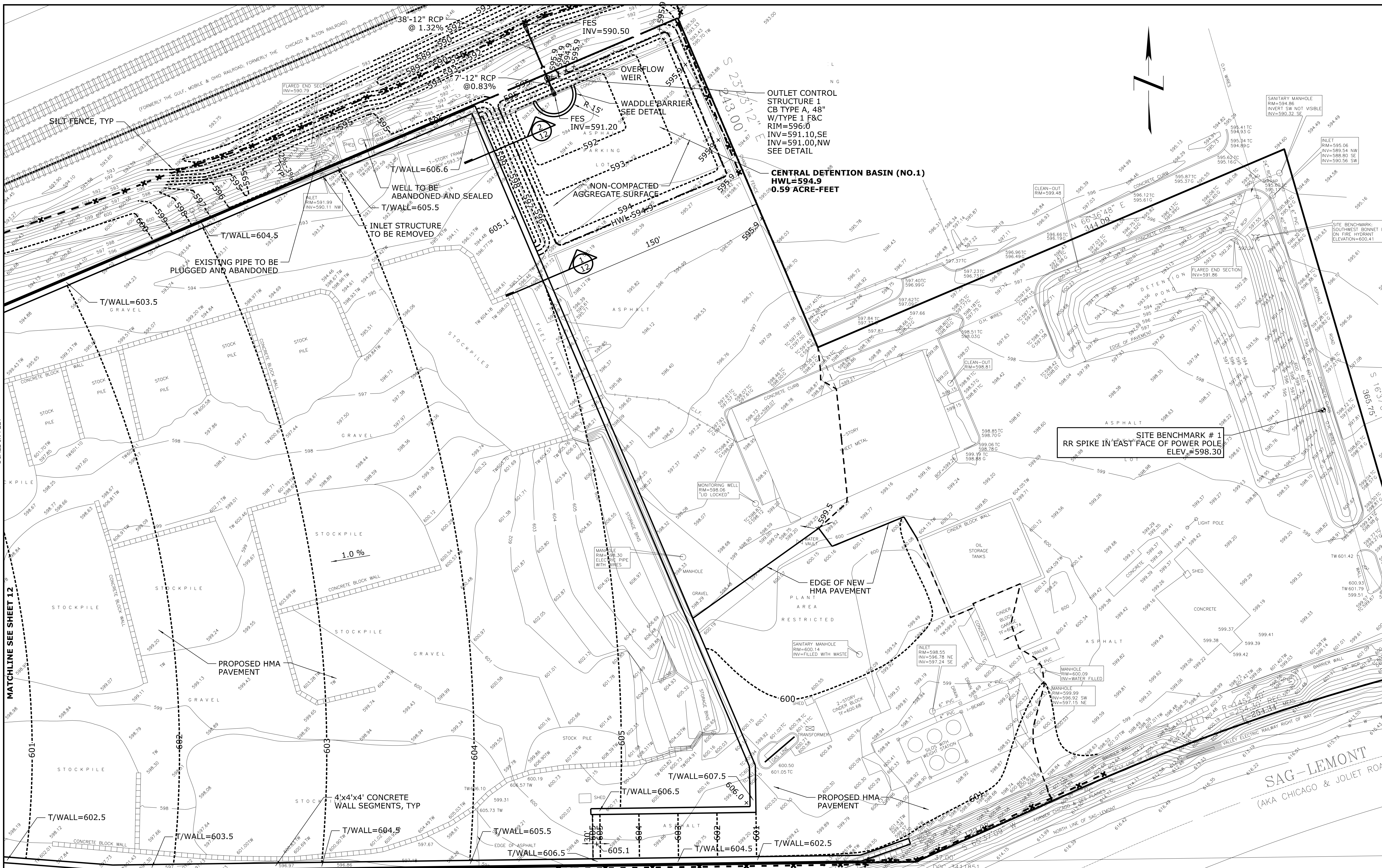


HEUER AND ASSOCIATES
Consulting Engineers
2315 Enterprise Drive - Suite 102 Westchester, IL 60154-5811 708-492-1000

K-FIVE CONSTRUCTION
13769 MAIN STREET, LEMONT, ILLINOIS

DRAINAGE BASIN AREAS
EXHIBIT

22"x34" SCALE:	1" = 100'
11"x17" SCALE:	1" = 200'
DRAWN BY:	CGT
PROJECT NO.:	2014.062
DATE:	04/08/2016



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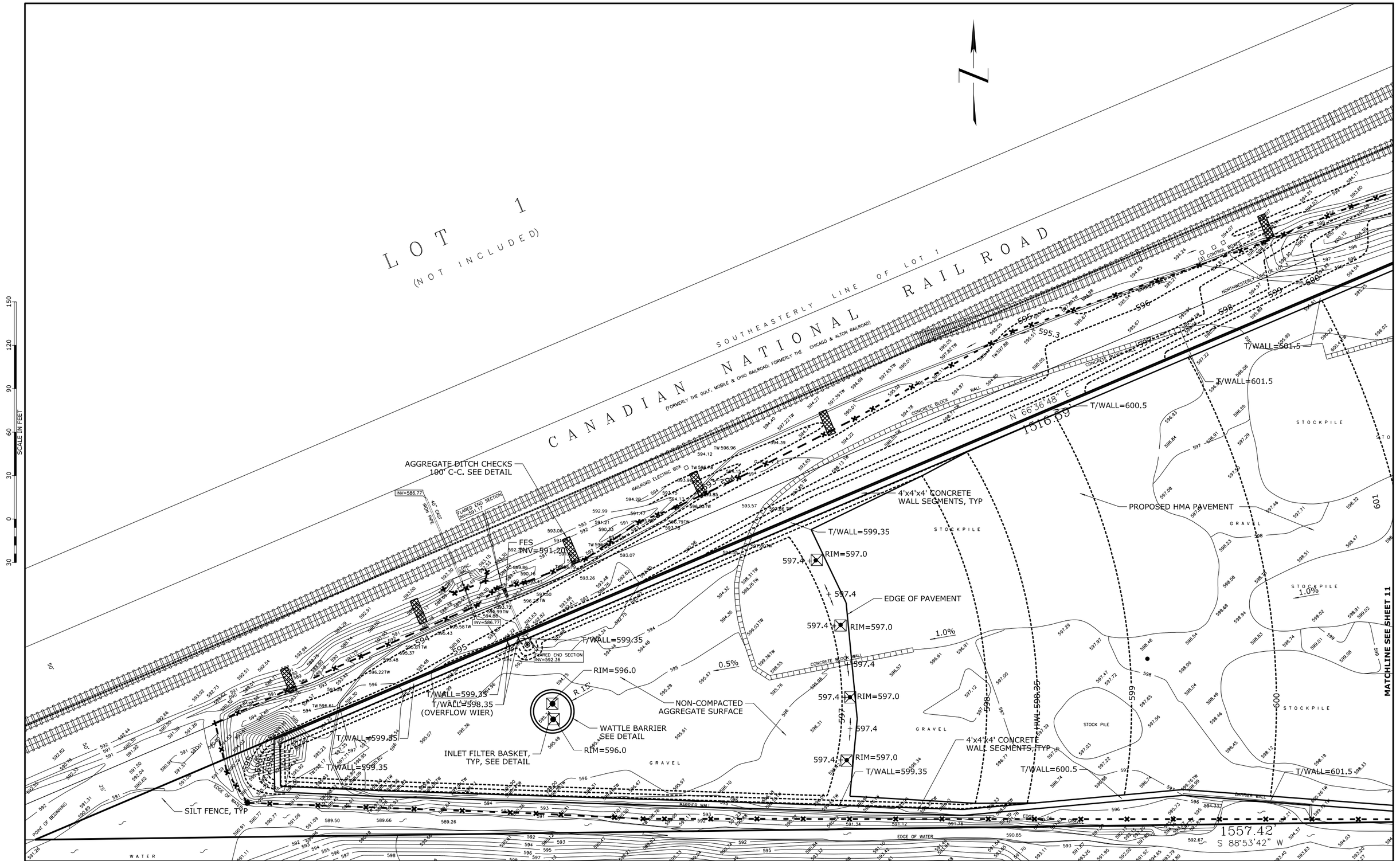
Consulting Engineers
2315 Enterprise Drive - Suite 102 Westchester, IL 60154-5811 708-492-1000

K-FIVE CONSTRUCTION
13769 MAIN STREET, LEMONT, ILLINOIS

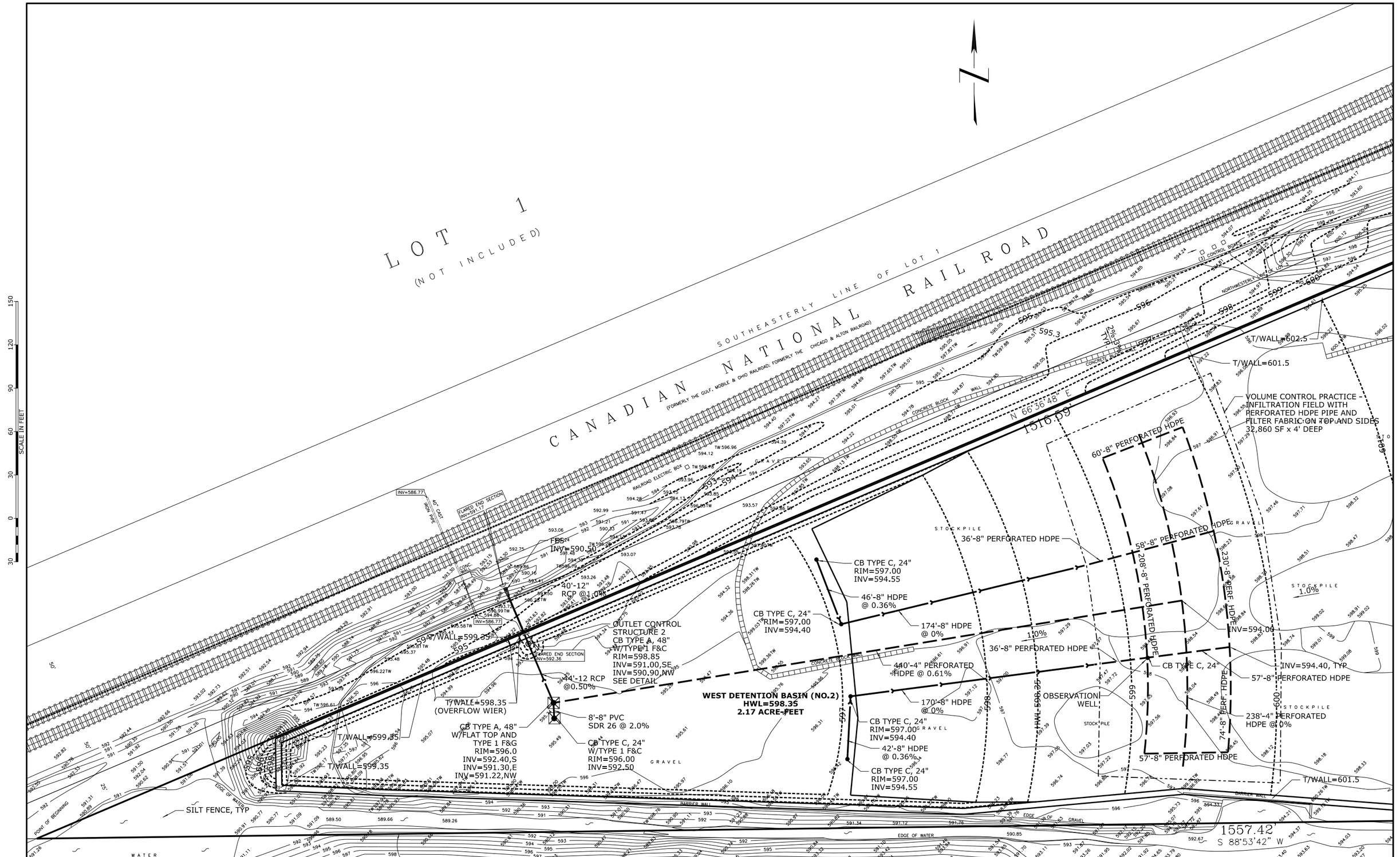
GRADING, DRAINAGE AND
EROSION CONTROL PLAN EAST

22"x34" SCALE:	1" = 30'
11"x17" SCALE:	1" = 60'
DRAWN BY:	CGT
PROJECT NO.:	2014.062
DATE:	04/08/2016

SHEET 11 OF 17



HEUER AND ASSOCIATES Consulting Engineers 2315 Enterprise Drive - Suite 102 Westchester, IL 60154-5811 708-492-1000	K-FIVE CONSTRUCTION 13769 MAIN STREET, LEMONT, ILLINOIS	GRADING, DRAINAGE AND EROSION CONTROL PLAN WEST	22"x34" SCALE: 1" = 30' 11"x17" SCALE: 1" = 60' DRAWN BY: CGT PROJECT NO.: 2014.062 DATE: 04/08/2016	SHEET 12 OF 17



HEUER AND ASSOCIATES Consulting Engineers 2315 Enterprise Drive - Suite 102 Westchester, IL 60154-5811 708-492-1000	K-FIVE CONSTRUCTION 13769 MAIN STREET, LEMONT, ILLINOIS	STORMWATER COLLECTION SYSTEM PLAN	22"x34" SCALE: 1" = 30' 11"x17" SCALE: 1" = 60' DRAWN BY: CGT PROJECT NO.: 2014.062 DATE: 04/08/2016	SHEET 13 OF 17

Attachment 3

July 3, 2016

Village of Lemont
Planning & Economic Development Department
Attn: Heather Valone, Village Planner
418 Main Street
Lemont, IL 60439

Re: 13769 Main Street, Lemont, IL
Main Street Lemont LLC
Mr. Vlatko (Vic) Dodevski

Dear Heather Valone:

On behalf of Mr. Dodesvksi I am providing landscape architectural services for 13769 Main Street as required by the Village of Lemont as part of the M-3 Zoning District application due July 6, 2016. My primary task is to design a landscape buffer along the Main Street property line that meets the Village's General Landscape Standards for the M-3 Zoning District. These standards would include any existing landscaping or trees that may be used as a credit by the Village in our efforts to satisfy the code.

On Saturday, July 2, 2016 I performed a site visit for the above referenced property to ascertain the site conditions and extent of existing vegetation along the subject property at the Main Street Right of Way. I also studied the topographic survey as part of my evaluation of the property. Having thoughtfully assessed the site and the details of the Village's General Landscape Standards it is my professional opinion, based on the existing conditions, topography, tree cover and potential loss of an already effective buffer, that Mr. Dodevski ask for a full landscape credit in lieu of a new landscape buffer along his Main Street frontage. It is my recommendation that the existing slope and vegetation be preserved in its current condition for the following reasons:

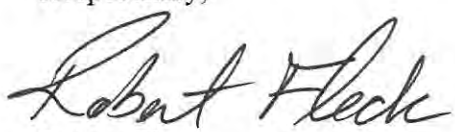
1. The existing vegetation is extremely dense with many mature trees as well as many younger trees of varying size. The buffer is already solid blocking nearly 100% of the views into the site from Main Street spring to fall. During the winter months the views will be opened yet the existing trees and their branches will continue to obstruct many of the views into the property. Any efforts to install new landscaping would require the extensive removal of the existing vegetation.

2. The subject property sits on average 16' below the elevation of Main Street. The property line sits on average 10' below Main Street. Any efforts to install new landscaping or a privacy fence would be ineffective. The abrupt elevation change along the frontage adds to the difficulty of screening the site from the road with new landscaping or a privacy fence. If a fence were to be used it would need to be approximately 20' tall to be effective. It is not feasible or practical to construct a fence or wall of this size.
3. The slope of the entire Main Street frontage along the subject property is extremely steep. The abrupt change begins inside the Main Street Right of Way and ends at the paved lot at the bottom of the embankment. This is a 1:1 slope on average. A slope this steep is unmanageable. New landscaping could not be planted on a slope this steep let alone be maintained. Any improvement to meet the code would require a clear cut of the existing vegetation to accommodate the construction activity. A clear cut would not be desirable for the Village or the property owner. Furthermore, a clear cut would compromise the integrity of the slope by removing the vegetation and root systems of the plants that are acting as a natural erosion control system.
4. The embankment along the Main Street frontage is not conducive to planting because of the rocky hillside. 100% of the vegetation found on the embankment are volunteer species. Many of the trees and forbs growing on the embankment are native to Northeastern Illinois having taken root on the rocky slope by reseeding themselves overtime. This is the best and only suitable treatment of the steep, rocky embankment. Any attempts to install traditional landscaping would be ineffective and require the removal of existing vegetation making the site visible from Main Street.
5. The planting of new vegetation 10' lower than the road would take many years to grow and become established. Decades would pass before a new vegetative buffer would be nearly as effective as the existing vegetation. Smaller ornamental plants would be completely ineffective never to be seen at an elevation 10' below Main Street. As previously stated, this may not be a consideration as traditional landscaping would not survive planting on the steep rocky embankment.
6. The existing buffer is consistent with much of the M-3 corridor along Main Street, especially those along the north right of way where the terrain slopes down to the adjacent properties and the river.
7. Random tree counts taken at numerous 10' intervals established an average of 5 trees of varying sizes on the property frontage along Main Street. The number of existing trees and plants far exceeds those required per the standard plant unit count found in the Village's Landscape Standards.
8. Existing vegetation will not be effected by the proposed construction activities on the subject property. All vegetation will be preserved.

Please refer to the pictures found in the EXHIBIT attachment of this report. As previously stated it is my professional recommendation that Mr. Dodevski respectfully request full landscape credit for the existing vegetation for the subject property frontage along Main Street. Based on the existing site conditions I strongly urge the Village of Lemont to consider and approve this

request. Preserving the existing buffer, vegetation and slope is in the Village's best interest. No efforts to remove the existing vegetation in lieu of a traditional landscape buffer will ever be as effective as the existing buffer. Furthermore, I believe traditional landscaping would not survive due the extremely steep rocky embankment.

Respectfully,



Robert Fleck
Landscape Architect
218 N. Warwick Ave.
Westmont, IL 60559

EXHIBITS

Figure 1: View of existing vegetation and buffer along property frontage at Main Street.

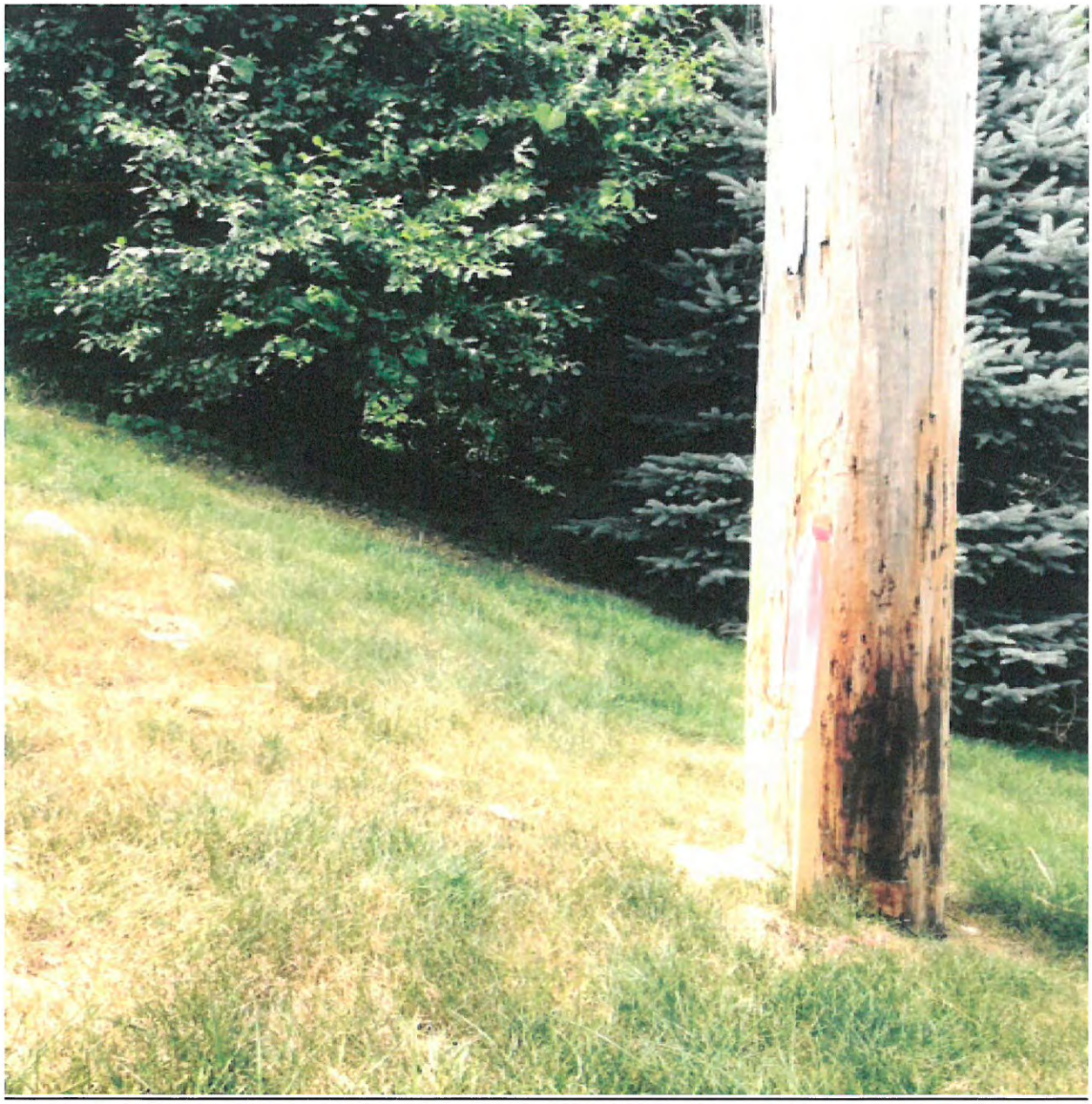


Figure 2: View of existing slope and dense vegetation at property line near Main Street adjacent to site entrance.

Figure 3: Existing vegetation and buffer along Main Street from inside of subject property 16' below the elevation of Main Street. Utility lines mark approximate location of property line.

Figure 4: Interior view of existing vegetative buffer along Main Street frontage.

Figure 5: View of steep embankment and rocky terrain unsuitable for traditional landscaping.

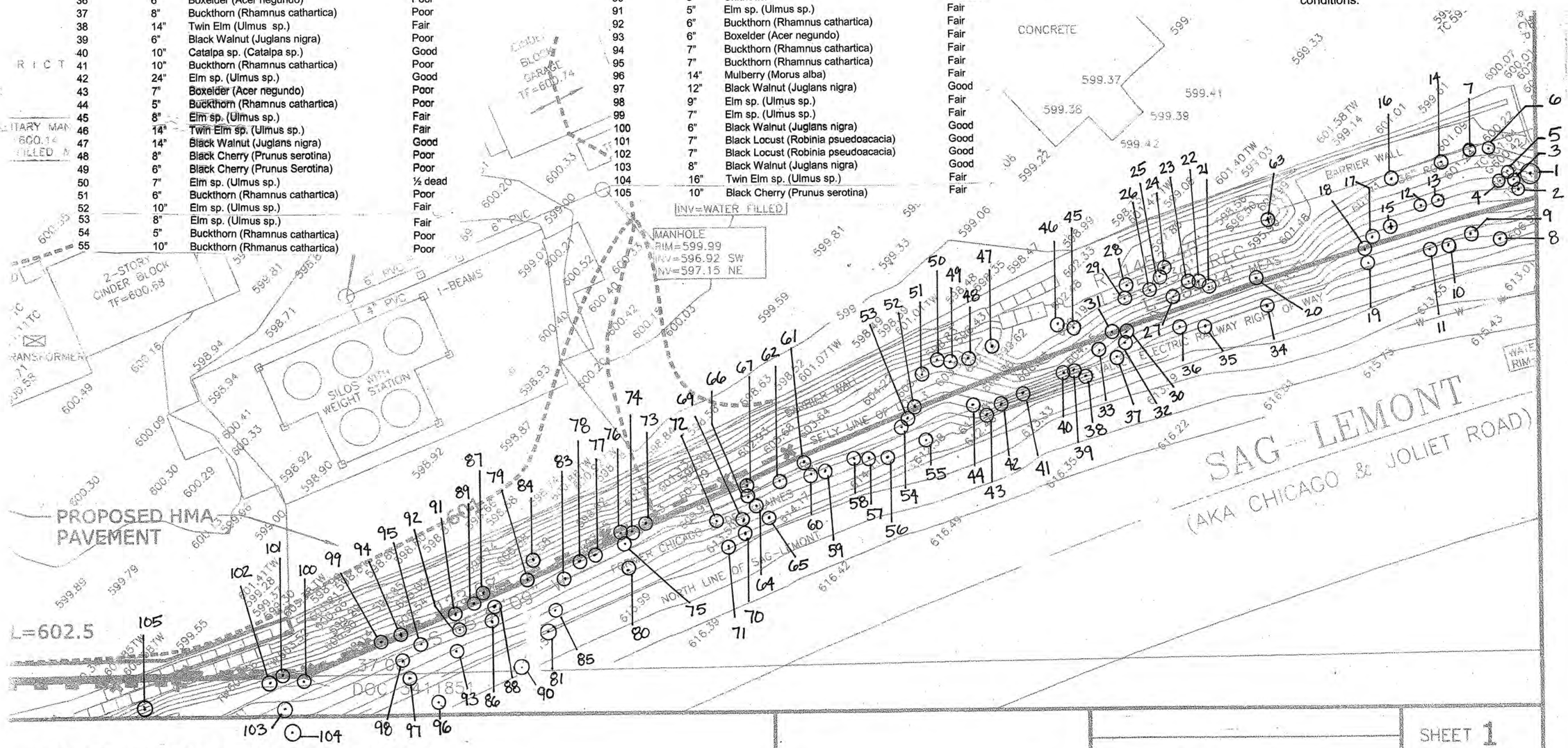
Figure 6: Existing structure on property frontage embankment indicating abrupt elevation change between subject property and Main Street.

Attachment 4

TREE #	SIZE	SPECIES	CONDITION
1	10"	Elm Sp. (Ulmus Sp.)	Good
2	6"	Black Walnut (Juglans nigra)	Good
3	4"	Black Walnut (Juglans nigra)	Good
4	5"	Black Walnut (Juglans nigra)	Good
5	4"	Catalpa sp. (Catapla sp.)	Fair
6	8"	Elm sp. (Ulmus sp.)	Fair
7	8"	Elm sp. (Ulmus sp.)	Fair
8	8"	Elm sp. (Ulmus sp.)	Fair
9	10"	Elm sp. (Ulmus sp.)	Fair
10	8"	Hackberry (Celtis occidentalis)	Good
11	11"	Twin Black Walnut (Juglans nigra)	Fair
12	5"	Black Walnut (Juglans nigra)	Fair
13	5"	Black Walnut (Juglans nigra)	Fair
14	6"	Dead	
15	5"	Black Walnut (Juglans nigra)	Fair
16	4"	White Poplar (Populos alba)	Fair
17	10"	Black Walnut (Juglans nigra)	Fair
18	7"	Elm sp. (Ulmus sp.)	Fair
19	6"	Black Walnut (Juglans nigra)	Poor
20	15"	Black Walnut (Juglans nigra)	Good
21	8"	Twin Elm (Ulmus sp.)	Good
22	4"	Catalps sp. (Catalpa sp.)	Good
23	4"	Catalps sp. (Catalpa sp.)	Good
24	4"	Elm sp. (Ulmus sp.)	Fair
25 & 26	7-12"	Twin Catalpa sp. (Catalpa sp.)	Good
27	10"	Black Cherry (Prunus serotine)	Poor
28	10"	Clump Catalpa (Catalpa sp.)	Good
29	10"	Elm sp. (Ulmus sp.)	Fair
30	7"	Clump Elm sp. (Ulmus sp.)	Fair
31	4"	Elm sp. (Ulmus sp.)	Fair
32	7"	Black Cherry (Prunus serotina)	Poor
33	6"	Clump Buckthorn (Rhamnus cathartica)	Poor
34	12"	Elm sp. (Ulmus sp.)	Poor
35	10"	Boxelder (Acer negundo)	Poor
36	6"	Boxelder (Acer negundo)	Poor
37	8"	Buckthorn (Rhamnus cathartica)	Poor
38	14"	Twin Elm (Ulmus sp.)	Fair
39	6"	Black Walnut (Juglans nigra)	Poor
40	10"	Catalpa sp. (Catalpa sp.)	Good
41	10"	Buckthorn (Rhamnus cathartica)	Poor
42	24"	Elm sp. (Ulmus sp.)	Good
43	7"	Boxelder (Acer negundo)	Poor
44	5"	Buckthorn (Rhamnus cathartica)	Poor
45	8"	Elm sp. (Ulmus sp.)	Fair
46	14"	Twin Elm sp. (Ulmus sp.)	Fair
47	14"	Black Walnut (Juglans nigra)	Good
48	8"	Black Cherry (Prunus serotina)	Poor
49	6"	Black Cherry (Prunus Serotina)	Poor
50	7"	Elm sp. (Ulmus sp.)	½ dead
51	6"	Buckthorn (Rhamnus cathartica)	Poor
52	10"	Elm sp. (Ulmus sp.)	Fair
53	8"	Elm sp. (Ulmus sp.)	Fair
54	5"	Buckthorn (Rhamnus cathartica)	Poor
55	10"	Buckthorn (Rhmanus cathartica)	Poor
56	12"	Black Cherry (Prunus serotinsa)	Poor
57	6"	Buckthorn (Rhmanus cathartica)	Poor
58	6"	Dead	
59	6"	Boxelder (Acer negundo)	Poor
60	7"	Buckthorn (Rhmanus cathartica)	Poor
61	9"	Elm sp. (Ulmus sp.)	Fair
62	12"	Catalpa sp. (Catalpa sp.)	Good
63	7"	Pagoda Dogwood (Cornus kousa)	Good
64	4"	Pagoda Dogwood (Cornus kousa)	Good
65	8"	Twin Black Cherry (Prunus serotina)	Poor
66	4"	Elm Sp. (ULmus sp.)	Poor
67	4"	Catalpa sp. (Catalpa sp.)	Good
68	4"	Black Walunt (Juglans nigra)	Fair
69	4"	Black Walunt (Juglans nigra)	Good
70	8"	Buckthorn (Rhamnus cathartica)	Fair
71	4"	Black Walnut (Juglans nigra)	Poor
72	4"	Black Walunt (Juglans nigra)	Poor
73	8"	Clump Elm sp. (Ulmus sp.)	Poor
74	6"	Twin Green Ash (Fraxinus pennsylvanica)	½ dead
75	4"	Elm sp. (Ulmus sp.)	Fair
76	4"	Elm sp. (Ulmus sp.)	Fair
77	5"	Elm sp. (Ulmus sp.)	Fair
78	4"	Twin Boxelder (Acer negundo)	Poor
79	8"	Catalpa sp. (Catalpa sp.)	Good
80	8"	Buckthorn (Rhamnus cathartica)	Fair
81	16"	Hackberry (Celtis occidentalis)	Good
82	4"	Black Cheery (Prunus serotina)	Poor
83	4"	Black Cherry (Prunus serotina)	Poor
84	5"	Elm sp. (Ulums sp.)	Fair
85	5"	Buckthorn (Rhmanus cathartica)	Poor
86	5"	Buckthorn (Rhmanus cathartica)	Poor
87	5"	Buckthorn (Rhmanus cathartica)	Poor
88	2"	White Oak (Quercus alba)	Good
89	4"	Elm sp. (Ulmus sp.)	Fair
90	8"	Unknown	½ dead
91	5"	Elm sp. (Ulmus sp.)	Fair
92	6"	Buckthorn (Rhamnus cathartica)	Fair
93	6"	Boxelder (Acer negundo)	Fair
94	7"	Buckthorn (Rhamnus cathartica)	Fair
95	7"	Buckthorn (Rhamnus cathartica)	Fair
96	14"	Mulberry (Morus alba)	Fair
97	12"	Black Walnut (Juglans nigra)	Good
98	9"	Elm sp. (Ulmus sp.)	Fair
99	7"	Elm sp. (Ulmus sp.)	Fair
100	6"	Black Walnut (Juglans nigra)	Good
101	7"	Black Locust (Robinia psuedoacacia)	Good
102	7"	Black Locust (Robinia pseudoacacia)	Good
103	8"	Black Walnut (Juglans nigra)	Good
104	16"	Twin Elm sp. (Ulmus sp.)	Fair
105	10"	Black Cherry (Prunus serotina)	Fair

GENERAL NOTES:

1. Tree survey conducted on July 9 and 10, 2016.
2. Trees 4" or larger in size were flagged and identified with pink ribbon and corresponding tree number.
3. A number of trees, specifically 20-27, were not flagged though they were identified and noted from a distance. Steep terrain and/or aggressive patches of poison ivy made it impossible to flag these trees.
4. Entire frontage of subject property is heavily vegetated. Space in between trees 4" in size or larger, as noted on the survey, is filled with smaller trees, bushes, vines and forbs of smaller size.
5. Other smaller and dominant species found on site, though not identified on the survey, include; Elm, Black Walnut, Catalpa, Serviceberry, Buckthorn, honeysuckle. A short list of vines and forbs include goldenrod, Jacob's Ladder, Grapevine, Virginia Creeper, Poison Ivy.
6. The Catalpa trees found on site are not known to be Southern or Northern Catalpas. When young it is difficult to distinguish between the two. When in bloom it is easier to identify. Northern Catalpas grow much taller when mature, those found on site are young trees therefore it is unknown which variety is present.
7. Elm species found on site are not the American Elm variety. They are either Chinese or Siberian, more common as a volunteer species found on challenging terrain that exists on the subject property.
8. Much of the frontage between the property line and lower paved surface on the subject property is more of a drop off, not an embankment. This is the reason why there are very few trees identified closer to the paved surface. Having little ground to work with is another reason to consider preservation of the existing conditions.



TREE SURVEY FOR:

13769 MAIN STREET, MAIN STREET LEMONT LLC

DRAWN BY:	CGT
PROJECT NO.:	2014.062
DATE:	July 12, 2016

SHEET 1 OF 1

Attachment 5

9575 West Higgins Road, Suite 400 | Rosemont, Illinois 60018
p: 847-518-9990 | f: 847-518-9987

MEMORANDUM TO: Mark Antonio Scarlato
Fornaro Law

FROM : Javier Millan
Senior Consultant

Luay R. Aboona, PE
Principal

DATE: July 12, 2016

SUBJECT: Traffic Evaluation Summary
Proposed Truck Parking Facility
Lemont, Illinois

This memorandum summarizes the results of a traffic evaluation summary conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for a proposed truck parking facility to be located at 13769 Main Street in Lemont, Illinois. The site is located adjacent to the K-Five Construction Corporation and is partially occupied by quarry. The plans call for developing the site with a truck parking facility with 156 spaces. Access will be provided via the existing full ingress/egress access drive off Main Street serving the K-Five Construction Corporation

The purpose of this evaluation was to review existing traffic conditions, determine trip generation estimates and assess the access and parking needs of the proposed development.

Existing Conditions

Land uses in the vicinity of the site include vacant land to the north and west, various industrial uses to the east and the Cog Hill Golf Course to the south. The site is bordered to the south by Main Street which is an east-west road. In the vicinity of the site, Main Street provides one lane in each direction with a posted speed limit of 50 mph. No exclusive turn lanes are provided at its intersection with the K-Five Construction Corporation access drive/Parker Road or at its intersection with Walker Road. At its signalized intersection with IL 83/IL 171, Main Street provides an exclusive left-turn lane, a through lane and a combined through/right-turn lane. The westbound approach provides an exclusive left-turn lane, two through lanes and ane xcluisve right-turn lane.

IL 83/IL 171 (Archer Avenue) within the vicinity of the site is a north-south roadway that generally provides two lanes in each direction. At its signalized intersection with Main Street/Calumet Sag Road/111th Street, IL 83/IL 171 provides an exclusive left-turn lane, two through lanes and an exclusive right-turn lane on both approaches. IL 83/IL 171 is under the jurisdiction of the Illinois Department of Transportation (IDOT) and is designated as a Strategic Regional Arterial (SRA). IL 83/IL 171 carries an average daily traffic (ADT) volume of 29,400 vehicles (2015) north of Main Street and 22,000 vehicles (20153) south of Main Street. IL 83 has a full interchange with I-55 approximately 3.7 miles north of Main Street.

Existing Traffic Flow Observations

Traffic counts were conducted at the following intersections along Main Street:

- IL 83/IL 171
- K-Five Construction Corporation access drive/Parker Road
- Walker Road

The counts were conducted on Wednesday July 6, 2016 during the morning peak period (6:30 – 9:00 A.M.) and during the afternoon peak period (4:00 – 6:00 P.M.). Based on the traffic counts and the observations, all of the intersections appear to operate fairly efficiently with minimal queues observed at the intersections of Main Street with the K-Five Construction Corporation access drive/Parker Road and Walker Road.

Projected Trip Generation Estimates

Based on information provided to KLOA, Inc. by the operator, the following is a summary of the proposed facility characteristics.

- Hours of Operation: 7:00 AM to 8:00 PM
- Maximum number of employees: 50 employees
- Type of trucks allowed on site: All types except tanker trucks
- Weekday peak traffic generation: 10 to 15 trucks during business hours

In order to estimate the amount of traffic the proposed development would generate, data collected at an existing facility in Melrose Park, Illinois was referenced. The surveys were conducted from 6:00 AM to 9:00 AM and 3:00 PM to 6:00 PM over a three day period. The facility provides parking for approximately 253 parking spaces. **Table 1** summarizes the amount of traffic that will be generated during the weekday morning and evening peak periods. It is important to note that these estimates are conservative as they are based on a facility approximately 38 percent larger than what is being proposed.

Table 3
ESTIMATED DEVELOPMENT-GENERATED TRAFFIC VOLUMES

Time of Day	Low Peak Hour Trips		High Peak Hour Trips		Average Peak Hour Trips Per Day	
	Inbound	Outbound	Inbound	Outbound	Inbound	Outbound
Weekday Morning						
Passenger Vehicle	4	1	10	2	7	2
Heavy Vehicle	0	2	1	10	1	9
Total	**4**	**3**	**11**	**12**	**8**	**11**
Weekday Evening						
Passenger Vehicle	2	4	10	9	5	8
Heavy Vehicle	4	2	7	4	6	3
Total	**6**	**6**	**17**	**13**	**11**	**11**

As can be seen, the proposed development will not generate a significant amount of traffic and, as such, should not be detrimental to the traffic flow or operations in the area. It is anticipated that the great majority of the site generated traffic will be traveling to/from the north on IL 83 given the location of the main arterial (IL 83) and the proximity of the interchange with I-55. When compared to the daily traffic on Main Street, the additional traffic will result in an increase of less than two percent which is insignificant and will not be perceived by the drivers in the area.

Access

The proposed development will have direct access to Main Street via the existing full ingress/egress access drive on Main Street located approximately 100 feet west of Parker Road. Based on the small amount of traffic that could be generated by the proposed truck parking facility, the outbound movements from the K-Five Construction Corporation access drive should be under stop sign control.

Conclusion

In conclusion, based on the information provided to KLOA, Inc. and our preliminary field observations, the proposed truck parking facility traffic can be accommodated by the adjacent roadways for the following reasons:

- The amount of traffic that will be generated will be low when compared to the amount of traffic on Main Street.

- It is anticipated that the majority of the traffic will be traveling to and from the east on Main Street therefore having limited impact on the Lemont downtown area.

It is important to note that these findings are preliminary in nature and are subject to change upon completion of a more detailed traffic analyses.

9575 West Higgins Road, Suite 400 | Rosemont, Illinois 60018
p: 847-518-9990 | f: 847-518-9987

MEMORANDUM TO: Mark Antonio Scarlato
Fornaro Law

FROM: Javier Millan
Senior Consultant

Luay R. Aboona, PE
Principal

DATE: July 15, 20165

SUBJECT: Traffic Impact Study
Proposed Truck Parking Facility
Lemont, Illinois

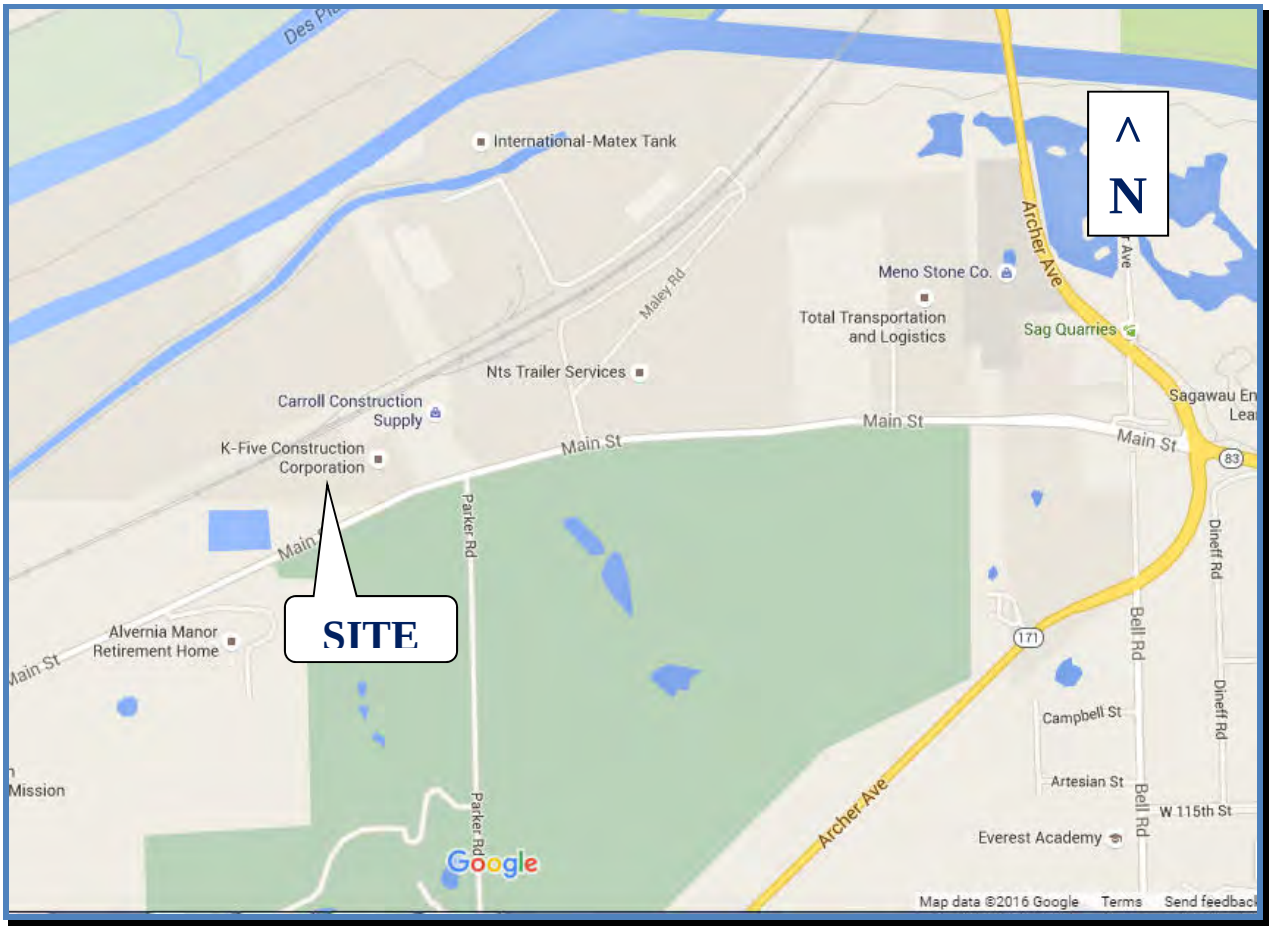
This report summarizes the methodologies, results and findings of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for a proposed truck parking facility to be located in Lemont, Illinois. The site is located on the north side of Main Street adjacent to the K-Five Construction Corporation and is partially occupied by quarry. The plans call for developing the site with a truck parking facility with 156 spaces. Access will be provided via the existing full ingress/egress access drive off Main Street serving the K-Five Construction Corporation.

The sections of this report present the following.

- Existing roadway conditions
- A description of the proposed facility
- Directional distribution of the facility traffic
- Vehicle trip generation for the facility
- Future traffic conditions including access to the facility
- Traffic analyses for the weekday morning and evening peak hours
- Recommendations with respect to adequacy of the site access system and adjacent roadway system

Figure 1 shows the location of the site in relation to the area roadway system. **Figure 2** shows an aerial view of the site area.

The purpose of this study was to examine background traffic conditions, assess the impact that the proposed truck parking facility will have on traffic conditions in the area and determine if any roadway or access improvements are necessary to accommodate traffic generated by the proposed development.



Site Location **Figure 1**

Aerial View of Proposed Facility **Figure 2**

Existing Conditions

Existing traffic and roadway conditions were documented based on field visits and traffic counts conducted by KLOA, Inc. The following provides a detailed description of the physical characteristics of the roadways including geometry and traffic control, adjacent land uses and peak hour traffic flows along area roadways.

Existing Roadway System Characteristics

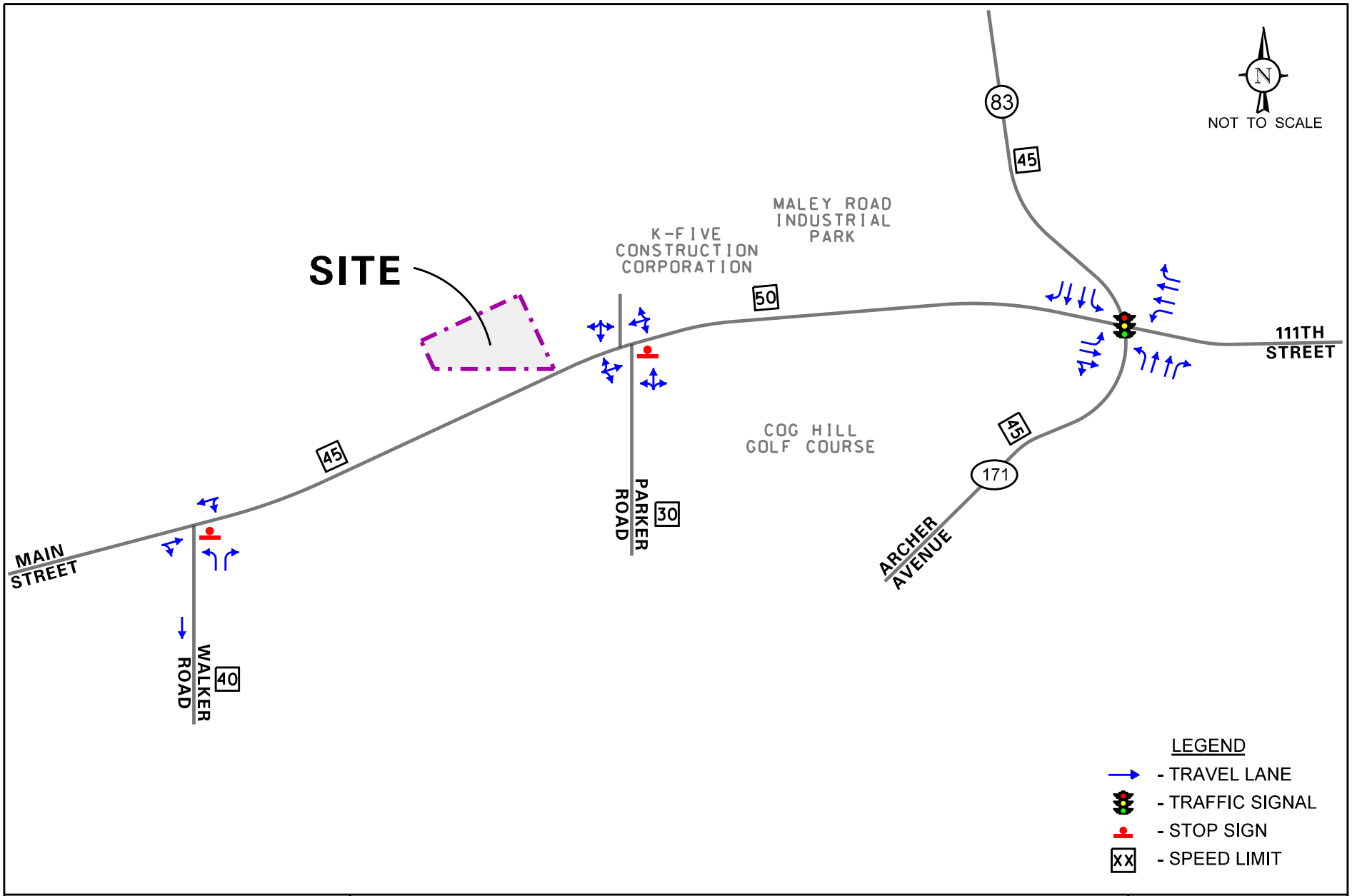
The characteristics of the existing roadways that surround the proposed development are illustrated in **Figure 3** and described below.

Main Street is an east-west minor arterial that in the vicinity of the site provides one lane in each direction. At its signalized intersection with IL 83/IL 171, Main Street widens to provide an exclusive left-turn lane, an exclusive through lane, and a shared through/right-turn lane on the west leg of the intersection. The east leg of this intersection is designated as IL 83 (Calumet Sag Road/111th Street) and provides an exclusive left-turn lane, two exclusive through lanes, and an exclusive right-turn lane on the westbound approach. Main Street is under the jurisdiction of the Illinois Department of Transportation (IDOT), carries an average daily traffic (ADT) of 7,800 vehicles and has a posted speed limit of 50 miles per hour.

IL 83/IL 171 (Archer Avenue) within the vicinity of the site is a north-south other principal arterial that generally provides two through lanes in each direction. At its signalized intersection with Main Street/IL 83 (Calumet Sag Road/111th Street), both approaches provide an exclusive left-turn lane, two through lanes and an exclusive right-turn lane. IL 83 and IL 171 are under IDOT's jurisdiction, are designated as Strategic Regional Arterials (SRA) and have a posted speed limit of 45 miles per hour. IL 83 carries an ADT of 29,400 vehicles north of Main Street while south of Main Street IL 171 carries an ADT of 22,000 vehicles.

Parker Road is a north-south two-lane private road that serves the Cog Hill Golf Course. The road extends from Main Street south to its terminus at Archer Avenue (IL 171). At its unsignalized intersection with Main Street, outbound movements are under stop sign control. Parker Road has a posted speed limit of 30 miles per hour.

Walker Road is a north-south two-lane local road that extends from Main Street south to its terminus at Roscommon Way. At its unsignalized "T" intersection with Main Street, Walker Road is widened to provide an exclusive left-turn lane and an exclusive right-turn lane. Walker Road has a posted speed limit of 40 miles per hour and is under the jurisdiction of the Village of Lemont.



PROJECT:	TITLE:	
Proposed Truck Parking Facility Lemont, Illinois	Existing Roadway Characteristics	KLOA Job No: 16-XXX Figure: 3

Existing Traffic Volumes

Manual turning movement traffic counts were conducted on Wednesday, July 6, 2016 during the weekday morning (6:30 to 9:00 A.M.) and evening (4:00 to 6:00 P.M.) peak periods at the following intersections with Main Street.

1. IL 83/IL 171
2. K-Five Construction Corporation access drive/Parker Road
3. Walker Road

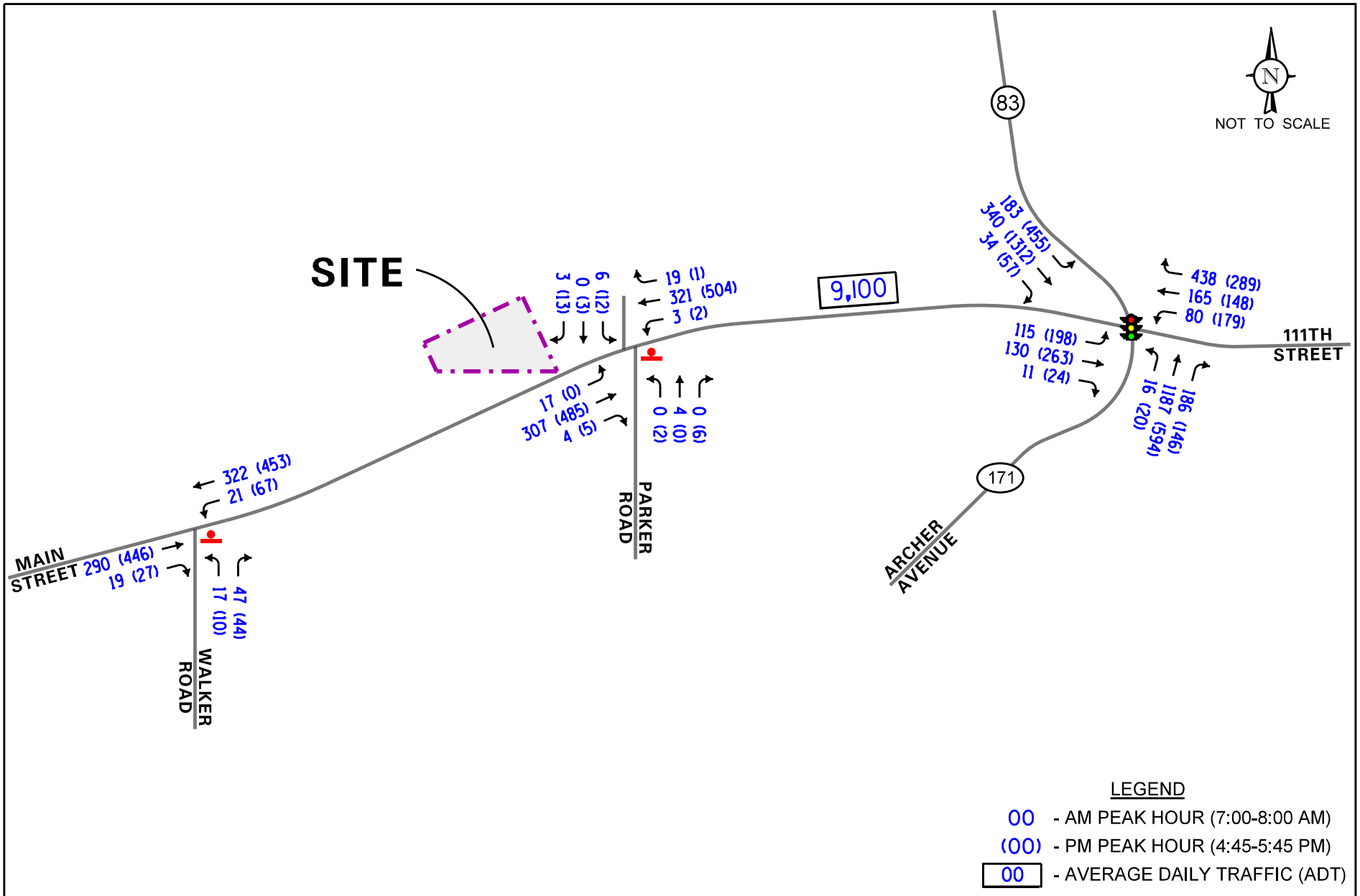
The counts differentiated between passenger vehicle and heavy vehicles (i.e. trucks). Based on the results of the traffic counts, it was determined that the morning peak hour of traffic occurs from 7:00 to 8:00 A.M. and the evening peak hour of traffic occurs from 4:45 to 5:45 P.M. These two respective peak hours will be used for the traffic capacity analyses which are presented later in this report. Pedestrian and bicycle activity was observed and was reported to be very low at the study intersections. The existing peak hour traffic volumes (inclusive of heavy vehicles) are shown in **Figure 4**. **Figure 5** shows the heavy vehicle traffic volumes.

Gap Study Results

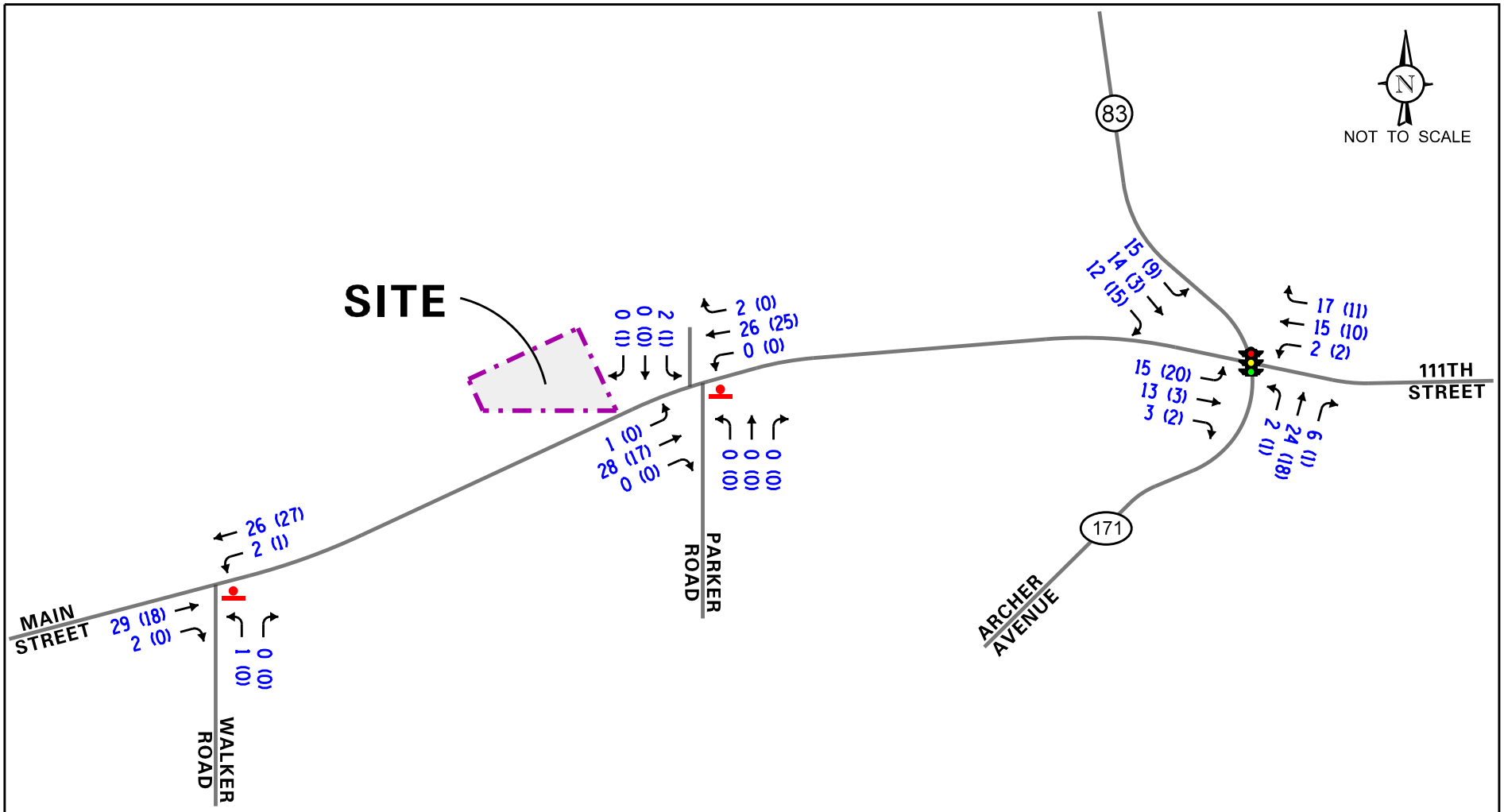
A gap study of the traffic on Main Street at the K-Five Construction Corporation access drive was conducted in order to determine the availability of gaps or interruptions in the through traffic stream. The gap study was conducted on the same day and during the same time periods as the traffic counts. The study examined gaps in the westbound direction along Main Street, which would allow site traffic to turn left into the site and right out of the site, as well as in both the eastbound and westbound directions that would allow site traffic to turn left out of the site. The results of the gap study for the peak hours of traffic are summarized in **Table 3**. As can be seen, the results indicate that numerous gaps are available in the traffic stream to accommodate turning movements.

Table 3
GAP STUDY RESULTS

Time Periods	Number of Potential Movements Based on Gaps Available		
	Eastbound Left-Turn In	Southbound Left-Turn Out	Southbound Right-Turn Out
7:00 - 8:00 A.M.	320	270	320
4:45 – 5:45 P.M.	530	232	530



PROJECT:	TITLE:	
Proposed Truck Parking Facility Lemont, Illinois	Existing Traffic Volumes (Inclusive of Trucks)	KLOA Job No: 16-XXX Figure: 4



LEGEND

00 - AM PEAK HOUR (7:00-8:00 AM)

(00) - PM PEAK HOUR (4:45-5:45 PM)

PROJECT:	TITLE:	
Proposed Truck Parking Facility Lemont, Illinois	Heavy Vehicle Traffic Volumes	KLOA Job No: 16-XXX
		Figure: 5

Traffic Characteristics of the Proposed Development

To evaluate the impact of the subject development on the area roadway system, it was necessary to quantify the number of vehicle trips the overall site will generate during the weekday morning and weekday evening peak hours and then determine the directions from which this traffic will approach and depart the site.

Proposed Development Plan

The site is currently occupied by a quarry. As proposed, the site will be redeveloped with a truck parking facility with 156 parking spaces. The facility will be open from 7:00 A.M. to 8:00 P.M. and will offer parking to heavy vehicles that are part of a company's fleet. The drivers of the trucks typically arrive in their passenger vehicles and leave in their heavy vehicle to provide delivery and transport services. Access will only be provided via the existing full ingress/egress access drives on Main Street serving the K-Five Construction Corporation. The access drive provides one inbound lane and one outbound lane. Based on information provided to KLOA, Inc. the maximum number of employees at any given time will be 50 and no tanker trucks will be allowed to park on the site.

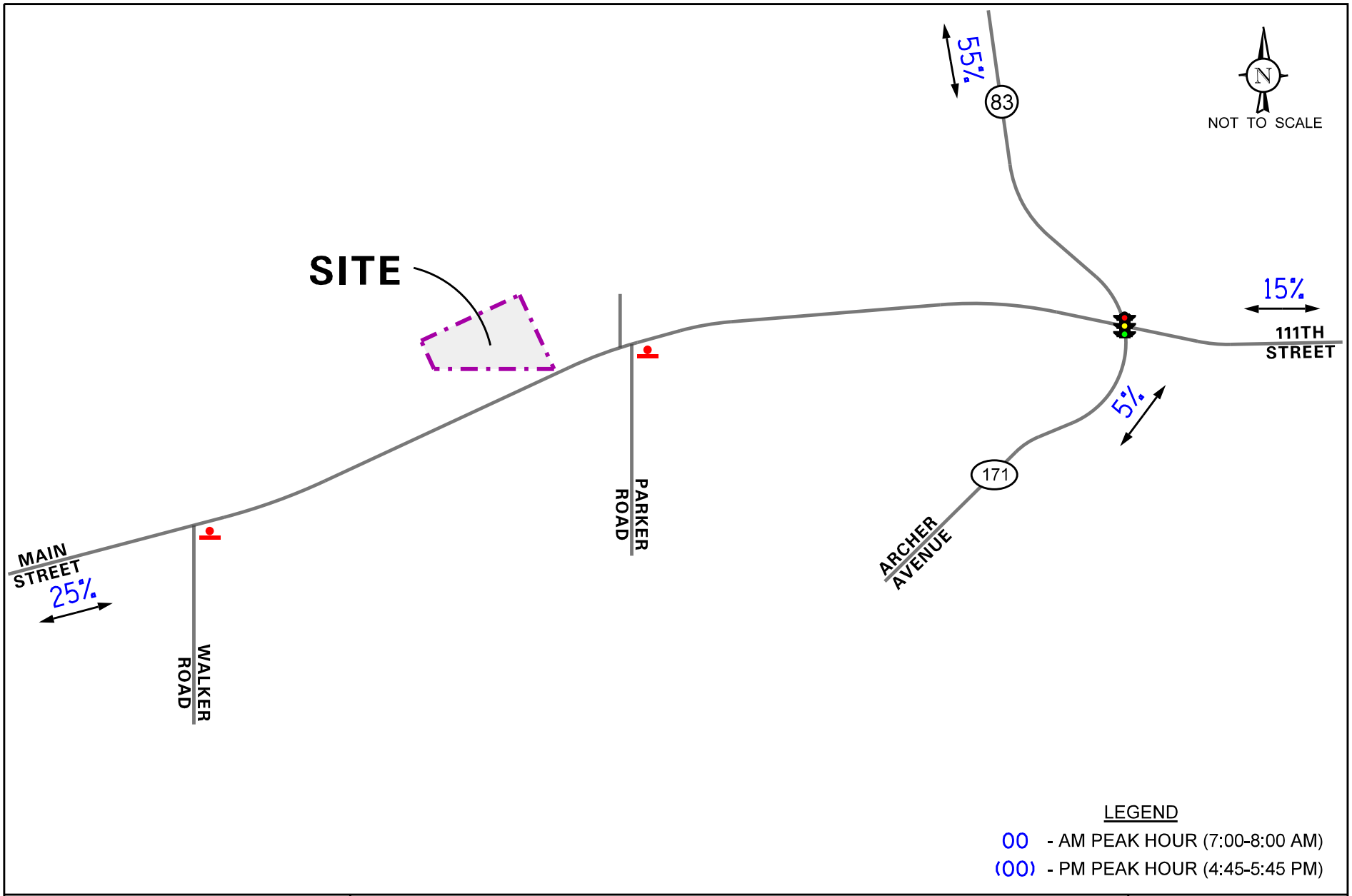
Directional Distribution of Site Traffic

The directional distribution of how traffic will approach and depart the development was based on the existing travel patterns and the existing roadway characteristics and traffic controls surrounding the site. It should be noted that given the type of land use proposed and the location of the three closest interchanges with I-55 north of the site (IL 83 and Cass Avenue) the higher speed limits and roadway geometry, it is anticipated that the great majority of the site traffic will travel to and from the north on IL 83. The estimated directional distribution for the site is illustrated in **Figure 6**.

Site Traffic Generation

The volume of traffic generated by the proposed truck parking facility was based on vehicle trip generation surveys conducted at an existing similar facility located at 71 West Lake Street in Melrose Park, Illinois. The surveys were conducted over a three-day period in June 2015 from 6:00 A.M. to 9:00 A.M. and 3:00 P.M. to 6:00 P.M.

This facility provides 253 truck parking spaces with 24 hour gated access to the parking facility. It should be noted that as part of the surveys, daily trips were collected. Based on the three day survey, the facility generated approximately 366 daily trips (214 passenger cars, eight single-unit trucks and 144 multi-unit trucks). A summary of the results of the surveys is shown in **Table 3.**



PROJECT:	TITLE:	
Proposed Truck Parking Facility Lemont, Illinois	Estimated Directional Distribution	KLOA Job No: 16-XXX 6

Table 3
ESTIMATED DEVELOPMENT-GENERATED TRAFFIC VOLUMES

Time of Day	Low Peak Hour Trips		High Peak Hour Trips		Average Peak Hour Trips Per Day	
	Inbound	Outbound	Inbound	Outbound	Inbound	Outbound
Weekday Morning						
Passenger Vehicle	4	1	10	2	7	2
Heavy Vehicle	0	2	1	10	1	9
Total	**4**	**3**	**11**	**12**	**8**	**11**
Weekday Evening						
Passenger Vehicle	2	4	10	9	5	8
Heavy Vehicle	4	2	7	4	6	3
Total	**6**	**6**	**17**	**13**	**11**	**11**

Based on a review of Table 3, this translates into an average trip generation rate of 0.08 trips per parking space during the weekday morning peak hour and a trip generation rate of 0.09 trips per parking space during the weekday evening peak hour. In order to provide a conservative analysis, the high peak hour trips for the weekday morning and evening peak hour were utilized. The use of the high peak hour trips is conservative as it was the maximum observed trips at the similar facility over the three days and the similar facility provides 38 percent more parking spaces than the proposed facility.

Site Traffic Assignment

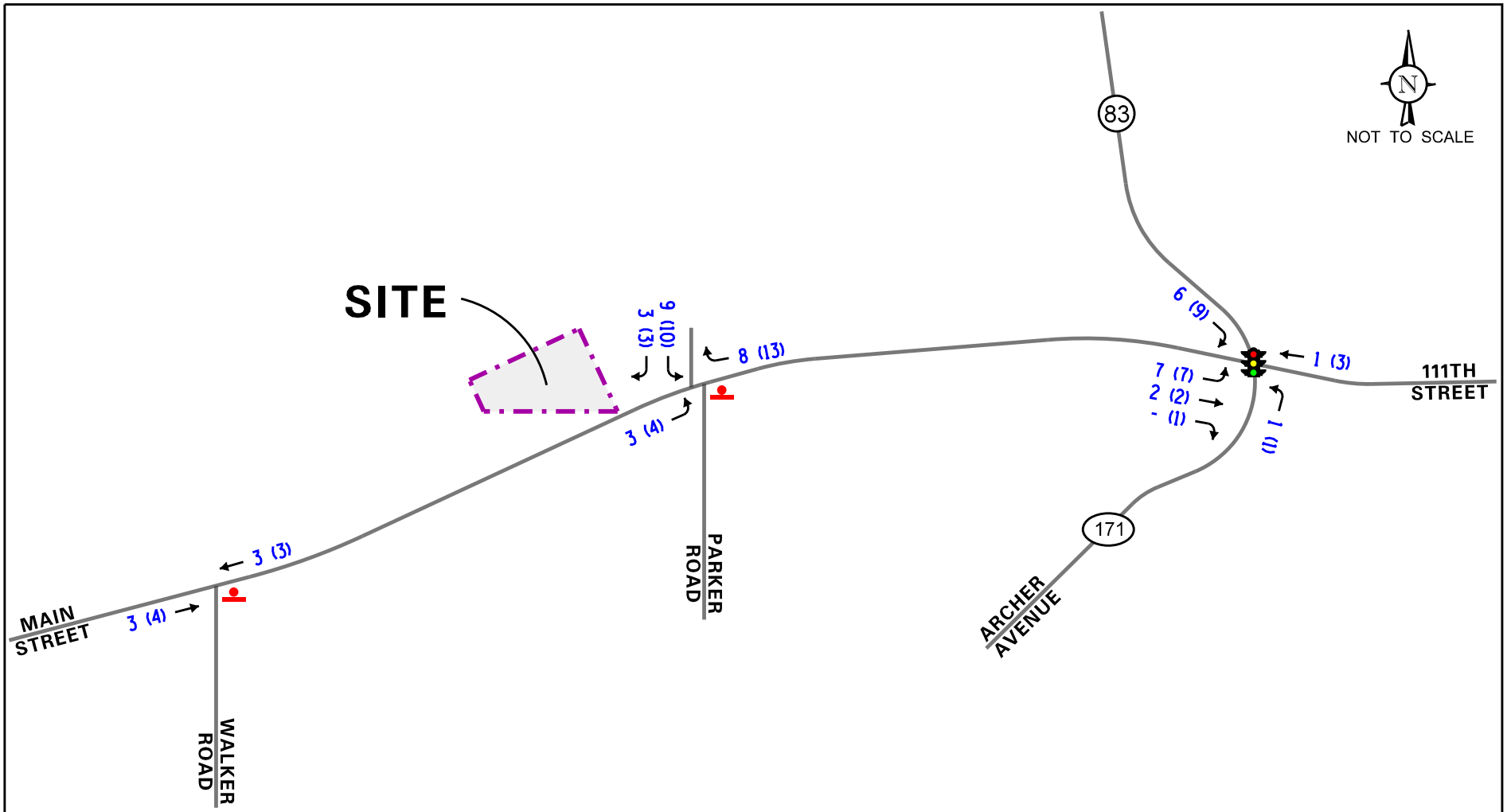
The peak hour traffic volumes projected to be generated by the proposed development (refer to Table 3) were assigned to the area roadways based on the directional distribution analysis (Figure 6) and the proposed access roadways and are shown in **Figure 7.**

Regional Traffic Growth

To account for the increase in existing traffic related to regional growth in the area (i.e. not attributable to any particular planned development) and based on the Chicago Metropolitan Agency for Planning (CMAP) *2040 Forecast of Population, Households and Employment*, the existing traffic volumes (Figure 4) were increased by a regional growth factor of 1.3 percent per year for six year (eight percent total) to project Year 2022. In addition to this growth, the traffic to be generated by the proposed Estates of Montefiori residential development were added to the background traffic volumes. **Figure 8** shows the Year 20222 Background traffic volumes.

Total Projected Traffic Conditions

Figure 9 shows the projected traffic volumes for Year 2022 conditions, which includes the existing traffic volumes increased by the regional growth factor and the traffic to be generated by the Estates of Montefiori (Figure 8) and the estimated site traffic (Figure 7).

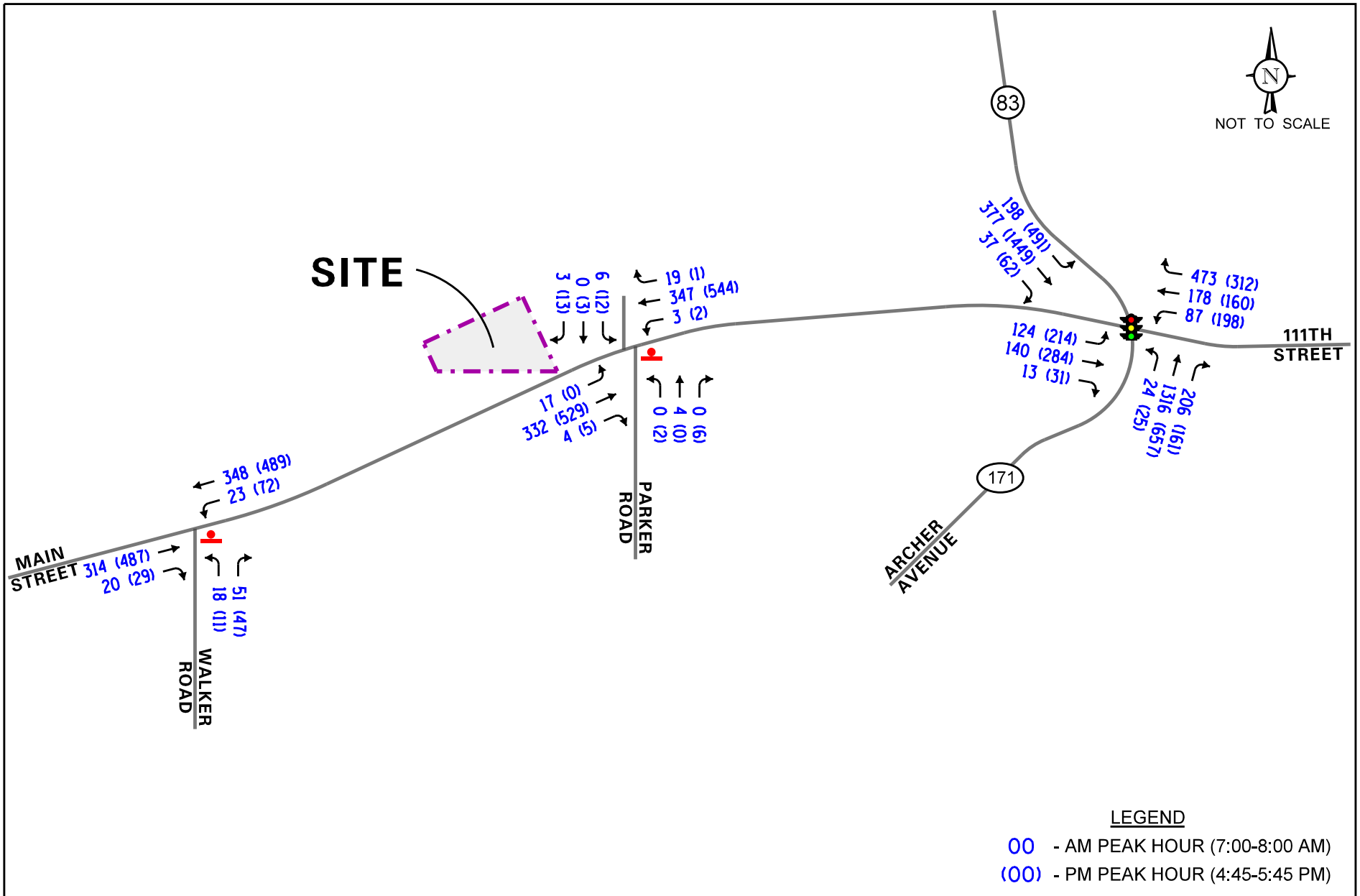


LEGEND

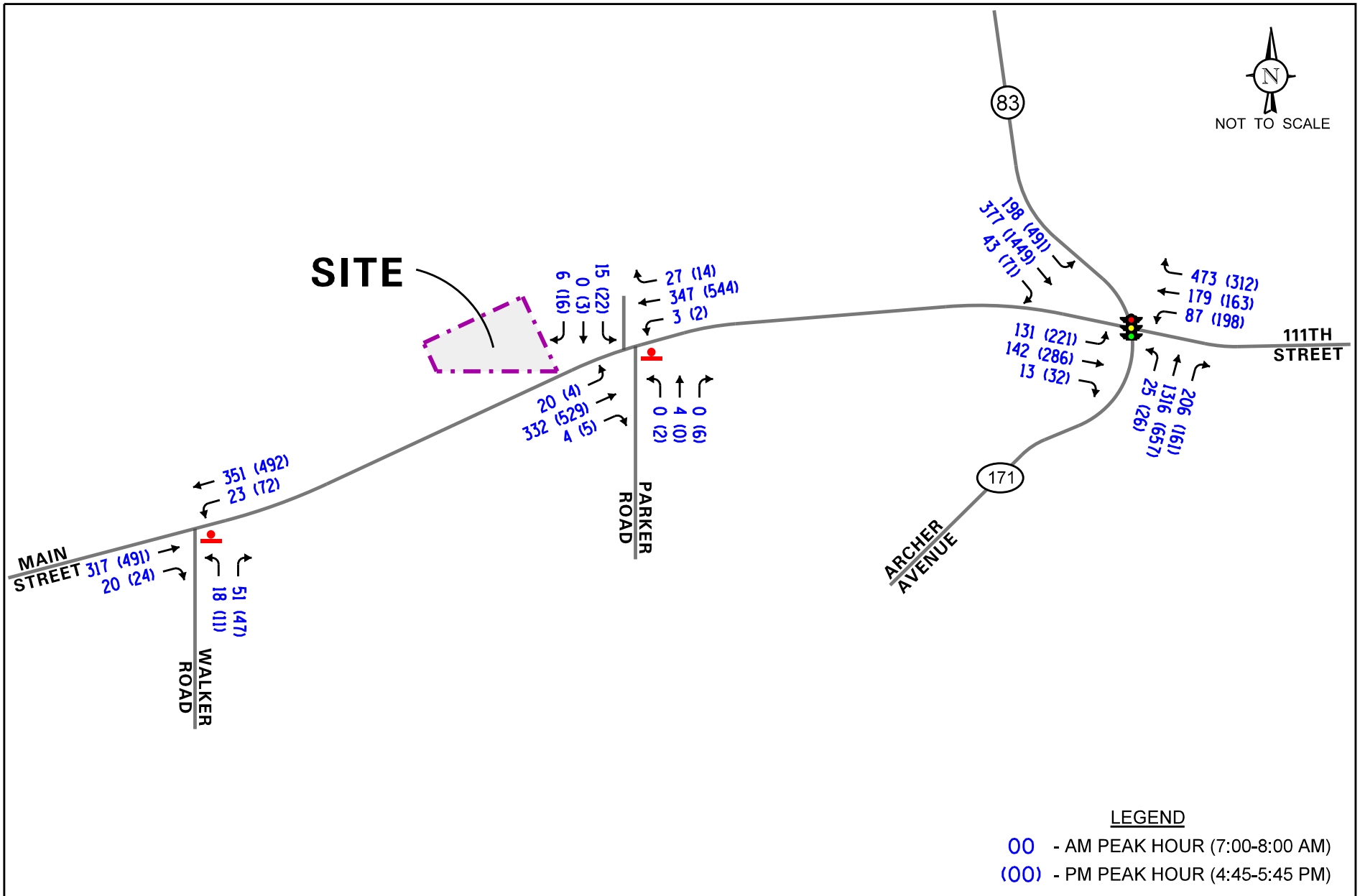
00 - AM PEAK HOUR (7:00-8:00 AM)

(00) - PM PEAK HOUR (4:45-5:45 PM)

PROJECT:	TITLE:	
Proposed Truck Parking Facility Lemont, Illinois	Estimated Site Traffic Assignment	KLOA Job No: 16-XXX Figure: 7



PROJECT:	TITLE:	
Proposed Truck Parking Facility Lemont, Illinois	Year 2022 Background Traffic Volumes	KLOA Job No: 16-XXX
		Figure: 8



PROJECT:	TITLE:	
Proposed Truck Parking Facility Lemont, Illinois	Year 2022 Total Projected Traffic Volumes	KLOA Job No: 16-XXX
		Figure: 9

Traffic Evaluation

The following provides an evaluation conducted for the weekday morning and weekday evening peak hour periods. The analysis includes conducting capacity analyses to provide an indication of how well the roadway facilities serve the anticipated traffic demands placed upon them for Year 2022 conditions.

Traffic Analyses

Roadway and adjacent or nearby intersection analyses were performed for the weekday morning and weekday evening peak hour periods for the existing (Year 2016) and future projected (Year 2022) conditions.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM), 2010* and analyzed using the Synchro/Sim Traffic 8 software.

The analysis for the traffic-signal controlled intersections were accomplished using field measured cycle lengths and phasings to determine the average overall vehicle delay and levels of service.

The analyses for the unsignalized intersections determine the average control delay to vehicles at an intersection. Control delay is the elapsed time from a vehicle joining the queue at a stop sign (includes the time required to decelerate to a stop) until its departure from the stop sign and resumption of free flow speed. The methodology analyzes each intersection approach controlled by a stop sign and considers traffic volumes on all approaches and lane characteristics.

The ability of an intersection to accommodate traffic flow is expressed in terms of level of service, which is assigned a letter from A to F based on the average control delay experienced by vehicles passing through the intersection. The *Highway Capacity Manual* definitions for levels of service and the corresponding control delay for signalized intersections and unsignalized intersections are included in the Appendix of this report.

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for all analyzed conditions (Year 2016 and Year 2022) are presented in **Tables 4** and **5**, respectively. A discussion of the intersections follows.

Table 4
CAPACITY ANALYSES RESULTS—EXISTING CONDITIONS YEAR 2016

Intersection	Weekday A.M. Peak Hour LOS	Weekday A.M. Peak Hour Delay	Weekday P.M. Peak Hour LOS	Weekday P.M. Peak Hour Delay
IL 83/IL 171 with Main Street[1]				
• Overall	C	34.4	C	33.1
• Northbound Approach	D	35.6	C	32.0
• Southbound Approach	C	28.8	C	29.3
• Eastbound Approach	C	31.9	D	43.2
• Westbound Approach	D	37.6	D	37.7
Main Street with Parker Rd/Access Dr[2]				
• Eastbound left/through/right	A	8.1	A	8.4
• Westbound left/through/right	A	7.9	A	8.4
• Northbound left/through/right	C	15.5	B	14.6
• Southbound left/through/right	B	15.0	C	19.1
Main Street with Walker Road[2]				
• Westbound left/through	A	8.1	A	8.6
• Northbound Left	B	14.6	C	22.2
• Northbound Right	B	10.3	B	11.6

LOS = Level of Service
Delay is measured in seconds.
1-signalized intersection
2-unsignalized intersection

Table 5
CAPACITY ANALYSES RESULTS—FUTURE CONDITIONS YEAR 2022

Intersection	Weekday A.M. Peak Hour LOS	Weekday A.M. Peak Hour Delay	Weekday P.M. Peak Hour LOS	Weekday P.M. Peak Hour Delay
IL 83/IL 171 with Main Street[1]				
• Overall	D	54.5	D	38.6
• Northbound Approach	E	76.2	D	40.0
• Southbound Approach	D	36.1	D	38.6
• Eastbound Approach	C	29.9	D	41.1
• Westbound Approach	C	34.1	D	35.0
Main Street with Parker Rd/Access Dr[2]				
• Eastbound left/through/right	A	8.2	A	8.6
• Westbound left/through/right	A	8.0	A	8.5
• Northbound left/through/right	C	16.6	C	15.8
• Southbound left/through/right	B	17.0	C	24.3
Main Street with Walker Road[2]				
• Westbound left/through	A	8.2	A	8.8
• Northbound Left	C	15.6	D	25.1
• Northbound Right	B	10.5	B	12.2

LOS = Level of Service
Delay is measured in seconds.
1-signalized intersection
2-unsignalized intersection

Discussion and Recommendations

The following summarizes how the intersections are projected to operate and identifies any roadway and traffic control improvements to accommodate the development traffic.

IL 83/IL 171 with Main Street

The results of the capacity analysis indicate that overall this intersection currently operates at Level of Service (LOS) C during the morning and evening peak hours. Under Year 2022 future traffic conditions the intersection is projected to operate at an overall acceptable LOS D during both peak hours. It is important to note that during the morning peak hour under future conditions, the northbound approach will operate at a LOS E. This is mainly due to the anticipated background growth and not due to the site generated traffic volumes as they contribute less than one percent to this approach. All of the other approaches will operate at an acceptable LOS. As such, the site-generated traffic will not have a significant impact on the operations of this intersection and roadway improvements or signal modifications will not be necessary.

Main Street with Parker Road/Access Drive

The results of the capacity analysis indicate that all of the approaches at this intersection are currently operating at an acceptable LOS during the morning and evening peak hours. Assuming future conditions, all of the approaches are projected to continue operating at an acceptable LOS with increases in the delay of five seconds or less. Based on a review of the projected traffic volumes and the IDOT's guidelines for auxiliary turn lanes found in the Bureau of Design Engineering (BDE) Manual, an exclusive left-turn lane or an exclusive right-turn lane on Main Street at its intersection with Parker Road/Access Drive will not be necessary. Therefore, the site generated traffic will have a minimal impact on the operations of this intersection and roadway improvements will not be necessary.

Main Street with Walker Road

The results of the capacity analysis indicate that all of the approaches at this intersection are currently operating at an acceptable LOS during the morning and evening peak hours. Assuming future conditions, all of the approaches are projected to continue operating at an acceptable LOS with increases in the delay of three seconds or less. As such, the site generated traffic will have a minimal impact on the operations of this intersection and roadway or traffic control improvements will not be necessary.

Gap Study Evaluation

Table 6 shows the number of available gaps compared to the number of required gaps that are needed to accommodate the projected development traffic turning into and out of this proposed access roadway.

Table 6
REQUIRED GAPS AT PROPOSED FULL ACCESS

	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
Time Periods	Available Gaps	Required Gaps	Available Gaps	Required Gaps
Left Turns In	320	20	530	4
Right Turns Out	320	6	530	16
Left Turns Out	270	15	232	22

As shown in Table 6, there are sufficient gaps in traffic to accommodate the southbound left-turns in, the westbound right-turns out and the westbound left-turns out for both the weekday morning and weekday evening peak hours of adjacent roadway traffic. This indicates that the access drive will operate adequately and will provide efficient access to the development.

Conclusion

Based on the proposed development plans and the preceding traffic impact study, the following is concluded:

- The proposed development will generate a minimal amount of traffic.

- Based on the results of the capacity analyses, all of the studied intersections are and will continue operating at acceptable levels of service.

- No exclusive turn lanes will be necessary on Main Street at its intersection with Parker Road/Access Drive.

- Adequate gaps are provided in the traffic stream along Main Street to allow for efficient inbound and outbound movements at the access drive.

Technical Appendix

LEVEL OF SERVICE CRITERIA

Signalized Intersections

Level of Service	Interpretation	Average Control Delay (seconds per vehicle)
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤10
B	Good progression, with more vehicles stopping than for Level of Service A.	>10 - 20
C	Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear. Number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	>20 - 35
D	The volume-to-capacity ratio is high and either progression is ineffective or the cycle length is too long. Many vehicles stop and individual cycle failures are noticeable.	>35 - 55
E	Progression is unfavorable. The volume-to-capacity ratio is high and the cycle length is long. Individual cycle failures are frequent.	>55 - 80
F	The volume-to-capacity ratio is very high, progression is very poor and the cycle length is long. Most cycles fail to clear the queue.	>80.0

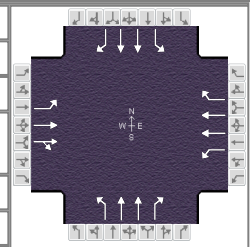
Unsignalized Intersections

Level of Service	Average Total Delay (SEC/VEH)
A	0 - 10
B	> 10 - 15
C	> 15 - 25
D	> 25 - 35
E	> 35 - 50
F	> 50

Source: *Highway Capacity Manual*, 2010.

HCS 2010 Signalized Intersection Input Data

General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	JM	Analysis Date	Jul 14, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	AM Existing Peak Hour	PHF	0.95
Urban Street	IL 171	Analysis Year	2016	Analysis Period	1> 7:00
Intersection	IL 171 with Main Street	File Name	IL 171 and Main AMEX.xus		
Project Description	AM Existing Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	115	130	11	80	165	438	16	1187	186	183	340	34

Signal Information			
Cycle, s	150.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

	EB			WB			NB			SB		
Green	3.0	6.0		59.8	6.9	2.8	49.0					
Yellow	3.5	3.5		4.0	3.5	0.0	4.0					
Red	0.0	0.0		2.0	0.0	0.0	2.0					

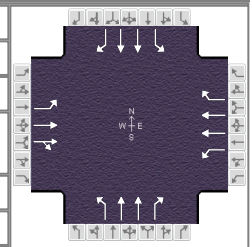
Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	115	130	11	80	165	438	16	1187	186	183	340	34
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	2000	1900	1900	2000	1900	1900	2000	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	13	10		2	9	4	12	2	3	8	4	3
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	4	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	175	0		230	0	320	215	0	210	280	0	275
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	50	50	50	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	92.0	53.0	66.0	27.0	7.0	21.0	10.0	24.0
Yellow Change Interval (*Y*), s	3.5	4.0	3.5	4.0	3.5	4.0	3.5	4.0
Red Clearance Interval (R_c), s	0.0	2.0	0.0	2.0	0.0	2.0	0.0	2.0
Minimum Green (G_{min}), s	3	8	3	8	3	15	3	15
Start-Up Lost Time (*lt*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	3.0	4.0	3.0	4.0	3.0	7.0	3.0	7.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

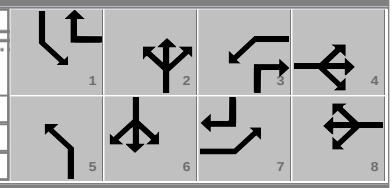
HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	JM	Analysis Date	Jul 14, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	AM Existing Peak Hour	PHF	0.95
Urban Street	IL 171	Analysis Year	2016	Analysis Period	1> 7:00
Intersection	IL 171 with Main Street	File Name	IL 171 and Main AMEX.xus		
Project Description	AM Existing Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	115	130	11	80	165	438	16	1187	186	183	340	34

Signal Information			
Cycle, s	150.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.0	6.0	59.8	6.9	2.8	49.0
Yellow	3.5	3.5	4.0	3.5	0.0	4.0
Red	0.0	0.0	2.0	0.0	0.0	2.0

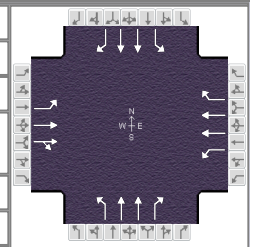
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	1.1	4.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	13.2	57.8	10.4	55.0	6.5	65.8	16.0	75.2
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	3.9	6.4	4.0	6.4	4.0	0.0	4.0	0.0
Queue Clearance Time (g_s), s	9.4	6.5	6.7	39.5	2.9		11.8	
Green Extension Time (g_e), s	0.4	9.7	0.3	9.5	0.0	0.0	0.6	0.0
Phase Call Probability	1.00	1.00	1.00	1.00	1.00		1.00	
Max Out Probability	0.00	0.00	0.00	0.00	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	121	75	74	84	174	461	17	1249	196	193	358	36
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1601	1727	1680	1774	1747	1548	1616	1867	1563	1675	1831	1563
Queue Service Time (g_s), s	7.4	4.4	4.5	4.7	5.3	37.5	0.9	42.5	11.9	9.8	8.7	1.7
Cycle Queue Clearance Time (g_c), s	7.4	4.4	4.5	4.7	5.3	37.5	0.9	42.5	11.9	9.8	8.7	1.7
Green Ratio (*g/C*)	0.40	0.35	0.35	0.37	0.33	0.41	0.42	0.40	0.44	0.49	0.46	0.53
Capacity (*c*), veh/h	469	597	580	503	1142	635	442	1488	695	235	1690	823
Volume-to-Capacity Ratio (*X*)	0.258	0.125	0.127	0.168	0.152	0.726	0.038	0.840	0.282	0.818	0.212	0.043
Back of Queue (*Q*), ft/ln (95 th percentile)	139.5	90	82.7	100	109.3	509.7	17.6	670.6	202	210.5	184.9	27.6
Back of Queue (*Q*), veh/ln (95 th percentile)	5.1	3.3	3.3	3.6	4.0	20.4	0.6	24.8	8.1	7.6	6.8	1.1
Queue Storage Ratio (*RQ*) (95 th percentile)	0.80	0.00	0.00	0.40	0.00	1.64	0.08	0.00	0.98	0.72	0.00	0.10
Uniform Delay (d_1), s/veh	29.3	33.6	33.6	31.0	35.8	37.2	25.6	31.1	26.4	32.2	24.1	17.2
Incremental Delay (d_2), s/veh	0.3	0.1	0.1	0.2	0.1	2.3	0.0	5.9	1.0	6.9	0.3	0.1
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	29.6	33.7	33.8	31.1	35.9	39.5	25.7	37.0	27.4	39.0	24.4	17.3
Level of Service (LOS)	C	C	C	C	D	D	C	D	C	D	C	B
Approach Delay, s/veh / LOS	31.9	C		37.6	D		35.6	D		28.8	C	
Intersection Delay, s/veh / LOS	34.4						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	3.0	C	3.0	C	3.0	C	2.8	C
Bicycle LOS Score / LOS	0.7	A	1.1	A	1.7	A	1.0	A

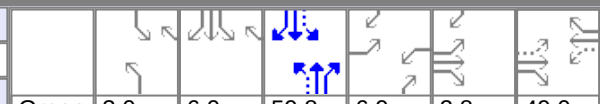
HCS 2010 Signalized Intersection Intermediate Values

General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	JM	Analysis Date	Jul 14, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	AM Existing Peak Hour	PHF	0.95
Urban Street	IL 171	Analysis Year	2016	Analysis Period	1> 7:00
Intersection	IL 171 with Main Street	File Name	IL 171 and Main AMEX.xus		
Project Description	AM Existing Peak Hour				

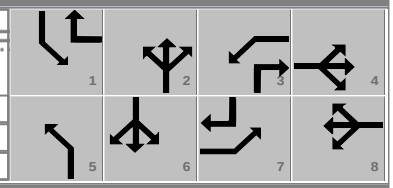


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	115	130	11	80	165	438	16	1187	186	183	340	34

Signal Information			
Cycle, s	150.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.0	6.0	59.8	6.9	2.8	49.0						
Yellow	3.5	3.5	4.0	3.5	0.0	4.0						
Red	0.0	0.0	2.0	0.0	0.0	2.0						



	EB			WB			NB			SB		
Saturation Flow / Delay	L	T	R	L	T	R	L	T	R	L	T	R
Lane Width Adjustment Factor (f_w)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicle Adjustment Factor (f_{HV})	0.885	0.909	1.000	0.980	0.917	0.962	0.893	0.980	0.971	0.926	0.962	0.971
Approach Grade Adjustment Factor (f_g)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Parking Activity Adjustment Factor (f_p)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Bus Blockage Adjustment Factor (f_{bb})	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Area Type Adjustment Factor (f_a)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Lane Utilization Adjustment Factor (f_{LU})	1.000	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000	1.000	0.952	1.000
Left-Turn Adjustment Factor (f_{LT})	0.952	0.000		0.952	0.000		0.952	0.000		0.952	0.000	
Right-Turn Adjustment Factor (f_{RT})		0.973			0.000			0.000			0.000	
Left-Turn Pedestrian Adjustment Factor (f_{Lpb})	1.000			1.000			1.000			1.000		
Right-Turn Ped-Bike Adjustment Factor (f_{Rpb})			1.000			1.000			1.000			1.000
Movement Saturation Flow Rate (s), veh/h	1601	3144		1774	3494		1616	3733		1675	3662	
Proportion of Vehicles Arriving on Green (P)	0.06	0.35	0.35	0.05	0.33	0.33	0.02	0.53	0.40	0.08	0.46	0.46
Incremental Delay Factor (k)	0.11	0.15	0.15	0.11	0.15	0.15	0.11	0.50	0.50	0.11	0.50	0.50

Signal Timing / Movement Groups	EBL	EBT/R	WBL	WBT/R	NBL	NBT/R	SBL	SBT/R
Lost Time (t_L)	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Green Ratio (g/C)	0.40	0.35	0.37	0.33	0.42	0.40	0.49	0.46
Permitted Saturation Flow Rate (s_p), veh/h/ln	1089	0	1234	0	928	0	418	0
Shared Saturation Flow Rate (s_{sh}), veh/h/ln								
Permitted Effective Green Time (g_p), s	50.3	0.0	49.0	0.0	59.8	0.0	61.8	0.0
Permitted Service Time (g_u), s	43.7	0.0	45.3	0.0	58.5	0.0	17.3	0.0
Permitted Queue Service Time (g_{ps}), s	0.8		0.3		0.0		17.3	
Time to First Blockage (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Service Time Before Blockage (g_{fs}), s								
Protected Right Saturation Flow (s_R), veh/h/ln				1548		1563		1563
Protected Right Effective Green Time (g_R), s				12.5		6.9		9.7

Multimodal	EB		WB		NB		SB	
Pedestrian F_w / F_v	2.224	0.00	2.224	0.00	2.224	0.00	2.107	0.00
Pedestrian F_s / F_{delay}	0.000	0.139	0.000	0.141	0.000	0.132	0.000	0.123
Pedestrian M_{corner} / M_{cw}								
Bicycle c_b / d_b	690.87	32.13	653.67	33.99	796.90	27.14	923.17	21.74
Bicycle F_w / F_v	-3.64	0.22	-3.64	0.59	-3.64	1.21	-3.64	0.48

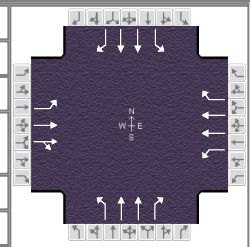
--- Messages ---

WARNING: Since queue spillover from turn lanes and spillback into upstream intersections is not accounted for in the HCM procedures, use of a simulation tool may be advised in situations where the Queue Storage Ratio exceeds 1.0.

--- Comments ---

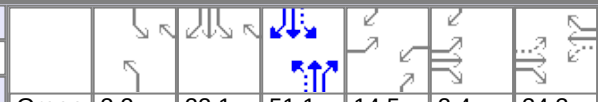
HCS 2010 Signalized Intersection Input Data

General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	JM	Analysis Date	Jul 14, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	PM Existing Peak Hour	PHF	0.95
Urban Street	IL 171	Analysis Year	2016	Analysis Period	1> 7:00
Intersection	IL 171 with Main Street	File Name	IL 171 and Main PMEX.xus		
Project Description	PM Existing Peak Hour				

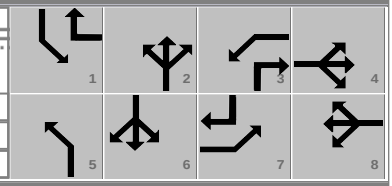


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	198	263	24	179	148	289	20	594	146	455	1312	57

Signal Information			
Cycle, s	150.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.2	22.1	51.1	14.5	2.4	34.3
Yellow	3.5	3.5	4.0	3.5	0.0	4.0
Red	0.0	0.0	2.0	0.0	0.0	2.0



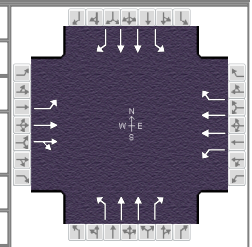
Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	198	263	24	179	148	289	20	594	146	455	1312	57
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	2000	1900	1900	2000	1900	1900	2000	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	10	1		1	7	4	1	3	1	2	1	26
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	4	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	175	0		230	0	320	215	0	210	280	0	275
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	50	50	50	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	92.0	53.0	66.0	27.0	7.0	21.0	10.0	24.0
Yellow Change Interval (*Y*), s	3.5	4.0	3.5	4.0	3.5	4.0	3.5	4.0
Red Clearance Interval (R_c), s	0.0	2.0	0.0	2.0	0.0	2.0	0.0	2.0
Minimum Green (G_{min}), s	3	8	3	8	3	15	3	15
Start-Up Lost Time (*lt*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	3.0	4.0	3.0	4.0	3.0	7.0	3.0	7.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS 2010 Signalized Intersection Results Summary

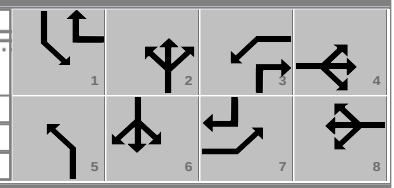
General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	JM	Analysis Date	Jul 14, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	PM Existing Peak Hour	PHF	0.95
Urban Street	IL 171	Analysis Year	2016	Analysis Period	1> 7:00
Intersection	IL 171 with Main Street	File Name	IL 171 and Main PMEX.xus		
Project Description	PM Existing Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	198	263	24	179	148	289	20	594	146	455	1312	57

Signal Information			
Cycle, s	150.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	3.2	22.1	51.1	14.5	2.4	34.3
Yellow	3.5	3.5	4.0	3.5	0.0	4.0
Red	0.0	0.0	2.0	0.0	0.0	2.0



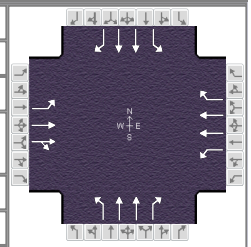
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	1.1	4.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	20.3	42.7	18.0	40.3	6.7	57.1	32.3	82.7
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	3.9	7.0	4.0	7.0	4.0	0.0	4.0	0.0
Queue Clearance Time (g_s), s	16.2	12.1	13.9	23.3	3.1		27.2	
Green Extension Time (g_e), s	0.7	11.0	0.6	10.9	0.0	0.0	1.8	0.0
Phase Call Probability	1.00	1.00	1.00	1.00	1.00		1.00	
Max Out Probability	0.00	0.00	0.00	0.00	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	208	152	150	188	156	304	21	625	154	479	1381	60
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1645	1881	1826	1792	1779	1548	1792	1849	1594	1774	1885	1278
Queue Service Time (g_s), s	14.2	10.0	10.1	11.9	5.3	21.3	1.1	17.9	9.0	25.2	42.4	2.8
Cycle Queue Clearance Time (g_c), s	14.2	10.0	10.1	11.9	5.3	21.3	1.1	17.9	9.0	25.2	42.4	2.8
Green Ratio (*g/C*)	0.35	0.24	0.24	0.33	0.23	0.42	0.36	0.34	0.44	0.55	0.51	0.62
Capacity (*c*), veh/h	456	461	448	401	817	651	169	1260	697	569	1925	796
Volume-to-Capacity Ratio (*X*)	0.457	0.330	0.335	0.470	0.191	0.467	0.125	0.496	0.221	0.842	0.717	0.075
Back of Queue (*Q*), ft/ln (95 th percentile)	258.6	206.5	202.9	243.2	106.3	313.6	24.5	302.1	158.6	431	657.8	36.3
Back of Queue (*Q*), veh/ln (95 th percentile)	9.6	8.2	8.1	9.0	4.2	12.5	0.9	12.0	6.3	16.0	26.1	1.5
Queue Storage Ratio (*RQ*) (95 th percentile)	1.48	0.00	0.00	0.99	0.00	1.01	0.11	0.00	0.76	1.45	0.00	0.16
Uniform Delay (d_1), s/veh	36.7	46.5	46.5	38.5	46.6	31.3	32.2	31.8	26.3	24.2	28.3	11.2
Incremental Delay (d_2), s/veh	0.7	0.6	0.6	0.9	0.2	0.7	0.3	1.4	0.7	3.5	2.3	0.2
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	37.4	47.1	47.2	39.3	46.7	32.1	32.6	33.2	27.0	27.7	30.7	11.4
Level of Service (LOS)	D	D	D	D	D	C	C	C	C	C	C	B
Approach Delay, s/veh / LOS	43.2	D		37.7	D		32.0	C		29.3	C	
Intersection Delay, s/veh / LOS	33.1						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	3.0	C	3.0	C	3.0	C	2.8	C
Bicycle LOS Score / LOS	0.9	A	1.0	A	1.1	A	2.1	B

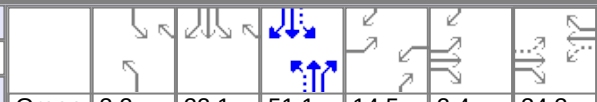
HCS 2010 Signalized Intersection Intermediate Values

General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	JM	Analysis Date	Jul 14, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	PM Existing Peak Hour	PHF	0.95
Urban Street	IL 171	Analysis Year	2016	Analysis Period	1> 7:00
Intersection	IL 171 with Main Street	File Name	IL 171 and Main PMEX.xus		
Project Description	PM Existing Peak Hour				

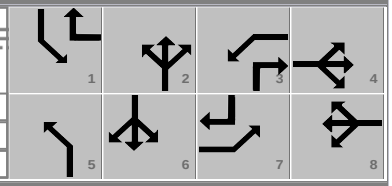


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	198	263	24	179	148	289	20	594	146	455	1312	57

Signal Information			
Cycle, s	150.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	1	2	3	4	5	6	7	8
Green	3.2	22.1	51.1	14.5	2.4	34.3		
Yellow	3.5	3.5	4.0	3.5	0.0	4.0		
Red	0.0	0.0	2.0	0.0	0.0	2.0		



	EB			WB			NB			SB		
Saturation Flow / Delay	L	T	R	L	T	R	L	T	R	L	T	R
Lane Width Adjustment Factor (f_w)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicle Adjustment Factor (f_{HV})	0.909	0.990	1.000	0.990	0.935	0.962	0.990	0.971	0.990	0.980	0.990	0.794
Approach Grade Adjustment Factor (f_g)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Parking Activity Adjustment Factor (f_p)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Bus Blockage Adjustment Factor (f_{bb})	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Area Type Adjustment Factor (f_a)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Lane Utilization Adjustment Factor (f_{LU})	1.000	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000	1.000	0.952	1.000
Left-Turn Adjustment Factor (f_{LT})	0.952	0.000		0.952	0.000		0.952	0.000		0.952	0.000	
Right-Turn Adjustment Factor (f_{RT})		0.971			0.000			0.000			0.000	
Left-Turn Pedestrian Adjustment Factor (f_{Lpb})	1.000			1.000			1.000			1.000		
Right-Turn Ped-Bike Adjustment Factor (f_{Rpb})			1.000			1.000			1.000			1.000
Movement Saturation Flow Rate (s), veh/h	1645	3399		1792	3559		1792	3697		1774	3770	
Proportion of Vehicles Arriving on Green (P)	0.11	0.25	0.25	0.10	0.23	0.23	0.02	0.45	0.34	0.19	0.51	0.51
Incremental Delay Factor (k)	0.11	0.15	0.15	0.11	0.15	0.15	0.11	0.50	0.50	0.11	0.50	0.50

Signal Timing / Movement Groups	EBL	EBT/R	WBL	WBT/R	NBL	NBT/R	SBL	SBT/R
Lost Time (t_L)	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Green Ratio (g/C)	0.35	0.24	0.33	0.23	0.36	0.34	0.55	0.51
Permitted Saturation Flow Rate (s_p), veh/h/ln	1137	0	1083	0	395	0	797	0
Shared Saturation Flow Rate (s_{sh}), veh/h/ln								
Permitted Effective Green Time (g_p), s	35.3	0.0	34.4	0.0	51.1	0.0	53.1	0.0
Permitted Service Time (g_u), s	29.5	0.0	25.0	0.0	31.6	0.0	34.3	0.0
Permitted Queue Service Time (g_{ps}), s	1.3		2.0		1.1		28.4	
Time to First Blockage (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Service Time Before Blockage (g_{fs}), s								
Protected Right Saturation Flow (s_R), veh/h/ln				1548		1594		1278
Protected Right Effective Green Time (g_R), s				28.6		14.4		16.8
Multimodal	EB		WB		NB		SB	
Pedestrian F_w / F_v	2.224	0.00	2.224	0.00	2.224	0.00	2.107	0.00
Pedestrian F_s / F_{delay}	0.000	0.151	0.000	0.152	0.000	0.140	0.000	0.116
Pedestrian M_{corner} / M_{cw}								
Bicycle c_b / d_b	488.69	42.83	457.07	44.64	680.80	32.63	1022.67	17.91
Bicycle F_w / F_v	-3.64	0.42	-3.64	0.53	-3.64	0.66	-3.64	1.58

--- Messages ---

WARNING: Since queue spillover from turn lanes and spillback into upstream intersections is not accounted for in the HCM procedures, use of a simulation tool may be advised in situations where the Queue Storage Ratio exceeds 1.0.

--- Comments ---

HCS 2010 Two-Way Stop Control Summary Report

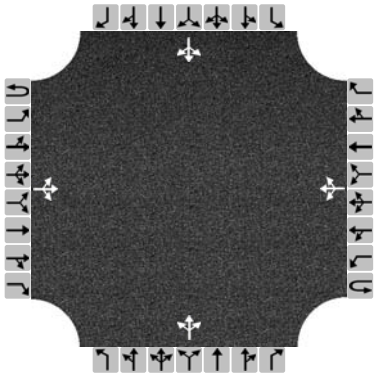
General Information

Analyst	JM
Agency/Co.	KLOA, Inc.
Date Performed	7/14/2016
Analysis Year	2016
Time Analyzed	A.M. Peak Existing
Intersection Orientation	East-West
Project Description	Truck Parking Facility

Site Information

Intersection	Maion St/Parker/Acces Dr
Jurisdiction	IDOT
East/West Street	Main Street
North/South Street	Parke/Access Dr
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		17	307	4		3	321	19		0	4	0		6	0	3
Percent Heavy Vehicles		6				0				0	0	0		33	0	0
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		18				3					4				9	
Capacity		1181				1244					346				370	
v/c Ratio		0.02				0.00					0.01				0.02	
95% Queue Length		0.0				0.0					0.0				0.1	
Control Delay (s/veh)		8.1				7.9					15.5				15.0	
Level of Service (LOS)		A				A					C				B	
Approach Delay (s/veh)	0.6				0.1				15.5				15.0			
Approach LOS									C				B			

HCS 2010 Two-Way Stop Control Summary Report

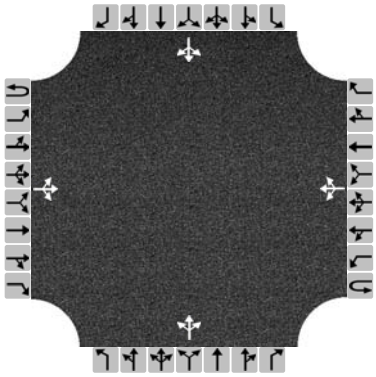
General Information

Analyst	JM
Agency/Co.	KLOA, Inc.
Date Performed	7/14/2016
Analysis Year	2016
Time Analyzed	P.M. Peak Existing
Intersection Orientation	East-West
Project Description	Truck Parking Facility

Site Information

Intersection	Maion St/Parker/Acces Dr
Jurisdiction	IDOT
East/West Street	Main Street
North/South Street	Parke/Access Dr
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		0	485	5		2	504	1		2	0	6		12	3	13
Percent Heavy Vehicles		0				0				0	0	0		8	0	8
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)						2					8				30	
Capacity		1046				1060					385				285	
v/c Ratio						0.00					0.02				0.11	
95% Queue Length						0.0					0.1				0.3	
Control Delay (s/veh)		8.4				8.4					14.6				19.1	
Level of Service (LOS)		A				A					B				C	
Approach Delay (s/veh)					0.1				14.6				19.1			
Approach LOS									B				C			

HCS 2010 Two-Way Stop Control Summary Report

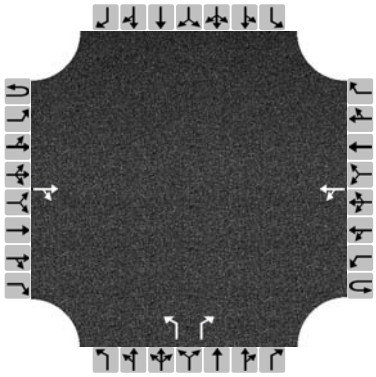
General Information

Analyst	JM
Agency/Co.	KLOA, Inc.
Date Performed	7/14/2016
Analysis Year	2016
Time Analyzed	A.M. Peak Hour
Intersection Orientation	East-West
Project Description	Truck Parking Facility

Site Information

Intersection	Main St/Walker Rd
Jurisdiction	IDOT
East/West Street	Main Street
North/South Street	Walker Road
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		1	0	1		0	0	0
Configuration				TR		LT				L		R				
Volume (veh/h)			290	19		21	322			17		47				
Percent Heavy Vehicles						10				6		0				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)						361				18		49				
Capacity						1191				394		730				
v/c Ratio						0.30				0.05		0.07				
95% Queue Length						0.1				0.1		0.2				
Control Delay (s/veh)						8.1				14.6		10.3				
Level of Service (LOS)						A				B		B				
Approach Delay (s/veh)					0.7				11.4							
Approach LOS									B							

HCS 2010 Two-Way Stop Control Summary Report

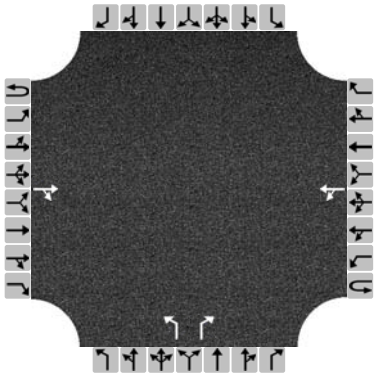
General Information

Analyst	JM
Agency/Co.	KLOA, Inc.
Date Performed	7/14/2016
Analysis Year	2016
Time Analyzed	P.M. Peak Hour
Intersection Orientation	East-West
Project Description	Truck Parking Facility

Site Information

Intersection	Main St/Walker Rd
Jurisdiction	IDOT
East/West Street	Main Street
North/South Street	Walker Road
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

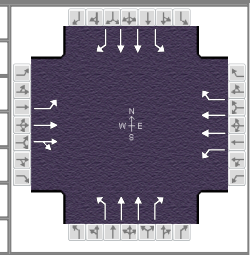
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		1	0	1		0	0	0
Configuration				TR		LT				L		R				
Volume (veh/h)			446	27		67	453			10		44				
Percent Heavy Vehicles						1				0		0				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)						548				11		46				
Capacity						1072				221		588				
v/c Ratio						0.51				0.05		0.08				
95% Queue Length						0.2				0.2		0.3				
Control Delay (s/veh)						8.6				22.2		11.6				
Level of Service (LOS)						A				C		B				
Approach Delay (s/veh)					1.8				13.7							
Approach LOS									B							

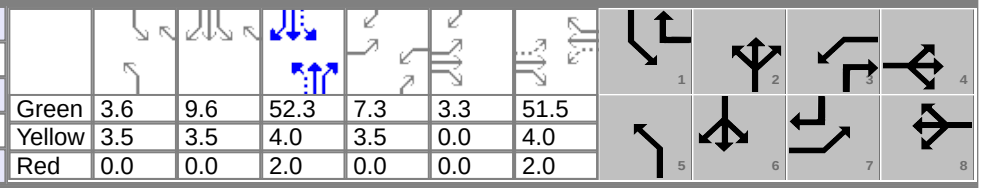
HCS 2010 Signalized Intersection Input Data

General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	JM	Analysis Date	Jul 14, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	AM Peak Hour	PHF	0.95
Urban Street	IL 171	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	IL 171 with Main Street	File Name	IL 171 and Main AMTO.xus		
Project Description	2022 AM Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	131	142	13	87	179	473	25	1316	206	198	377	43

Signal Information			
Cycle, s	150.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.6	9.6		52.3	7.3	3.3	51.5					
Yellow	3.5	3.5		4.0	3.5	0.0	4.0					
Red	0.0	0.0		2.0	0.0	0.0	2.0					

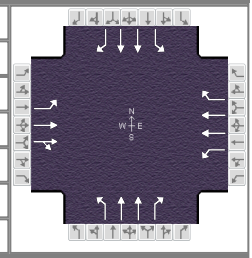
Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	131	142	13	87	179	473	25	1316	206	198	377	43
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	2000	1900	1900	2000	1900	1900	2000	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	13	10		2	9	4	12	2	3	8	4	3
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	4	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	175	0		230	0	320	215	0	210	280	0	275
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	50	50	50	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	92.0	53.0	66.0	27.0	7.0	21.0	10.0	24.0
Yellow Change Interval (*Y*), s	3.5	4.0	3.5	4.0	3.5	4.0	3.5	4.0
Red Clearance Interval (R_c), s	0.0	2.0	0.0	2.0	0.0	2.0	0.0	2.0
Minimum Green (G_{min}), s	3	8	3	8	3	15	3	15
Start-Up Lost Time (*lt*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	3.0	4.0	3.0	4.0	3.0	7.0	3.0	7.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS 2010 Signalized Intersection Results Summary

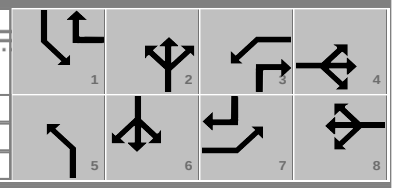
General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	JM	Analysis Date	Jul 14, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	AM Peak Hour	PHF	0.95
Urban Street	IL 171	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	IL 171 with Main Street	File Name	IL 171 and Main AMTO.xus		
Project Description	2022 AM Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	131	142	13	87	179	473	25	1316	206	198	377	43

Signal Information			
Cycle, s	150.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	3.6	9.6	52.3	7.3	3.3	51.5	
Yellow	3.5	3.5	4.0	3.5	0.0	4.0	
Red	0.0	0.0	2.0	0.0	0.0	2.0	



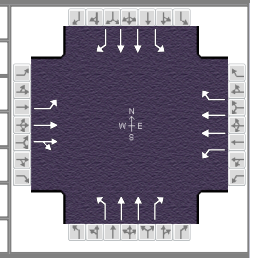
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	1.1	4.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	14.1	60.8	10.8	57.5	7.1	58.3	20.2	71.4
Change Period, (*Y+R c*), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	3.9	6.4	4.0	6.4	4.0	0.0	4.0	0.0
Queue Clearance Time (*g s*), s	10.1	6.8	7.0	40.8	3.6		16.0	
Green Extension Time (*g e*), s	0.4	10.9	0.3	10.6	0.1	0.0	0.7	0.0
Phase Call Probability	1.00	1.00	1.00	1.00	1.00		1.00	
Max Out Probability	0.00	0.00	0.00	0.01	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	138	82	81	92	188	498	26	1385	217	208	397	45
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1601	1727	1676	1774	1747	1548	1616	1867	1563	1675	1831	1563
Queue Service Time (*g s*), s	8.1	4.7	4.8	5.0	5.6	38.8	1.6	52.3	14.6	14.0	10.3	2.2
Cycle Queue Clearance Time (*g c*), s	8.1	4.7	4.8	5.0	5.6	38.8	1.6	52.3	14.6	14.0	10.3	2.2
Green Ratio (*g/C*)	0.43	0.37	0.37	0.39	0.34	0.45	0.37	0.35	0.40	0.47	0.44	0.51
Capacity (*c*), veh/h	489	631	612	523	1199	703	399	1302	621	234	1596	791
Volume-to-Capacity Ratio (*X*)	0.282	0.130	0.133	0.175	0.157	0.708	0.066	1.064	0.349	0.891	0.249	0.057
Back of Queue (*Q*), ft/ln (95 th percentile)	153	95.8	88.1	105.5	115.9	516.9	30.3	1074.7	240.2	363	216.4	37
Back of Queue (*Q*), veh/ln (95 th percentile)	5.5	3.5	3.5	3.8	4.3	20.7	1.1	39.8	9.6	13.2	8.0	1.5
Queue Storage Ratio (*RQ*) (95 th percentile)	0.87	0.00	0.00	0.42	0.00	1.67	0.14	0.00	1.17	1.25	0.00	0.14
Uniform Delay (*d 1*), s/veh	27.3	31.7	31.8	29.3	34.2	32.9	30.0	40.1	31.6	45.7	26.8	18.8
Incremental Delay (*d 2*), s/veh	0.3	0.1	0.1	0.2	0.1	1.9	0.1	43.7	1.5	11.0	0.4	0.1
Initial Queue Delay (*d 3*), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	27.6	31.9	31.9	29.5	34.3	34.8	30.0	83.8	33.2	56.7	27.2	19.0
Level of Service (LOS)	C	C	C	C	C	C	C	F	C	E	C	B
Approach Delay, s/veh / LOS	29.9	C		34.1	C		76.2	E		36.1	D	
Intersection Delay, s/veh / LOS	54.5						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	3.0	C	3.0	C	3.0	C	2.8	C
Bicycle LOS Score / LOS	0.7	A	1.1	A	1.8	A	1.0	A

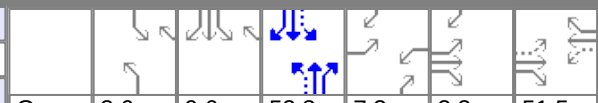
HCS 2010 Signalized Intersection Intermediate Values

General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	JM	Analysis Date	Jul 14, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	AM Peak Hour	PHF	0.95
Urban Street	IL 171	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	IL 171 with Main Street	File Name	IL 171 and Main AMTO.xus		
Project Description	2022 AM Peak Hour				

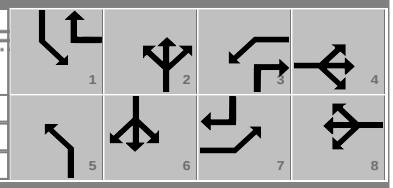


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	131	142	13	87	179	473	25	1316	206	198	377	43

Signal Information			
Cycle, s	150.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.6	9.6		52.3	7.3	3.3	51.5					
Yellow	3.5	3.5		4.0	3.5	0.0	4.0					
Red	0.0	0.0		2.0	0.0	0.0	2.0					



	EB			WB			NB			SB		
Saturation Flow / Delay	L	T	R	L	T	R	L	T	R	L	T	R
Lane Width Adjustment Factor (f_w)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicle Adjustment Factor (f_{HV})	0.885	0.909	1.000	0.980	0.917	0.962	0.893	0.980	0.971	0.926	0.962	0.971
Approach Grade Adjustment Factor (f_g)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Parking Activity Adjustment Factor (f_p)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Bus Blockage Adjustment Factor (f_{bb})	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Area Type Adjustment Factor (f_a)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Lane Utilization Adjustment Factor (f_{LU})	1.000	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000	1.000	0.952	1.000
Left-Turn Adjustment Factor (f_{LT})	0.952	0.000		0.952	0.000		0.952	0.000		0.952	0.000	
Right-Turn Adjustment Factor (f_{RT})		0.971			0.000			0.000			0.000	
Left-Turn Pedestrian Adjustment Factor (f_{Lpb})	1.000			1.000			1.000			1.000		
Right-Turn Ped-Bike Adjustment Factor (f_{Rpb})			1.000			1.000			1.000			1.000
Movement Saturation Flow Rate (s), veh/h	1601	3121		1774	3494		1616	3733		1675	3662	
Proportion of Vehicles Arriving on Green (P)	0.07	0.37	0.37	0.05	0.34	0.34	0.02	0.47	0.35	0.11	0.44	0.44
Incremental Delay Factor (k)	0.11	0.15	0.15	0.11	0.15	0.15	0.11	0.50	0.50	0.11	0.50	0.50

Signal Timing / Movement Groups	EBL	EBT/R	WBL	WBT/R	NBL	NBT/R	SBL	SBT/R
Lost Time (t_L)	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Green Ratio (g/C)	0.43	0.37	0.39	0.34	0.37	0.35	0.47	0.44
Permitted Saturation Flow Rate (s_p), veh/h/ln	1074	0	1218	0	896	0	367	0
Shared Saturation Flow Rate (s_{sh}), veh/h/ln								
Permitted Effective Green Time (g_p), s	53.3	0.0	51.5	0.0	52.3	0.0	54.3	0.0
Permitted Service Time (g_u), s	45.9	0.0	48.0	0.0	52.4	0.0	0.0	0.0
Permitted Queue Service Time (g_{ps}), s	1.1		0.3		0.0		0.0	
Time to First Blockage (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Service Time Before Blockage (g_{fs}), s								
Protected Right Saturation Flow (s_R), veh/h/ln				1548		1563		1563
Protected Right Effective Green Time (g_R), s				16.6		7.2		10.5

Multimodal	EB		WB		NB		SB	
Pedestrian F_w / F_v	2.224	0.00	2.224	0.00	2.224	0.00	2.107	0.00
Pedestrian F_s / F_{delay}	0.000	0.137	0.000	0.139	0.000	0.139	0.000	0.127
Pedestrian M_{corner} / M_{cw}								
Bicycle c_b / d_b	730.03	30.24	686.02	32.37	697.64	31.80	871.75	23.87
Bicycle F_w / F_v	-3.64	0.25	-3.64	0.64	-3.64	1.34	-3.64	0.54

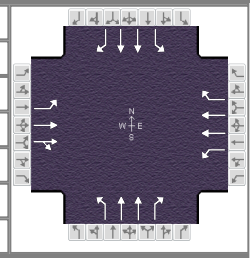
--- Messages ---

WARNING: Since queue spillover from turn lanes and spillback into upstream intersections is not accounted for in the HCM procedures, use of a simulation tool may be advised in situations where the Queue Storage Ratio exceeds 1.0.

--- Comments ---

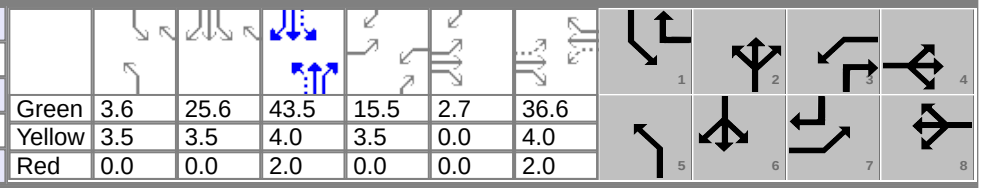
HCS 2010 Signalized Intersection Input Data

General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	JM	Analysis Date	Jul 14, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	PM Peak Hour	PHF	0.95
Urban Street	IL 171	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	IL 171 with Main Street	File Name	IL 171 and Main PMTO.xus		
Project Description	2022 PM Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	221	286	32	198	163	312	26	657	161	491	1449	71

Signal Information			
Cycle, s	150.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.6	25.6	43.5	15.5	2.7	36.6
Yellow	3.5	3.5	4.0	3.5	0.0	4.0
Red	0.0	0.0	2.0	0.0	0.0	2.0

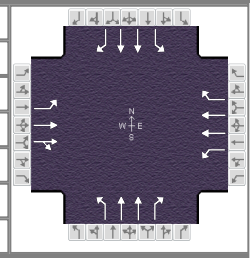
Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	221	286	32	198	163	312	26	657	161	491	1449	71
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	2000	1900	1900	2000	1900	1900	2000	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	10	1		1	7	4	1	3	1	2	1	26
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	4	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	175	0		230	0	320	215	0	210	280	0	275
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	50	50	50	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	92.0	53.0	66.0	27.0	7.0	21.0	10.0	24.0
Yellow Change Interval (*Y*), s	3.5	4.0	3.5	4.0	3.5	4.0	3.5	4.0
Red Clearance Interval (R_c), s	0.0	2.0	0.0	2.0	0.0	2.0	0.0	2.0
Minimum Green (G_{min}), s	3	8	3	8	3	15	3	15
Start-Up Lost Time (*lt*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	3.0	4.0	3.0	4.0	3.0	7.0	3.0	7.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

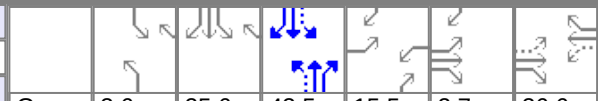
HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	JM	Analysis Date	Jul 14, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	PM Peak Hour	PHF	0.95
Urban Street	IL 171	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	IL 171 with Main Street	File Name	IL 171 and Main PMTO.xus		
Project Description	2022 PM Peak Hour				

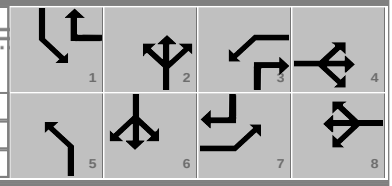


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	221	286	32	198	163	312	26	657	161	491	1449	71

Signal Information			
Cycle, s	150.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.6	25.6	43.5	15.5	2.7	36.6
Yellow	3.5	3.5	4.0	3.5	0.0	4.0
Red	0.0	0.0	2.0	0.0	0.0	2.0



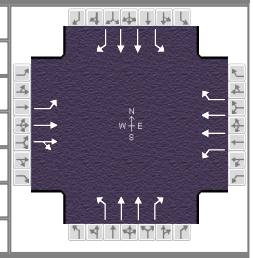
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	1.1	4.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	21.6	45.3	19.0	42.6	7.1	49.5	36.2	78.6
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	3.9	7.0	4.0	7.0	4.0	0.0	4.0	0.0
Queue Clearance Time (g_s), s	17.4	13.1	14.8	23.8	3.6		31.6	
Green Extension Time (g_e), s	0.8	12.5	0.7	12.4	0.1	0.0	1.9	0.0
Phase Call Probability	1.00	1.00	1.00	1.00	1.00		1.00	
Max Out Probability	0.00	0.00	0.00	0.01	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	233	169	166	208	172	328	27	692	169	517	1525	75
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1645	1881	1815	1792	1779	1548	1792	1849	1594	1774	1885	1278
Queue Service Time (g_s), s	15.4	10.9	11.1	12.8	5.7	21.8	1.6	22.8	10.8	29.6	52.8	3.7
Cycle Queue Clearance Time (g_c), s	15.4	10.9	11.1	12.8	5.7	21.8	1.6	22.8	10.8	29.6	52.8	3.7
Green Ratio (*g/C*)	0.38	0.26	0.26	0.35	0.24	0.46	0.32	0.29	0.39	0.52	0.48	0.60
Capacity (*c*), veh/h	483	497	480	422	877	711	129	1085	632	544	1818	770
Volume-to-Capacity Ratio (*X*)	0.481	0.340	0.345	0.494	0.196	0.462	0.211	0.637	0.268	0.950	0.839	0.097
Back of Queue (*Q*), ft/ln (95 th percentile)	274.9	220.7	216	257.9	114.7	317.1	34.9	380.3	191.7	544.5	815.2	48.8
Back of Queue (*Q*), veh/ln (95 th percentile)	10.2	8.8	8.6	9.6	4.6	12.7	1.3	15.1	7.7	20.2	32.4	2.0
Queue Storage Ratio (*RQ*) (95 th percentile)	1.57	0.00	0.00	1.05	0.00	1.02	0.15	0.00	0.92	1.83	0.00	0.21
Uniform Delay (d_1), s/veh	34.3	44.6	44.7	36.3	44.7	27.8	38.2	39.2	30.6	28.8	33.8	12.6
Incremental Delay (d_2), s/veh	0.7	0.6	0.6	0.9	0.2	0.7	0.8	2.9	1.0	13.7	4.8	0.3
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	35.1	45.2	45.3	37.2	44.9	28.5	39.0	42.0	31.6	42.4	38.6	12.8
Level of Service (LOS)	D	D	D	D	D	C	D	D	C	D	D	B
Approach Delay, s/veh / LOS	41.1	D		35.0	D		40.0	D		38.6	D	
Intersection Delay, s/veh / LOS	38.6						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	3.0	C	3.0	C	3.0	C	2.8	C
Bicycle LOS Score / LOS	1.0	A	1.1	A	1.2	A	2.2	B

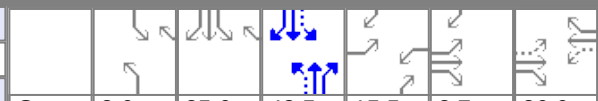
HCS 2010 Signalized Intersection Intermediate Values

General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	JM	Analysis Date	Jul 14, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	PM Peak Hour	PHF	0.95
Urban Street	IL 171	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	IL 171 with Main Street	File Name	IL 171 and Main PMTO.xus		
Project Description	2022 PM Peak Hour				

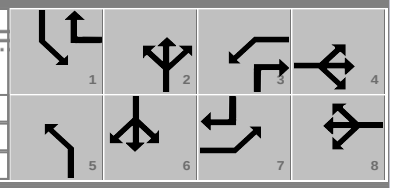


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	221	286	32	198	163	312	26	657	161	491	1449	71

Signal Information			
Cycle, s	150.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.6	25.6	43.5	15.5	2.7	36.6						
Yellow	3.5	3.5	4.0	3.5	0.0	4.0						
Red	0.0	0.0	2.0	0.0	0.0	2.0						



	EB			WB			NB			SB		
Saturation Flow / Delay	L	T	R	L	T	R	L	T	R	L	T	R
Lane Width Adjustment Factor (f_w)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicle Adjustment Factor (f_{HV})	0.909	0.990	1.000	0.990	0.935	0.962	0.990	0.971	0.990	0.980	0.990	0.794
Approach Grade Adjustment Factor (f_g)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Parking Activity Adjustment Factor (f_p)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Bus Blockage Adjustment Factor (f_{bb})	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Area Type Adjustment Factor (f_a)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Lane Utilization Adjustment Factor (f_{LU})	1.000	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000	1.000	0.952	1.000
Left-Turn Adjustment Factor (f_{LT})	0.952	0.000		0.952	0.000		0.952	0.000		0.952	0.000	
Right-Turn Adjustment Factor (f_{RT})		0.965			0.000			0.000			0.000	
Left-Turn Pedestrian Adjustment Factor (f_{Lpb})	1.000			1.000			1.000			1.000		
Right-Turn Ped-Bike Adjustment Factor (f_{Rpb})			1.000			1.000			1.000			1.000
Movement Saturation Flow Rate (s), veh/h	1645	3327		1792	3559		1792	3697		1774	3770	
Proportion of Vehicles Arriving on Green (P)	0.12	0.26	0.26	0.10	0.25	0.25	0.02	0.39	0.29	0.21	0.48	0.48
Incremental Delay Factor (k)	0.11	0.15	0.15	0.11	0.15	0.15	0.11	0.50	0.50	0.17	0.50	0.50

Signal Timing / Movement Groups	EBL	EBT/R	WBL	WBT/R	NBL	NBT/R	SBL	SBT/R
Lost Time (t_L)	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Green Ratio (g/C)	0.38	0.26	0.35	0.24	0.32	0.29	0.52	0.48
Permitted Saturation Flow Rate (s_p), veh/h/ln	1121	0	1052	0	343	0	749	0
Shared Saturation Flow Rate (s_{sh}), veh/h/ln								
Permitted Effective Green Time (g_p), s	38.1	0.0	37.0	0.0	44.0	0.0	46.0	0.0
Permitted Service Time (g_u), s	31.7	0.0	27.0	0.0	16.7	0.0	23.8	0.0
Permitted Queue Service Time (g_{ps}), s	1.7		2.5		2.4		23.8	
Time to First Blockage (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Service Time Before Blockage (g_{fs}), s								
Protected Right Saturation Flow (s_R), veh/h/ln				1548		1594		1278
Protected Right Effective Green Time (g_R), s				31.9		15.4		18.1

Multimodal	EB		WB		NB		SB	
Pedestrian F_w / F_v	2.224	0.00	2.224	0.00	2.224	0.00	2.107	0.00
Pedestrian F_s / F_{delay}	0.000	0.149	0.000	0.151	0.000	0.146	0.000	0.120
Pedestrian M_{corner} / M_{cw}								
Bicycle c_b / d_b	523.44	40.88	487.94	42.87	580.49	37.78	968.34	19.96
Bicycle F_w / F_v	-3.64	0.47	-3.64	0.58	-3.64	0.73	-3.64	1.75

--- Messages ---

WARNING: Since queue spillover from turn lanes and spillback into upstream intersections is not accounted for in the HCM procedures, use of a simulation tool may be advised in situations where the Queue Storage Ratio exceeds 1.0.

--- Comments ---

HCS 2010 Two-Way Stop Control Summary Report

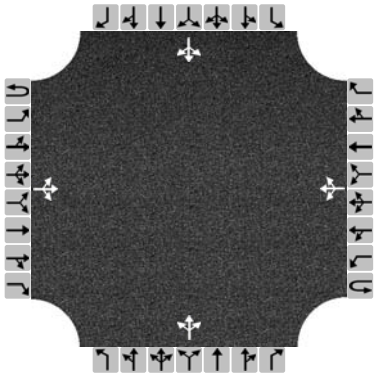
General Information

Analyst	JM
Agency/Co.	KLOA, Inc.
Date Performed	7/14/2016
Analysis Year	2022
Time Analyzed	A.M. Peak Future
Intersection Orientation	East-West
Project Description	Truck Parking Facility

Site Information

Intersection	Maion St/Parker/Acces Dr
Jurisdiction	IDOT
East/West Street	Main Street
North/South Street	Parke/Access Dr
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		20	332	4		3	347	27		0	4	0		15	0	6
Percent Heavy Vehicles		6				0				0	0	0		33	0	0
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		21				3					4				22	
Capacity		1146				1217					316				323	
v/c Ratio		0.02				0.00					0.01				0.07	
95% Queue Length		0.1				0.0					0.0				0.2	
Control Delay (s/veh)		8.2				8.0					16.6				17.0	
Level of Service (LOS)		A				A					C				C	
Approach Delay (s/veh)	0.6				0.1				16.6				17.0			
Approach LOS									C				C			

HCS 2010 Two-Way Stop Control Summary Report

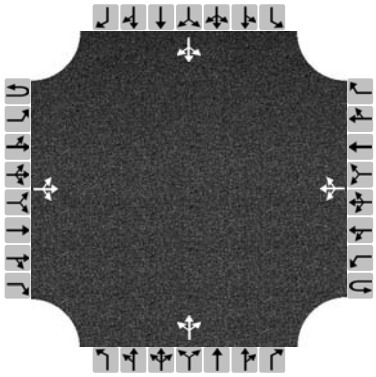
General Information

Analyst	JM
Agency/Co.	KLOA, Inc.
Date Performed	7/14/2016
Analysis Year	2022
Time Analyzed	P.M. Peak Total
Intersection Orientation	East-West
Project Description	Truck Parking Facility

Site Information

Intersection	Maion St/Parker/Acces Dr
Jurisdiction	IDOT
East/West Street	Main Street
North/South Street	Parke/Access Dr
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		4	529	5		2	544	14		2	0	6		22	3	16
Percent Heavy Vehicles		0				0				0	0	0		8	0	8
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		4				2					8				43	
Capacity		997				1020					341				230	
v/c Ratio		0.00				0.00					0.02				0.19	
95% Queue Length		0.0				0.0					0.1				0.7	
Control Delay (s/veh)		8.6				8.5					15.8				24.3	
Level of Service (LOS)		A				A					C				C	
Approach Delay (s/veh)	0.1				0.1				15.8				24.3			
Approach LOS									C				C			

HCS 2010 Two-Way Stop Control Summary Report

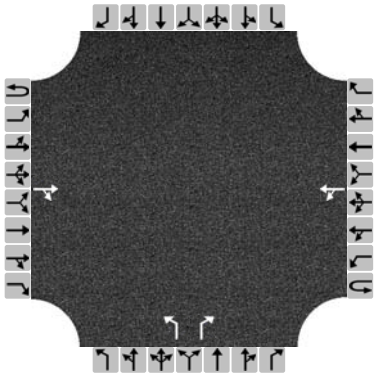
General Information

Analyst	JM
Agency/Co.	KLOA, Inc.
Date Performed	7/14/2016
Analysis Year	2022
Time Analyzed	A.M. Peak Hour - Future
Intersection Orientation	East-West
Project Description	Truck Parking Facility

Site Information

Intersection	Main St/Walker Rd
Jurisdiction	IDOT
East/West Street	Main Street
North/South Street	Walker Road
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		1	0	1		0	0	0
Configuration				TR		LT				L		R				
Volume (veh/h)			317	20		23	351			18		51				
Percent Heavy Vehicles						10				6		0				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)						393				19		54				
Capacity						1161				360		703				
v/c Ratio						0.34				0.05		0.08				
95% Queue Length						0.1				0.2		0.2				
Control Delay (s/veh)						8.2				15.6		10.5				
Level of Service (LOS)						A				C		B				
Approach Delay (s/veh)					0.7				11.8							
Approach LOS									B							

HCS 2010 Two-Way Stop Control Summary Report

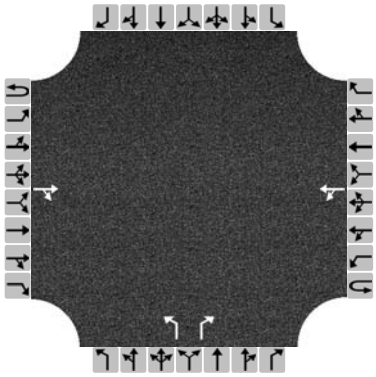
General Information

Analyst	JM
Agency/Co.	KLOA, Inc.
Date Performed	7/14/2016
Analysis Year	2022
Time Analyzed	P.M. Peak Hour - Future
Intersection Orientation	East-West
Project Description	Truck Parking Facility

Site Information

Intersection	Main St/Walker Rd
Jurisdiction	IDOT
East/West Street	Main Street
North/South Street	Walker Road
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		1	0	1		0	0	0
Configuration				TR		LT				L		R				
Volume (veh/h)			491	29		72	492			11		47				
Percent Heavy Vehicles						1				0		0				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)						594				12		49				
Capacity						1026				191		552				
v/c Ratio						0.58				0.06		0.09				
95% Queue Length						0.2				0.2		0.3				
Control Delay (s/veh)						8.8				25.1		12.2				
Level of Service (LOS)						A				D		B				
Approach Delay (s/veh)					1.9				14.7							
Approach LOS									B							