

NOTICE OF THE MEETING OF THE PLAN COMMISSION

The meeting of the Plan Commission is scheduled for
May 6, 2021 beginning at 7:00 p.m.

A copy of the agenda for this meeting is attached hereto and
can be found at www.tinleypark.org.

NOTICE - MEETING MODIFICATION DUE TO COVID-19

Pursuant to Governor Pritzker's Executive Order 2020-07, Executive Order 2020-10, Executive Order 2020-18, Executive Order 2020-32, Executive Order 2020-33, Executive Order 2020-39, and Executive Order 2020-44, which collectively suspends the Illinois Open Meetings Act requirements regarding in-person attendance by members of a public body during the duration of the Gubernatorial Disaster Proclamation, issued on June 26, 2020, the Commission members may be participating in the meeting through teleconference.

Pursuant to Governor's Executive Order No. 2020-63 and CDC guidelines, no more than 50 people or 50% of the maximum capacity will be allowed in the Council Chambers at any one time, so long as attendees comply with social distancing guidelines. Anyone in excess of maximum limit will be asked to wait in another room with live audio feed to the meeting until the agenda item for which the person or persons would like to speak on is being discussed or until the open floor for public comments.

Meetings are open to the public, but members of the public may continue to submit their public comments or requests to speak telephonically in advance of the meeting to clerksoffice@tinleypark.org or place requests in the Drop Box at the Village Hall by noon on May 6, 2021. Please note, written comments will not be read aloud during the meeting. A copy of the Village's Temporary Public Participation Rules & Procedures is attached to this Notice.

Kristin A. Thirion
Clerk
Village of Tinley Park

VILLAGE OF TINLEY PARK
TEMPORARY PUBLIC PARTICIPATION RULES & PROCEDURES

As stated in Gubernatorial Executive Order 2020-07 issued on March 16, 2020 and Gubernatorial Executive Order 2020-10 issued on March 20, 2020, both extended by Gubernatorial Executive Order 2020-18 issued on April 1, 2020, all public gatherings of more than ten people are prohibited. In-person public participation is not defined as an essential activity.

The Mayor of Tinley Park is issuing the following rules for all Village Board and other public meetings in order to promote social distancing as required by the aforementioned Executive Orders and the requirements of the Open Meetings Act:

Written Comments

After publication of the agenda, email comments to clerksoffice@tinleypark.org. When providing written comments to be included as public participation at a public meeting, clearly identify the following in the subject line:

- The date of the meeting;
- The type of meeting for the written comments (e.g. Village Board meeting, Zoning Board of Appeals meeting, Plan Commission meeting, etc.);
- Name and any other identifying information the participant wishes to convey to the public body;
- The category of public participation (e.g., Receive Comments from the Public, Agenda Items, etc.);
- For specific Agenda Items, identify and include the specific agenda item number;
- The entire content of the comments will be subject to public release. The Village of Tinley Park is under no obligation to redact any information.

The contents of all comments will be provided to the relevant public body for their review. **Written comments will not be read aloud during the meeting. If you wish to publicly address the public body, you may request to participate via teleconference as described below.**

Comments must be submitted by 12:00 pm on the day of the meeting. However, it is strongly recommended that comments be emailed not less than twenty-four (24) hours prior to the meeting so the appropriate Board members, Commissioners, Board members, and Committee members have sufficient time to review the comments prior to the meeting.

Live Public Participation During Meeting

After publication of the agenda, those wishing to participate in a live telephone call option at a public meeting must register by 12:00 pm on the day of the meeting. A Village representative will call the participant at the relevant portion of the meeting and the participant will be allowed to participate telephonically at the meeting. To participate in a live telephone call during the meeting, a request shall be submitted by email to clerksoffice@tinleypark.org. The following information must be included the subject line:

- The date of the meeting;
- The type of meeting for the written comments (e.g. Village Board meeting, Zoning Board of Appeals meeting, Plan Commission meeting, etc.);
- Name and any other identifying information the participant wishes to convey to the public body;
- The category of public participation (e.g., Receive Comments from the Public, Agenda Items, etc.); and
- For specific Agenda Items, identify and include the specific agenda item number.

If the participant provides an email address, they will receive a confirmation email that their request has been logged. If the participant provides an email address and does not receive a confirmation email, they may call (708) 444-5000 during regular business hours to confirm the application was received.

Upon successful registration, the participant's name will be placed on an internal Village list. On the date and during relevant portion of the meeting, the participant will be called by a Village representative. The Village representative will call the provided telephone number and allow the phone to ring not more than four (4) times. If the call is not answered within those four (4) rings, the call will be terminated and the Village representative will call the next participant on the list.

The public comment should be presented in a manner as if the participant is in attendance at the meeting. At the start of the call, the participant should provide their name and any other information the participant wishes to convey. For comments regarding Agenda Items, identify and include the specific agenda item number. The participant should try to address all comments to the public body as a whole and not to any member thereof. Repetitive comments are discouraged. The total comment time for any single participant is three (3) minutes. Further time up to an additional three (3) minutes may be granted by motion. A participant may not give his or her allotted minutes to another participant to increase that person's allotted time.



AGENDA FOR REGULAR MEETING VILLAGE OF TINLEY PARK PLAN COMMISSION

**May 6, 2021 – 7:00 P.M.
Council Chambers
Village Hall – 16250 S. Oak Park Avenue**

Regular Meeting Called to Order

Roll Call Taken

Communications

Approval of Minutes: Minutes of the April 15, 2021 Regular Meeting

**ITEM #1 WORKSHOP/PUBLIC HEARING – BREMEN ANIMAL HOSPITAL ADDITION,
7613 159TH STREET – ARCHITECTURE/SITE PLAN APPROVAL, VARIATION**

Consider recommending the Village Board grant Brittany Maddox (Genelin) on behalf of National Veterinary Associates (Petitioner), a Variation of 5.5 feet from the required aisle width of 26 feet to allow for an aisle width of 20.5 feet for a portion of the parking lot drive aisle and a Variation of .19 feet from the required ten foot side yard setback to allow for a setback of 9.81 feet on the east side of the property. The approval of these variations will allow for the construction of a 400 square foot addition on the north side of the existing building located at 7613 159th Street. There is also a request for Site Plan and Architecture approval.

**ITEM #2 WORKSHOP - VEQUITY MULTI-TENANT REMODEL, 17111-17119
LAGRANGE ROAD – SITE PLAN/ARCHITECTURAL APPROVAL**

Consider recommending approval of the Site Plan and Architecture for an existing building at 17111-17119 LaGrange Road (formally 9561 171st St) in the B3 PD (General Business and Commercial, Park Hills Towne Centre PUD) Zoning District. The proposed project allows for the former MD Financial/Fifth-Third Bank building to be converted to a multi-tenant commercial building that includes a Starbucks Coffee drive-thru.

**ITEM #3 WORKSHOP - VEQUITY MULTI-TENANT CONSTRUCTOIN, 17118-30
HARLEM AVENUE – SITE PLAN/ARCHITECTURAL APPROVAL, REZONING
(MAP AMENDMENT), SPECIAL USE FOR A PLANNED UNIT
DEVELOPMENT, PLAT OF SUBDIVISION APPROVAL**

Consider recommending that the Village Board grant Vequity, LLC (Contract Purchaser/Owner) a map amendment to rezone the subject properties from R-1 (Single-Family Residential) to a B-1 (Neighborhood Shopping) zoning district. Additionally, the Petitioner is requesting a Special Use for a Planned Unit Development (PUD) with Exceptions from the Zoning Ordinance on both the subject site and the neighboring 7-Eleven site currently under construction. The requests will permit a multi-tenant building with a Starbuck's drive-thru to be constructed at the properties located at 17120 - 17126

Harlem Avenue. Architecture/Site Plan and Final Plat Approval will also be considered at the meeting.

Good of the Order

Receive Comments from the Public

Adjourn Meeting



**MINUTES OF THE REGULAR MEETING OF THE
PLAN COMMISSION, VILLAGE OF TINLEY PARK,
COOK AND WILL COUNTIES, ILLINOIS**

April 15, 2021

The meeting of the Plan Commission, Village of Tinley Park, Illinois, was held in the Council Chambers located in the Village Hall of Tinley Park, 16250 Oak Park Avenue, Tinley Park, IL on April 15, 2021.

CALL TO ORDER – PLAN COMMISSION CHAIRMAN GRAY called to order the Regular Meeting of the Plan Commission for April 15, 2021 at 7:00 p.m.

CHAIRMAN GRAY stated the meeting was being held remotely consistent with Governor Pritzker's Executive Order 2020-07 issued on March 16, 2020, which suspends the Open Meetings Act provisions relating to in-person attendance by members of a public body. The Open Meetings Act (OMA) requires public bodies to allow for public comment, therefore, this meeting will include public comment via the established protocol. Even if members of the public do not provide comment, participants are advised that people may be listening who do not provide comment, and those persons are not required to identify themselves. He noted that the meeting is being recorded and that some attendees are participating by web/audio conference.

Kathy Congreve called the roll.

Present and responding to roll call were the following:

Chairman Garrett Gray (Participated electronically)
Eduardo Mani (Participated electronically)
Angela Gatto (Participated electronically)
Frank Loscuito (Participated electronically)
Mary Aitchison (Participated electronically)
Steven Vick (Participated electronically)
James Gaskill

Absent Plan Commissioners:

Lucas Engel
Kehla West

Village Officials and Staff:

Dan Ritter, Senior Planner
Paula Wallrich, Planning Manager (Participated electronically)
Kathy Congreve, Commission Secretary

Petitioners:

Tom Panos, on behalf of MAKP Properties, Inc.

Members of the Public:

Frank Zator
Anthony Sullivan
Zachary Pivit

COMMUNICATIONS

None

APPROVAL OF MINUTES

Minutes of the April 1, 2021 Regular Meeting of the Plan Commission were presented for approval. A motion was made by COMMISSIONER VICK, seconded by COMMISSIONER MANI to approve the minutes as presented.

COMMISSIONER GRAY requested a voice vote asking if any were opposed to the motion; hearing none, he declared the motion carried.

TO: VILLAGE OF TINLEY PARK PRESIDENT AND BOARD OF TRUSTEES

FROM: VILLAGE OF TINLEY PARK PLAN COMMISSION

SUBJECT: MINUTES OF THE APRIL 15, 2021 REGULAR MEETING

ITEM #1 PUBLIC HEARING – SUNSET ESTATES TOWNHOME DEVELOPMENT, 6964 & 6900 179TH STREET – ARCHITECTURE/SITE PLAN APPROVAL, ANNEXATION/FINAL PLAT APPROVAL, REZONING, VARIATION

Consider approving a rezoning, upon annexation, of property located at 6864 179th Street to R-6 (Medium Density Residential District), and a rezoning of property located at 6900 179th Street from R-1 (Single Family Residential District) to the R-6 Zoning District. Approval of the Architecture/Site Plan and Annexation/Final Plat of Subdivision along with a Variation to allow rear yard setbacks from the north property line ranging from 13.59 feet to 15.12 feet when the required setback is 30 feet will also be considered.

Present Plan Commissioners: Chairman Garrett Gray (Participated electronically)
Eduardo Mani (Participated electronically)
Angela Gatto (Participated electronically)
Frank Loscuito (Participated electronically)
Mary Aitchison (Participated electronically)
Steven Vick (Participated electronically)
James Gaskill

Absent Plan Commissioners: Lucas Engel
Kehla West

Village Officials and Staff: Dan Ritter, Senior Planner
Paula Wallrich, Planning Manager (Participated electronically)
Kathy Congreve, Commission Secretary

Petitioner: Tom Panos, on behalf of MAKP Properties, Inc.

Members of the Public: Frank Zator
Anthony Sullivan
Zachary Pivit

CHAIRMAN GRAY asked for a motion to open the Public Hearing. Motion made by COMMISSIONER GATTO, seconded by COMMISSIONER LOSCUITO. CHAIRMAN GRAY requested a voice vote asking if any were opposed to the motion; hearing none, he declared the motion carried.

CHAIRMAN GRAY stated that he received proof of the Notice of Publication for this Public Hearing. He then invited staff to start with the presentation of this item.

PAULA WALLRICH, Planning Manager, noted that the Staff Report has been distributed to the Commission and posted on the Village website and will be attached to the minutes as part of the meeting record. The workshop for this item was two weeks ago; she reviewed some of the open issues, including rezoning, site plan and architecture review, a variation, and a subdivision review.

CHAIRMAN GRAY asked for comments from each Commissioner.

COMMISSIONER VICK stated that the staff did a really good job on the staff report and review.

COMMISSIONER AITCHISON agrees that the staff did a good job. She stated that she likes the architecture; the porch along 179th Street is a great addition. She thinks it will be a beautiful development.

COMMISSIONER LOSCUITO echoed what the other commissioners said, that the staff did a really good job and this project looks good.

COMMISSIONER GASKILL had no comment.

COMMISSIONER GATTO agreed with other commissioners, staff did a great job on the design, landscaping and fences; it looks fantastic and will be a great addition to the area.

COMMISSIONER MANI agreed and said it looks nice.

CHAIRMAN GRAY echoed what the commissioners said. In reference to Item #2, he stated that it is a unique property and the variation is totally reasonable. The architecture is tasteful, he likes the porch improvements, and that the side yards were beefed up.

CHAIRMAN GRAY invited the Petitioner to speak. Tom Panos, on behalf of MAK Properties, Inc. was present and thanked Dan and Paula for their hard work and cooperation. They worked together and made the improvements that they had suggested; it will be a nice addition to the area. He thanked the commissioners as well.

CHAIRMAN GRAY invited the public to comment.

FRANK ZATOR, 17861 Sayre Avenue, a resident in the area spoke, stating that he felt there needs to be some consideration being made for the neighborhood. 179th Street is a dangerous road with more residences being built, cars now parking on the street, and cars driving through very fast. He noticed in the plan that the sidewalk stops at the property line; he feels it should at least go down to Sayre Avenue. It is hazardous for pedestrians when cars are parked on the street and cars are speeding. And there needs to be a 4-way stop sign at that intersection. Regarding the variance and the setback, he doesn't have any specific concerns with those requests but just feels there's not enough room for traffic on 179th Street. Otherwise, he thought the plan looks fine. But he would like some kind of traffic study; he has requested it from Cook County and Tinley Park Police Departments multiple times. People use it as a pass-through from Harlem to Oak Park Avenue and go at least 40-45 MPH.

CHAIRMAN GRAY concurred that people should not be speeding down 179th Street, although he hasn't experienced it himself when walking in that area.

ANTHONY SULLIVAN, 6910 179th Street, a neighboring resident spoke. He lives to the west of the property and said that the backs of the townhomes will face his home. He asked if the decks or balconies will be at ground level or second level; Paula replied stating that they are at grade-level. Mr. Sullivan was glad to hear they wouldn't be elevated looking into his property. He completely agrees with Mr. Zator. He has a Ring doorbell and sees people driving down the road drunk at 2:00am in the morning and driving into the ditch. And it's a busy road and high traffic area throughout the day.

There were no other public comments.

CHAIRMAN GRAY asked commissioners if they had any further discussion on this matter.

COMMISSIONER GATTO agreed with the residents, stating that the road has gotten very busy over the past 5 years and there's a lot of people who cut through from Harlem Avenue to Oak Park Avenue and don't obey the speed limit. She asked if it was possible to do a traffic study in that area and possibly put in a stop sign. She asked Paula if there was an option to extend the sidewalk. PAULA WALLRICH replied, stating that the neighborhood benefits as development occurs; a lot of the area is unincorporated and therefore is out of their control. There's always the option of special assessments being imposed; Public Works has a master plan for extending sidewalks where there's a gap in the sidewalks. She will make sure the police are aware of the testimonies given today regarding the traffic. There's a controversy about whether stop signs resolve the issue of speeding vehicles; it may be better to place a police car there. She will inquire as to whether there's ever been a traffic study there. FRANK ZATOR addressed Paula's comments stating that the two properties on 179th Street on the north side are incorporated and the properties on the south side are unincorporated, so he doesn't expect much more development. DAN RITTER gave some history on the roadway, stating that it used to be under County jurisdiction. Within the last 20 or so years, the Village took it over and assumed some responsibility, mainly due to the County's lack of maintenance of the road. They can bring the sidewalk issue up with Public Works and see where it's at on the list to take care of the sidewalk gaps there. Stop signs placed on through streets don't always work and can make for an even more dangerous intersection. FRANK ZATOR

stated that at one time there were going to put in street lights and that there's foundations there for them. ANTHONY SULLIVAN commented, stating that the police do make their presence known through the neighborhood, but they're never at that intersection. They tend to do radar by the church down the street on the south side of 179th closer to Harlem, but he nor Frank has ever seen them pull someone over. DAN RITTER agreed there is some parking on the street that maybe hasn't been reviewed by police or Public Works, we can ask to see if there should be No Parking signs on at least one side of the roadway and near intersections.

COMMISSIONER GASKILL asked how much of 179th Street currently has sidewalks. PAULA WALLRICH said that there are sidewalks that come from Oak Park Avenue along the front of the new townhomes. DAN RITTER added that there are sidewalks along the area of the new memory care facility near Harlem Ave. There is a gap on the north side of 179th Street between those two developments. The petitioner is installing their sidewalk and roadway improvements adjacent to their development, as required by the Village Subdivision Code.

There were no other comments from commissioners.

A Motion was made by COMMISSIONER GASKILL, seconded by COMMISSIONER LOSCUITO to close the Public Hearing. CHAIRMAN GRAY asked for a voice vote asking if any were opposed to the motion; hearing none, he declared the motion carried.

PAULA WALLRICH reviewed the Standards of Approval with commissioners, as was summarized in the meeting packet.

The first motion was made by COMMISSIONER AITCHISON, seconded by COMMISSIONER VICK, to recommend that the Village Board grant the Petitioner, Maria Poulos, on behalf of MAKP Properties, Inc., the rezoning (Map Amendment) of Parcels 1 & 2 (28-31-105-015-0000, 28-31-105-018-0000) to R-6 (Medium Density Residential) upon annexation and the rezoning of Parcel 3 (28-31-105-07-0000) from R-1 (Single Family Residential) to R-6 (Medium Density Residential) and adopt the Findings of Fact submitted by the Petitioner and as proposed by the Village Staff in the Staff Report.

Roll Call:

AYE: COMMISSIONERS VICK, MANI, GATTO, GASKILL, AITCHISON and LOSCUITO, CHAIRMAN GRAY
NAY: None

CHAIRMAN GRAY declared the Motion approved by roll call.

The second motion was made by COMMISSIONER GATTO, seconded by COMMISSIONER LOSCUITO, to recommend that the Village Board grant the Petitioner, Maria Poulos, on behalf of MAKP Properties, Inc., a Variation to the rear yard setback of 14.88 to 16.41 feet along the north property line, where the required minimum setback is 30 feet, to allow rear yard setbacks ranging from 13.59 feet to 15.12 feet in accordance with the plans submitted and listed herein and adopt Findings of Fact as proposed by Village Staff in the Staff Report.

Roll Call:

AYE: COMMISSIONERS VICK, MANI, GATTO, GASKILL, AITCHISON and LOSCUITO, CHAIRMAN GRAY
NAY: None

CHAIRMAN GRAY declared the Motion approved by roll call.

The third motion was made by COMMISSIONER GASKILL, seconded by COMMISSIONER LOSCUITO, to grant the Petitioner, Maria Poulos, on behalf of MAKP Properties, Inc., Site and Architectural Plan Approval to construct two structures comprising twelve townhomes in accordance with the plans submitted and listed herein subject to final engineering approval.

Roll Call:

AYE: COMMISSIONERS VICK, MANI, GATTO, GASKILL, AITCHISON and LOSCUITO, CHAIRMAN GRAY
NAY: None

CHAIRMAN GRAY declared the Motion approved by roll call.

The fourth motion was made by COMMISSIONER AITCHISON, seconded by COMMISSIONER MANI, to recommend that the Village Board grant Final Plat approval to the Petitioner, Maria Poulos, on behalf of MAKP

Properties, Inc., in accordance with the Final Plat of “Sunset Estates Subdivision” March 24, 2021, subject to final engineering approval.

Roll Call:

AYE: COMMISSIONERS VICK, MANI, GATTO, GASKILL, AITCHISON and LOSCUITO, CHAIRMAN GRAY

NAY: None

CHAIRMAN GRAY declared the Motion approved by roll call.

This item is scheduled for the May 18, 2021 Village Board Meeting.

DRAFT

GOOD OF THE ORDER –

PAULA WALLRICH reminded everyone to turn in their Statement of Economic Interest with the County. She updated Commissioners on the following: The locks on the building of the property discussed at the last meeting did get fixed. The Board approved an incentive for a restaurant going in at The Boulevard. The Holiday Inn on North Creek Drive has picked up their permit. The Planning Department has been having interviews and has made an offer to hire an Associate Planner who will hopefully start in June. Paula stated that she will retire and her last day will be May 27th; it's been a wonderful pleasure working with everyone.

CHAIRMAN GRAY spoke for the Commission saying that Paula will be missed; he appreciated her thoroughness.

COMMENTS FROM THE PUBLIC – There were none.

A Motion was made by COMMISSIONER GASKILL, seconded by COMMISSIONER LOSCUITO to adjourn the April 15, 2021 Plan Commission meeting.

COMMISSIONER GRAY asked for a voice vote asking if any were opposed to the motion; hearing none, he declared the motion carried and adjourned the meeting at 8:10 P.M.

PLAN COMMISSION STAFF REPORT

May 6, 2021 – WORKSHOP/PUBLIC HEARING

Petitioner

Brittany Maddox
(Genelin), on behalf of
National Veterinary
Associates

Property Location

7613 159th Street

PIN

27-24-101-010-000

Zoning

B-3 (General Business
and Commercial)

Approvals Sought

Variation, Site and
Architecture Approval

Project Planner

Paula J. Wallrich, AICP
Planning Manager

Bremen Animal Hospital

7613 159th Street



The Petitioner, Brittany Maddox (Genelin), on behalf of National Veterinary Associates, is requesting approval of two Variations along with Site and Architectural Plan approval. The Variations, if granted, will allow for the continuation and expansion of existing conditions. The first request is for a 5.55 foot Variation from the required 26 foot drive aisle width to allow a drive aisle width of 20.5 feet for a small portion of the driveway. The second request is for a .19 foot (less than 2 inches) Variation of the required 10 foot side yard setback to allow for a side yard setback of 9.81 foot on the east side of the property. These approvals will allow the Petitioner to construct a 400 Sq. Ft. addition on the north side of the building located at 7613 159th Street in the B-3 Zoning District (General Business and Commercial).

BACKGROUND

In 2015, National Veterinary Associates (NVA) purchased Bremen Animal Hospital that had been operating in this location since 1969. A Special Use was granted in 2015 to allow for the continuation of the clinic that has no outside dog runs nor kenneling for animals.

The Petitioner is proposing a 400 Sq. Ft. addition on the north side of the existing 2,190 Sq. Ft. building. The proposed remodel will include the reconfiguration of exam and treatment areas to modernize the clinic to current standards of the industry. A portion of the addition will be built under the existing roof canopy and will extend to the east corner of the existing building in line with the current east setback line.

The subject property is zoned B-3 (General Business and Commercial). The properties to the east and west are also zoned for commercial use in the B-3 District. The property to the south is zoned R-5 with multi-family residential uses. The properties to the north across 159th Street are in the Village of Orland Park. The Applicant has provided Findings of Fact (attached) which will be submitted as part of the public record during the Public Hearing.

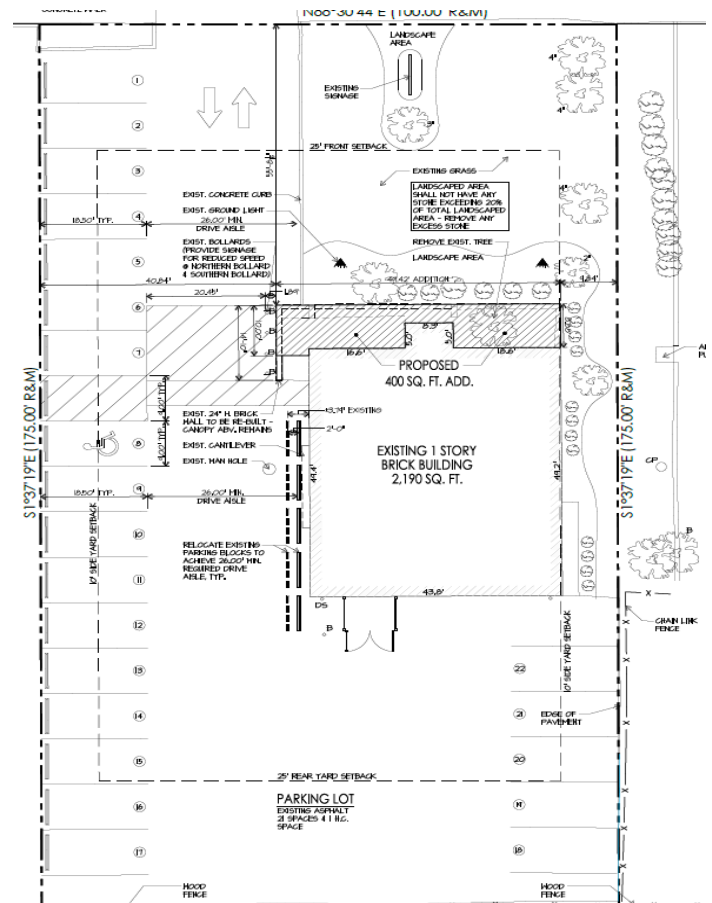


SITE/ARCHITECTURAL PLAN APPROVAL

SITE PLAN

The proposed site plan provides for a 400 Sq. Ft. addition on the north side of the existing building. Currently there is a roof overhang in this area that functions as a covered entryway into the clinic. The expansion will enclose this area and utilize the existing footings. It will also expand the area to the east at the same 8.8' depth and will align with the existing east building façade. The parking lot will remain intact with 22 parking spaces, inclusive of one accessible space.

Parking requirements for Veterinary Clinics are not specifically defined in the Zoning Ordinance, however medical or dental offices are required to provide "two spaces for each office, examination room, or treatment room, plus one space for each employee." There are five (5) examination rooms, one (1) office, and one (1) surgery room in the clinic; there will be a maximum of eight (8) employees at any given time. Using the medical office requirement as a guide, the parking requirement is 22 spaces; the proposed parking therefore meets code. The Applicant states that the current



parking supply meets the demand for the clinic. Employees are instructed to park at the rear of the property.

The drive aisle meets ordinance requirements of 26 feet except for a small area near the entrance to the clinic (14' x 20.45'). This is an existing condition resulting from the 24" high brick wall that encloses the entryway. The entryway has brick columns that support the mansard roof. The addition will maintain the same configuration as the existing entryway.

The trash enclosure and wood fencing along the rear property line will remain in their current location/condition; no new lighting is proposed.

As part of the Special Use approved in 2015 a new landscape plan was improved and installed. There are several existing trees and shrubs on the property; credit toward landscape requirements has been provided for these. Due to existing property constraints, a bufferyard along the west and south property line is not possible. The bufferyards planted in 2015 for the north and east property lines meet Ordinance requirements. There is a stone area in the landscaped area that exceeds ordinance limitations; the Applicant has agreed to reduce the stone area and bring it into compliance (no greater than 20% of the landscaped area can be stone). There may be a loss of vegetation as part of the construction process therefore, Staff recommends Site Plan approval be conditioned upon final landscape approval consistent with the landscape plan that was approved in 2015. .

As part of the site plan review, Staff reviewed the plan against the Site Design Standards outlined in Section III.U.3., and found the following issues to be satisfactorily reviewed considering the site reflects existing conditions. Standards for approval are addressed at the end of the report:

Site Plan

- a. Use is permitted in District;
- b. Arrangement of building, parking, access, lighting, landscaping and drainage is compatible with adjacent landuses;
- c. Safe and efficient ingress/egress;
- d. Safe movement of pedestrians;
- e. Sufficient landscaping;
- f. Trash adequately screened; and
- g. Review of architectural and site plan standards.
- h. Arrangement of buildings, parking, access, lighting, landscaping and drainage is compatible with adjacent land uses;
- i. Vehicular ingress and egress provide safe, efficient and convenient movement to traffic;
- j. Safe movement of pedestrians: and
- k. Sufficient mixture of grass, trees and shrubs within the interior and perimeter of the site .

Open Item #1: Discuss conditioning site plan approval on final landscape approval.

ARCHITECTURE





The 400' addition will utilize the existing brick that encloses the front entryway and the area to the east will include a new brick that will accent the dark tone of the existing brick. In addition to the Architectural standards listed below, additions *"must conform to the building materials used for the existing structure. If there is difficulty in matching the existing material, then the architectural design of the addition must provide an attractive transition to a new material that is consistent with current building material requirements."* The transition to this new brick color works well along the front façade where the brick column provides a break between the two areas. (see graphic to the right). It will provide a nice contrast for the new wall sign. The east façade does not provide as smooth of a transition, however the view to this façade is mitigated by vegetation and the proximity of adjacent building the east. See below.



The shake shingles on the existing roof are in poor condition and the applicant has agreed to replace them. Staff recommends placing this as a condition of approval.

As part of the architectural review the following guidelines have been satisfactorily reviewed:

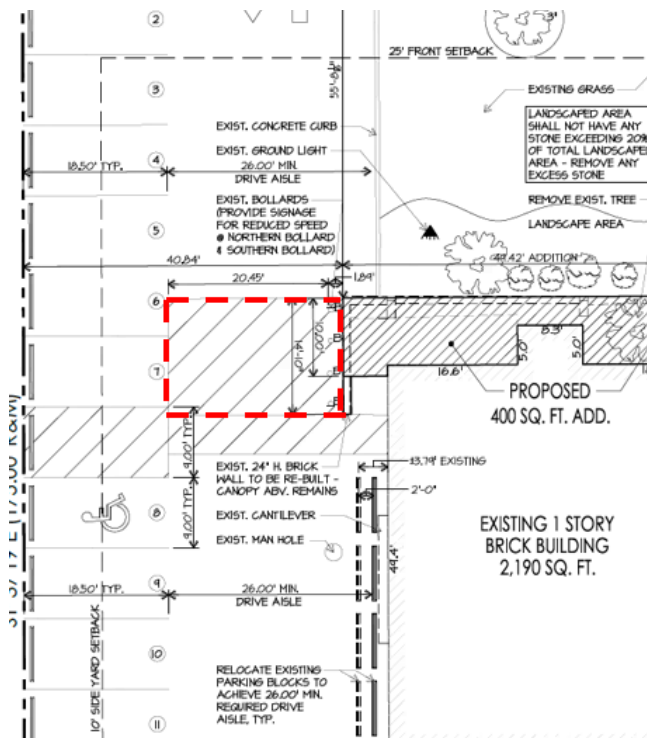
- a. Building materials -conformance with Section V.C.4.B;
- b. Cohesive building design;
- c. Compatible Architecture;
- d. Color;
- e. Sustainable architecture;
- f. Defined entry;
- g. Roof;
- h. Building articulation;
- i. Screen mechanicals; and
- j. Trash Enclosures.



Open Item #2: Discuss the new brick color for the addition and roof replacement as a condition of approval.

ZONING REQUEST

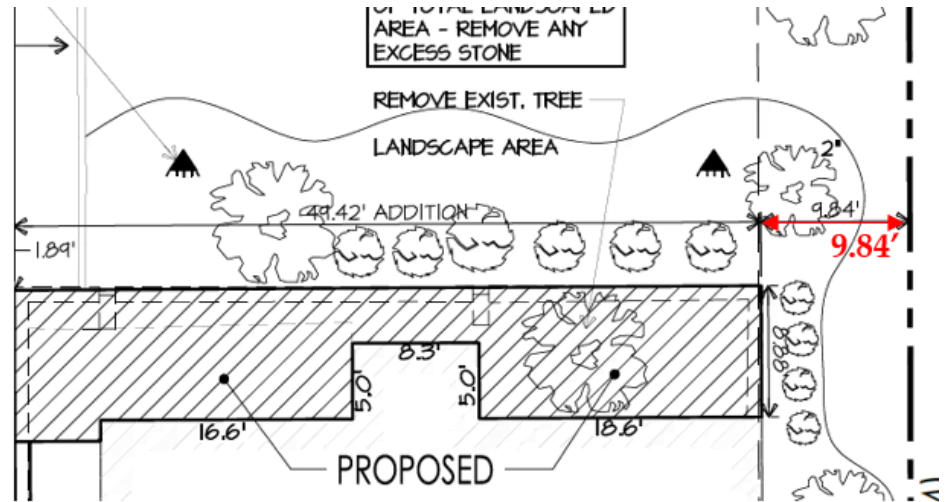
VARIATION #1 There are two Variation requests with this proposal. The first is for a Variation of the required aisle width of 24 feet. A portion of the drive aisle (enclosed in the red dashed line) is reduced to 20.45 feet for a distance of 14 feet as a result of the current roof canopy. As this area will now be enclosed, a Variation is required to bring the property into legal non-conforming status. There is an existing foundation that will be used as part of the new project, therefore the Petitioner is requesting to reuse the foundation to help with the cost effectiveness of the project. There will be new 4' tall bollards erected along this west side of the addition (bollards currently existing but are shorter) that will be painted yellow to caution drivers of the reduced aisle width. The pavement will also be striped and new signage erected in this area as additional notes of caution. The aisle width meets ordinance requirements (26') on both the north and south sides of this area.



Open Item #3: Discuss the merits of a drive aisle width variation.

VARIATION #2

The existing building is non-conforming with respect to its east side yard. The ordinance requires a 10 foot side yard setback and the existing side yard is only 9.84 feet. Despite this fairly minor difference, Village ordinance does not allow for an expansion of nonconforming setbacks. Therefore, the second variation request is for a .16 feet (less than 2 inches) Variation of the required sideyard setback for the east side of the building to allow for the building addition. Approval of this variation of approximately two inches will bring the existing structure and addition into legal non-conformance.



Open Item #4: Discuss the merits of a sideyard setback variation of less than 2 inches.

SUMMARY OF OPEN ITEMS

The following open items are recommended for discussion:

Open Item	Recommended Action
#1	<i>Discuss conditioning site plan approval on final landscape approval.</i>
#2	<i>Discuss the new brick color for the addition and roof replacement as a condition of approval.</i>
#3	<i>Discuss the merits of a drive aisle width variation.</i>
#4	<i>Discuss the merits of a sideyard setback variation of less than 2 inches.</i>

STANDARDS FOR SITE PLAN APPROVAL

Section III.T.2. of the Zoning Ordinance requires that Planning Staff must find that the conditions listed below must be met. Staff will prepare draft responses for these conditions within the next Staff Report.

- That the proposed Use is a Permitted Use in the district in which the property is located.
The use was approved as a Special Use in 2015.
- That the proposed arrangement of buildings, off-street parking, access, lighting, landscaping, and drainage is compatible with adjacent land uses.
The proposed addition meets setback requirements and does not impact parking. There is a small area of diminished drive aisle width that currently exists; a Variation is requested to bring the existing condition into legal non-conformance status.
- That the vehicular ingress and egress to and from the site and circulation within the site provides for safe, efficient, and convenient movement of traffic, not only within the site but on adjacent roadways as well.
There is a small area of diminished drive aisle width that currently exists; a Variation is requested to bring the existing condition into legal non-conformance status.
- That the Site Plan provides for the safe movement of pedestrians within the site.
A striped crosswalk provides safe access across the parking lot.

- e. That there is a sufficient mixture of grass, trees, and shrubs within the interior and perimeter (including public right-of-way) of the site so that the proposed development will be in harmony with adjacent land uses and will provide a pleasing appearance to the public; any part of the Site Plan area not used for buildings, structures, parking, or access-ways shall be landscaped with a mixture of grass, trees, and shrubs.
After construction the existing landscape will be assessed to determine if additional landscaping will be required.
- f. That all outdoor trash storage areas are adequately screened.
Existing Dumpster is enclosed by a vinyl fence.

ARCHITECTURAL STANDARDS

Section III.U.6. provides the following architectural design standards to assist in the review of the proposed development:

- a. Building Materials: The size of the structure will dictate the required building materials (Section V.C. Supplementary District Regulations).
The proposed development meets the masonry requirements of the Zoning Ordinance (Section V.4.B.).
- b. Cohesive Building Design: Buildings must be built with approved materials and provide architectural interest on all sides of the structure. Whatever an architectural style is chosen, a consistent style of architectural composition and building materials are to be applied on all building facades.
The proposed addition is a small portion of the building and the front façade provides architectural interest. The new brick color complements the existing brick color.
- c. Compatible Architecture: Avoid architecture or building materials that significantly diverge from adjacent architecture. Maintain the rhythm of the block in terms of scale, massing and setback. Site lighting, landscaping and architecture shall reflect a consistent design statement throughout the development.
The proposed addition is consistent with the existing architecture
- d. Color: Color choices shall consider the context of the surrounding area and shall not be used for purposes of “attention getting” or branding of the proposed use. Color choices shall be harmonious with the surrounding buildings; excessively bright or brilliant colors are to be avoided except to be used on a minor scale for accents.
The new brick color complements the existing brick color.
- e. Sustainable architectural design: The overall design must meet the needs of the current use without compromising the ability of future uses.
The design is typical of commercial uses and will meet the needs of future users.
- f. Defined Entry: Entrance shall be readily identifiable from public right-of-way or parking fields. The entry can be clearly defined by using unique architecture, a canopy, overhang or some other type of weather protection, some form of roof element or enhanced landscaping.
A new entry has been designed the is readily identifiable.
- g. Roof: For buildings 10,000 sf or less a pitched roof is required or a parapet that extends the full exterior of the building.
The existing roof line will remain. The new roof line of the eastern end of the front façade is consistent with the remainder of the roof.
- h. Building Articulation: Large expanses of walls void of color, material or texture variation are to be avoided.
The addition of a new brick color offers visual interest and helps to break up the expanse of the east wall.
- i. Screen Mechanicals: All mechanical devices shall be screened from all public views.
No new mechanical units are proposed.

STANDARDS FOR A VARIATION

Section X.G.4. of the Zoning Ordinance states the Plan Commission shall not recommend a Variation of the regulations of the Zoning Ordinance unless it shall have made Findings of Fact, based upon the evidence presented for each of the Standards for Variations listed below. The Plan Commission must provide findings for the first three standards; the remaining standards are provided to help the Plan Commission further analyze the request. Drafts responses are provided below for your consideration.

1. The property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in the district in which it is located.
The Variation requests are to bring existing conditions into legal non-conformance. The addition requires a variation of less than 2". The impact of the narrow drive aisle is mitigated with the striping on the asphalt and signage which alerts the driver to the narrow (20.5') drive aisle.
2. The plight of the owner is due to unique circumstances.
The plight of the owner is unique in that these are existing conditions. The addition will maintain the same non-conforming setback, which provides a consistent and more aesthetically pleasing east façade.
3. The Variation, if granted, will not alter the essential character of the locality.
The drive aisle variation will not alter the essential character of the locality since it is an existing condition. The side yard setback is less than 2 inches and therefore will not alter the essential character of the locality.
4. Additionally, the Plan Commission shall also, in making its determination whether there are practical difficulties or particular hardships, take into consideration the extent to which the following facts favorable to the Petitioner have been established by the evidence:
 - a. The particular physical surroundings, shape, or topographical condition of the specific property involved would result in a particular hardship upon the owner, as distinguished from a mere inconvenience, if the strict letter of the regulations were carried out;
 - b. The conditions upon which the petition for a Variation is based would not be applicable, generally, to other property within the same zoning classification;
 - c. The purpose of the Variation is not based exclusively upon a desire to make more money out of the property;
 - d. The alleged difficulty or hardship has not been created by the owner of the property, or by a previous owner;
 - e. 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 property is located; and
 - f. The proposed Variation will not impair an adequate supply of light and air to an adjacent property, 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.

MOTION TO CONSIDER

If the Plan Commission wishes to act on the Petitioner's request, the appropriate wording of the motion is listed below. The protocol for the writing of a motion is to write it in the affirmative so that a positive or negative recommendation correlates to the Petitioner's proposal. By making a motion, it does not indicate a specific recommendation in support or against the plan.

Motion 1 (Site Plan):

"...make a motion to grant the Petitioner, Brittany Maddox (Genelin), on behalf of National Veterinary Associates, Site Plan and Architectural Approval in accordance with the plans submitted and listed in the Staff Report conditioned upon final landscape approval and replacement of the roof shakes.

[any conditions that the Commission would like to add]

Motion 2 (Variation #1):

"...make a motion to grant the Petitioner, Brittany Maddox (Genelin), on behalf of National Veterinary Associates, a 5.55 foot Variation from the required 26 foot drive aisle width to allow a drive aisle width of 20.5 feet for a small portion of the driveway in accordance with the plans submitted and listed herein and adopt Findings of Fact as proposed by Village Staff in the Staff Report.

[any conditions that the Commission would like to add]

Motion 3 (Variation #2)

"...make a motion to recommend that the Village Board grant a the Petitioner, Brittany Maddox (Genelin), on behalf of National Veterinary Associates, a .19 foot (less than 2 inches) Variation of the required 10 foot side yard setback to allow for a side yard setback of 9.81 foot on the east side of the property in accordance with the plans submitted and listed herein and adopt Findings of Fact as proposed by Village Staff in the Staff Report..

[any conditions that the Commission would like to add]

LIST OF REVIEWED PLANS -SUNSET ESTATES

	Submitted Sheet Name	Prepared By	Date On Sheet
A-0.1	Architectural Site and LS Plan	Linden GRP	3.22.21
A-4.0	Exterior Elevations	Linden GRP	3.22.21
A-1.2	Existing and Preliminary Plan	Linden GRP	2.25.19
C-1	Grading Plan	Advantage	3.23.21
C-2	Details	Advantage	3.23.21
	Plat of Survey	Prairie Land	3.09.21
L-1	Landscape Plan	Elements Arc	7.23.15



Village of Tinley Park
Community Development Dept.
16250 S. Oak Park Ave.
Tinley Park, IL 60477
708-444-5100

VILLAGE OF TINLEY PARK, ILLINOIS
PLANNING AND ZONING GENERAL APPLICATION

REQUEST INFORMATION

*Additional Information is Required for Specific Requests as Outlined in Specific Addendums

- ☐ Special Use for: _____
- ☐ Planned Unit Development (PUD) ☐ Concept ☐ Preliminary ☐ Final ☐ Deviation
- ☐ Variation ☐ Residential ☐ Commercial for _____
- ☐ Annexation
- ☐ Rezoning (Map Amendment) From _____ to _____
- ☐ Plat (Subdivision, Consolidation, Public Easement) ☐ Preliminary ☐ Final
- ☒ Site Plan
- ☐ Landscape Change Approval
- ☐ Other: _____

PROJECT & PROPERTY INFORMATION

Project Name: Bremen Animal Hospital

Project Description: Remodel & 400 sf addition to Bremen Animal Hospital

Project Address: 7613 W. 159th Street Property Index No. (PIN): _____

Zoning District: B3-Business Lot Dimensions & Area: 100' x 177'

Estimated Project Cost: \$ _____

OWNER OF RECORD INFORMATION

Please supply proper documentation of ownership and/or designated representative for any corporation.

Name of Owner: National Veterinary Associates Company: National Veterinary Associates

Street Address: 29229 Canwood St. City, State & Zip: Agoura Hills, CA 91301

E-Mail Address: _____ Phone Number: _____

APPLICANT INFORMATION

☐ Same as Owner of Record

All correspondence and invoices will be sent to the applicant. If applicant is different than owner, "Authorized Representative Consent" section must be completed.

Name of Applicant: Timothy Burke Company: RWE Design & Build

Relation To Project: General Contractor

Street Address: 361 S FRONTAGE RD City, State & Zip: Burr Ridge, IL 60527

E-Mail Address: _____



Village of Tinley Park
Community Development Dept.
16250 S. Oak Park Ave.
Tinley Park, IL 60477
708-444-5100

VILLAGE OF TINLEY PARK, ILLINOIS
PLANNING AND ZONING GENERAL APPLICATION

Authorized Representative Consent

It is required that the property owner or his designated representative be present at all requests made to the Plan Commission and Zoning Board of Appeals. During the course of a meeting, questions may arise regarding the overall project, the property, property improvements, special conditions attached to recommendations among other aspects of any formal request. The representative present must have knowledge of the property and all aspects of the project. They must have the authority to make commitments related to the project and property. Failure to have the property owner or designated representative present at the public meeting can lead to substantial delays to the project approval. If the owner cannot be present or does not wish to speak at the public meeting, the following statement must be signed by the owner for an authorized repetitive.

I hereby authorize RWE Design & Build (print clearly) to act on my behalf and advise that they have full authority to act as my/our representative in regards to the subject property and project, including modifying any project or request. I agree to be bound by all terms and agreements made by the designated representative.

Property Owner Signature: _____

Property Owner Name (Print): Brittany Maddox (Genelin)

Acknowledgements

- Applicant acknowledges, understands and agrees that under Illinois law, the Village President (Mayor), Village Trustees, Village Manager, Corporation Counsel and/or any employee or agent of the Village or any Planning and Zoning Commission member or Chair, does not have the authority to bind or obligate the Village in any way and therefore cannot bind or obligate the Village. Further, Applicant acknowledges, understands and agrees that only formal action (including, but not limited to, motions, resolutions, and ordinances) by the Board of Trustees, properly voting in an open meeting, can obligate the Village or confer any rights or entitlement on the applicant, legal, equitable, or otherwise.
- Members of the Plan Commission, Zoning Board of Appeals, Village Board as well as Village Staff may conduct inspections of subject site(s) as part of the pre-hearing and fact finding review of requests. These individuals are given permission to inspect the property in regards to the request being made.
- Required public notice signs will be obtained and installed by the Petitioner on their property for a minimum of 10 days prior to the public hearing. These may be provided by the Village or may need to be produced by the petitioner.
- The request is accompanied by all addendums and required additional information and all applicable fees are paid before scheduling any public meetings or hearings.
- Applicant verifies that all outstanding fees and monies owed to the Village of Tinley Park have been paid.
- Any applicable recapture, impact, engineering, contracted review or other required fees and donations shall be paid prior to issuance of any building permits, occupancy permits, or business licenses.
- The Owner and Applicant by signing this application certify that the above information and all supporting addendums and documentation is true and correct to the best of their knowledge.

Property Owner Signature: _____

Property Owner Name (Print): Brittany Maddox (Genelin) for National Veterinary Associates

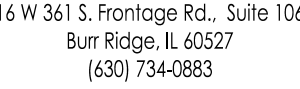
Applicant Signature:
(if other than Owner)

Applicant's Name (Print): _____

Date: March 24, 2021



10100 ORLAND PARKWAY SUITE 110
ORLAND PARK, ILLINOIS 60467
(708) 799-4400
WWW.LINDENGROUPINC.COM



BREMEN
ANIMAL HOSPITAL
7613 W. 159TH ST.
TINLEY PARK, IL 60477



DESCRIPTION
EXTERIOR ELEVATIONS

2018-0028
PROJECT NUMBER

03-22-2021

BH	MA
DRAWN BY	FINAL REVIEW

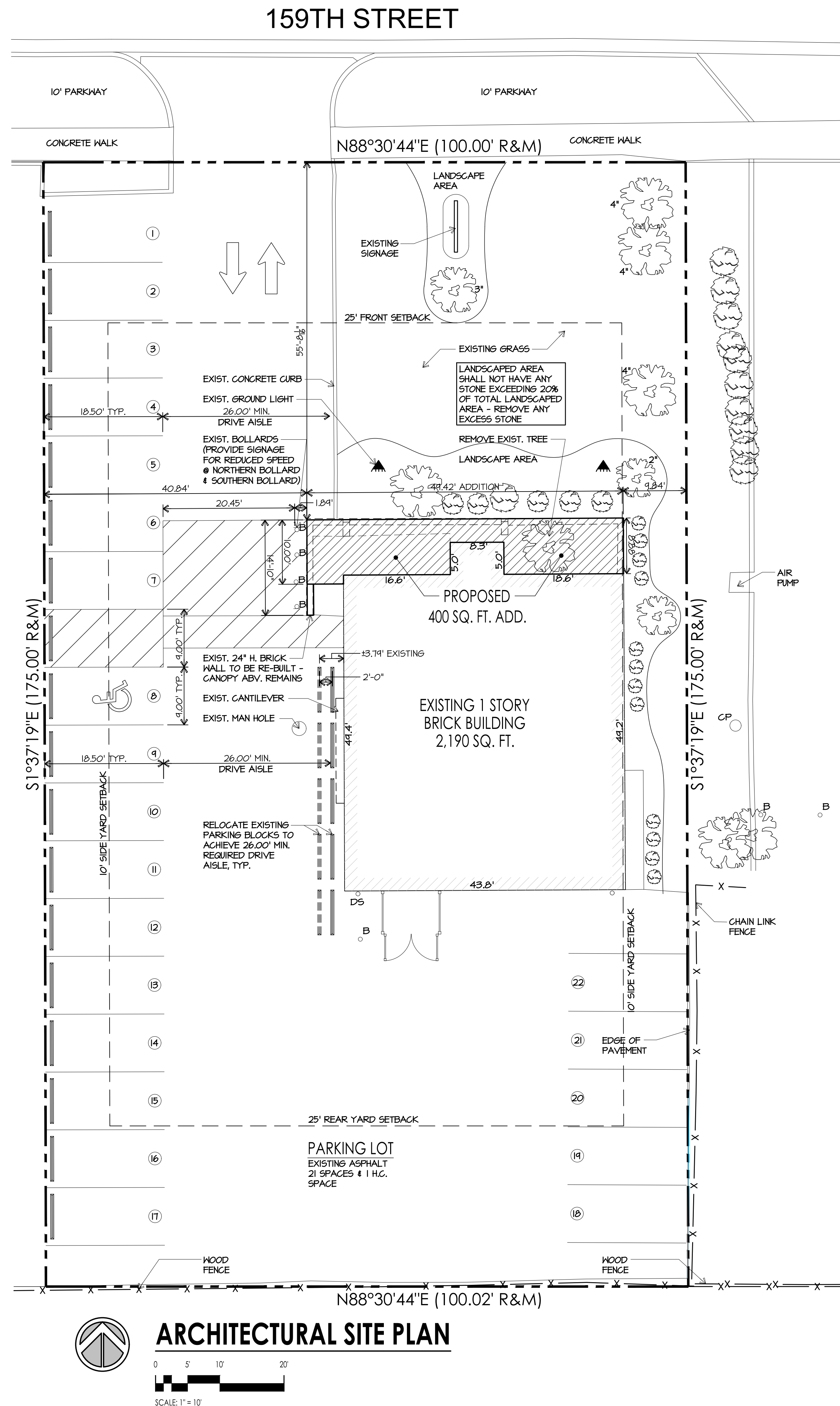
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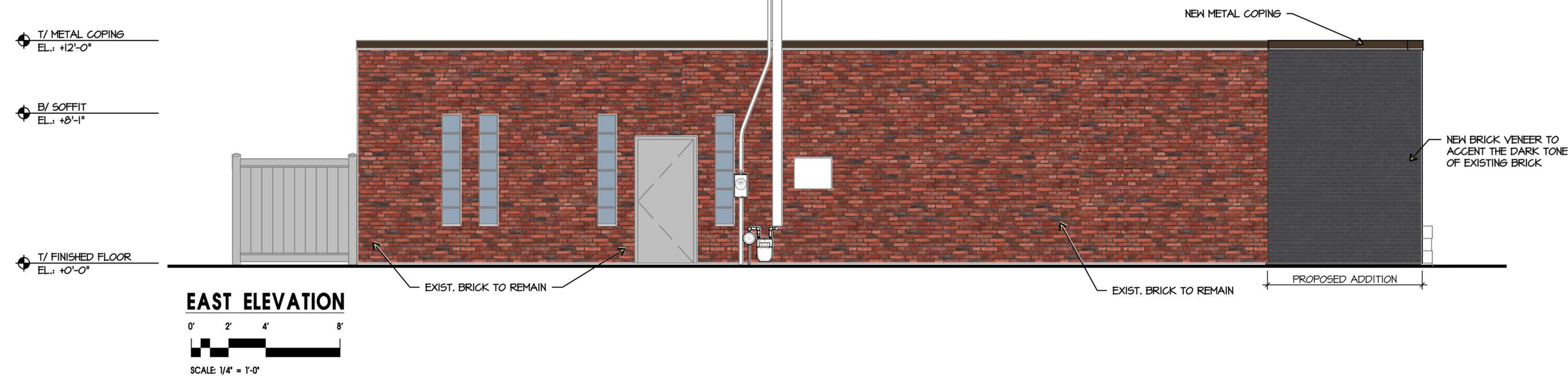
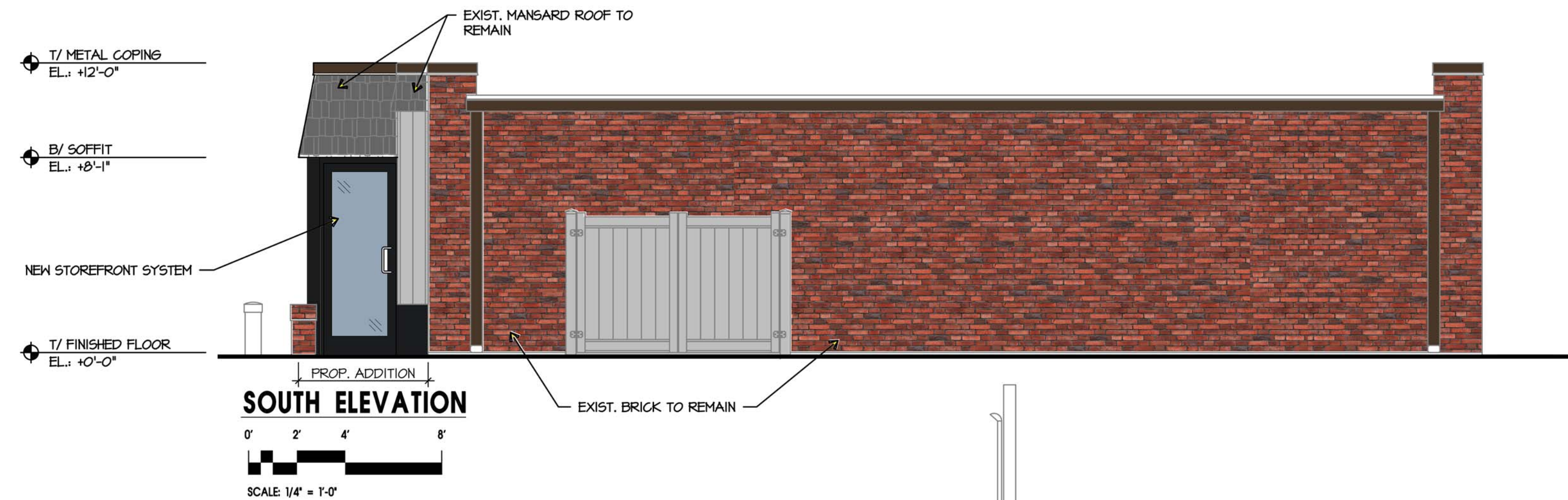
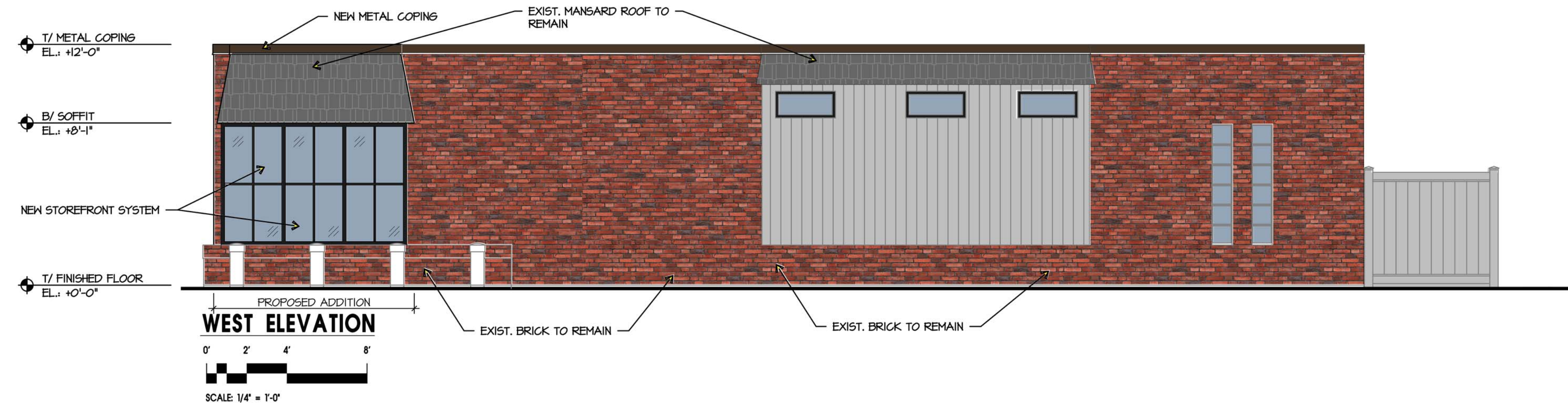
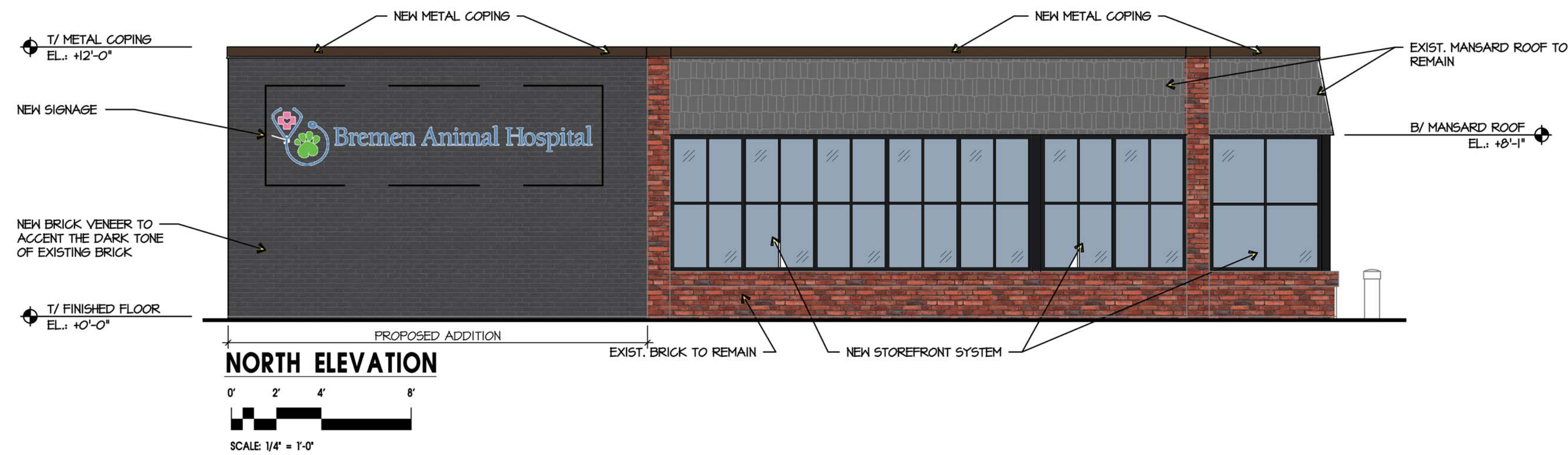
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SHEET TITLE
ARCHITECTURAL
SITE & LS PLAN

SHEET NUMBER

A-0.1





ARCHITECTURE
LAND PLANNING
INTERIOR ARCHITECTURE
LANDSCAPE ARCHITECTURE
10100 ORLAND PARKWAY SUITE 110
ORLAND PARK, ILLINOIS 60467
(708) 799-4400
WWW.LINDENGROUPINC.COM

RWE
DESIGN BUILD
16 W 361 S. Frontage Rd., Suite 106
Burr Ridge, IL 60527
(630) 734-0883

**BREMEN
ANIMAL HOSPITAL**
7613 W. 159TH ST.
TINLEY PARK, IL 60477



DATE 03-22-2021
DRAWN BY LE
DESCRIPTION EXTERIOR ELEVATIONS

2018-0028
PROJECT NUMBER

03-22-2021
DATE

BH MM
DRAWN BY FINAL REVIEW

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SHEET TITLE
EXTERIOR
ELEVATIONS

SHEET NUMBER

A-4.0



April 19th, 2021

Paula J. Wallrich, AICP
Tinley Park – Planning Manager
16520 S Oak Park Ave
Tinley Park, IL 60477

RE: Staff Review: Bremen Animal Hospital
7613 159th street

Dear Paula,

This letter is in response to the *preliminary review* for Site & Architectural Plan Approval submitted on April 12th, 2021 for the above-mentioned project. The following responses correspond to the requested staff review & code items.

PLANNING

The Community Development Department reviewed the plans and offers the following comments:

1. There are dimension differences between the plans. Unless directed otherwise we will use the engineer's drawing (Base C1) as having the most accurate dimensions. **Updated architectural site plan to show same dimensions.**
2. On Base C.1- There is a note to remove and replace bollards. Please explain why; are you moving them closer to the building? **The existing bollards are low in height and may not be visible to some drivers, new bollards will be 4'-0" high and painted traffic yellow for high visibility.**
3. On Base C.1-The east setback is noted as 9.84'- for the addition. This will be noted as a variation, but we will not be charging an additional fee (less than 2"). **Okay.**
4. What is the distance in a north-south direction of the aisle that is reduced to 20.45'? I want to make the point that this is only a small portion of the drive aisle. Therefore I want to know the area that is 20.45' x ? **The north-south dimension and area has been provided – see site plan.**
5. I am confused about your landscape plan proposals. A landscape plan was originally submitted with the March 23, 2021 submittal. Now you are submitting a plan that was submitted in 2015. Please note that when that plan was reviewed the applicant was instructed to remove the stone area. Here is an excerpt from the staff report:

LANDSCAPE ARCHITECTURE

*There are several existing trees and shrubs on the property; credit toward landscape requirements has been provided for these. Due to property constraints a bufferyard along the west and south property line is not possible. The bufferyards proposed for the north and east property lines meet Ordinance requirements. **Currently there is a significant amount of stone in the foundation landscape; this will be removed to meet the ordinance limits of 20%.** Due to inadequate parkway width, street trees will not be required on the property.*

Per the **LANDSCAPE ORDINANCE** (Section 158.14):

Decorative stone, brick, or pavement may be used for edging planting beds but may not cover more than twenty (20) percent of the landscaped area.

Please revise the landscape plan to reflect the removal of the stone. **Added note to site plan for the existing stone to be removed and not to exceed 20% of total landscaped area.**

6. A current inventory of existing plants is required. **Refer to 2015 landscape plan for plant inventory. Final landscape installation will replace and/or add material to match this submitted plan.**



7. During construction there will most likely be a loss of plant material. A final landscape plan must be submitted that reflects what vegetation will be saved and what will be planted after construction so that we can assess whether they meet ordinance requirements. **Refer to 2015 landscape plan for final landscape plan. Landscape installation will replace and/or add material based on loss of plant material during construction to match the submitted plan.**
8. The plans note the wheel guards will be moved. What is the distance between the wheel guards and the west façade of the building? **See site plan for added dimension.**
9. The Base C.1 Plan indicates a striped path from the accessible parking space to the front door. This is not shown on the site plan. Please add this to the site plan. Staff recommends striping the area of diminished aisle width thereby bringing notice to this area that is less than ordinance required and help to reduce speed. This will also provide notice the patrons exiting the building. **Architectural site plan modified to show stripped path.**
10. It appears that the addition is not matching the current brick color, but a brick veneer will be used to accent the dark tone of existing brick. A sample of this must be submitted to the Village Hall by April 19th. Per Section V.C.7.I. of the Zoning Ordinance *"Additions must conform to the building materials used for the existing structure. If there is difficulty in matching the existing material, then the architectural design of the addition must provide an attractive transition to a new material that is consistent with current building material requirements."* Constructing a brick column like the one that extends to the top of the metal coping at the east end of the porch may help with this transition. Do you have any of the existing brick resulting from some of the demo to construct a second column at the very east end of the front façade (see graphic below). The east façade also has an awkward transition, but a column would not provide any transition here. Staff recommends investigating the use of plant material to soften the hard transition of one brick color to the next (see below). **Design proposes a distinctive change in material between existing structure and addition. The proposed new brick will be a dark brick complimentary to the existing brick blend by matching the darkest existing brick color from blend. Change in brick will happen at control joint in wall. Revised colored elevation provided with resubmittal.**
11. There is no signage submitted with this application. Please note that if you are looking to go beyond code requirements, we recommend you include it in this application. Otherwise, you will need to apply for a variation and go through the public hearing process again. For commercial buildings in the B-3 district the requirements are:

Area: One (1) SF per one (1) LF of building/tenant frontage not to exceed 120 SF per sign	30" Letter Ht. (2.5')	78" Sign Ht. (6.5')
---	-----------------------	---------------------

- Area is determined by drawing a line completely around the entire sign (logo included). **All signage will comply.**
12. Plan A.4 was not included in your latest submittal. Is this an oversight or are you preparing different color renderings? **Will provide – See sheet A.4**
 13. **Lighting** – Please include any new wall or parking lot lighting in your submittal - along with photometrics. **No new lighting is proposed. Site lighting is existing with no changes.**



ENGINEERING & PUBLIC WORKS DEPARTMENT

The Village Engineer and the Public Works Department have not yet provided comments. As soon as they do, I will forward them to you.

FIRE DEPARTMENT

The Fire Department reviewed the plans and offer the following comments.

1. An approved fire alarm and detection system monitored by the Village of Tinley Park will have to be installed throughout the building. **Okay – will provide in construction documents submission.**
2. Note: Any physical alteration requires the fire protection system to be evaluated by a qualified professional. Proposed alterations to the fire protection system must be submitted to the Fire Prevention Bureau for approval. A minimum of three sets of fire protection plans with a completed permit application is required. A licensed design professional (licensed engineer or a valid NICET level 3 or 4 certification in fire protection technology) must submit all documents. **Okay - Provided by others.**
3. Note: All fire alarm signals must be required to transmit to the Tinley Park Communication Center. (2016 Village of Tinley Park Amended Codes, Section 707.6). **Okay**
4. Note: The Village of Tinley Park has implemented a radio transmission-based fire alarm system for all required fire alarms. If not already done, the alarm holder should contact Fire Prevention for the necessary documentation for the wireless radio alarm contract. Fire Prevention can be reached at 708-444-5200. **Okay**

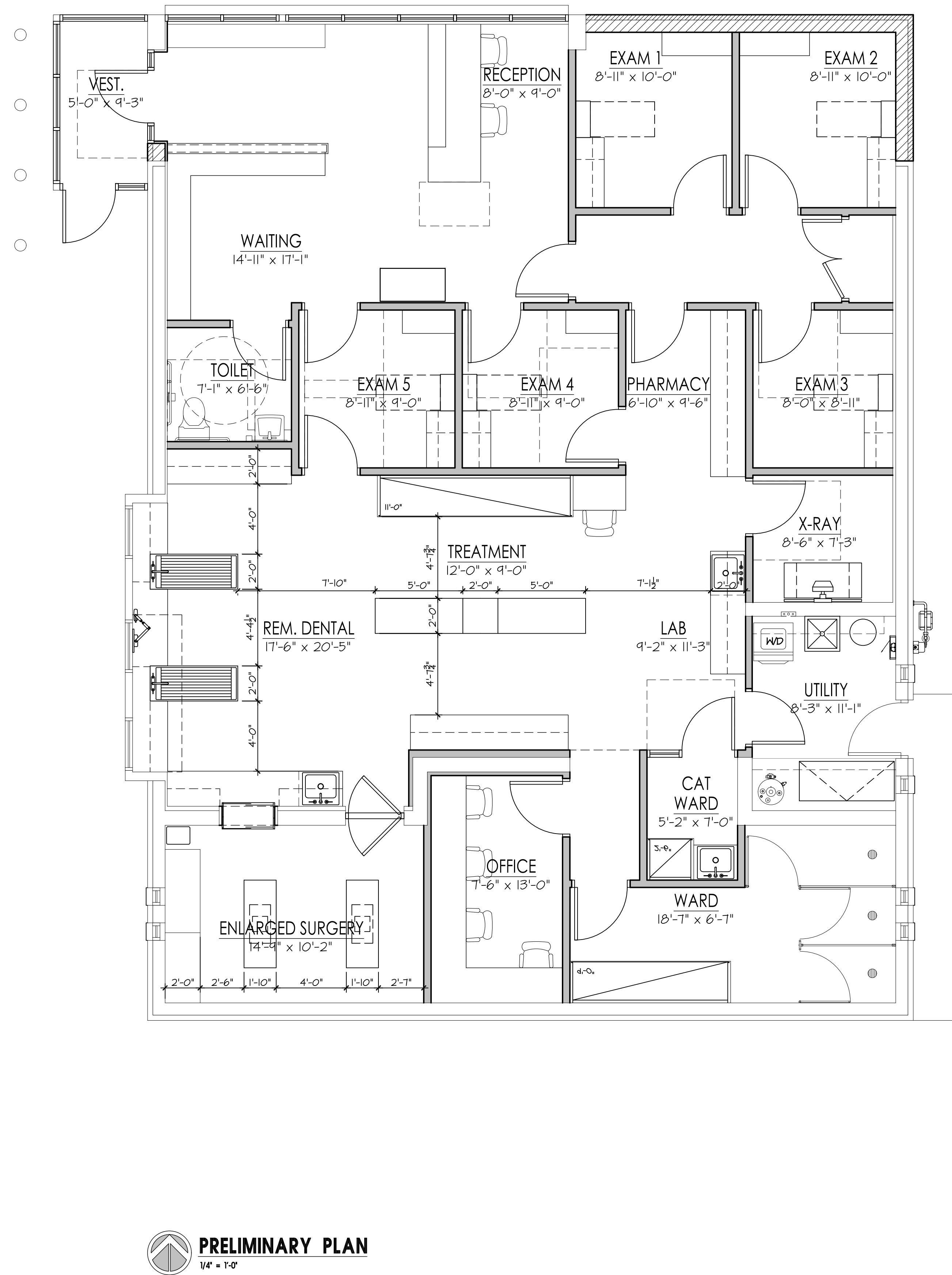
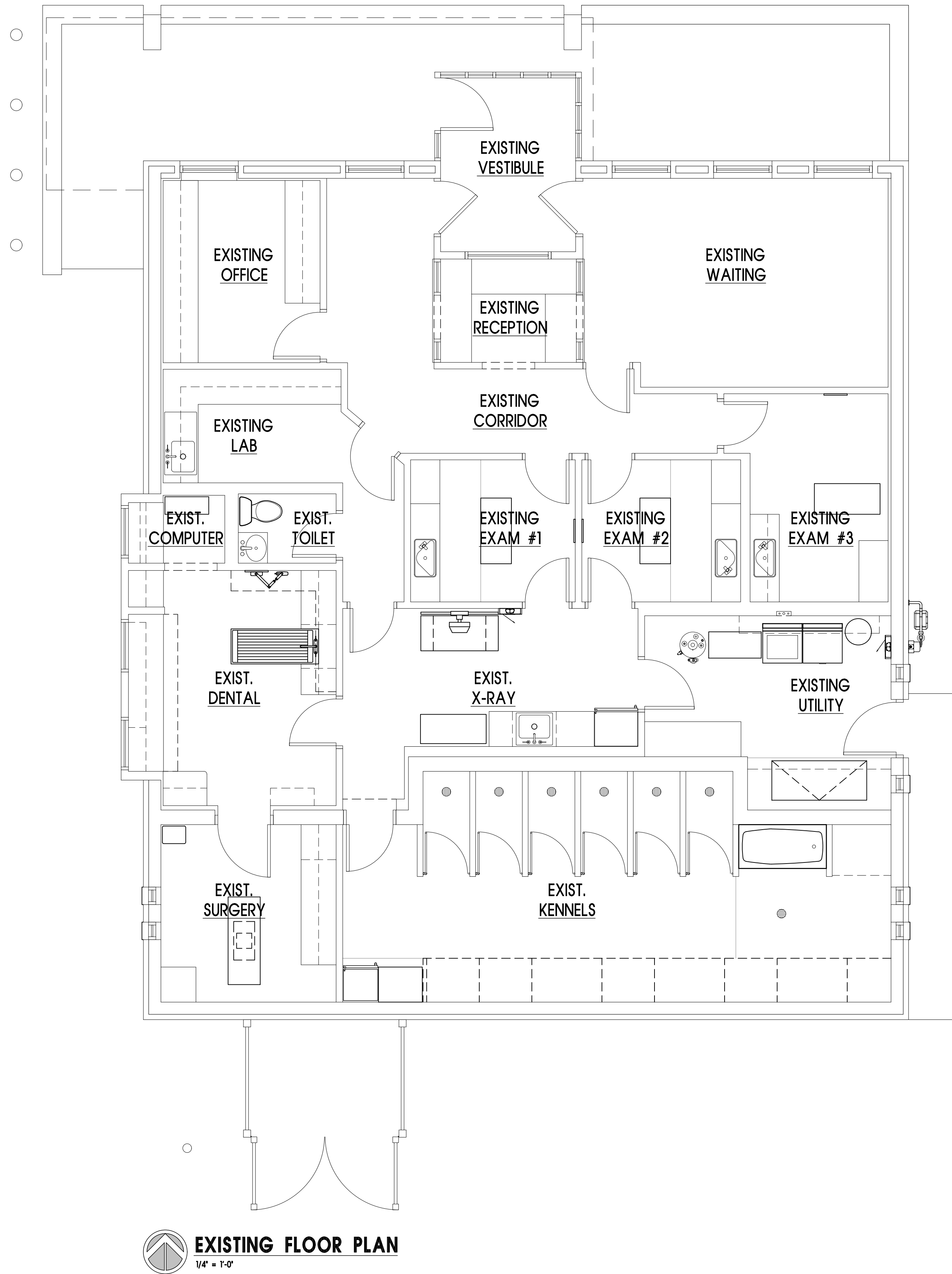
The revisions were made to the previously submitted drawings and were bubbled and dated revised for permit.

If you have questions or comments regarding this response, please feel free to contact me – (708) 799-4400.

Sincerely,
LINDENGROUP Inc.

Michael J Matthyss, AIA
Vice President
mmatthyss@lindengroupinc.com

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NOT FOR CONSTRUCTION



ARCHITECTURE
LAND PLANNING
INTERIOR ARCHITECTURE
LANDSCAPE ARCHITECTURE
10100 ORLAND PARKWAY SUITE 110
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JACOB@RWE.COM

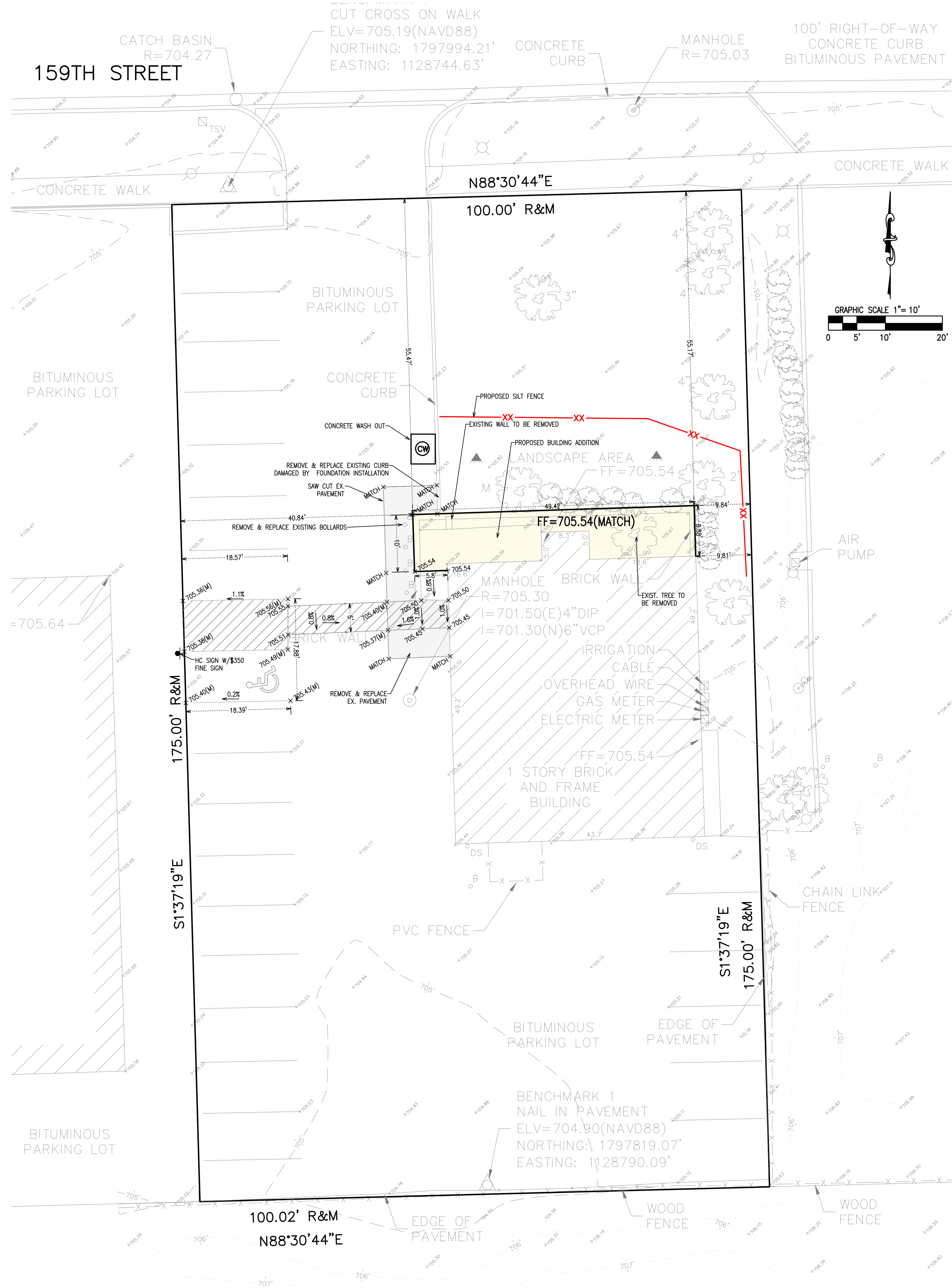
Bremen Animal Hospital - Remodel
7613 W 159th Street
Tinley Park, IL 60477

DATE	DRAWN	DESCRIPTION	ISSUE FOR CLIENT REVIEW
02-05-2019	MM		
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PROJECT NUMBER		2018-0028	
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FILE NUMBER			
02-25-2019		RAH	
DATE		DRAWN BY	
MM			
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FINAL REVIEW			

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EXISTING PLAN & PRELIMINARY PLAN

SHEET NAME
A-1.2
SHEET
2 OF 2



- NOTES:
- SEE ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS, STEP LOCATIONS, AND ALL SPECIAL FOUNDATION REQUIREMENTS.
 - SILT FENCE SHALL BE INSTALLED BEFORE CONSTRUCTION BEGINS AND MAINTAINED DURING THE PROJECT.
 - EXISTING TOPOGRAPHY PROVIDED BY PRAIRIE LAND SURVEYING, INC.
 - THE ADA CROSS WALK GRADE SHALL NOT EXCEED 2%.
 - GRIND MINIMUM 1.5" OF EXISTING SURFACE COURSE AND RESURFACE WITH MIN. 1.5" HMA SURFACE COURSE, MIX C, N50.

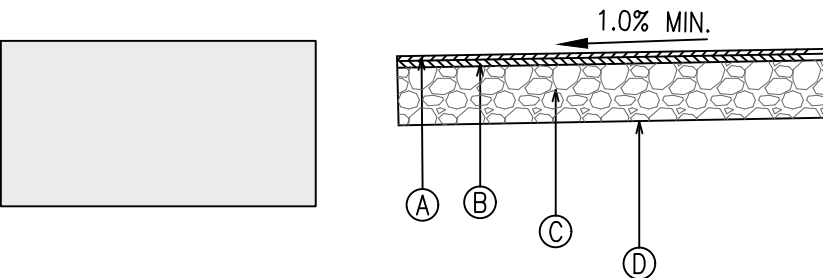
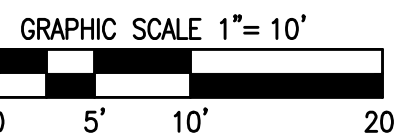
REFERENCE BENCHMARK INFORMATION
NGS BENCHMARK ME1942

3.9 MI N FROM MATTESON. ABOUT 1.6 MILES NORTH ALONG STATE HIGHWAY 50 FROM ITS JUNCTION WITH U.S. HIGHWAY 30 IN THE NORTHWEST PART OF MATTESON. THENCE 1.0 MILE WEST ALONG AN ASPHALT ROAD, THENCE 1.0 MILE NORTH ALONG AN ASPHALT ROAD, THENCE 0.3 MILE EAST ALONG AN ASPHALT ROAD, AT A T-FENCE CORNER, 31 FEET NORTH OF THE CENTER LINE OF THE ROAD, 60 1/2 FEET NORTH AND ACROSS THE ROAD FROM THE T-FENCE CORNER, 2 FEET WEST OF A TELEPHONE POLE WITH A BRACE, 2.1 FEET EAST OF A METAL WITNESS POST, ABOUT LEVEL WITH THE ROAD AND SET IN THE TOP OF A CONCRETE POST PROJECTING 2 INCHES.

ELEVATION=700.24(NAVD88)

NOTE:

THE PROPOSED SITE GRADING PLAN PROVIDED BY ADVANTAGE CONSULTING ENGINEERS SHALL BE USED FOR PROPOSED ELEVATIONS AND PROPOSED GRADING ONLY. THE CONTRACTORS EXCAVATING FOR THE FOUNDATION AND POURING FOUNDATION ARE RESPONSIBLE FOR VERIFYING THE FOUNDATION DIMENSIONS AND LAYOUT BEFORE STARTING CONSTRUCTION. THE FOUNDATION DIMENSIONS SHALL BE BASED OFF THE APPROVED ARCHITECTURAL PLANS, NOT THIS LOT GRADING PLAN.



- (A) 2" HOT MIX ASPHALT SURFACE COURSE, MIX. C, N50
(B) 2.5" HOT MIX ASPHALT BINDER COURSE, MIX. C, N50
(C) 10" MIN. CRUSHED AGGREGATE SUB-BASE, TY. B. (SEE SPECIAL PROVISIONS)
(D) COMPACTED SUBGRADE OR EXISTING GRAVEL/PAVING

PARKING LOT FULL DEPTH PAVEMENT SECTION



ENGINEER
WILLIAM J. ZALEWSKI, P.E.
BILLZ@CNC.US
ILLINOIS REGISTRATION NO.: 062-046121
EXPIRATION DATE: 11/30/2021
PROFESSIONAL DESIGN FIRM NO.: 184-007386
EXPIRATION DATE: 4/30/2023
THESE PLANS OR ANY PART THEREOF SHALL BE CONSIDERED VOID WITHOUT THE SIGNATURE, SEAL, AND EXPIRATION DATE OF SEAL OF THE ENGINEER

03/23/21

DATE



ADVANTAGE

CONSULTING ENGINEERS

80 MAIN STREET - SUITE 17 - LEMONT, ILLINOIS 60439
630-520-2467
WWW.ACEENGINEERS.COM

PROPOSED SITE GRADING PLAN

BREMEN ANIMAL HOSPITAL
7613 W 159TH STREET
TINLEY PARK, IL 60477

RWE
DESIGN BUILD

16W361 S. FRONTAGE ROAD, SUITE 106
BURR RIDGE, ILLINOIS 60527

MARCH 23, 2021
JOB: 21-026

SHEET:
C1

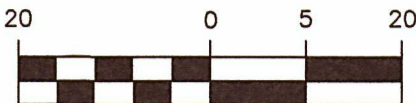
PLAT OF SURVEY

OF

A PARCEL OF LAND BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCING AT THE INTERSECTION OF THE SOUTH LINE OF 159TH STREET (AS HERETOFORE DEDICATED BY DOCUMENT NUMBER 10909313) WITH THE WEST LINE OF EAST 40.00 FEET THE THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN; THENCE WEST ALONG SAID SOUTH LINE OF 159TH STREET A DISTANCE OF 175.00 FEET FOR THE POINT OF BEGINNING FOR THE HEREINAFTER DESCRIBED PARCEL OF LAND; THENCE SOUTH ON A LINE PARALLEL WITH THE EAST LINE OF THE NORTHWEST QUARTER OF SAID SECTION 24 A DISTANCE OF 175.00 FEET; THENCE WEST ON A LINE PARALLEL WITH THE SOUTH LINE OF SAID 159TH STREET, A DISTANCE OF 175.00 FEET TO THE SOUTH LINE OF SAID 159TH STREET; THENCE EAST ON THE LAST DESCRIBED LINE A DISTANCE OF 100.00 FEET TO THE POINT OF BEGINNING IN COOK COUNTY, ILLINOIS.



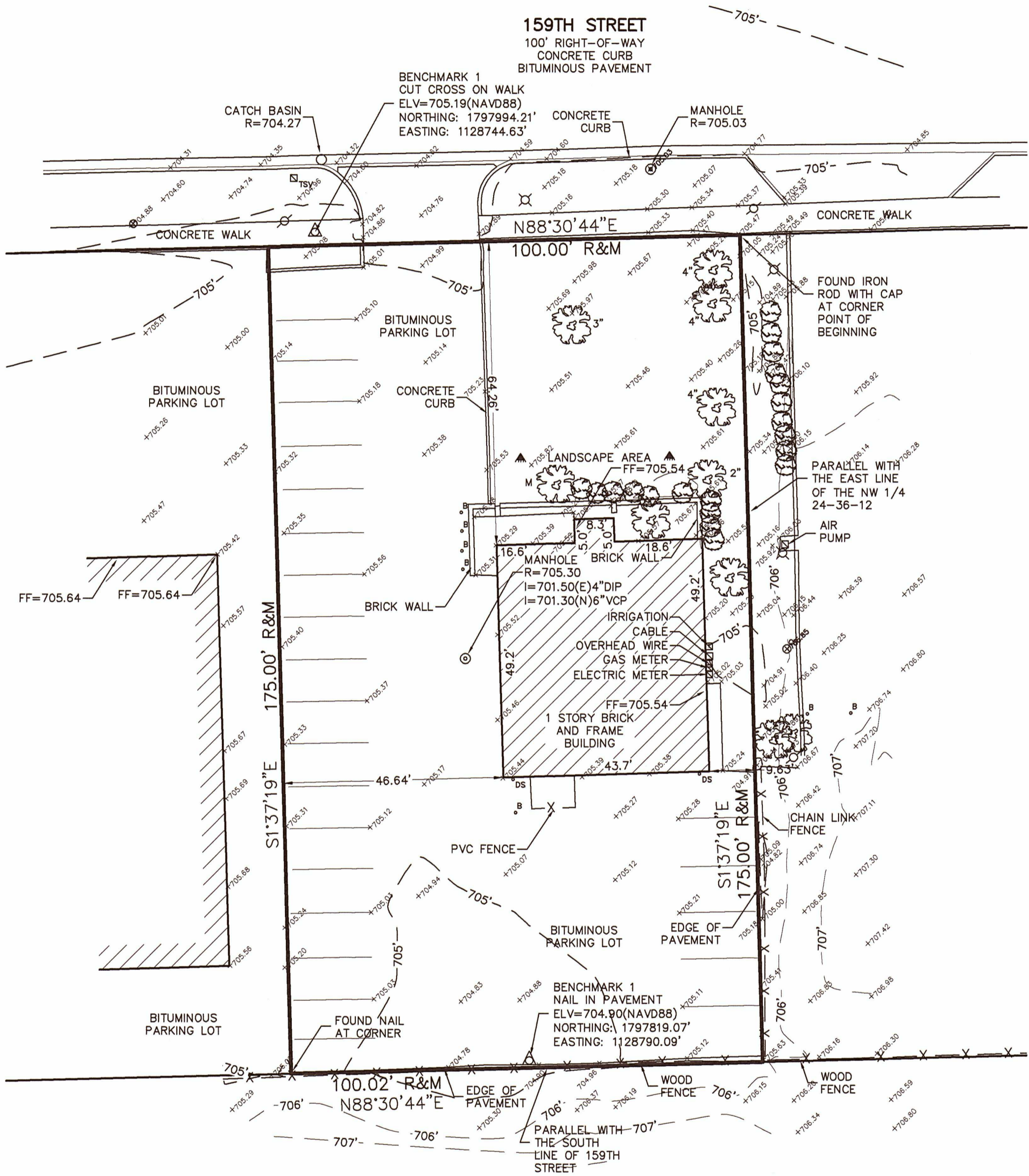
GRAPHIC SCALE



(IN FEET)
1 Inch = 20 Feet

LEGEND

- Catch Basin
- Electric Hand Hole
- Fire Hydrant
- Inlet
- Landscape Light
- Light Standard
- Manhole
- Power Pole
- Sign
- Water Valve
- Tree and Size
- Bush
- Traffic Signal
- Gas Meter
- Water Fountain
- Electric Manhole
- Transformer Box
- Traffic Signal Vault
- Flag Pole
- Hand Hole
- Heating, Ventilation, and Air Conditioning
- Multi-Trunk Tree
- Water Hand Hole
- Electric Meter
- Clean Out
- Gas Meter
- Electric Pedestal
- Telephone Pedestal
- Cable Pedestal
- Electric Cabinet
- Generator
- Gas Stand Pipe
- Bollard



SURVEYOR'S NOTES

- DIMENSIONS SHOWN THUS: 50.25' ARE FEET AND DECIMAL PARTS THEREOF. ANGULAR DATA SHOWN THUS: 90°00'00" INDICATES DEGREES, MINUTES AND SECONDS.
- NORTH ARROW AND BEARINGS BASED ON THE EAST LINE OF THE PARCEL AS SHOWN.
- IMPROVEMENT LOCATIONS ARE BASED ON A FIELD SURVEY BY PRAIRIE LAND SURVEY COMPANY ON 03/09/2021.
- COMPARE YOUR POINTS BEFORE USING SAME AND REPORT ANY DIFFERENCES.
- CHECK LEGAL DESCRIPTION WITH DEED OR TITLE POLICY AND REPORT ANY DISCREPANCY. BUILDING LINES AND EASEMENTS, IF ANY, SHOWN HEREON ARE AS SHOWN ON THE RECORDED SUBDIVISION OR AS INDICATED.
- R&M = RECORD AND MEASURED INFORMATION, (0.00') = RECORD INFORMATION, 0.00' = MEASURED INFORMATION, N. = NORTH, S. = SOUTH, E. = EAST, W. = WEST
- PRAIRIE LAND SURVEY COMPANY JOB NUMBER 21052

STATE OF ILLINOIS)
COUNTY OF WILL)

I, HEREBY CERTIFY THAT THE PLAT DRAWN HEREON AND THE SURVEY THAT IT REPRESENTS, WERE PREPARED AND PERFORMED BY US, AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR BOUNDARY SURVEYS.

DATED AT PLAINFIELD, ILLINOIS THE 22nd DAY OF MARCH, 2021.

PRAIRIE LAND SURVEY COMPANY
KEITH E. BOLLINGER, IPLS NO. 35-3592
LICENSE EXPIRES 11-30-2022



PLAT OF SURVEY

Ordered by: ACE ENGINEERING

PART OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN

FIELD WORK:	03/09/2021
DRAWN BY:	KB
CHECKED BY:	MS
PROJECT No.:	21052
FIELD BOOK:	17
FILE LOCATION:	105D
DRAWING FILE:	21052



PRAIRIE LAND SURVEY COMPANY

24043 West Oak Street, Plainfield, Illinois
PrairieLandSurvey.com
(815) 341-0659

GENERAL NOTES

PLANT MATERIAL SHALL BE NURSERY GROWN AND BE EITHER BALLED AND BURLAPPED OR CONTAINER GROWN. SIZES AND SPREADS IN PLANT LIST REPRESENT MINIMUM REQUIREMENTS.

SIZE AND GRADING STANDARDS OF PLANT MATERIAL SHALL CONFORM TO THE LATEST ADDITION OF ANSI Z60.1 AMERICAN STANDARD IF NURSERY STOCK, BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.

ANY MATERIAL WITH DAMAGED OF CROOKED/ DISFIGURED LEADERS, BARK ABRASION, SUNSCALD, INSECT DAMAGE, ETC. ARE NOT ACCEPTABLE AND WILL BE REJECTED. TREES WITH MULTIPLE LEADERS WILL BE REJECTED UNLESS CALLED FOR IN THE PLANT LIST AS MULTI-STEM OR CLUMP.

GRADING SHALL PROVIDE SLOPE WHICH ARE SMOOTH AND CONTINUOUS. POSITIVE DRAINAGE SHALL BE PROVIDED IN ALL AREAS.

QUANTITY LISTS ARE SUPPLIED AS A CONVENIENCE. HOWEVER, THE CONTRACTOR SHOULD VERIFY ALL QUANTITIES. THE DRAWINGS SHALL TAKE PRECEDENCE OVER THE LISTS.

ALL PLANT SPECIES SPECIFIED ARE SUBJECT TO AVAILABILITY MATERIAL SHORTAGES IN THE LANDSCAPE INDUSTRY MAY REQUIRE SUBSTITUTIONS. ALL SUBSTITUTIONS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT AND/OR OWNER.

CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING. CALL "J.U.L.I.E." (JOINT UTILITY LOCATION FOR EXCAVATORS) 1-800-892-0123.

CONTRACTOR SHALL REPORT ANY DISCREPANCIES IN THE FIELD TO THE LANDSCAPE ARCHITECT AND/OR OWNER.

PLANT SYMBOLS ILLUSTRATED ON THIS PLAN ARE A GRAPHIC REPRESENTATION OF PROPOSED PLANT MATERIAL TYPES AND ARE INTENDED TO PROVIDE FOR VISUAL CLARITY. HOWEVER, THE SYMBOLS DO NOT NECESSARILY REPRESENT ACTUAL PLANT SPREAD AT THE TIME OF INSTALLATION.

ALL PERENNIAL, ORNAMENTAL GRASS, GROUNDCOVER AND ANNUAL BEDS SHALL BE TOPDRESSED WITH A MINIMUM OF THREE INCHES (3") OF MUSHROOM COMPOST. THE TOPDRESSING SHALL BE WORKED INTO THE SOIL TO A MINIMUM DEPTH OF NINE INCHES (9") BY THE USE OF A CULTIVATING MECHANISM. UPON COMPLETION, PERENNIALS AND ORNAMENTAL GRASSES SHALL BE MULCHED WITH AN ADDITIONAL TWO INCH (2") LAYER OF SHREDDED WOOD MULCH; ANNUALS AND GROUNDCOVER SHALL BE COVERED WITH AN ADDITIONAL TWO INCH (2") LAYER OF MUSHROOM COMPOST.

ALL OTHER PLANTING BEDS AND TREE SAUCERS SHALL BE MULCHED WITH A MINIMUM OF THREE INCHES (3") OF SHREDDED WOOD MULCH.

ALL BED LINES AND TREE SAUCERS SHALL REQUIRE A HAND SPADE EDGE BETWEEN LAWN AND MULCHED AREAS.

PLANTING BEDS ADJACENT TO BUILDING SHALL BE MULCHED IN THEIR ENTIRETY TO THE BUILDING FOUNDATION.

ALL SOD SHALL BE OF SALT TOLERANT SPECIES WITH A MINERAL BASE.

ALL PLANT MATERIAL SHALL BE GUARANTEED FOR ONE (1) YEAR FROM THE DATE OF ACCEPTANCE.

PLANT REQUIREMENT CALCULATIONS

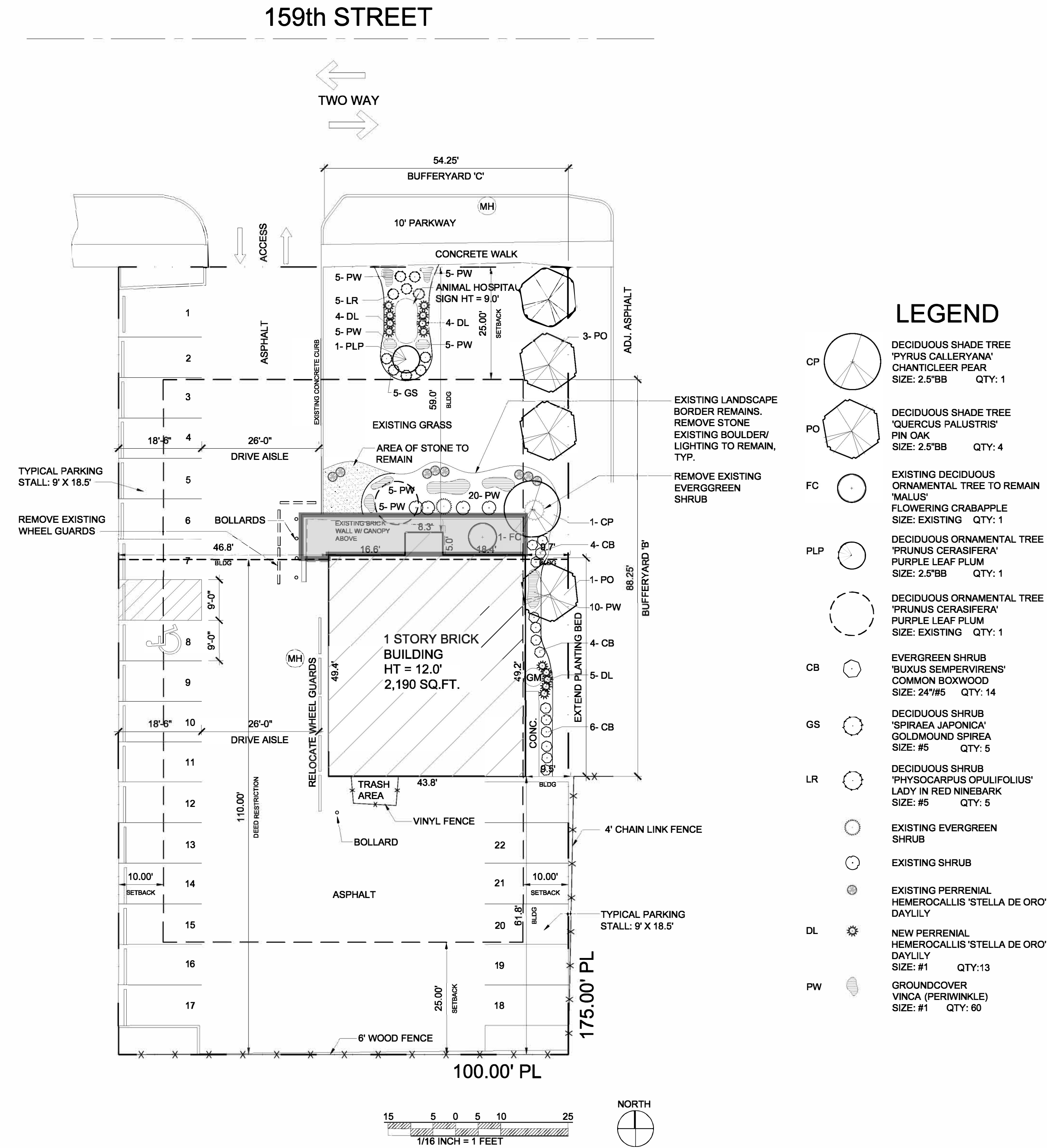
159th STREET
25' BUFFERYARD 'C'
CALCULATION: 54.25' DIVIDED BY 100 = .55 PLANT MULTIPLIER

CATEGORY	CALCULATION	PROVIDED
SHADE TREE (2.5")	.55 X 3.5 = 1.9 OR 2 REQ'D TREES	2
ORNAMENTAL TREE (2.5" OR 6")	.55 X 1.4 = .77 OR 1 REQ'D TREES	1
SHRUBS (24"-36")	.55 X 14 = 7.7 OR 8 REQ'D SHRUBS	9

EAST PROPERTY LINE
10' BUFFERYARD 'B'
CALCULATION: 88.25' DIVIDED BY 100 = .88 PLANT MULTIPLIER

CATEGORY	CALCULATION	PROVIDED
SHADE TREE (2.5")	.88 X 3.2 = 2.8 OR 3 REQ'D TREES	3
ORNAMENTAL TREE (2.5" OR 6")	.88 X 1 = .88 OR 1 REQ'D TREES	1
SHRUBS (24"-36")	.88 X 16 = 14 REQ'D SHRUBS	14

PARKWAY TREES
ONE (1) TREE PER TWENTY-FIVE (25) FEET OF FRONTAGE
CALCULATION: 54.25' DIVIDED BY 25 = 2.1 OR 2 REQ'D TREES
PARKWAYS LESS THAN 15'-0" IN WIDTH, THE REQUIRED TREES MAY BE PLANTED ON PRIVATE PROPERTY



SITE AND LANDSCAPE PLAN

SCALE: 1/16" = 1'-0"

PROJECT NAME:	NATIONAL VETERINARY ASSOCIATES, INC.	ISSUED FOR:	
PROJECT ADDRESS:	7613 159th STREET, TINLEY PARK, IL. 60477	REVIEW:	
DRAWING TITLE:	SITE AND LANDSCAPE PLAN	DATE:	07.23.2015
		DRAWN BY:	WS

ELEMENTS ARCHITECTURAL GROUP, INC
205 SUPERIOR STREET OAK PARK, IL 60302
www.elementsarchitects.com 708.848.4750

PROFESSIONAL DESIGN FIRM ARCHITECT CORPORATION, LICENSE # 184.000133

I CERTIFY THAT THESE PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION AND TO THE BEST OF MY KNOWLEDGE CONFORM TO THE BUILDING CODE OF THE CITY OF CHICAGO

WILLIAM NEIL SCHOLTENS
ILLINOIS LICENSE 001-019492
EXPIRES 11/30/2016

L-1



VILLAGE OF TINLEY PARK, ILLINOIS VARIATION ADDENDUM

APPLICATION & SUBMITTAL REQUIREMENTS

A complete application consists of the following items submitted in a comprehensive package. If materials are submitted separately or are incomplete they will not be accepted and may delay the review and hearing dates until a complete application package is received. The following information is being provided in order to assist applicants with the process of requesting a **Variation** from the terms of the Zoning Ordinance. This information is a summary of the application submittal requirements and may be modified based upon the particular nature and scope of the specific request.

Depending upon meeting schedules, legal notification requirements, and the specific type and scope of the request, this process generally takes between 45 to 60 days from the date of submission of a complete application package. Please schedule a pre-application meeting with Planning Department staff to review the feasibility of the proposal, discuss applicable Ordinance requirements, discuss submittal requirements and receive preliminary feedback on any concept ideas or plans prior to making a submittal.

- ☐ General Application form is complete and is signed by the property owner(s) and applicant (if applicable).
- ☐ Ownership documentation is submitted indicating proper ownership through a title report or title policy. If a corporation or partnership, documentation of the authorized agent must be supplied as well. All beneficiaries of a property must be disclosed.
- ☐ A written project narrative detailing the specific variation(s) from code requirements that are being requested, the reasoning for requiring the variation, the general nature and specific aspects of the proposal being requested. Any additional requests such as a Special Use or Site Plan approval should be indicated in the narrative as well.
- ☐ A Plat of Survey of the property that is prepared by a registered land surveyor and has all up-to-date structures and property improvements indicated. All proposed improvements shall be indicated on the survey and be appropriately scaled with all setbacks and dimensions clearly indicated.
- ☐ Any applicable site plan, engineering/grading plans, exterior elevations or interior layout plans that indicate the full scope of the project and the Standards for a Variation.
- ☐ Responses to all Standards for a Variation on the following page (can be submitted separately along with the narrative, but all standards must be covered).
- ☐ Residential Variation Hearing Fee - \$250 + \$75 per additional Variation
Commercial Variation Hearing Fee - \$500 + \$75 per additional Variation

STANDARDS AND CRITERIA FOR A VARIATION

Section X.G.1 of the Village of Tinley Park Zoning Ordinance requires that the Zoning Board of Appeals determine compliance with the following standards and criteria. In order for a variance to be approved, the Petitioner must respond to all the following statements and questions related to the Standards with factual evidence and information to support the requested Variation. If additional space is required, you may provide the responses on a separate document or page.

- A. Describe the difficulty that you have in conforming with the current regulations and restrictions relating to your property, and describe how this hardship is not caused by any persons presently having an interest in the property. (Please note that a mere inconvenience is insufficient to grant a Variation). For example, does the shape or size of the lot, slope, or the neighboring surroundings cause a severe problem in completing the project in conformance with the applicable Ordinance requirement?**

- B. Describe any difficulties or hardships that current zoning regulations and restrictions would have in decreasing your property value compared to neighboring properties.**

- C. Describe how the above difficulty or hardship was created.**

- D. Describe the reasons this Variance request is unique to this property only and is not applicable, in general, to other properties within the same Zoning District.**

- E. Explain how this Variance would not be regarded as an attempt at financial gain, but only because of personal necessity. For example, the intent of the Variance is to accommodate related living for an elderly relative as opposed to adding an additional income source.**

- F. Describe how granting this Variance request will not be detrimental to the public welfare or injurious to other properties or improvements in the neighborhood in which the property is located.**

- G. Explain how granting this Variance will not alter the essential character of the neighborhood or locality.**

H. Describe how the requested Variance will not:

- 1. Impair an adequate supply of light and air to adjacent properties.**
- 2. Substantially increase the congestion of the public streets.**
- 3. Increase the danger of fire.**
- 4. Impair natural drainage or create drainage problems on adjacent property.**
- 5. Endanger the public safety.**
- 6. Substantially diminish or impair property values within the neighborhood.**

PLAN COMMISSION STAFF REPORT

May 6, 2021 - Workshop

Petitioner

Christopher Ileakis, on
behalf of 9561 W 171st
Tinley Park LLC (Contract
Purchaser)

Property Location

17111-19 LaGrange Rd
(Formally 9561 171st St)

PIN

27-27-320-006-0000

Zoning

B-3 PD (General Business
& Commercial, Park Hills
Town Centre PUD)

Approvals Sought

Site Plan & Architectural
Approval

Project Planner

Daniel Ritter, AICP
Senior Planner

Vequity/Starbucks Multi-Tenant Building Conversion

17111 - 17119 LaGrange Road (Formally 9561 171st Street)



EXECUTIVE SUMMARY

The Petitioner, Christopher Ileakis, on behalf of 9561 W 171st Tinley Park LLC (Contract Purchaser), is seeking Site Plan and Architectural Approval to make site and façade changes on an existing building at 17111-17119 LaGrange Road (formally 9561 171st St) in the B3 PD (General Business and Commercial, Park Hills Towne Centre PUD) Zoning District.

The proposed Site Plan Amendment allows for the former MD Financial/Fifth-Third Bank building to be converted to a multi-tenant commercial building that includes a Starbucks Coffee drive-thru. The changes include removal of the rear canopy area, installation of a drive-thru lane, changes to the parking lot, an outdoor patio addition, and minor changes to the façade that allow for additional doorways and tenants. The Petitioner has supplied a professional traffic and parking analysis with a focus on the drive-thru lane stacking and design. The report concludes that drive-thru design and parking is acceptable for the expected demand. Any additional stacking beyond the lane will be rare, but happens within the site and not on any public roadways or main drive aisles.

The adaptive reuse of a vacant bank building is likely to create a more economically productive site than a bank, which has experienced decreased market demand for physical locations. Beyond Starbucks, the remaining tenant space will be used by one or two additional tenants depending on their space needs. The proposed site changes upgrade the property by allowing for successful and safe site circulation and drive-thru operations. The landscaping, pedestrian connectivity, and the exterior appearance of the site are also improved with the redevelopment.

EXISTING SITE & HISTORY

The subject property is located in an outlot of the Park Hills Towne Centre, which is anchored by Lou Malnati's, Frankie's Ristorante, CVS Pharmacy, and previously Tribes Alehouse. The majority of the shopping center and outlots were approved and constructed in 2006 and 2007. The subject property was originally designed for American Chartered Bank, which occupied the building from 2006 until 2016. It was converted to MB Financial in 2016 following a bank acquisition and then briefly Fifth Third Bank in 2019 after another acquisition. Fifth Third Bank closed the branch to the public in July 2019 and has used it as bank office space through the pandemic. Based on the original meeting minutes, it was noted that the building was designed in a way it can be easily repurposed for commercial uses beyond a bank in the future by removing the canopy area.

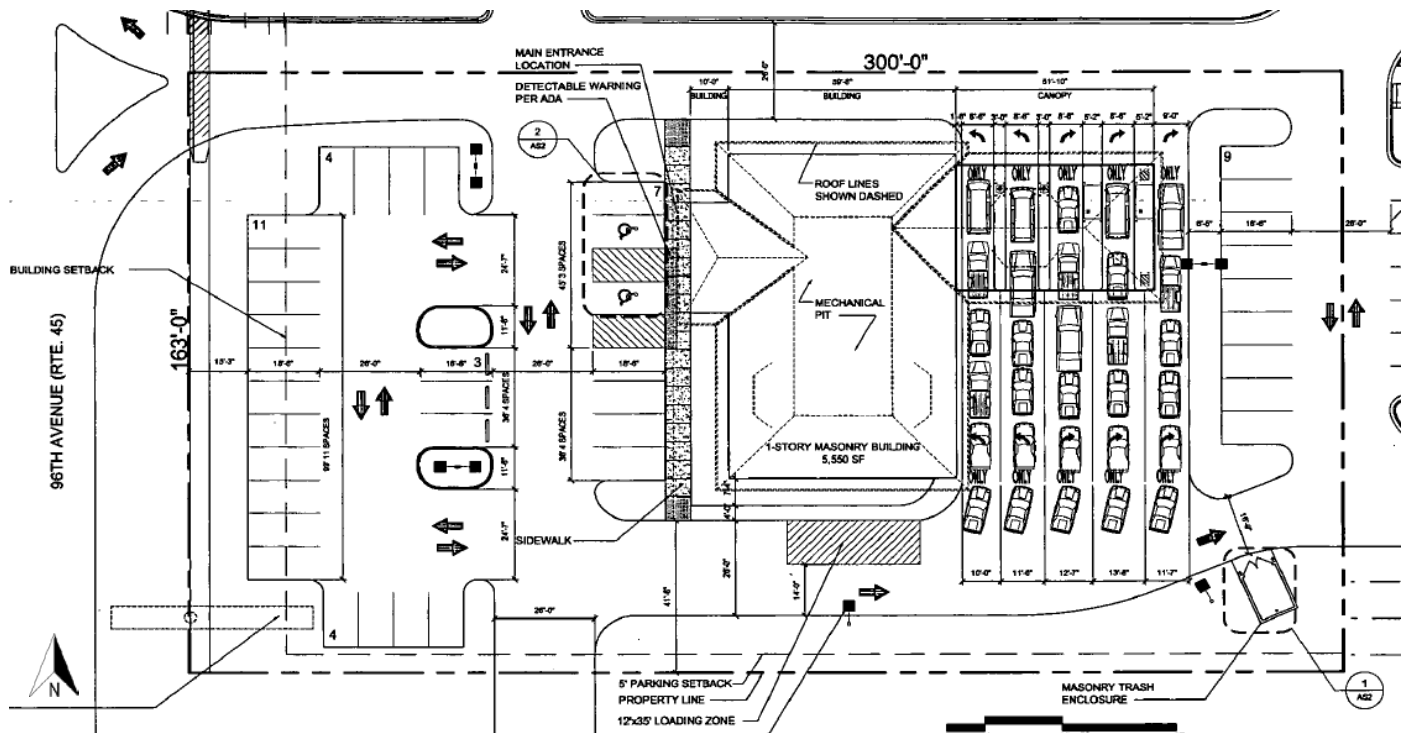
In 2015 the site was required to shrink its front parking field along LaGrange Road and alter landscaping based on IDOT plans for the road expansion and reconstruction. The result was a reduction in 4 parking stalls and a designated loading area on the site (six angled stalls along the south drive aisle were added) and a reduction in the front bufferyard landscaping area.



Above: Existing Site Bird's Eye View (Bing Maps).



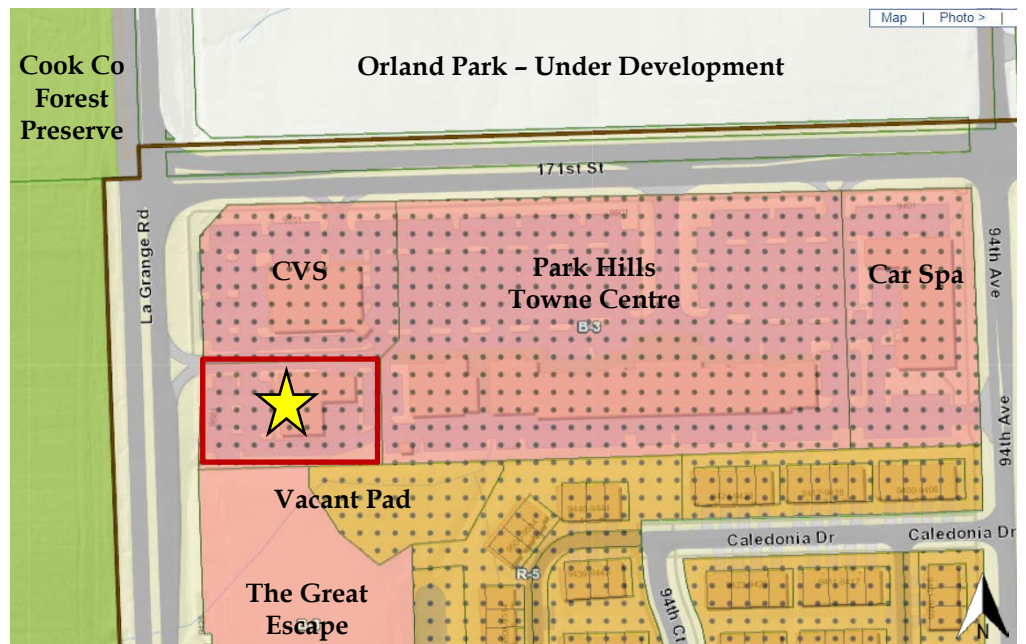
Above: Pictures of existing building west/front façade (left) and east/rear (right) façade.



Above: Originally Approved Site Plan for American Chartered Bank (2006).

ZONING & NEARBY LAND USES

The subject property (see the yellow star on the graphic to the right) is zoned B-3 PD (General Business and Commercial, Park Hills Towne Centre Planned Unit Development). The Park Hills Towne Centre located to the north and east of the subject site was designed with a cohesive master plan and building design standards. The center includes such businesses such as: Frankie's Ristorante, Lou Malnati's, CVS, The Car Spa, Subway, Trouville Med Spa, among many others. To the south of the subject site is The Great Escape along with a vacant pad, also zoned B-3. To the west is the Orland Grassland, which is unincorporated land owned and operated by the Cook County Forest Preserve District.



PROPOSED USE

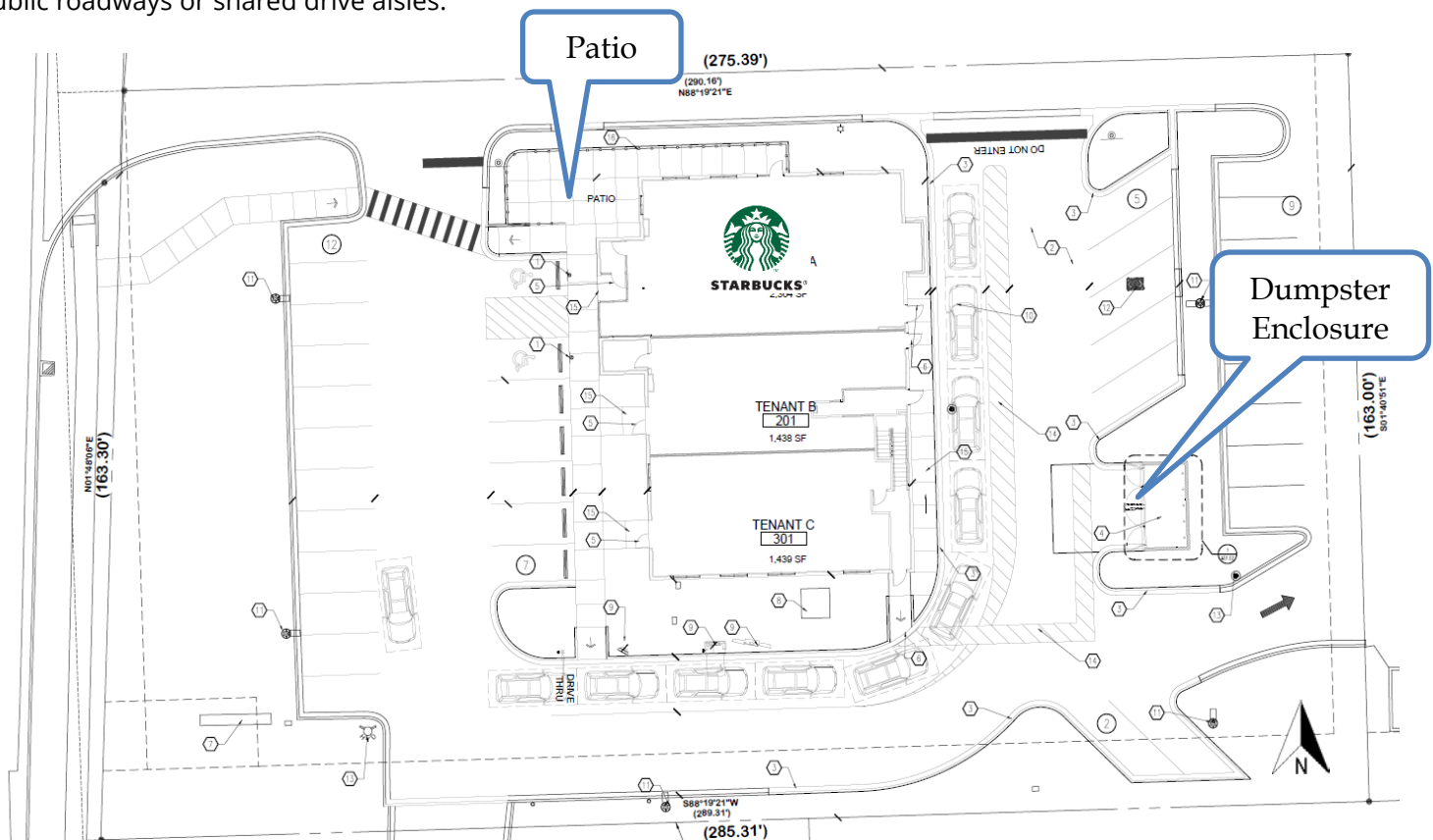
The proposed building will include a Starbucks Coffee with a drive-thru lane and window. The building is 5,593 sq. ft. in total size, with 5,241 sq. ft. leasable space (excluding mechanical and sprinkler rooms). The Starbucks will use approximately 2,364 sq. ft. of the leasable floor space (Tenant Space "A"). They have a high reliance on drive-thru business, particularly during the pandemic. However, they will also offer dine-in and patio seating, which they expect to return to pre-pandemic levels. The remaining 2,877 sq. ft. of commercial floor space has been designed to accommodate up to two additional tenants depending on the space needs by the future tenant(s). There is not a contract on the other tenant space but it will be marketed upon site approval.



SITE PLAN & CIRCULATION

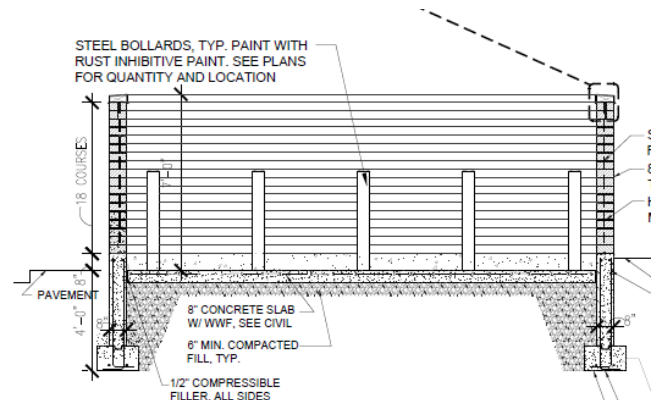
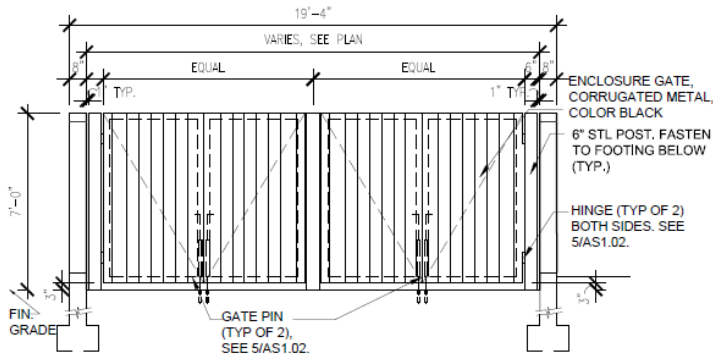
The proposed site plan includes several site plan changes. The most significant is the removal of the drive-up bank canopy and the installation of a drive-thru lane. Overall site circulation will remain similar to the bank with one-way counter-clockwise circulation around the south and east side of the building where the drive-thru lane is being added. The west side main aisle will remain two-way, along with the north drive aisle that connects to the larger Park Hills Towne Centre development. Parking stalls have been removed from the south side of the site to allow for space for the drive-thru lane. However, parking has been added to the east side of the building where the bank canopy existed and an additional two stalls have also been added where the dumpster enclosure existed.

Drive-thru ordering will happen at the south end of the site with vehicles then pulling around the rear of the building where a window will be installed for order pick-up on the east façade at the northeast corner of the building. A total of 9-10 vehicles will be able to stack within the lane. A Parking and Traffic Analysis from their traffic consultant, KLOA, has been submitted outlining the expected demand and concluding adequate parking and drive-thru stacking is present in the proposed plan. Any drive-thru stacking beyond the drive-thru lane will happen on-site and not in any public roadways or shared drive aisles.



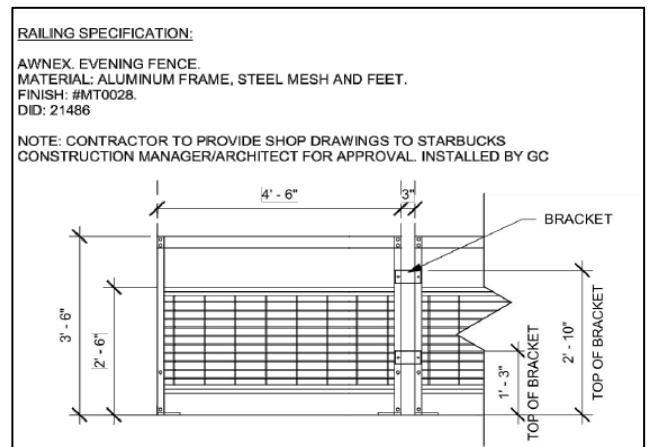
The property did not have a public sidewalk along LaGrange Road when it was originally developed. However, now with a public sidewalk is constructed along LaGrange Avenue, a pedestrian connection to the site is being proposed. The walkway allows for better pedestrian connectivity and accessibility to the site.

A new trash enclosure has been proposed and sized proportionately for Starbucks and up to two other commercial tenants. The enclosure will be constructed with exterior brick that matches the existing building façade. The old dumpster smaller enclosure will be removed and replaced with parking stalls.



An outdoor patio is being installed near the Starbucks entrance to allow for outdoor seating for their customers. The patio will be surrounded by a 3-4 ft. tall open-design aluminum fence. The patio has been set back from the drive aisle and parking areas to ensure vehicles won't conflict with the new patio or fencing. There are some shrubs and landscaping surrounding the patio to soften its appearance and make it a more pleasant place to sit.

Open Item #1: Review overall proposed Site Plan changes, layout, site circulation, and drive-thru stacking.



LANDSCAPE

The proposed Landscape Plan has been reviewed by the Village's Landscape Architect and finds it to be in general conformance with the Village's Landscape Ordinance with a few exceptions due to the site's constraints. The proposal requests a waiver from a few of the bufferyard requirements, parkway tree requirements, and interior landscaping requirements. The Petitioner has indicated that they have worked to meet the landscape requirements to the greatest extent possible and focused their available bufferyard width and landscaping to adequately buffer views from the residential properties to the west. Deficiencies are outlined in the table below.

Table A

Please review the landscape requirements within the following tables on the next page. Deficiencies must be addressed in a revised Landscape Plan. Please note the following abbreviations: CT = Canopy Tree, US = Understory Tree, SH = Shrub, T = Tree.

BUFFERYARD REQUIREMENTS							
Bufferyard Location	Required Width	Proposed Width	Length	Required Plantings	Proposed Plantings	Deficit	Comments

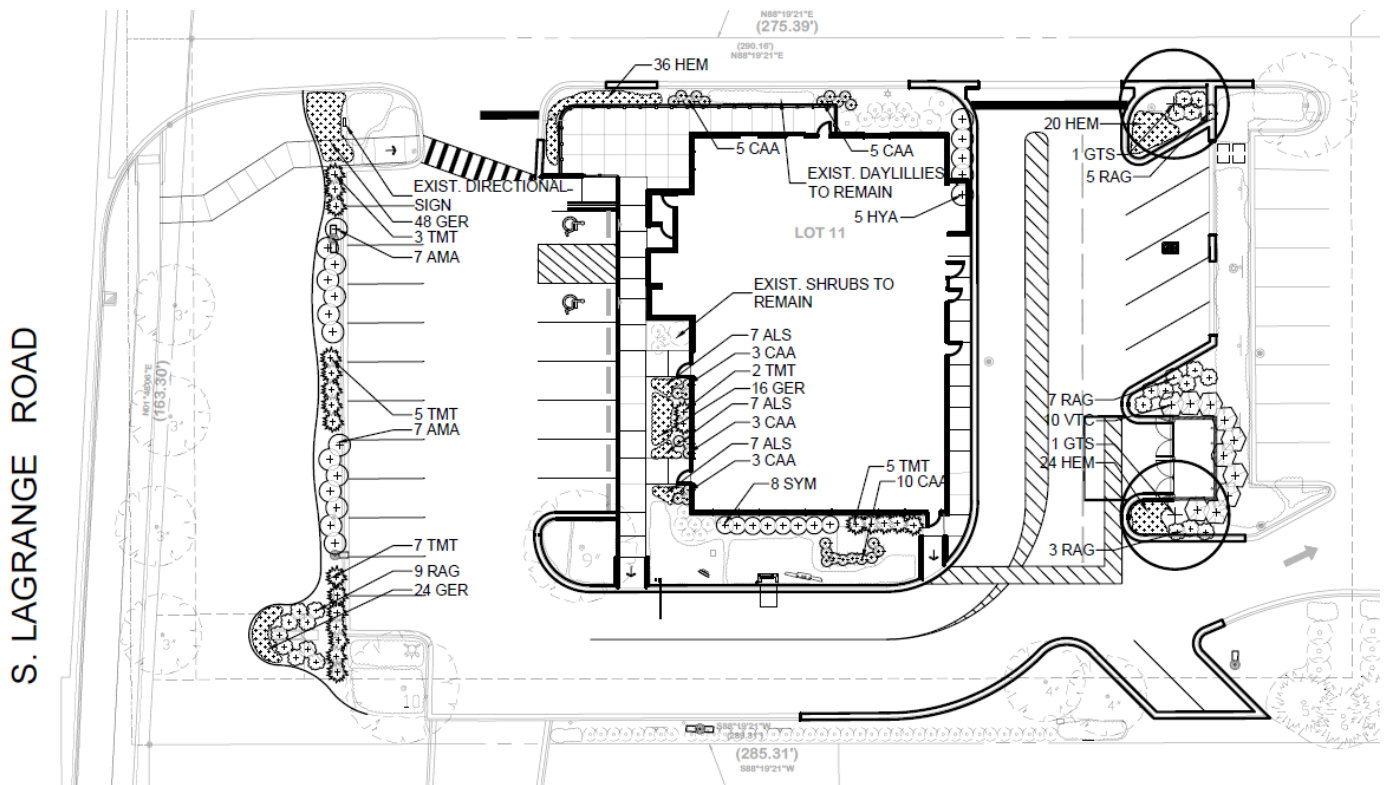
North ("B" Bufferyard)	5'	5'	179'	8 CT 3 US 36 SH	0 CT 0 US 36 SH	-8 CT -3 US -	Overlap of east and west proposed bufferyards excluded.
East ("C" Bufferyard)	10'	10'	206'	11 CT 5 US 42 SH	3 CT 0 US 39 SH	-8 CT -5 US -3 SH	
South ("B" Bufferyard)	5'	5'	179"	8 CT 3 US 36 SH	0 CT 0 US 36 SH	-8 CT -3 US -	Overlap of east and west proposed bufferyards excluded.
West ("D" Bufferyard)	30'	10'	206'	7 CT 4 US 29 SH	7 CT 0 US 67 SH	- -4 US +38 SH	Required plantings reduced by 50% due to proposed fencing. Bufferyard calculations utilize 30' wide requirements. Evergreen trees shall be considered instead of traditional Canopy trees to buffer noise/visual effects.

INTERIOR LOT LANDSCAPING REQUIREMENTS					
Location	Requirement	Proposed	Deficit	Comments	
Foundation	Landscape coverage along 70% of building foundation that faces public right-of-way; 10' wide landscaped area	0% (lineal feet)	100% (67 lineal feet)	Total lineal feet of foundation fronting Harlem Ave. = 95'	
Interior	4 canopy trees	2	-2 CT	40,873 s.f. of lot area (Audit includes 1 existing tree to remain)	

PARKWAY STANDARDS					
Location	Requirement	Required Trees	Proposed Trees	Deficit	Comments
Parkway	1 Tree per 25 Lineal Feet	7	6	-1	Final plans to ensure low mature height trees to not conflict with existing power lines.

PARKING LOT LANDSCAPING STANDARDS				
Location	Requirement	Provided	Deficit	Comments
Parking Lot	15% of parking lot area to be landscaped or 3,291 square feet	1,680 square feet	-1,611 square feet	21,945 s.f. of parking lot shown on landscape plan
Parking Lot	Screening of adjacent properties and streets.	Continuous screening not provided.	-	Bufferyard plantings counted towards continuous screening requirements.

Parking Lot Islands	1 CT and 1 SH per 200 square feet (2 CT and 2 SH required)	1 CT 7 SH	-1 CT +5 SH	NE island = 169 s.f.
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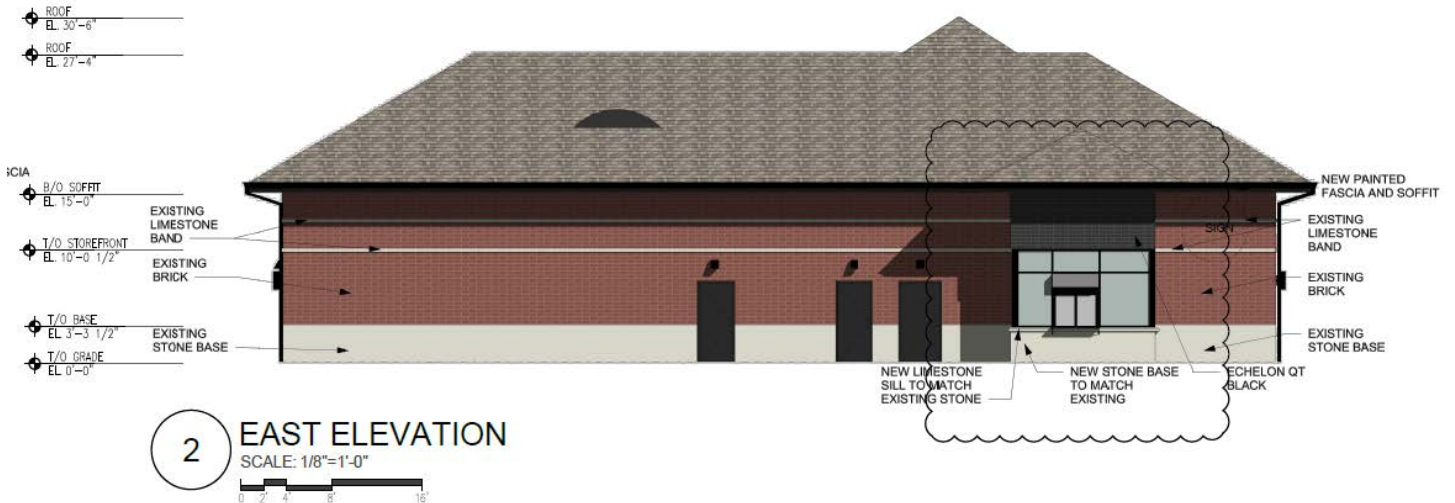
ARCHITECTURE

The building's architecture will largely remain the same and meets the intent of the architectural guidelines in the PUD documents. The majority of the structure's exterior utilizes face brick, but there is limestone uses along the base, window headers, and as a design element along the top of the structure. Changes include a new storefront system with doors to allow for one or two tenants to occupy the site. A metal canopy has been added over the Starbucks entrance.

EIFS is proposed to be installed around the top band of the building on the west/front and south/side of the building to help divide the spaces and allow for signage. Staff is recommending that the EIFS band not be installed along the east side of the building as it makes for an awkward transition along the façade when the band stops and removes details that make the building more attractive (shown with a red circle on the south elevation below). A wall sign can still be permitted at that location but may require a different style to run electric through the brick area. For example, a wall sign with a backing plate or a raceway may be required here. By keeping the façade as it is, the quality building appearance is maintained, while also saving money on the renovations.

Staff also has concerns with the EIFS addition on the front/west façade as it creates a portion of the façade that looks less appealing than the rest of the building. Staff has recommended that the Petitioner look at alternative options to reduce the EIFS area that includes more brick or the ability to mount signage on the brick on a raceway or backer plate.

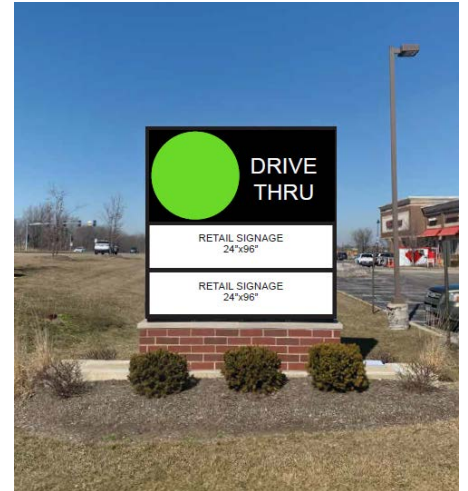
Open Item #2: Review façade changes and discuss staff's recommendation that the south façade does not include an EIFS band at the top of the building and there be changes to make the west EIFS band area more appealing.



SIGNAGE

The existing foundation and sign base will be utilized with a new ground sign box proposed that will have space for the building's two or three tenants. The proposed ground sign complies with the size, height, and design requirements of the zoning code and PUD sign regulations.

No wall, directional, or drive-thru signage has been proposed at this time. Typically, staff likes to see these signs for any known tenants with new development proposals to avoid any future delays or additional meetings. Specifically, staff notes that a preview menu board, which is typical of Starbucks locations and shown on the site plan, is not permitted (only one sign accessory to a drive-thru is permitted). The Petitioner has noted that all signage beyond the ground sign (wall, directional and drive-thru signage) is the responsibility of the tenants. They have noted it is understood by both them and Starbucks that any signage that isn't in compliance with the existing codes may require a separate review and public hearing process to receive approval.



PARKING

There is 5,241 sq. ft. of leasable commercial floor space in the building. With the requirement of 6.5 spaces per 1,000 sq. ft. for planned commercial centers, this requires a total of 34 stalls on the site. 35 parking stalls have been provided on the site and cross-parking is recorded within the overall Park Hills Towne Centre development. Ideally most parking spaces are located near the business entrances for easy customer access; however, there is no space for expansion due to the IDOT takings related to LaGrange Road. The Petitioner has noted, that as the building owner, they plan to instruct all tenants to have employees park at the farthest spots in the rear for customer convenience. A Parking and Traffic Analysis from their traffic consultant KLOA has been supplied outlining the expected traffic demand and concluding that adequate parking supply and drive-thru stacking is present in the proposed plan.

The ADA stalls have been redesigned according to current Illinois Accessibility Code standards that allow for sharing of an access aisle. The previously existing aisle space will be added to the patio area to ensure there is adequate space around the patio to avoid vehicle conflicts and for space to place a walkway connecting the storefront and public sidewalk. The one-way spaces on the south side of the site have been removed to allow for space for the drive-thru lane. New angled one-way spaces were added on the east side of the building where the existing dumpster enclosure is located. Truck loading will happen at the rear of the property during non-peak hours to avoid blocking any parked vehicles.

LIGHTING

The shopping center (and CVS and carwash outlots) utilizes a unique decorative light pole fixture. However, the bank development was approved without the use of those decorative fixtures, likely since it was not as interconnected to the larger shopping center development. The existing light poles will remain at their existing locations with new LED fixtures installed. All light fixtures will be downcast and full-cutoff (no visible light source) to avoid any off-site glare.

SUMMARY OF OPEN ITEMS

Staff identified the following open items for discussion at the workshop:

1. Review overall proposed Site Plan changes, layout, site circulation, and drive-thru stacking.
2. Review façade changes and discuss staff's recommendation that the south façade does not include an EIFS band at the top of the building and there be changes to make the west EIFS band area more appealing.

STANDARDS FOR SITE PLAN & ARCHITECTURAL APPROVAL

Section III.T.2. of the Zoning Ordinance requires that the conditions listed below must be met and reviewed for Site Plan approval. Specific findings are not required but all standards shall be considered to have been met upon review from the Plan Commission.

Architectural

- a. **Building Materials:** The size of the structure will dictate the required building materials (Section V.C. Supplementary District Regulations). Where tilt-up or pre-cast masonry walls (with face or thin brick inlay) are allowed vertical articulation, features are encouraged to mask the joint lines. Concrete panels must incorporate architectural finishes that comply with “Building Articulation” (Section III.U.5.h.) standards. Cast in place concrete may be used as an accent alternate building material (no greater than 15% per façade) provided there is sufficient articulation and detail to diminish it’s the appearance if used on large, blank walls.
- b. **Cohesive Building Design:** Buildings must be built with approved materials and provide architectural interest on all sides of the structure. Whatever an architectural style is chosen, a consistent style of architectural composition and building materials are to be applied on all building facades.
- c. **Compatible Architecture:** All construction, whether it be new or part of an addition or renovation of an existing structure, must be compatible with the character of the site, adjacent structures and streetscape. Avoid architecture or building materials that significantly diverge from adjacent architecture. Maintain the rhythm of the block in terms of scale, massing and setback. Where a development includes outlots they shall be designed with compatible consistent architecture with the primary building(s). Site lighting, landscaping and architecture shall reflect a consistent design statement throughout the development.
- d. **Color:** Color choices shall consider the context of the surrounding area and shall not be used for purposes of “attention getting” or branding of the proposed use. Color choices shall be harmonious with the surrounding buildings; excessively bright or brilliant colors are to be avoided except to be used on a minor scale for accents.
- e. **Sustainable architectural design:** The overall design must meet the needs of the current use without compromising the ability of future uses. Do not let the current use dictate an architecture so unique that it limits its potential for other uses (i.e. Medieval Times).
- f. **Defined Entry:** Entrance shall be readily identifiable from public right-of-way or parking fields. The entry can be clearly defined by using unique architecture, a canopy, overhang or some other type of weather protection, some form of roof element or enhanced landscaping.
- g. **Roof:** For buildings 10,000 sf or less a pitched roof is required or a parapet that extends the full exterior of the building. For buildings with a continuous roof line of 100 feet or more, a change of at least five feet in height must be made for every 75 feet.
- h. **Building Articulation:** Large expanses of walls void of color, material or texture variation are to be avoided. The use of material and color changes, articulation of details around doors, windows, plate lines, the provision of architectural details such as “belly-bands” (decorative cladding that runs horizontally around the building), the use of recessed design elements, exposed expansion joints, reveals, change in texture, or other methods of visual relief are encouraged as a means to minimize the oppressiveness of large expanses of walls and break down the overall scale of the building into intermediate scaled parts. On commercial buildings, facades greater than 100 feet must include some form of articulation of the façade through the use of recesses or projections of at least 6 inches for at least 20% of the length of the façade. For industrial buildings efforts to

break up the long façade shall be accomplished through a change in building material, color or vertical breaks of three feet or more every 250 feet.

- i. Screen Mechanicals: All mechanical devices shall be screened from all public views.
- j. Trash Enclosures: Trash enclosures must be screened on three sides by a masonry wall consistent with the architecture and building material of the building it serves. Gates must be kept closed at all times and constructed of a durable material such as wood or steel. They shall not be located in the front or corner side yard and shall be set behind the front building façade.

Site Design

- a. Building/parking location: Buildings shall be located in a position of prominence with parking located to the rear or side of the main structure when possible. Parking areas shall be designed so as to provide continuous circulation avoiding dead-end parking aisles. Drive-through facilities shall be located to the rear or side of the structure and not dominate the aesthetics of the building. Architecture for canopies of drive-through areas shall be consistent with the architecture of the main structure.
- b. Loading Areas: Loading docks shall be located at the rear or side of buildings whenever possible and screened from view from public rights-of-way.
- c. Outdoor Storage: Outdoor storage areas shall be located at the rear of the site in accordance with Section III.O.1. (Open Storage). No open storage is allowed in front or corner side yards and are not permitted to occupy areas designated for parking, driveways or walkways.
- d. Interior Circulation: Shared parking and cross access easements are encouraged with adjacent properties of similar use. Where possible visitor/employee traffic shall be separate from truck or equipment traffic.
- e. Pedestrian Access: Public and interior sidewalks shall be provided to encourage pedestrian traffic. Bicycle use shall be encouraged by providing dedicated bikeways and parking. Where pedestrians or bicycles must cross vehicle pathways a cross walk shall be provided that is distinguished by a different pavement material or color.

RECOMMENDATION

Following a successful workshop, proceed to a Public Hearing at the May 20, 2021 Plan Commission meeting.



Village of Tinley Park
Community Development Dept.
16250 S. Oak Park Ave.
Tinley Park, IL 60477
708-444-5100

VILLAGE OF TINLEY PARK, ILLINOIS
PLANNING AND ZONING GENERAL APPLICATION

REQUEST INFORMATION

*Additional Information is Required for Specific Requests as Outlined in Specific Addendums

- ☒ **Special Use for:** Drive-thru coffee shop and up to 4 other uses
- ☐ **Planned Unit Development (PUD)** ☐ **Concept** ☐ **Preliminary** ☐ **Final** ☐ **Deviation**
- ☐ **Variation** ☐ **Residential** ☐ **Commercial** for _____
- ☐ **Annexation**
- ☐ **Rezoning (Map Amendment) From** _____ **to** _____
- ☐ **Plat (Subdivision, Consolidation, Public Easement)** ☐ **Preliminary** ☐ **Final**
- ☐ **Site Plan**
- ☐ **Landscape Change Approval**
- ☐ **Other:** _____

PROJECT & PROPERTY INFORMATION

Project Name: 9561 W 171ST STREET

Project Description: 2 to 4 store development w/drive-thru coffee shop

Project Address: 9561 W. 171st Street **Property Index No. (PIN):** 27-27-320-006-0000

Zoning District: B-3 **Lot Dimensions & Area:** 167' x 294' (47,669 square feet)

Estimated Project Cost: \$ _____

OWNER OF RECORD INFORMATION

Please supply proper documentation of ownership and/or designated representative for any corporation.

Name of Owner: Randall Morrissey, VP, RE Manager **Company:** Fifth Third Bank

Street Address: _____ **City, State & Zip:** _____

E-Mail Address: _____ **Phone Number:** _____

APPLICANT INFORMATION

☐ **Same as Owner of Record**

All correspondence and invoices will be sent to the applicant. If applicant is different than owner, "Authorized Representative Consent" section must be completed.

Name of Applicant: Christopher Ilekis **Company:** 9561 W 171ST TINLEY PARK 2 LLC

Relation To Project: Developer and Contract Purchaser

Street Address: _____ **City, State & Zip:** _____

E-Mail Address: _____ **Phone Number:** _____



Village of Tinley Park
Community Development Dept.
16250 S. Oak Park Ave.
Tinley Park, IL 60477
708-444-5100

VILLAGE OF TINLEY PARK, ILLINOIS
PLANNING AND ZONING GENERAL APPLICATION

Authorized Representative Consent

It is required that the property owner or his designated representative be present at all requests made to the Plan Commission and Zoning Board of Appeals. During the course of a meeting, questions may arise regarding the overall project, the property, property improvements, special conditions attached to recommendations among other aspects of any formal request. The representative present must have knowledge of the property and all aspects of the project. They must have the authority to make commitments related to the project and property. Failure to have the property owner or designated representative present at the public meeting can lead to substantial delays to the project approval. If the owner cannot be present or does not wish to speak at the public meeting, the following statement must be signed by the owner for an authorized representative.

I hereby authorize 9561 W 171ST TINLEY PARK 2 LLC (print clearly) to act on my behalf and advise that they have full authority to act as my/our representative in regards to the subject property and project, including modifying any project or request. I agree to be bound by all terms and agreements made by the designated representative.

Property Owner Signature:

Property Owner Name (Print): Randall Morrissey, VP, Real Estate Manager of Fifth Third Bank

Acknowledgements

- Applicant acknowledges, understands and agrees that under Illinois law, the Village President (Mayor), Village Trustees, Village Manager, Corporation Counsel and/or any employee or agent of the Village or any Planning and Zoning Commission member or Chair, does not have the authority to bind or obligate the Village in any way and therefore cannot bind or obligate the Village. Further, Applicant acknowledges, understands and agrees that only formal action (including, but not limited to, motions, resolutions, and ordinances) by the Board of Trustees, properly voting in an open meeting, can obligate the Village or confer any rights or entitlement on the applicant, legal, equitable, or otherwise.
- Members of the Plan Commission, Zoning Board of Appeals, Village Board as well as Village Staff may conduct inspections of subject site(s) as part of the pre-hearing and fact finding review of requests. These individuals are given permission to inspect the property in regards to the request being made.
- Required public notice signs will be obtained and installed by the Petitioner on their property for a minimum of 10 days prior to the public hearing. These may be provided by the Village or may need to be produced by the petitioner.
- The request is accompanied by all addendums and required additional information and all applicable fees are paid before scheduling any public meetings or hearings.
- Applicant verifies that all outstanding fees and monies owed to the Village of Tinley Park have been paid.
- Any applicable recapture, impact, engineering, contracted review or other required fees and donations shall be paid prior to issuance of any building permits, occupancy permits, or business licenses.
- The Owner and Applicant by signing this application certify that the above information and all supporting addendums and documentation is true and correct to the best of their knowledge.

Property Owner Signature:

Property Owner Name (Print): Randall Morrissey, VP, Real Estate Manager of Fifth Third Bank

Applicant Signature:
(If other than Owner)

Applicant's Name (Print): 9561 W 171ST TINLEY PARK 2 LLC

Date:

VILLAGE OF TINLEY PARK

SITE PLAN APPROVAL CONTACT INFORMATION

PROJECT NAME: 9561 W 171ST STREET

LOCATION: 9561 W. 171st Street

In order to expedite your site plan submission through the planning process, the Village of Tinley Park requires the following contact information. Please provide the information requested and return to the Planning Department. Your prompt attention is greatly appreciated.

CURRENT PROPERTY OWNER OF RECORD

Name: Randall Morrissey
Company: Fifth Third Bank
Address: 4685 Winfield, MD G24310, Warrenville, IL
Phone: _____
Fax: _____
Email: _____

PROJECT ARCHITECT

Name: Yousuf Ghorl
Company: Ilekis Associates
Address: 226 W. Jackson Blvd, Ste 1000, Chicago, IL
Phone: _____
Fax: _____
Email: _____

PROJECT ENGINEER

Name: Bill Perry
Company: Watermark Engineering
Address: 2631 Ginger Woods Pky, Ste 100, Aurora, IL
Phone: _____
Fax: _____
Email: [REDACTED]

PROJECT LANDSCAPE ARCHITECT

Name: Bill Perry
Company: Watermark Engineering
Address: 2631 Ginger Woods Pky, Ste 100, Aurora, IL
Phone: _____
Fax: _____
Email: [REDACTED]

ATTORNEY

Name: David B. Sosin
Company: Sosin, Arnold & Schoenbeck, Ltd.
Address: Suite 205, 9501 W. 144th Place, Orland Park, IL 60462
Phone: [REDACTED]
Fax: [REDACTED]
Email: [REDACTED]

END USER

Name: 9561 W 171ST TINLEY PARK 2 LLC
Company: Coffee shop and tenants to be determined
Address: 400 N. State St., Ste 400, Chicago, IL 60654
Phone: [REDACTED]
Fax: [REDACTED]
Email: [REDACTED]

VILLAGE OF TINLEY PARK

SITE PLAN APPROVAL RESPONSIBLE PARTIES

PROJECT NAME: 9561 W 171ST STREET

LOCATION: 9561 W. 171st Street

Please provide name, address and telephone number of the person/firm that will be responsible for payment of plan review, engineering, landscaping, attorney and building permit fees in the space provided below. If only one party will be responsible for all fees, please list that party's contact information under "General Billing."

GENERAL BILLING

Name: Christopher Ilekis

Company: 

Address: 


Phone: 

Fax: 

Email: 

RESPONSIBLE FOR PLAN REVIEW FEES

Name: Christopher Ilekis

Company: 

Address: 

Phone: 

Fax: 

Email: 

RESPONSIBLE FOR BUILDING PERMIT FEES

Name: Same as above.

Company: _____

Address: _____

Phone: _____

Fax: _____

Email: _____

RESPONSIBLE FOR ATTORNEY FEES

Name: Same as above.

Company: _____

Address: _____

Phone: _____

Fax: _____

Email: _____

RESPONSIBLE FOR ENGINEERING/ CONSTRUCTION OVERSIGHT FEES

Name: Same as above.

Company: _____

Address: _____

Phone: _____

Fax: _____

Email: _____

RESPONSIBLE FOR LANDSCAPE REVIEW FEES

Name: Same as above.

Company: _____

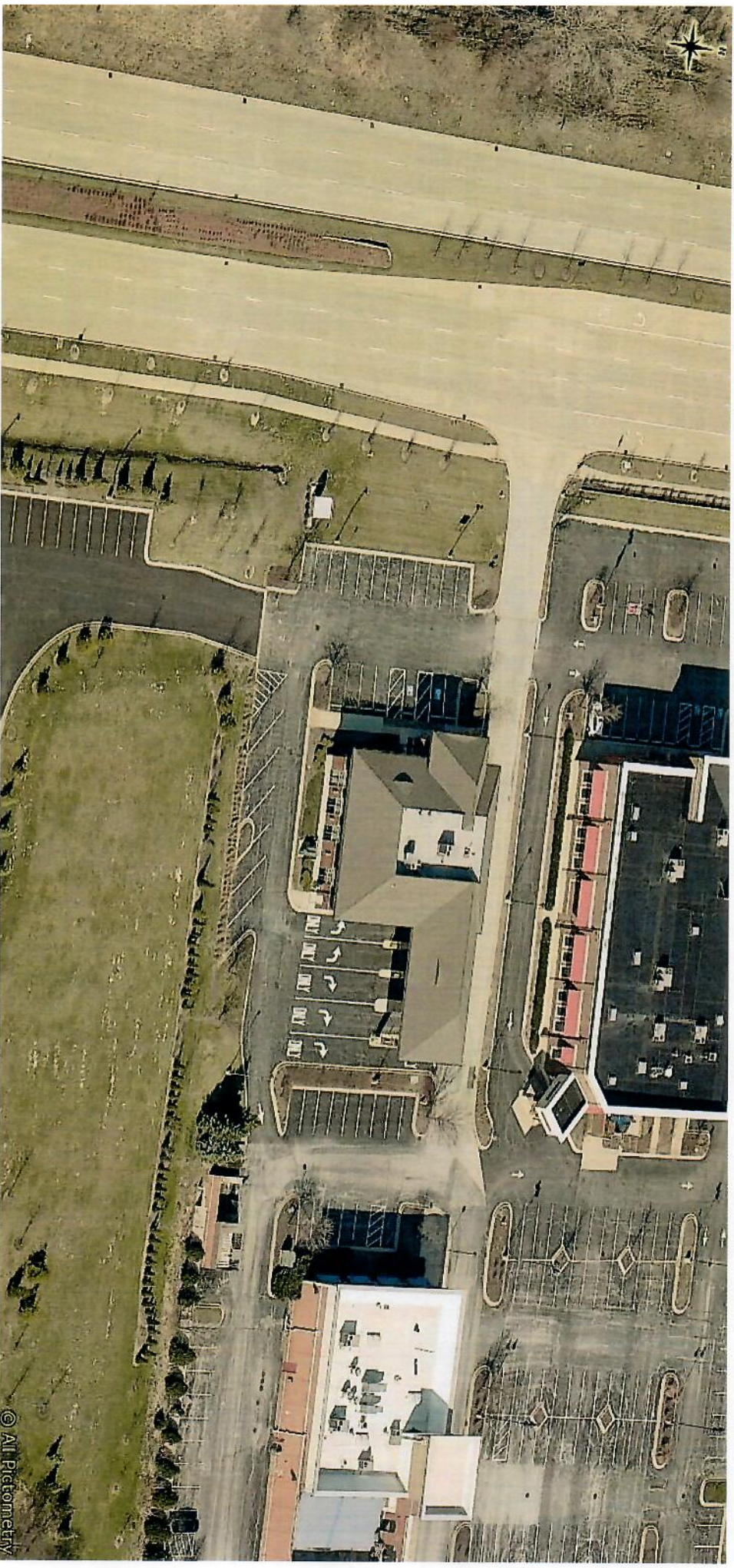
Address: _____

Phone: _____

Fax: _____

Email: _____

9561 W 171st



© All Pictometry

04/06/2020

17111-17119 LAGRANGE ROAD
TINLEY PARK, IL 60487

PROJECT LOCATION



N.T.S



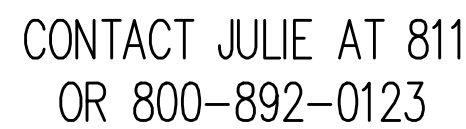
N.T.S

SHEET NO.	DRAWING TITLE
C1.0	CIVIL ENGINEERING COVER SHEET
C2.1	EXISTING CONDITIONS
C2.0	SITE DEMOLITION PLAN
C3.0	SITE DIMENSIONAL AND PAVING PLAN
C4.0	SITE UTILITY PLAN
C5.0	SITE GRADING AND EROSION CONTROL PLAN
C6.0	SOIL EROSION AND SEDIMENT CONTROL DETAILS
C6.1	SITE CONSTRUCTION DETAILS - 1
C6.2	SITE CONSTRUCTION DETAILS - 2
C7.0	GENERAL CONDITIONS AND DETAILED SPECIFICATIONS

LEGEND

ABBREVIATIONS

ADJ	ADJUST	E	ELECTRIC	MH	STORM MANHOLE	RT	RIGHT
AGG	AGGREGATE GRAVEL	E-E	EDGE TO EDGE	MIN	MINIMUM	SAN	SANITARY SEWER
B.A.M.	BIT. AGG. MIXTURE	ELEV.	ELEVATION	NWL	NORMAL WATER LEVEL	SF	SQUARE FOOT
B-B	BACK TO BACK	E/P	EDGE OF PAVEMENT	OLID	OPEN LID	SHD.	SHOULDER
B/P	BOTTOM OF PIPE	EX.	EXISTING	P.E.	PRIVATE ENTRANCE	SL	STREET LIGHT
B/WALL	GROUND AT BOTTOM OF WALL	F.E.	FIELD ENTRANCE	PERF.	PERFORATED	SMH	SANITARY MANHOLE
B.B.	BUFFALO BOX	F-F	FACE TO FACE	PC	POINT OF CURVE	ST	STORM SEWER
BIT.	BITUMINOUS CONCRETE	FF	FINISHED FLOOR	P.C.C.	PORTLAND CEMENT CONCRETE	STA.	STATION
BM	BENCHMARK	FES	FLARED END SECTION	PCC	POINT OF COMPOUND CURVE	STD	STANDARD
B.O.	BY OTHERS	FH	FIRE HYDRANT	PGL	PROFILE GRADE LINE	SW	SIDEWALK
C.E.	COMMERCIAL ENTRANCE	F/L	FLOW LINE	PI	POINT OF INTERSECTION	SY	SQUARE YARDS
CB	CATCH BASIN	FM	FORCE MAIN	PL	PROPERTY LINE	TBR	TO BE REMOVED
CL	CENTERLINE	G	GROUND	PP	POWER POLE	T	TELEPHONE
CLID	CLOSED LID	GAS	GAS	PROP.	PROPOSED	T-A	TYPE A
CMP	CORRUGATED METAL PIPE	G/F	GRADE AT FOUNDATION	PT	POINT OF TANGENCY	T/C	TOP OF CURB
CNTRL	CONTROL	GW	GUY WIRE	PVC	POLYVINYL CHLORIDE PIPE	T/F	TOP OF FOUNDATION
C.O.	CLEAN OUT	H.C.	HANDICAP	P.V.C.	POINT OF VERTICAL CURVE	T/P	TOP OF PIPE
CONC.	CONCRETE	HDWL	HEADWALL	PVI	POINT OF VERTICAL INTERSECTION	T/W	TOP OF WALK
CY	CUBIC YARD	HH	HANDHOLE	PVT	POINT OF VERTICAL TANGENCY	T/WALL	TOP OF WALL
D	DITCH	HWL	HIGH WATER LEVEL	P	PAVEMENT	TEMP	TEMPORARY
DIA.	DIAMETER	INL	INLET	R	RADIUS	TRANS	TRANSFORMER
DIP	DUCTILE IRON PIPE	INV.	INVERT	R.O.W.	RIGHT-OF-WAY	V.B.	VALVE BOX
DWDM	DUCTILE IRON WATER MAIN	IP	IRON PIPE	RCP	REINFORCED CONCRETE PIPE	V.V.	VALVE VAULT
DT	DRAIN TILE	MAX.	MAXIMUM	REM	REMOVAL	WL	WATER LEVEL
D.S.	DOWN SPOUT	MB	MAILBOX	RR	RAILROAD	WM	WATER MAIN



48 HOURS (2 working days) BEFORE YOU DIG

NOTE:

THE LOCATION, ELEVATION, SIZE, AND TYPES OF ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION, ELEVATION, SIZE AND TYPES OF ALL EXISTING UTILITIES PRIOR TO COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

BENCHMARK: NGS PID DN4691

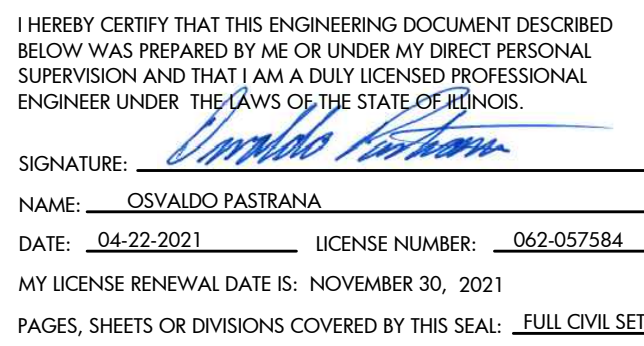
THE STATION IS LOCATED AT THE SOUTHWEST CORNER OF WILL/COOK ROAD AND 167TH STREET. STATION IS 39 FEET WEST OF THE CENTERLINE OF WILL/COOK ROAD AND 54 FEET SOUTH OF 167TH STREET. MONUMENT IS A STAINLESS STEEL ROD ACCESSED THROUGH 6 INCH LOGO CAP.

ELEVATION = 751.92' (NAVD 88)

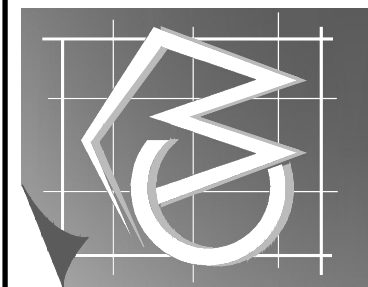
BENCHMARK: (ON-SITE)

CROSS CUT IN CONCRETE CURB 19.88' SOUTH AND 3.68' WEST OF THE NORTHWEST CORNER OF THE PROPERTY SURVEYED HEREON.

ELEVATION = 737.89' (NAVD 88)



CIVIL ENGINEERS - PLANNERS - DEVELOPMENT CONSULTANTS



CIVIL ENGINEERING COVER SHEET

SITE AND SHELL DEVELOPMENT

17111-17119 LAGRANGE ROAD, TINLEY PARK, IL 60487

SHEET TITLE:

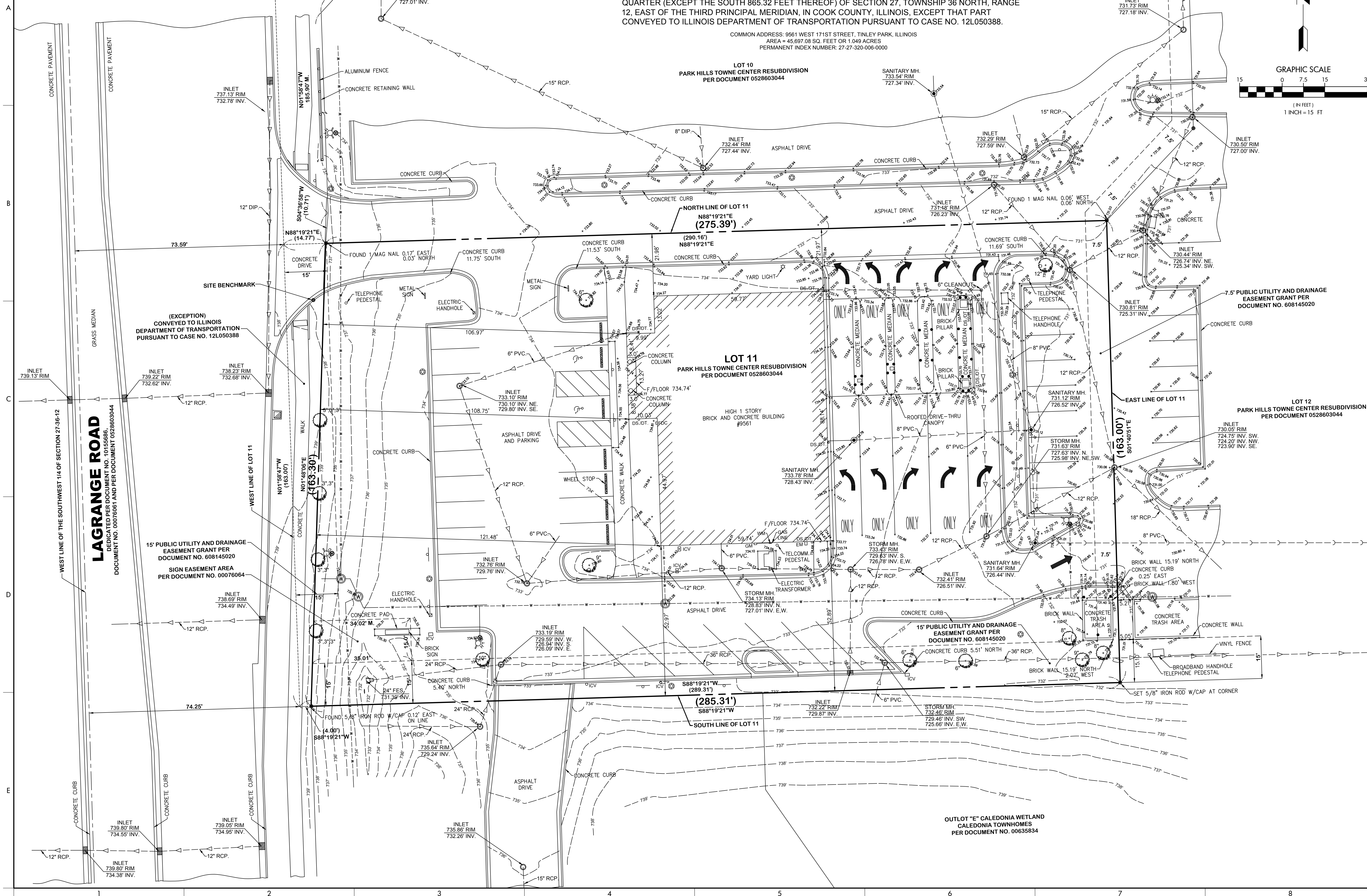
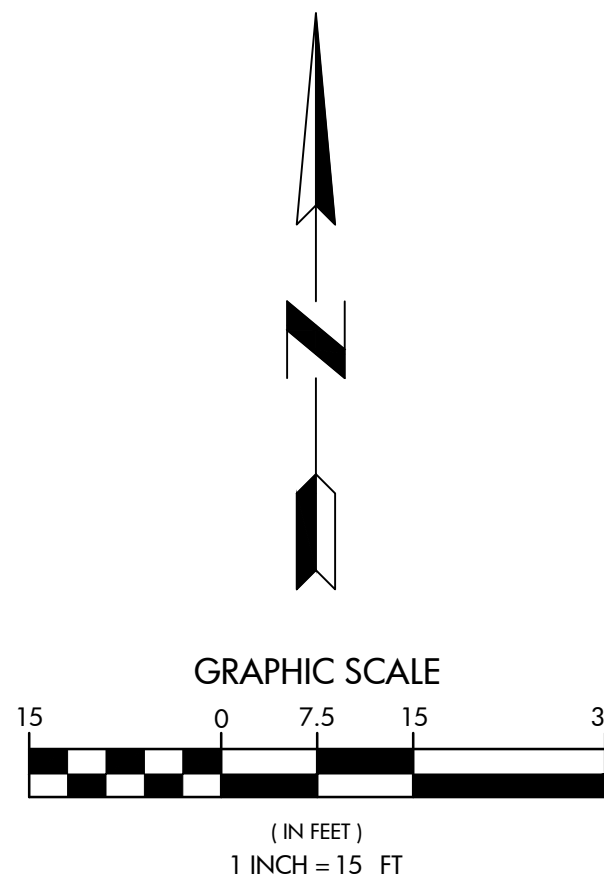
PROJECT:

PROJ. MGR.:	OP
DRAWN BY:	OP
FIRST ISSUE DATE:	03-26-2021
SCALE:	N.T.S.
SHEET NO.	
C1.0	
PROJ. NUMBER:	21008

2. C:\WORKS CONSULTING IIC - THIS PLAN AND DESIGN ARE THE PROPERTY OF C:\WORKS CONSULTING IIC. NO REPRODUCTION OF ANY PART OF THESE PLANS IS PERMITTED WITHOUT THE WRITTEN CONSENT OF C:\WORKS CONSULTING IIC.

LOT 11 IN PARK HILLS TOWNE CENTRE RESUBDIVISION OF LOTS 1, 2, 3 AND 4 IN FORMULA SUBDIVISION, BEING A SUBDIVISION OF PART OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER (EXCEPT THE SOUTH 865.32 FEET THEREOF) OF SECTION 27, TOWNSHIP 36 NORTH, RANGE 12, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS, EXCEPT THAT PART CONVEYED TO ILLINOIS DEPARTMENT OF TRANSPORTATION PURSUANT TO CASE NO. 12L050388.

COMMON ADDRESS: 9561 WEST 171ST STREET, TINLEY PARK, ILLINOIS
AREA = 45,697.08 SQ. FEET OR 1.049 ACRES
PERMANENT INDEX NUMBER: 27-27-320-006-0000

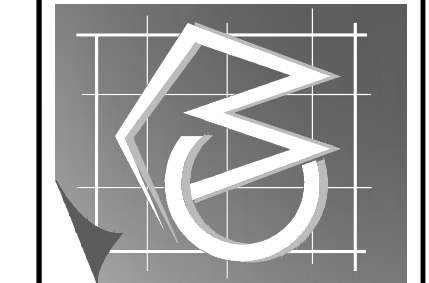


REVISIONS					
1	04-22-21	ISSUED PER VILLAGE COMMENTS			

CIVIL ENGINEERS - PLANNERS - DEVELOPMENT CONSULTANTS

3343 N. NEVA AVENUE
CHICAGO, ILLINOIS 60634

CIVWORKS
Consulting, LLC



EXISTING CONDITIONS

SITE AND SHELL DEVELOPMENT

17111-17119 LAGRANGE ROAD, TINLEY PARK, IL 60487

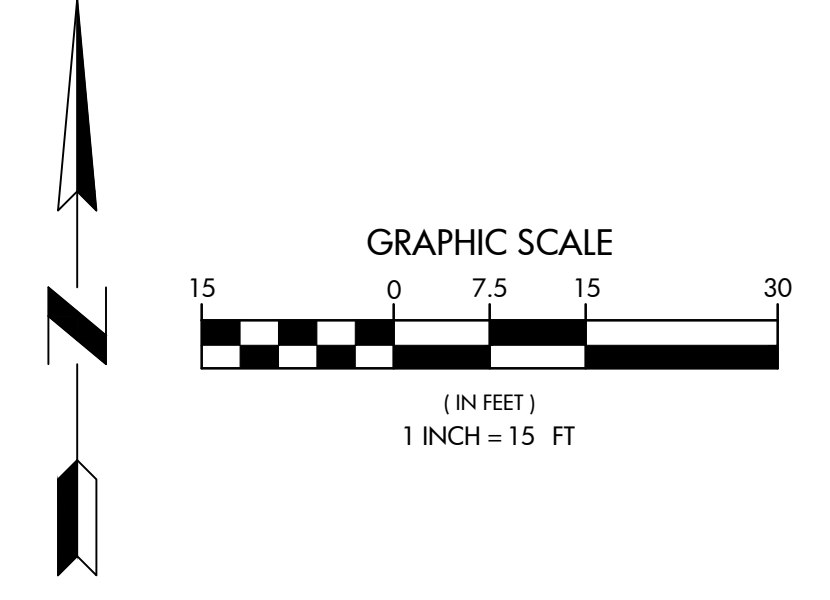
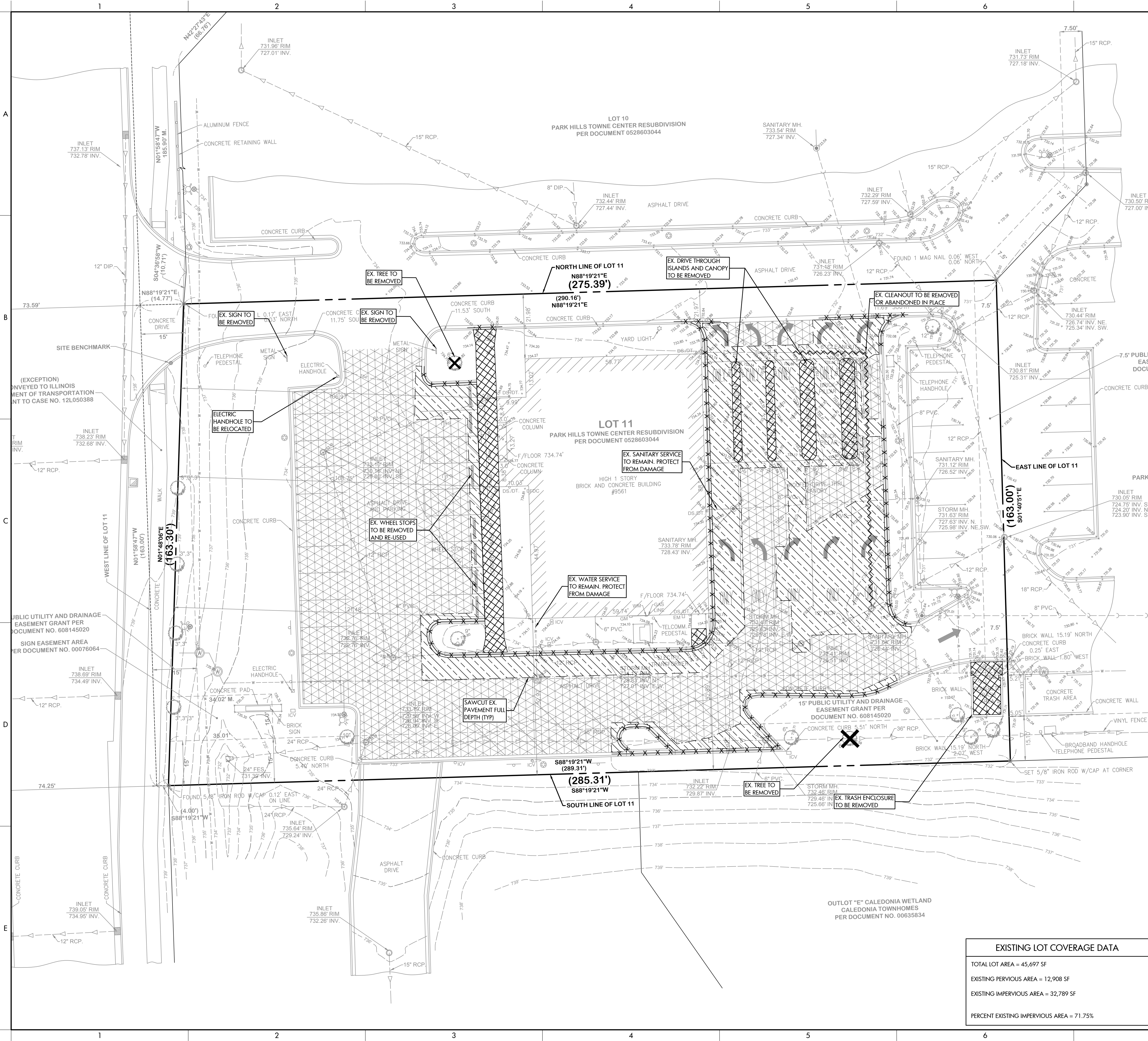
SHEET TITLE:

PROJ. MGR.:	OP
DRAWN BY:	OP
FIRST ISSUE DATE:	03-26-2021
SCALE:	1"=15'

SHEET NO.
C2.0

PROJ. NUMBER:	21008
---------------	-------

2. CMMWORKS CONSULTING LLC - THIS PLAN AND DESIGN ARE THE PROPERTY OF CMMWORKS CONSULTING LLC. NO REPRODUCTION OF ANY PART OF THESE PLANS IS PERMITTED WITHOUT THE WRITTEN CONSENT OF CMMWORKS CONSULTING LLC.



DEMOLITION LEGEND	
	EX. CONCRETE PAVEMENT TO BE REMOVED
	EX. ASPHALT PAVEMENT TO BE REMOVED
	EX. PAVEMENT TO BE MILLED (2" DEPTH)
	EX. TREE TO BE REMOVED
	EX. CURB TO BE REMOVED
	EX. STORM SEWER TO BE REMOVED OR ABANDONED IN PLACE

- ### DEMOLITION NOTES
- ALL UTILITY COMPANIES ARE TO BE CONTACTED TO PERMIT MARKING THEIR FACILITIES BEFORE ANY WORK IS DONE ON THE SITE.
 - THE OWNER SHALL BE PROVIDED WITH COPIES OF ALL DEMOLITION PERMITS AND UTILITY INFORMATION PRIOR TO THE COMMENCEMENT OF THE WORK.
 - THE EXTENT OF SITE DEMOLITION WORK IS AS SHOWN ON THE CONTRACT DOCUMENTS AND AS SPECIFIED HEREIN. FURNISH ALL LABOR, MATERIALS, EQUIPMENT AND SERVICE NECESSARY TO COMPLETE THE WORK. DEMOLITION INCLUDES, BUT IS NOT LIMITED TO, REMOVAL AND DISPOSAL OFF-SITE OF THE FOLLOWING ITEMS:
 - ON-SITE PAVEMENT
 - EXISTING DRIVE-THRU CANOPY AND CONCRETE PADS
 - DEBRIS FROM ALL DEMOLISHED STRUCTURES
 - ALL PAVEMENT TO BE REMOVED ADJACENT TO PAVEMENT THAT IS TO REMAIN SHALL BE SAWCUT FULL DEPTH AT THE EDGES PRIOR TO REMOVAL TO OBTAIN A "CLEAN" JOINT WHERE IT ABUTS NEW CURB OR PAVEMENT.
 - CONTRACTOR MUST RECEIVE APPROVAL FROM THE GEOTECHNICAL ENGINEER FOR THE MATERIAL TYPE AND USE IF CONTRACTOR DESIRES TO REUSE DEMOLISHED SITE PAVEMENT AS STRUCTURAL FILL OR IF THE CONTRACTOR WOULD LIKE TO RE-USE THE EXISTING SUBGRADE STONE LAYER.
 - STRUCTURES TO BE DEMOLISHED SHALL BE VACATED AND DISCONTINUED FROM USE PRIOR TO START OF WORK. OWNER ASSUMES NO RESPONSIBILITY FOR ACTUAL CONDITION OF STRUCTURES TO BE DEMOLISHED. CONDITIONS EXISTING AT TIME OF INSPECTION FOR BIDDING PURPOSES WILL BE MAINTAINED BY OWNER IN SO FAR AS PRACTICABLE. HOWEVER, VARIATIONS WITHIN THE STRUCTURES MAY OCCUR BY OWNER'S REMOVAL AND SALVAGE OPERATIONS PRIOR TO START OF DEMOLITION WORK. ITEMS OF SALVAGEABLE VALUE TO CONTRACTOR MAY BE REMOVED FROM SITE AS WORK PROGRESSES AND AS APPROVED BY THE OWNER. SALVAGED ITEMS MUST BE TRANSPORTED FROM THE SITE AS THEY ARE REMOVED. STORAGE OR SALE OF REMOVED ITEMS ON SITE WILL NOT BE PERMITTED. THE USE OF EXPLOSIVES WILL NOT BE PERMITTED. CONDUCT DEMOLITION OPERATIONS AND REMOVAL OF DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS AND OTHER ADJACENT OCCUPIED OR USED FACILITIES. THE CONTRACTOR SHALL PROVIDE MAINTENANCE OF TRAFFIC TO PROVIDE SAFE PASSAGE FOR VEHICULAR AND PEDESTRIAN TRAFFIC. THIS INCLUDES APPROPRIATE SIGNAGE FOR CLOSING THE PUBLIC SIDEWALK, ROADWAY AND NECESSARY PARKING SPACES. ALL MAINTENANCE OF TRAFFIC SHALL BE APPROVED BY THE MUNICIPALITY.
 - EXISTING UTILITIES TO REMAIN ARE TO BE KEPT IN SERVICE AND PROTECTED AGAINST DAMAGE DURING DEMOLITION OPERATIONS. CONTRACTOR IS RESPONSIBLE FOR TURNING OFF, DISCONNECTING, AND SEALING INDICATED UTILITIES BEFORE STARTING DEMOLITION OPERATIONS. EXISTING UTILITIES TO BE ABANDONED ARE TO BE CAPPED AT BOTH ENDS AND FILLED WITH FA-1 OR APPROVED EQUAL. ALL UNDERGROUND UTILITIES TO BE REMOVED ARE TO BE BACKFILLED WITH ENGINEERED FILL OR SELECT EXCAVATED MATERIAL, AS APPROVED BY THE GEOTECHNICAL ENGINEER, TO 95% OF MODIFIED PROCTOR DENSITY WITHIN PAVED AREAS AND TO 90% OF MODIFIED PROCTOR DENSITY FOR GREEN SPACE AREAS, IN ACCORDANCE WITH THE EARTHWORK SPECIFICATIONS. ALL PRIVATE UTILITIES (ELECTRIC, CABLE, TELEPHONE, FIBER OPTIC, GAS) SHALL BE REMOVED AND RELOCATED PER THE UTILITY OWNER AND THE LOCAL MUNICIPALITY'S REQUIREMENTS.
 - UNDERGROUND UTILITIES SHOWN ARE BASED ON ATLASES AND AVAILABLE INFORMATION PRESENTED AT THE TIME OF SURVEY. CONTRACTOR SHOULD CALL "JULIE" (800-892-0123) TO COORDINATE FIELD LOCATIONS OF EXISTING UNDERGROUND UTILITIES BEFORE ORDERING MATERIALS OR COMMENCING CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES IMMEDIATELY. CONTRACTOR SHALL LOCATE AND PROTECT EXISTING UNDERGROUND AND OVERHEAD UTILITIES DURING CONSTRUCTION. UTILITY PROTECTION SHALL BE COORDINATED WITH THE RESPECTIVE UTILITY OWNER AND AS DIRECTED BY THE GOVERNING MUNICIPALITY. DAMAGED CABLES/CONDUITS SHALL BE REPLACED IMMEDIATELY. ALL EXISTING STRUCTURES TO REMAIN SHALL BE PROTECTED THROUGHOUT THE CONSTRUCTION PROCESS. ALL DAMAGED STRUCTURES SHALL BE REPLACED IN-KIND AND THEIR REPLACEMENT COST SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. PROPER NOTIFICATION TO THE OWNERS OF THE EXISTING UTILITIES SHALL BE MADE AT LEAST 48 HOURS BEFORE CONSTRUCTION COMMENCES.
 - USE WATER SPRINKLING, TEMPORARY ENCLOSURES, AND OTHER SUITABLE METHODS TO LIMIT DUST AND DIRT RISING AND SCATTERING IN THE AIR TO THE LOWEST LEVEL. COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION. SEE EROSION CONTROL SHEETS FOR FURTHER EROSION CONTROL REQUIREMENTS.
 - REMOVE FROM SITE DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM DEMOLITION OPERATIONS. BURNING OF REMOVED MATERIALS WILL NOT BE PERMITTED ON SITE. TRANSPORT MATERIALS REMOVED AND DISPOSE OF OFF-SITE IN A LEGAL MANNER.
 - ALL EXISTING BUILDINGS, FOUNDATIONS, UTILITIES, AND LANDSCAPING AND OTHER IMPROVEMENTS ON ADJACENT PROPERTIES SHALL BE PROTECTED AT ALL TIMES DURING DEMOLITION AND CONSTRUCTION WORK. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE AND INSTALL ANY MATERIALS, EQUIPMENT, AND/OR MANPOWER NECESSARY TO ACCOMPLISH THIS.

EXISTING LOT COVERAGE DATA	
TOTAL LOT AREA = 45,697 SF	
EXISTING PERVIOUS AREA = 12,908 SF	
EXISTING IMPERVIOUS AREA = 32,789 SF	
PERCENT EXISTING IMPERVIOUS AREA = 71.75%	

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SITE DEMOLITION PLAN

SITE AND SHELL DEVELOPMENT

17111-17119 LAGRANGE ROAD, TINLEY PARK, IL 60487

SHEET TITLE:

PROJECT:

PROJ. MGR.: OP

DRAWN BY: OP

FIRST ISSUE DATE: 03-26-2021

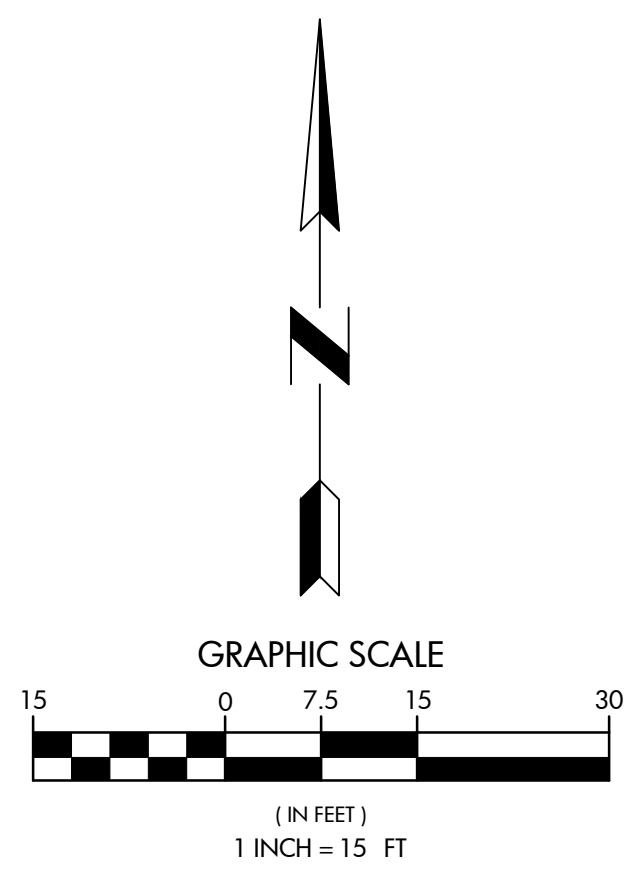
SCALE: 1"=15'

SHEET NO.

C2.1

PROJ. NUMBER: 21008

ISSUED PER VILLAGE COMMENTS



PROPOSED PARKING DATA	
OVERALL BUILDING AREA = 5,593 SF (5,241 SF IS LEASEABLE)	
<u>PARKING REQUIRED</u> 5,241 SF / 1,000 x 6.5 = 34 SPACES	
<u>PARKING PROVIDED</u> HANDICAP SPACES = 2 REGULAR SPACES = 33	
TOTAL PROPOSED PARKING = 35 SPACES	

PAVEMENT MARKING AND SIGN LEGEND	
①	R7-8 HANDICAP PARKING SIGN (12"x18") WITH \$250 FINE
②	R1-1 STOP SIGN (30"x30")
③	R5-1 DO NOT ENTER SIGN (30"x30")
④	CONCRETE WHEEL STOP
Ⓐ	HANDICAP SYMBOL PER LATEST ADA STANDARDS
Ⓑ	4" SOLID YELLOW AT 24" C-C AT 45 DEGREES
Ⓒ	4" SOLID YELLOW STRIPE (TYP)
Ⓓ	24" WIDE WHITE STOP BAR
Ⓔ	CROSSWALK - 24" SOLID WHITE AT 36" C-C

- ## GENERAL NOTES
1. ALL DIMENSIONS AND CURB RADI SHALL BE TO FACE OF CURB UNLESS OTHERWISE NOTED.
 2. ALL CURB SHALL BE 86.12 CURB AND GUTTER.
 3. SIDEWALK IN FRONT OF THE BUILDING SHALL BE COMBINATION SIDEWALK AND BARRIER CURB AND SHALL BE MONOLITHICALLY CAST ACCORDING TO THE DETAIL ON SHEET C6.0.
 4. ALL RADII ARE 3.0' UNLESS OTHERWISE NOTED.
 5. ALL SITE SIGNAGE SHALL BE IN CONFORMANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) STANDARDS, LATEST EDITION.
 6. PARKING SPACES SHALL BE ANGLED AT 90° TO THE ASSOCIATED DRIVE AISLE UNLESS OTHERWISE NOTED.
 7. DETECTABLE WARNING STRIPS WITH TRUNCATED DOMES ON ALL CURB RAMPS SHALL COMPLY WITH CONFORMING TO ADJACENT PAVEMENT COLOR PER IDOT REGULATIONS, PREFERRED COLOR IS RED (FEDERAL COLOR STANDARD 30166)
 8. REFER TO ARCHITECTURAL AND SIGNAGE PLANS FOR ANY ADDITIONAL SITE SIGNAGE AND PAVEMENT MARKINGS.
 9. ALL TRAFFIC SIGNS SHALL BE INSTALLED AT 7' HIGH MEASURED FROM THE GROUND ELEVATION TO THE BOTTOM OF SIGN.

SITE PAVING LEGEND

NEW ASPHALT PAVEMENT

- 1.5" BITUMINOUS SURFACE COURSE, HOT MIX ASPHALT, MIX D, N50
- 2.5" BITUMINOUS BINDER COURSE, HOT MIX ASPHALT, IL-19, N50
- 10" AGGREGATE BASE COURSE, TYPE B (IDOT GRAD CA-6)

MILL AND RESURFACE

- 1.5" MILL - REMOVE EX. ASPHALT SURFACE COURSE
- 1.5" BITUMINOUS SURFACE COURSE, HOT MIX ASPHALT, MIX D, N50

CONCRETE PAVEMENT

- 8" P.C. CONCRETE PAVEMENT
- 4" AGGREGATE BASE (CA-6)

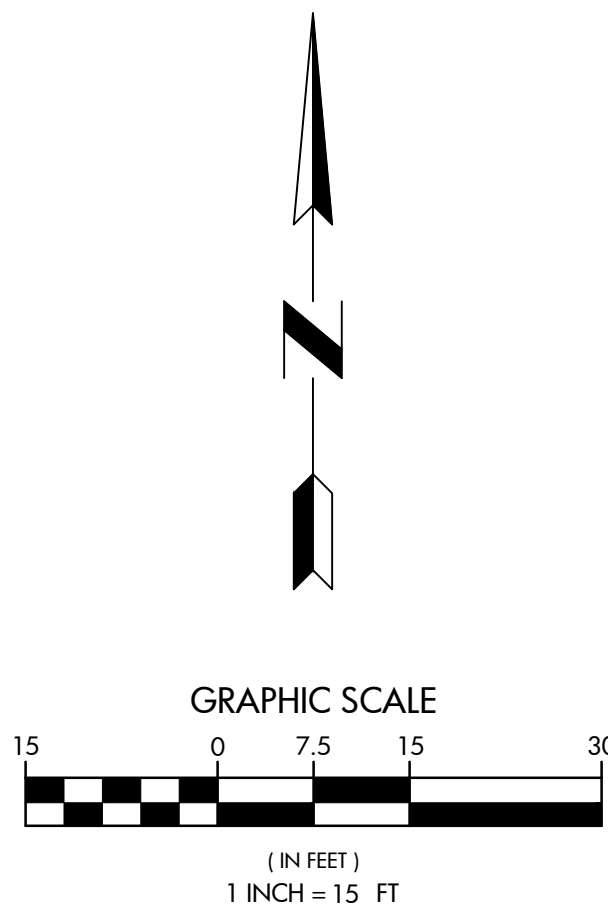
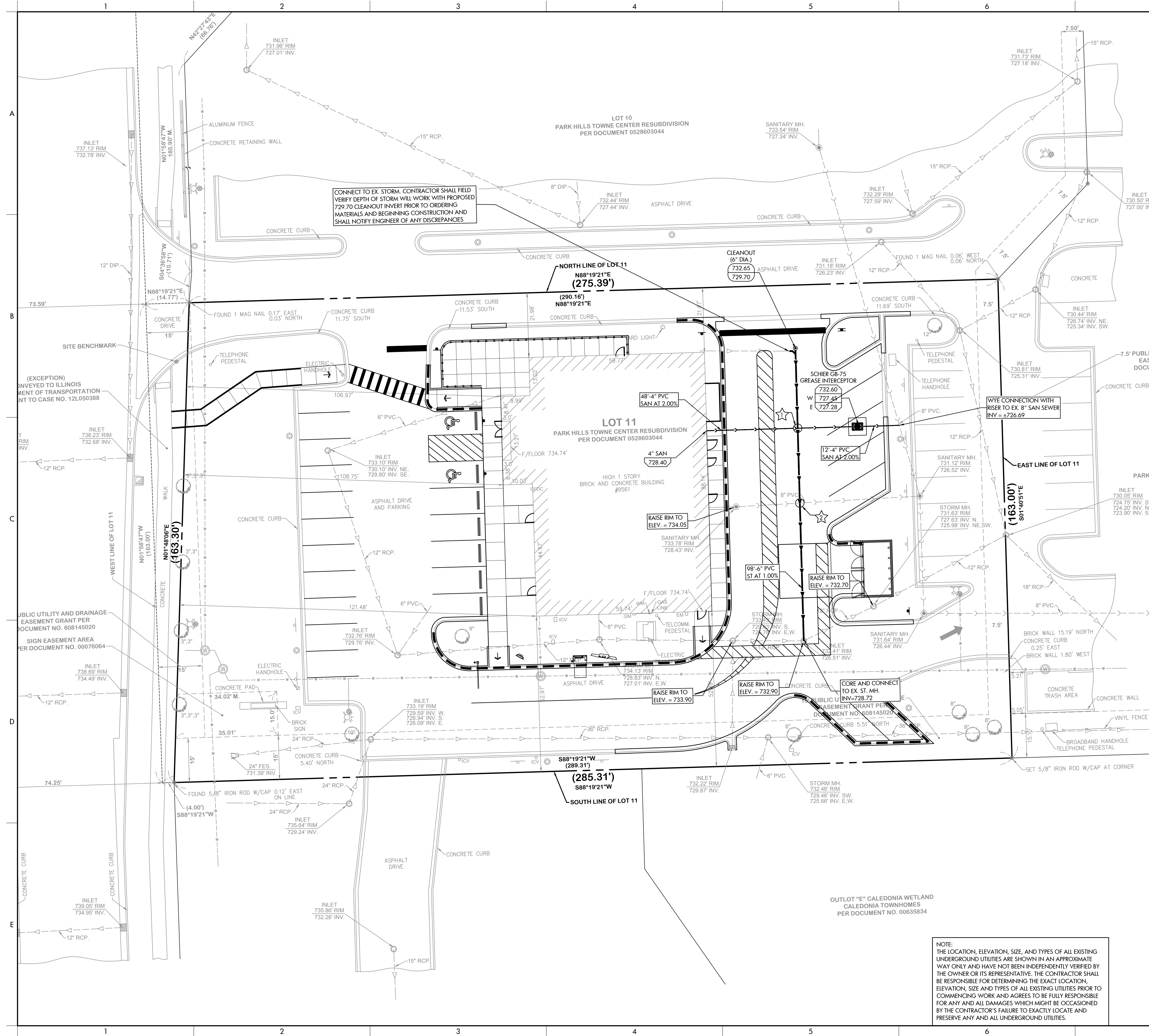
SIDEWALK PAVEMENT

- 5" P.C. CONCRETE PAVEMENT (THICKEN TO 8" AT DRIVEWAYS)
- 4" AGGREGATE BASE (CA-6)

PROPOSED LOT COVERAGE DATA
TOTAL LOT AREA = 47,282 SF
PROPOSED PERVIOUS AREA = 13,510 SF
PROPOSED IMPERVIOUS AREA = 33,772 SF
PERCENT PROPOSED IMPERVIOUS AREA = 71.43%

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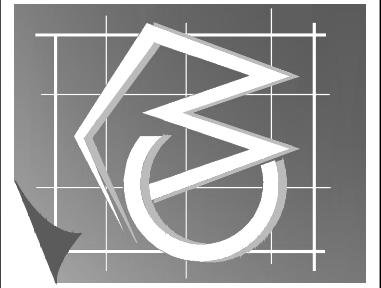
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1	04-22-21	ISSUED PER VILLAGE COMMENTS			

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ILLINOIS PROFESSIONAL ENGINEERING NO. 184-0507



SITE UTILITY PLAN

SITE AND SHELL DEVELOPMENT
171111-171119 LAGRANGE ROAD, TINLEY PARK, IL 60487

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- ## GENERAL UTILITY NOTES
1. EXISTING UTILITY INFORMATION SHOWN IS BASED ON BEST AVAILABLE RECORDS AT THIS TIME. THE CONTRACTOR SHALL FIELD VERIFY LOCATION, SIZE AND DEPTH BEFORE ORDERING ANY MATERIAL, OR BEGINNING ANY PROPOSED CONSTRUCTION.
 2. DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
 3. SEE LANDSCAPE PLANS FOR PROPOSED TREE LOCATIONS.
 4. UTILITY CROSSINGS BETWEEN WET UTILITIES (WATER, SANITARY, STORM) AND DRY UTILITIES (GAS, ELECTRIC, TELEPHONE, TELE-COMMUNICATIONS) SHALL BE COORDINATED BETWEEN THE CONTRACTOR AND THE UTILITY COMPANIES TO ACCOMMODATE THE DESIGN OF THE WET UTILITY.
 5. SEE ARCHITECTURAL AND PLUMBING PLANS FOR INVERT AND EXACT ENTRY LOCATION OF ALL BUILDING SERVICES.
 6. THE ROUTING FOR TELEPHONE, ELECTRIC AND GAS SERVICE IF SHOWN IS FOR SCHEMATIC PURPOSES ONLY. THE CONTRACTOR SHALL CONTACT THE INDIVIDUAL UTILITY COMPANIES TO DETERMINE ACTUAL ROUTE AND COORDINATE THEIR CONSTRUCTION.
 7. DRY UTILITY CONDUITS SHALL MAINTAIN 5 FT. OF HORIZONTAL SEPARATION FROM OTHER UTILITIES EXCEPT AT CROSSINGS.
 8. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINAL UTILITY PIPE CLEANING PRIOR TO UTILITY BEING PUT INTO SERVICE.
 9. STRUCTURE ADJUSTMENTS SHALL BE ACCOMPLISHED USING ADJUSTING RINGS UP TO A MAXIMUM OF 8" STRUCTURE ADJUSTMENTS OF MORE THAN 12" IN HEIGHT SHALL BE ACCOMPLISHED BY REMOVING THE STRUCTURE TOP AND INSTALLING A NEW BARREL SECTION OF SUFFICIENT HEIGHT TO LIMIT THE REQUIRED ADJUSTING RING HEIGHT TO 8" OR LESS.

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ROLLED EROSION CONTROL PRODUCTS

Staking Pattern Guide

Straw Wattle or Rolled Excelsior - In 3" Deep Trench

Stake within 2" of the end of Wattle

2" or less

6" Min.

Wood Stake

Soil

Notes:

1. Overlap minimum is the diameter of the roll.
2. 4" spacing for wattles.
3. 2" spacing for rolled excelsior.
4. Or space according to manufacturer's specifications.

Stake Detail

Roller Erosion Control Product

Wood Stake (To only penetrate netting)

Flow

3" Deep Trench

Channel Bottom

Soil

Compost Filter Sock Detail

Compost Filter Material

1"x2" Wood Stake (or equal)

Place additional Compost Filter Material to fill the seam between the tube and the ground.

Flow

Soil

When compost filter sock ditch check is used, place a compost berm upstream of the filter sock (see IUM 805). A trench is not required.

Notes:

1. Drawings are not to scale.
2. Ends of wattles or rolled excelsior shall be turned at least 6" upslope.
3. Recommended stakes are 1 1/8" wide x 1 1/8" thick x 30" long.
4. Stakes shall not extend above the straw wattle more than 2".
5. Spacing: The toe of the upstream ditch check shall create a horizontal line with the top of the downstream ditch check.
6. When compost filter sock ditch check is used, place a compost berm upstream of the filter sock (see IUM 805). A trench is not required.

REFERENCE

Project _____ Date _____

Designed _____ Date _____

Checked _____ Date _____

Approved _____ Date _____

STANDARD DWG. NO.

IUM-514

SHEET 1 OF 1

DATE 8-19-11

INLET PROTECTION - PAVED AREAS
DROP-IN PROTECTION

GRATE

CASTING

OVERFLOW AREA

SUPPORT SYSTEM WITH LIFT HANDLES

SEDIMENT BAG/FILTER

INLET STRUCTURE

COVER

CASTING

SEE DETAIL ABOVE

OVERFLOW AREA

SEDIMENT BAG/FILTER

SUPPORT SYSTEM WITH LIFT HANDLES

INLET STRUCTURE

STORM SEWER

REFERENCE

Project _____ Date _____

Designed _____ Date _____

Checked _____ Date _____

Approved _____ Date _____

STANDARD DWG. NO.

IUM-561D

SHEET 1 OF 1

DATE 01-11-11

1. THE EXCAVATING AND UNDERGROUND CONTRACTOR SHALL BE RESPONSIBLE FOR THE INITIAL CONSTRUCTION OF THE EROSION CONTROL MEASURES SHOWN IN THE PLAN, AND SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF SAID FACILITIES UNTIL THE COMPLETION OF HIS FINAL GRADING OPERATIONS AFTER CONSTRUCTION OF THOSE IMPROVEMENTS IN HIS CONTRACT. THE CONTRACTOR'S EROSION CONTROL MAINTENANCE RESPONSIBILITIES SHALL BE EXCLUSIVE OF THE CONSTRUCTION WARRANTY AND/OR GUARANTEE PERIOD.
2. ALL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE CHECKED FOR STABILITY AND OPERATION AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCH OR GREATER OR EQUIVALENT SNOWFALL. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
3. SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT TRAPS WHEN THE STORAGE CAPACITY HAS BEEN APPROXIMATELY 50% FILLED.
4. SEDIMENT SHALL BE REMOVED FROM BEHIND THE SILT FENCE WHEN IT BECOMES APPROXIMATELY 0.5' DEEP AT THE FENCE. THE SILT FENCE SHALL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER.
5. ALL SEEDED AREAS WILL BE FERTILIZED, RE-SEEDED AS NECESSARY, AND MULCHED AS REQUIRED TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
6. AFTER CONSTRUCTION AND UPON FINAL SITE STABILIZATION, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL DEVICES AND TURN OVER MAINTENANCE OF THE PERMANENT EROSION CONTROL MEASURES TO THE OWNER.
7. AFTER CONSTRUCTION, THE OWNER SHALL MAINTAIN ALL PERMANENT CONTROL DEVICES IN ORDER TO PREVENT EROSION.

RECOMMENDED EROSION CONTROL MAINTENANCE SCHEDULE

GEOTERRA MATERIAL SPECIFICATION

MATERIAL	UP TO 97% RECYCLED POLYETHYLENE
COLOR	RANGES DARK SHADES GRAY TO BLACK
CHEMICAL RESISTANCE	SUPERIOR
CARBON BLACK FOR UV STABILIZATION, %	1.5 TO 2.0%
UNIT MIN CRUSH STRENGTH - EMPTY @ 70F (21C)	420 PSI (2,900 KPa)
UNIT MIN CRUSH STRENGTH - SAND FILLED @ 70F (21C)	7,058 PSI (48,734 KPa)
FLEXURAL MODULUS @ 73F (21C)	35,000 PSI (240,000 KPa)
NOMINAL DIMENSIONS - WIDTH X LENGTH	20 X 40 IN (0.5 X 1.0 M)
NOMINAL UNIT DEPTH	2 IN (50 MM)
NOMINAL AREA	5.3 SQFT (0.5 SQMTR)
CELLS PER UNIT	72
CELL SIZE	3.1 X 3.2 IN (79 X 81 MM)
TOP OPEN AREA PER UNIT	87%
BOTTOM OPEN AREA PER UNIT	41%
INTERLOCKING OFFSET SHEAR TRANSFER PINS	12 TABS PER 40 IN (PER 1 M)
NOMINAL WEIGHT PER UNIT	9.0 LBS (4.0 KG)
UNITS PER PALLET	50

CUT GEOTERRA UNITS IN HALF ALONG OUTER EDGE OF SYSTEM OR CONNECT ADDITIONAL UNITS

DIRECTION OF TRAFFIC

PREFERRED LAYOUT - BRICKLAYER PATTERN

DIRECTION OF TRAFFIC

CUT GEOTERRA UNITS IN HALF ALONG OUTER EDGE OF SYSTEM OR CONNECT ADDITIONAL UNITS

DIRECTION OF TRAFFIC

SIDE-TO-SIDE/TEMPORARY LAYOUT

2 IN (50 MM)

40 IN (1.0 M)

20 IN (0.5 M)

FRONT VIEW

END VIEW

PRESTO®PRODUCTS CO.

670 NORTH PERKINS STREET

APPLETON, WI 54914

920-738-1342

WWW.PRESTOGEOTERRA.COM

GEOTERRA STRUCTURAL MAT SYSTEM

PRESTO, GEOSYSTEM®, GEOTERRA®, AND PADLOC® ARE REGISTERED TRADEMARKS OF PRESTO PRODUCTS.

DATE: NOVEMBER 2013 FILE NAME: GEOTERRA-A1.DWG

SCALE: NTS SHEET 1

SILT FENCE PLAN

Filter Fabric

5' Max (Typ)

Fastener - Min. No. 10 Gage Wire

4 Per Post Required. (Typ.)

2' Min

18" Min (Typ)

ELEVATION

Filter Fabric

Direction Of Flow

Undisturbed Ground Line

6" Min

6" Min

Compacted Backfill

FABRIC ANCHOR DETAIL

NOTES:

1. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.
2. Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1 or 2, Class I with equivalent opening size of at least 30 for nonwoven and 40 for woven.
3. Fence posts shall be either standard steel post or wood post with a minimum cross-sectional area of 3.0 sq. in.

REFERENCE

Project _____ Date _____

Designed _____ Date _____

Checked _____ Date _____

Approved _____ Date _____

STANDARD DWG. NO.

IUM-620A

SHEET 1 OF 2

DATE 3-16-12

24"x36" SIGN

CONCRETE WASHOUT AREA

60 MIL. POLYETHYLENE PLASTIC LINER

MANUFACTURED METAL DUMPSTER NOT LESS THAN 6 CY. CAPACITY CONTRACTOR RESPONSIBLE FOR PICK UP AND DELIVERY WITH RECYCLING & DISPOSAL

READY MIX TRUCK WASH IN DUMPSTER

UNLOCK POSITION

CLAMP

STRAP

LOCKED POSITION

PADLOC CONNECTION DETAIL (6/UNIT)

CABLE STOP WASHER

CABLE

ANCHOR HEAD

EARTH ANCHOR DETAIL

CELL WALL

PADLOC CONNECTION

PADLOC GROOVE (TYP)

IN SITU SOILS

IF REQUIRED, EARTH ANCHOR

GEOTERRA COMPONENTS

PRESTO®PRODUCTS CO.

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920-738-1342

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GEOTERRA STRUCTURAL MAT SYSTEM

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1	ISSUED PER VILLAGE COMMENTS	04-22-21

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SOIL EROSION AND SEDIMENT CONTROL DETAILS

SITE AND SHELL DEVELOPMENT

17111-17119 LAGRANGE ROAD, TINLEY PARK, IL 60487

PROJECT:

PROJ. MGR.: OP

DRAWN BY: OP

FIRST ISSUE DATE: 03-26-2021

SCALE: N.T.S.

SHEET NO.

C6.0

PROJ. NUMBER: 21008

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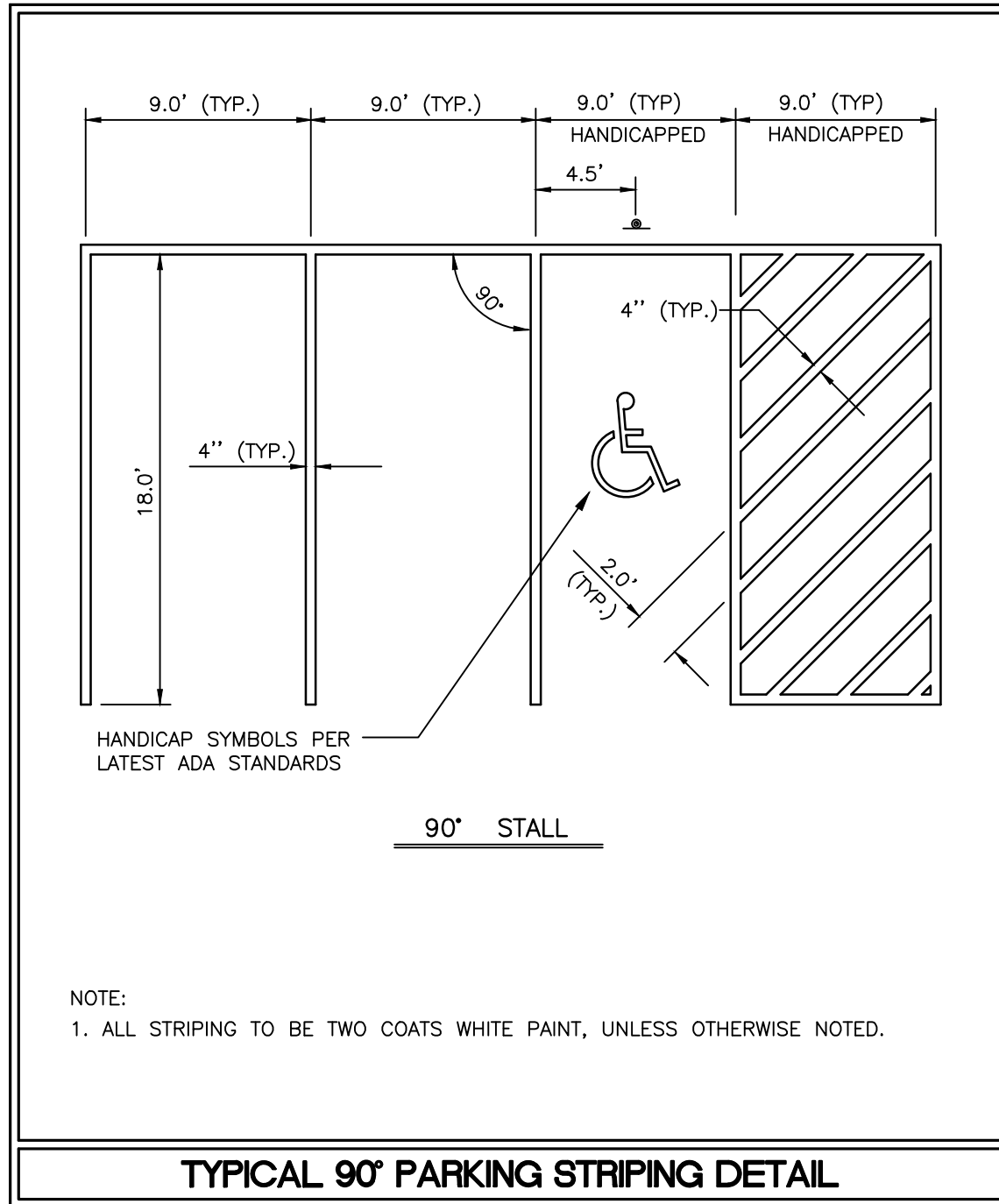
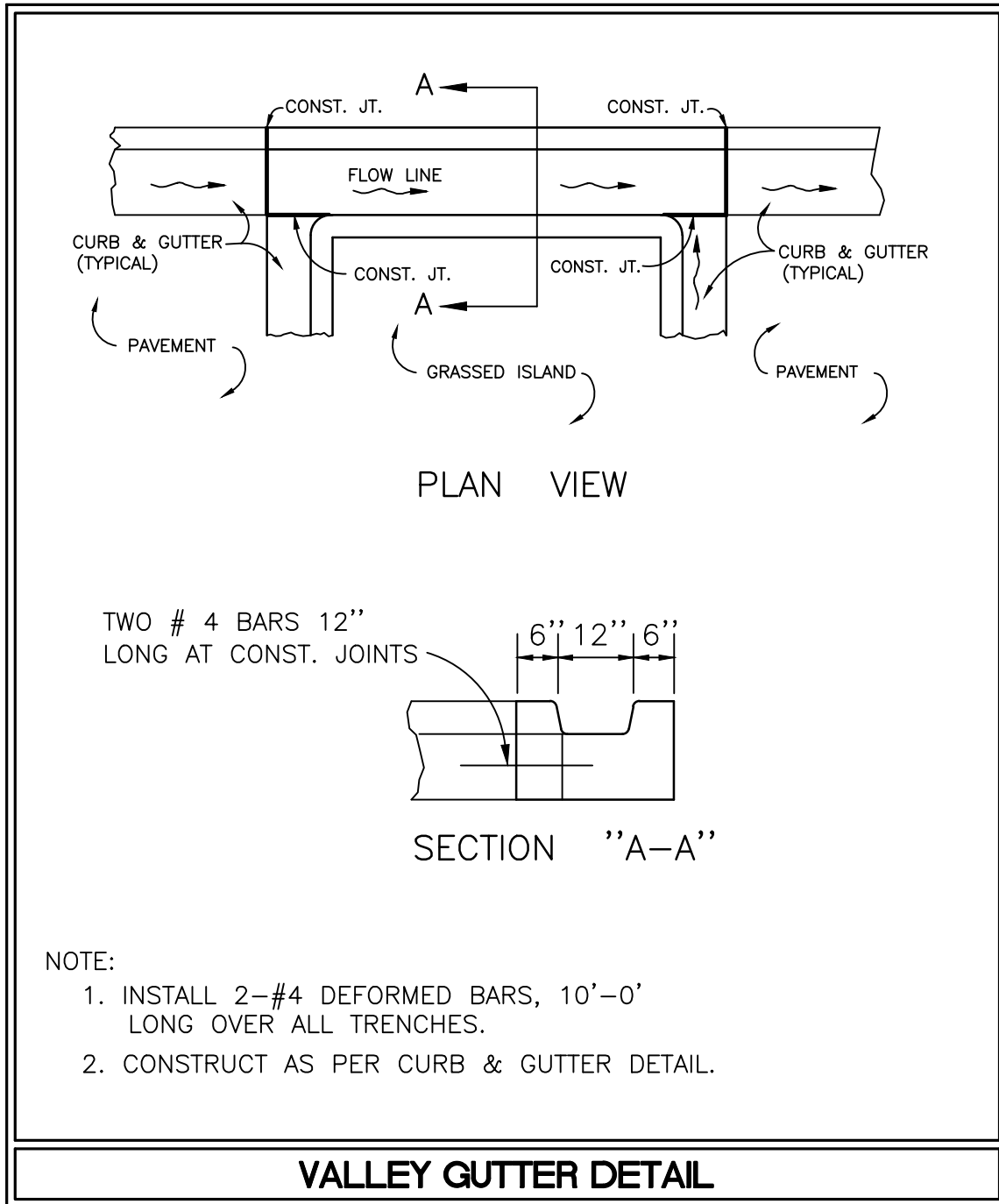
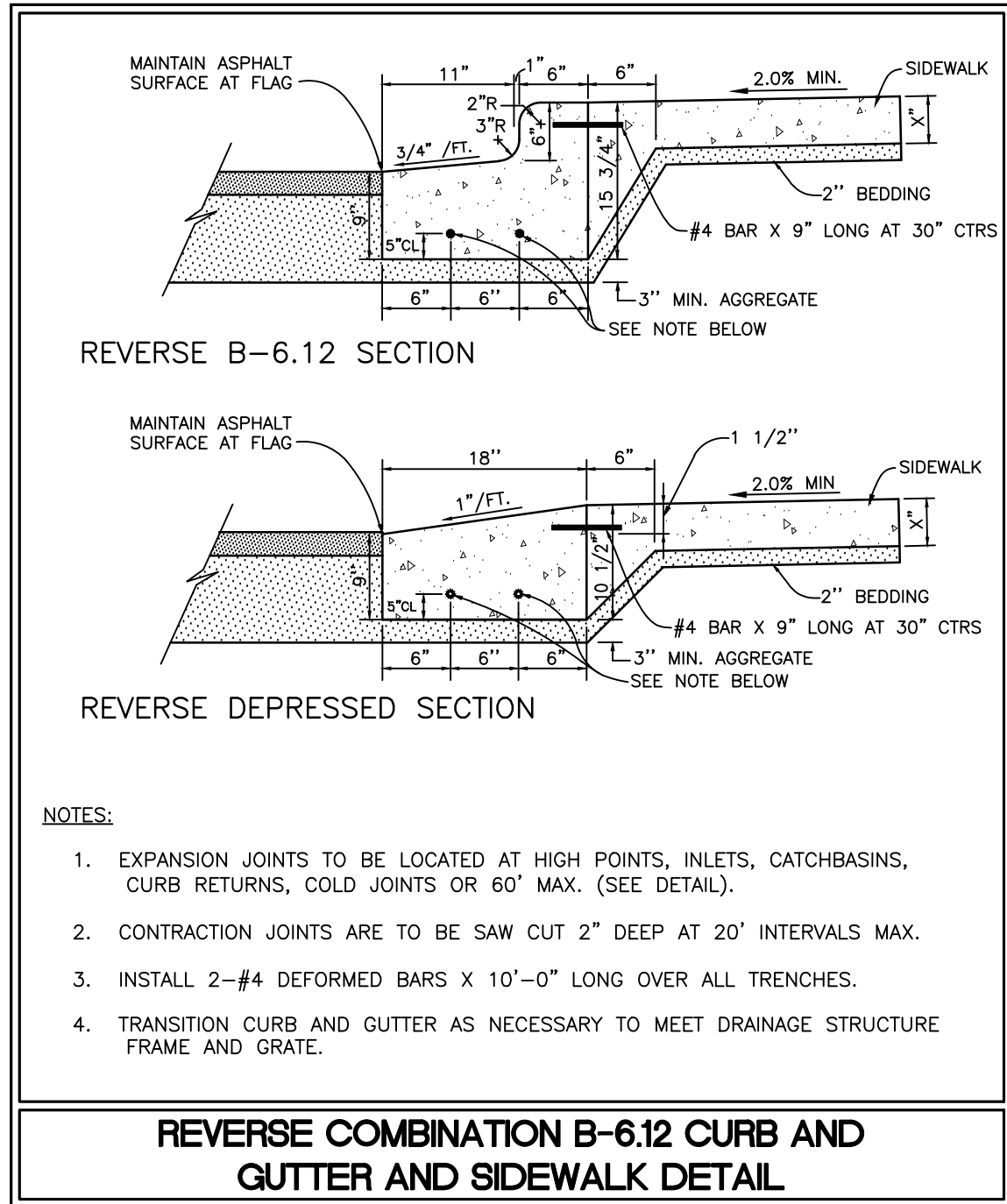
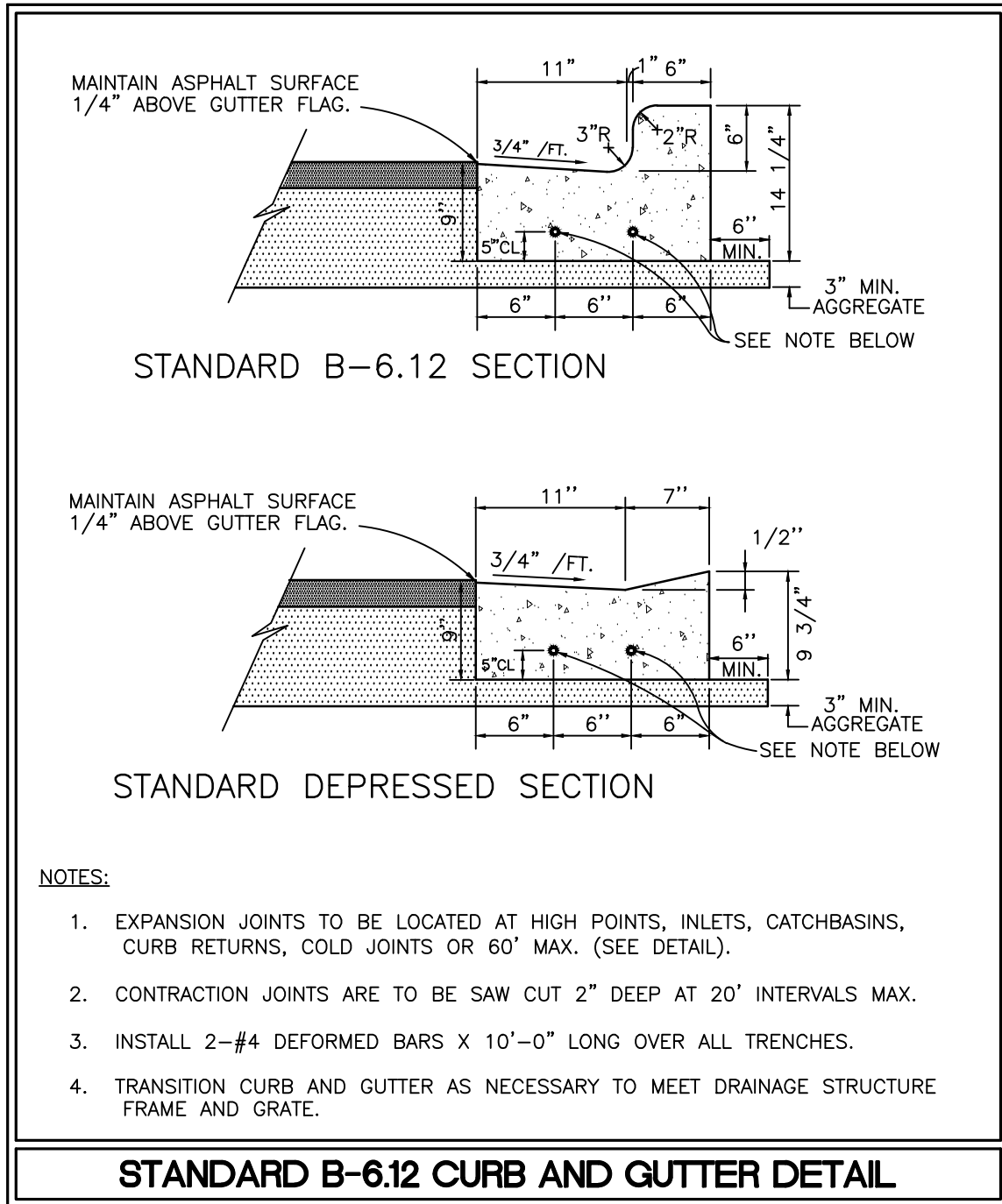
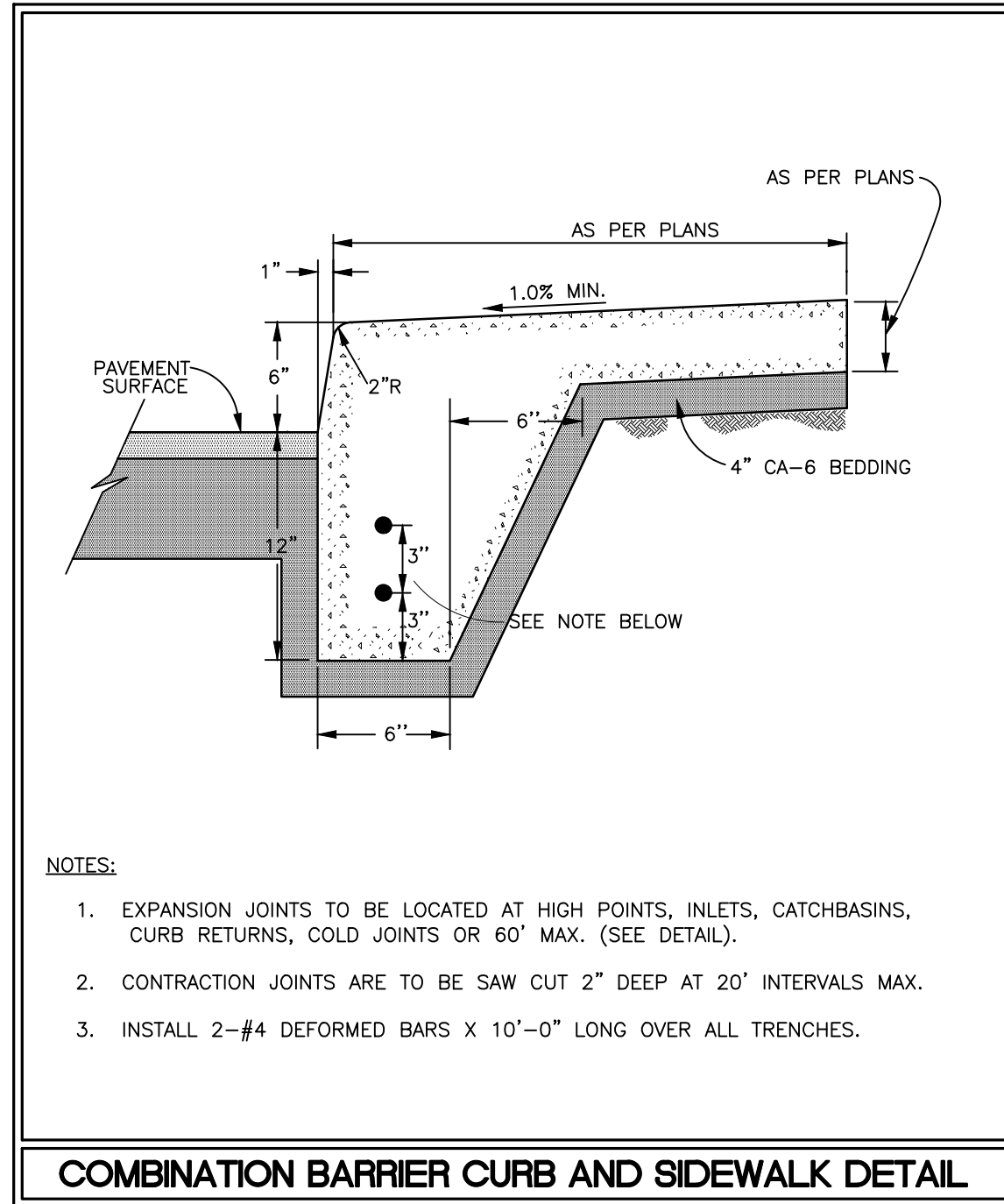
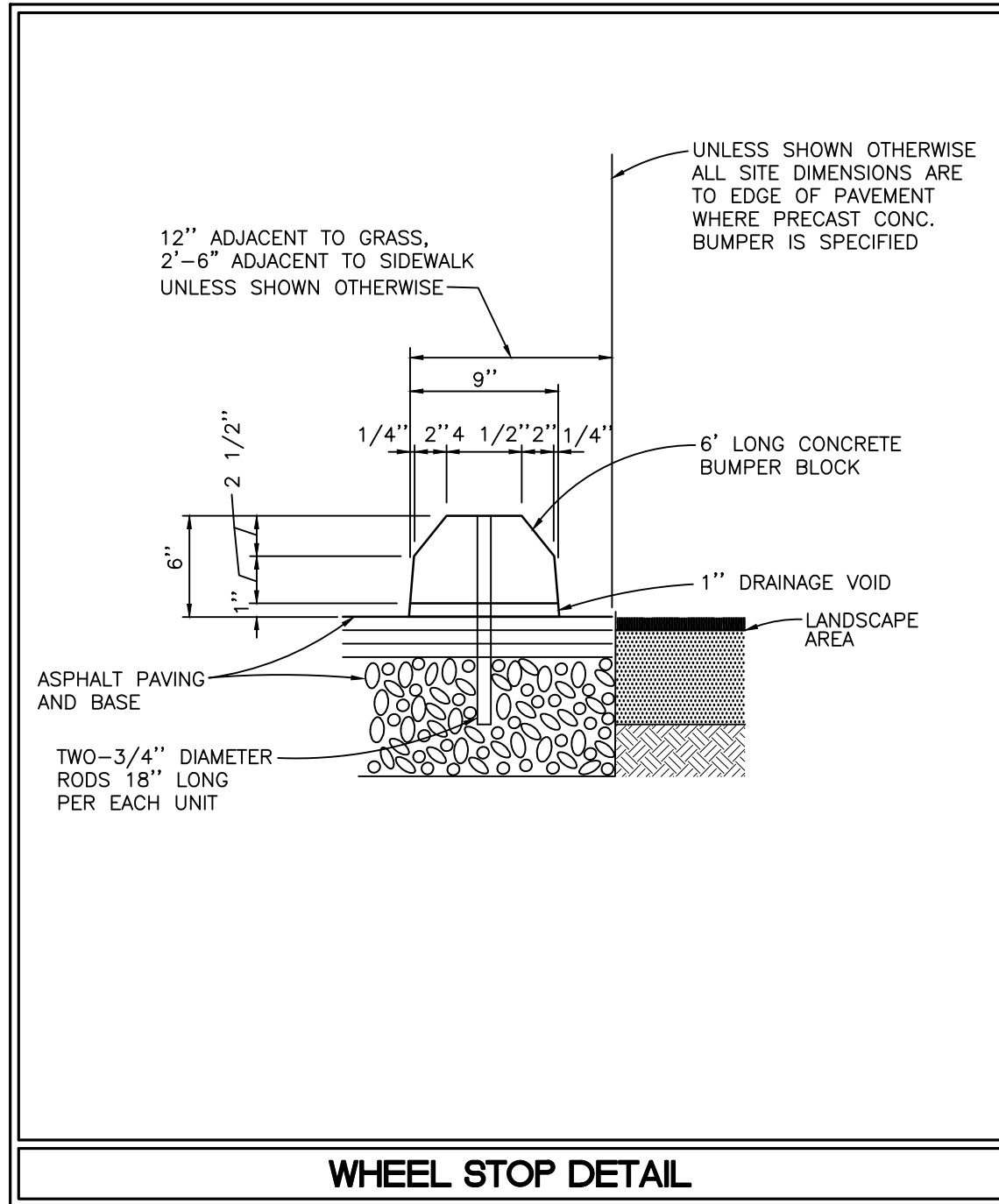
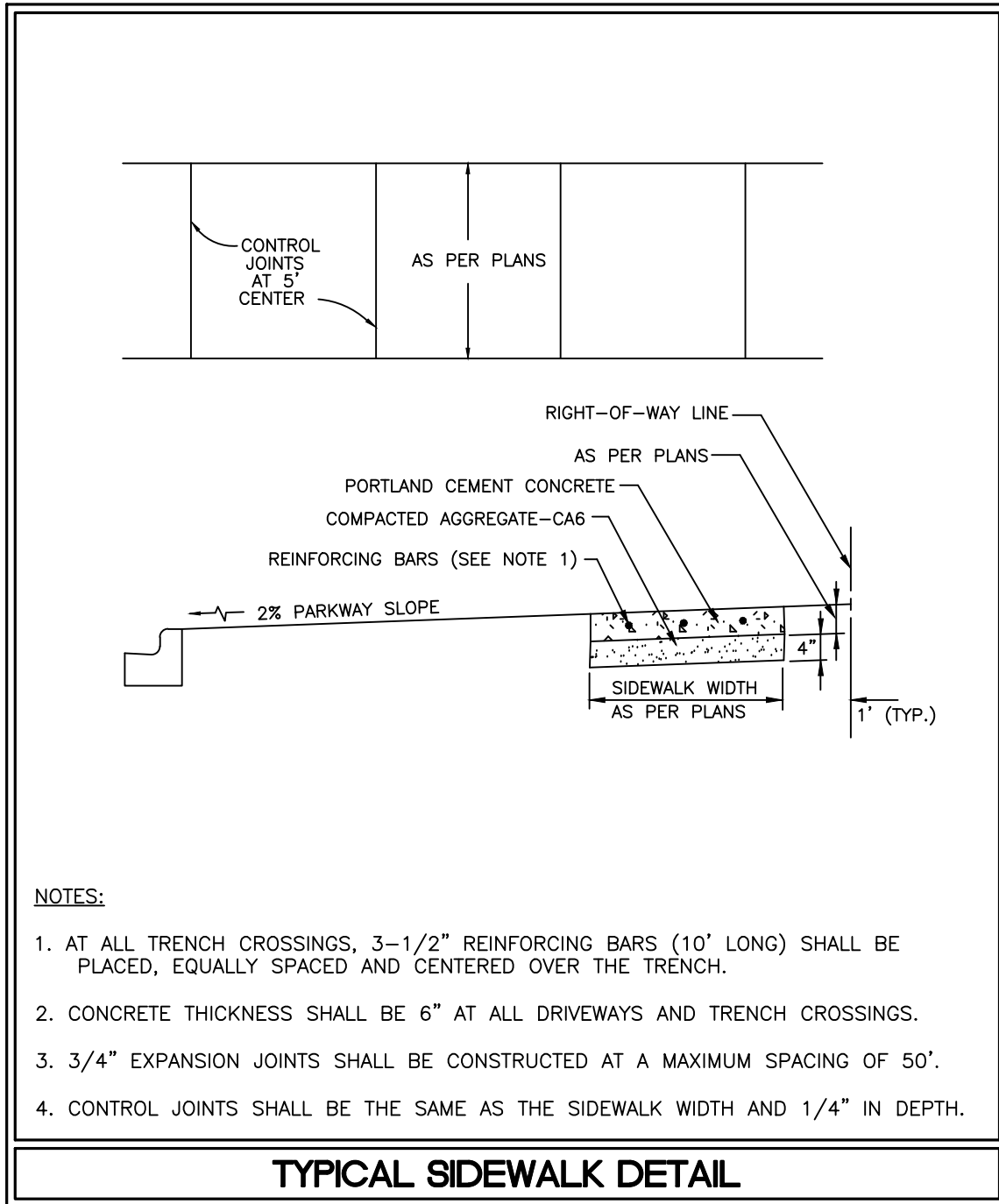
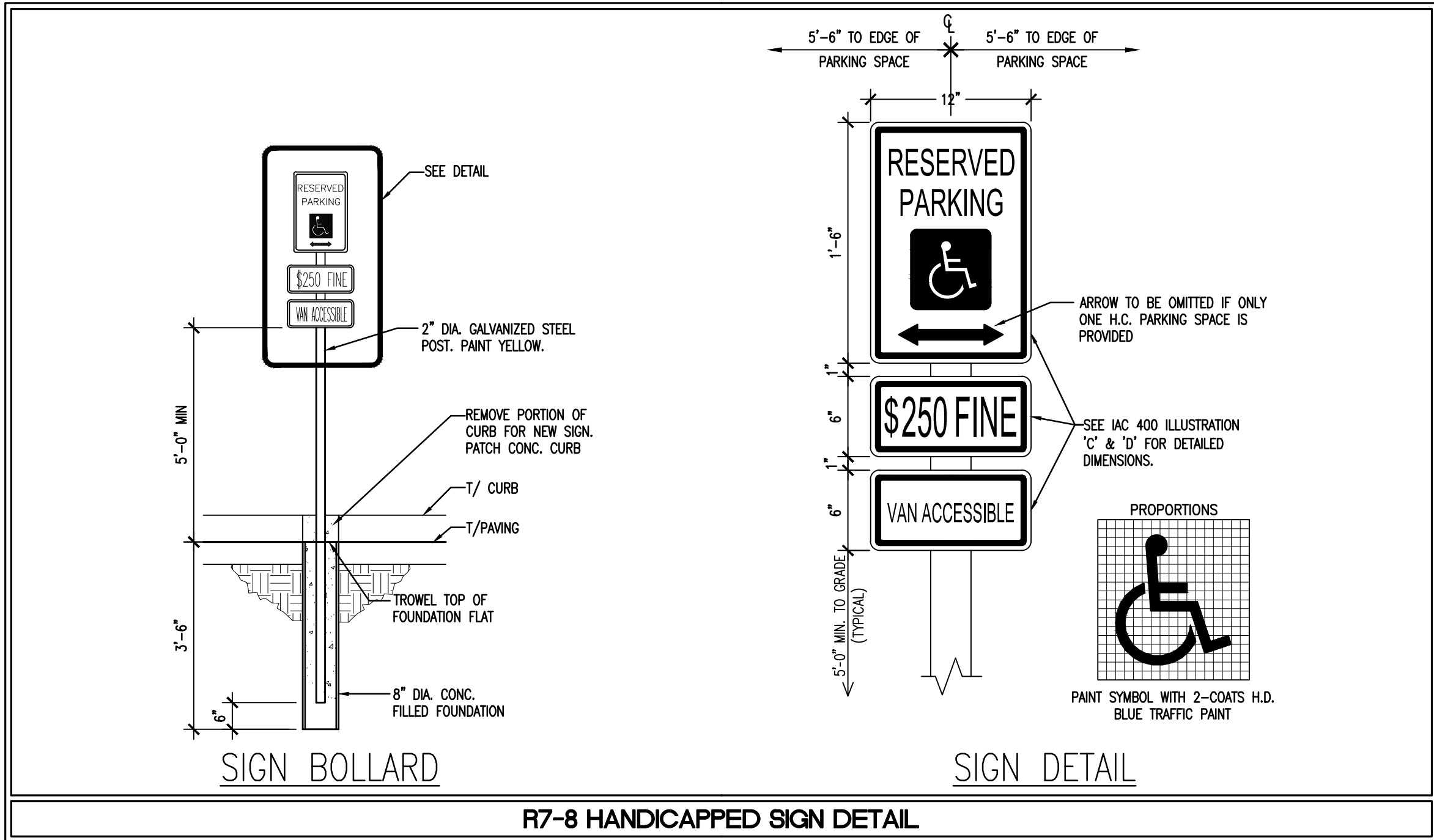
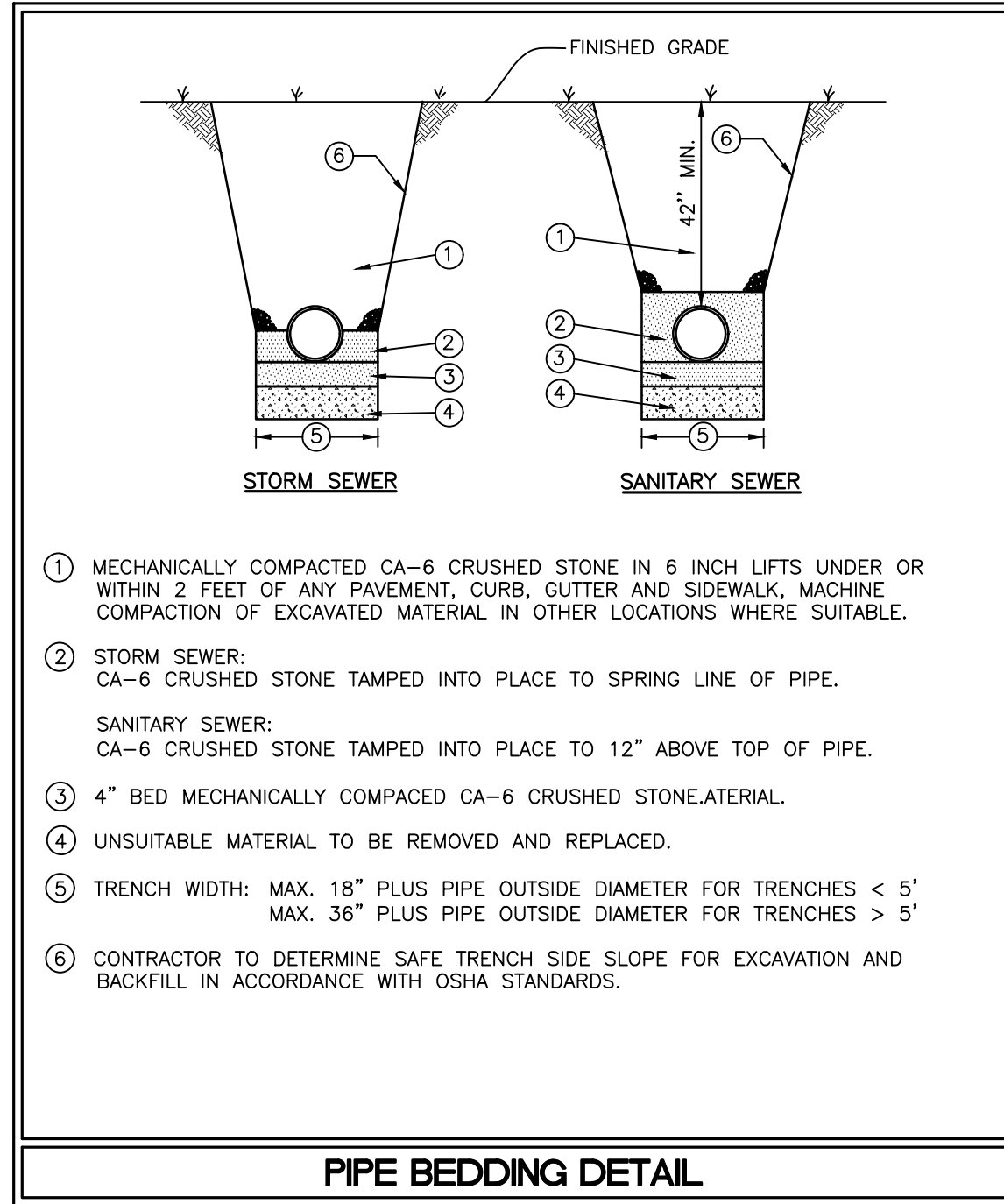
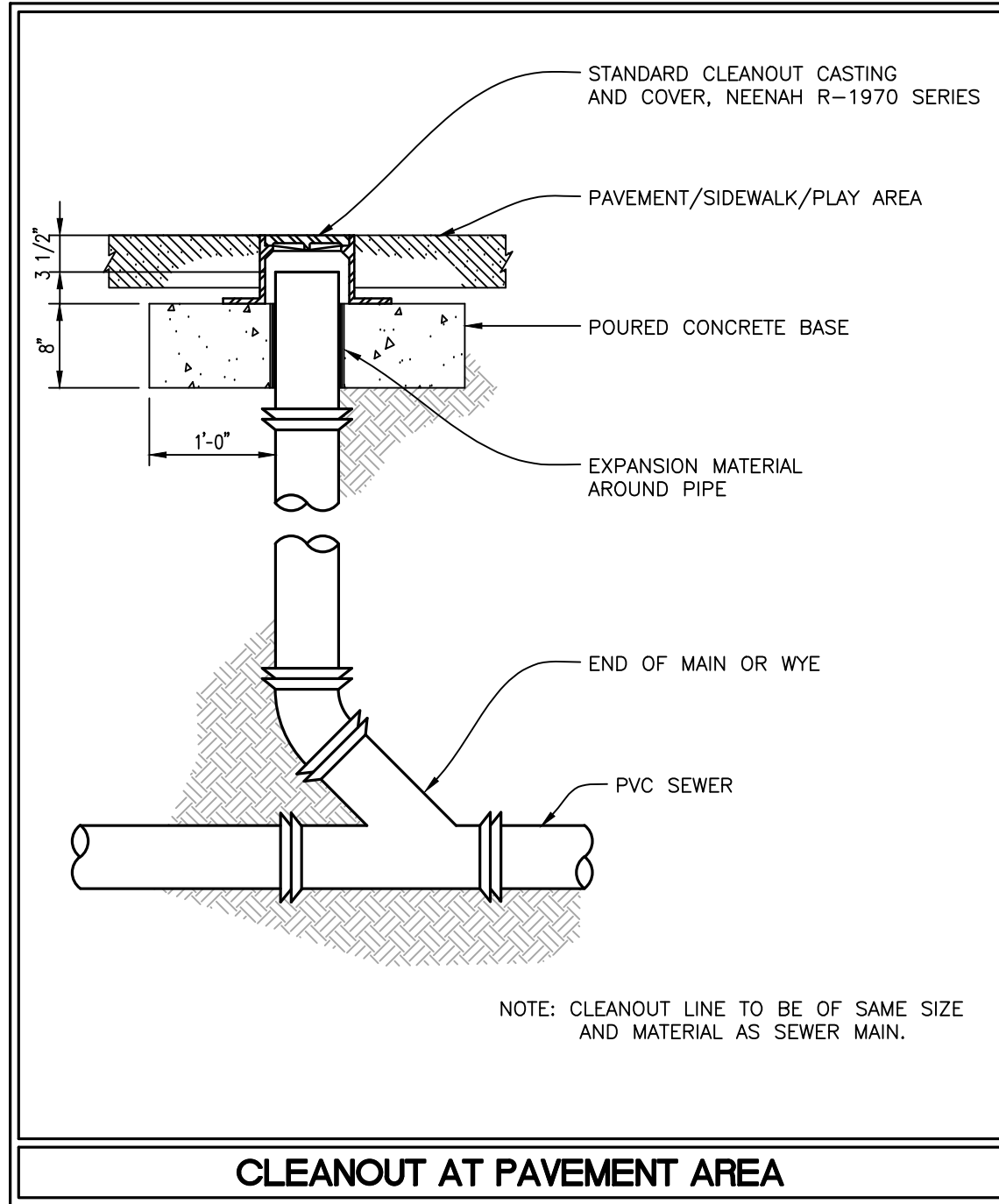
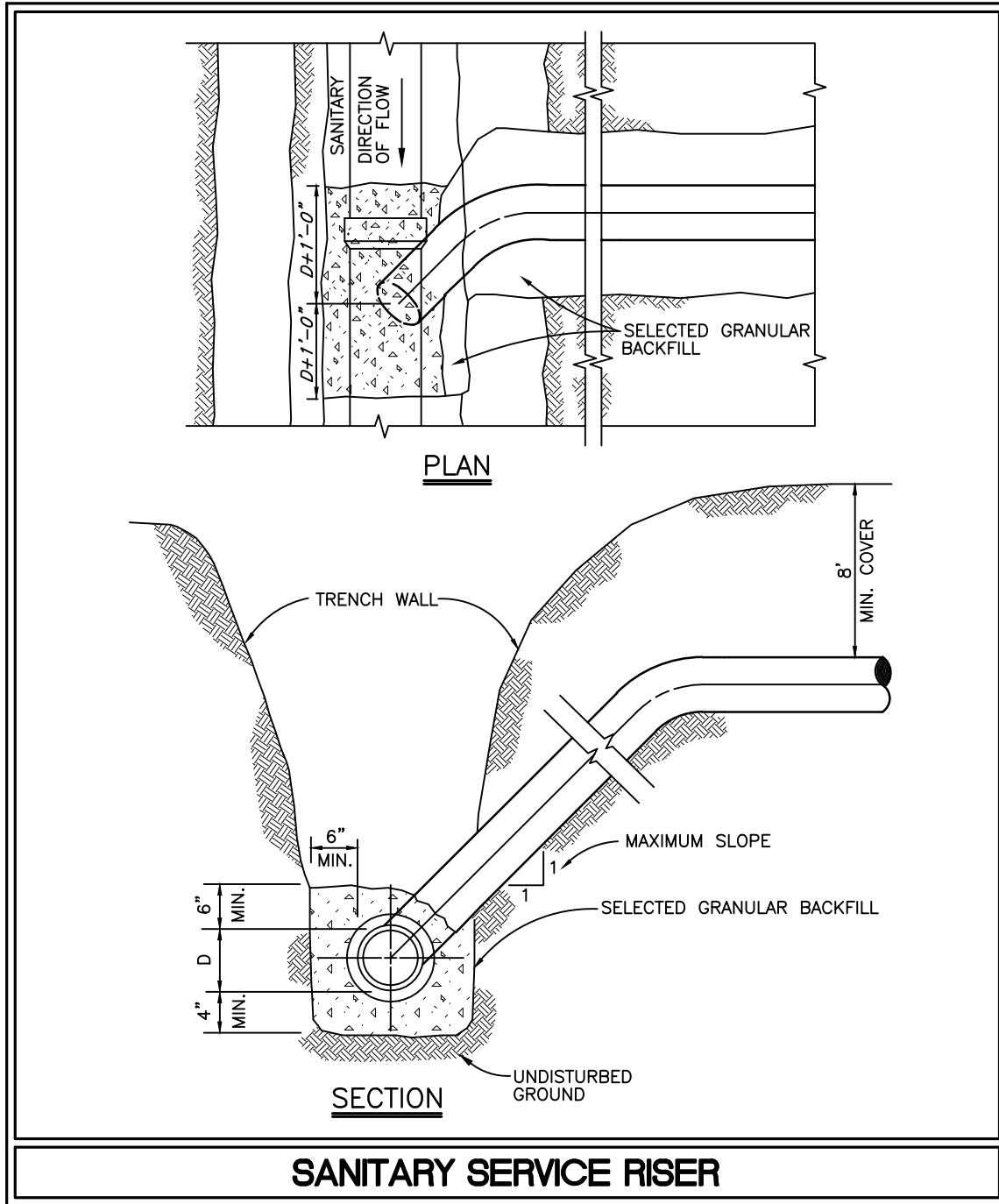
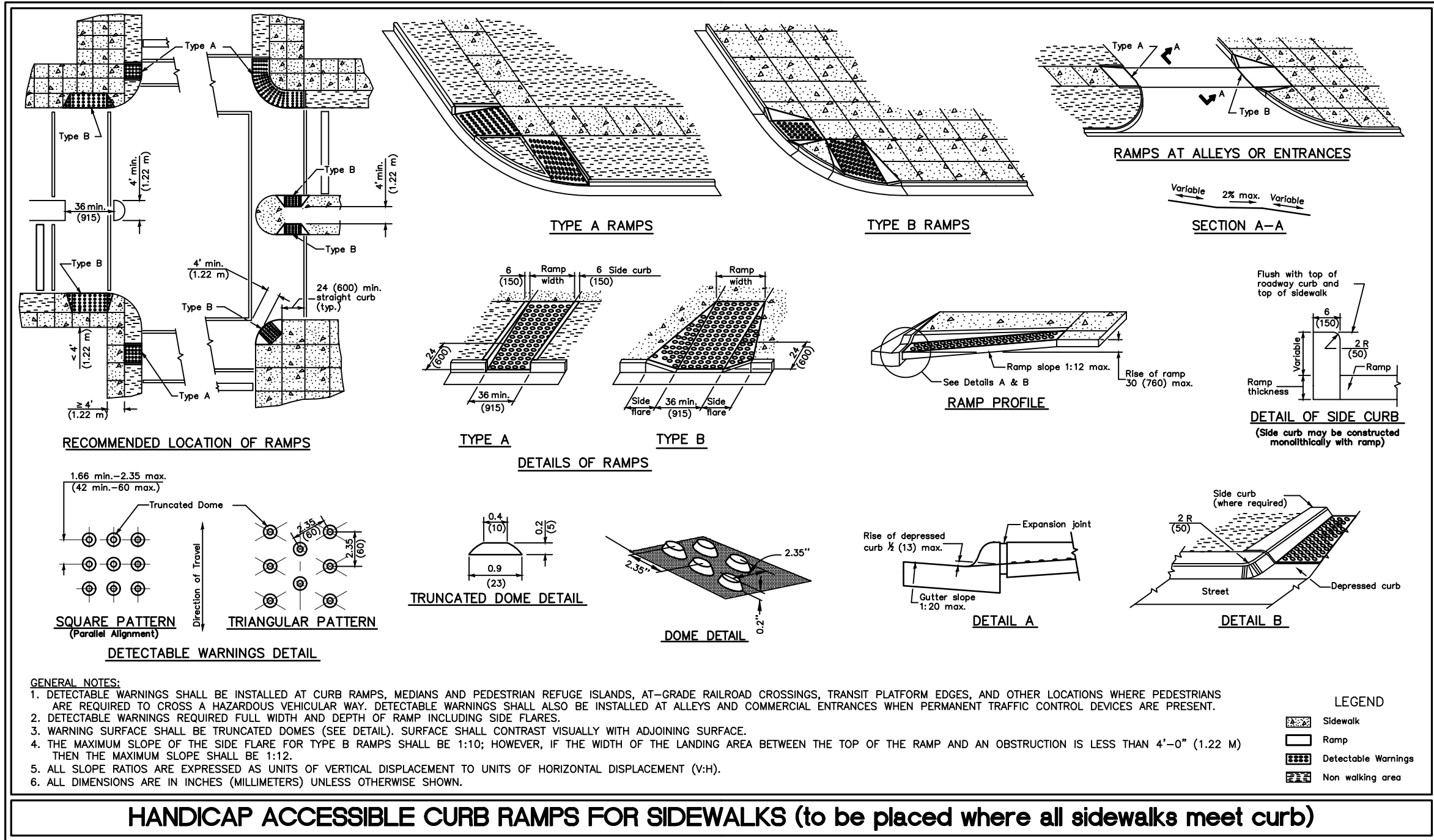
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FIRST ISSUE DATE: 03-26-2021
SCALE: N.T.S.

SHEET NO.

C6.1

PROJ. NUMBER: 21008

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SITE CONSTRUCTION DETAILS - 1

SITE AND SHELL DEVELOPMENT

17111-17119 LAGRANGE ROAD, TINLEY PARK, IL 60487

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		CIVIL ENGINEERS - PLANNERS - DEVELOPMENT CONSULTANTS CivWorks Consulting, LLC 3343 N. NEVA AVENUE CHICAGO, ILLINOIS 60634 Ph: (312) 637-9570 Fax: (312) 637-9454 E-mail: info@civworks.com Web: www.civworks.com	
GENERAL CONDITIONS AND DETAILED SPECIFICATIONS SITE AND SHELL DEVELOPMENT 17111-17119 LAGRANGE ROAD, TINLEY PARK, IL 60487		SHEET NO. C7.0	
PROJ. MGR.: _____ OF _____ DRAWN BY: _____ OF _____ FIRST ISSUE DATE: 03-26-2021 SCALE: _____ N.T.S.		PROJ. NUMBER: 21008	

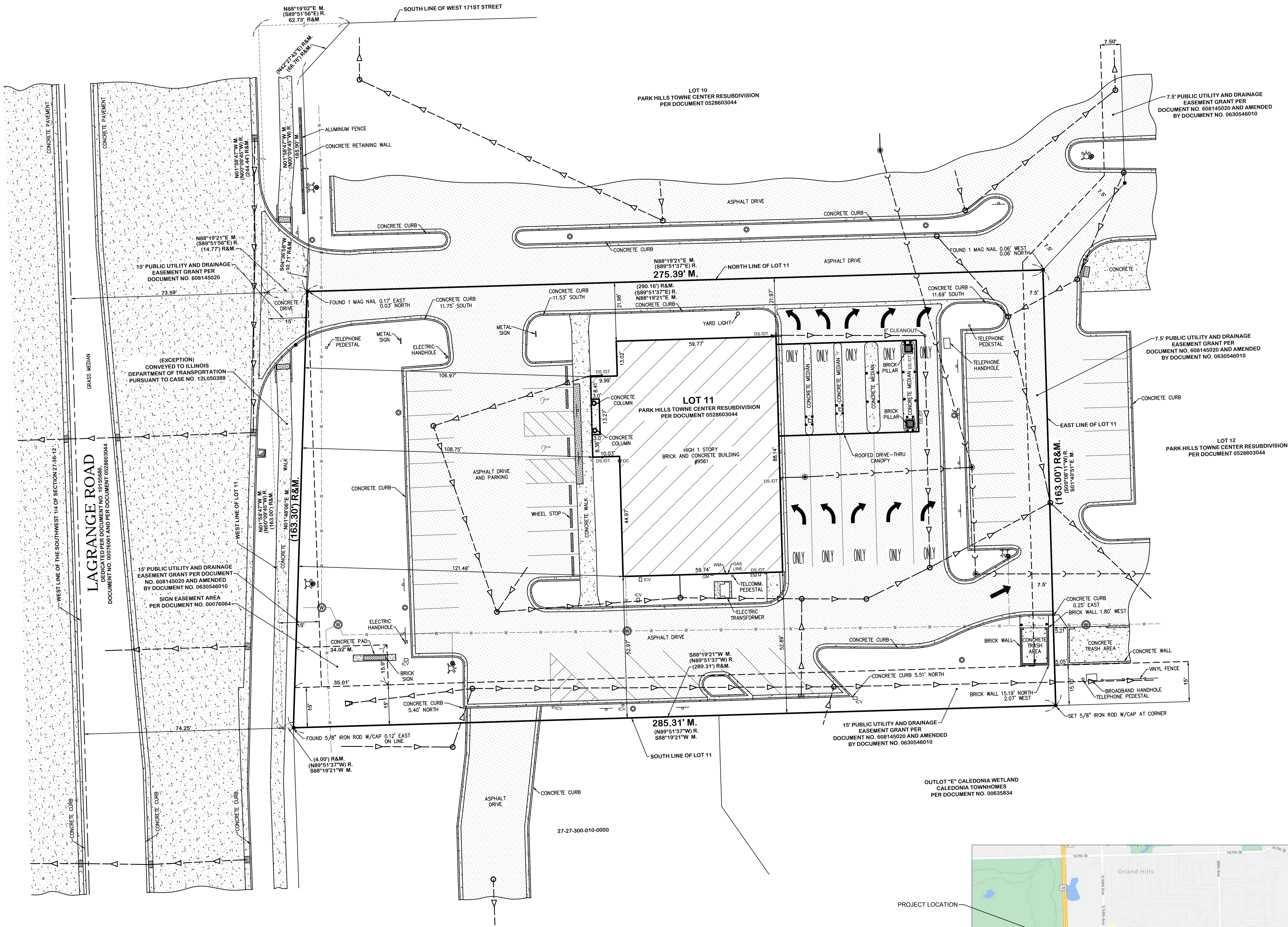
- LEGEND
- MONUMENT FOUND
 - RECORD DIMENSION
 - MEASURED DIMENSION
 - P.U. & D.E. PUBLIC UTILITY AND DRAINAGE EASEMENT
 - DE. DRAINAGE EASEMENT
 - STORM SEWER INLET
 - STORM SEWER MANHOLE-INLET
 - SANITARY MANHOLE
 - COMBINATION MANHOLE
 - CLEANOUT
 - FIRE HYDRANT
 - WATERMAIN VALVE VAULT MANHOLE
 - WATERMAIN VALVE BOX
 - WATERMAIN S BOX
 - LIGHT POLE
 - UTILITY POLE
 - STORM SEWER FLARED END-SECTION
 - STORM SEWERLINE
 - SANITARY SEWERLINE
 - COMBINATION SEWERLINE
 - FORCED MAIN
 - WATERMAIN LINE
 - OVERHEAD WIRES
 - TELEPHONE LINE
 - ELECTRIC LINE
 - CABLE TV LINE
 - GAS LINE
 - BOLLARD
 - ELECTRIC OUTLET BOX
 - SIGN
 - ELECTRIC TRANSFORMER
 - DOWNSPOUT INTO DRAINILE
 - DOWNSPOUT/DIRECTION
 - MONITORING WELL
 - GAS VALVE
 - GAS PIPELINE MARKER
 - ELECTRIC MANHOLE
 - AMERITECH MANHOLE
 - ELECTRIC METER
 - GM GAS METER
 - WM WATER METER
 - FDC FIRE DEPARTMENT CONNECTION
 - ICV IRRIGATION CONTROL VALVE
 - CONCRETE LIGHT POLE BASE
 - W/STREET LIGHT
 - TRAFFIC CONTROL VAULT

WOLF PACK CONSULTING, LLC

ALTA/NSPS "LAND TITLE SURVEY"

LOT 11 IN PARK HILLS TOWNE CENTRE RESUBDIVISION OF LOTS 1, 2, 3 AND 4 IN FORMULA SUBDIVISION, BEING A SUBDIVISION OF PART OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER (EXCEPT THE SOUTH 865.32 FEET THEREOF) OF SECTION 27, TOWNSHIP 36 NORTH, RANGE 12, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS, EXCEPT THAT PART CONVEYED TO ILLINOIS DEPARTMENT OF TRANSPORTATION PURSUANT TO CASE NO. 12L050388.

COMMON ADDRESS: 9561 WEST 171ST STREET, TINLEY PARK, ILLINOIS
AREA: 45,697.08 SQ. FEET OR 1.049 ACRES
PERMANENT INDEX NUMBER: 27-27-300-010-0000



SCHEDULE B SURVEY RELATED ITEMS

PER FREEDOM TITLE CORPORATION COMMITMENT NUMBER: 6719213 DATED DECEMBER 31, 2020.

ITEM 17: RECIPROCAL EASEMENT AGREEMENT DATED JUNE 30, 2006 AND RECORDED JULY 5, 2006 AS DOCUMENT NO. 0618632049 (NOT PLOTTABLE-SEE DOCUMENT FOR PARTICULARS).

ITEM 19: EASEMENT IN FAVOR OF VILLAGE OF TINLEY PARK/NORTHERN ILLINOIS GAS CO. (INCOR), ILLINOIS BELL TELEPHONE COMPANY DBA AT&T, THE COMMONWEALTH EDISON COMPANY AND COMCAST CORPORATION, AND ITS/THEIR RESPECTIVE SUCCESSORS AND ASSIGNS TO INSTALL, OPERATE AND MAINTAIN ALL EQUIPMENT NECESSARY FOR THE PURPOSE OF SERVICING THE LAND AND OTHER PROPERTY, TOGETHER WITH THE RIGHT OF ACCESS TO SAID EQUIPMENT AND THE PROVISIONS RELATING THERETO CONTAINED IN THE GRANT RECORDED AS DOCUMENT NO. 0608145020, AFFECTING THE SOUTH AND WEST 15 FEET OF LOT 11 AND THE EAST 7.5 FEET OF LOT 11 AND AMENDMENT RECORDED NOVEMBER 1, 2006 AS DOCUMENT NO. 0630546010. (SHOWN HEREON).

ITEM 20: RIGHT OF WAY ENCROACHMENT WAIVER AND AGREEMENT RECORDED DECEMBER 22, 2009 AS DOCUMENT NO. 0535503045 (NOT PLOTTABLE. SEE DOCUMENT FOR PARTICULARS).

ITEM 21: TERMS AND PROVISIONS AS CONTAINED IN THE AGREEMENT RECORDED DECEMBER 17, 2004 AS DOCUMENT 0435245107 MADE BY AND BETWEEN VILLAGE OF TINLEY PARK AND SORD MANAGEMENT INC. (NOT PLOTTABLE. SEE DOCUMENT FOR PARTICULARS).

ITEM 25: PERPETUAL SIGN EASEMENT TOGETHER WITH ACCESS CREATED BY THE GRANT OF PERPETUAL EASEMENTS AND DECLARATION OF RESTRICTIONS RECORDED JANUARY 28, 2000 AS DOCUMENT 00076064 OVER THE LAND. (SIGN EASEMENT ON LOT 11 SHOWN HEREON).

ITEM 26: EASEMENT PROVISION, FOR EACH AND EVERY PARCEL, A NON-EXCLUSIVE IRREVOCABLE AND PERPETUAL EASEMENT FOR THE PARKING OF PASSENGER VEHICLES AND FOR PEDESTRIAN AND VEHICULAR INGRESS AND EGRESS UPON, OVER AND ACROSS ALL THE SIDEWALKS, ENTRANCES, DRIVES, LANES, ROADWAYS AND SERVICE DRIVES AS THE SAME MAY EXIST FROM TIME TO TIME WITH EACH PARCEL HAVING AT LEAST ONE ENTRANCE TO EACH ADJOINING PARCEL AS GRANTED ON PLAT OF FORMULA SUBDIVISION RECORDED JANUARY 28, 2000 AS DOCUMENT 00076061, NOTE LOTS 1, 2, 3 AND 4 IN FORMULA SUBDIVISION HAVE BEEN RESUBDIVIDED INTO PARK HILLS TOWNE CENTRE RESUBDIVISION RECORDED AS DOCUMENT NO. 0528603044. (SEE DOCUMENT FOR PARTICULARS).

ITEM 27: RIGHTS OF THE PUBLIC, THE STATE OF ILLINOIS AND THE MUNICIPALITY IN AND TO THAT PART OF THE LAND, IF ANY, TAKEN OR USED FOR ROAD PURPOSES. (SHOWN HEREON)

TABLE "A" NOTES:

ITEM 2: COMMON ADDRESS: 9561 WEST 171ST STREET, TINLEY PARK, ILLINOIS 60487

ITEM 3: I CERTIFY THAT A REVIEW OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAPS COMMUNITY PANEL 170310203K WITH AN EFFECTIVE DATE OF NOVEMBER 1, 2010 THAT THE PROPERTY PLATTED HEREON IS SITUATED IN ZONE "X" AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AS DESIGNATED BY FLOOD INSURANCE RATE MAP.

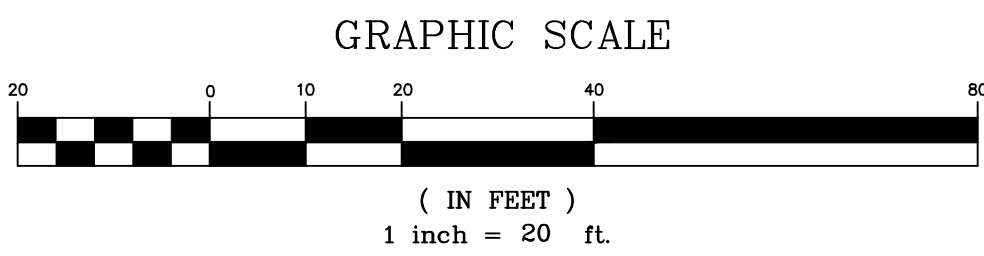
ITEM 4: TOTAL AREA: 45,697.08 SQUARE FEET OR 1.049 ACRES

ITEM 8: SUBSTANTIAL FEATURES ARE AS SHOWN ON THE FACE OF PLAT.

ITEM 9: 33 REGULAR AND 2 HANDICAPPED ON-SITE PAINTED PARKING SPACES AT THE TIME OF THIS SURVEY.

ITEM 11: EXISTING UNDERGROUND UTILITIES ARE SHOWN AS OBSERVED EVIDENCE ONLY. NO PLANS OR REPORTS HAVE BEEN PROVIDED TO THE SURVEYOR. A UTILITY LOCATE MARKINGS REQUEST HAD NOT BEEN PERFORMED FOR THIS SITE AT THE TIME OF THE SURVEY.

PREPARED FOR	CIVWORKS
DATE	MARCH 22, 2021
SCALE	1" = 20'
JOBN	21-40
	FLD. BK/PG: 111/20-24



NOTES:

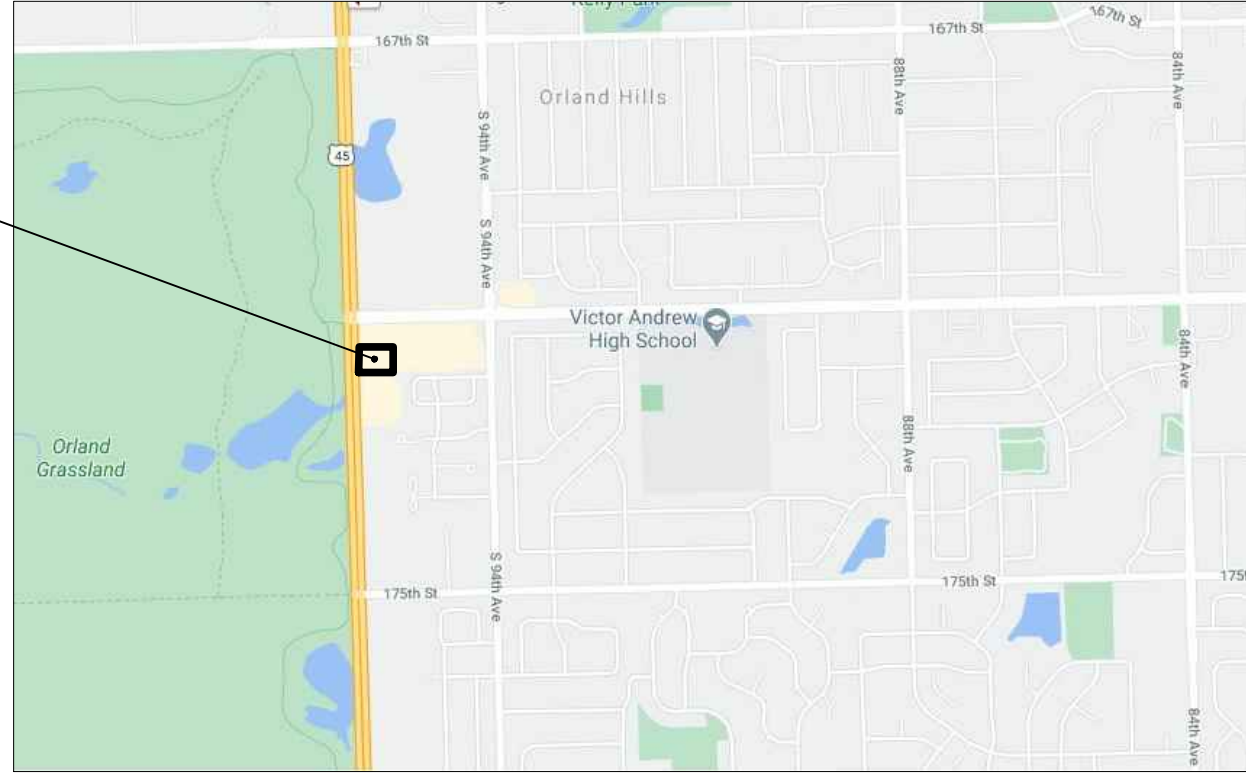
THIS COPY NOT VALID WITHOUT EMBOSSED SEAL.

ALL DISTANCES ARE IN FEET AND DECIMAL PARTS THEREOF.

BUILDING LINES AND EASEMENTS ARE SHOWN ONLY WHERE THEY ARE SO RECORDED IN THE MAPS. COMPARE THE LEGAL DESCRIPTION, BUILDING LINES, AND EASEMENTS AS SHOWN HEREON WITH YOUR DEED OR TITLE POLICY.

CONSULT THE LOCAL AUTHORITIES FOR ADDITIONAL SETBACK LINES AND RESTRICTIONS NOT SHOWN HEREON. COMPARE ALL POINTS PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AT ONCE.

DO NOT ASSUME DISTANCES FROM SCALED MEASUREMENTS MADE HEREON.



MY LICENSE EXPIRES NOVEMBER 30, 2022

STATE OF ILLINOIS, SS.
COUNTY OF DUPAGE)

CERTIFIED TO:

VEQUITY LLC, A DELAWARE LIMITED LIABILITY COMPANY
AMERICAN CHARTERED BANK, AN ILLINOIS STATE BANK
FREEDOM TITLE CORPORATION

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 7(a), 8, 9 AND 11 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON MARCH 22, 2021.

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

MARCH 22, 2021

WESTMONT ILLINOIS, ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3095
PROFESSIONAL DESIGN FIRM LICENSE NO. 184-007246-0010 EXPIRES 04/30/2023

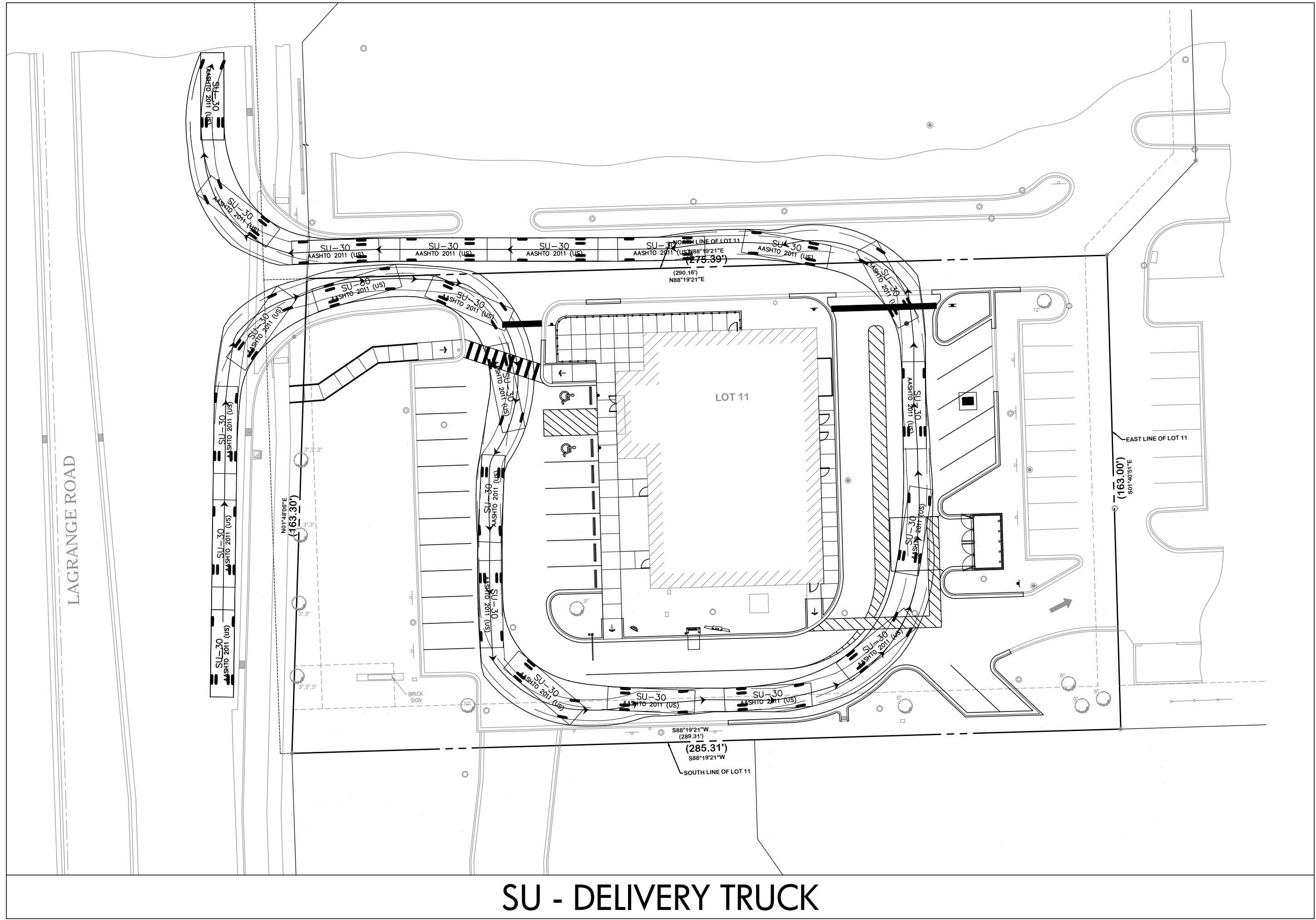
A

B

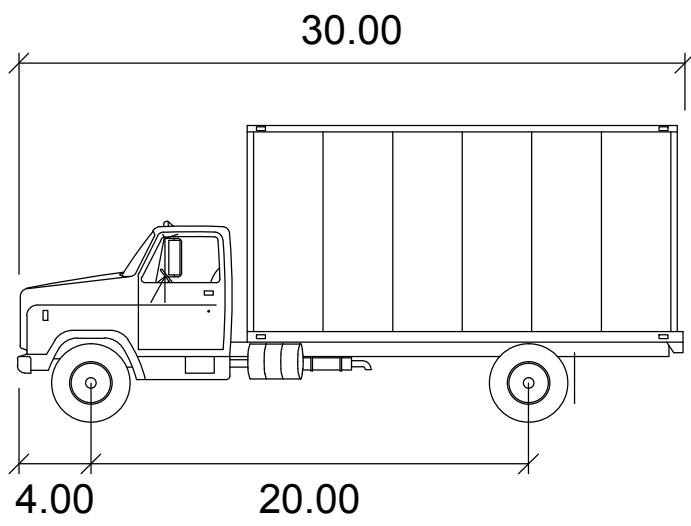
C

D

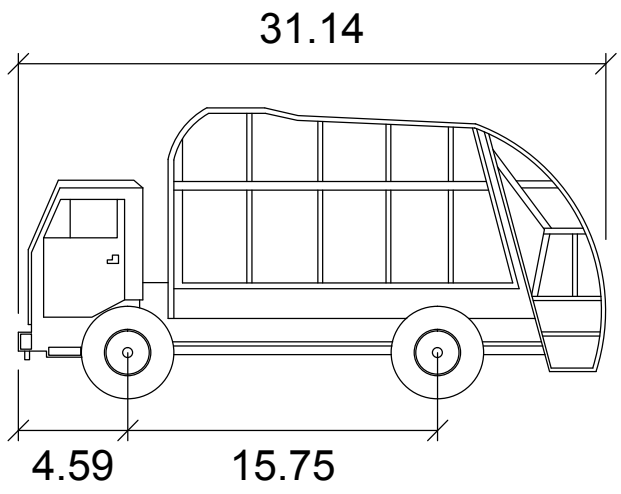
E



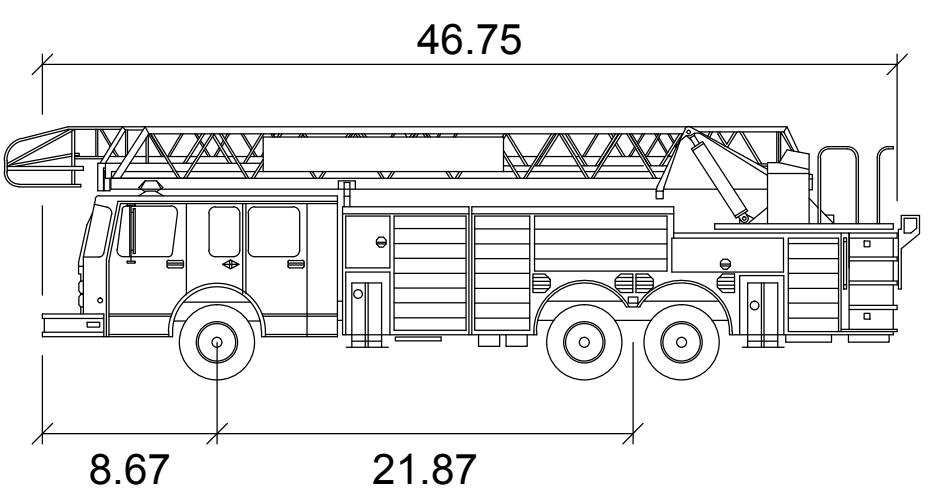
SU - DELIVERY TRUCK



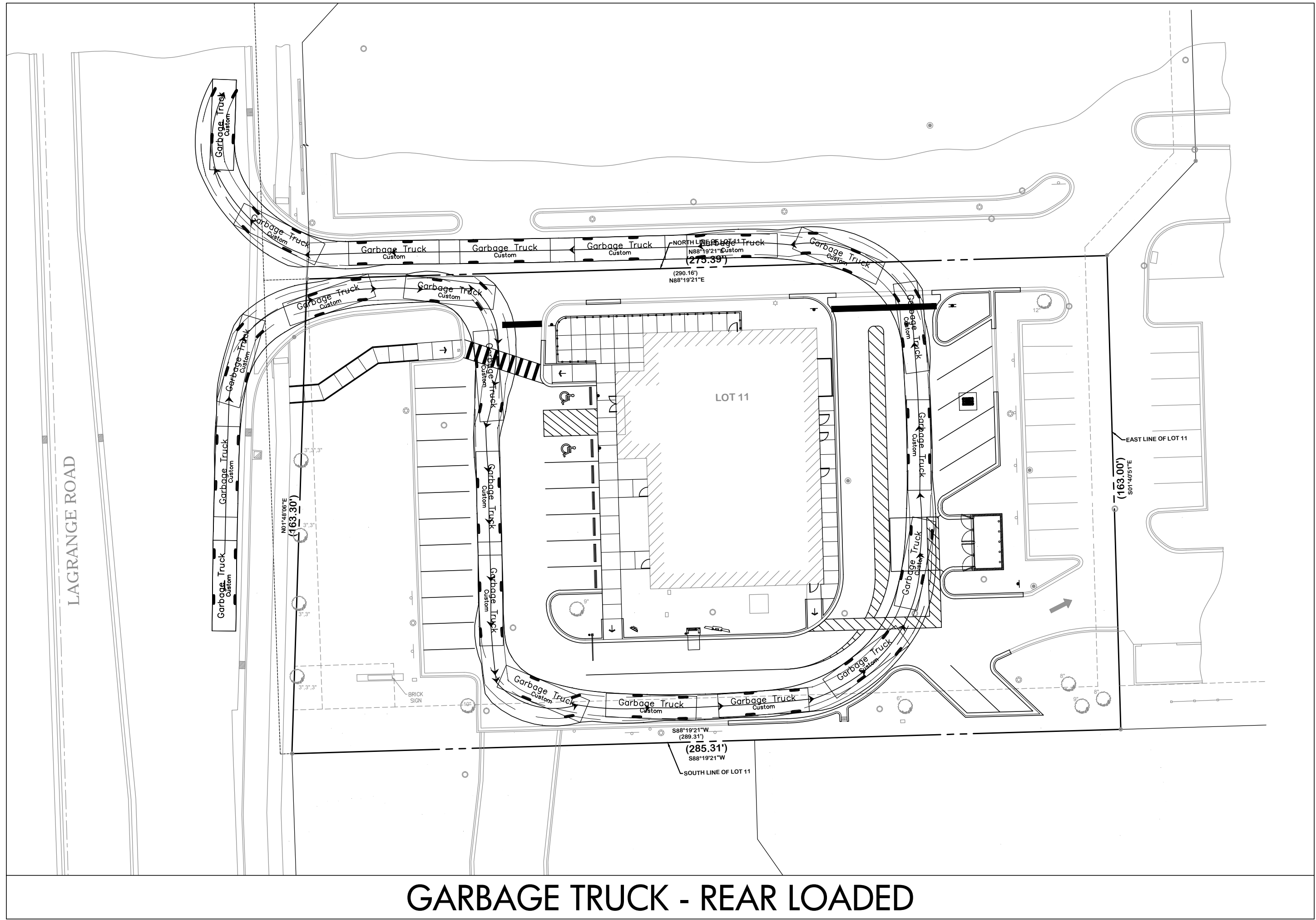
SU-30	feet
Width	8.00
Trac	8.00
Loc to Loc Time	6.0
Steering Angle	31.8



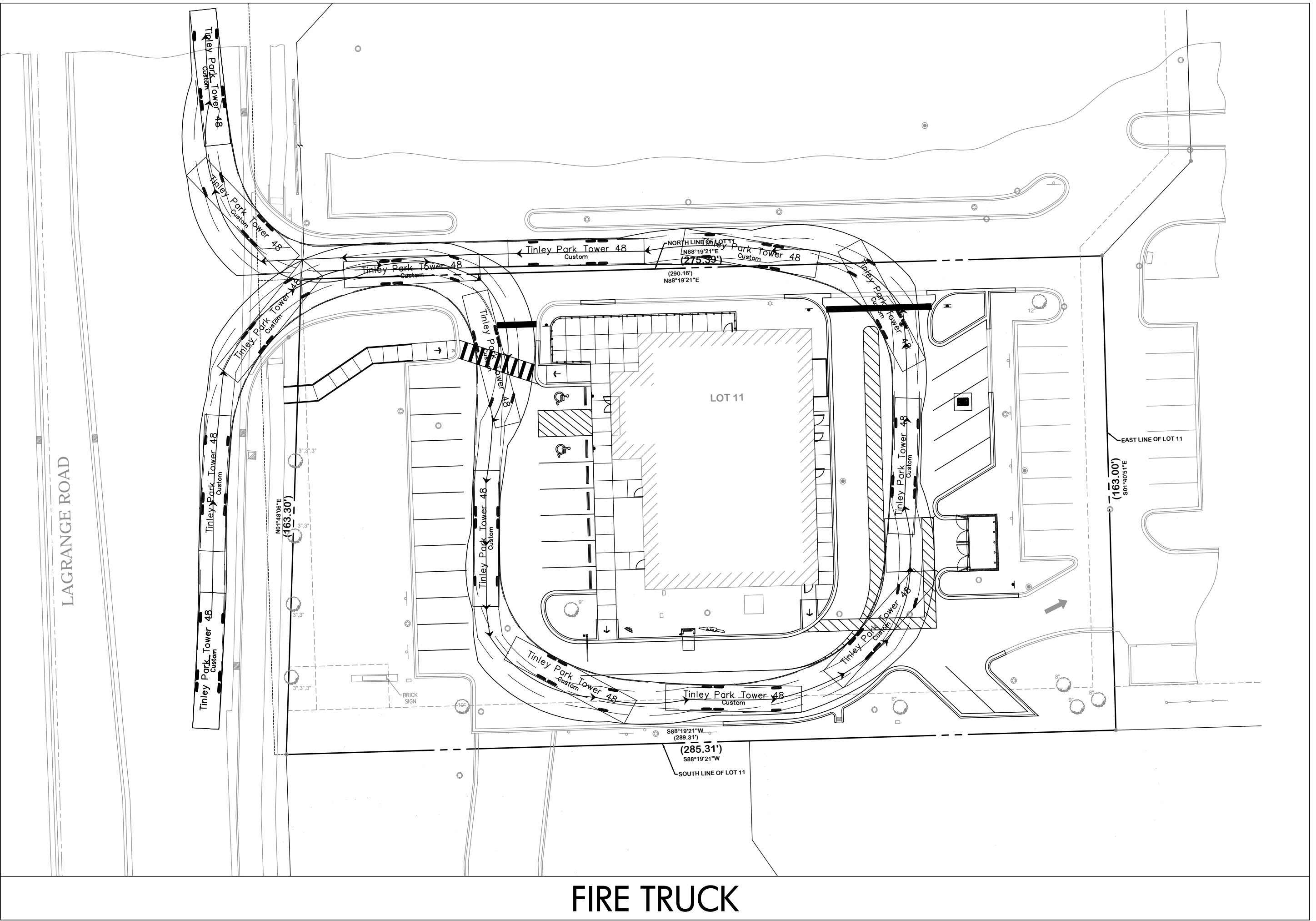
Garage Truck	feet
Width	8.17
Trac	8.17
Loc to Loc Time	6.0
Steering Angle	46.4



Tinley Park Tower 48 Fire Truck	feet
Width	9.00
Trac	8.50
Loc to Loc Time	6.0
Steering Angle	45.0



GARBAGE TRUCK - REAR LOADED



FIRE TRUCK

CIVIL ENGINEERS - PLANNERS - DEVELOPMENT CONSULTANTS

REVISIONS

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CHICAGO, ILLINOIS 60634
PH: (312) 657-9570
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Email: info@civworks.com
Website: www.civworks.com
VILLAGE OF CHICAGO PROJECT NO. 16-04274

ISSUED PER VILLAGE COMMENTS

1 04-22-21

TRUCK TURNING EXHIBIT

SITE AND SHELL DEVELOPMENT

17111-17119 LAGRANGE ROAD, TINLEY PARK, IL 60487

PROJECT:

SHEET TITLE:

PROJ. MGR.: OP

DRAWN BY: OP

FIRST ISSUE DATE: 03-26-2021

SCALE: 1"=30'

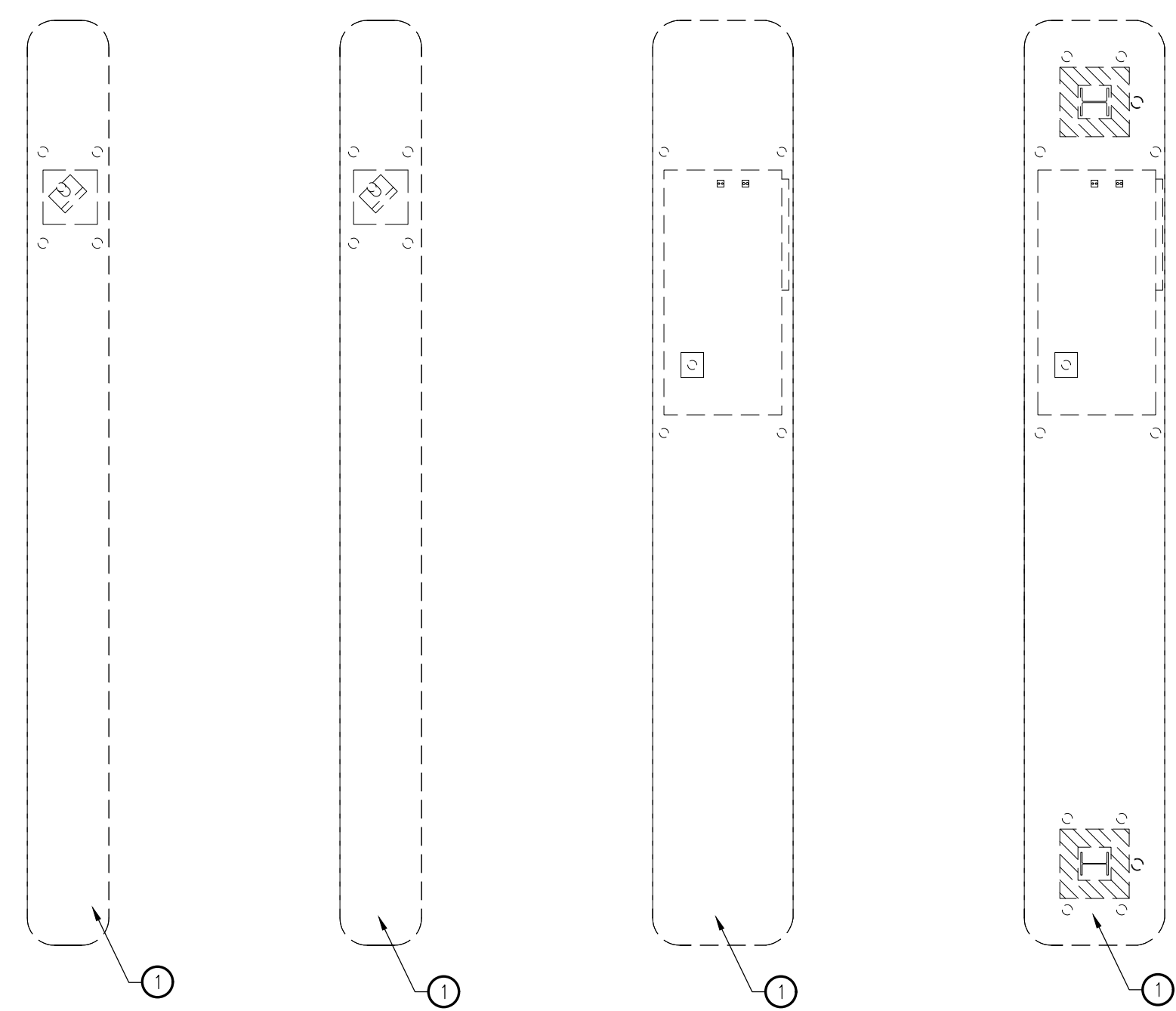
SHEET NO.

TR1.0

PROJ. NUMBER: 21008

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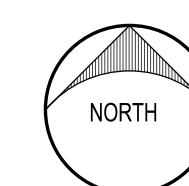
ABBREVIATIONS		SYMBOLS/MATERIAL LEGEND		GENERAL NOTES		CITY APPROVAL	
AB A/C ACT ACP AD ADA ADAA ADAG ADJ AESS AFF ALS ALT ALUM AP APPROX APT AR ARCH AS ASSOC AT ATTEN B/ B-MARK BD BEJ BOT BUF BLDG BLK BLKG BM BMT BRK BRS BTWN C/C CAB CCTV CB CF CFRG CG CJ CJF CL CLO CLGT CLO CLR CLSRM COL CONC CONCP COND CONFIG CONST CONTR CONTR CORR CPT CMU CMP CO COORD CT DEMO DES DF DH DIA DIM DN DS DTL DRAWING DWM EA EC ECP EFTS EIFS EJ EL ELEC ELEV EM ENCL EPFJ EQ ETC EX EXH EXISTG EXP EXT FACP FD FDC FDN FE FEC FHS FIN FIXT FLR FLASHG FF & E F.F.E FOOT FT FTG GA GALV GB GC GFCMU GL GRND GSF GYP GWB H HB HC HD HWR HNCG HORZ HM HP HR HSS HT HTG IAC IE ID IN INCL INFO INSUL INT INV JC J-BOX JT KIT	ANCHOR BOLT AIR CONDITIONER ACOUSTICAL CEILING TILE ALUMINUM COMPOSITE PANEL AREA DRAIN AMERICANS WITH DISABILITIES ACT ADA ACCESSIBLE ADA ACCESSIBILITY GUIDELINES ADJUSTABLE OR ADJACENT ARCHITECTURALLY EXPOSED STRUCTURAL STEEL ABOVE FINISH FLOOR ACRYLIC LATEX SEALANT ALTERNATE ALUMINUM LS LIMESTONE ANOD ANODIZED ACCESS PANEL APPROXIMATELY APARTMENT ABUSE RESISTANT ARCHITECTURAL ACOUSTICAL SEALANT ASSOCIATED ACOUSTIC TILE ATTENUATION BOTTOM OF BENCHMARK BOARD BUILDING EXPANSION JOINT BOTTOM BITUMINOUS JOINT FILLER BUILDING BLOCK F.T. BLOCKING BEAM BUTYLMASTIC TAPE SEALANT BRICK BUTYL RUBBER SEALANT BETWEEN CENTER TO CENTER CABINET CLOSED CIRCUIT TELEVISION CATCH BASIN CUBIC FOOT / FEET CERAMIC FIRE RATED GLASS / GLAZING CORNER GUARD CONTROL JOINT (CONCRETE, CMU) CORK JOINT FILLER CENTER LINE CEILING CEILING HEIGHT CLOSET CLEAR OPENING CLASSROOM COLUMN CONCRETE CONCRETE PAINTED CONDITION CONFIGURATION CONSTRUCTION CONTRACTOR CONTINUOUS CORRIDOR CARPET (WALL TO WALL) CONCRETE MASONRY UNIT CMU PAINTED CLEAN OUT COORDINATE CERAMIC TILE DEMOLITION / DEMOLISH DESIGN DRINKING FOUNTAIN DOUBLE HUNG DIAMETER DIMENSION DOWN DOWN SPOUT DETAIL DRAWING DEPARTMENT OF WATER MANAGEMENT EACH EXPOSED CONSTRUCTION / ELECTRICAL CONTRACTOR EXPOSED CONSTRUCTION PAINTED EXPANDING FOAM TAPE SEALANT EXTERIOR INSULATED FINISH SYSTEM EIFS EXPANSION JOINT (BRICK MASONRY) ELEVATION ELECTRICAL ELEVATION / ELEVATIONS EMERGENCY ENCLOSURE EXPANDED POLYURETHANE JOINT FILLER EQUIVALENT ET CETERA EXISTING EXHAUST EXISTING EXPANSION EXTERIOR FIRE ALARM CONTROL PANEL FLOOR DRAIN FIRE DEPARTMENT CONNECTION FOUNDATION ABC FIRE EXTINGUISHER (SURFACE MOUNTED) ABC FIRE EXTINGUISHER *CABINET, RATED AS REQ'D FIRE HOSE STATION FINISH FIXTURE(S) FLOOR FLASHING FURNITURE FURNISHINGS AND EQUIPMENT FINISHED FLOOR ELEVATION FIRE TREATED FOOTING GAUGE GALVANIZED GRAB BAR GENERAL CONTRACTOR GROUND FACED CONCRETE MASONRY UNIT(S) GLASS GROUND GROSS SQUARE FOOT / FEET GYPSUM GYPSUM WALL BOARD HEIGHT HARD BOARD HOLLOW CORE HOT-DIPPED (GALVANIZED) HARDWARE HOLLOW NEOPRENE COMPRESSION GASKET HORIZONTAL HOLLOW METAL HIGH POINT HOUR HOLLOW STRUCTURAL SECTION HEIGHT HEATING ILLINOIS ACCESSIBILITY CODE THAT IS INSIDE DIAMETER INCH INCLUDE(ING) INFORMATION INSULATED(ED), (ION) INTERIOR INVERT JANITOR'S CLOSET JUNCTION BOX JOINT KITCHEN	L LAM LAV LBL LF LP LR LST LT LVL MAS MACH MATL MAX MDF MECH MED MEP MFR MH MIN MISC MO MR MTD MTL MULL MV NOISE CRITERIA NON-FREEZE WALL HYDRANT NOT IN CONTRACT NUMBER NOMINAL NOISE REDUCTION COEFFICIENT NOT TO SCALE OVERALL ON CENTER OUTSIDE DIAMETER OVERHEAD OPENING OPERABLE OPPOSITE PARTITION PRE-SHIMMED BUTYL MASTIC PIECE PIECES PERPENDICULAR PLASTIC OR PLATE PL LAM PLBG PLYWOOD PANEL PAIR PREFAB PREFINISHED PREPARE / PREPARATION POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH PAINT PAINTED FINISH QUARRY TILE QTY QUANT R RAD RAD COVER RB RD REC REF REF/FRZR REINFC REINFC REQD REOS RET REV RM RO RTU SAFB SC SECT SGT SHLVG SHT SHTG SIM SPEC SPRKL SQ SF SQ IN SS ST STC STD STL STOR STL STOR STRUCT SURF SUSP SV T T T-G TEL TEL TER THK TT TYP UL UNO UR UTLILY(IES) V VINYL VB VCT VERT VEST VF VR VWB VWC W/ W/O WC WD WIN WP WPR WR WV WNR	LENGTH LONG LAMINATED LABATORY LABEL LINEAL FOOT / LINEAL FEET LOW POINT LIVING ROOM LIMESTONE LIGHT LEVEL MASONRY MACHINE MATERIAL(S) MAXIMUM MEDIUM DENSITY FIBERBOARD MECHANICAL MEDIUM MECH., ELEC. & PLBG. MANUFACTURER MANHOLE MINIMUM MISCELLANEOUS MASONRY OPENING MOISTURE RESISTANT MOUNTED METAL MULLION WATER METER VAULT NC NFWH NIC NO NOM NRC NT OA OC OD OH OPENG OPER OPP H PART PMAR PC PCS PERP PL PL LAM PLBG PLYWOOD PNL PAIR PREFAB PREFIN PREP PSF PSI PT PTD QT QTY QUANT R RAD RAD COVER RB RD REC REF REF/FRZR REINFC REINFC REQD REOS RET REV RM RO RTU SAFB SC SECT SGT SHLVG SHT SHTG SIM SPEC SPRKL SQ SF SQ IN SS ST STC STD STL STOR STL STOR STRUCT SURF SUSP SV T T T-G TEL TEL TER THK TT TYP UL UNO UR UTLILY(IES) V VINYL VB VCT VERT VEST VF VR VWB VWC W/ W/O WC WD WIN WP WPR WR WV WNR	SECTION/DETAIL SYMBOL SECTION OR DETAIL IDENTIFICATION DWG. SHEET WHERE SECT./DTL IS DRAWN DETAIL SYMBOL DETAIL IDENTIFICATION DWG. SHEET NO. WHERE DETAIL IS DRAWN BUILDING SECTION SYMBOL DETAIL IDENTIFICATION DWG. SHEET NO. WHERE SECTION IS DRAWN ROOM IDENTIFICATION SYMBOL ROOM NAME ROOM NUMBER OFFICE 22.34 KEYNOTE SYMBOLS DEMOLITION KEYNOTE PROPOSED WORK KEYNOTE PARTITION SYMBOL ALPHA-NUMERIC PARTITION TYPE IDENTIFICATION. REFER TO FIRE PARTITION PLANS OR GC 1-102.2 FOR REG'D WALL RATING. A1 SERIES DWGS FOR LOCATIONS, A0 1 FOR CONST. + TEST # ELEVATION SYMBOL DETAIL IDENTIFICATION DWG. SHEET NO. WHERE ELEVATION IS DRAWN DETAIL IDENTIFICATION DWG. SHEET NO. WHERE ELEVATION IS DRAWN DOOR / LITE SYMBOLS HINGED DOOR SYMBOL DOOR IDENTIFICATION NO. (SEE DOOR SCHEDULE) ELEVATION SYMBOL 1ST FLOOR EL. 100'-0" (ARCH + STRUCT) ELEVATION CHANGE SYMBOL - PLAN	1. THESE INSTRUCTIONS TO BIDDERS AND GENERAL CONDITIONS SHALL BE CONSIDERED PART OF THE CONTRACT DOCUMENTS. 2. ALL WORK IS TO BE COMPLETED IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, ORDINANCES, RULES, REGULATIONS, AND STANDARDS, INCLUDING, BUT NOT LIMITED TO THE 2012INTERNATIONAL BUILDING CODE, THE ILLINOIS HANDICAPPED CODE, THE ILLINOIS PLUMBING, MECHANICAL, AND ELECTRICAL CODES, THE ILLINOIS FIRE CODE, THE AMERICANS WITH DISABILITIES ACT (ADA), AND APPLICABLE TRADE STANDARDS. ALL APPLICABLE RULES AND REGULATIONS ARE TO BE THE MOST CURRENT ADOPTED EDITION. 3. THE GENERAL CONTRACTOR (GC) IS RESPONSIBLE FOR OBTAINING ALL STATE AND LOCAL PERMITS REQUIRED FOR THE COMPLETION OF THE PERAL CONTRACTOR SHALL PAY ALL PERMIT FEES, PLAN REVIEW FEES, LICENSE FEES, INSPECTION AND TAXES APPLICABLE TO THIS DIVISION AND SHALL BE INCLUDED IN THE BASE BID AS PART OF THIS CONTRACT. 4. ALL WORK MATERIALS AND CONSTRUCTION DETAILS MUST COMPLY WITH ANY AND ALL APPLICABLE FEDERAL, STATE AND LOCAL BUILDING, HEALTH AND FIRE CODES. THIS INCLUDES THE GOVERNING CODES AND ORDINANCES OF THE VILLAGE OF TINLEY PARK AND OTHER APPLICABLE FEDERAL AND STATE REGULATIONS. 5. THE GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS SHALL COMPLY WITH THE LATEST EDITION OF THE O.S.H.A. CONSTRUCTION AND SAFETY MANUAL. 6. THE GC SHALL COORDINATE WITH OWNER AND/OR ARCHITECT ALL PHASING OF CONSTRUCTION OPERATIONS IN ORDER TO MAINTAIN USE OF ALL CRITICAL FUNCTIONS, UTILITIES, SERVICES AND OTHER RELATED ITEMS WITHIN THE EXISTING FACILITIES. COORDINATE WITH ARCHITECT AND/OR OWNER PRIOR TO BIDDING. 7. GC SHALL ADVISE THE ARCHITECT AND OWNER, IN WRITING, OF THE ACTUAL START OF WORK DATE - TO BEGIN IMPLEMENTATION OF THE WORK INDICATED ON THESE DRAWINGS. GC TO FURNISH A GRAPHIC CONSTRUCTION SCHEDULE SHOWING MAJOR TRADES AND FINAL COMPLETION OF SAME. 8. THE ARCHITECT SHALL HAVE THE RIGHT AT ANY TIME TO MAKE ALTERATIONS, ADDITIONS TO AND DEDUCTIONS FROM THE WORK SHOWN ON THE DRAWINGS OR DESCRIBED IN THE SPECIFICATIONS WITHOUT VOIDING THE CONTRACT. ALL SUCH ITEMS WILL BE COVERED BY A REVISION DATE TO THE PLANS, WRITTEN JOB ORDER AND/OR SUPPLEMENT TO THE CONTRACT BY THE OWNER AND THE ARCHITECT. THE CONTRACTOR SHALL COMPUTE THE VALUE OF THE WORK AND SUBMIT A PROPOSAL FOR THE APPROVAL OF THE ARCHITECT AND THE OWNER. IN THE CASE OF REVISION, ADDENDUM, OR BULLETIN, THE CONTRACTOR SHALL NOT PROCEED WITH CHANGES WITHOUT AN AUTHORIZED JOB ORDER OR SUPPLEMENT TO THE CONTRACT. 9. ANY CHANGES, SUBSTITUTION, OMISSION, OR OTHER DEVIATIONS FROM THESE DRAWINGS DURING OR BEFORE CONSTRUCTION OF THE BUILDING SHALL NOT BE THE RESPONSIBILITY OF THE ARCHITECT UNLESS AUTHORIZED IN WRITING BY THE ARCHITECT, OR HIS CONSULTANTS. CHANGES NOT APPROVED SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. 10. THE GC, WITHOUT EXTRA CHARGE, SHALL MAKE SUCH SLIGHT ALTERATION: CUTTING FITTING OR PATCHING OF HIS WORK AS MAY BE NECESSARY TO MAKE ADJUSTABLE PARTS FIT TO FIXED PARTS, LEAVING ALL COMPLETE AND IN PROPER CONDITION WHEN COMPLETED. 11. ALL CONTRACTORS ARE REQUIRED TO VISIT THE JOBSITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS PRIOR TO SUBMITTING THEIR PROPOSAL. EACH INDIVIDUAL CONTRACTOR IS RESPONSIBLE FOR CHECKING ALL CONTRACT DOCUMENTS FOR FIELD CONDITIONS AND DIMENSIONS FOR ACCURACY PRIOR TO SUBMITTING BIDS AND/OR PROCEEDING WITH ANY WORK. SHOULD ANY CONTRACTOR FIND DISCREPANCIES IN, OR OMISSION FROM THE DRAWINGS, OR SPECIFICATIONS, OR BE IN DOUBT AS TO THEIR MEANING, NOTIFY THE ARCHITECT AT ONCE, IN WRITING, OF ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS OR THE WORK OF OTHER TRADES PRIOR TO OBTAIN CLARIFICATION PRIOR TO SUBMITTING BID. LACK OF SUCH NOTIFICATION SHALL BE CONSTRUED TO INDICATE NO DISCREPANCIES OR CONFLICTS EXIST. ADDITIONAL COMPENSATION WILL NOT BE GRANTED AFTER THE AWARD OF THE CONTRACT FOR ANY WORK REQUESTED TO COMPLY WITH THESE REQUIREMENTS. 12. IT SHALL BE THE RESPONSIBILITY OF EACH CONTRACTOR AND HIS RESPECTIVE SUBCONTRACTORS TO KEEP THE BUILDING AND ADJOINING PREMISES FREE AT ALL TIMES FROM THE ACCUMULATION OF DEBRIS CAUSED AS A RESULT OF THE WORK PERFORMED EACH DAY OF CONSTRUCTION. 13. THE GENERAL CONTRACTOR SHALL PROVIDE TEMPORARY BARRIERS OR PARTITIONS DURING CONSTRUCTION TO PREVENT SPREAD OF DUST OR OTHER RELATED MATERIALS. VERIFY AND COORDINATE LOCATIONS WITH THE ARCHITECT AND/OR OWNER. CONTRACTOR SHALL MAINTAIN ALL REQUIRED EXITWAYS AT ALL TIMES. 14. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL DEMOLITION MATERIAL. REMOVAL OF DEBRIS AND DUMPSTER LOCATION MUST BE COORDINATED WITH OWNER/PROPERTY MANAGER. 15. THE METHOD OF ATTACHING NEW CONSTRUCTION TO EXISTING BUILDING STRUCTURE WILL BE IN ACCORDANCE WITH OWNERS CRITERIA AND AS REQUIRED BY CODE. 16. ALL MATTERS OF AESTHETIC EFFECT MUST BE DETERMINED BY THE ARCHITECT. 17. UNLESS OTHERWISE NOTED: WHERE EXISTING PARTITION AND WALLS ARE TO BE REMOVED, CONTRACTOR SHALL REMOVE OR RELOCATE ALL EXISTING ELECTRICAL CONDUITS, PLUMBING AND OTHER RELATED ITEMS SO AS TO RECEIVE NEW CONSTRUCTION. NON-RELOCATED LIGHT FIXTURES, SPEAKERS, ETC., WILL BE TURNED BACK TO OWNER OR DISPOSED OF AT HIS DIRECTION. 18. WHERE EXISTING ITEMS ARE TO BE RELOCATED AND/OR REINSTALLED, THE CONTRACTOR SHALL INSTALL SUCH ITEMS EQUALING OR EXCEEDING THE QUALITY OF EXISTING INSTALLATION BOTH STRUCTURALLY AND AESTHETICALLY. CONTRACTOR TO VERIFY PROCEDURE WITH THE ARCHITECT. 19. IN ALL AREAS WHERE EXISTING CONDITIONS ARE ALTERED, NEW MATERIALS, PARTITIONS, OR PRODUCTS ARE INSTALLED, THE CONTRACTOR SHALL PATCH AND FINISH FLOORS, WALLS, CEILINGS AND OTHER AFFECTED AREAS TO MATCH EXISTING CONDITIONS. 20. CONTRACTOR TO REPLACE OR CORRECT ANY AND ALL EXISTING CONSTRUCTION TO REMAIN, TO MATCH THAT DAMAGED BY CONSTRUCTION AND/OR INSTALLATION PROCESS AT NO ADDITIONAL COST TO THE OWNER. 21. CONTRACTORS TO REPLACE ALL DAMAGED AND/OR MISSING CEILING GRID. REPLACE ALL DAMAGED, DISCOLORED OR MISSING CEILING TILES WITH NEW TO MATCH EXISTING. 22. ARCHITECTURAL DRAWINGS TAKE PRECEDENCE OVER ENGINEERING DRAWINGS FOR ELECTRICAL AND TELEPHONE OUTLETS AND LIGHT FIXTURE LOCATIONS. G.C. TO NOTIFY ARCH. OF DISCREPANCIES. 23. GENERAL CONTRACTORS SHALL COORDINATE ALL MECHANICAL AND ELECTRICAL FLOOR AND WALL SLEEVES, CONDUIT AND ALL MECHANICAL SHAFTS WITH THE MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION, STRUCTURAL AND ARCHITECTURAL DRAWINGS. 24. DIMENSIONS SHOWN ARE TO FINISH FACE OF WALL, UNLESS SPECIALTY NOTED OTHERWISE. PARTITION THICKNESS AND CONSTRUCTION ARE DESIGNATED BY PARTITION TARGETS-REFER TO PARTITION DETAILS FOR REQUIREMENTS. 25. CONTRACTORS TO MEET WITH BUILDING MANAGEMENT PRIOR TO BEGINNING OF WORK TO UNDERSTAND BUILDING RULES, HOURS OF WORK, REMOVAL OF DEBRIS, ETC. 26. ANY SHUTDOWNS WILL BE COORDINATED WITH BUILDING MANAGEMENT. 27. ALL WORK IS TO BE COORDINATED BY THE GENERAL CONTRACTOR TO ASSURE ADEQUATE FIT, FINISH, SYSTEM OPERATION, AND FULL COMPLETION OF THE WORK, INCLUDING SERVICE REQUIREMENTS OF THE OWNERS FIXTURES, FURNISHING AND EQUIPMENT. 28. ALL DIMENSIONS ARE SHOWN ON DRAWINGS. ANY DIMENSIONS NOT SHOWN OR DEEMED QUESTIONABLE ARE TO BE VERIFIED WITH THE ARCHITECT DESIGNER. DO NOT SCALE DRAWINGS. 29. CONTRACTOR IS TO SIGN EACH SHOP DRAWING SUBMITTAL CERTIFYING THAT THE SUBMITTAL HAS BEEN REVIEWED, APPROVED, AND THAT THE CONTRACTOR COORDINATION HAS BEEN APPROVED. 30. DURING THE ENTIRE PERIOD OF DEMOLITION AND CONSTRUCTION, ALL EXISTING EXITS, EXIT LIGHTING, FIRE PROTECTION DEVICES, AND ALARMS SHALL BE CONTINUOUSLY MAINTAINED IN WORKING ORDER.	31. ALL WOOD WILL BE FIRE RETARDANT TREATED TO COMPLY WITH APPLICABLE CODES. 32. PROVIDE CONCEALED WOOD OR SHEET METAL F.T. BLOCKING FOR ALL MILLWORK AND SPECIALTY ITEMS AND ACCESSORIES HUNG FROM PARTITIONS. (U.N.O.). 33. ALL FIRE EXT. CABINET LOCATIONS ARE TO BE COORDINATED W/THE ARCHITECT/DESIGNER AND LOCAL FIRE OFFICIAL PRIOR TO INSTALLATION. 34. AT COMPLETION OF JOB, PRIOR TO FINAL PAYMENT, GENERAL CONTRACTOR SHALL PROVIDE ONE COMPLETE MARKED-UP SET OF TRANSPARENCIES AND TWO SETS OF PRINTS WITH AS-BUILT CONDITIONS NOTED AND TWO COPIES OF APPLICABLE WARRANTIES, OPERATIONS MANUAL AND/OR MAINTENANCE INSTRUCTIONS. 35. MOVING OF EXISTING KITCHEN EQUIPMENT, EXISTING. DINING ROOM FURNITURE, EXISTING LIBRARY FURNITURE, BOOKS, EQUIPMENT, ETC. BY OWNER. 36. CONTRACTOR TO COORDINATE ALL ACTIVITIES TO FACILITATE WORK. CONTRACTOR TO PROVIDE 5 BUSINESS DAY ADVANCED NOTICE TO CPS PRIOR TO COMMENCEMENT OF WORK. 37. GENERAL CONTRACTOR IS TO COORDINATE WITH SUB CONTRACTORS ALL ASPECTS OF WORK AND IS RESPONSIBLE FOR CONTACTING AOR WITH REGARD TO ANY CONFLICTS.	
<div>TYPICAL DEMOLITION NOTES</div> <div>1. ALL CONTRACTORS TO PROVIDE ALL NECESSARY INSURANCE AND HOLD HARMLESS THE OWNER, PROPERTY MANAGER, ARCHITECT AND AGENTS THEREOF FROM ANY DAMAGES RESULTING FROM CONTRACTORS EXECUTION OF WORK.</div> <div>2. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTORS TO DETERMINE IN ACCORDANCE WITH ALL CODES AND OWNERS CRITERIA, ALL METHODS FOR CONSTRUCTION, DEMOLITION, AND ALL RELATED PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR ALL MATTERS OF LIFE SAFETY RESULTING FROM ALL CONSTRUCTION AND DEMOLITION.</div> <div>3. ALL CONTRACTORS SHALL PERFORM THE DEMOLITION WORK IN ACCORDANCE WITH THE CURRENT VERSION OF ANSI/ASSE A10 - THE AMERICAN NATIONAL STANDARDS FOR SAFETY IN CONSTRUCTION AND DEMOLITION OPERATIONS.</div> <div>4. THE CONTRACTOR SHALL SCHEDULE HIS/HER WORK TO INSURE MINIMUM DISTURBANCE TO THE REMAINDER OF OCCUPIED SPACE(S). THE CONTRACTOR SHALL SUBMIT A DETAILED SCHEDULE OF WORK AT THE PRE-CONSTRUCTION MEETING. ALL UTILITY SHUTDOWNS SHALL BE COORDINATED WITH THE OWNER AND PROPERTY MANAGER.</div> <div>5. ALL DEMOLITION WORK SHALL BE COORDINATED BY THE GENERAL CONTRACTOR. TIMING OF ALL DEMOLITION WORK SHALL BE COORDINATED BY THE GENERAL CONTRACTOR. ALL CONTRACTORS SHALL COMPLY WITH ALL RULES AND REGULATIONS OF GOVERNMENTAL AUTHORITIES HAVING JURISDICTION OVER DEMOLITION WORK.</div> <div>6. CONTRACTORS SHALL PROVIDE TEMPORARY PARTITION DUST BARRIERS AT THE BUILDING INTERIOR IN ORDER TO MINIMIZE THE SPREAD OF DUST AND DEBRIS TO THE ADJOINING SPACE(S). THESE SHALL HAVE DRYWALL ON ONE SIDE, TAPED AND PAINTED.</div> <div>7. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL DEMOLITION MATERIAL.</div> <div>8. CONTRACTOR TO REPLACE OR CORRECT ANY AND ALL EXISTING CONSTRUCTION TO REMAIN, TO MATCH THAT DAMAGED BY CONSTRUCTION AND/OR INSTALLATION PROCESS AT NO ADDITIONAL COST TO THE OWNER. AFTER THE CONTRACTOR REMOVES THE PARTITIONS AND CEILING SYSTEM THE CONTRACTOR MUST CONTACT BOTH THE ARCHITECT AND BUILDING ENGINEER PRIOR TO FURTHER DEMOLITION FOR ANY QUESTIONS/CLARIFICATION REGARDING SYSTEMS TO REMAIN.</div> <div>9. SELECTIVELY REMOVE, RELOCATE AND/OR MODIFY EXISTING SPRINKLER SYSTEM AS REQUIRED TO MEET VILLAGE OF TINLEY PARK IL AND NFPA CODES AND ACCOMMODATE NEW REFLECTED CEILING PLAN. REFER TO FIRE PROTECTION DRAWINGS.</div> <div>10. ALL ITEMS REMOVED AND NOT SCHEDULED TO BE REINSTALLED INCLUDING MILLWORK, HARDWARE, SHELVING, LIGHT FIXTURES, THERMOSTATS, ETC. ARE TO BE TURNED OVER TO THE OWNER. IF THE OWNER CHOOSES NOT TO KEEP ANY OF THESE ITEMS CONTRACTOR SHALL DISCARD.</div> <div><div>TYPICAL FINISH NOTES</div><div>1. PREPARE ALL EXISTING WALLS AND FLOORS TO RECEIVE NEW FINISHES, AS REQUIRED BY THE MANUFACTURER OF THE NEW FINISHES.</div><div>2. FINISHED DOOR OPENING IN ALL NEW PARTITIONS SHALL BE SET TO ALLOW FULL TRIM EXPOSURES (4" MIN.) FROM ADJACENT PERPENDICULAR PARTITIONS, UNLESS NOTED OTHERWISE.</div><div>3. ALL FINISH CARPENTRY IS TO BE COMPLETED IN STRICT ACCORDANCE WITH A.W.I STANDARDS PREMIUM GRADE.</div><div>4. INTERIOR FINISHES: ALL INTERIOR FINISH MATERIAL SHALL COMPLY WITH THE REQUIREMENTS OF ALL APPLICABLE CODES, ORDINANCES AND REGULATORY AGENCIES.</div><div>A. ALL INTERIOR FINISHES SHALL BE RATED AS FOLLOWS:</div><div>1. ALL INTERIOR WALL & CEILING FINISH MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF 2009 INTERNATIONAL BUILDING CODE WITH VILLAGE OF TINLEY PARK IL AMENDMENTS, AND SHALL NOT BE LESS RESISTANT TO FLAME SPREAD THAN CLASS 2 FLAME SPREAD RATING 0 TO 25, SMOKE DEVELOPED 200 OR BETTER</div><div>2. ALL INTERIORS FLOOR COVERINGS SHALL COMPLY WITH THE 2009 INTERNATIONAL BUILDING CODE WITH VILLAGE OF TINLEY PARK IL AMENDMENT, CLASS B, INTERIOR FLOOR FINISH CRITICAL RADIANT FLUX BETWEEN 0.22 AND 0.44 WATTS/SQUARE CENTIMETER.</div><div>B. WALL AND/OR CEILING ASSEMBLIES THAT ARE IDENTIFIED WITH A FIRE RESISTIVE RATING SHALL BE CONSTRUCTED PER PRODUCTS MANUFACTURER'S SPECIFICATIONS AND THE REQUIREMENTS OF ALL APPLICABLE CURRENT CODES AND GOVERNING BODIES.</div><div>5. PAINTING AND DECORATING:</div><div>A. ALL SURFACES SHALL BE FREE OF DEFECTS, TAPED, FILLED AND SANDED SMOOTH TO RECEIVE INTERIOR FINISH AS SPECIFIED ON THE ROOM FINISH SCHEDULE. ALL PAINT AND WALL COVERING SHALL BE INSTALLED IN STRICT CONFORMANCE WITH THE MANUFACTURERS RECOMMENDATIONS. PATCH ANY CRACKS OR HOLES, SCRAPE LOOSE OR PEELING PAINT, FILL AND SAND SMOOTH, SKIM COAT ANY NECESSARY AREAS SO THAT THE WALLS ARE PERFECTLY SMOOTH PRIOR TO PRIMING</div><div>B. EXISTING PAINTED WALLS TO HAVE PATCHED AREAS FILLED, PRIMED, AND ONE FINISH COAT. NEW WORK TO HAVE A PRIMER COAT AND 2 FINISHED COATS. AREAS TO HAVE A SPECIALTY PAINTING SHOULD FOLLOW MANUFACTURERS SPECIFICATIONS.</div><div>C. TOUCH-UP EXISTING DOORS TO REMAIN WHICH HAVE DAMAGE WITH MATCHING STAIN AND REVARNISH.</div><div>6. FLOORS AND COVERINGS:</div><div>A. GENERAL CONTRACTORS SHALL VERIFY THAT ALL FLOORS ARE IN GOOD AND LEVEL CONDITION. ALL AREA FOUND NOT SO ARE TO BE FLASH PATCHED BY GENERAL CONTRACTORS.</div><div>B. FLOOR COVERINGS IN CLOSETS SHALL BE THE SAME AS THAT OF THE SPACE UNTO WHICH THE CLOSETS DOOR OPENS, UNLESS NOTED OTHERWISE.</div><div>C. WHERE TWO DISSIMILAR FLOORING MATERIALS MEET, GENERAL CONTRACTOR SHALL PROVIDE SUITABLE TRANSITION STRIPE UNLESS NOTED OTHERWISE.</div><div>D. PROVIDE AND INSTALL RESILIENT BASE SPECIFIED. INSTALLATION OF ALL WALL BASE SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURERS RECOMMENDATION. WHERE BASE IS BEING PATCHED CONTRACTOR TO USE MINIMUM OF 6'-0" PIECES.</div><div>7. THE COLOR AND TEXTURE OF ALL NEW CONSTRUCTION SURFACES TO MATCH THAT OF EXISTING ADJACENT SURFACES UNLESS OTHERWISE INDICATED OR NOTED.</div></div>							
<div>CITY APPROVAL</div> <div>CLIENT:</div> <div>vequity</div> <div>real estate. redefined.</div> <div>Vequity</div> <div>226 N Morgan Street</div> <div>Suite 300</div> <div>Chicago, IL 60607</div> <div>312-985-0987</div> <div>Email info@vequity.com</div> <div>www.vequity.com</div> <div>PROJECT TEAM:</div> <div>ILEKIS</div> <div>architects + planners</div> <div>ILEKIS ASSOCIATES</div> <div>223 W. JACKSON BLVD.</div> <div>SUITE 1000</div> <div>CHICAGO, IL 60606</div> <div>312-419-0009</div> <div>www.ILEKIS.com</div> <div>THESE DOCUMENTS WERE PREPARED UNDER MY SUPERVISION AND, TO THE BEST OF MY KNOWLEDGE, COMPLY WITH THE APPLICABLE CODES AND BUILDING REGULATIONS.</div> <div>ALPHONSE A. ILEKIS, AIA</div> <div>© COPYRIGHT 2011 ILEKIS ASSOCIATES ALL RIGHTS RESERVED</div> <div>PROJECT # 2014-22</div> <div>17111-17119 LaGrange Rd</div> <div>TINLEY PARK IL 60487</div> <div>THESE DOCUMENTS WERE PREPARED UNDER MY SUPERVISION AND, TO THE BEST OF MY KNOWLEDGE, COMPLY WITH THE ALL APPLICABLE CODES.</div> <div>COPYRIGHT 2018 ILEKIS ASSOCIATES. ALL RIGHTS RESERVED</div> <div>DATE:</div> <div>ISSUED FOR:</div> <div>04/22/21</div> <div>ISSUED PER CITY COMMENTS</div> <div>03/26/21</div> <div>20% CITY CITY & CLIENT REVIEW</div> <div><div>GENERAL NOTES</div><div>G0.02</div></div>							



WALL LEGEND	
== == == ==	DEMO WALL

 KEYED NOTES:

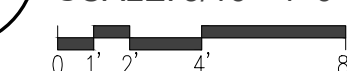
1. REMOVE EXISTING DRIVE THRU IN ITS ENTIRETY WITH ALL ASSOCIATED COLUMNS, CURBS, BOLLARDS, DRIVE THRU EQUIPMENT AND ROOF ABOVE.
2. REMOVE EXISTING WINDOW AND PORTION OF THE WALL BELOW.
3. REMOVE EXISTING TELLER DRIVE THRU WINDOW.
4. REMOVE EXISTING WALL.
5. REMOVE DECORATIVE COLUMNS.
6. REMOVE EXISTING WINDOWS.
7. DEMO WALL AND CREATE WINDOW OPENING.



1

DEMOLITION FLOOR PLAN

SCALE: 3/16"=1'-0"



20% PRELIMINARY DESIGN

CITY APPROVAL

CLIENT: **vequity** | real estate. redefined.

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DATE:	ISSUED FOR:
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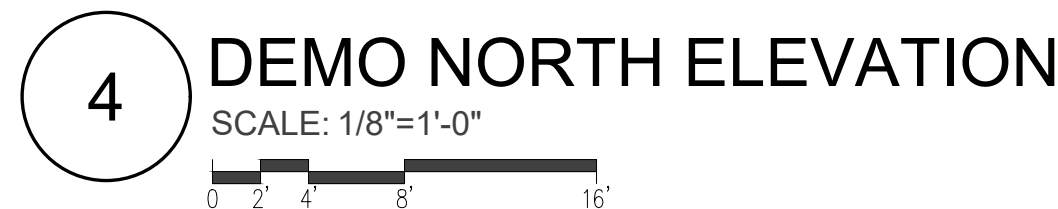
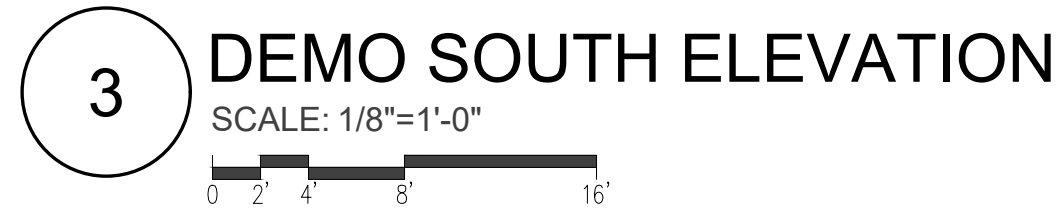
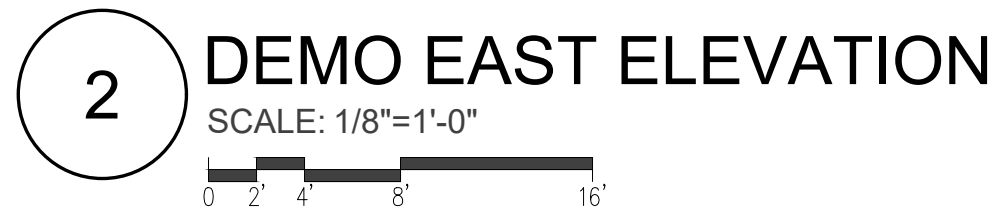
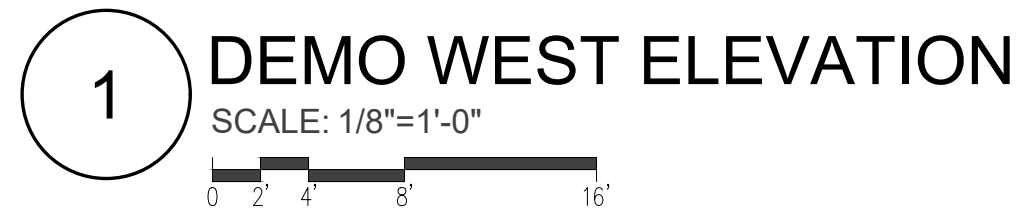
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04/22/21	ISSUED PER CITY COMMENTS
03/26/21	20% CITY CITY & CLIENT REVIEW

DEMOLITION FLOOR
PLAN

D1.01

D1.01

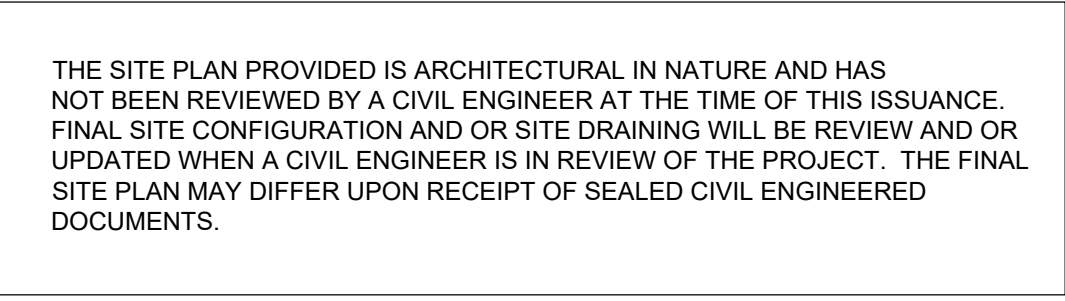


KEY PLAN:

The key plan shows a central building footprint. Four numbered arrows point towards the building from the corners: arrow 1 points North, arrow 2 points South, arrow 3 points East, and arrow 4 points West. A compass rose at the bottom left indicates North is towards the top of the page.

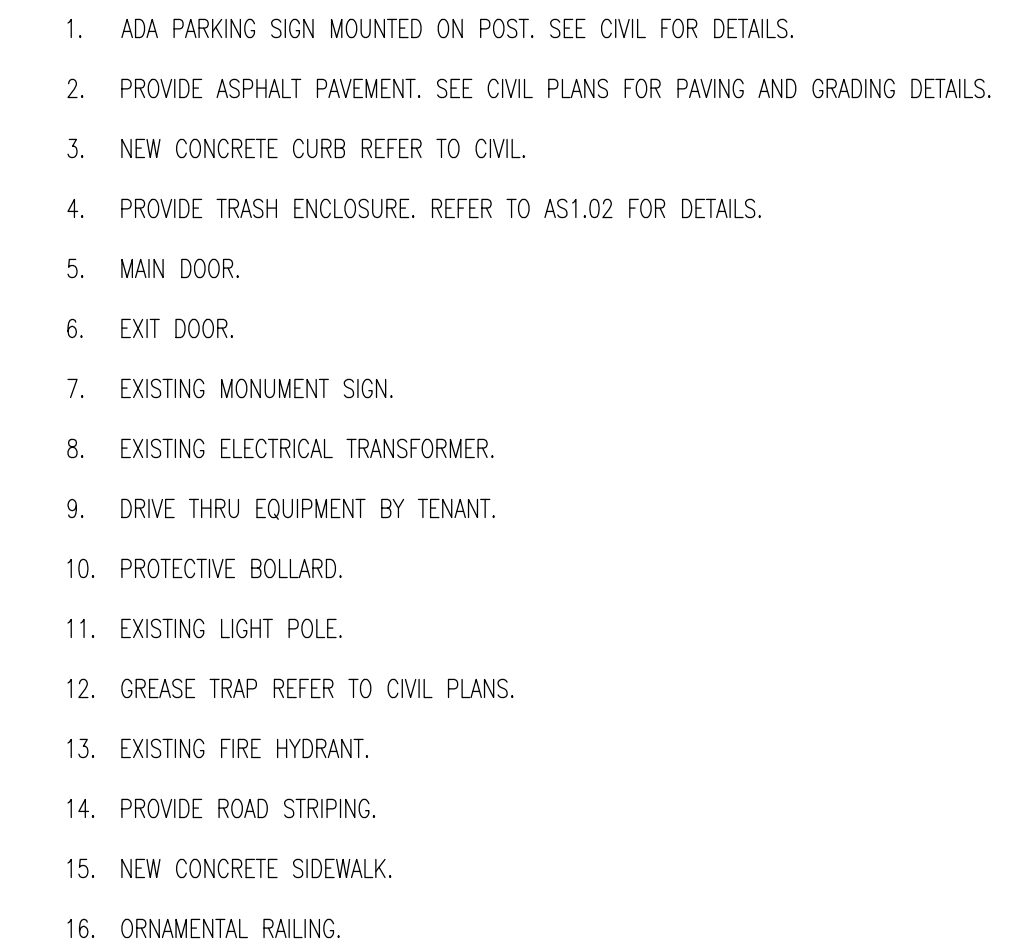
- ## 20% PRELIMINARY DESIGN

D3.01

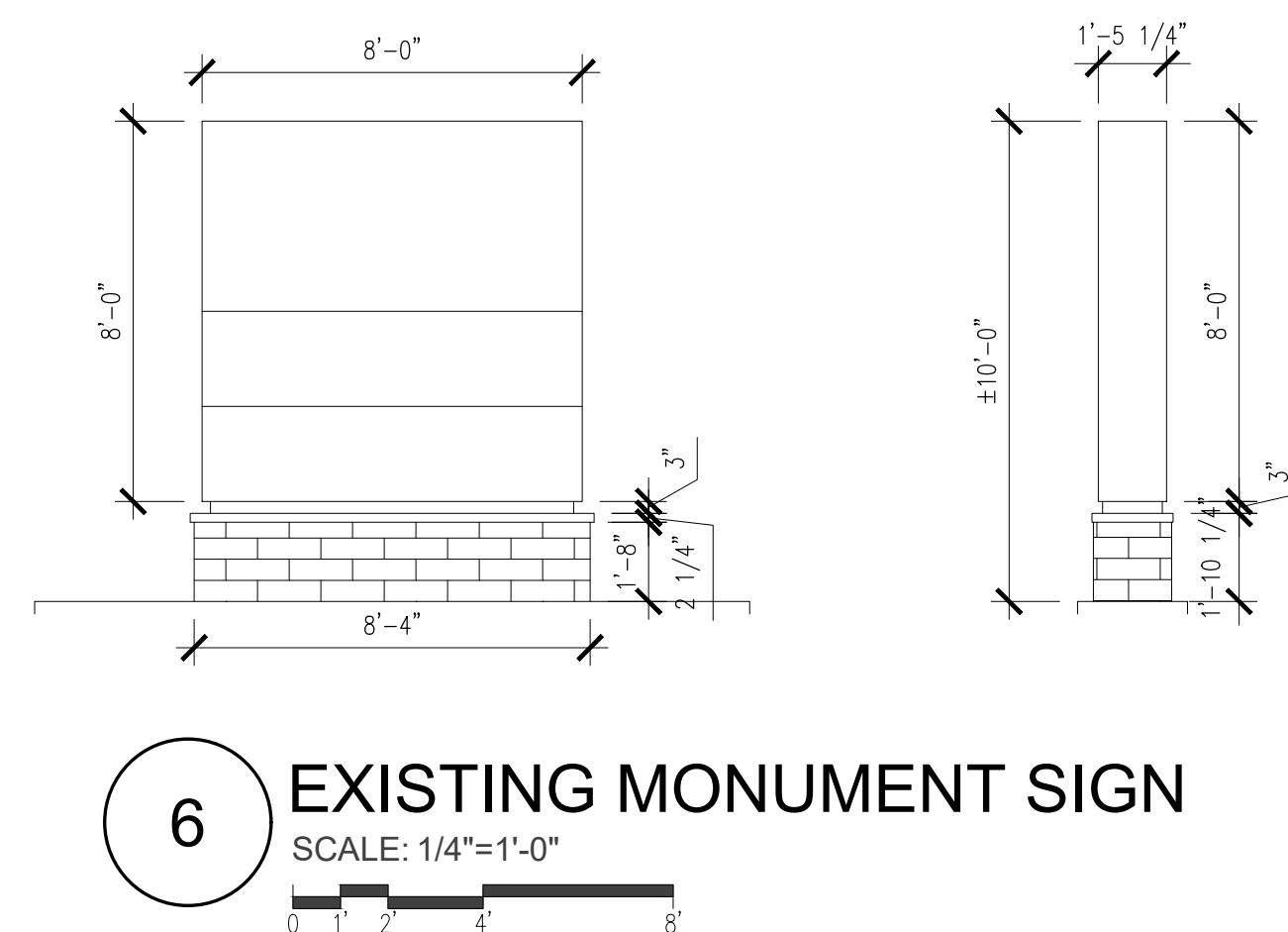
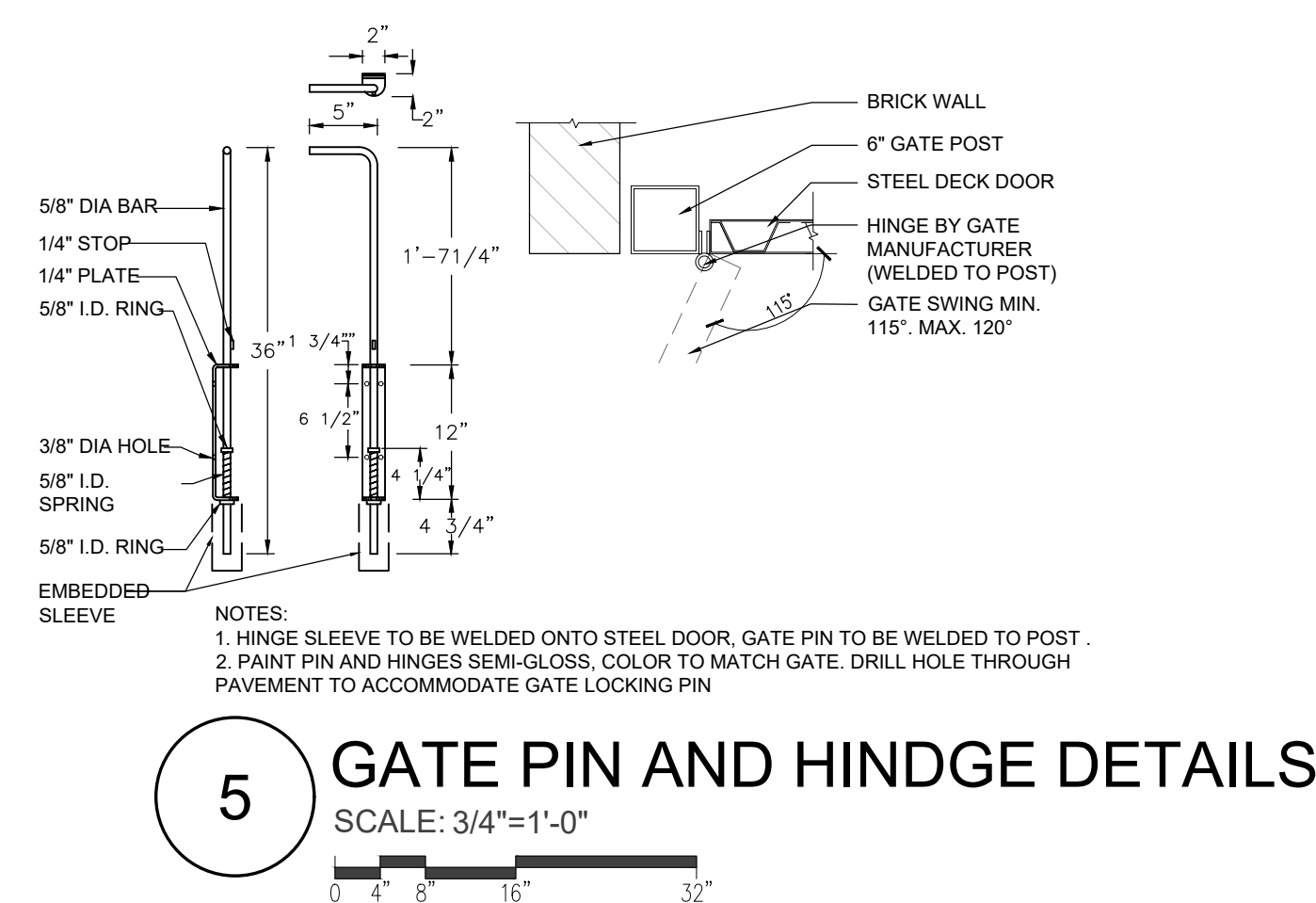
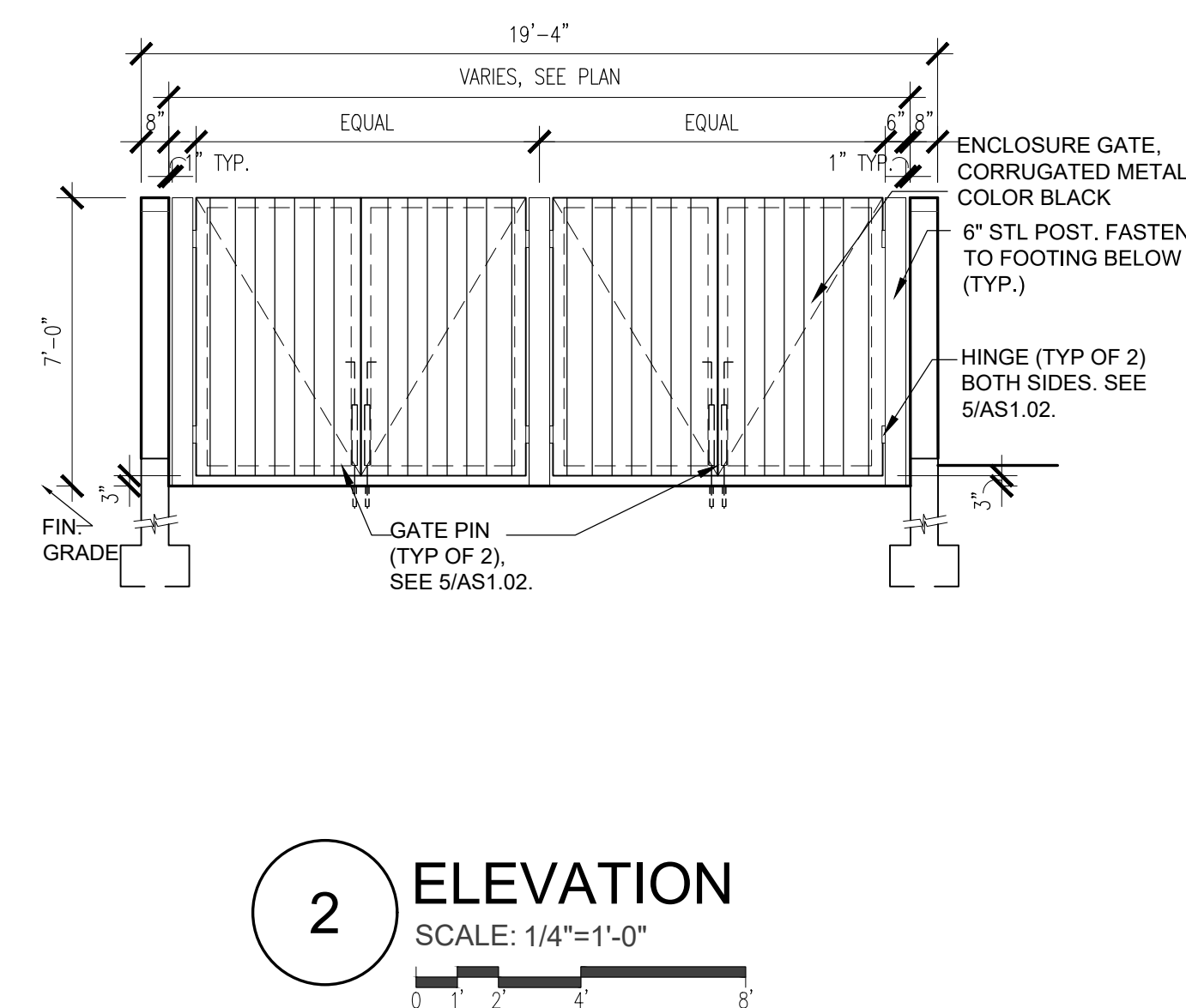


DS1.01

DS1.01

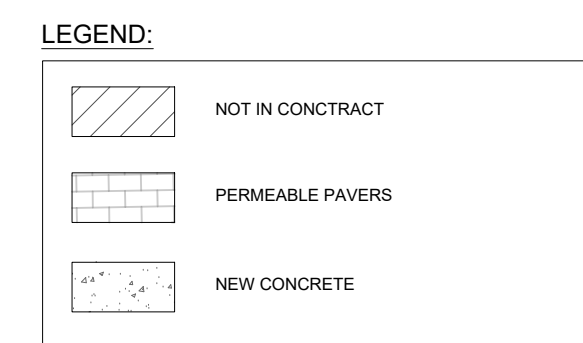


AS1.01



Calculation Summary (Footcandles calculated using initial lumen values)						
Label	Units	Avg	Max	Min	Avg/Min	Max/Min
Grade	Fc	2.81	17.9	0.0	N.A.	N.A.
Paved Area	Fc	4.72	12.1	1.2	3.93	10.08

*** CUSTOMER TO VERIFY ORDERING INFORMATION AND
CATALOGUE NUMBER PRIOR TO PLACING ORDER ***



AS1.03

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PHOTOMETRICS

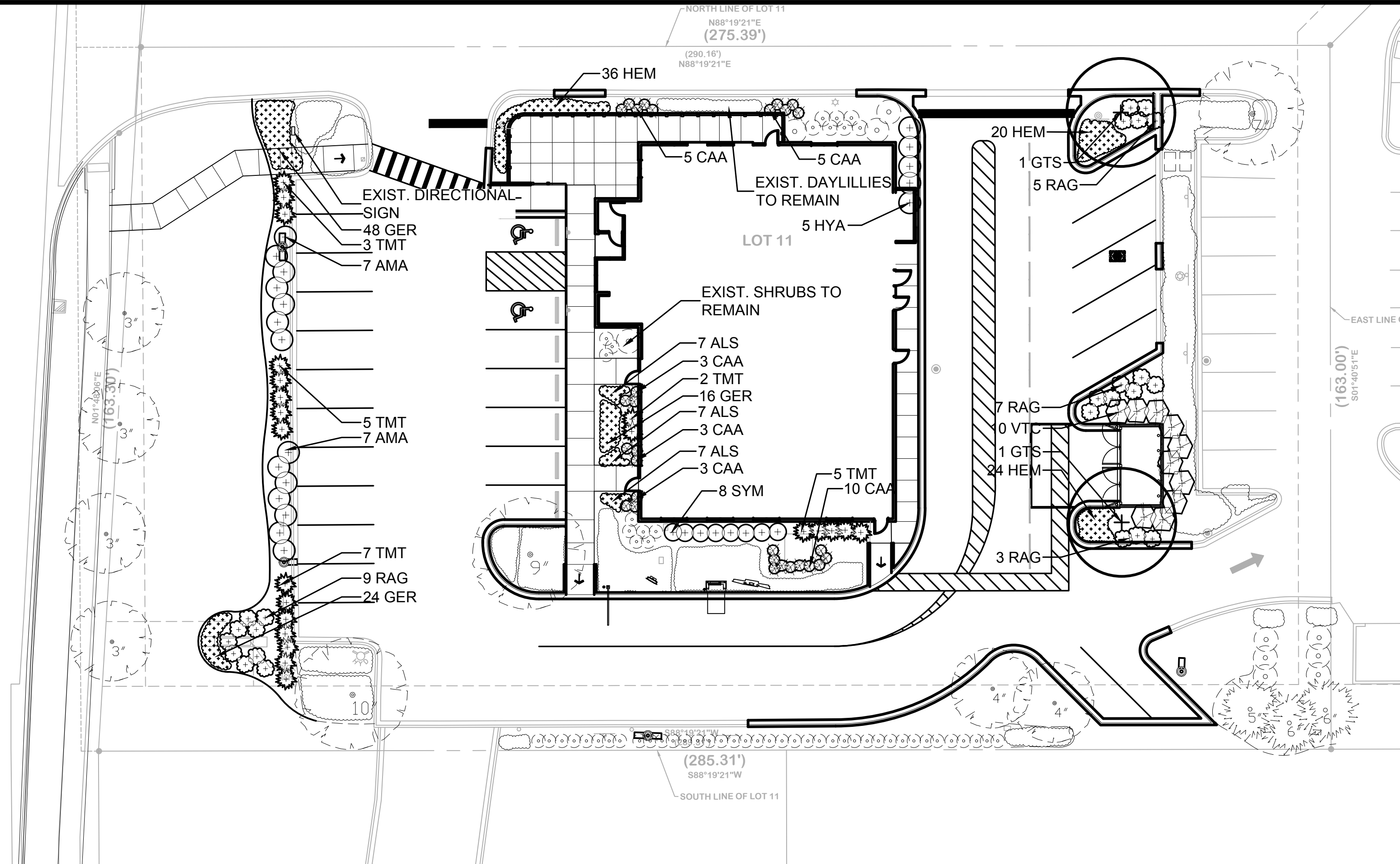


20% PRELIMINARY DESIGN

L.1



1. CONTRACTOR SHALL OBTAIN ALL NECESSARY LOCAL PERMITS AND PERMISSIONS TO INSTALL THE PROPOSED IMPROVEMENTS
2. ALL LANDSCAPE MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE VILLAGE OF TINLEY PARK LANDSCAPING CODES AND ZONING ORDINANCES.
3. PRIOR TO COMMENCING ANY WORK, CONTRACTOR SHALL HAVE DIGGERS HOTLINE LOCATE AND MARK ALL UNDERGROUND UTILITY FACILITIES AND LINES.
4. ALL PLANT MATERIALS (EXCEPT FOR GROUNDCOVER, ANNUALS, AND PERENNIALS) SHALL BE BALLED AND BURLAPPED STOCK AND MEET CURRENT STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S STANDARD FOR NURSERY STOCK (ANSI Z60.1-1986) OR EQUAL. PLANT MATERIALS MUST BE SUPPLIED WITHIN A 150 MILE RADIUS OF PROJECT SITE WITHIN NORTHEAST ILLINOIS. CONTRACTOR MAY SUBSTITUTE CONTAINER STOCK FOR SHRUBS IF SIZES ARE EQUAL TO SPECIFIED B&B STOCK, WITH THE APPROVAL OF THE LANDSCAPE ARCHITECT.
5. IF SPECIFIED PLANTS ARE NOT AVAILABLE AT THE TIME OF ORDERING, PLANTS WITH SIMILAR WHOLESALE VALUE AND LANDSCAPE CHARACTERISTICS MAY BE SUBSTITUTED UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT AND VILLAGE STAFF.
6. SOIL IN GROUNDCOVER BEDS SHALL BE AMENDED USING 2 INCHES OF MUSHROOM COMPOST INCORPORATED INTO THE TOP 4 INCHES OF SOIL.
7. DISTURBED AREAS TO RECEIVE SOD SHALL BE TILLED TO 6" DEPTH AND FINE GRADED TO PROVIDE SMOOTH BASE SURFACE. IF EXISTING SOIL IS A MAJORITY OF CLAY OR UNSUITABLE, 2" OF FINE GRADED TOPSOIL SHALL BE ADDED PRIOR TO TILLING. EXISTING SOD AREAS SHALL HAVE TURF REMOVED WITH AUTOMATED SODCUTTER OR HAND SPACE TO REMOVE ALL BLADES AND ROOTS. 1" OF FINE GRADED TOPSOIL SHALL BE TILLED AND GRADED.
8. TREE AND SHRUB BACKFILL MIXTURE SHALL BE 2 PARTS EXIST. NATIVE TOPSOIL AND 1 PART SPHAGNUM PEAT MOSS W/ DECOMPOSED MANURE



1 LANDSCAPE PLAN

SYM	SIZE	QTY	BOTANICAL NAME	COMMON NAME	COMMENT
DECIDUOUS SHADE TREES					
GTS	2.5" CAL.	2	GLEDTISIA TRI. 'SHADEMASTER'	SHADEMASTER HONEYLOCUST	B&B
DECIDUOUS SHRUBS					
AMA	24" HT.	14	ARONIA MELANO. 'ELATA'	ELATA CHOKEBERRY	B&B
HYA	24" HT.	5	HYDRANGEA ARBOR. 'ANNABELLE'	ANNABELLE HYDRANGEA	B&B
RAG	18" W.	24	RHUS AROMATICA 'GRO-LOW'	GRO-LOW SUMAC	B&B
SYM	24" HT.	8	SYRINGA PATULA 'MISS KIM'	MISS KIM KOREAN LILAC	B&B
UTC	36" HT.	10	VIBURNUM TRILOBUM 'ALFREDO'	ALFREDO AMER. CRANBERRY BUSH	B&B
EVERGREEN SHRUBS					
TMT	24" W.	22	TAXUS X MEDIA 'TAUNTON'	TAUNTON YEW	B&B
ORNAMENTAL GRASSES					
CAA	#3 CONT.	29	CALAMAGROSTIS ACUT. 'STRICTUS'	STRICTUS FEATHER REED GRASS	
GROUNDCOVER / PERENNIALS					
ALS	#1 CONT.	21	ALLUM TANGUT. 'SUMMER BEAUTY'	SUMMER BEAUTY WILD ONION	18" O.C.
GER	#1 CONT.	88	GERANIUM 'ROZANNE'	ROZANNE CRANESBILL	18" O.C.
HEM	#1 CONT.	80	HEMEROCALLIS 'STELLA DE ORO'	STELLA DE ORO DAYLILY	15" O.C.

EXISTING TREE

PROPOSED SHADE TREE

PROPOSED MEDIUM SHRUB

PROPOSED EVERGREEN SHRUB

PROPOSED LOW SHRUB

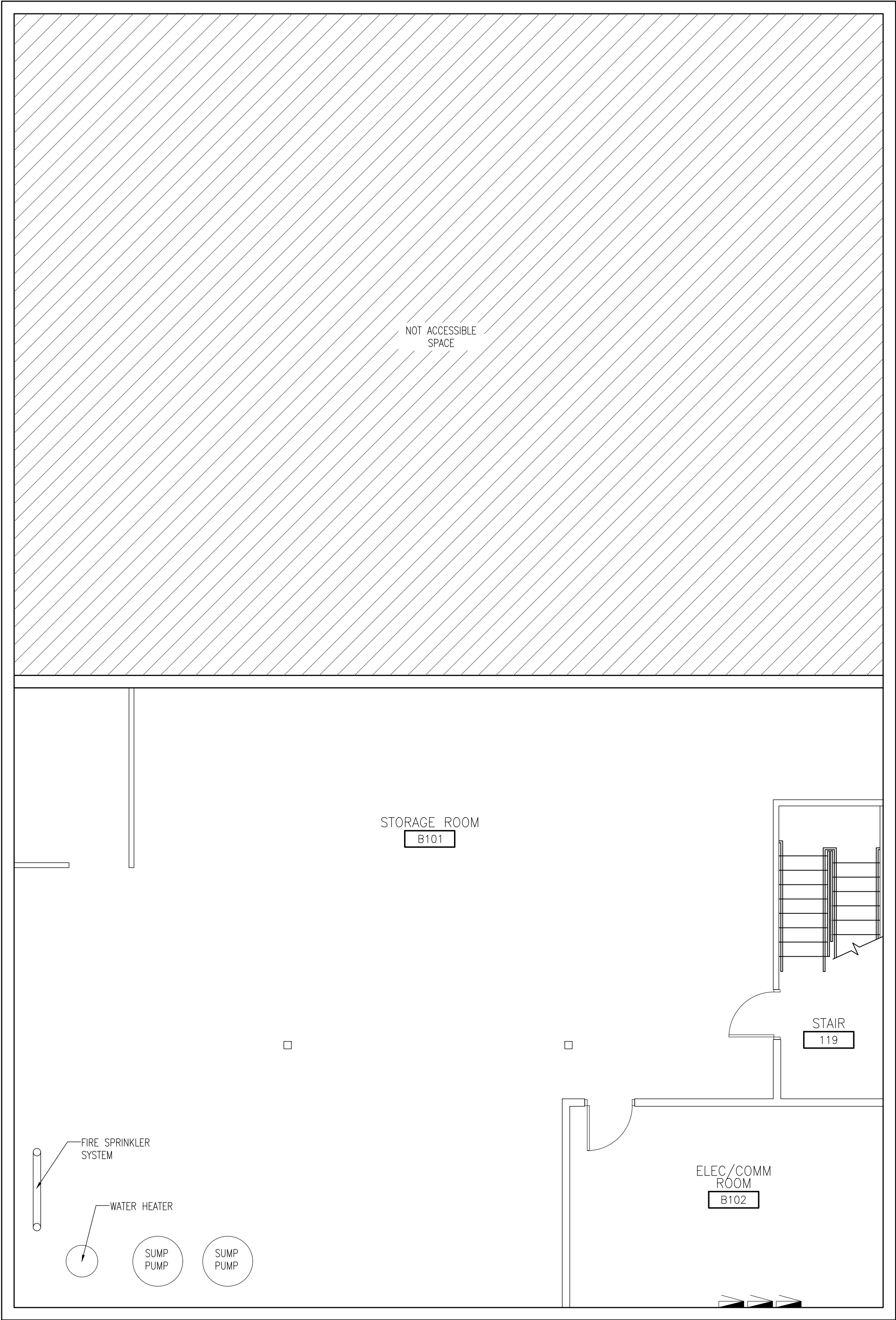
PROPOSED ORNAMENTAL GRASS

PROPOSED PERENNIAL MASSING

LANDSCAPE PLAN

20% PRELIMINARY DESIGN

L.2



GENERAL NOTES

1.

ALL EXTERIOR WALL DIMENSIONS ON THE PLANS UNLESS OTHERWISE NOTED TO OUTSIDE FACE OF SIP PANEL.

2.

PROVIDE ACCESSIBLE THRESHOLD AT EACH EXTERIOR DOOR-SEE DOOR SCHEDULE

3.

PRIME INTERIOR WALLS, COLUMNS AND DOOR FRAMES

4.

SEE STRUCTURAL FOR CONTROL AND ISOLATION JOINTS AT CONCRETE SLAB AND AROUND COLUMNS

5.

CONTACT OWNER REGARDING HOW THEY WANT TO REKEY THE LOCK FOR THE MAIN ENTRY VS THE SERVICE DOOR, SPRINKLER ROOM TO HAVE ELECTRONIC KEY PAD KEY LOCK.

6.

ARABIC NUMERALS AT LEAST FOUR INCHES HIGH WITH A MINIMUM STROKE WIDTH OF 0.5 INCHES SHOWING THE ADDRESS OF THE BUILDING SHALL CONTRAST WITH THE BACKGROUND, SHALL BE CONSTRUCTED OF DURABLE MATERIALS, BE PERMANENTLY INSTALLED AND BE READILY VISIBLE. SCRIPT OR WRITTEN NUMBERS ARE NOT PERMITTED. ADDITIONAL NUMBERS SHALL ALSO BE PLACED ON THE SIDE OF THE BUILDINGS STREET ADDRESS

7.

AT SERVICE DOORS USED AS EXIT/ACCESS FOR FIRE FIGHTING, ARABIC NUMERALS A MINIMUM OF FOUR INCHES IN HEIGHT WITH A MINIMUM STROKE OF 0.5 INCH SHALL BE APPLIED TO THE ADDITIONAL DOOR TO INDICATE THE ADDRESS. THE ADDRESS SHALL BE VISIBLE FROM THE PARKING LOT OR FIRE APPARATUS ACCESS.

8.

THIS IS A SPRINKLERED BUILDING PER REQUIREMENT OF VILLAGE OF TINLEY PARK IL. SEE FP DRAWINGS FOR LAYOUT.

9.

PROVIDE A KNOX BOX TO ENABLE THE FIRE DISTRICT TO HAVE ACCESS TO THE BUILDING AND THE BUILDING'S FIRE PROTECTION FEATURES. FINAL LOCATION TBD.

10.

G.C. TO PROVIDE PORTABLE FIRE EXTINGUISHERS WITHIN THE BUILDING. THE TYPE, SIZE, AND SPACING MUST MATCH THE SPECIFIC HAZARD THEY ARE TO PROTECT. CONTACT THE FIRE DISTRICT FOR APPROVAL OF THE TYPES AND LOCATIONS OF PORTABLE FIRE EXTINGUISHERS TO BE USED PRIOR TO FINAL OCCUPANCY.

WALL LEGEND

=====

EXISTING METAL STUD WALL

=====

EXISTING EXTERIOR WALL

X

PROPOSED WORK NOTE

X

WALL TYPE

NORTH

1

FLOOR PLAN

SCALE: 3/16"=1'-0"

0

1'

2'

4'

8'

20% PRELIMINARY DESIGN

CITY APPROVAL

CLIENT:

vequity

real estate. redefined.

Vequity

226 N Morgan Street

Suite 300

Chicago, IL 60607

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NOTE:

PROJECT # 2014-22

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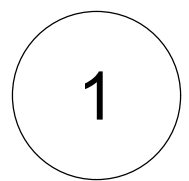
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03/26/21

20% CITY CITY & CLIENT REVIEW

BASEMENT PLAN

A1.00



A1.01

- WALL LEGEND

NEW METAL STUD WALLS

NEW INTERIOR WALL

NEW EXTERIOR WALL

PRO

CITY APPROVAL

CLIENT: **vequity** | real estate. redefined.

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A blank coordinate plane with a horizontal x-axis and a vertical y-axis intersecting at the origin. The axes are represented by thin black lines.

A blank coordinate plane with a horizontal x-axis and a vertical y-axis intersecting at the origin. The axes are represented by thin black lines.

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A blank coordinate plane with a horizontal x-axis and a vertical y-axis intersecting at the origin. The axes are represented by thin black lines.

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A blank coordinate plane with a horizontal x-axis and a vertical y-axis intersecting at the origin. The axes are represented by thin black lines.

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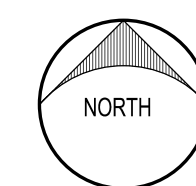
03/26/21	20% CITY CITY & CLIENT REVIEW
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FLOOR PLAN

FLOOR PLAN

A1 01





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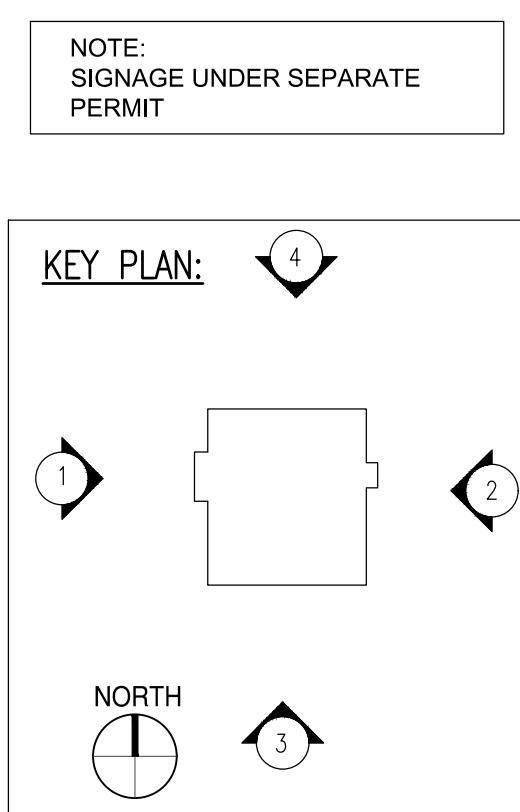
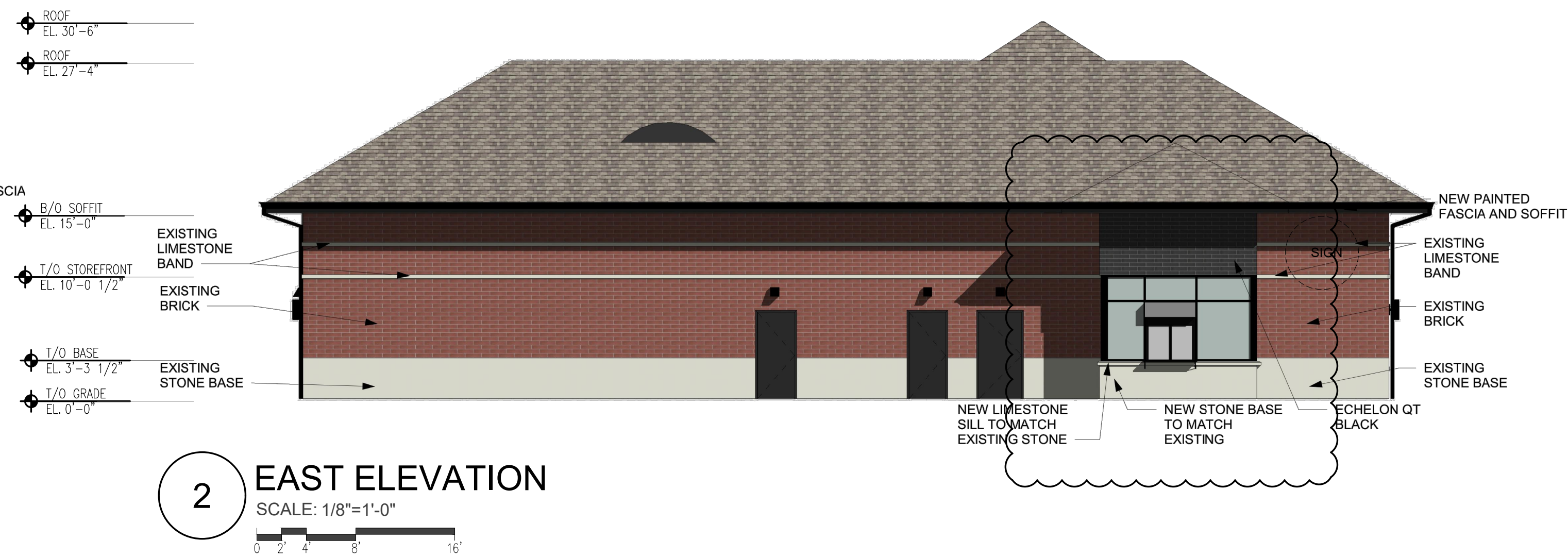


SCALE: $\frac{3}{4}" = 1'-0"$

- | SYMBOLS KEY | |
|---|------------------------------|
|  | R.D. ROOF DRAIN, SEE 4/A1.02 |
|  | ROOF SLOPE |
|  | SLOPED CRICKET |
|  | ROOF HATCH |

- A1.02

20% PRELIMINARY DESIGN



SIGNAGE				
TENANT	NUMBER OF WALL SIGNS	TENANT FRONTAGE	MAXIMUM ALLOWABLE SIGN FACE AREA	PROPOSED SIGN FACE AREA
TENANT A	2	35'-0"	35 SF	EAST ELEV. 28 SF WEST ELEV. 28 SF
TENANT B	1	29'-10"	29.9 SF	32 SF
TENANT C	1	27'-0"	27 SF	32 SF

<p align="center">DIMENSIONAL REGULATIONS FOR WALL SIGNS</p> <p align="center">B-1, B-2, B-3 & B-4 ZONING DISTRICTS</p>				
Tenant's GFA	# of Wall Signs	Maximum Allowable Sign Face Area	Maximum Letter Height	Maximum Sign Height
Up to 10,000 SF	One (1) per tenant frontage	One (1) SF per one (1) LF of building/tenant frontage not to exceed 120 SF per sign	30" (2.5')	78" (6.5')

20% PRELIMINARY DESIGN

CITY APPROVAL

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05/25/21	ISSUED PER CITY COMMENTS

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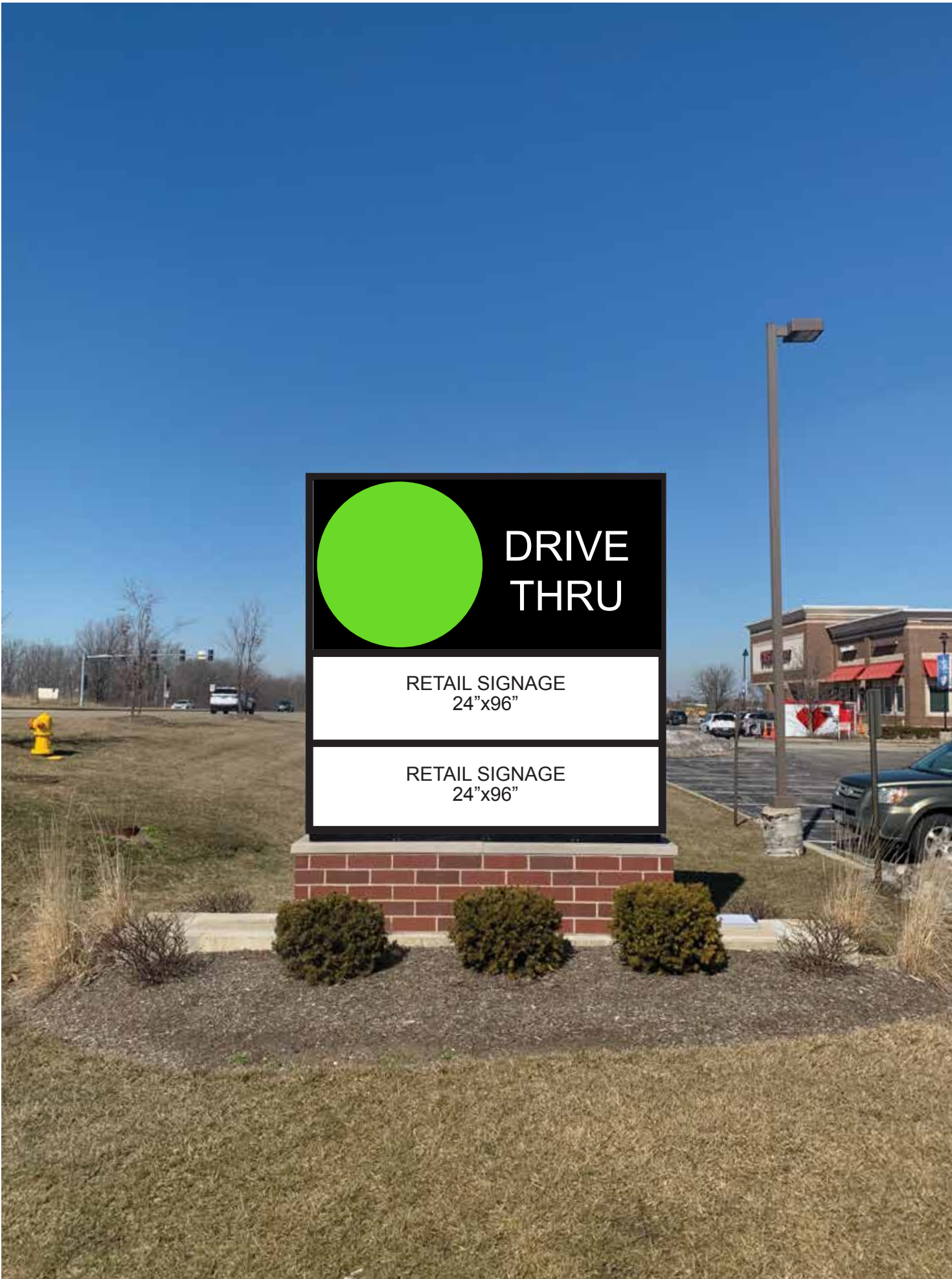
EXTERIOR COLOR

ELEVATIONS

REFERENCES

Λ3 01

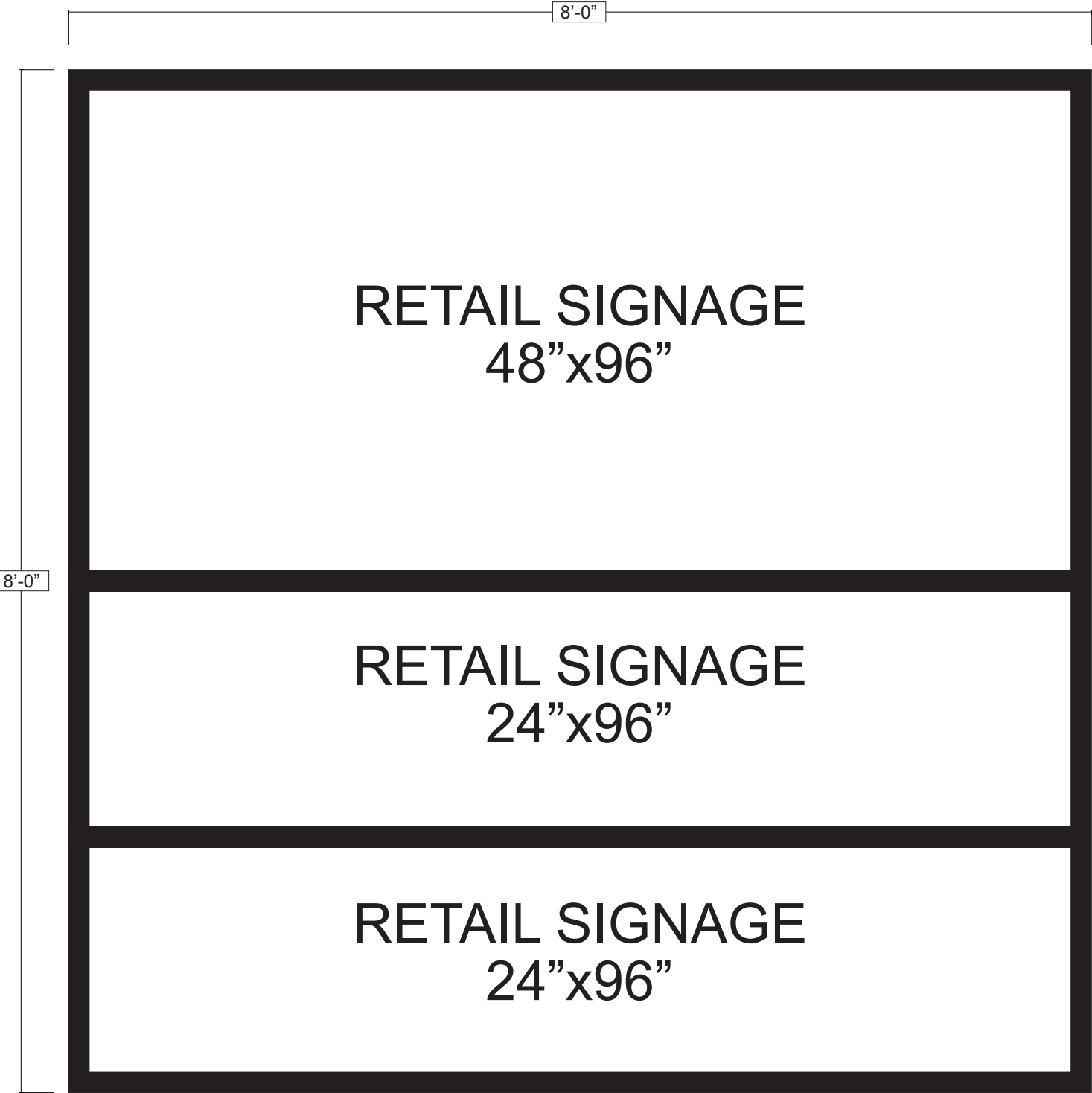
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- ☐ REVISE & RESUBMIT
- ☐ APPROVED AS NOTED
- ☐ APPROVED

- ☐ REVISE & RESUBMIT
- ☐ APPROVED AS NOTED
- ☐ APPROVED





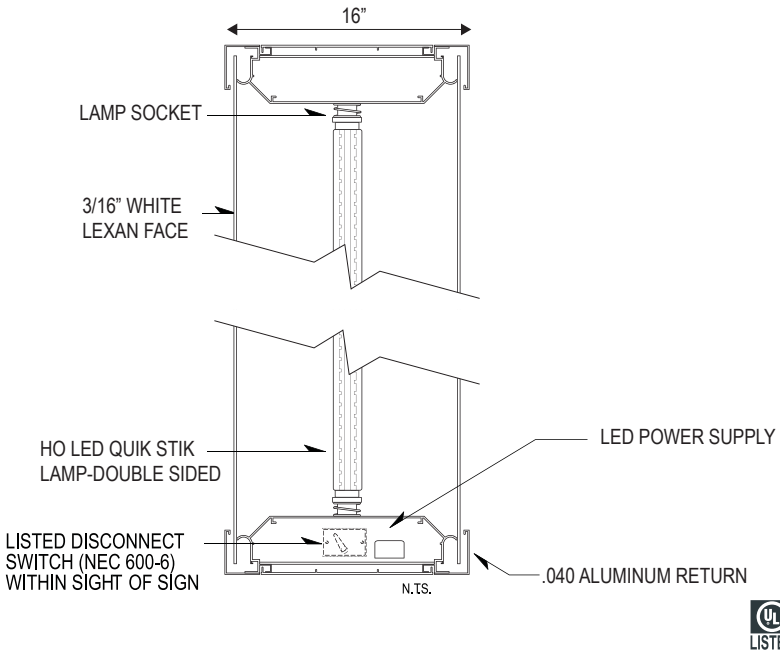
SPECIFICATIONS

- QUANTITY: (1) DOUBLE SIDED ILLUMINATED SIGN CABINET
- FRAME: 2" ALUMINUM WELDED FRAME
- SKIN: .080 ALUMINUM PAINTED
- ILLUMINATION: WHITE LED QUIK STICKS
- FACES: TENANT INSERTS/ 3/16" LEXAN
- GRAPHICS: N/A NOT INCLUDED
- MOUNTING: USE EXISTING MONUMENT SIGN SUPPORT/BASE
- SIGN DIMENSIONS: 96"x96"
- TOTAL SQUARE FEET: 64 SF
- PRIMARY ELECTRICAL REQUIREMENT: CONNECT TO POWER/SUPPLIED BY CUSTOMER
- UL LISTED: YES

COLOR SCHEDULE

- WHITE-LEXAN INSERTS
- BLACK

DOUBLE FACE-ILLUMINATED LED CABINET DETAIL-TYPICAL SECTION



ELECTRICAL NOTES

Sign Company DOES NOT provide primary electrical to sign. Power to the sign must be done by a licensed electrical contractor or licensed electrician. Each sign must have: 1. A minimum of one dedicated 120V 20A circuit
2. Junction box installed within 6 feet of sign
3. Three wires: Line, Ground, Neutral

ATTENTION

-RETROFIT EXISTING MONUMENT SIGN

847.222.0505

CLIENT



CORPORATE:
400 N. STATE SUITE 400
CHICAGO, IL 60654
LOCATION:
171ST ST.
TINLEY PARK, IL 60487

PROJECT

DATE: 03/19/2021

Vequity 9561 W 171st Tinley Park 03192021.ai

ACCOUNT REP: JD

DESIGNER: NP

DESIGN TIME: N/A

R1: 00/00/00

R2: 00/00/00

R3: 00/00/00

R4: 00/00/00

R5: 00/00/00

DESIGN STATUS:

- ☐ REVISE & RESUBMIT
- ☐ APPROVED AS NOTED
- ☐ APPROVED

SIGN:

DATE:

MUNICIPALITY: TINLEY PARK, IL

PERMIT STATUS:

- ☐ REVISE & RESUBMIT
- ☐ APPROVED AS NOTED
- ☐ APPROVED

PRINT SIZE: ☒ 11"x17" ☐ 8.5"x11"

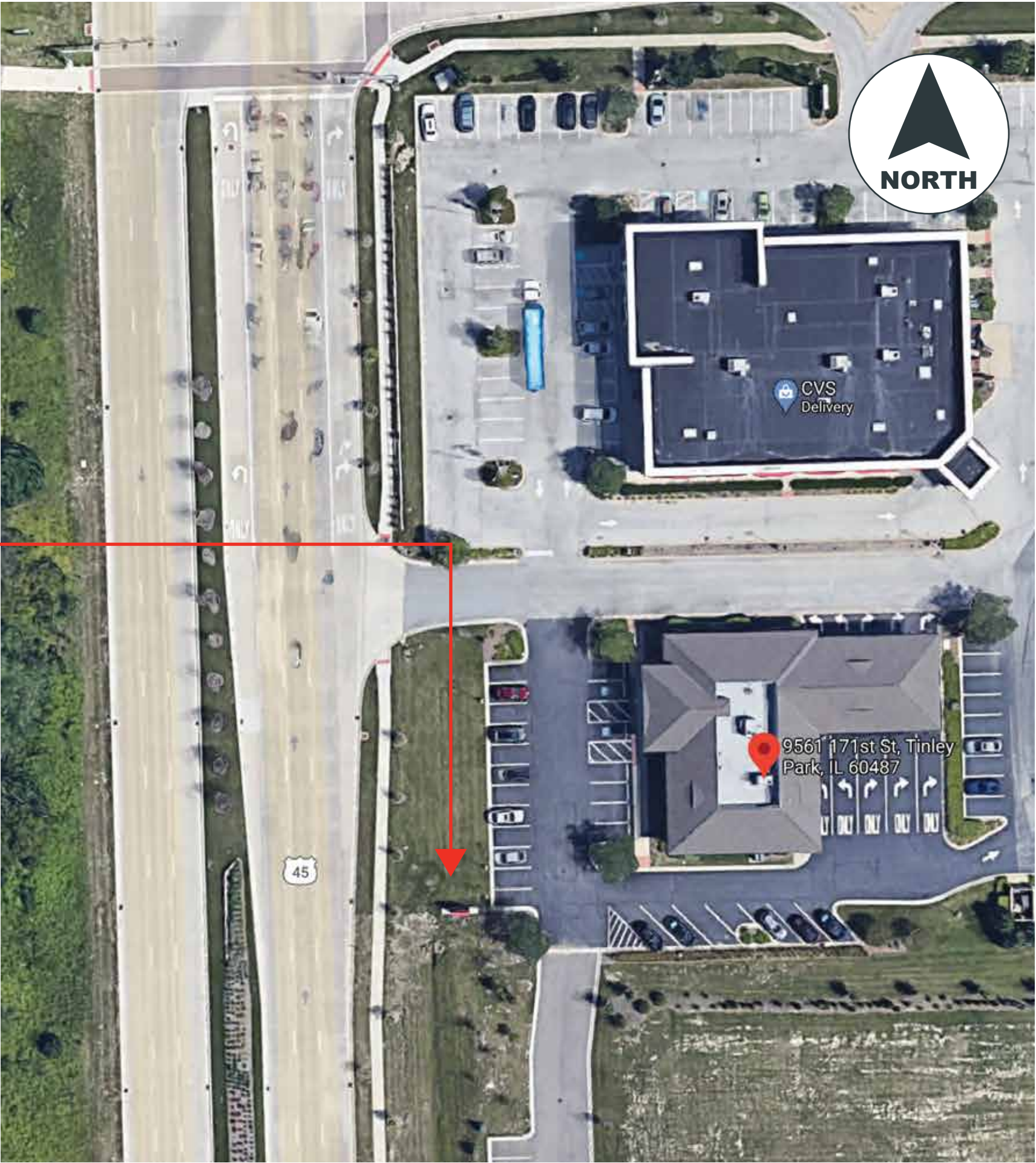
SACALE: N.T.S.

MONUMENT SIGNS



DETAIL

SHEET
2 OF 3



- ☐ REVISE & RESUBMIT
- ☐ APPROVED AS NOTED
- ☐ APPROVED

- ☐ REVISE & RESUBMIT
- ☐ APPROVED AS NOTED
- ☐ APPROVED



MEMORANDUM TO: Chris Ileakis
Vequity

FROM: Elise Purguette
Consultant

Luay R. Aboona, PE, PTOE
Principal

DATE: April 23, 2021

SUBJECT: Traffic Impact Statement
Proposed Retail Building
Tinley Park, Illinois

This memorandum summarizes the results and findings of a site traffic evaluation conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for the proposed retail building to be located at 9561 West 171st Street in Tinley Park, Illinois. As proposed, the site, which is currently occupied by a vacant MB Financial Bank building, will be redeveloped with a three-tenant 5,593 square-foot retail building which will include a drive-through Starbucks coffee shop. In addition, the proposed retail building will provide approximately 35 parking spaces. Access will continue to be provided via the existing access system serving the adjoining shopping center with access off South LaGrange Road and 171st Street. **Figure 1** shows an aerial view of the site.

The purpose of this evaluation is to determine the impact of the proposed retail building on the area roadway system, evaluate its on-site circulation and drive-through utilization, and evaluate the adequacy of the parking supply.

Existing Traffic Conditions

The following provides a detailed description of the physical characteristics of the roadways including geometry and traffic control, adjacent land uses, and average daily traffic volumes along the area roadways.

South LaGrange Road (US 45) is a north-south, other principal arterial that generally provides three lanes in each direction separated by a landscaped median in the vicinity of the site. At its signalized intersection with 171st Street, South LaGrange Road provides an exclusive U-turn lane, three through lanes, and an exclusive right-turn lane on the northbound approach. The southbound approach provides dual left-turn lanes and three through lanes. A standard style crosswalk is provided on the south leg of this intersection. At its unsignalized intersection with the access drive located north of the site, South LaGrange Road provides two through lanes and a combined through/right-turn lane on the northbound approach. The southbound approach provides three through lanes. South LaGrange Road is under the jurisdiction of the Illinois Department of Transportation (IDOT), is classified as a Strategic Regional Arterial (SRA), and carries an Annual Average Daily Traffic (AADT) volume of 39,300 vehicles (IDOT 2019). South LaGrange Road has a posted speed limit of 45 miles per hour.



Aerial View of Site

Figure 1

171st Street is an east-west, local road that generally provides two lanes in each direction in the vicinity of the site. At its signalized intersection with South LaGrange Road, 171st Street provides an exclusive left-turn lane and dual right-turn lanes on the westbound approach. At its unsignalized intersection with the existing right-in/right-out access drive serving the CVS Pharmacy, 171st Street provides a through lane and a combined through/right-turn lane on the eastbound approach. The westbound approach provides two through lanes. At its unsignalized intersection with the full movement access drive serving the shopping center, 171st Street provides a through lane and a combined through/right-turn lane on the eastbound approach. The westbound approach provides an exclusive left-turn lane and two through lanes. At its unsignalized intersection with the right-in/right-out access drive serving the shopping center, 171st Street provides a through lane and a combined through/right-turn lane on the eastbound approach. The westbound approach provides an exclusive left-turn lane and two through lanes. 171st Street is under the jurisdiction of the Village of Tinley Park.

Traffic Characteristics of the Proposed Retail Building

As proposed, the site, which is currently occupied by a vacant MB Financial Bank building, will be redeveloped with a three-tenant, 5,593 square-foot retail building which will include a drive-through Starbucks coffee shop. Access will continue to be provided via the existing access system serving the adjoining shopping center off South LaGrange Road with 171st Street, as follows:

- An existing right-in/right-out access drive off South LaGrange Road located approximately 290 feet south of 171st Street. Left-turn movements are prohibited via the existing landscape median along South LaGrange Road. This access provides one inbound lane and one outbound lane with outbound movements under stop sign control.
- An existing right-in/right-out access drive off 171st Street located approximately 290 feet east of South LaGrange Road. This access drive is channelized to prohibit left-turn movements and provides one inbound lane and one outbound lane with outbound movements under stop sign control.
- A full movement access drive off 171st Street located approximately 800 feet east of South LaGrange Road. This access drive provides one inbound lane and two outbound lanes striped as an exclusive left-turn lane and an exclusive right-turn lane. Outbound movements are under stop sign control.
- An existing right-in/right-out access drive off 171st Street located approximately 1,080 feet east of South LaGrange Road. This access drive is channelized to prohibit left-turn movements and provides one inbound lane and one outbound lane with outbound movements under stop sign control.
- An existing full movement access drive off 94th Street located approximately 400 feet south of 171st Street. This access drive provides one inbound lane and one outbound lane with outbound movements under stop sign control.
- A cross access connection to The Great Escape located south of the site, which is provided with restricted access off South LaGrange Road.

A copy of the site plan and drive-through stacking exhibit is included in the Appendix.

Development Traffic Generation

The estimates of traffic to be generated by the development are based upon the proposed land use type and size using data published in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 10th Edition. It should be noted that surveys conducted by ITE have shown that approximately 70 and 20 percent of trips made to fast-food restaurants with drive-through and retail uses are diverted from the existing traffic on the roadway system, respectively. Such diverted trips are referred to as pass-by traffic. To account for the potential pass-by traffic, a 70 percent and 20 percent reduction were applied to the trips projected to be generated by the proposed drive-through Starbucks coffee shop and the retail, respectively. **Table 1** shows the estimated vehicle trip generation for the weekday morning, weekday evening, and Saturday midday peak hours as well as two-way daily traffic.

Trip Generation Comparison

As previously indicated, the site is currently occupied by a vacant MB Financial Bank building, which is approximately 5,593 square feet in size. In order to determine the impacts of the proposed retail building on the roadway system, the trips to be generated by the proposed retail building were compared to the estimated trips generated by the existing drive-through bank. The estimates of traffic to be generated by the existing drive-through bank are based upon the proposed land use type and size using data published in the ITE *Trip Generation Manual*, 10th Edition. It should be noted that surveys conducted by ITE have shown that approximately 30 percent of trips made to banks with drive-throughs are diverted from the existing traffic on the roadway system. Such diverted trips are referred to as pass-by traffic. To account for the potential pass-by traffic, a 30 percent reduction was applied to the trips projected to be generated by the existing bank.

Table 2 shows the estimated peak hour traffic to be generated by the proposed development compared to the traffic to be generated by the existing drive-through bank.

Inspection of Table 2 indicates that the proposed retail building will generate 26 more trips during the weekday morning peak hour, 14 fewer trips during the weekday evening peak hour, and six fewer trips during the Saturday midday peak hour. Given that the development will generate a comparable volume of traffic during the peak hours, site traffic will be adequately accommodated by area roadways and the access system serving the site.

Table 1
PROJECTED SITE-GENERATED TRAFFIC VOLUMES

ITE Land- Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour			Daily
		In	Out	Total	In	Out	Total	In	Out	Total	
937	Starbucks Coffee Shop with Drive-Through Window (2,364 square feet)	107	103	210	52	51	103	104	103	207	1,940
	<i>10 Percent Interaction Reduction</i>	<i>-11</i>	<i>-10</i>	<i>-21</i>	<i>-5</i>	<i>-5</i>	<i>-10</i>	<i>-10</i>	<i>-10</i>	<i>-20</i>	<i>-194</i>
	<i>70 Percent Pass-By Reduction¹</i>	<i><u>-66</u></i>	<i><u>-66</u></i>	<i><u>-132</u></i>	<i><u>-33</u></i>	<i><u>-33</u></i>	<i><u>-66</u></i>	<i><u>-65</u></i>	<i><u>-65</u></i>	<i><u>-130</u></i>	<i><u>-1,222</u></i>
	New Coffee Shop Trips	30	27	57	14	13	27	29	28	57	524
820	Retail (3,229 square feet)	2	1	3	21	22	43	21	20	41	582
	<i>10 Percent Interaction Reduction</i>	<i>-0</i>	<i>-0</i>	<i>-0</i>	<i>-2</i>	<i>-2</i>	<i>-4</i>	<i>-2</i>	<i>-2</i>	<i>-4</i>	<i>-58</i>
	<i>20 Percent Pass-By Reduction²</i>	<i><u>-0</u></i>	<i><u>-0</u></i>	<i><u>-0</u></i>	<i><u>-4</u></i>	<i><u>-4</u></i>	<i><u>-8</u></i>	<i><u>-4</u></i>	<i><u>-4</u></i>	<i><u>-8</u></i>	<i><u>-104</u></i>
	New Retail Trips	2	1	3	15	16	31	15	14	29	420
	Total New Trips	32	28	60	29	29	58	44	42	86	944
	Total Pass-By Trips	66	66	132	37	37	74	69	69	138	1,326
	Total Development Trips	98	94	192	66	66	132	113	111	224	2,270
1 – Applied to the trips estimated to be generated by the proposed Starbucks coffee-shop with drive-through window after interaction reduction applied.											
2 – Applied to the trips estimated to be generated by the proposed retail building after interaction reduction applied.											

Table 2

SITE-GENERATED TRAFFIC VOLUME COMPARISON

ITE Land- Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour			Daily
		In	Out	Total	In	Out	Total	In	Out	Total	
912	Former Drive-Through Bank (5,593 square feet)	31	22	53	57	57	114	75	72	147	560
	<i>10 Percent Interaction Reduction</i>	<i>-3</i>	<i>-2</i>	<i>-5</i>	<i>-6</i>	<i>-6</i>	<i>12</i>	<i>-8</i>	<i>-7</i>	<i>-15</i>	<i>-56</i>
	<i>30 Percent Pass-By Reduction¹</i>	<i>-7</i>	<i>-7</i>	<i>-14</i>	<i>-15</i>	<i>-15</i>	<i>-30</i>	<i>-20</i>	<i>-20</i>	<i>-40</i>	<i>-152</i>
	Subtotal (New Trips)	21	13	34	36	36	72	47	45	92	342
	Proposed Development (New Trips)	32	28	60	29	29	58	44	42	86	944
	Difference	+11	+15	+26	-7	-7	-14	+3	+3	-6	+602
1 – Applied to the trips estimated to be generated by the existing bank with drive-through window after interaction reduction applied											

Evaluation

When the estimated peak hour traffic volumes anticipated to be generated by the proposed retail building are compared to the total projected peak traffic volumes on the adjacent roadway system, the new traffic that will be generated by the proposed retail building will amount to approximately one percent of the existing two-way daily traffic volume along South LaGrange Road and 171st Street ($(0.5 \times 944) \div 39,300 = 1.2\%$). Given the low estimated traffic to be generated by the proposed development, the existing access system serving the adjoining shopping center off South LaGrange Road and 171st Street will be adequate in accommodating the future traffic volumes.

On-Site Circulation and Design

As proposed, the pick-up window will be located on the east side of the building with the order board located on the south side of the building. Vehicles will enter the drive-through lane at the southwest corner of the building and travel around the south and east sides of the building. A review of the site plan and drive-through stacking exhibit indicates that approximately seven vehicles can stack from the pick-up window and approximately three vehicles can stack from the order board within the drive-through lane. Further, additional vehicles can stack within the site before reaching the access road north of the site.

In order to determine the average and peak stacking that can be expected at the drive-through serving the proposed Starbucks coffee shop, surveys were conducted at the Starbucks located at 1048 Maple Avenue in Lisle, Illinois. **Table A**, included in the Appendix, summarizes the drive-through queue surveys in five-minute intervals. The results of the drive-through surveys indicated the following:

- During the weekday morning peak period (6:00 A.M. to 9:00 A.M.), the Starbucks had an average queue of six vehicles and a maximum queue of 11 vehicles, occurring twice.
- During the weekday midday peak period (11:30 A.M. to 1:30 P.M.), the Starbucks had an average queue of three vehicles and a maximum queue of six vehicles, occurring once.
- During the weekday evening peak period (4:00 P.M. to 6:00 P.M.), the Starbucks had an average queue of one vehicle and a maximum queue of four vehicles, occurring once.

In addition, this data was compared to data provided by Starbucks, which indicated the following:

- Starbucks drive-throughs are designed to operate most efficiently with an average queue of seven vehicles.
- Starbucks peak drive-through queues range from 10 to 12 vehicles, typically occurring between 7:00 A.M. 9:00 A.M.
- Typical service time for vehicles in the drive-through is 45 seconds.
- Starbucks traffic is typically 60 percent drive-through traffic.

This data coincides with the survey data and further confirms the average queue of approximately six vehicles and maximum queue of 11 vehicles. As such, the proposed drive-through design can accommodate the peak demand of the drive-through operation without impacting traffic flow within the site main parking lot. Should additional stacking be required, overflow vehicles can be accommodated within the parking lot. If this were to occur, it would only be during the morning peak hour when the other retail uses within the building are expected to generate minimal traffic, thus not impacting and/or conflicting with their operations.

In order to provide efficient and orderly internal traffic flow, the following is recommended:

- Wayfinding signs directing traffic to the drive-through lane should be provided within the site, primarily near the northwest and southwest corners of the building, directing traffic to the entrance of the drive-through lane.
- “Do Not Enter” signs facing north should be posted at the exit of the drive-through lane.
- A stop sign facing south should be posted at the exit of the drive-through lane.

Parking Evaluation

As previously indicated, the site will be redeveloped with a three-tenant 5,593 square-foot retail building which will include a drive-through Starbucks coffee shop and will provide 35 parking spaces. The building will contain 5,241 square-feet of gross leasable space. In order to determine the projected parking demand of the proposed retail building, the parking demand was estimated based on the Village of Tinley Park Zoning Ordinance and the rates published in the Institute of Transportation Engineers’ (ITE) *Parking Generation Manual*, 5th Edition. Based on the two methodologies, the parking demand for the proposed retail building is as follows:

Village of Tinley Park Requirements

The Tinley Park Zoning Ordinance requires a parking ratio of 6.5 parking spaces per 1,000 square feet of gross leasable space. Based on the above and the total gross leasable space of 5,241 square-feet, the proposed retail building should provide a total of 34 parking spaces, which results in a surplus of one parking space.

ITE Parking Generation Manual

In reviewing the survey data published in the Institute of Transportation Engineers’ (ITE) 5th Edition of the *Parking Generation Manual*, the following average peak parking demands were determined:

- Drive-Through Starbucks Coffee Shop (Coffee/Donut Shop with Drive-Through Window)
 - Monday-Friday: 13 spaces (ratio of 5.22 spaces per 1,000 square feet)
 - Saturday: 21 spaces (ratio of 8.70 spaces per 1,000 square feet)

- Retail (Shopping Center – Land Use Code 820)
 - Monday-Thursday: seven spaces (ratio of 1.95 spaces per 1,000 square feet)
 - Friday: nine spaces (ratio of 2.61 spaces per 1,000 square feet)
 - Saturday: 10 (ratio of 2.91 spaces per 1,000 square feet)

Based on ITE *Parking Generation Manual* rates, the proposed retail building should provide a total of 31 parking spaces to accommodate the peak parking demand (Saturday), which results in a surplus of four parking spaces.

Therefore, the proposed parking supply of 345 parking spaces will be adequate in accommodating the projected peak parking demand of the proposed retail building, based on the Village of Tinley Park Zoning Ordinance and the parking rates published in the ITE *Parking Generation Manual*.

Conclusion

Based on the proposed development plan and the preceding evaluation, the following conclusions and recommendations are made:

- The volume of traffic estimated by the proposed retail building will be reduced due to pass-by trips.
- The proposed retail building will generate a comparable volume of traffic to the previous drive-through bank.
- The site plan provides for efficient circulation and adequate stacking for the proposed drive-through Starbucks coffee shop.
- Wayfinding signage should be provided directing vehicles to the entrance of the drive-through lane.
- A “Do Not Enter” sign facing north should be provided at the exit of the drive-through lane.
- Exiting movements from the drive-through lane should be under stop sign control.
- The proposed parking supply of 35 parking spaces will be adequate in accommodating the projected peak parking demand of the proposed retail building. This was based on the Village of Tinley Park Zoning Ordinance and the parking rates published in the ITE *Parking Generation Manual*.

Appendix

Table A

DRIVE THROUGH QUEUEING SURVEY – TUESDAY, MARCH 7, 2017

Weekday Morning		Weekday Midday		Weekday Evening	
Time	Total Queue	Time	Total Queue	Time	Total Queue
6:00 AM	2	11:30 AM	1	4:00 PM	0
6:05 AM	3	11:35 AM	5	4:05 PM	4
6:10 AM	1	11:40 AM	3	4:10 PM	3
6:15 AM	3	11:45 AM	5	4:15 PM	2
6:20 AM	3	11:50 AM	6	4:20 PM	2
6:25 AM	3	11:55 AM	5	4:25 PM	1
6:30 AM	3	12:00 PM	5	4:30 PM	1
6:35 AM	2	12:05 PM	2	4:35 PM	2
6:40 AM	3	12:10 PM	2	4:40 PM	2
6:45 AM	2	12:15 PM	1	4:45 PM	1
6:50 AM	3	12:20 PM	2	4:50 PM	1
6:55 AM	6	12:25 PM	3	4:55 PM	1
7:00 AM	7	12:30 PM	3	5:00 PM	1
7:05 AM	7	12:35 PM	2	5:05 PM	0
7:10 AM	6	12:40 PM	0	5:10 PM	1
7:15 AM	9	12:45 PM	2	5:15 PM	2
7:20 AM	7	12:50 PM	2	5:20 PM	1
7:25 AM	8	12:55 PM	2	5:25 PM	1
7:30 AM	7	1:00 PM	3	5:30 PM	2
7:35 AM	11	1:05 PM	1	5:35 PM	2
7:40 AM	6	1:10 PM	1	5:40 PM	2
7:45 AM	7	1:15 PM	3	5:45 PM	2
7:50 AM	10	1:20 PM	4	5:50 PM	0
7:55 AM	9	1:25 PM	1	5:55 PM	1
8:00 AM	11	1:30 PM	1	6:00 PM	0
8:05 AM	9				
8:10 AM	9				
8:15 AM	5				
8:20 AM	5				
8:25 AM	7				
8:30 AM	6				
8:35 AM	5				
8:40 AM	3				
8:45 AM	5				
8:50 AM	7				
8:55 AM	6				
9:00 AM	4				
Average	6		3		1
Maximum	11		6		4

OSQ Series

OSQ™ LED Area/Flood Luminaire featuring Cree TrueWhite® Technology – Large

Rev. Date: V27 10/21/2020

Product Description

The OSQ™ Area/Flood luminaire blends extreme optical control, advanced thermal management and modern, clean aesthetics. Built to last, the housing is rugged cast aluminum with an integral, weathertight LED driver compartment. Versatile mounting configurations offer simple installation. Its slim, low-profile design minimizes wind load requirements and blends seamlessly into the site providing even, quality illumination. The 'T' input power designator is a suitable upgrade for HID applications up to 750 Watts, and the 'U' input power designator is a suitable upgrade for HID applications up to 1000 Watts.

Applications: Parking lots, walkways, campuses, auto dealerships, office complexes, tunnels, underpasses and internal roadways

Performance Summary

Utilizes Cree TrueWhite® Technology on 5000K Luminaires

NanoOptic® Precision Delivery Grid™ optic

Assembled in the U.S.A. of U.S. and imported parts

Initial Delivered Lumens: Up to 29,700

Efficacy: Up to 173 LPW

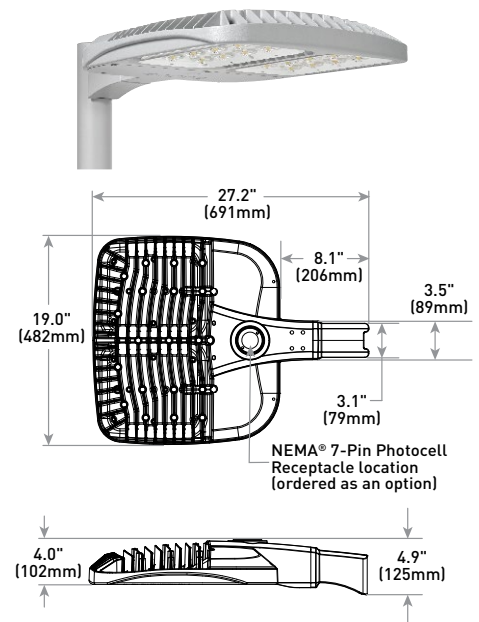
CRI: Minimum 70 CRI (3000K, 4000K & 5700K); 90 CRI (5000K)

CCT: 3000K, 4000K, 5000K, 5700K

Limited Warranty*: 10 years on luminaire; 10 years on Colorfast DeltaGuard® finish; up to 5 years for Synapse® accessories; 1 year on luminaire accessories

* See <http://creelighting.com/warranty> for warranty terms. For Synapse accessories, consult Synapse spec sheets for details on warranty terms.

DA Mount



Weight

32.4 lbs. (14.7kg)

Ordering Information

Fully assembled luminaire is composed of two components that must be ordered separately:

Example: **Mount:** OSQ-B-AASV + **Luminaire:** OSQ-A-NM-2ME-T-40K-UL-SV

Mount (Luminaire must be ordered separately)*		
OSQ-		
OSQ-B-AA Adjustable Arm	Color Options:	SV Silver
OSQ-DA Direct Arm		BK Black
OSQ-L-TSP Transportation Mount (stainless steel; do not specify color)		BZ Bronze
OSQ-TM Trunnion Mount		WH White

* Reference EPA and pole configuration suitability data beginning on page 10

Luminaire (Mount must be ordered separately)									
OSQ	A	NM							
Product	Version	Mounting	Optic	Input Power Designator	CCT	Voltage	Color Options	Options	
OSQ	A	NM No Mount	Asymmetric 2ME* Type II Medium 4ME* Type IV Medium 3ME* Type III Medium	T 132W U 202W	30K 3000K, 70 CRI 40K 4000K, 70 CRI 50K 5000K, 90 CRI 57K 5700K, 70 CRI	UL Universal 120-277V UH Universal 347-480V	BK Black BZ Bronze SV Silver WH White	F Fuse - Compatible only with 120V, 277V or 347V (phase to neutral) - Consult factory if fusing is required for 208V, 240V or 480V (phase to phase) - Refer to PML spec sheet for availability with PML options - When code dictates fusing, use time delay fuse PML Programmable Multi-Level, up to 40' Mounting Height - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt PML2 Programmable Multi-Level, 10-30' Mounting Height - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1 Field Adjustable Output - Must select Q9, Q8, Q7, Q6, Q5, Q4, Q3, Q2, or Q1 - Offers full range adjustability - Refer to pages 12-13 for power and lumen values - Not available with PML or PML2 options	R NEMA® 7-Pin Photocell Receptacle - 7-pin receptacle per ANSI C136.41 - Intended for downlight applications with maximum 45° tilt - Factory connected 0-10V dim leads - 18" (457mm) seven-conductor cord exits luminaire - Requires photocell or shorting cap by others RL Rotate Left - LED and optic are rotated to the left - Refer to RR/RL configuration diagram on page 14 for optic directionality - Not for use with symmetric optics RR Rotate Right - LED and optic are rotated to the right - Refer to RR/RL configuration diagram on page 14 for optic directionality - Not for use with symmetric optics
			Symmetric 5ME Type V Medium 5SH Type V Short 5SQ Type V Square WSN Wide Sign 15D 15" Flood						

* Available with Backlight Shield when ordered with field-installed accessory (see table above)



US: creelighting.com (800) 236-6800

Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING

Product Specifications

CREE TRUEWHITE® TECHNOLOGY

A revolutionary way to generate high-quality white light, Cree TrueWhite® Technology is a patented approach that delivers an exclusive combination of 90+ CRI, beautiful light characteristics and lifelong color consistency, all while maintaining high luminous efficacy – a true no compromise solution.

CONSTRUCTION & MATERIALS

- Slim, low profile design minimizes wind load requirements
- Luminaire housing is rugged die cast aluminum with an integral, weathertight LED driver compartment and high-performance heat sink
- Convenient interlocking mounting method on direct arm mount. Mounting adaptor is rugged die cast aluminum and mounts to 3" (76mm) or larger square or round pole, secured by two 5/16-18 UNC bolts spaced on 2" (51mm) centers
- Mounting for the adjustable arm mount adaptor is rugged die cast aluminum and mounts to 2" (51mm) IP, 2.375" (60mm) O.D. tenon
- Adjustable arm mount can be adjusted 180° in 2.5° increments
- Transportation mount is constructed of 316 stainless steel and mounts to surface with (4) 3/8" fasteners by others
- Trunnion mount is constructed of A500 and A1011 steel and is adjustable from 0-180° in 15° degree increments. Trunnion mount secures to surface with (1) 3/4" bolt or (2) 1/2" or 3/8" bolts
- Includes 18" (340mm) 18/5 or 16/5 cord exiting the luminaire. When ordered with R option, 18" (340mm) 18/7 or 16/7 cord is provided
- Designed for uplight and downlight applications
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Silver, bronze, black, and white are available
- **Weight:** OSQ-DA: 32.4 lbs. (14.7kg); OSQ-B-AA: 32.0 lbs. (14.5kg); OSQ-L-TSP: 44 lbs. (20.0kg); OSQ-TM: 36.1 lbs. (16.4kg)

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- Designed with 0-10V dimming capabilities. Controls by others
- Refer to [Dimming spec sheet](#) for details
- **10V Source Current:** 0.15mA
- **Operating Temperature Range:** -40°C - +40°C [-40°F - +104°F]

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Enclosure rated IP66 per IEC 60529 when ordered without R option
- Consult factory for CE Certified products
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards with AA, DA, TM, and TSP mounts. For adjustable arm applications requiring ANSI C136.31-2001 3G vibration certification, ensure that existing or new adjustable arm mount model number matches OSQ-B-AA for all OSQ large housing luminaires with power designations "T", and "U"
- ANSI C136.2 10kV surge protection, tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Meets Buy American requirements within ARRA
- DLC and DLC Premium qualified versions available. Some exceptions apply. Please refer to <https://www.designlights.org/search/> for most current information
- RoHS compliant. Consult factory for additional details
- Dark Sky Friendly, IDA Approved when ordered with 30K CCT and direct or transportation mounts only. Please refer to <https://www.darksky.org/our-work/lighting/lighting-for-industry/fsa/fsa-products/> for most current information
- **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

Product Specifications

SYNAPSE® SIMPLYSNAP INTELLIGENT CONTROL

The Synapse SimplySNAP platform is a highly intuitive connected lighting solution featuring zone dimming, motion sensing, and daylight harvesting with utility-grade power monitoring and support of up to 1000 nodes per gateway. The system features a reliable and robust self-healing mesh network with a browser-based interface that runs on smartphones, tablets, and PCs. The Twist-Lock Lighting Controller (TL7-B2) and Site Controller (SS450-002) take the OSQ Series to a new performance plateau, providing extreme energy productivity, code compliance and a better light experience.

Electrical Data*							
Input Power Designator	System Watts 120-480V	Total Current [A]					
		120V	208V	240V	277V	347V	480V
T	132	1.12	0.63	0.55	0.47	0.39	0.28
U	202	1.72	0.96	0.84	0.72	0.60	0.43

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V or 347-480V +/-10%

OSQ Series Ambient Adjusted Lumen Maintenance ¹						
Ambient	Optic	Initial LMF	25K hr Reported ² LMF	50K hr Reported ² LMF	75K hr Reported ² /Estimated ³ LMF	100K hr Reported ² /Estimated ³ LMF
5°C (41°F)	Asymmetric	1.04	1.03	1.01	0.99 ²	0.97 ²
	Symmetric	1.05	1.05	1.05	1.05 ³	1.05 ³
10°C (50°F)	Asymmetric	1.03	1.02	1.00	0.98 ²	0.96 ²
	Symmetric	1.04	1.03	1.03	1.03 ³	1.03 ³
15°C (59°F)	Asymmetric	1.02	1.01	0.99	0.97 ²	0.95 ²
	Symmetric	1.02	1.02	1.02	1.02 ³	1.02 ³
20°C (68°F)	Asymmetric	1.01	1.00	0.98	0.96 ²	0.94 ²
	Symmetric	1.01	1.01	1.01	1.01 ³	1.01 ³
25°C (77°F)	Asymmetric	1.00	0.99	0.97	0.95 ²	0.93 ²
	Symmetric	1.00	1.00	1.00	1.00 ³	1.00 ³

¹ Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the [Temperature Zone Reference Document](#) for outdoor average nighttime ambient conditions.

² In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.

³ Estimated values are calculated and represent time durations that exceed the 6x test duration of the LED.

Accessories

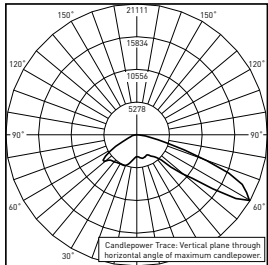
Field-Installed			
Backlight Shield OSQ-BLSLF – Front facing optics OSQ-BLSLR – Rotated optics	Hand-Held Remote XA-SENSREM – For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required	Bird Spikes OSQ-LG-BRDSFK	Shorting Cap XA-XSLSHRT
Synapse Wireless Control Accessories			
Twist-Lock Lighting Controller TL7-B2 – Suitable for 120-277V (UL) voltage only – Requires NEMA/ANSI C136.41 7-Pin Dimming Receptacle – Not for use with PML or Q options – Provides On/Off switching, dimming, power metering, digital sensor input, and status monitoring of luminaires – Refer to TL7-B2 spec sheet for details SimplySNAP Central Base Station CBSSW-450-002 – Includes On-Site Controller (SS450-002) and 5-button switch – Indoor and Outdoor rated – Refer to CBSSW-450-002 spec sheet for details Synapse Wireless Sensor WSN-DPM – Motion and light sensor – Control multiple zones – Refer to WSN-DPM spec sheet for details		SimplySNAP On-Site Controller SS450-002 – Verizon® LTE-enabled – Designed for indoor applications – Refer to SS450-002 spec sheet for details Building Management System (BMS) Gateway BMS-GW-002 – Required for BACnet integration – Refer to BMS-GW-002 spec sheet for details Outdoor Antennas (Optional, for increased range, 8dB gain) KIT-ANT420SM – Kit includes antenna, 20' cable and bracket KIT-ANT360 – Kit includes antenna, 30' cable and bracket KIT-ANT600 – Kit includes antenna, 50' cable and bracket – Refer to Outdoor antenna spec sheet for details	

OSQ™ LED Area/Flood Luminaire featuring Cree TrueWhite® Technology – Large

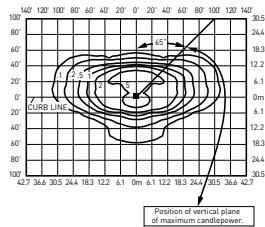
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult:
<http://creelighting.com/products/outdoor/area/osq-series>

2ME



CESTL Test Report #: PL07701-001A
 OSQ-A**-2ME-U-40K-UL
 Initial Delivered Lumens: 26,946

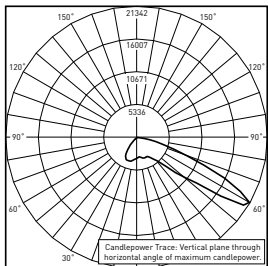


OSQ-A**-2ME-U-40K-UL
 Mounting Height: 25' (7.6m) A.F.G.
 Initial Delivered Lumens: 29,100
 Initial FC at grade

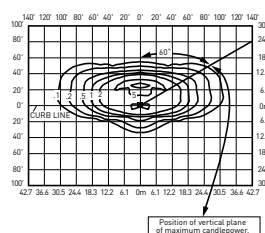
Type II Medium Distribution								
Input Power Designator	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11
T	20,700	B3 U0 G3	22,100	B3 U0 G3	18,600	B3 U0 G3	22,100	B3 U0 G3
U	27,800	B3 U0 G3	29,100	B3 U0 G3	22,300	B3 U0 G3	29,100	B3 U0 G3

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt



CESTL Test Report #: PL07700-001A
 OSQ-A**-2ME-U-57K-UL w/OSQ-BLSLF
 Initial Delivered Lumens: 22,822



OSQ-A**-2ME-U-57K-UL w/OSQ-BLSLF
 Mounting Height: 25' (7.6m) A.F.G.
 Initial Delivered Lumens: 22,300
 Initial FC at grade

Type II Medium w/BLS Distribution								
Input Power Designator	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11
T	15,900	B2 U0 G2	17,000	B3 U0 G2	14,250	B2 U0 G2	17,000	B3 U0 G2
U	21,400	B3 U0 G3	22,300	B3 U0 G3	17,100	B3 U0 G2	22,300	B3 U0 G3

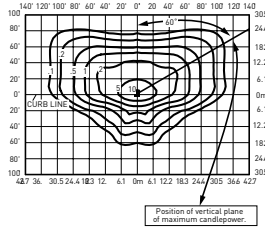
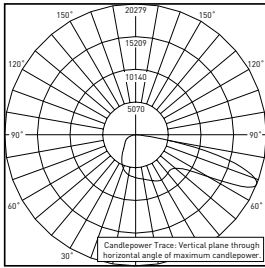
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult:
<http://creelighting.com/products/outdoor/area/osq-series>

3ME



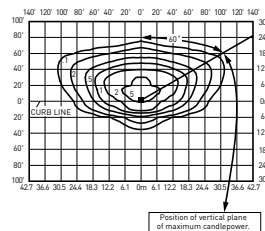
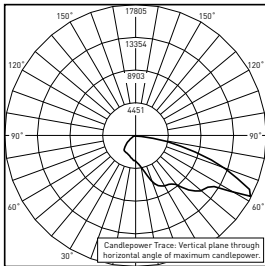
DTC Test Report #: PL15529-001A
OSQ-A--3ME-U-40K-UL**
Initial Delivered Lumens: 30,584

OSQ-A--3ME-U-40K-UL**
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 29,100
Initial FC at grade

Type III Medium Distribution								
Input Power Designator	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11
T	20,700	B3 U0 G3	22,100	B3 U0 G3	18,600	B3 U0 G3	22,100	B3 U0 G3
U	27,800	B3 U0 G4	29,100	B3 U0 G4	22,300	B3 U0 G3	29,100	B3 U0 G4

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt



CESTL Test Report #: PL07699-001A
OSQ-A--3ME-U-57K-UL w/OSQ-BLSLF**
Initial Delivered Lumens: 23,601

OSQ-A--3ME-U-40K-UL w/OSQ-BLSLF**
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 23,000
Initial FC at grade

Type III Medium w/BLS Distribution								
Input Power Designator	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11
T	16,300	B2 U0 G2	17,500	B2 U0 G3	14,650	B2 U0 G2	17,500	B2 U0 G3
U	21,900	B3 U0 G3	23,000	B3 U0 G3	17,600	B2 U0 G3	23,000	B3 U0 G3

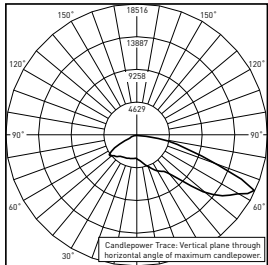
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

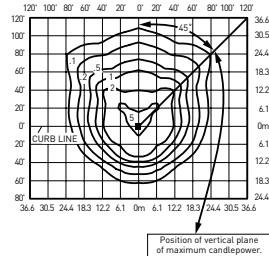
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult:
<http://creelighting.com/products/outdoor/area/osq-series>

4ME



CESTL Test Report #: PL07690-001A
 OSQ-A-**-4ME-U-40K-UL
 Initial Delivered Lumens: 27,527

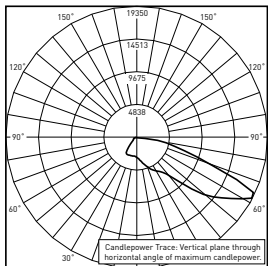


OSQ-A-**-4ME-U-40K-UL
 Mounting Height: 25' (7.6m) A.F.G.
 Initial Delivered Lumens: 29,100
 Initial FC at grade

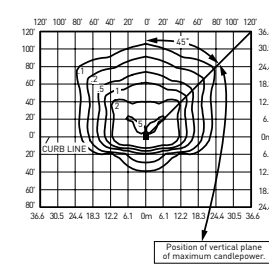
Type IV Medium Distribution								
Input Power Designator	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11
T	20,700	B3 U0 G3	22,100	B3 U0 G3	18,600	B3 U0 G3	22,100	B3 U0 G3
U	27,800	B4 U0 G3	29,100	B4 U0 G4	22,300	B3 U0 G3	29,100	B4 U0 G4

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt



CESTL Test Report #: PL07692-001A
 OSQ-A-**-4ME-U-57K-UL w/OSQ-BLSLF
 Initial Delivered Lumens: 22,793



OSQ-A-**-4ME-U-57K-UL w/OSQ-BLSLF
 Mounting Height: 25' (7.6m) A.F.G.
 Initial Delivered Lumens: 22,300
 Initial FC at grade

Type IV Medium w/BLS Distribution								
Input Power Designator	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11
T	15,900	B2 U0 G3	17,000	B2 U0 G3	14,250	B2 U0 G3	17,000	B2 U0 G3
U	21,400	B3 U0 G3	22,300	B3 U0 G3	17,100	B2 U0 G3	22,300	B3 U0 G3

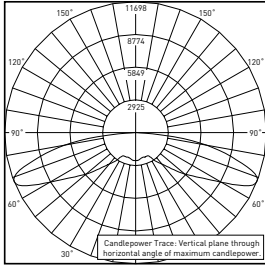
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

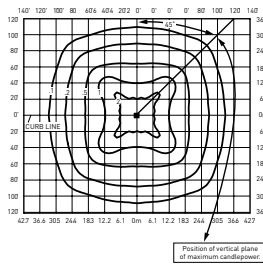
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult:
<http://creelighting.com/products/outdoor/area/osq-series>

5ME



DTC Test Report #: PL15486-001A
OSQ-A--5ME-U-40K-UL**
Initial Delivered Lumens: 26,918



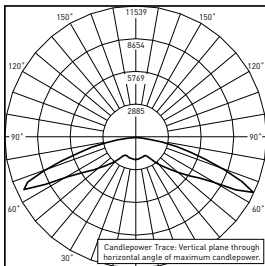
OSQ-A--5ME-U-40K-UL**
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 27,800
Initial FC at grade

Type V Medium Distribution								
Input Power Designator	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11
T	20,200	B5 U0 G5	21,700	B5 U0 G5	19,800	B5 U0 G5	21,700	B5 U0 G5
U	26,600	B5 U0 G5	27,800	B5 U0 G5	23,600	B5 U0 G5	27,800	B5 U0 G5

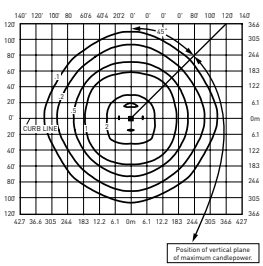
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

5SH



CESTL Test Report #: PL10754-001A
OSQ-A--5SH-U-40K-UL**
Initial Delivered Lumens: 25,679



OSQ-A--5SH-U-40K-UL**
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 29,700
Initial FC at grade

Type V Short Distribution								
Input Power Designator	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11
T	21,300	B5 U0 G3	22,900	B5 U0 G3	20,900	B5 U0 G3	22,900	B5 U0 G3
U	28,400	B5 U0 G4	29,700	B5 U0 G4	25,200	B5 U0 G3	29,700	B5 U0 G4

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

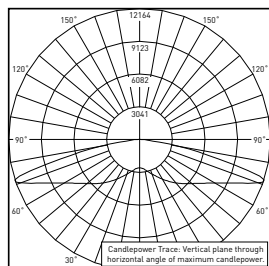
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult:

<https://creelighting.com/products/outdoor/area/osq-series>

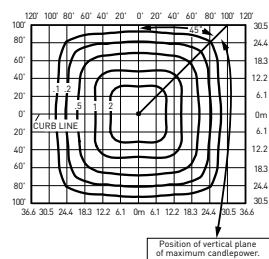
55Q



RESTL Test Report #: PL14561-001B

OSQ-A-**-55Q-U-57K-UL

Initial Delivered Lumens: 28,716



OSQ-A-NM-55Q-U-57K-UL

Mounting Height: 25' (7.6m) A.F.G.

Initial Delivered Lumens: 29,700

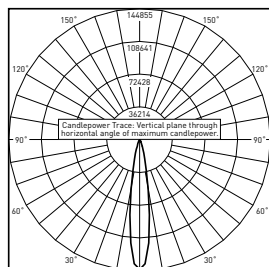
Initial FC at grade

Type V Square Distribution								
Input Power Designator	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11	Initial Delivered Lumens	BUG Ratings** Per TM-15-11
T	21,300	B4 U0 G2	22,900	B5 U0 G3	20,900	B4 U0 G2	22,900	B5 U0 G3
U	28,400	B5 U0 G3	29,700	B5 U0 G3	25,200	B5 U0 G3	29,700	B5 U0 G3

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

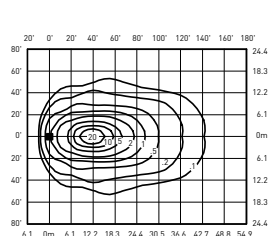
15D



CESTL Test Report #: PL07689-001A

OSQ-A-**-15D-U-30K-UL

Initial Delivered Lumens: 23,254



OSQ-A-**-15D-U-40K-UL

Mounting Height: 25' (7.6m) A.F.G., 60° Tilt

Initial Delivered Lumens: 29,700

Initial FC at grade

Type 15° Flood Distribution				
Input Power Designator	3000K (70 CRI)	4000K (70 CRI)	5000K (90 CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
T	21,300	22,900	20,900	22,900
U	28,400	29,700	25,200	29,700

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

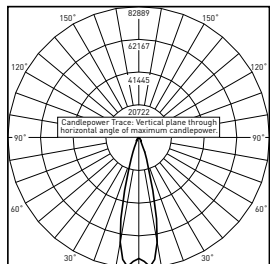
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

Photometry

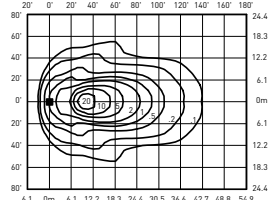
All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult:

<http://creelighting.com/products/outdoor/area/osq-series>

25D



CESTL Test Report #: PL07696-001A
OSQ-A-**-25D-U-30K-UL
Initial Delivered Lumens: 23,265



OSQ-A-**-25D-U-40K-UL
Mounting Height: 25' (7.6m) A.F.G., 60° Tilt
Initial Delivered Lumens: 29,700
Initial FC at grade

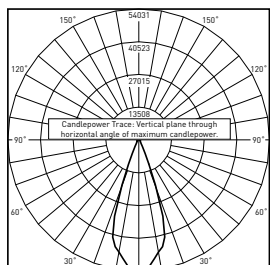
Type 25° Flood Distribution

Input Power Designator	3000K (70 CRI)	4000K (70 CRI)	5000K (90 CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
T	21,300	22,900	20,900	22,900
U	28,400	29,700	25,200	29,700

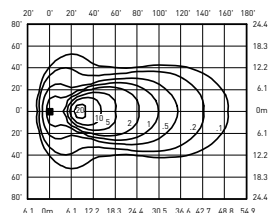
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

40D



CESTL Test Report #: PL07697-001A
OSQ-A-**-40D-U-30K-UL
Initial Delivered Lumens: 22,943



OSQ-A-**-40D-U-40K-UL
Mounting Height: 25' (7.6m) A.F.G., 60° Tilt
Initial Delivered Lumens: 29,700
Initial FC at grade

Type 40° Flood Distribution

Input Power Designator	3000K (70 CRI)	4000K (70 CRI)	5000K (90 CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
T	21,300	22,900	20,900	22,900
U	28,400	29,700	25,200	29,700

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

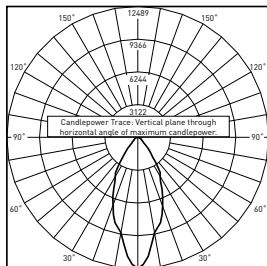
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

Photometry

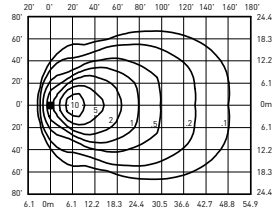
All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult:

<http://creelighting.com/products/outdoor/area/osq-series>

60D



CESTL Test Report #: PL08100-001B
OSQ-A-**-60D-U-40K-UL
Initial Delivered Lumens: 10,079



OSQ-A-**-60D-U-40K-UL
Mounting Height: 25' (7.6m) A.F.G., 60° Tilt
Initial Delivered Lumens: 29,700
Initial FC at grade

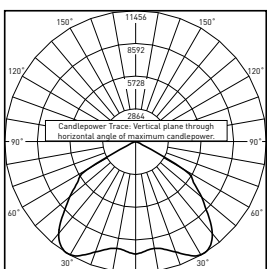
Type 60° Flood Distribution

Input Power Designator	3000K (70 CRI)	4000K (70 CRI)	5000K (90 CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
T	21,300	22,900	20,900	22,900
U	28,400	29,700	25,200	29,700

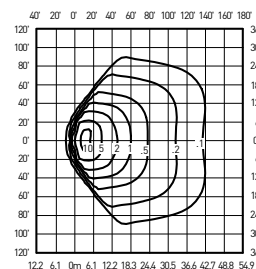
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

120D



RESTL Test Report #: PL15731-001A
OSQ-A-**-120D-U-40K-UL
Initial Delivered Lumens: 25,501



OSQ-A-**-120D-U-40K-UL
Mounting Height: 25' (7.6m) A.F.G., 60° Tilt
Initial Delivered Lumens: 29,700
Initial FC at grade

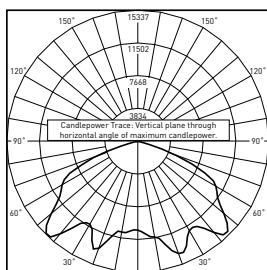
Type 120° Flood Distribution

Input Power Designator	3000K (70 CRI)	4000K (70 CRI)	5000K (90 CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
T	21,300	22,900	20,900	22,900
U	28,400	29,700	25,200	29,700

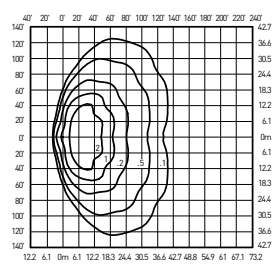
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

WSN



CESTL Test Report #: PL07695-001A
OSQ-A-**-WSN-U-40K-UL
Initial Delivered Lumens: 23,116



OSQ-A-**-WSN-U-40K-UL
Mounting Height: 25' (7.6m) A.F.G., 60° tilt
Initial Delivered Lumens: 29,700
Initial FC at grade

Wide Sign Distribution









Input Power Designator	3000K (70 CRI)	4000K (70 CRI)	5000K (90 CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
T	21,300	22,900	20,900	22,900
U	28,400	29,700	25,200	29,700

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

OSQ™ LED Area/Flood Luminaire featuring Cree TrueWhite® Technology – Large

Luminaire EPA

Adjustable Arm Mount – OSQ-B-AA Weight: 32.0 lbs. (14.5kg)							
Single	2 @ 180°	2 @ 90°	3 @ 90°	3 @ 120°	3 @ 180°	4 @ 180°	4 @ 90°
Tenon Configuration (0° -80° Tilt); If used with Cree Lighting tenons, please add tenon EPA with Luminaire EPA							
							
PB-1A*; PT-1; PW-1A3**	PB-2A*; PB-2R2.375; PD-2A4(180); PT-2(180); PW-2A3**	PB-2A*; PD-2A4(90); PT-2(90)	PB-3A*; PD-3A4(90); PT-3(90)	PB-3A*; PT-3(120)	PB-3A*; PB-3R2.375	PB-4A*(180)	PB-4A*(90); PB-4R2.375; PD-4A4(90); PT-4(90)
0° Tilt							
0.80	1.61	1.26	2.06	1.68	3.33	4.66	2.52
10° Tilt							
0.81	1.61	1.62	2.42	2.32	4.40	6.08	3.24
20° Tilt							
1.24	1.61	2.04	2.84	3.13	5.68	7.80	4.08
30° Tilt							
1.64	1.64	2.44	3.24	3.97	6.88	9.40	4.88
45° Tilt							
2.20	2.20	3.00	3.80	5.07	8.55	11.64	6.00
60° Tilt							
2.63	2.63	3.43	4.23	5.73	9.84	13.36	6.86
70° Tilt							
2.82	2.82	3.62	4.42	5.73	10.41	14.12	7.24
80° Tilt							
2.93	2.93	3.73	4.53	5.73	10.74	14.56	7.46
Tenon Configuration (90° Tilt); If used with Cree Lighting tenons, please add tenon EPA with Luminaire EPA							
PB-1A*; PT-1; PW-1A3**	PB-2A*; PB-2R2.375; PD-2A4(180); PT-2(180); PW-2A3**	PB-2A*	PB-3A*	PB-3A*; PT-3(120)	PB-3A*; PB-3R2.375	PB-4A*(180)	PB-4A*(90); PB-4R2.375
90° Tilt							
2.95	2.95	4.84	6.52	5.73	10.81	14.64	11.19

* Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6") for single, double or triple luminaire orientation or 4 (4"), 5 (5"), or 6 (6") for quad luminaire orientation

** These EPA values must be multiplied by the following ratio: Fixture Mounting Height/Total Pole Height. Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6")

Tenon EPA

Part Number	EPA
PB-1A*	None
PB-2A*	0.82
PB-3A*	1.52
PB-4A*(180)	2.22
PB-4A*(90)	1.11
PB-2R2.375	0.92
PB-3R2.375	1.62
PB-4R2.375	2.32
PD Series Tenons	0.09
PT Series Tenons	0.10
PW-1A3**	0.47
PW-2A3**	0.94
WM-2	0.08
WM-4	0.25
WM-DM	None

* Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6") for single, double or triple luminaire orientation or 4 (4"), 5 (5"), or 6 (6") for quad luminaire orientation

** These EPA values must be multiplied by the following ratio: Fixture Mounting Height/Total Pole Height. Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6")

US: creelighting.com (800) 236-6800







Canada: creelighting-canada.com (800) 473-1234

Tenons and Brackets [†] (must specify color)	
Square Internal Mount Vertical Tenons (Steel) - Mounts to 3-6" (76-152mm) square aluminum or steel poles PB-1A* – Single PB-2A* – 180° Twin PB-3A* – 180° Triple PB-4A*(90) – 90° Quad PB-4A*(180) – 180° Quad	Round External Mount Vertical Tenons (Steel) - Mounts to 2.375" (60mm) O.D. round aluminum or steel poles or tenons PB-2R2.375 – Twin PB-3R2.375 – Triple PB-4R2.375 – Quad
Square Internal Mount Horizontal Tenons (Aluminum) - Mounts to 4" (102mm) square aluminum or steel poles PD-2A4(90) – 90° Twin PD-2A4(180) – 180° Twin PD-3A4(90) – 90° Triple PD-4A4(90) – 90° Quad	Round External Mount Horizontal Tenons (Aluminum) - Mounts to 2.375" (60mm) O.D. round aluminum or steel poles or tenons - Mounts to square pole with PB-1A* tenon PT-1 – Single (Vertical) PT-2(90) – 90° Twin PT-2(180) – 180° Twin PT-3(90) – 90° Triple PT-3(120) – 120° Triple PT-4(90) – 90° Quad
Wall Mount Brackets - Mounts to wall or roof WM-2 – Horizontal for OSQ-B-AA mount WM-4 – L-Shape for OSQ-B-AA mount WM-DM – Plate for OSQ-DA mount	Mid-Pole Bracket - Mounts to square pole PW-1A3** – Single PW-2A3** – Double
	Ground Mount Post - For ground-mounted flood luminaires PGM-1 – for OSQ-B-AA mount

[†] Refer to the [Bracket and Tenons spec sheet](#) for more details

CREE  **LIGHTING**

Luminaire EPA

Direct Arm Mount – OSQ-DA Weight: 32.4 lbs. (14.7kg)					
Single	2 @ 180°	2 @ 90°	3 @ 90°	3 @ 120°	4 @ 90°
					
0.80	1.61	1.26	2.06	1.68	2.52

Direct Mount Configurations

Compatibility with OSQ-DA Direct Mount Bracket					
Input Power Designator	2 @ 90°	2 @ 180°	3 @ 90°	3 @ 120°	4 @ 90°
3" Square					
T & U	N/A	✓	N/A	N/A	N/A
3" Round					
T & U	N/A	✓	N/A	N/A	N/A
4" Square					
T & U	✓	✓	✓	N/A	✓
4" Round					
T & U	✓	✓	✓	✓	✓
5" Square					
T & U	✓	✓	✓	N/A	✓
5" Round					
T & U	✓	✓	✓	✓	✓
6" + Square					
T & U	✓	✓	✓	N/A	✓
6" + Round					
T & U	✓	✓	✓	✓	✓

Luminaire EPA

Trunnion Mount – OSQ-TM Weight: 36.1 lbs. (16.4kg)	
Single	
0° Tilt	
0.81	
15° Tilt	
1.12	
30° Tilt	
1.74	
45° Tilt	
2.35	
60° Tilt	
2.59	
75° Tilt	
2.83	
90° Tilt	
3.07	

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings.

Q Option Power & Lumen Data – Designator T

Q Option Setting	CCT/ CRI	System Watts	Lumen Values						Optics Qualified on DLC QPL	
		120-480V	Asymmetric	5ME	5SH, 5SQ & Floods	2ME w/ BLS	3ME w/ BLS	4ME w/ BLS	Standard	Premium
Q9	30K7	132	20,700	20,200	21,300	15,900	16,300	15,900	5ME, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME, 5SH
	40K7		22,100	21,700	22,900	17,000	17,500	17,000	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K9		18,600	19,800	20,900	14,250	14,650	14,250	2ME, 3ME, 4ME	5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	57K7		22,100	21,700	22,900	22,300	17,500	22,300	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q8	30K7	122	19,300	18,800	19,800	14,775	15,200	14,775	5ME, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME, 5SH
	40K7		20,600	20,200	21,300	15,800	16,300	15,800	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K9		17,300	18,400	19,400	13,250	13,625	13,250	2ME, 3ME, 4ME	5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	57K7		20,600	20,200	21,300	15,800	16,300	15,800	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q7	30K7	117	18,600	18,200	19,200	14,300	14,675	14,300	5ME, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME, 5SH
	40K7		19,900	19,500	20,600	15,300	15,800	15,300	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K9		16,700	17,800	18,800	12,825	13,175	12,825	2ME, 3ME, 4ME	5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	57K7		19,900	19,500	20,600	15,300	15,800	15,300	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q6	30K7	108	17,200	16,800	17,700	13,200	13,525	13,200	5ME, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME, 5SH
	40K7		18,300	18,000	19,000	14,100	14,525	14,100	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K9		15,400	16,400	17,300	11,825	12,150	11,825	2ME, 3ME, 4ME	5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	57K7		18,300	18,000	19,000	14,100	14,525	14,100	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q5	30K7	104	16,800	16,400	17,300	12,875	13,200	12,875	5ME, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME, 5SH
	40K7		17,900	17,600	18,500	13,775	14,175	13,775	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K9		15,100	16,000	16,900	11,550	11,875	11,550	2ME, 3ME, 4ME	5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	57K7		17,900	17,600	18,500	13,775	14,175	13,775	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q4	30K7	99	16,100	15,800	16,600	12,400	12,725	12,400	5ME, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME, 5SH
	40K7		17,200	16,900	17,900	13,250	13,650	13,250	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K9		14,500	15,400	16,300	11,125	11,425	11,125	2ME, 3ME, 4ME	5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	57K7		17,200	16,900	17,900	13,250	13,650	13,250	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q3	30K7	89	14,700	14,350	15,100	11,300	11,575	11,300	5ME, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME, 5SH
	40K7		15,700	15,400	16,300	12,075	12,425	12,075	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K9		13,200	14,050	14,850	10,125	10,400	10,125	2ME, 3ME, 4ME	5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	57K7		15,700	15,400	16,300	12,075	12,425	12,075	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q2	30K7	80	13,250	12,925	13,625	10,175	10,425	10,175	5ME, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME, 5SH
	40K7		14,150	13,900	14,650	10,875	11,200	10,875	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K9		11,900	12,675	13,375	9,125	9,375	9,125	2ME, 3ME, 4ME	5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	57K7		14,150	13,900	14,650	10,875	11,200	10,875	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q1	30K7	66	10,975	10,700	11,300	8,425	8,650	8,425	5ME, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME, 5SH
	40K7		11,725	11,500	12,125	9,000	9,275	9,000	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K9		9,850	10,500	11,075	7,550	7,775	7,550	2ME, 3ME, 4ME	5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	57K7		11,725	11,500	12,125	9,000	9,275	9,000	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

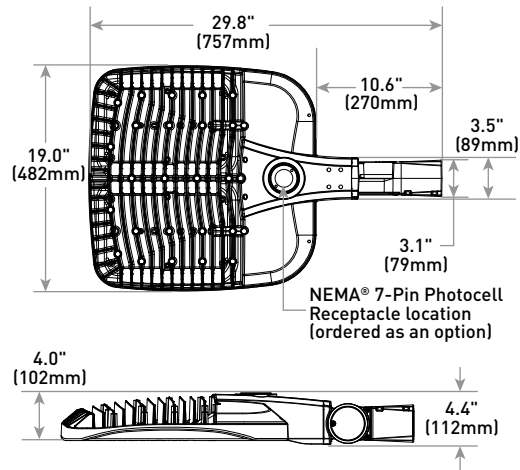
The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings.

Q Option Power & Lumen Data – Designator U

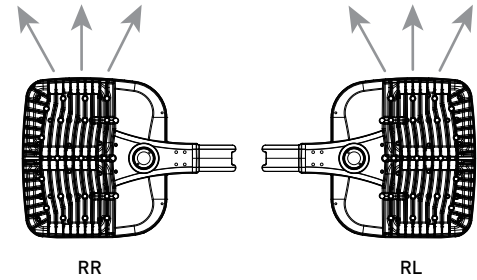
Q Option Setting	CCT/ CRI	System Watts 120-480V	Lumen Values						Optics Qualified on DLC QPL	
			Asymmetric	5ME	5SH, 5SQ & Floods	2ME w/ BLS	3ME w/ BLS	4ME w/BLS	Standard	Premium
Q9	30K7	202	27,800	26,600	28,400	21,400	21,900	21,400	5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME
	40K7		29,100	27,800	29,700	22,300	23,000	22,300	3ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 4ME
	50K9		22,300	23,600	25,200	17,100	17,600	17,100	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN	N/A
	57K7		29,100	27,800	29,700	22,300	23,000	22,300	5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME
Q8	30K7	191	27,000	25,800	27,500	20,800	21,200	20,800	5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME
	40K7		28,200	27,000	28,800	21,600	22,300	21,600	3ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 4ME
	50K9		21,600	22,900	24,400	16,600	17,100	16,600	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN	N/A
	57K7		28,200	27,000	28,800	21,600	22,300	21,600	5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME
Q7	30K7	181	25,600	24,500	26,100	19,700	20,100	19,700	5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME
	40K7		26,800	25,600	27,300	20,500	21,200	20,500	3ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 4ME
	50K9		20,500	21,700	23,200	15,700	16,200	15,700	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN	N/A
	57K7		26,800	25,600	27,300	20,500	21,200	20,500	5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME
Q6	30K7	173	24,700	23,700	25,300	19,000	19,500	19,000	5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME
	40K7		25,900	24,700	26,400	19,800	20,500	19,800	3ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 4ME
	50K9		19,800	21,000	22,400	15,200	15,700	15,200	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN	N/A
	57K7		25,900	24,700	26,400	19,800	20,500	19,800	5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME
Q5	30K7	159	22,800	21,800	23,300	17,500	18,000	17,500	5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME
	40K7		23,900	22,800	24,400	18,300	18,900	18,300	3ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 4ME
	50K9		18,300	19,400	20,700	14,025	14,425	14,025	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN	N/A
	57K7		23,900	22,800	24,400	18,300	18,900	18,300	5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME
Q4	30K7	143	21,100	20,200	21,600	16,300	16,600	16,300	5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME
	40K7		22,100	21,100	22,600	16,900	17,500	16,900	3ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 4ME
	50K9		16,900	17,900	19,200	13,000	13,375	13,000	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN	N/A
	57K7		22,100	21,100	22,600	16,900	17,500	16,900	5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME
Q3	30K7	128	18,900	18,100	19,300	14,550	14,900	14,550	5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME
	40K7		19,800	18,900	20,200	15,200	15,600	15,200	3ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 4ME
	50K9		15,200	16,000	17,100	11,625	11,975	11,625	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN	N/A
	57K7		19,800	18,900	20,200	15,200	15,600	15,200	5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME
Q2	30K7	114	17,000	16,200	17,300	13,050	13,350	13,050	5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME
	40K7		17,800	17,000	18,100	13,600	14,025	13,600	3ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 4ME
	50K9		13,600	14,400	15,400	10,425	10,725	10,425	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN	N/A
	57K7		17,800	17,000	18,100	13,600	14,025	13,600	5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME
Q1	30K7	101	15,300	14,625	15,600	11,775	12,050	11,775	5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME
	40K7		16,000	15,300	16,300	12,275	12,650	12,275	3ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 4ME
	50K9		12,275	12,975	13,850	9,400	9,675	9,400	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN	N/A
	57K7		16,000	15,300	16,300	12,275	12,650	12,275	5ME, 5SH, 15D, 25D, 40D, 60D, WSN	2ME, 3ME, 4ME

OSQ™ LED Area/Flood Luminaire featuring Cree TrueWhite® Technology – Large

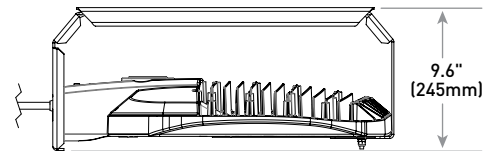
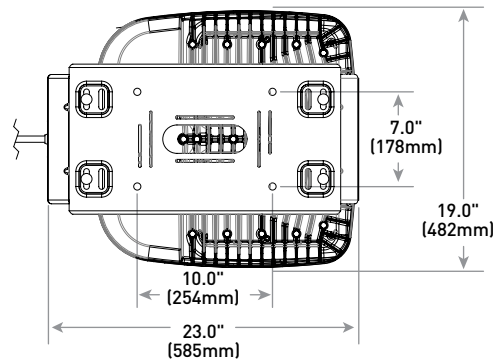
AA Mount



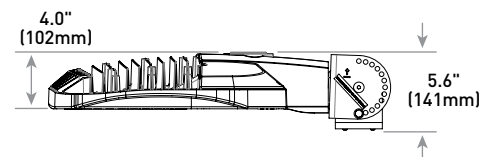
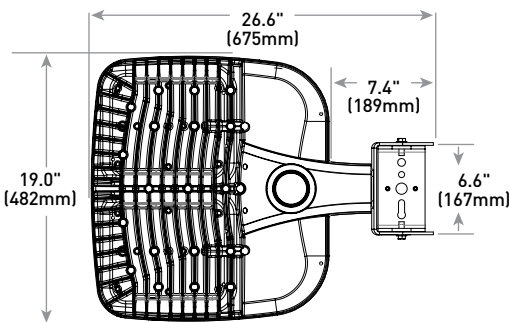
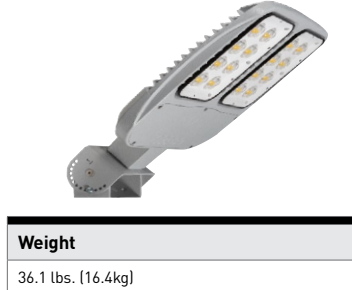
RR/RL Configuration



TSP Mount



TM Mount



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CREE LIGHTING

A COMPANY OF IDEAL INDUSTRIES, INC.

REGIONAL CRITERIA

EXTERIOR LIGHTING

EXTERIOR CANOPY RECESSED FIXTURE



FEATURES & SPECIFICATIONS

INTENDED USE — The 4" Wafer-Thin LED recessed downlight with remote driver box combines high quality light output and efficiency while eliminating the pot light housing for competitive affordability. This innovative wafer-slim Type IC design allows easy installation for new construction or remodel from below the ceiling without the requirement of a pot light housing. The LED module maintains at least 70% light output for 36,000 hours. These LED Wafer downlights are intended for closets, attics, hallways, bathrooms, kitchens, basements, soffits, entry ways, porches, garages, stairwells, corridors, nursing/retirement homes, condos, elevators, apartments, and any other small areas.

CONSTRUCTION — Ideal for shallow ceiling plenum since a pot light housing is NOT required. IC rated driver and fixture - approved for direct contact with insulation. Aluminum die cast outer frame. Durable, powder coat paint to prevent rust. Round fixture with integral edge-lit LED's. Steel spring clip for easy installation. Plenum rated cable connector to connect from module to remote driver box. Isolated driver integrated inside steel remote box with four 7/8" knockouts with slots for pryout. Not suitable for pulling wires.

OPTICS — Wafer-Thin downlight edge-lit LED technology uses light guided plate to distribute light. Polycarbonate lens provides even illumination throughout the space. Utilized 3000K and 4000K color temperature LEDs.

ELECTRICAL — Connect directly to 120V power supply via provided UL recognized driver. High efficient driver with power factor > 0.9. Ambient operating temperature: -40°F (-40°C) to +104°F (+40°C). Dimming down to 10% (See page 2 for recommended dimmers). Standard input wattage is 9.6W, 70 lumens per watt.

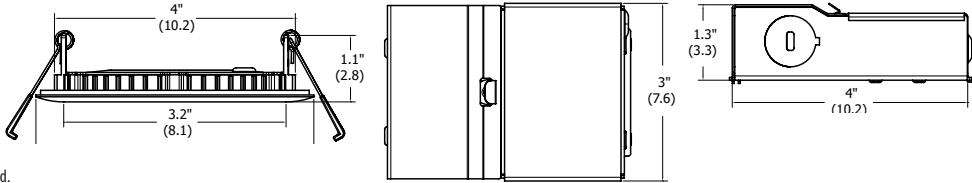
LISTINGS — CSA certified to Canadian safety standards. ENERGY STAR® certified. Wet location. Air Tight certified in accordance with ASTM E283-2004.

WARRANTY — 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Specifications

Aperture:	3.2 (8.1)
Ceiling opening:	4.2 (10.7)
Overlap trim:	4.7 (12.0)
Height:	1.1 (2.8)



All dimensions are inches (centimeters) unless otherwise indicated.

ORDERING INFORMATION For shortest lead times, configure product using **standard options (shown in bold)**. Example: WF4 LED 30K MW

WF4	LED		MW
Series	Lamp	CCT/CRI/W/Lumens ¹	Finish
WF4 4" wafer-thin LED downlight	LED LED	30K 3000K/80CRI/9.6W/675L 40K 4000K/80CRI/10W/765L	MW Matte white MB Matte black BN Brushed nickel ORB Oil-rubbed bronze

Accessories: Order as separate catalog number.	
WF4 PAN R12	4" new construction pan, retail pack of 12
WFJB R4	Remodel joist bar, retail pack of 4
WFEXC6 U	6' FT4 cable
WFEXC10 U	10' FT4 cable
WFEXC20 U	20' FT4 cable



Notes
1 Total system delivered lumens.

EXTERIOR SCONCE

LED 3000K Outdoor Up & Down Lantern - BKT
11251BKT30 (Textured Black)



Dimensions

Height	12.00"
Length	6.50"
Width	5.00"

Project Name: _____
Location: _____
Type: _____
Qty: _____
Comments: _____

Ordering Information

Product ID	11251BKT30
Finish	Textured Black
Available Finishes	AZT, BKT

Dimensions

Extension	6.50"
Height from center of Wall opening	6.20"
Base Backplate	5.00 X 5.00
Weight	4.10 LBS

Photometrics

Kelvin Temperature	3000K
Color Rendering Index	90

Specifications

Material	Aluminum
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Electrical

Voltage	120-277V
Input Voltage	Dual (120/140)

Qualifications

Safety Rated	Wet
Title 24	Yes
Class 2	Yes
Expected Life Span	40000 Hours
Warranty	www.kichler.com/warranty

Primary Lamping

Light Source	LED
Lamp Included	Integrated
# of Bulbs/LED Modules	1
Delivered Lumens	550
Delivered Efficacy	39
Max or Nominal Watt	15W

Kichler
7711 East Pleasant Valley Road
Cleveland, Ohio 44131-8010
Toll free: 866.558.5706 or kichler.com

Notes:
1) Information provided is subject to change without notice. All values are design or typical values when measured under laboratory conditions.
2) Incandescent Equivalent: The incandescent equivalent as presented is an approximate number and is for reference only.



PLAN COMMISSION STAFF REPORT

May 6, 2021 - Workshop

Vequity/Starbucks New Multi-Tenant Building

17120 - 17126 Harlem Avenue

Petitioner

Christopher Ileakis, on behalf of 17118 S Harlem Tinley Park LLC (d/b/a Vequity) (Contract Purchaser)

Property Location

17120-26 Harlem Ave
(New Building)

17100 Harlem Ave (7-11)

PIN

27-25-403-013-0000,
27-25-403-014-0000,
27-25-403-015-0000 &
27-25-403-016-0000

Zoning

Existing: R-1 (Single-Family Residential)

Proposed: B-1 PD
(Neighborhood Commercial, Planned Unit Development)

Approvals Sought

- Site Plan/Architecture
- Rezoning
- Special Use for a PUD w/ Exceptions
- Final Plat Approval

Project Planner

Daniel Ritter, AICP
Senior Planner



EXECUTIVE SUMMARY

The Petitioner, Christopher Ileakis, on behalf of 17118 S Harlem Tinley Park LLC (d/b/a Vequity) (Contract Purchaser), is seeking approval to construct a 7,422 sq. ft. multi-tenant commercial building with a Starbucks drive-thru at 17120-17126 Harlem Avenue. The project requires the Rezoning of the property to the B-1 (Neighborhood Shopping) zoning district, Site Plan/Architecture Approval, and Final Plat Approval. Additionally, a Special Use for a Planned Unit Development(PUD) with Exceptions is requested over both the new development and the 7-Eleven project immediately adjacent to the north which is currently under construction by the same developer. The PUD allows for a drive-thru use to be permitted as well as a cohesive development pattern, shared access, and shared signage between the developments.

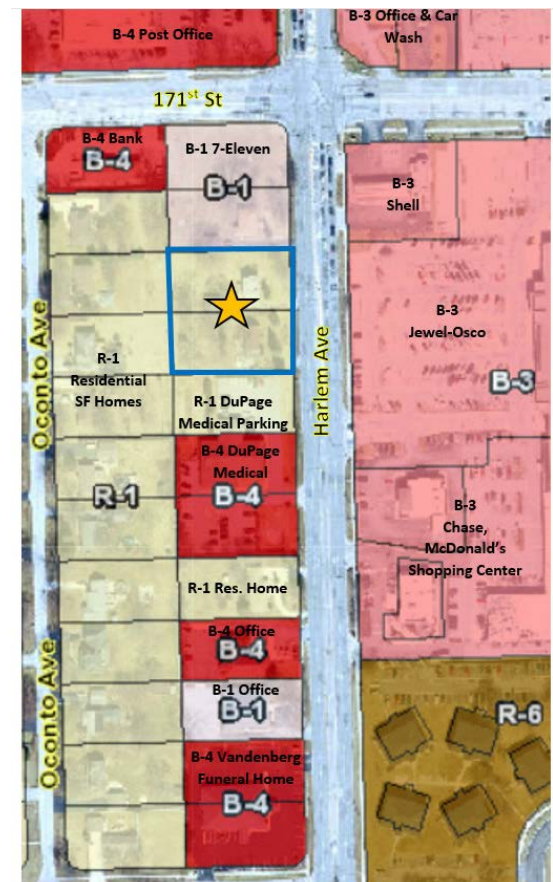
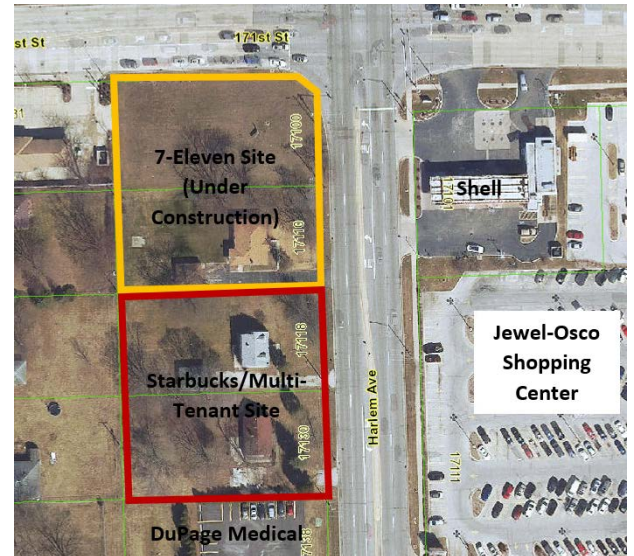
The subject site area on the west side of Harlem Ave was originally developed in the county with single-family homes for the full block. Starting in the 1980s the area began to transition from residential to commercial uses; the Comprehensive Plan designates the area as a "commercial/office" use. As the homes have been demolished and new commercial buildings constructed, the properties have been rezoned to low-intensity districts like B-1 (Neighborhood Shopping) or B-4 (Office and Service) due to their proximity to single-family residential homes. The conversion of this area to commercial uses is nearly complete. The Petitioner has added fencing and landscaping to buffer noise or light from the development. The lighting plan was designed so that no light spillage occurs and no light glare will be visible to the residences to the west. Additionally, the Petitioner has noted that the speaker system on the drive-thru ordering system has a low volume and the fencing and landscaping proposed have further been designed to limit any off-site noise (closest home is ~180 ft. from the speaker).

EXISTING SITE & ZONING

The subject property consists of two interior lots on the western side of Harlem Avenue. The subject property is just south of 171st Street and the 7-Eleven gas station and convenience store development currently under construction by the same developer at 17100 Harlem Ave. The subject property lots are zoned R-1 (Single-Family Residential) indicated by the yellow star below. Both lots previously had vacant single-family homes on them. The homes were blighted and in violation of multiple property maintenance codes. The demolition of the homes was part of the 7-Eleven project approval and took place in 2020 leaving only one residential home on the block.

The west side of Harlem Ave was originally developed with single-family homes in the 1950s-1960s. Starting in the 1980s this area began to transition from residential to commercial uses due to their frontage along the heavily traveled commercial corridor and the development of the Jewel-Osco shopping center on the east side of Harlem Avenue. Due to the multiple curb cuts and difficulty of access from an arterial roadway, residential uses are not considered the highest and best use for this area. The expectation in the transition of this area is supported by the commercial/office use designation in the Village's Comprehensive Plan. As the lots have been redeveloped with commercial buildings, the properties have been rezoned to lower-intensity zoning districts like B-1 (Neighborhood Shopping) and B-4 (Office and Service Business), due to the proximity of single-family residential homes to the west.

To the north of the subject property is the 7-Eleven property currently under construction and zoned B-1. To the east of the property across Harlem Avenue is Jewel-Osco and Tinley Park Commons Shopping Center zoned B-3 (General Business & Commercial). To the west are single-family homes (R-1). To the south is the DuPage Medical Group office zoned B-4, with a portion of the parking lot still zoned R-1.



PROPOSED USE

The proposed building will include a Starbucks Coffee with a drive-thru lane and window. The building is 7,422 sq. ft. in total size, with 7,279 sq. ft. leasable space (excluding mechanical and sprinkler rooms). The Starbucks will use approximately 2,202 sq. ft. of the leasable floor space. They have a high reliance on drive-thru business, particularly during the pandemic, but also will offer dine-in and patio seating at the location. The additional 5,077 sq. ft. of floor space has been designed to be able to accommodate up to three tenants depending on the space needs of the businesses. There is no contract on the other tenant spaces but it will be marketed upon approval to other commercial uses permitted in the B-1 zoning district.

SITE PLAN

The site plan includes the commercial building, vehicle parking, drive-thru lane, walkways, landscaping, and a dumpster enclosure. Due to the size of the parcel there are several bulk regulations that do not meet code and will require an Exception to the PUD and underlying zoning district. These exceptions are the same as those approved for the 7-Eleven development to the north that were treated as Variations.

These include an exception for the lot size of .938 acres instead of the minimum of 4 acres in the B-1 district; a lot width of 205.90 ft. instead of the minimum of 600 ft.; a lot depth of 198.52 instead of the minimum of 250 ft.; and a front yard setback of 81 ft. instead of the minimum of 125 ft. The exceptions are basically a result of the original platting of the area that did not contemplate the commercial uses that are now being developed in this area.

Access to the site will primarily be through a curb cut on Harlem Avenue at the south end of the parcel. However, cross-access is provided between the 7-Eleven site to the north and the bank (7231 171st St) along 171st Street. Cross-access has also been planned to the south so that a future connection can potentially be made to the DuPage Medical property.

The new access point on Harlem Avenue is limited to right-in/right-out turns. A raised "pork chop" and directional signage have been proposed to ensure left turns are not made. The geometrics of the access has been altered slightly to allow for safe delivery truck and fire engine circulation through the site. Two-way drive aisles meet the required

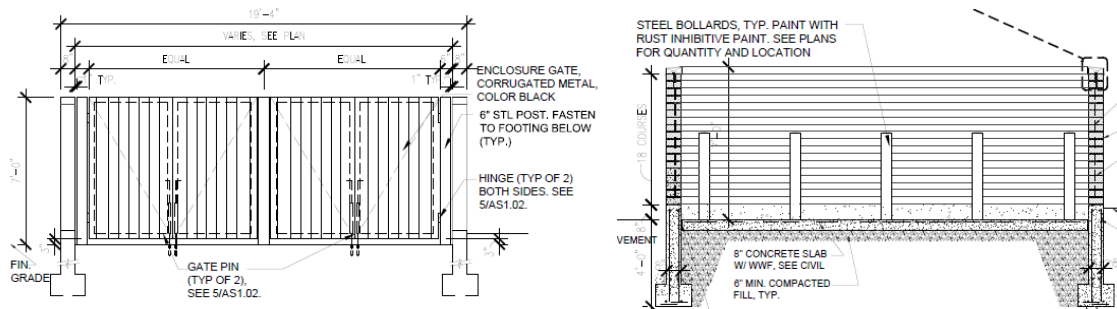


26 ft. width minimum. The drive-thru lane is proposed at 23 ft. wide and includes the stacking lane and an “escape” lane.

The site generally circulates in a counter-clockwise fashion with order taking on the west side of the building and then order pickup on the south side of the building. The dedicated drive-thru lane includes stacking for up to 11 vehicles. A *Parking and Traffic Analysis* from their traffic consultant, KLOA, has been submitted outlining the expected demand. The report concluded adequate parking and drive-thru stacking is present in the proposed plan. Any drive-thru stacking beyond the drive-thru lane will happen on-site and not in any public roadways or shared drive aisles.

A public sidewalk is proposed as part of the development in compliance with the Village’s Subdivision and Development Regulations. The sidewalk will connect to the 7-Eleven development’s sidewalk. A private walkway will connect the stores to the public sidewalk that allows for better pedestrian connectivity and accessibility.

A new trash enclosure has been proposed at the northwest corner of the site and sized proportionately for Starbucks and up to three other commercial tenants. The enclosure will be constructed with exterior brick that matches the existing building façade texture and color.



An outdoor patio will be constructed near the entrance of the Starbucks. A 2-3 ft. high brick knee wall will be constructed around two sides of the patio area to protect patrons from vehicles.

Open Item #1: Review overall proposed Site Plan, layout, site circulation, and drive-thru stacking and the Exceptions required to approve the Site Plan.

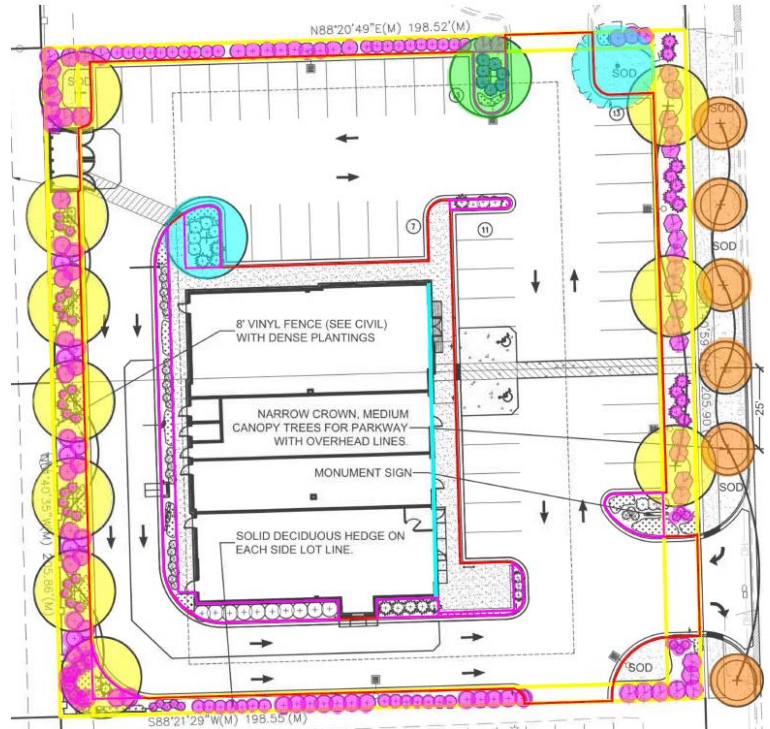
As with most new developments, the site plan is finalized, but the engineering of the site still has some outstanding comments and revisions that will need to be addressed prior to permit submittal. Staff is recommending that the site plan approval be conditioned upon final engineering review and approval.

Open Item #2: Staff is recommending the site plan approval be conditioned upon final engineering review and approval.

LANDSCAPE ARCHITECTURE

The proposed Landscape Plan has been reviewed by the Village’s Landscape Architect and finds it to be in general conformance with the Village’s Landscape Ordinance with a few exceptions due to the site’s constraints. The proposal requests a waiver from a few of the bufferyard requirements, parkway tree requirements, and interior landscaping

requirements. The Petitioner has indicated that they have worked to meet the landscape requirements to the greatest extent possible and focused on making their available bufferyard width and landscaping adequate to buffer views from the residential properties to the west. The requirements of the landscape code are largely designed for new development "green" sites and are more difficult to meet on redevelopment or infill development due to limited site dimensions. When the requirements cannot be met, waivers can be requested, but the goal is to meet the intent of the requirements and create an attractively landscaped site. The total analysis and deficiencies are outlined in the table below.



Landscape Review Table A

Please review the landscape requirements within the following tables on the next page. Deficiencies must be addressed in a revised Landscape Plan. Please note the following abbreviations: CT = Canopy Tree, US = Understory Tree, SH = Shrub, T = Tree.

BUFFERYARD REQUIREMENTS							
Bufferyard Location	Required Width	Proposed Width	Length	Required Plantings	Proposed Plantings	Deficit	Comments
North ("B" Bufferyard)	5'	5'	179'	8 CT 3 US 36 SH	0 CT 0 US 36 SH	-8 CT -3 US -	Overlap of east and west proposed bufferyards excluded.
East ("C" Bufferyard)	10'	10'	206'	11 CT 5 US 42 SH	3 CT 0 US 39 SH	-8 CT -5 US -3 SH	
South ("B" Bufferyard)	5'	5'	179"	8 CT 3 US 36 SH	0 CT 0 US 36 SH	-8 CT -3 US -	Overlap of east and west proposed bufferyards excluded.
West ("D" Bufferyard)	30'	10'	206'	7 CT 4 US 29 SH	7 CT 0 US 67 SH	- -4 US +38 SH	Required plantings reduced by 50% due to proposed fencing. Bufferyard calculations utilize 30' wide requirements.
INTERIOR LOT LANDSCAPING REQUIREMENTS							

Location	Requirement	Proposed	Deficit	Comments
Foundation	Landscape coverage along 70% of building foundation that faces public right-of-way; 10' wide landscaped area	0% (lineal feet)	100% (67 lineal feet)	Total lineal feet of foundation fronting Harlem Ave. = 95'
Interior	4 canopy trees	2	-2 CT	40,873 s.f. of lot area (Audit includes 1 existing tree to remain)

PARKWAY STANDARDS					
Location	Requirement	Required Trees	Proposed Trees	Deficit	Comments
Parkway	1 Tree per 25 Lineal Feet	7	6	-1	Final plans to ensure low mature height trees to not conflict with existing power lines.

PARKING LOT LANDSCAPING STANDARDS				
Location	Requirement	Provided	Deficit	Comments
Parking Lot	15% of parking lot area to be landscaped or 3,291 square feet	1,680 square feet	-1,611 square feet	21,945 s.f. of parking lot shown on landscape plan
Parking Lot	Screening of adjacent properties and streets.	Continuous screening not provided.	-	Bufferyard plantings counted towards continuous screening requirements.
Parking Lot Islands	1 CT and 1 SH per 200 square feet (2 CT and 2 SH required)	1 CT 7 SH	-1 CT +5 SH	NE island = 169 s.f.

Two staff recommendations were utilized in the revised plan including the use of evergreen/spruce along the western buffer to allow for year-round screening of the development from the residents to the west. These trees provide for a better visual and noise buffer between commercial and residential properties. Additionally, trees throughout the site have been "upsized" from the minimum requirements to ensure quicker establishment and growth. The evergreen/spruce trees will be planted at an 8-foot height which will allow for quick maturity and additional screening.

A fence is proposed along the west property line; it will match the fence installed with the 7-Eleven and bank developments. The fence is an eight-foot-high beige PVC fence. This will create a cohesive look along the property line between the commercial and residential developments. PVC fencing has also been preferred between most commercial developments as they require less maintenance to keep a high-quality appearance.

Staff has recognized the difficulty in meeting the Landscape Ordinance requirements for smaller “infill” sites. The Petitioner has met the majority of the Landscape Ordinance, yet these few deficiencies remain due to site constraints. The proposed landscaping is similar to or exceeds the quality of landscaping on surrounding area properties and along Harlem Avenue. The proposed plan provides a plethora of screening (natural and fencing) along the west property line to help buffer views and noise from the residential homes the property adjoins.

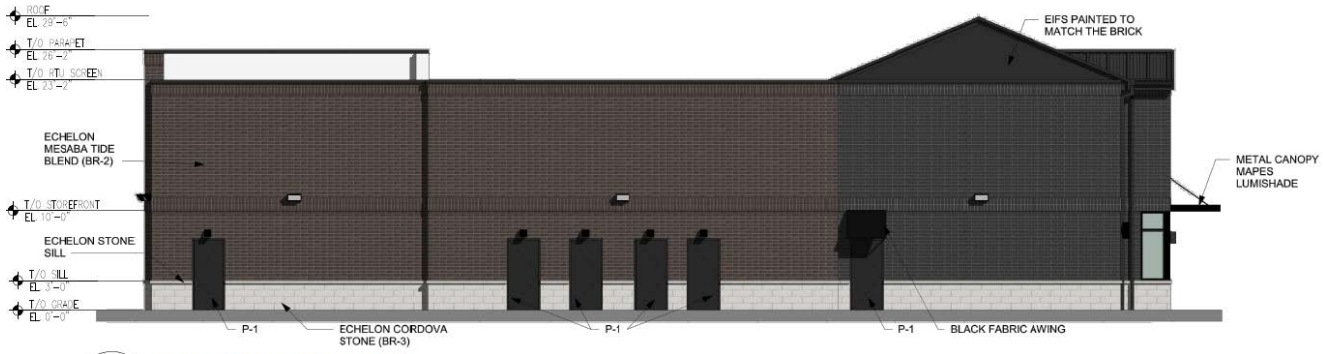
Open Item #3: Discuss the proposed landscape plan and requested Landscape Ordinance waivers.

ARCHITECTURE

The design of the building utilizes high-quality materials, including face brick and a stone base. All mechanical equipment will be screened by the rooftop parapet. The majority of the face brick will be a shade of brown/espresso with the Starbucks portion of the building being a black/gray color brick. The use of different color brick and a different roofline is atypical for one tenant on strip center/outlet properties. However, the Petitioner wishes to differentiate that tenant space since the drive-thru component is likely to mean that it will be an anchor tenant in the future. The front façade does have a small ~6-inch offset to help transition between the different brick colors on the front facade. The proposed structure will have metal architectural canopies on the front façade over windows and doors. The dumpster enclosure is also proposed to match the building’s brick material in color and style.

Open Item #4: Review the proposed architectural design, brick color, rooflines, and materials used throughout the development.





2 WEST ELEVATION

SCALE: 1/8"=1'-0"



3 SOUTH ELEVATION

SCALE: 1/8"=1'-0"



4 NORTH ELEVATION

SCALE: 1/8"=1'-0"



20% PRELIMINARY DESIGN

SIGNAGE

A new monument sign is proposed that will have space for up to five tenants. One of these tenants will be 7-Eleven who will also be dedicating a space on their ground sign for Starbucks. The shared signage between the properties is useful because they will have shared access/entrances and are part of the same PUD. An Exception covered under the PUD allows for this offsite signage for businesses within the same PUD. The new proposed ground sign complies with the size (10 ft.), height, and design requirements of the zoning code and PUD sign regulations. The brick base will match in color to the brick used on the Starbucks portion of the building.



No wall, directional, or drive-thru signage has been proposed at this time. Typically, staff requests to review these signs for any known tenants as part of a new proposal. Specifically, staff has noted that no preview menu board, which is typical of Starbucks, is permitted (code only allows one sign accessory to a drive-thru use). The Petitioner has noted that all other signage except for the primary ground sign will be the responsibility of the tenants. They have noted it is understood by both them and Starbucks that any signage that isn't in compliance with the existing codes may require a separate review and public hearing process to receive approval.

7-Eleven Site

As part of the interconnection of the two sites, the Petitioner has requested to modify the approved sign. In addition to allowing offsite signage within the PUD, an Exception is also requested for an additional one foot in height, for a total of 11 ft. height on the sign. This will allow for the sign to have space for one tenant on the new development in addition to the signage required for the gas station and convenience store. The gas station signage is unique in that it provides changing gas prices. The sign will be the most visible sign at the main intersection near both developments. Due to the increased height the sign also increases to 128 sq. ft. which exceeds the 120 sq. ft. maximum size. The sign will otherwise remain the same general design as originally proposed and meet other zoning code requirements.



Open Item #5: Review the proposed signage and the Exceptions required for the additional one-foot height and size of the ground sign at the intersection of 171st St & Harlem Ave.

PARKING

The petitioner has 7,279 sq. ft. of leasable commercial floor space. With the requirement of 6.5 spaces per 1,000 sq. ft. for planned commercial centers, this requires a total of 47 stalls on the site. A total of 44 parking stalls have been provided on the site resulting in a shortage of three stalls and thereby requiring an Exception as part of the PUD. A *Parking and Traffic Analysis* from their traffic consultant KLOA has been supplied outlining the expected traffic demand and concluding there is adequate parking and drive-thru stacking present in the proposed plan.

Parking for multi-tenant properties is sometimes difficult to predict due to unknown tenant-specific demand and changes in the tenancy over time. Parking requirements, which are already an imperfect science are thus even more difficult to determine. The property owners will have the ability to manage the tenancy to ensure an adequate supply of parking spaces.

Open Item #6: Review the proposed parking and the requested exception to reduce parking requirements by a total of three stalls.

LIGHTING

A new lighting ordinance was recently adopted in September 2019. The lighting plan for the proposed development complies with the new lighting standards with respect to fixture type, illumination intensity, and light intensity at the property lines.

The Petitioner has provided a Photometric Plan that provides lighting via six LED light poles and five LED wall mount fixtures throughout the site. The Photometric Plan indicates light spillage of less than one-foot candle at the roadway and zero at the western property line, which is adjacent to residential uses. All light fixtures are full cutoff and downcast to prevent glare on adjacent properties and roadways. Particular thought was put into the light placement and height (20' pole height) to avoid their visibility from the residential properties to the west.

Open Item #7: Discuss the overall light plan and light fixture placement.

ZONING (MAP AMENDMENT, SPECIAL USE FOR A PLANNED UNIT DEVELOPMENT WITH EXCEPTIONS)

The Petitioner has requested a rezoning from R-1 (Single Family Residential) to B-1 (Neighborhood Commercial) with a Special Use for a Planned Unit Development (PUD). The area along the west side of Harlem Avenue is in transition from residential to commercial uses. The property's adjacency to one of the Village's major commercial corridors (Harlem Avenue) and B-3 (General Business and Commercial) zoning district with the Jewel/Osco center to the east has influenced this transition. Additionally, the Village's Comprehensive Plan identifies this property as a "commercial/office" use. The demolition of blighted residential structures has provided the opportunity to develop new quality commercial uses that are designed to minimize potential impact on residential uses to the west. Per staff recommendation, the Petitioner is seeking a PUD with the underlying B-1 zoning district that will include the recently approved 7-Eleven parcel to the north.

Village code requires a minimum of 5 acres for a Planned unit Development (PUD); the proposed PUD is 1.89 acres. Planned Unit Developments are intended to *encourage the most imaginative and best possible design of building forms and site planning for tracts of land where a unitary plan would best adapt to the natural and physical characteristics of the site. Under this procedure, well planned residential, commercial, industrial, and other types of land use, individually or in combination, may be developed with complete design flexibility. Planned Unit Developments are of such a size and character that they may create their own environment.* The establishment of a minimum size addresses the need to create a distinct environment as in some of the Village's larger PUDs like Brookside Marketplace. While this area does not meet the minimum size requirement, the prominence of the corner, the consistency of design and landscape, the cross-access easements and the request to provide comprehensive signage on each parcel, supports Staff's recommendation to develop the two sites under a common Planned Unit Development.

The proposed underlying B-1 zoning district is often located adjacent to single-family residential development and is among the most restrictive commercial zoning, limiting high-intensity and other objectionable uses (loud noise, smells, tobacco sales, etc.) While restaurants are a permitted use in a B-1 district, drive-thrus are not. The petitioner has identified the Starbucks as the tenant and the drive thru is a critical component of their business. Additionally, a few other uses have been requested as permitted uses, which are not included in the B-1 district. A full list of additional uses requested by the Petitioner is listed below:

- Only one (1) drive thru facility;
- Automotive parts & accessories, no on-site repairs or installation;
- Office Supply and equipment sales; and

- Personal service establishments – which services are performed on premises (ex. spas, massage, 1-on-1 personal training, beauty/makeup/eyebrow threading, weight loss counseling, etc.)

These uses will be considered as part of the PUD request and be included as permitted uses in the PUD ordinance. A complete list of permitted and special uses can be found in Schedule I, page 11 of Section V in the Zoning Ordinance. The PUD ordinance will include all approvals of the previously approved Special Use for the 7-Eleven development.

Open Item # 8: Review the requested zoning district of B-1, the establishment of a PUD and the additional uses requested with the PUD.

Similar to the 7-Eleven development, which included Variations for items such as the lot depth, minimum lot size, and drive aisle widths, the subject site will include Exceptions to the Zoning Code for a number of items. As a PUD these deviations from code are considered 'exceptions' not 'variations' and therefore to not follow the standard findings required of Variations. There are three exceptions related to the size of the parcel (similar to the 7-Eleven parcel). These exceptions to the bulk regulations include lot size, lot width and depth. The exceptions are needed for redevelopment to occur on the site and due to the limited lot area available for the development. The Following Exceptions will be requested as part of the PUD:

- a. Permit a ground sign at the intersection on 17100 Harlem to be 11 ft. high, instead of the maximum of 10ft.
- b. Permit a ground sign at the intersection on 17100 Harlem to be 128 sq. ft. instead of the maximum of 120 sq. ft.
- c. Permit off-site signage for businesses within the PUD to be placed on either of the two permitted ground signs.
- d. Permit 44 parking stalls instead of the minimum requirement of 47 stalls.
- e. Permit a lot size of .938 acres instead of the minimum of 4 acres in the B-1 district.
- f. Permit a lot width of 205.90 ft. instead of the minimum of 600 ft.
- g. Permit a lot depth of 198.52 instead of the minimum of 250 ft.
- h. Permit a front yard setback of 81 ft. instead of the minimum of 125 ft.

Open Item #9: Review the requested Exceptions from the Zoning Ordinance in the PUD.

FINAL PLAT OF SUBDIVISION

The proposed Plat of Subdivision will consolidate two existing lots (17118 and 17130 Harlem Avenue) resulting in a single lot that is .938 acres in size. Existing drainage and utility easements will remain on the property with a new easement where the watermain extension will run. Easements for cross-access to north and south have been included in the Final Plat of Subdivision.

Open Item #10: Review the Plat of Subdivision for recommendation to the Village Board

SUMMARY OF OPEN ITEMS

Staff identified the following open items for discussion at the workshop:

1. Review overall proposed Site Plan, layout, site circulation, and drive-thru stacking and the exceptions required to approve the Site Plan.
2. Staff is recommending the site plan approval be conditioned upon final engineering review and approval.
3. Discuss the proposed landscape plan and requested Landscape Ordinance waivers.
4. Review the proposed architectural design, brick color, rooflines, and materials used throughout the development.
5. Review the proposed signage and the Exceptions required for the additional one-foot height and size of the ground sign at the intersection of 171st St & Harlem Ave.
6. Review the proposed parking and the requested exception to reduce parking requirements by a total of three stalls.
7. Discuss the overall light plan and light fixture placement.
8. Review the requested zoning district of B-1 and the additional uses requested with the PUD.
9. Review the requested Exceptions from the Zoning Ordinance in the PUD.
10. Review the Plat of Subdivision for recommendation to the Village Board.

STANDARDS FOR REZONING APPROVAL

The Zoning Code does not establish any specific criteria that must be met in order for the Village Board to approve a rezoning request. Likewise, Illinois Statutes does not provide any specific criteria. Historically, Illinois courts have used eight factors enunciated in two court cases. The following “LaSalle Standards” have been supplied for the Commission to consider. Staff will prepare draft responses for these conditions within the next Staff Report.

- a. The existing uses and zoning of nearby property;
- b. The extent to which property values are diminished by the particular zoning;
- c. The extent to which the destruction of property values of the complaining party benefits the health, safety, or general welfare of the public;
- d. The relative gain to the public as compared to the hardship imposed on the individual property owner;
- e. The suitability of the property for the zoned purpose;
- f. The length of time the property has been vacant as zoned, compared to development in the vicinity of the property;
- g. The public need for the proposed use; and
- h. The thoroughness with which the municipality has planned and zoned its land use.

STANDARDS FOR PLANNED UNIT DEVELOPMENTS

No Planned Unit Development shall be authorized by the Village Board unless the following standards and criteria are met:

General Provisions For All Planned Unit Developments:

- a. The site of the proposed Planned Unit Development is not less than five (5) acres in area, is under single ownership and/or unified control, and is suitable to be planned and developed, or redeveloped, as a unit and in a manner consistent with the purpose and intent of this Ordinance and with the Comprehensive Plan of the Village;
- b. The Planned Unit Development will not substantially injure, or damage the use, value, and enjoyment of the surrounding property, nor hinder or prevent the development of surrounding property in accordance with the Land Use Plan of the Village;
- c. The uses permitted in the development are necessary or desirable and that the need for such uses has been clearly demonstrated;
- d. The proposed development will not impose an undue burden on public facilities and services, such as sewer and water systems, police, and fire protection;
- e. The proposed development can be substantially completed within the period of time specified in the schedule of development submitted by the developer;
- f. The street system serving the Planned Unit Development is adequate to carry the traffic that will be imposed upon the streets by the proposed development, and that the streets and driveways on the site of the Planned Unit Development will be adequate to serve the residents or occupants of the proposed development;
- g. When a Planned Unit Development proposes the use of private streets, common driveways, private recreation facilities, or common open space, the developer shall provide and submit, as part of the application, the method and arrangement whereby these private facilities shall be operated and maintained;
- h. The general development plan shall contain such proposed covenants, easements, and other provisions relating to the bulk, location, and density of residential buildings, non-residential uses and structures, and public facilities as are necessary for the welfare of the Planned Unit Development and the Village. All such covenants shall specifically provide for enforcement by the Village of Tinley Park in addition to the landowners within the development;
- i. The developer shall provide and record easements and covenants, and shall make such other arrangements as furnishing a performance bond, escrow deposit, or other financial guarantees as may be reasonably be required to assure performance in accordance with the development plan and to protect the public interest in the event of abandonment of said plan before completion; and
- j. Any exceptions or modifications of the zoning, subdivision, or other regulations that would otherwise be applicable to the site are warranted by the design of the proposed development plan, and the amenities incorporated in it, are consistent with the general interest of the public.

STANDARDS FOR A SPECIAL USE

Section X.J.5. of the Zoning Ordinance lists standards that need to be considered by the Plan Commission. The Plan Commission is encouraged to consider these standards (listed below) when analyzing a Special Use request. Staff will provide draft Findings in the Staff Report for the Public Hearing.

X.J.5. Standards: No Special Use shall be recommended by the Plan Commission unless said Commission shall find:

- a. That the establishment, maintenance, or operation of the Special Use will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare;

- b. That the Special Use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood;
- c. That the establishment of the Special Use will not impede the normal and orderly development and improvement of surrounding property for uses permitted in the district;
- d. That adequate utilities, access roads, drainage, and/or other necessary facilities have been or are being provided;
- e. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets; and
- f. That the Special Use shall, in all other respects, conform to the applicable regulations of the district in which it is located, except as such regulations may in each instance be modified by the Village Board pursuant to the recommendation of the Plan Commission. The Village Board shall impose such conditions and restrictions upon the premises benefited by a Special Use Permit as may be necessary to ensure compliance with the above standards, to reduce or minimize the effect of such permit upon other properties in the neighborhood, and to better carry out the general intent of this Ordinance. Failure to comply with such conditions or restrictions shall constitute a violation of this Ordinance.
- g. The extent to which the Special Use contributes directly or indirectly to the economic development of the community as a whole.

It is also important to recognize that a Special Use Permit does not run with the land and instead the Special Use Permit is tied to the Petitioner. This is different from a process such as a variance, since a variance will forever apply to the property to which it is granted. Staff encourages the Plan Commission to refer to Section X.J.6. to examine the conditions where a Special Use Permit will expire.

STANDARDS FOR SITE PLAN & ARCHITECTURAL APPROVAL

Section III.T.2. of the Zoning Ordinance requires that the conditions listed below must be met and reviewed for Site Plan approval. Specific findings are not required but all standards shall be considered to have been met upon review from the Plan Commission.

Architectural

- a. Building Materials: The size of the structure will dictate the required building materials (Section V.C. Supplementary District Regulations). Where tilt-up or pre-cast masonry walls (with face or thin brick inlay) are allowed vertical articulation, features are encouraged to mask the joint lines. Concrete panels must incorporate architectural finishes that comply with "Building Articulation" (Section III.U.5.h.) standards. Cast in place concrete may be used as an accent alternate building material (no greater than 15% per façade) provided there is sufficient articulation and detail to diminish it's the appearance if used on large, blank walls.
- b. Cohesive Building Design: Buildings must be built with approved materials and provide architectural interest on all sides of the structure. Whatever an architectural style is chosen, a consistent style of architectural composition and building materials are to be applied on all building facades.
- c. Compatible Architecture: All construction, whether it be new or part of an addition or renovation of an existing structure, must be compatible with the character of the site, adjacent structures and streetscape. Avoid architecture or building materials that significantly diverge from adjacent architecture. Maintain the rhythm of the block in terms of scale, massing and setback. Where a development includes outlots they shall be designed with compatible consistent architecture with the primary building(s). Site lighting, landscaping and architecture shall reflect a consistent design statement throughout the development.

- d. Color: Color choices shall consider the context of the surrounding area and shall not be used for purposes of “attention getting” or branding of the proposed use. Color choices shall be harmonious with the surrounding buildings; excessively bright or brilliant colors are to be avoided except to be used on a minor scale for accents.
- e. Sustainable architectural design: The overall design must meet the needs of the current use without compromising the ability of future uses. Do not let the current use dictate an architecture so unique that it limits its potential for other uses (i.e. Medieval Times).
- f. Defined Entry: Entrance shall be readily identifiable from public right-of-way or parking fields. The entry can be clearly defined by using unique architecture, a canopy, overhang or some other type of weather protection, some form of roof element or enhanced landscaping.
- g. Roof: For buildings 10,000 sf or less a pitched roof is required or a parapet that extends the full exterior of the building. For buildings with a continuous roof line of 100 feet or more, a change of at least five feet in height must be made for every 75 feet.
- h. Building Articulation: Large expanses of walls void of color, material or texture variation are to be avoided. The use of material and color changes, articulation of details around doors, windows, plate lines, the provision of architectural details such as “belly-bands” (decorative cladding that runs horizontally around the building), the use of recessed design elements, exposed expansion joints, reveals, change in texture, or other methods of visual relief are encouraged as a means to minimize the oppressiveness of large expanses of walls and break down the overall scale of the building into intermediate scaled parts. On commercial buildings, facades greater than 100 feet must include some form of articulation of the façade through the use of recesses or projections of at least 6 inches for at least 20% of the length of the façade. For industrial buildings efforts to break up the long façade shall be accomplished through a change in building material, color or vertical breaks of three feet or more every 250 feet.
- i. Screen Mechanicals: All mechanical devices shall be screened from all public views.
- j. Trash Enclosures: Trash enclosures must be screened on three sides by a masonry wall consistent with the architecture and building material of the building it serves. Gates must be kept closed at all times and constructed of a durable material such as wood or steel. They shall not be located in the front or corner side yard and shall be set behind the front building façade.

Site Design

- a. Building/parking location: Buildings shall be located in a position of prominence with parking located to the rear or side of the main structure when possible. Parking areas shall be designed so as to provide continuous circulation avoiding dead-end parking aisles. Drive-through facilities shall be located to the rear or side of the structure and not dominate the aesthetics of the building. Architecture for canopies of drive-through areas shall be consistent with the architecture of the main structure.
- b. Loading Areas: Loading docks shall be located at the rear or side of buildings whenever possible and screened from view from public rights-of-way.
- c. Outdoor Storage: Outdoor storage areas shall be located at the rear of the site in accordance with Section III.O.1. (Open Storage). No open storage is allowed in front or corner side yards and are not permitted to occupy areas designated for parking, driveways or walkways.
- d. Interior Circulation: Shared parking and cross access easements are encouraged with adjacent properties of similar use. Where possible visitor/employee traffic shall be separate from truck or equipment traffic.
- e. Pedestrian Access: Public and interior sidewalks shall be provided to encourage pedestrian traffic. Bicycle use shall be encouraged by providing dedicated bikeways and parking. Where pedestrians or bicycles must cross vehicle pathways a cross walk shall be provided that is distinguished by a different pavement material or color.

RECOMMENDATION

Following a successful workshop, proceed to a Public Hearing at the May 20, 2021 Plan Commission meeting.



Village of Tinley Park
Community Development Dept.
16250 S. Oak Park Ave.
Tinley Park, IL 60477
708-444-5100

VILLAGE OF TINLEY PARK, ILLINOIS
PLANNING AND ZONING GENERAL APPLICATION

REQUEST INFORMATION

*Additional Information is Required for Specific Requests as Outlined in Specific Addendums

- ☒ **Special Use for:** Drive-thru coffee shop and up to 4 other uses
- ☒ **Planned Unit Development (PUD)** ☐ **Concept** ☐ **Preliminary** ☐ **Final** ☐ **Deviation**
- ☒ **Variation** ☐ **Residential** ☒ **Commercial** for _____
- ☐ **Annexation**
- ☒ **Rezoning (Map Amendment) From** R-1 **to** B-3
- ☒ **Plat (Subdivision, Consolidation, Public Easement)** ☐ **Preliminary** ☐ **Final**
- ☒ **Site Plan**
- ☐ **Landscape Change Approval**
- ☐ **Other:** _____

PROJECT & PROPERTY INFORMATION

Project Name: 17118 S. Harlem Redevelopment

Project Description: 2 to 4 store development w/drive-thru coffee shop

Project Address: 17118 & 17130 S. Harlem Avenue **Property Index No. (PIN):** 27-25-403-015-0000; 27-25-403-016-0000

Zoning District: R-1 **Lot Dimensions & Area:** 206 x 198 (40,994 square feet)

Estimated Project Cost: \$ _____

OWNER OF RECORD INFORMATION

Please supply proper documentation of ownership and/or designated representative for any corporation.

Name of Owner: c/o Mohammed Alzoubi **Company:** Emaar Properties, LLC

Street Address: _____ **City, State & Zip:** _____

E-Mail Address: _____ **Phone Number:** _____

APPLICANT INFORMATION

☐ **Same as Owner of Record**

All correspondence and invoices will be sent to the applicant. If applicant is different than owner, "Authorized Representative Consent" section must be completed.

Name of Applicant: Christopher Ileakis **Company:** 17118 S Harlem Tinley Park LLC

Relation To Project: Developer and contract purchaser

Street Address: _____ **City, State & Zip:** _____

E-Mail Address: _____ **Phone Number:** _____



Village of Tinley Park
Community Development Dept.
16250 S. Oak Park Ave.
Tinley Park, IL 60477
708-444-5100

**VILLAGE OF TINLEY PARK, ILLINOIS
PLANNING AND ZONING GENERAL APPLICATION**

Authorized Representative Consent

It is required that the property owner or his designated representative be present at all requests made to the Plan Commission and Zoning Board of Appeals. During the course of a meeting, questions may arise regarding the overall project, the property, property improvements, special conditions attached to recommendations among other aspects of any formal request. The representative present must have knowledge of the property and all aspects of the project. They must have the authority to make commitments related to the project and property. Failure to have the property owner or designated representative present at the public meeting can lead to substantial delays to the project approval. If the owner cannot be present or does not wish to speak at the public meeting, the following statement must be signed by the owner for an authorized representative.

I hereby authorize 11718 S Harlem Tinley Park LLC (print clearly) to act on my behalf and advise that they have full authority to act as my/our representative in regards to the subject property and project, including modifying any project or request. I agree to be bound by all terms and agreements made by the designated representative.

Property Owner Signature: _____

Property Owner Name (Print): Emaar Properties, LLC

Acknowledgements

- Applicant acknowledges, understands and agrees that under Illinois law, the Village President (Mayor), Village Trustees, Village Manager, Corporation Counsel and/or any employee or agent of the Village or any Planning and Zoning Commission member or Chair, does not have the authority to bind or obligate the Village in any way and therefore cannot bind or obligate the Village. Further, Applicant acknowledges, understands and agrees that only formal action (including, but not limited to, motions, resolutions, and ordinances) by the Board of Trustees, properly voting in an open meeting, can obligate the Village or confer any rights or entitlement on the applicant, legal, equitable, or otherwise.
- Members of the Plan Commission, Zoning Board of Appeals, Village Board as well as Village Staff may conduct inspections of subject site(s) as part of the pre-hearing and fact finding review of requests. These individuals are given permission to inspect the property in regards to the request being made.
- Required public notice signs will be obtained and installed by the Petitioner on their property for a minimum of 10 days prior to the public hearing. These may be provided by the Village or may need to be produced by the petitioner.
- The request is accompanied by all addendums and required additional information and all applicable fees are paid before scheduling any public meetings or hearings.
- Applicant verifies that all outstanding fees and monies owed to the Village of Tinley Park have been paid.
- Any applicable recapture, impact, engineering, contracted review or other required fees and donations shall be paid prior to issuance of any building permits, occupancy permits, or business licenses.
- The Owner and Applicant by signing this application certify that the above information and all supporting addendums and documentation is true and correct to the best of their knowledge.

Property Owner Signature: _____

Property Owner Name (Print): Emaar Properties, LLC

Applicant Signature:
(If other than Owner) _____

Applicant's Name (Print): 11718 S Harlem Tinley Park LLC

Date: 1/7/2021

VILLAGE OF TINLEY PARK

APPLICATION FOR SITE PLAN APPROVAL

PROJECT NAME: 17118 S. Harlem Redevelopment **LOCATION:** 17118 & 17130 S. Harlem Avenue

The undersigned hereby requests that the Plan Commission and/or the Village Board of the Village of Tinley Park, Illinois consider authorizing Site Plan Approval for the project described within.

APPLICANT INFORMATION

Name: Christopher Ileakis

Company: Vequity, LLC - Series XLIX

Mailing Address: [REDACTED]

Phone (Office): [REDACTED]

Phone (Cell): [REDACTED]

Fax: [REDACTED]

Email: [REDACTED]

If the Applicant is not the property owner, describe the nature of the Applicant's interest in the property and/or the relationship to the property owner:

The applicant is the contract purchaser of the property.

PROPERTY INFORMATION

Property Address: 17118 & 17130 S. Harlem Avenue

PIN(s): 27-25-403-015-0000; 27-25-403-016-0000

Existing Land Use: Vacant

Zoning District: R-1

Lot Dimensions: 206 x 198 (40,994 square feet)

Property Owner(s): Mohammed Alzoubi

Mailing Address: 9018 Peachtree Drive, Tinley Park, IL 60487

APPLICATION INFORMATION

Description of proposed project (use additional attachments as necessary):

2 to 4 store development with drive-thru coffee shop.

Is the Applicant aware of any variations required from the terms of the Zoning Ordinance? If yes, please explain and note that a separate Variation Application is required with the submittal.

☐ No ☒ Yes: Special use for drive-thru window

The Applicant certifies that all of the above statements and other information submitted as part of this application are true and correct to the best of his or her knowledge.

[REDACTED]
Signature of Applicant

1/7/2021

Date

VILLAGE OF TINLEY PARK

SITE PLAN APPROVAL CONTACT INFORMATION

PROJECT NAME: 17118 S. Harlem Redevelopment **LOCATION:** 17118 & 17130 S. Harlem Avenue

In order to expedite your site plan submission through the planning process, the Village of Tinley Park requires the following contact information. Please provide the information requested and return to the Planning Department. Your prompt attention is greatly appreciated.

CURRENT PROPERTY OWNER OF RECORD

Name: Mohammad Alzoubi
Company: Emaar Properties
Address: 8818 S. Harlem Ave., Suite 205, Orland Park, IL 60462
Phone: _____
Fax: _____
Email: alzoubi@emaar.ae

PROJECT ARCHITECT

Name: Yousuf Ghori
Company: Ilekis Associates
Address: 888 W. Jackson Blvd., Suite 1000, Chicago, IL 60604
Phone: _____
Fax: _____
Email: _____

PROJECT ENGINEER

Name: Bill Perry
Company: Watermark Engineering
Address: 2631 Ginger Woods Pky, Ste 100, Aurora, IL
Phone: _____
Fax: _____
Email: bperry@watermarkeng.com

PROJECT LANDSCAPE ARCHITECT

Name: _____
Company: Watermark Engineering
Address: 2631 Ginger Woods Pky, Ste 100, Aurora, IL
Phone: _____
Fax: _____
Email: _____

ATTORNEY

Name: David B. Sosin
Company: Sosin & Arnold, Ltd.
Address: Suite 205, 9501 W. 144th Place, Orland Park, IL 60462
Phone: 708.412.8111
Fax: 708.412.8111
Email: _____

END USER

Name: 17118 S Harlem Tinley Park LLC
Company: Coffee shops and tenants to be determined
Address: _____
Phone: _____
Fax: _____
Email: _____

VILLAGE OF TINLEY PARK

SITE PLAN APPROVAL RESPONSIBLE PARTIES

PROJECT NAME: 17118 S. Harlem Redevelopment **LOCATION:** 17118 & 17130 S. Harlem Avenue

Please provide name, address and telephone number of the person/firm that will be responsible for payment of plan review, engineering, landscaping, attorney and building permit fees in the space provided below. If only one party will be responsible for all fees, please list that party's contact information under "General Billing."

GENERAL BILLING

Name: Christopher Ileakis
Company: 17118 S Harlem Tinley Park, LLC
Address: 17118 S Harlem Ave, Chicago, IL 60654
Phone: [REDACTED]
Fax:
Email: [REDACTED]

RESPONSIBLE FOR PLAN REVIEW FEES

Name: Christopher Ileakis
Company: 17118 S Harlem Tinley Park, LLC
Address: 17118 S Harlem Ave, Chicago, IL 60654
Phone: [REDACTED]
Fax:
Email: [REDACTED]

RESPONSIBLE FOR BUILDING PERMIT FEES

Name: Same as above.
Company:
Address:
Phone:
Fax:
Email:

RESPONSIBLE FOR ATTORNEY FEES

Name: Same as above.
Company:
Address:
Phone:
Fax:
Email:

RESPONSIBLE FOR ENGINEERING/ CONSTRUCTION OVERSIGHT FEES

Name: Same as above.
Company:
Address:
Phone:
Fax:
Email:

RESPONSIBLE FOR LANDSCAPE REVIEW FEES

Name: Same as above.
Company:
Address:
Phone:
Fax:
Email:

VILLAGE OF TINLEY PARK, ILLINOIS REZONING (MAP AMENDMENT) ADDENDUM

APPLICATION & SUBMITTAL REQUIREMENTS

A complete application consists of the following items submitted in a comprehensive package. If materials are submitted separately or are incomplete they may not be accepted and may delay the review and meeting dates until a complete application package is received. The following information is being provided in order to assist applicants with the process of requesting a **Map Amendment for Rezoning** from the terms of the Zoning Ordinance. This information is a summary of the application submittal requirements and may be modified based upon the particular nature and scope of the specific request.

Depending upon meeting schedules, legal notification requirements, and the specific type and scope of the request, this process generally takes between 45 to 60 days from the date of submission of a complete application package. Please schedule a pre-application meeting with Planning Department staff to review the feasibility of the proposal, discuss applicable Ordinance requirements, discuss submittal requirements, and receive some preliminary feedback on any concept ideas or plans prior to making a submittal.

☐ General Application form is complete and is signed by the property owner(s) and applicant (if applicable).

☐ Ownership documentation is submitted indicating proper ownership through a title report or title policy. If a corporation or partnership, documentation of the authorized agent must be supplied as well. All beneficiaries of a property must be disclosed.

☐ Response to LaSalle Factors/Criteria listed below.

☐ A written project narrative detailing the general nature and specific aspects of the proposal being requested. Details should include the existing zoning designation, the proposed designation and the intended future use and function of the site. The narrative should describe how the rezoning conforms to the Village's Comprehensive Plan as well as how it works with adjacent and nearby existing and proposed land uses. Any additional requests such as a Site Plan approval, Special Use permit or Variation should be indicated in the narrative as well.

☐ A Plat of Survey of the property, including the legal description, that is prepared by a registered land surveyor and has all up-to-date structures and property improvements indicated.

☐ It is standard practice and policy that zoning is not changed without specific plans for development that can be attached to the zoning change. Site Plan or interior layout plans that indicate how the property and site will be utilized and developed should be submitted and it is likely site plan approval will be required at the same time.

☐ \$750 Map Amendment/Rezoning hearing fee.

LASALLE FACTORS/CRITERIA FOR REZONING (MAP AMENDMENT)

The Zoning Code does not establish any specific criteria that must be met in order for the Village Board to approve a rezoning request. Likewise, Illinois Statutes does not provide any specific criteria. Historically, Illinois courts have used eight factors enunciated in two court cases, LaSalle Bank of Chicago v. Count of Cook (1957) and Sinclair Pipeline v. Village of Richton Park (1960), when evaluating the validity of zoning changes. The so-called “LaSalle factors” are listed below. Village staff and officials will take these factors into consideration when evaluating and deciding rezoning requests. The petitioner should prepare their own responses to the “LaSalle Factors” with factual evidence to defend the requested rezoning. If additional space is required, you may provide the responses on a separate document or page.

- A. The existing uses and zoning of nearby property;**

- B. The extent to which property values are diminished by the particular zoning;**

- C. The extent to which the destruction of property values of the complaining party benefits the health, safety, or general welfare of the public;**

- D. The relative gain to the public as compared to the hardship imposed on the individual property owner;**

- E. The suitability of the property for the zoned purpose;**

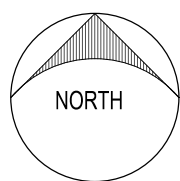
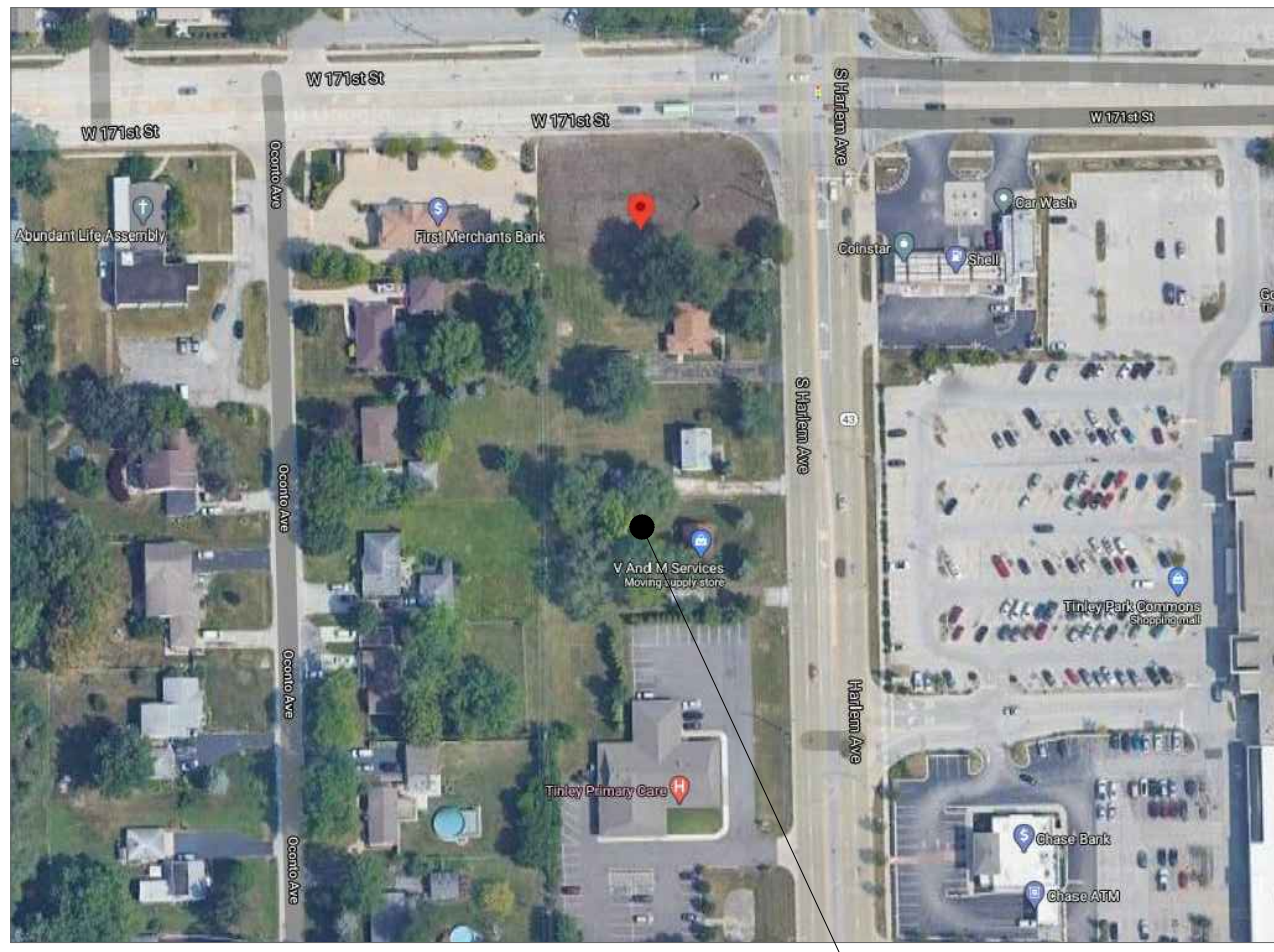
- F. The length of time the property has been vacant as zoned, compared to development in the vicinity of the property;**

- G. The public need for the proposed use; and**

- H. The thoroughness with which the municipality has planned and zoned its land use.**



SITE AND SHELL DEVELOPMENT
17120-17126 S. HARLEM AVE
TINLEY PARK, IL 60477
20% PRELIMINARY DESIGN PACKAGE

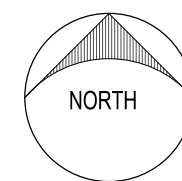
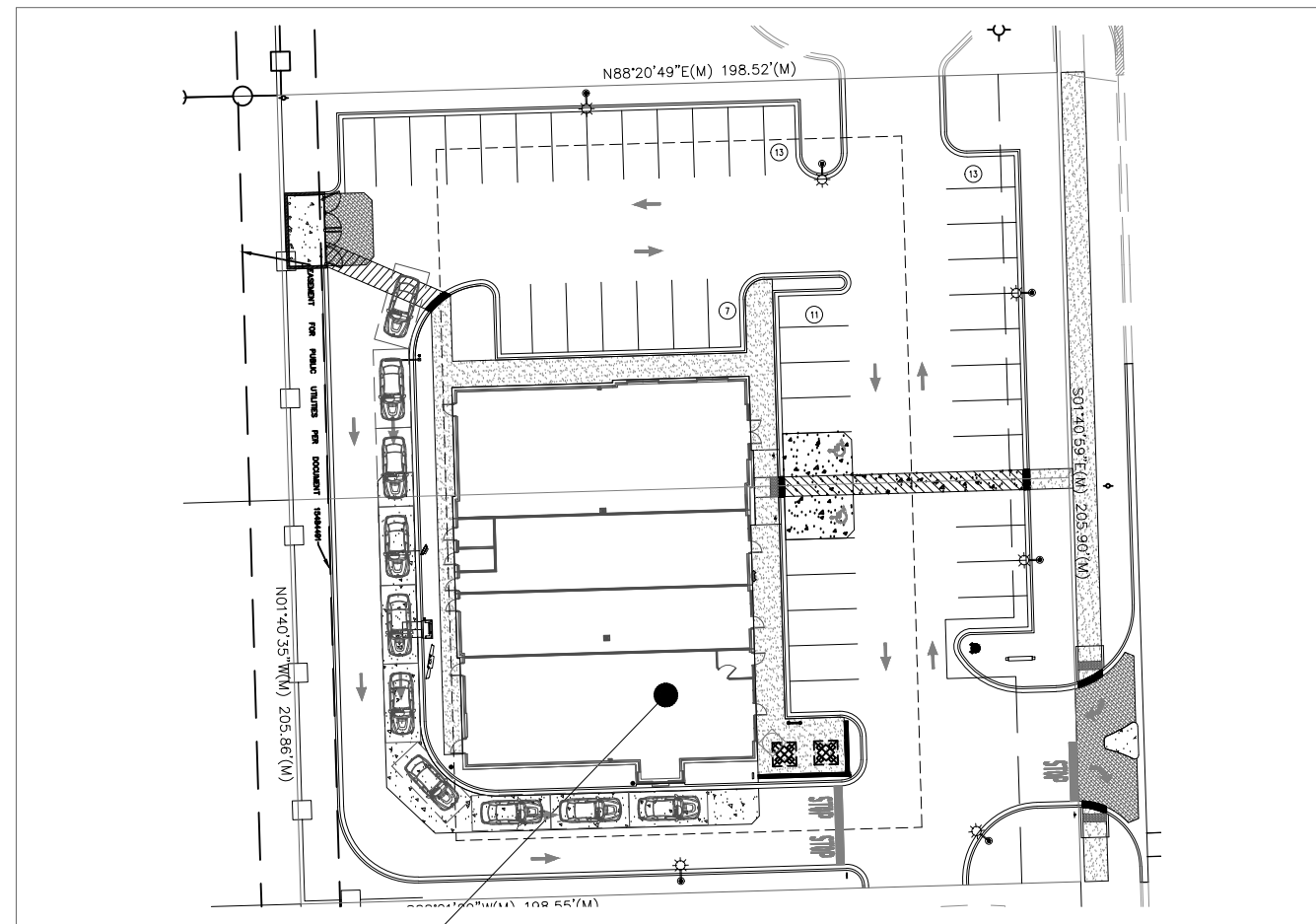


1

VICINITY AERIAL MAP

SCALE: NTS

SCALE: NTS

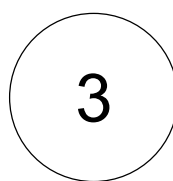


2

PROJECT KEY PLAN

SCALE: NTS

SCALE: NTS



3

PERSPECTIVE VIEW
SCALE: NTS FOR REFERENCE ONLY

SCALE: NTS FOR REFERENCE ONLY

SHEET INDEX

SHEET INDEX						
REVISION						SHEET NAME
6	5	4	3	2	1	
						ARCHITECTURAL
						G0.00 COVER SHEET DRAWING INDEX PROJECT INFO
						G0.01 CODE ANALYSIS AND ADA ACCESSIBILITY GUIDELINES
						G0.02 GENERAL NOTES
						A1.01 SITE PLAN
						A1.02 SITE PLAN DETAILS
						A1.03 PHOTOMETRICS
						L-1 PRELIMINARY LANDSCAPE PLAN
						A1.01 FLOOR PLAN
						A1.02 ROOF PLAN
						A3.01 EXTERIOR ELEVATIONS
						A4.01 BUILDING SECTION

PROJECT DIRECTORY

OWNER

VEQUITY LLC
226 N MORGAN STREET
SUITE 300
CHICAGO, IL 60607
P. 312-985-0987

ARCHITECT OF RECORD

ILEKIS ASSOCIATES
223 WEST JACKSON BLVD.
SUITE 1000
CHICAGO, IL 60606
P. 312-419-0009

CODE SUMMARY

- SEE G0.01 FOR ALL CODE REVIEW AND SUMMARIES.
- SEE G0.01 FOR STANDARD ADA MOUNTING INFO
- SEE G0.02 FOR GENERAL NOTES

DIGGING NOTICE

CONTRACTOR TO VERIFY ALL LOCAL REQUIREMENTS IF
DIGGING IS REQUIRED.

CITY APPROVAL

CLIENT:



Vequity
226 N Morgan Street
Suite 300
Chicago, IL 60607
312-985-0987
Email info@vequity.com
www.vequity.com

PROJECT TEAM:



ILEKIS ASSOCIATES
223 W. JACKSON BLVD.
SUITE 1000
CHICAGO, IL 60606

312-419-0009 www.ILEKIS.com

THESE DOCUMENTS WERE PREPARED UNDER MY
SUPERVISION AND, TO THE BEST OF MY KNOWLEDGE,
COMPLY WITH THE APPLICABLE CODES AND BUILDING
REGULATIONS.
ALPHONSE A. ILEKIS, AIA
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NOTE:

RETAIL BUILDING
PROJECT # 2014-19
20% PRELIMINARY DESIGN
17120-26 S HARLEM
TINLEY PARK, IL 60477

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DATE:	ISSUED FOR:
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04/22/21	ISSUED PER CITY COMMENTS
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03/18/21	ISSUED FOR CLIENT / CITY REVIEW
----------	------------------------------------

COVER SHEET,
DRAWING INDEX
& PROJECT INFO

G0.00

20% PRELIMINARY DESIGN PACKAGE

PATH OF TRAVEL



CODE ANALYSIS

SITE-BUILDING ANALYSIS					
ZONE:		RE-ZONE - B3			
LOT AREA SF:		40,872		SF	
BUILDING AREA SF:		7,422		SF	
BUILDING SETBACKS:			REQUIRED	PROVIDED	VARIANCE
FRONT YARD			25'	79'-8"	
REAR YARD			25'	42'-6 1/2"	
SIDE YARD			10'	75'-4"	
SIDE YARD			10'	28'-5"	
NOTES:					
PARKING CALCULATION					
TENANT	OCCUPANCY	AREA	PARKING/SF	PARKING REQUIRED	
TENANT A	RESTAURANT	2,202	1000/6.5	14.00	
TENANT B	RETAIL USE	1,229	1000/6.5	8.00	
TENANT C	RETAIL USE	1,303	1000/6.5	8.00	
TENANT D	RETAIL USE	2,545	1000/6.5	17.00	
TOTAL BUILDING LEASE AREA			7,279	TOTAL REQUIRED	47
90 Degree STALL : 9'X18.5' ADA STALL: 11' & 5' DRIVE AISLE: ONE WAY 26' TWO WAY			TOTAL PROVIDED	44	
			SURPLUS/(DEFICIT)	(3)	
ADA PARKING SPACES :			5%	REQUIRED	PROVIDED
				2	2
LOADING BERTH:					
BIKE PARKING :					
STACKING PARKING:					

CITY APPROVAL

CLIENT:
vequity | real estate. redefined.

Vequity
226 N Morgan Street
Suite 300
Chicago, IL 60607
312-985-0987
Email info@vequity.com
www.vequity.com

PROJECT TEAM:



ILEKIS ASSOCIATES
223 W. JACKSON BLVD.
SUITE 1000
CHICAGO, IL 60606

312-419-0009 www.ILEKIS.com

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ALPHONSE A. ILEKIS, AIA

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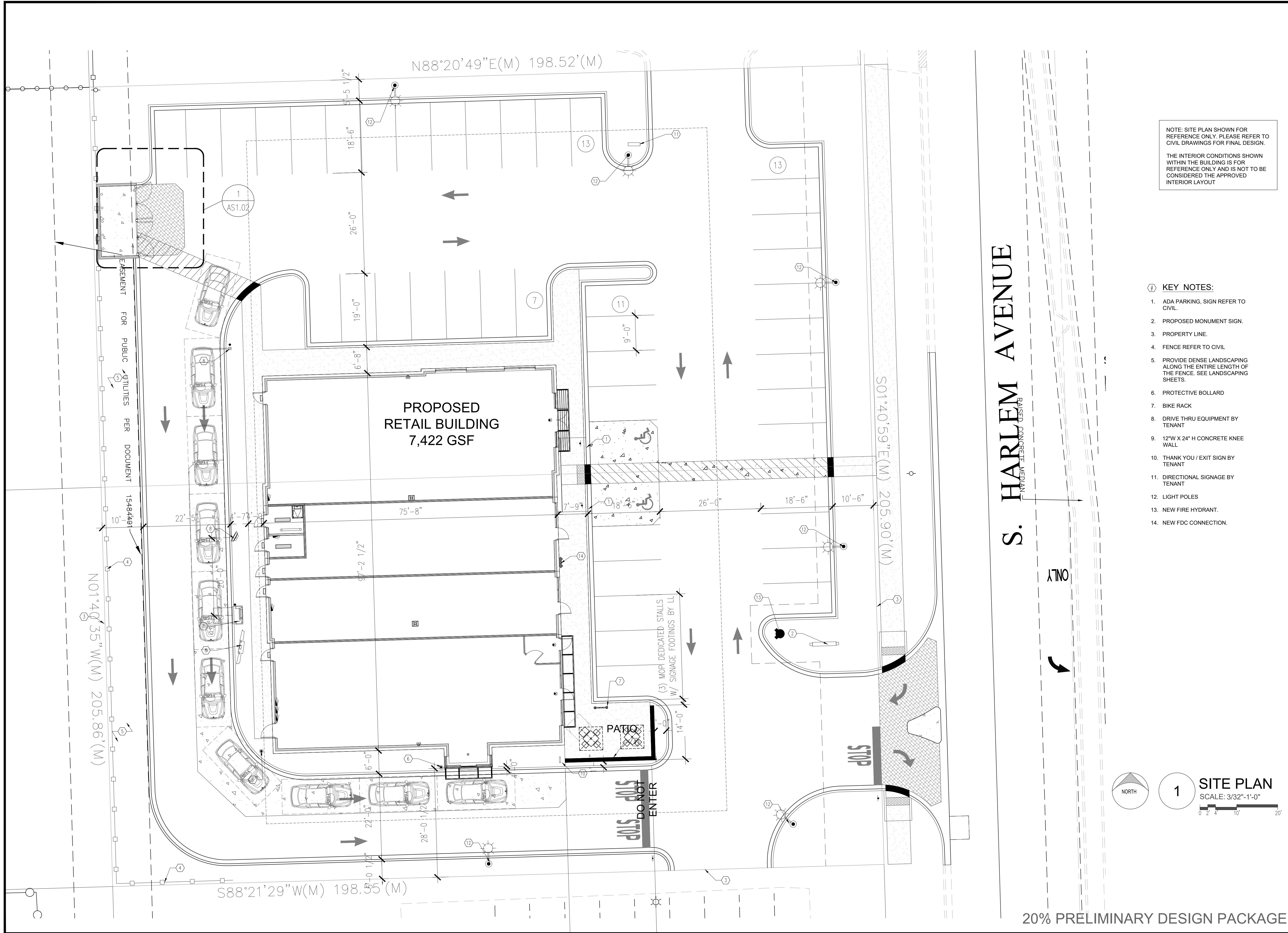
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04/22/21	ISSUED PER CITY COMMENTS
03/18/21	ISSUED FOR CLIENT / CITY REVIEW

CODE ANALYSIS AND ADA ACCESSIBILITY GUIDELINES

G0.01



NOTE: SITE PLAN SHOWN FOR REFERENCE ONLY. PLEASE REFER TO CIVIL DRAWINGS FOR FINAL DESIGN.

THE INTERIOR CONDITIONS SHOWN WITHIN THE BUILDING IS FOR REFERENCE ONLY AND IS NOT TO BE CONSIDERED THE APPROVED INTERIOR LAYOUT

- KEY NOTES:**
1. ADA PARKING, SIGN REFER TO CIVIL.
 2. PROPOSED MONUMENT SIGN.
 3. PROPERTY LINE.
 4. FENCE REFER TO CIVIL
 5. PROVIDE DENSE LANDSCAPING ALONG THE ENTIRE LENGTH OF THE FENCE. SEE LANDSCAPING SHEETS.
 6. PROTECTIVE BOLLARD
 7. BIKE RACK
 8. DRIVE THRU EQUIPMENT BY TENANT
 9. 12"W X 24" H CONCRETE KNEE WALL
 10. THANK YOU / EXIT SIGN BY TENANT
 11. DIRECTIONAL SIGNAGE BY TENANT
 12. LIGHT POLES
 13. NEW FIRE HYDRANT.
 14. NEW FDC CONNECTION.

1 SITE PLAN
SCALE: 3/32"=1'-0"

0 2' 4' 10' 20'

20% PRELIMINARY DESIGN PACKAGE

CITY APPROVAL

CLIENT:

vequity

real estate. redefined.

Vequity

226 N Morgan Street

Suite 300

Chicago, IL 60607

312-985-0987

Email info@vequity.com

www.vequity.com

PROJECT TEAM:

ILEKIS

architects + planners

ILEKIS ASSOCIATES

223 W. JACKSON BLVD.

SUITE 1000

CHICAGO, IL 60606

312-419-0009

www.ILEKIS.com

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NOTE:

RETAIL BUILDING

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20% PRELIMINARY DESIGN

17120-26 S HARLEM

TINLEY PARK, IL 60477

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04/22/21

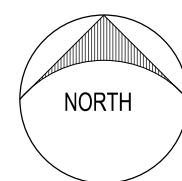
ISSUED PER CITY COMMENTS

03/18/21

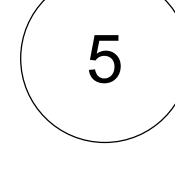

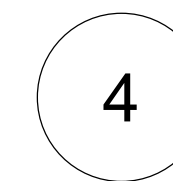
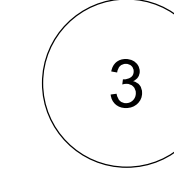
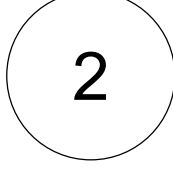
ISSUED FOR CLIENT / CITY REVIEW

SITE PLAN

AS1.01



2
AS102

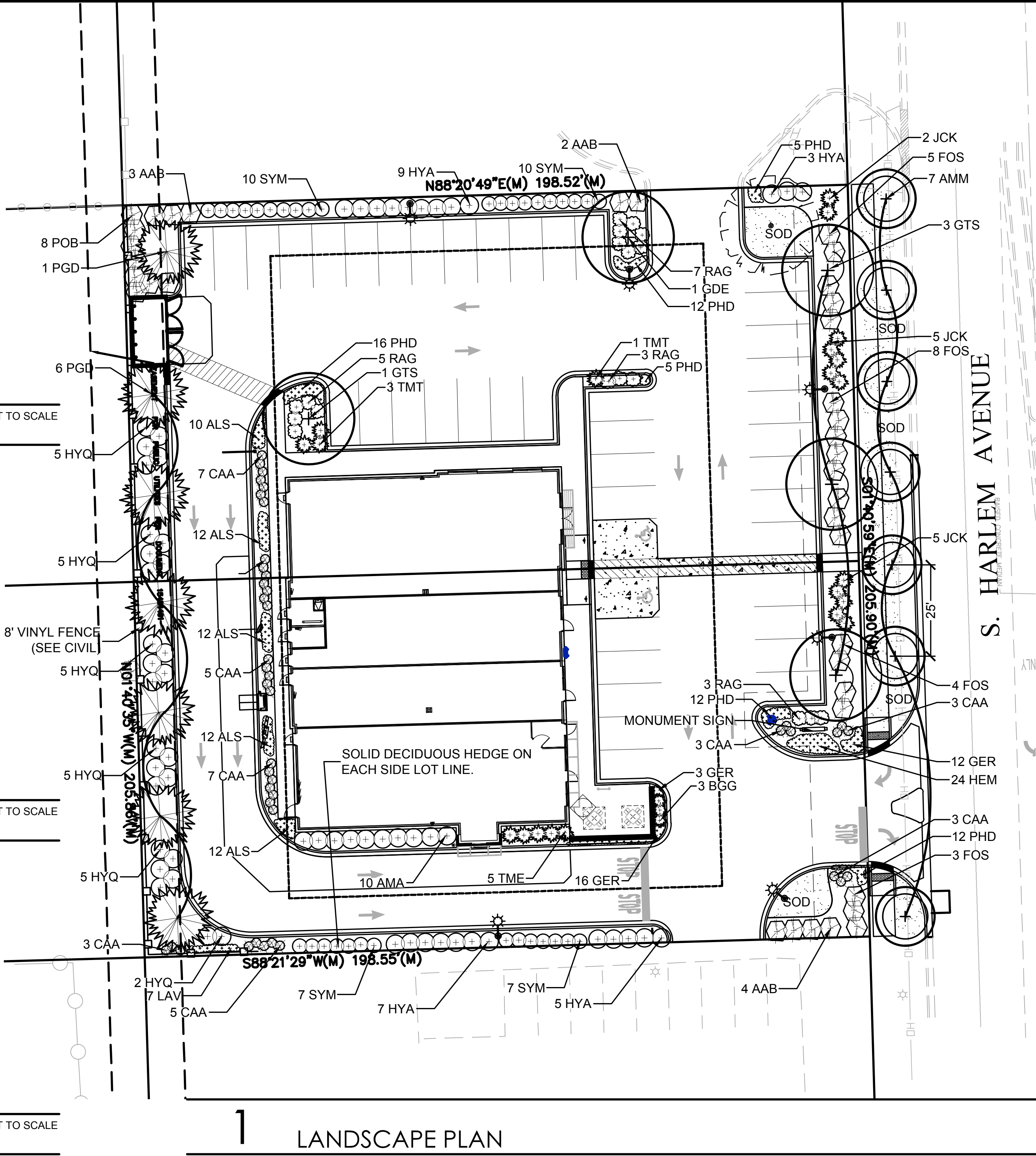
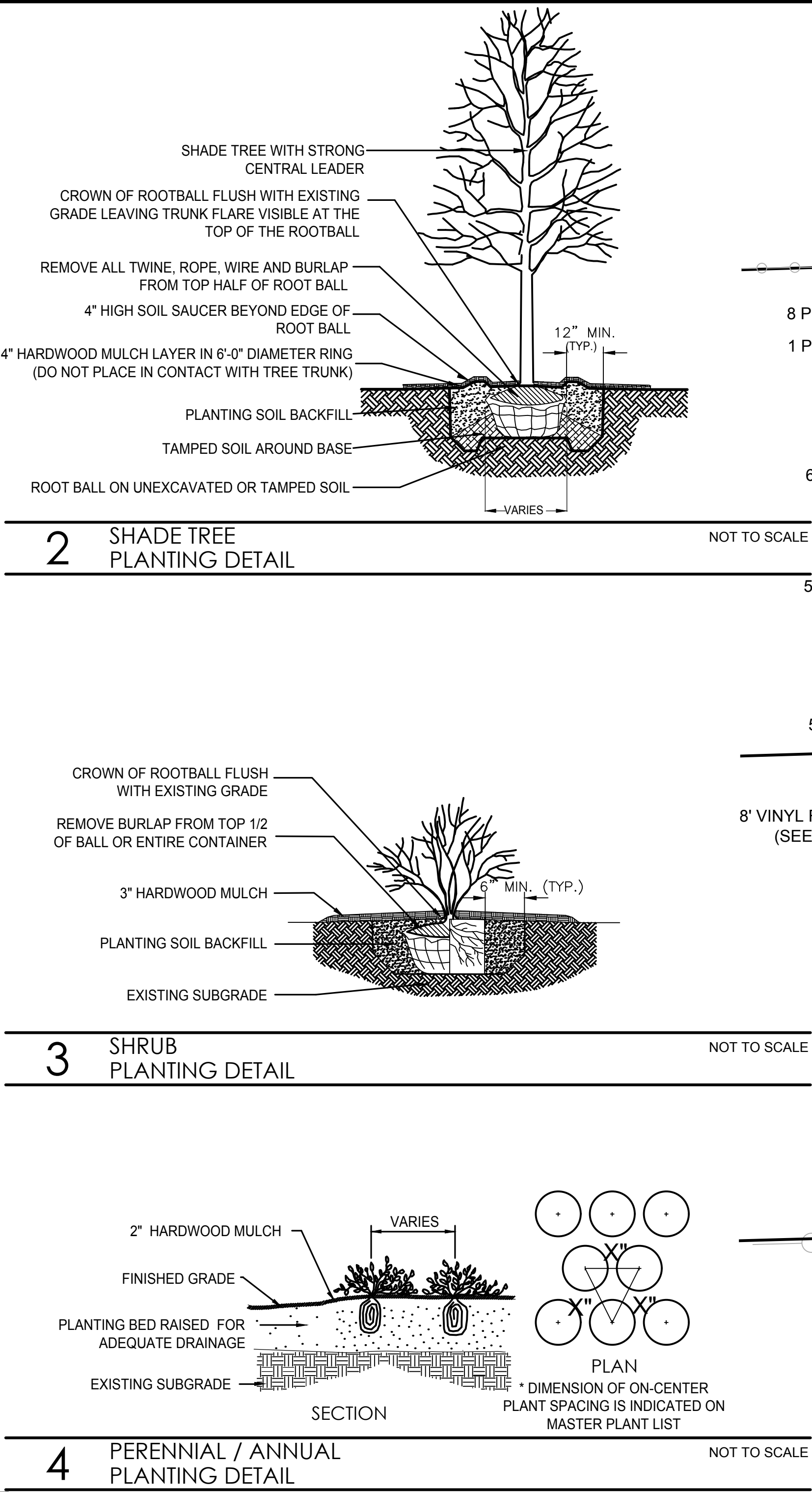


AS1.02

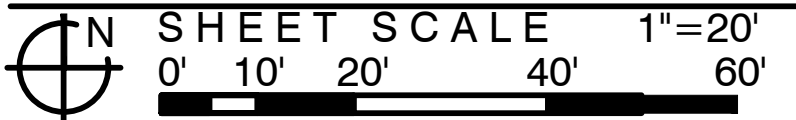
VILLAGE REQUIRED CALCULATIONS			
DESCRIPTION	REQUIREMENT	AREA / LENGTH	DETAILS
TOTAL SITE		40,873 SQ. FT.	
TOTAL BUILDING		7,420 SQ. FT.	
TOTAL PARKING		21,945 SQ. FT.	
PARKING LANDSCAPE	SQUARE FOOTAGE OF PARKING AREA / VEHICLE USE AREA	21,945 SQ. FT.	
PARKING LANDSCAPE	SQUARE FOOTAGE AND PERCENTAGE OF INTERIOR PARKING LOT LANDSCAPE AREA EXPRESSED AS A RATIO TO TOTAL PARKING LOT AREA	5,568 SQ. FT.	5568/21945 = 25.37%
PARKING LOT TREES	NUMBER OF TREES PROVIDED FOR PARKING LOT INTERIOR	3 TREES	2 SHADE TREES
BUFFER AREAS	PLANT QUANTITIES PROVIDED FOR BUFFER STRIPS AND MEDIANS	NORTH=199 L.F.	35 DECIDUOUS SHRUBS 5 PERENNIALS
		WEST=206 L.F.	8' HT. WALL - 160 L.F. 7 SHADE TREES 32 DECIDUOUS SHRUBS
		SOUTH=197 L.F.	36 DECIDUOUS SHRUBS 15 PERENNIALS
		EAST=206 L.F.	3 SHADE TREES 20 DECIDUOUS SHRUBS 12 EVERGREEN SHRUBS 9 ORNAMENTAL GRASSES 27 PERENNIALS
INTERIOR OPEN SPACE	SQUARE FOOTAGE OF INTERIOR OPEN SPACE	7,707 S.F.	
INTERIOR TREES	NUMBER OF TREES ON INTERIOR OPEN SPACES 1 TREE/10,000 SF	4 TREES	11 NEW SHADE TREES

PLANT LIST

[SYM]	[SIZE]	[QTY]	[BOTANICAL NAME]	[COMMON NAME]	[COMMENT]
DECIDUOUS SHADE TREES					
AMM	3.0" CAL.	7	ACER MIYABEI 'MORTON'	STATE STREET MIYABE MAPLE	B&B
GDE	3.0" CAL.	1	GYMNOCLADUS DIOIC. 'ESPRESSO'	ESPRESSO KENTUCKY COFFEETREE	B&B, MALE
GTS	3.0" CAL.	4	GLEDITSIA TRI. 'SHADEMASTER'	SHADEMASTER HONEYLOCUST	B&B
TAM	3.0" CAL.	6	TILIA AMERICANA 'MCKSENTRY'	AMERICAN SENTRY LINDEN	B&B
EVERGREEN TREES					
PGD	8' HT.	7	PICEA GLAUCA DENSATA	BLACK HILLS SPRUCE	B&B
DECIDUOUS SHRUBS					
AAB	36" HT.	9	ARONIA ARBUT. 'BRILLANTISSIMA'	BRILLIANT RED CHOKEBERRY	B&B
AMA	30" HT.	10	ARONIA MELANO. 'ELATA'	ELATA CHOKEBERRY	B&B
FOS	36" HT.	20	FORSYTHIA X INTERMED. 'SUNRISE'	SUNRISE FORSYTHIA	B&B
HYA	30" HT.	24	HYDRANGEA ARBOR. 'ANNABELLE'	ANNABELLE HYDRANGEA	B&B
HYQ	36" HT.	27	HYDRANGEA QUERCIFOLIA 'ALICE'	ALICE OAKLEAF HYDRANGEA	B&B
POB	36" HT.	9	PYHSOCARPUS OPUL. 'DIABOLO'	DIABOLO NINEBARK	B&B
RAG	24" W.	18	RHUS AROMATICA 'GRO-LOW'	GRO-LOW SUMAC	B&B
SYM	30" HT.	34	SYRINGA PATULA 'MISS KIM'	MISS KIM KOREAN LILAC	B&B
EVERGREEN SHRUBS					
BGG	24" W.	10	BUXUS 'GREEN GEM'	GREEN GEM BOXWOOD	B&B
JCK	30" HT.	12	JUNIP. CHIN. 'KALLAY'S COMPACTA'	KALLAY COMPACT JUNIPER	B&B
TMT	30" HT.	4	TAXUS X MEDIA 'TAUNTON'	TAUNTON YEW	B&B
TME	30" W.	5	TAXUS X MEDIA 'EVERLOW'	EVERLOW DENSE YEW	B&B
ORNAMENTAL GRASSES					
CAA	#3 CONT.	43	CALAMAGROSTIS ACUT. 'STRICTUS'	STRICTUS FEATHER REED GRASS	
GROUNDCOVER / PERENNIALS					
ALS	#1 CONT.	58	ALLUM TANGUT. 'SUMMER BEAUTY'	SUMMER BEAUTY WILD ONION	18" O.C.
GER	#1 CONT.	31	GERANIUM 'ROZANNE'	ROZANNE GERANIUM	18" O.C.
HEM	#1 CONT.	24	HEMEROCALLIS 'STELLA DE ORO'	STELLA DE ORO DAYLILY	15" O.C.
LAV	#1 CONT.	7	LAVENDULA 'MUNSTEAD STRAIN'	MUNSTEAD ENGLISH LAVENDAR	24" O.C.
PHD	#1 CONT.	62	PHLOX DIVARICATA	BLUE PHLOX	15" O.C.
SOD	[SQ. YD.]	192	SODDED LAWN		



LANDSCAPE LEGEND



20% PRELIMINARY DESIGN PACKAGE

CITY APPROVAL

CLIENT: **vequity** real estate. redefined.

Vequity
226 N Morgan Street
Suite 300
Chicago, IL 60607
312-985-0987
Email: info@vequity.com
www.vequity.com

PROJECT TEAM:

ILEKIS
architects + planners
ILEKIS ASSOCIATES
223 W. JACKSON BLVD.
SUITE 1000
CHICAGO, IL 60606
312-419-0009 www.ILEKIS.com

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ALPHONSE A. ILEKIS, AIA
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LANDSCAPE ARCHITECT:

LG Workshop LLC
Landscape Architecture
Site Planning
Illustration
2324 W. Armitage Avenue
Chicago, IL 60647
ph. 773.697.4388
www.LGWLA.com

SEAL

EXPIRES 08/2021

NOTE:

RETAIL BUILDING
PROJECT # 2014-19
20% PRELIMINARY DESIGN
17120-26 S HARLEM
TINLEY PARK, IL 60477

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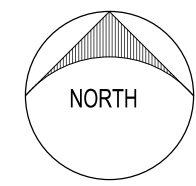
DATE: ISSUED FOR:

04/22/21 ISSUED PER CITY COMMENTS

03/18/21 ISSUED FOR CLIENT / CITY REVIEW

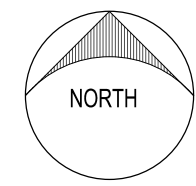
LANDSCAPE PLAN

L-1



A1.01

FLOOR PLAN



SCALE: 3/16" = 1'-0"

Material	Quantity (ft)
Asphalt	1
Gravel	1
Sand	2
Concrete	5



SCALE: $\frac{3}{4}" = 1'-0"$

- 1 ROOF TOP EQUIPMENT
- 2 ROOF ACCESS HATCH
- 3 NEW PRIMARY ROOF DRAIN WITH OVERFLOW
ROOF DRAIN REFER 2/A1.02
- 4 PARAPET WALL KICKERS TYP.
- 5 PREMANUFACTURED OPEN METAL CANOPY
REFER TO ELEVATIONS
- 6 TAPERED CRICKETS AT RTU UNITS. TYP.
- 7 PREFINISHED METAL CAP, REFER TO
ELEVATIONS.
- 8 STANDING SEAM SLOPED METAL ROOF
- 9 CLOSED METAL CANOPY REFER TO
ELEVATIONS

 R.D. ROOF DRAIN, SEE 4/A1.02

 ROOF SLOPE

 SLOPED CRICKET

- ## 20% PRELIMINARY DESIGN PACKAGE

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NOTE:

RETAIL BUILDING
PROJECT # 2014-19
20% PRELIMINARY DESIGN
17120-26 S HARLEM
TINLEY PARK, IL 60477

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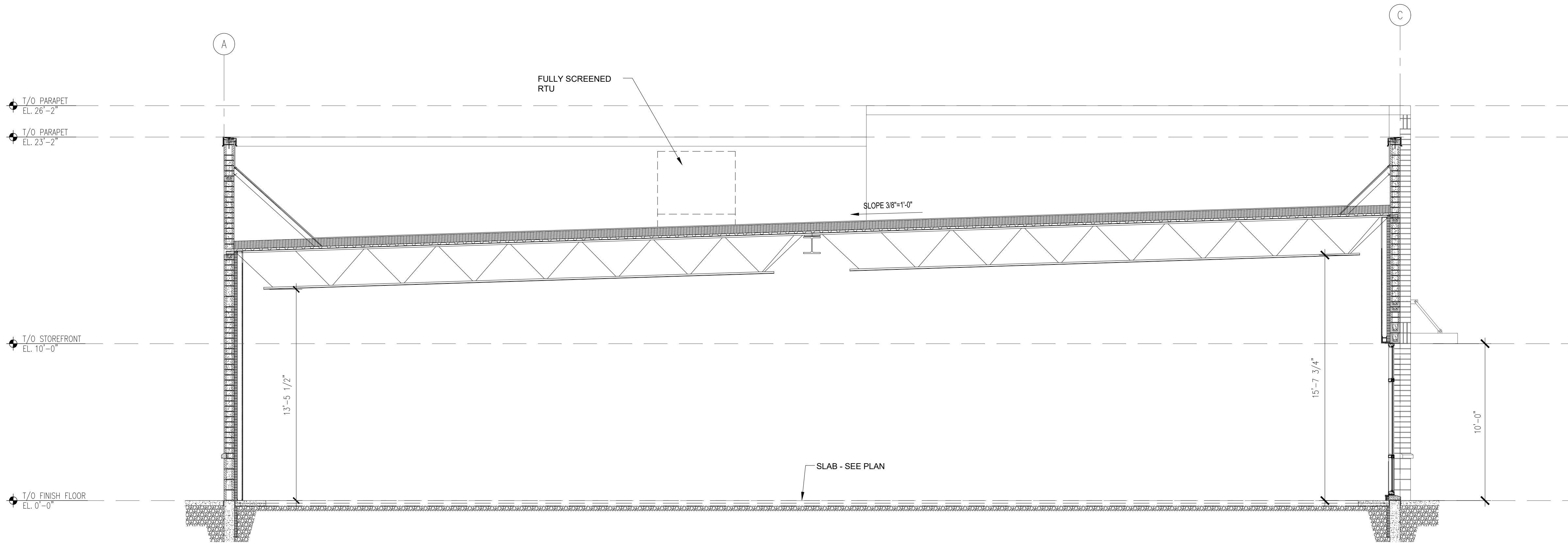
DATE:	ISSUED FOR
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04/22/21	ISSUED PER CITY COMMENTS
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03/18/21	ISSUED FOR CLIENT / CITY REVIEW
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ROOF PLAN

A1.02



1 BUILDING SECTION
SCALE: 1/4"=1'-0"

DATE:	ISSUED FOR:

04/22/21	ISSUED PER CITY COMMENTS
03/18/21	ISSUED FOR CLIENT / CITY REVIEW

RETAIL - TINLEY PARK

PRELIMINARY CIVIL ENGINEERING PLANS 17120-17126 S. HARLEM TINLEY PARK, IL

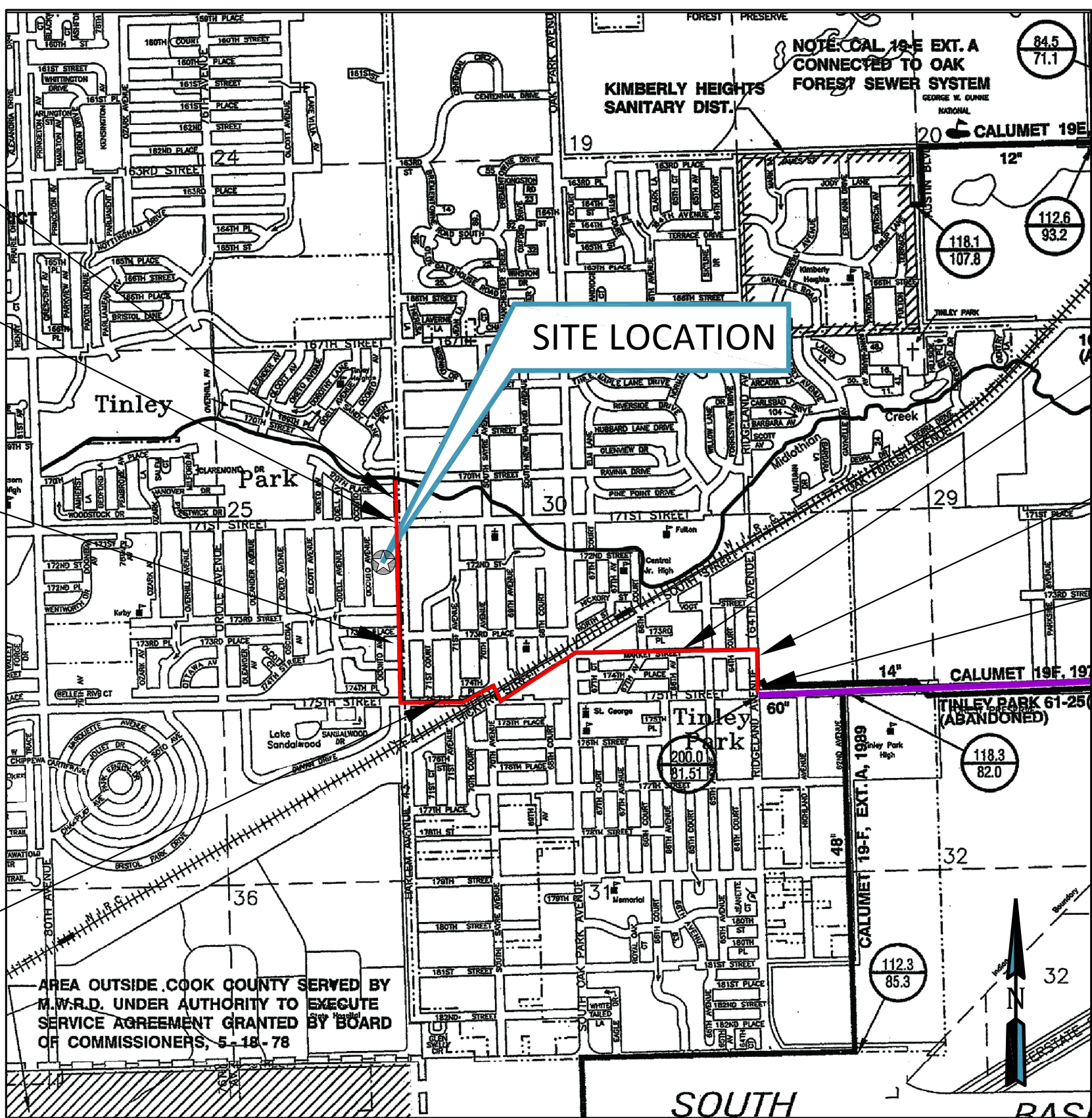
MUNICIPAL/AGENCY APPROVAL STAMP

EXISTING 21" STORM SEWER
(TINLEY PARK) DISCHARGES TO
MIDLOTHIAN CREEK

EXISTING 18" STORM SEWER
(TINLEY PARK)

EXISTING 21" STORM SEWER
(TINLEY PARK)

EXISTING 24" STORM SEWER
(TINLEY PARK)



SITE LOCATION KEY
NOT TO SCALE

EXISTING 27" STORM
SEWER (TINLEY PARK)

EXISTING 36" STORM
SEWER (TINLEY PARK)

EXISTING CONNECTION
TO 60" MWRD
INTERCEPTOR

SHEET INDEX

SHEET NO.	SHEET NAME
C-1	COVER SHEET
C-2	SPECIFICATIONS, NOTES & LEGENDS
C-3	EX COND & DEMO PLAN
C-4	GEOMETRIC PLAN
C-5	GRADING & STM WATER PLAN
C-6	ACCESSIBILITY PLAN
C-7	UTILITY PLAN
C-8	SOIL EROSION CONTROL PLAN
C-9	SOIL EROSION DETAILS & SPECS
C-10	PROJECT DETAILS 1
C-11	PROJECT DETAILS 2
C-12	PROJECT DETAILS 3

SURVEY INFORMATION:

ALTA/NSPS LAND TITLE AND TOPOGRAPHIC SURVEY
SURVEY DATE: 12/17/2020
SURVEY NUMBER: 20.0290

DATUM:
DATUM: NAVD88
ELEVATION = 751.92

REFERENCE BENCHMARK:
NGS DESIGNATION - DK2006
PID - DN4691

STATION IS 39 FEET WEST OF THE CENTERLINE OF WILL/COOK ROAD, 54 FEET SOUTH OF THE CENTERLINE OF 167TH STREET, 10 FEET WEST OF A TRAFFIC SIGNAL HAND HOLE AND 1 FOOT NORTHEAST OF AN ORANGE CARSONITE MARKER. ACCESS TO THE DATUM POINT IS THROUGH A 6 INCH LOGO CAP AND THE ROD (DATUM POINT) IS SURROUNDED BY A FLOATING BRONZE DISK TO AID IN IDENTIFICATION.

BENCHMARK #1:
RAILROAD SPIKE IN SOUTHWEST FACE OF UTILITY POLE
ELEVATION = 704.47

BENCHMARK #2:
TOP OF REBAR IN CONCRETE, SOUTHWEST CORNER OF LOT 4.
ELEVATION = 704.66

BENCHMARK #2:
CROSS CUT ON TRAFFIC SIGNAL MANHOLE.
ELEVATION = 700.19

NOTE: CONTRACTOR(S) TO VERIFY THEY HAVE THE CURRENT PLAN SET PRIOR TO CONSTRUCTION.

Call **811** or Click Before you Dig.
It's a Free Service

CIVIL ENGINEER'S CERTIFICATE

STATE OF ILLINOIS }
COUNTY OF DUPAGE } SS

I, WILLIAM H. PERRY, A LICENSED PROFESSIONAL ENGINEER IN ILLINOIS, HEREBY CERTIFY THAT THESE CIVIL ENGINEERING PLANS, AS LISTED IN THE INDEX, THAT ARE PREFIXED WITH LETTER "C". HAVE BEEN PREPARED BY WEAVER CONSULTANTS GROUP UNDER MY PERSONAL DIRECTION.

WILLIAM H. PERRY, PE DATE

DRAINAGE CERTIFICATE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF OUR KNOWLEDGE AND BELIEF, THE DRAINAGE OF SURFACE WATERS WILL NOT BE CHANGED BY THIS CONSOLIDATION OR THAT, IF SUCH SURFACE WATER DRAINAGE WILL BE CHANGED, REASONABLE PROVISION WILL BE MADE FOR COLLECTION AND DIVERSION OF SUCH SURFACE WATERS INTO PUBLIC AREAS OR DRAINS THAT THE OWNER HAS A RIGHT TO USE, AND THAT SUCH SURFACE WATERS WILL BE PLANNED FOR IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES SO AS TO ELIMINATE THE LIKELIHOOD OF DAMAGE TO ADJOINING PROPERTY OWNERS BECAUSE OF THIS CONSOLIDATION. THE EXISTING OVERLAND FLOW ROUTES WILL CONFORM TO THE ORIGINAL SUBDIVISION GRADING PLAN AND ACCEPTED ENGINEERING DESIGN. SHOULD ANY PONDING OCCUR ON-SITE, IT WILL BE OUR RESPONSIBILITY TO ADDRESS AS PER ALL REQUIREMENTS OF THE VILLAGE'S CODES, ORDINANCES AND REGULATIONS RELATED TO STORMWATER MANAGEMENT, SOIL EROSION CONTROL AND SITE GRADING.

DATED THIS DAY OF , 20

OWNER

ENGINEER



ILLINOIS LICENSED
PROFESSIONAL ENGINEER
NO. 062-055801
LICENSE EXPIRES:
NOVEMBER 30, 2021

DESIGN TEAM CONTACT INFORMATION

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COMPASS
SURVEYING LTD
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PHONE: (630) 820-9100

CIVIL ENGINEER
WEAVER CONSULTANTS GROUP
1316 BOND STREET, SUITE 108
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DESIGN FIRM #: 184004465

Weaver
Consultants
Group

LANDSCAPE ARCHITECT
LG WORKSHOP.LLC
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PH: (773) 697-4388

CITY & UTILITY CONTACT INFORMATION

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16250 S. OAK PARK AVE.
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PH: 708-444-5177
REVIEW ENGINEER: COLBY ZEMAITIS
PH: 708-444-5500

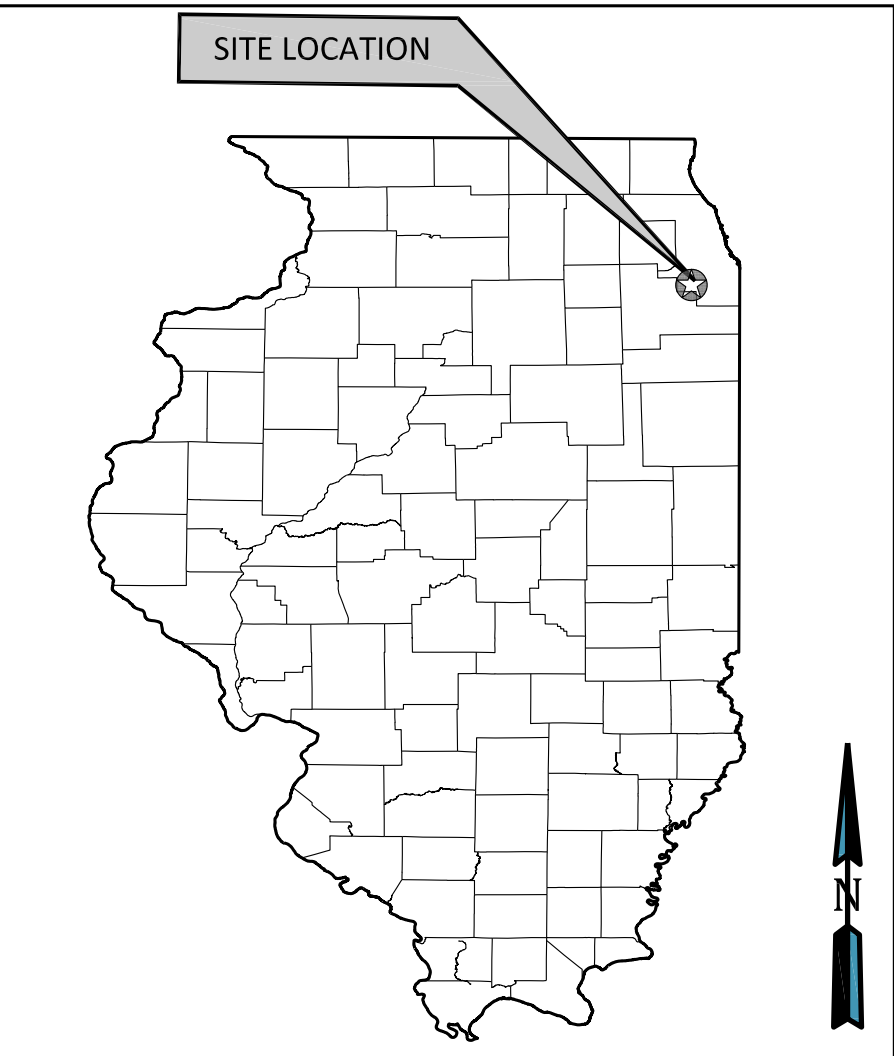
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688 INDUSTRIAL DRIVE
ELMHURST, IL 60126
630-600-6348
FRANK_GAUTIER@CABLE.COMCAST.COM

STATE OF ILLINOIS COOK COUNTY (NOT TO SCALE)

SITE LOCATION



STANDARDS AND SPECIFICATIONS: ALL APPLICABLE REQUIREMENTS OF THE ORDINANCES OF AUTHORITIES HAVING JURISDICTION (INCLUDING BUT NOT LIMITED TO THE STATE AND MUNICIPALITY) SHALL GOVERN THIS WORK.

2. RECORD DRAWINGS: THE OWNER (ENGINEER) IS WEAVER CONSULTANTS GROUP NORTH CENTRAL, LLC (WEAVER). WEAVER'S REPRESENTATIVES MAY OBSERVE THE CONSTRUCTION AND COMMUNICATE WITH THE CONTRACTOR.

3. EXAMINATION OF THE SITE: PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THAT ALL DIMENSIONS AND CONDITIONS AFFECTING THE WORK WITH THE ACTUAL CONDITIONS AT THE JOB SITE. IN ADDITION, THE CONTRACTOR SHALL VERIFY THE EXISTING UTILITIES, INCLUDING BUT NOT LIMITED TO, THE UTILITIES SHOWN FROM WHAT IS SHOWN ON THE CONSTRUCTION PLANS, THE CONTRACTOR SHALL SECURE WRITTEN INFORMATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY OMISSION OR DISCREPANCIES. FAILING TO SECURE SUCH INSTRUCTION, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS OWN RISK AND EXPENSE.

4. CURRENT SET OF PLANS: THE CONTRACTOR SHALL VERIFY THAT THEY ARE WORKING WITH THE CURRENT SET OF PLANS AND SHALL HAVE ONE (1) SIGNED COPY OF THE PLANS AND A COPY OF ANY PERMITS AND EXTENSION AGREEMENTS AT THE JOB SITE AT ALL TIMES. THE CONTRACTOR SHALL ONLY BUILD FROM THE SET OF PLANS LABELED "ISSUED FOR CONSTRUCTION".

5. INDEMNIFICATION: THE CONTRACTOR SHALL INDEMNIFY THE ENGINEER OF RECORD, THE ARCHITECT OF RECORD, THE OWNER AND THE OWNER'S AGENTS, THE MUNICIPALITY AND ALL OTHER AGENCIES FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, AND TESTING OF THE WORK ON THIS PROJECT.

6. TOPOGRAPHIC SURVEY: TOPOGRAPHIC SURVEY INFORMATION SHOWN ON THE PLANS IS PROVIDED FOR INFORMATION PURPOSES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE INFORMATION SHOWN IS CORRECT AND SHALL NOTIFY THE ENGINEER IMMEDIATELY OR ANY ERRORS, DISCREPANCIES OR OMISSIONS TO THE SURVEY INFORMATION PROVIDED. ANY COSTS INCURRED AS THE RESULT OF NOT CONFIRMING THE ACTUAL SURVEY SHALL BE BORNE BY THE CONTRACTOR.

7. UNDERGROUND UTILITIES: THE LOCATION AND DEPTHS OF UTILITIES IS APPROXIMATE. THE ENGINEER AND OWNER ASSUME NO RESPONSIBILITY WHATSOEVER IN RESPECT TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS RELATIVE TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES OR THE MANNER IN WHICH THEY ARE TO BE REMOVED OR ADJUSTED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF UTILITIES. THE CONTRACTOR SHALL ALSO OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES, DETAILED INFORMATION RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULES OF THE UTILITY COMPANIES FOR REMOVING OR ADJUSTING THEM.

8. SUBSURFACE INVESTIGATION: SUBSURFACE EXPLORATION TO ASCERTAIN THE NATURE AND EXTENT OF THE UNDERGROUND UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE SUCH SUBSURFACE INVESTIGATIONS AS DEEMED NECESSARY TO DETERMINE THE NATURE OF THE MATERIAL TO BE ENCOUNTERED. SOME SUBSURFACE EXPLORATION HAS BEEN PERFORMED BY THE GEOTECHNICAL ENGINEER OF RECORD ON THE PROJECT AND IS PROVIDED FOR INFORMATION PURPOSES. THE CONTRACTOR SHALL NOT ASSUME ANY RESPONSIBILITY FOR THE ACCURACY, TRUE LOCATION AND EXTENT OF THE SOILS INFORMATION THAT HAS BEEN PREPARED BY OTHERS. THEY FURTHER DISCLAIM RESPONSIBILITY FOR INTERPRETATION OF THAT DATA BY THE CONTRACTOR, AS IN PROJECTING SOIL BEARING VALUES, ROCK PROFILES, SOILS STABILITY AND THE PRESENCE, LOCATION AND EXTENT OF UNDERGROUND UTILITIES.

9. PERMITS AND LICENSES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL APPLICABLE PERMITS AND LICENSES AS REQUIRED BY STATE AND LOCAL AGENCIES. WHENEVER THE WORK REQUIRES THE OBTAINING OF PERMITS FROM THE GOVERNING AUTHORITIES, THE CONTRACTOR SHALL FURNISH DUPLICATED COPIES OF SUCH PERMITS TO THE DEVELOPER AND ENGINEER BEFORE THE WORK COVERED THEREBY IS STARTED. NO WORK SHALL BE ALLOWED PRIOR TO THE OBTAINING OF SUCH PERMITS.

10. BONDS: PERFORMANCE, PAYMENT AND MAINTENANCE BONDS MAY BE REQUIRED FROM THE CONTRACTOR FOR ALL WORK CONSIDERED TO BE "PUBLIC" IMPROVEMENTS. BONDS SHALL BE IN THE FORM AND IN THE AMOUNTS AS REQUIRED BY THE GOVERNING AGENCIES.

11. SAFETY: WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC DURING ALL PHASES OF CONSTRUCTION ARE REQUIRED. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE SAFETY OF EMPLOYEES ON THE PROJECT AND SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF FEDERAL, STATE, AND MUNICIPAL SAFETY LAWS AND BUILDING CODES. CONTRACTOR SHALL ERECT AND PROPERLY MAINTAIN, AT ALL TIMES, AS REQUIRED, THE CONDITIONS AND PROGRESS OF THE WORK. ALL NECESSARY SAFEGUARDS FOR PROTECTION OF WORKMEN AND THE PUBLIC AND SHALL POST DANGER SIGNS WARNING AGAINST KNOWN OR UNUSUAL HAZARDS.

12. NOTIFICATIONS: A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY ALL AGENCIES HAVING JURISDICTION OVER THE PROJECT, THE ENGINEER OF RECORD, AND THE LOCAL, STATE AND FEDERAL AND LOCATE COMPANY FOR STAKING THE LOCATION OF EXISTING UNDERGROUND UTILITIES.

13. INSPECTIONS: INSPECTION OF THE PROPOSED CONSTRUCTION WILL BE PROVIDED BY THE GOVERNING AUTHORITIES AND/OR THE DEVELOPER OR ASSIGNED AGENTS. THE CONTRACTOR SHALL PROVIDE ASSISTANCE BY PROVIDING EXCAVATION, TRENCH SAFETY, OR OTHER WORK NECESSARY TO FACILITATE INSPECTION AND TESTING. THE CONTRACTOR SHALL PROVIDE ACCESS TO THE SITE IN ADVANCE OF PENDING CONSTRUCTION ACTIVITIES TO THE GOVERNING AUTHORITIES AND/OR DEVELOPER FOR SCHEDULING OF INSPECTION SERVICES. CONTRACTOR SHALL BE RESPONSIBLE FOR THE DETERMINATION OF ANY REQUIRED INSPECTIONS, THE SCHEDULING AND CONTROL OF INSPECTIONS AND THE ACCEPTANCE OF ALL PUBLIC AND/OR PRIVATE UTILITIES BY THE APPROPRIATE GOVERNING AGENCIES PRIOR TO CONSTRUCTION.

14. SHOP DRAWINGS: PROPOSED CONSTRUCTION MATERIALS SHALL BE SUBMITTED TO THE OWNER AND ENGINEER FOR APPROVAL IN ADVANCE OF MOBILIZATION. ANY DEVIATION FROM THE APPROVED CONSTRUCTION MATERIALS LIST MUST BE APPROVED BY THE ENGINEER IN WRITING.

15. CONSTRUCTION DEBRIS: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE FROM THE SITE ANY AND ALL MATERIALS AND DEBRIS WHICH RESULT FROM THE CONSTRUCTION OPERATIONS AT NO ADDITIONAL EXPENSE TO THE OWNER. WHENEVER, DURING CONSTRUCTION OPERATIONS, ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW OF GUTTERS, DRAINAGE STRUCTURES, DITCHES, ETC. SUCH THAT THE NATURAL FLOW LINE OF WATER IS OBSTRUCTED, THE LOOSE MATERIAL WILL BE REMOVED AT THE END OF EACH WORKING DAY AT THE LOCATION OF THE OBSTRUCTION. MATERIALS DEPOSITED IN DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE FROM DIRT AND DEBRIS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

16. SITE DRAINAGE: DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL ENSURE POSITIVE SITE DRAINAGE AT THE CONCLUSION OF EACH DAY. ALL DRAINAGE MAY BE ACCUMULATED IN DITCHES, RUNOFF AREAS, OR OTHER AREAS ACCEPTABLE TO THE ENGINEER.

17. DISPOSITION AND DISPOSAL OF EXCESS MATERIALS: ALL MATERIALS TO BE REMOVED FROM THE SITE, INCLUDING, BUT NOT LIMITED TO EXCESS MATERIALS AND UNSUITABLE MATERIALS SUCH AS CONCRETE, ASPHALT, LARGE ROCKS, REFUSE AND OTHER DEBRIS, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MATERIALS SHALL BE IN STRICT ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL RULES AND REGULATIONS.

18. CONSTRUCTION STAKING: ALL SURVEYING REQUIRED FOR CONSTRUCTION STAKING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE DEVELOPER SHALL PROVIDE THE PROPERTY CORNER STAKES, BENCHMARKS, AND THE ELEVATION OF THE STATION AND VERTICAL DATUM. THE CONTRACTOR SHALL EMPLOY A REGISTERED PROFESSIONAL LAND SURVEYOR TO PERFORM ALL ADDITIONAL SURVEY, LAYOUT AND MEASUREMENT WORK NECESSARY FOR THE COMPLETION OF THE PROJECT. THE CONTRACTOR SHALL VERIFY THE SITE BENCHMARKS' ELEVATION SHOWN ON THE PLANS AND REPORT ANY DISCREPANCIES TO THE ENGINEER AND ENGINEER OF RECORD. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION TRADES SHALL COORDINATE THROUGH THE GENERAL CONTRACTOR USING THE SAME BENCHMARKS FOR VERTICAL CONTROL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE REMOVAL, REPLACEMENT AND REDESIGN OF ANY IMPROVEMENTS CONSTRUCTED PRIOR TO CHECKING HORIZONTAL VERTICAL CONTROL AND PLAN DIMENSIONS AND NOTIFICATION OF ANY DISCREPANCIES TO THE ENGINEER AND ENGINEER OF RECORD. ALL INSTRUMENTS ARE TO BE PROPERLY CALIBRATED PRIOR TO USE.

19. PROPERTY CORNERS: THE CONTRACTOR SHALL PROTECT ALL PROPERTY CORNER MARKERS AND BENCHMARKS, AND WHEN ANY SUCH MARKERS OR MONUMENTS ARE IN DANGER OF BEING DISTURBED, THEY SHALL BE PROPERLY REFERENCED AND IF DISTURBED SHALL BE RESET BY A REGISTERED PROFESSIONAL LAND SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.

20. RECORD DRAWINGS: THE CONTRACTOR IS RESPONSIBLE TO PROVIDE TO THE VILLAGE OF TITUS PARK, ENGINEER OF RECORD AND THE OWNER RECORD DRAWINGS, PREPARED BY A REGISTERED PROFESSIONAL LAND SURVEYOR, OF ALL SITE IMPROVEMENTS. THESE RECORD DRAWINGS SHALL BE PREPARED IN ACCORDANCE WITH THE STATE AND AS-CONSTRUCTED SLOPE GRADES ON THE GRADING PLAN AND ALL AS-CONSTRUCTED GRADES INCLUDING RIMS, INVERTS AND PIPE SLOPES ON THE UTILITY PLAN. THE CONTRACTOR IS ALSO RESPONSIBLE TO MAKE ANY CORRECTIONS AS DETERMINED NECESSARY BY THE ENGINEER, OWNER AND/OR MUNICIPALITY AND UPDATE THE RECORD DRAWINGS ACCORDINGLY.

21. SOIL STABILIZATION: THE CONTRACTOR SHALL COMPLY WITH THE CONDITIONS OF THE EROSION CONTROL SPECIFICATIONS. ALL SOIL SHALL BE STABILIZED PRIOR TO INSTALLATION OF FINAL APPROVAL. SEE LANDSCAPE PLAN FOR DETAILS.

EROSION CONTROL MEASURES: CONTRACTOR SHALL COMPLY WITH THE EROSION CONTROL PLAN INCLUDING, BUT NOT LIMITED TO, PERIMETER SILT FENCE AND INLET PROTECTION, PRIOR TO THE START OF DEMOLITION.

LANDSCAPE PLANS: CONTRACTOR SHALL BE RESPONSIBLE FOR REPORTING ON A CONTINUING BASIS BY THE GEOTECHNICAL ENGINEER FOR CONFORMANCE WITH THE REQUIREMENTS SET FORTH IN THE GEOTECHNICAL REPORT.

UNDISTURBED AREAS: PRIOR TO GRADING, BRUSH REMOVAL, OR SITE CONSTRUCTION, THE CONTRACTOR SHALL MEET WITH THE DEVELOPER AND/OR ENGINEER TO DETERMINE THE AREAS OF THE SITE THAT ARE TO BE PROTECTED AND PRESERVED. REFERENCE TO THE LANDSCAPE PLANS AND TREE PROTECTION PLANS FOR ALL CONSTRUCTION IN THE VICINITY OF EXISTING TREES.

STRIPPING AND DEBRIS REMOVAL: THE BUILDING PAD, SITE AREAS, TO BE PAVED, AND ALL AREAS THAT ARE TO RECEIVE FILL MATERIAL SHALL BE STRIPPED OF VEGETATION, TREES, ROOTS, STUMPS, DEBRIS, AND OTHER ORGANIC MATERIALS. STRIPPING SHALL BE PERFORMED USING A HEAVY TRACKED EXCAVATOR APPROVED BY THE DEVELOPER IF IT HAS BEEN DETERMINED THAT IT CAN BE RE-USED ON THE SITE. ALL TREES INCLUDING STUMPS AND ROOT SYSTEMS, VEGETATION, DEBRIS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OFF-SITE. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS AND REGULATIONS REGARDING THE TRANSPORTING TO DISPOSAL SITE. ALL COSTS ASSOCIATED WITH DISPOSAL OF MATERIAL SHALL BE INCLUDED IN THE CONTRACT AMOUNT.

PROOF ROLLING: UPON COMPLETION OF STRIPPING OPERATIONS, AND PRIOR TO PLACEMENT OF ANY FILL MATERIALS, THE STRIPPED AREAS SHOULD BE OBSERVED TO DETERMINE IF THERE IS ANY REMAINING MATERIAL THAT IS WEAK OR OTHERWISE OBJECTIONABLE MATERIALS THAT WOULD ADVERSELY AFFECT THE FILL PLACEMENT. THE SUB-GRADE SHOULD BE FIRM AND ABLE TO SUPPORT CONSTRUCTION EQUIPMENT WITHOUT DISPLACEMENT. SOFT OR YIELDING SUB-GRADE SHOULD BE CORRECTED AND MADE STABLE BEFORE CONSTRUCTION PROCEEDS. PROOF ROLLING SHOULD BE PERFORMED USING A HEAVY PNEUMATIC TIRE ROLLER, LOAD DUMP TRUCK, OR SIMILAR PIECE OF EQUIPMENT WEIGHING 25 TONS. THE PROOF ROLLING OPERATIONS SHOULD BE OBSERVED BY THE GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE.

CONTROLLED FILL: ALL SOILS USED FOR CONTROLLED FILL SHOULD BE FREE OF ROCKS, STONES, LIMBS, OR OTHER DEBRIS. THE FILL SHOULD BE REPORTED FROM OFF-SITE FOR USE AS FILL SHOULD BE APPROVED BY THE GEOTECHNICAL ENGINEER. THE FILL MATERIAL SHOULD BE PLACED IN LEVEL, UNIFORM LIFTS, WITH EACH LIFT COMPACTED TO THE MINIMUM DRY DENSITY WITHIN THE COMPACTION SOIL MOISTURE RANGES RECOMMENDED. THE LOOSE TO BE COMPACTED SHOULD BE 4" TO 6" DEEP. THE FILL SHOULD BE PROPERLY PLACED, MIXED, SPREAD, AND COMPACTED TO BETWEEN 95 AND 100 PERCENT OF STANDARD PROCTOR DENSITY AS DETERMINED BY ASTM D-698.

SOIL COMPACTION: UNLESS OTHERWISE SPECIFIED BY THE GEOTECHNICAL ENGINEER, WITHIN THE LIMITS OF PROPOSED GRADING, THE SOIL SHALL BE COMPACTED IN 6" MAXIMUM LIFTS OF EITHER SUB-GRADE, BACKFILL OR FILL. THERE SHALL BE NO NOTICES FOLLOWING PERCENTAGES OF MODIFIED PROCTOR DRY DENSITY IN ACCORDANCE WITH ASTM D 1557-78.

UNDER STRUCTURES AND PAVEMENTS: 95% MODIFIED PROCTOR DRY DENSITY.

UNDER PARKWAY OR UNPAVED AREAS: 85% MODIFIED PROCTOR DRY DENSITY.

PROPOSED GRADES: THE PROPOSED CONTOURS INDICATED ON THE GRADING PLAN SHALL BE THE PROPOSED FINISH GRADES. THE SPOT ELEVATIONS SHOWN ARE FINAL GRADES AND ARE NOTED WITH A PREFIX AS IDENTIFIED IN THE LEGEND.

TOLERANCE: ALL SUB-GRADE SHALL BE GRADED TO WITHIN 0.1' +/- OF THE PROPOSED SUBGRADE ELEVATIONS. ALL FINAL GRADES IN LANDSCAPE AREAS SHALL BE WITHIN 0.1' +/- OF THE PROPOSED GRADES AND CONTOUR LINES. SEE SPECIFICATIONS FOR TOLERANCES.

SITE DRAINAGE: DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL ENSURE POSITIVE SITE DRAINAGE AT THE CONCLUSION OF EACH DAY. ALL DRAINAGE MAY BE ACHIEVED BY DITCHING, PUMPING OR OTHER METHODS ACCEPTABLE TO THE ENGINEER.

LANDSCAPE PLANS: CONTRACTOR SHALL REPORT FOR DETAILS AND SPECIFICATIONS. AT A MINIMUM, ALL LANDSCAPE AREAS SHALL BE RESPREAD WITH 4" OF FRIABLE, WOOD FREE, AND ROCK FREE TOPSOIL.

STANDARDS AND SPECIFICATIONS: THE CURRENT EDITION OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" SHALL GOVERN THE WORK.

PAVING CONDITIONS: THE BITUMINOUS MATERIALS SHALL ONLY BE LAID ON A SURFACE WHICH IS DRY AND WHEN THE WEATHER CONDITIONS ARE SUITABLE. THE BITUMINOUS BINDER COURSE SHALL BE PLACED ONLY WHEN THE TEMPERATURE IN THE SHADE IS AT LEAST 45 DEGREES F, WHEN THE TEMPERATURE IN THE SHADE FOR THE PREVIOUS 24 HOURS IS AT LEAST 32 DEGREES F AND WHEN RISING TEMPERATURES ARE FORECAST. THE SURFACE COURSE SHALL BE PLACED ONLY WHEN THE TEMPERATURE IN THE SHADE IS AT LEAST 50 DEGREES F, WHEN THE TEMPERATURE IN THE SHADE FOR THE PREVIOUS 24 HOURS IS AT LEAST 40 DEGREES F, AND WHEN RISING TEMPERATURES ARE FORECAST. ANY PAVEMENT ACTIVITY SHOULD BE STOPPED IN THE EVENT OF RAIN, REGARDLESS OF TEMPERATURE.

SUB-GRADE PREPARATIONS: IN ACCORDANCE WITH THE GOVERNING AUTHORITIES' SPECIFICATIONS AND THE GEOTECHNICAL REPORT, THE SUB-GRADE SHALL BE FIRM, UNIFORM, FREE OF ALL OBSTACLES, PNEUMATIC EQUIPMENT AND ANY SOFT OR PUMPING AREAS SHALL BE EXCAVATED TO FIRM SUB-GRADE AND BACKFILLED AND RE-COMPACTED. PAVEMENT SUB-GRADE SHALL NOT BE ALLOWED TO RETAIN WATER. WEIR MATERIAL SHALL BE REMOVED TO DRY.

INSPECTIONS: PAVEMENT SUB-BASE, BASE AND SURFACE MUST EACH BE INSPECTED BY THE OWNER'S REPRESENTATIVE PRIOR TO THE NEXT PHASE OF WORK. PROOF ROLLING AND NUCLEAR DENSITY TESTING WILL BE UTILIZED IF REQUIRED BY THE OWNER.

CONCRETE TESTING: CONTRACTOR SHALL EMPLOY AN INDEPENDENT TESTING ENGINEER TO VERIFY THE SLUMP, AIR ENTRAINMENT AND PROVIDE (3) CYLINDER SAMPLES FOR EACH DAYS POUR, OR 50 C.Y. OF CONCRETE WHICHEVER OCCURS MORE OFTEN. COPIES OF ALL TEST RESULTS SHALL BE FORWARDED TO THE OWNER'S REPRESENTATIVE FOR APPROVAL.

JOINT SEALANT: JOINT SEALANT SHALL BE A GRAY ELASTOMERIC SILICONE OR POLYURETHANE JOINT SEALANT DESIGNED FOR CONCRETE EXPANSION AND CONTRACTION CONFORMING TO ASTM C920, OR APPROVED EQUAL.

JOINT SEALER: "SCOFIELD" CEMENTITONE CLEAR SEALER OR APPROVED EQUAL SHALL BE APPLIED TO ALL CONCRETE PER MANUFACTURER'S RECOMMENDATIONS.

CURB TAPERS: DUMP SIDEWALK (TAPER) CONCRETE CURBS TO ZERO HEIGHT AT SIDEWALKS. RAMP SIDEWALKS AS REQUIRED TO MEET EXISTING AND PROPOSED ADJACENT GRADES.

CONSTRUCTION TOLERANCE: PAVEMENT SUB-GRADE SHALL BE FINISHED TO 0.10" +/- OF DESIGN SUB-GRADE ELEVATIONS. ALL PROPOSED CURB, SIDEWALK AND PAVEMENT SHALL BE CONSTRUCTED TO WITHIN 0.05" +/- OF THE DESIGN GRADES.

STANDARDS AND SPECIFICATIONS: THE CURRENT EDITIONS OF THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" SHALL GOVERN THE PERFORMANCE OF THE WORK. "TRENCHING" AND "OPEN EXCAVATION" OPERATIONS SHALL COMPLY WITH ALL CURRENT E.S.H. HANDBOOK SPECIFICATIONS.

EXISTING UTILITIES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATIONS AND PROTECTION OF ALL EXISTING UTILITIES SHOWN, ALL EXISTING UTILITIES NOT SHOWN, AND ALL PROPOSED UTILITIES ON THESE PLANS.

TEMPORARY ROADWAY PATCHES: IT IS THE CONTRACTORS RESPONSIBILITY TO MAINTAIN ANY TEMPORARY ROADWAY PATCHES THAT MAY OCCUR IN ORDER TO KEEP A ROADWAY WHILE THE CONSTRUCTION ACTIVITY PROGRESSES, UNTIL SUCH TIME A PERMANENT PATCH CAN BE INSTALLED.

TRENCH BACKFILL IN RIGHT OF WAYS: CARE SHALL BE TAKEN IN PARKWAYS AND SIDEWALKS, WHILE SPECIAL BACKFILL MATERIAL IS NOT REQUIRED, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT AGAINST POTENTIAL FUTURE SETTLEMENTS OF THE BACKFILLED AREAS.

TRENCH BACKFILL: TRENCH BACKFILL MATERIAL (SEE DETAIL), SHALL BE PROVIDED UNDER AND WITHIN TWO FEET OF ALL PROPOSED AND FUTURE SIDEWALK, CURBS AND PAVEMENT.

STRUCTURE BEDDING: ALL STRUCTURE BEDDING SHALL BE COMPACTED CRUSHED STONE OR LIMESTONE MEETING C-6 STANDARDS.

WATER AND SEWER SEPARATION: ALL SEWERS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM THE EXISTING WATER MAIN. THE DISTANCE SHALL BE MEASURED EDGE TO EDGE. ALL SEWERS CROSSING WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL SEPARATION OF 18 INCHES BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER. THIS SHALL BE THE CASE WHERE THE WATER MAIN IS EITHER ABOVE OR BELOW THE SEWER. THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER JOINTS WILL BE EQUIVALENT AND AS FAR AS POSSIBLE FROM THE WATER MAIN. WHERE A WATER MAIN CROSSES UNDER A SEWER, THE EXISTING STRUCTURE SHALL BE PROTECTED FOR THE SEWER TO AVOID DAMAGE TO THE WATER MAIN AND THE SEWER SHALL BE CONSTRUCTED OF WATERMAIN QUALITY MATERIALS FOR 10' ON EITHER SIDE OF THE PIPE. WHEN IT IS IMPOSSIBLE TO OBTAIN PROPER HORIZONTAL AND/OR VERTICAL SEPARATION AS STIPULATED ABOVE, THE SEWER SHALL BE CONSTRUCTED WITH WATERMAIN QUALITY MATERIALS.

TRANSFORMER: THE CONTRACTOR IS RESPONSIBLE FOR THE ELECTRICAL TRANSFORMER CONCRETE PAD PER THE UTILITY COMPANY SPECIFICATIONS.

SEWER LID LETTERING: ALL UTILITY LIDS SHALL HAVE "VILLAGE OF TINLEY PARK" CAST ON THEM. SANITARY SEWER CASTINGS TO BE LETTERED "SANITARY SEWER". ALL STORM SEWER SOLID LID CASTINGS SHALL BE LETTERED "STORM SEWER". ALL WATER CASTINGS TO BE LETTERED "WATER". ALL FINISHES AND LETTERING SHALL MEET ALL MUNICIPAL, STATE AND REGULATORY AGENCY REQUIREMENTS AND SPECIFICATIONS.

FRAME AND GRATES: UNLESS OTHERWISE SPECIFIED ON A DETAIL OR WITHIN MUNICIPAL SPECIFICATIONS, ALL FRAME AND GRATES TO BE:

10.1. STORM STRUCTURES WITH OPEN LIDS IN PAVEMENT: EIJW 1040 FRAME WITH TYPE M1 RADIAL FLAT GRATE, OR APPROVED EQUAL. THE VILLAGE OF TINLEY PARK DOES NOT ALLOW STORM STRUCTURES IN CURB, LID TO BE PLACED IN THE CURB AND 65/27 IN THE PAVEMENT.

10.2. STORM STRUCTURES WITH OPEN LIDS IN LANDSCAPE AREAS: EIJW J527N 2" BEEHIVE GRATE, OR APPROVED EQUAL.

10.3. STORM STRUCTURES WITH CLOSED LIDS: EIJW 1020-A FRAME WITH TYPE A SOLID COVER, OR APPROVED EQUAL.

10.4. WATER VALVES: EIJW 1020-A, OR APPROVED EQUAL.

10.5. SANITARY SEWER: EIJW 1020-A WITH WATERTIGHT LID AND CONCEALED PICK HOLE, OR APPROVED EQUAL.

11. WATER MAIN BURY DEPTH: THE MINIMUM COVER FOR WATER MAIN SHALL BE 2' FROM THE FINISHED GRADE TO THE TOP OF THE MAIN.

CONDUIT AND SLEEVES: ALL UNDERGROUND CONDUIT AND SLEEVES ARE TO BE PLACED BEFORE SITE PAVING. THE MINIMUM COVER FOR ALL CONDUIT SHALL BE A MINIMUM OF 24" BELOW THE BOTTOM OF THE PAVEMENT EXCEPT ELECTRICAL CONDUIT WHICH SHALL BE A MINIMUM OF 36" DEEP. ALL CONDUIT SHALL EXTEND TWO FEET BEYOND THE BACK OF CURB OR EDGE OF SIDEWALK. CONTRACTOR SHALL FURNISH ALL CONDUIT AS NECESSARY FOR UTILITY SERVICES. GAS, TELEPHONE AND ELECTRIC LOCATIONS MAY BE SHOWN ON THE PLAN AS A GUIDE. EXACT LOCATIONS SHALL BE DETERMINED BETWEEN THE CONTRACTOR AND UTILITY COMPANIES.

12. WATER MAIN TESTING: ALL WATER MAINS SHALL BE TESTED FOR PRESSURE AND LEAKAGE IN ACCORDANCE WITH AWWA C600 AND FLUSHED AND DISINFECTED IN ACCORDANCE WITH AWWA C651. ALL VAULTS SHALL BE VACUUM TESTED TO PREVENT INFILTRATION. ALL TESTING FLUSHING AND DISINFECTION SHALL BE WITNESSED AND APPROVED AND SHALL BE IN COMPLIANCE WITH ALL MUNICIPAL, STATE AND REGULATORY AGENCY GUIDELINES, REQUIREMENTS AND SPECIFICATIONS.

13. SANITARY SEWER TESTING: ALL SANITARY SEWER SHALL BE INSPECTED AND TESTED UPON COMPLETION OF INSTALLATION TO THE APPROVAL OF THE MUNICIPALITY AND/OR SANITARY DISTRICT AND IEPA. EXFILTRATION TESTING (LEAKAGE SHALL NOT EXCEED 240 GALLONS PER INCH OF PIPE DIAMETER PER MILE PER DAY) OR AIR TESTING PER ASTM F-1417 (PLASTIC) OR ASTM C-828 (CLAY) AS WELL AS AND DEFLECTION TESTING ARE REQUIRED FOR THE SEWER. LEAKAGE TESTING PER ASTM C-696 (CLAY) OR PER ASTM C-1244 ARE REQUIRED FOR MANHOLES.

14. SEDIMENT REMOVAL: ALL DRAINAGE STRUCTURES, PIPES AND PAVEMENT SURFACES WITHIN THE LIMITS OF CONSTRUCTION SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO FINAL ACCEPTANCE AND AS MAY BE PERIODICALLY REQUIRED DURING THE COURSE OF CONSTRUCTION.

15. FLORED END SECTION GRATES: ALL FLORED END SECTIONS SHALL HAVE GRATES AND THE GROUT SHALL BE TESTED TO THE INTENT OF THE GROUT STANDARD.

16. STEPS IN STRUCTURE: ALL STRUCTURE STEPS SHALL BE GREY CAST IRON ASTM A-48 OR POLYPROPYLENE COATED STEEL REINFORCING RODS WITH LOAD AND PULLOUT RATINGS MEETING OSHA STANDARDS.

PREFERRED SPECIFICATIONS:

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE FOLLOWING EXCEPT AS MODIFIED HEREIN OR ON THE PLANS:

- * STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT SS) FOR ALL IMPROVEMENTS EXCEPT SANITARY SEWER AND WATER MAIN CONSTRUCTION;
- * STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION (SSWS) FOR SANITARY SEWER AND WATER MAIN CONSTRUCTION;
- * VILLAGE OF TINLEY PARK MUNICIPAL CODE;
- * THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO (MWRD) WATERSHED MANAGEMENT ORDINANCE AND TECHNICAL GUIDANCE MANUAL;

IN CASE OF CONFLICT BETWEEN THE APPLICABLE ORDINANCES NOTED, THE MORE STRINGENT SHALL TAKE PRECEDENCE AND SHALL CONTROL ALL CONSTRUCTION.

NOTIFICATIONS:

1. THE MWRD LOCAL SEWER SYSTEMS SECTION FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF ANY WORK (CALL 708-588-4055).
2. THE VILLAGE OF TINLEY PARK ENGINEERING DEPARTMENT AND PUBLIC MUST BE NOTIFIED AT LEAST 24 HOURS PRIOR TO THE START OF CONSTRUCTION AND PRIOR TO EACH PHASE OF WORK.

CONTRACTOR SHALL DETERMINE ITEMS REQUIRING INSPECTION PRIOR TO START OF CONSTRUCTION OR EACH WORK PHASE.

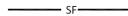
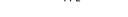
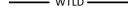
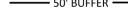
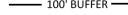
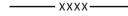
3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION FOR THE EXACT LOCATIONS OF UTILITIES AND FOR THEIR PROTECTION DURING CONSTRUCTION. IF EXISTING UTILITIES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, IMMEDIATELY NOTIFY THE ENGINEER SO THAT THE CONFLICT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

1. ALL ELEVATIONS SHOWN ON PLANS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NA 88). CONVERSION FORMULA IS XXXXXX FT.
2. MWDRD, THE MUNICIPALITY, AND THE OWNER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION IMPROVEMENTS.
3. THE CONTRACTOR(S) SHALL INDEMNIFY THE OWNER, ENGINEER, MUNICIPALITY, MWDRD, AND THEIR AGENTS, ETC., FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, OR MAINTENANCE OF THE IMPROVEMENTS.
4. THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERING PLANS AS APPROVED BY MWDRD AND THE MUNICIPALITY UNLESS CHANGES ARE APPROVED BY MWDRD, THE MUNICIPALITY, OR AUTHORIZED AGENT. THE CONSTRUCTION DETAILS, AS PRESENTED ON THE PLANS, MUST BE FOLLOWED. ANY CONSTRUCTION TECHNIQUES MUST BE FOLLOWED ON THE IMPROVEMENTS INDICATED ON THE PLANS.
5. THE LOCATION OF VARIOUS UNDERGROUND UTILITIES WHICH ARE SHOWN ON THE PLANS ARE FOR INFORMATION ONLY AND REPRESENT THE BEST KNOWLEDGE OF THE ENGINEER. VERIFY LOCATIONS AND DEPTHS PRIOR TO CONSTRUCTION.
6. ANY EXISTING PAVEMENT, SIDEWALK, DRIVEWAY, ETC., DAMAGED DURING CONSTRUCTION OPERATIONS AND NOT CALLED FOR TO BE REMOVED SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.
7. MATERIAL AND COMPACTION TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MUNICIPALITY, MWDRD, AND OWNER.
8. THE UNDERGROUND CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS TO NOTIFY ALL INSPECTION AGENCIES.
9. ALL EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS DISTURBED DURING CONSTRUCTION SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO FINAL INSPECTION.
10. RECORD DRAWINGS SHALL BE KEPT BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER AS SOON AS UNDERGROUND IMPROVEMENTS ARE COMPLETED. FINAL PAYMENTS TO THE CONTRACTOR SHALL BE HELD UNTIL THE ENGINEER RECEIVES ALL NECESSARY INFORMATION FOR A FINAL AS-BUILT BE SHOWN IN RED. ALL WYES OR BENDS SHALL BE LOCATED FROM THE DOWNSTREAM MANHOLE. ALL VALVES, B-BOXES, TEES OR BENDS SHALL BE TIED TO A FIRE HYDRANT.

<p>THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT ANY POLLUTED WATER, SUCH AS GROUND AND SURFACE WATER, FROM ENTERING THE EXISTING SANITARY SEWERS.</p> <p>2. A WATER TIGHT PLUG SHALL BE INSTALLED IN THE DOWNSTREAM SEWER PIPE AT THE POINT OF SEWER CONNECTION PRIOR TO COMMENCING ANY SEWER CONSTRUCTION. THE PLUG SHALL REMAIN IN PLACE UNTIL REMOVAL IS AUTHORIZED BY THE MUNICIPALITY AND/OR MWRD AFTER THE SEWERS HAVE BEEN TESTED AND ACCEPTED.</p> <p>3. DISCHARGING ANY UNPOLLUTED WATER INTO THE SANITARY SEWER SYSTEM FOR THE PURPOSE OF SEWER FLOW TESTING OF LINES FOR THE DEFLECTION TEST SHALL BE PROHIBITED WITHOUT PRIOR APPROVAL FROM THE MUNICIPALITY OR MWRD.</p> <p>4. ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS (LATEST EDITION).</p> <p>5. ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER SYSTEM.</p> <p>6. ALL DOWNSPOUTS AND FOOTING DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM.</p> <p>7. ALL SANITARY SEWER PIPE MATERIALS AND JOINTS (AND STORM SEWER PIPE MATERIALS AND JOINTS IN A COMBINED SEWER AREA) SHALL CONFORM TO THE FOLLOWING:</p>			
PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS	
VITRIFIED CLAY PIPE	ASTM C-700	ASTM C-425	
REINFORCED CONCRETE SEWER PIPE	ASTM C-76	ASTM C-443	
CAST IRON SOIL PIPE	ASTM A-74	ASTM C-564	
DUCTILE IRON PIPE	ANSI A21.51	ANSI A21.11	
POLYVINYL CHLORIDE (PVC)			
PIPE 6-INCH TO 15-INCH DIAMETER SDR 26	ASTM D-3034	ASTM D-3212	
18-INCH TO 27-INCH DIAMETER F/DY=46	ASTM F-679	ASTM D-3212	
HIGH DENSITY POLYETHYLENE (HDPE)			
ASTM D-3035	ASTM D-3350	ASTM D-3261, F-2620 (HEAT FUSION WELD)	
ASTM D-3350	ASTM D-3035	ASTM D-3212, F-477 (GASKETED)	
WATER MAIN QUALITY PVC			
4-INCH TO 36-INCH	ASTM D-2241	ASTM D-3139	
4-INCH TO 12-INCH	AWWA C900	ASTM D-3139	
14-INCH TO 48-INCH	AWWA C905	ASTM D-3139	
<p>THE FOLLOWING MATERIALS ARE ALLOWED ON A QUALIFIED BASIS SUBJECT TO DISTRICT REVIEW AND APPROVAL PRIOR TO PERMIT ISSUANCE. A SPECIAL CONDITION WILL BE ADDED TO THE PERMIT WHEN THE PIPE MATERIAL BELOW IS USED FOR SEWER CONSTRUCTION OR A CONNECTION IS MADE.</p>			
PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS	
POLYPROPYLENE (PP) PIPE			
12-INCH TO 24-INCH DOUBLE WALL	ASTM F-2736	D-3212, F-477	
30-INCH TO 60-INCH TRIPLE WALL	ASTM F-2764	D-3212, F-477	

- ALL SANITARY SEWER CONSTRUCTION (AND STORM SEWER CONSTRUCTION IN COMBINED SEWER AREAS), REQUIRES STONE BEDDING WITH STONE $\frac{1}{4}$ " TO 1" IN SIZE, WITH MINIMUM BEDDING THICKNESS EQUAL TO $\frac{1}{4}$ THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN FOUR (4) INCHES NOR MORE THAN EIGHT (8) INCHES. MATERIAL SHALL BE TYPE 1.5 OR TYPE 1.3 AND SHALL BE SLOTTED AT LEAST 12" ABOVE THE TOP OF THE PIPE WHEN USING PVC.
- NO-SHEAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPES OF DISSIMILAR PIPE MATERIALS.
- ALL MANHOLES SHALL BE PROVIDED WITH BOLTED, WATERTIGHT COVERS. SANITARY LIDS SHALL BE CONSTRUCTED WITH A CONCRETE PICKHOLE AND WATERTIGHT GASKET WITH THE WORD "SANITARY" CAST INTO THE LID.
- WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED:
 - A CIRCULAR SAW-CUT OF SEWER MAIN BY PROPER TOOLS ("SHOWER-TAP" MACHINE OR SIMILAR) AND PROPER INSTALLATION OF HUBWYE SADDLE OR HUB-TIE SADDLE.
 - REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR TEE BRANCH SECTION.
 - WITH PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING, USING "BAND SEAL" OR SIMILAR COUPLINGS TO HOLD IT FIRMLY IN PLACE.
- WHENEVER A SANITARY/COMBINED SEWER CROSSES UNDER A WATERMAIN, THE MINIMUM VERTICAL CLEARANCE FROM THE TOP OF THE "SEWER" TO THE BOTTOM OF THE WATERMAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY/COMBINED SEWERS AND WATERMANS SHALL BE MAINTAINED UNLESS: THE SEWER IS LAID IN A SEPARATE TRENCH, KEEPING A MINIMUM 18" VERTICAL SEPARATION; OR THE SEWER IS LAID IN THE SAME TRENCH WITH THE WATERMAIN LOCATED AT THE OPPOSITE SIDE ON A BENCH OR CREST. UNLESS THE MINIMUM 18" VERTICAL SEPARATION OR 10' HORIZONTAL SEPARATION IS MAINTAINED, THE VERTICAL OR HORIZONTAL DISTANCES DESCRIBED ABOVE SHALL BE MAINTAINED, OR THE SEWER CROSSES ABOVE THE WATER MAIN, THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN STANDARDS OR IT SHALL BE ENCASED WITH A WATER MAIN QUALITY CARRIER PIPE WITH THE ENDS SEALED.
- ALL ON-LOT SEPTIC SYSTEMS SHALL BE ABANDONED. ABANDONED TANKS SHALL BE FILLED WITH GRANULAR MATERIAL OR REMOVED.
- ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES, AND SHALL BE CAST IN PLACE OR PRE-CAST REINFORCED CONCRETE.
- ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE PRECAST RUBBER GASKETS THAT CONFORM TO ASTM C-923 FOR ALL PIPE CONNECTIONS. PRECAST SECTIONS SHALL CONSIST OF MODIFIED GROOVE TONGUE AND RUBBER GASKET TYPE JOINTS.
- ALL ABANDONED SANITARY SEWERS SHALL BE PLUGGED AT BOTH ENDS WITH AT LEAST 2 FEET LONG NON-SHRINK CONCRETE OR MORTAR PLUG.
- EXCEPT FOR DETENTION BASINS, DRAIN PREVENTERS SHALL BE PROVIDED TO PROTECT BUILDINGS, OR PERFORATED PIPES ASSOCIATED WITH VOLUME CONTROL FACILITIES, DRAIN TILES/FIELD TILES/UNDERDRAINS/PERFORATED PIPES ARE NOT ALLOWED TO BE CONNECTED TO OR TRIBUTARY TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS IN COMBINED SEWER AREAS. CONSTRUCTION OF NEW FACILITIES OF THIS TYPE IS PROHIBITED; AND ALL EXISTING DRAIN TILES AND PERFORATED PIPES ENCOUNTERED WHILE EXCAVATING SHALL BE PLUGGED OR REMOVED. PIPES SHALL NOT BE CONNECTED TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS.
- A BACKFLOW PREVENTER IS REQUIRED FOR ALL DETENTION BASINS TRIBUTARY TO COMBINED SEWERS. REQUIRED BACKFLOW PREVENTERS SHALL BE INSPECTED AND EXERCISED ANNUALLY BY THE PROPERTY OWNER TO ENSURE PROPER OPERATION, AND ANY NECESSARY MAINTENANCE SHALL BE PERFORMED TO ENSURE THE FUNCTIONALITY. IN THE EVENT OF A SEWER SURCHARGE INTO AN OPEN DETENTION BASIN TRIBUTARY TO COMBINED SEWERS, THE PERMITTEE SHALL ENSURE THAT CLEAN UP AND WASH OUT OF SEWAGE TAKES PLACE WITHIN 48 HOURS OF THE STORM EVENT.

1. THE CONTRACTOR SHALL INSTALL THE EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
2. EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE FUNCTIONAL PRIOR TO HYDROLOGIC DISTURBANCE OF THE SITE.
3. ALL DESIGN CRITERIA, SPECIFICATIONS, AND INSTALLATION OF EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL.
4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
5. INSPECTIONS AND DOCUMENTATION SHALL BE PERFORMED, AT A MINIMUM:
 - 5.1. PRIOR TO COMPLETION OF INITIAL EROSION AND SEDIMENT CONTROL MEASURES, PRIOR TO ANY SOIL DISTURBANCE.
 - 5.2. ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT WITH GREATER THAN 0.5 INCH OF RAINFALL OR LIQUID EQUIVALENT PRECIPITATION.
6. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. IF STRIPPING, CLEARING, GRADING, OR LANDSCAPING ARE TO BE DONE IN PHASES, THE CO-PERMITTEE SHALL PLAN FOR APPROPRIATE SOIL EROSION AND SEDIMENT CONTROL MEASURES.
7. A STABILIZED MAT OF CRUSHED STONE MEETING THE STANDARDS OF THE ILLINOIS URBAN MANUAL SHALL BE INSTALLED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE. SEDIMENTATION REACHING AN IMPROVED PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.
8. CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL AND SHALL BE INSTALLED PRIOR TO ANY ON SITE CONSTRUCTION ACTIVITIES INVOLVING CONCRETE.
9. MORTAR WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ADDITION TO CONCRETE WASHOUT FACILITIES FOR ANY BRICK AND MORTAR BUILDING ENVELOPE CONSTRUCTION ACTIVITIES.
10. TEMPORARY DIVERSIONS SHALL BE CONSTRUCTED AS NECESSARY TO DIRECT ALL RUNOFF FROM HYDROLOGICALLY DISTURBED AREAS TO AN APPROPRIATE SEDIMENT TRAP OR BASIN. VOLUME CONTROL FACILITIES SHALL NOT BE USED AS TEMPORARY SEDIMENT BASINS.
11. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) DAYS.
12. ALL FLOOD PROTECTION AREAS AND VOLUME CONTROL FACILITIES SHALL, AT A MINIMUM, BE PROTECTED WITH A DOUBLE-ROW OF SILT FENCE (OR EQUIVALENT).
13. VOLUME CONTROL FACILITIES SHALL NOT BE CONSTRUCTED UNTIL ALL OF THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
14. SOIL STOCKPILES SHALL, AT A MINIMUM, BE PROTECTED WITH PERIMETER SEDIMENT CONTROLS. SOIL STOCKPILES SHALL NOT BE PLACED IN FLOOD PROTECTION AREAS OR THEIR BUFFERS.
15. EARTHEN EMBANKMENT SIDE SLOPES SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL BLANKET.
16. STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY APPROPRIATE SEDIMENT CONTROL MEASURES.
17. THE CONTRACTOR SHALL EITHER REMOVE OR REPLACE ANY EXISTING DRAIN TILES AND INSTALL THE DRAINAGE SYSTEM FOR THE DEVELOPMENT. DRAIN TILES ALLOWED CANNOT BE TRIBUTARY TO A SANITARY OR COMBINED SEWER. DRAIN TILES ALSO IN COMBINED SEWER AREA FOR GREEN INFRASTRUCTURE PRACTICES.
18. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. DEWATERING SYSTEMS SHALL BE INSPECTED DAILY DURING OPERATIONAL PERIODS. THE SITE INSPECTION MUST BE PERFORMED AT THE COMMENCEMENT OF DEWATERING ACTIVITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRENCH DEWATERING AND EXCAVATION FOR THE INSTALLATION OF SANITARY SEWERS, STORM SEWERS, WATERMANS AS WELL AS THEIR SERVICES AND OTHER APPURTENANCES. ANY TRENCH DEWATERING, WHICH CONTAINS SEDIMENT SHALL PASS THROUGH A SEDIMENT SETTLING POND OR EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE. ALTERNATIVES MAY INCLUDE DEWATERING INTO A PIT, FILTER BAG OR EXISTING VEGETATED SLOPE AREA. SEDIMENT LADEN WATER SHALL NOT BE DISCHARGE TO WATERWAYS, FLOOD PROTECTION AREAS OR THE COMBINED SEWER SYSTEM.
19. ALL PERMANENT EROSION CONTROL PRACTICES SHALL BE INITIATED WITHIN SEVEN (7) DAYS FOLLOWING THE COMPLETION OF SOIL DISTURBING ACTIVITIES.
20. THE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND REPAIRED AS NEEDED ON A YEAR-ROUND BASIS DURING CONSTRUCTION AND ANY PERIODS OF CONSTRUCTION SHUTDOWN UNTIL PERMANENT STABILIZATION IS ACHIEVED.
21. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER PERMANENT SITE STABILIZATION.
22. THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER, SITE INSPECTOR, OR MWRD.

	FLAG POLE		ORNAMENTAL METAL FENCE
	SIGN		WOOD FENCE
	SIGN IN BOLLARD		CONSTRUCTION SITE FENCE
	DOUBLE FACED SIGN IN BOLLARD		SILT FENCE
	BOLLARD		GUARDRAIL
	PARKING LOT LIGHT POLE		MINOR CONTOUR
	WALL SCONCE		MAJOR CONTOUR
	GREASE TRAPS		HIGH WATER LINE
	SANITARY MANHOLE		NORMAL WATER LINE
	SANITARY CLEANOUT		FLOODPLAIN
	SEWER CLEANOUT		FLOODWAY
	STORM SEWER CB/ INLET		WETLAND
	STORM MANHOLE		50' BUFFER
	FLARED END SECTION		100' BUFFER
	DOWNSPOUT/ ROOF DRAIN AT GRADE		DEMO
	DOWNSPOUT/ ROOF DRAIN CONNECTION		TREE PROTECTION FENCE
	WATER VAULT		OVERHEAD ELECTRIC
	FIRE HYDRANT		UNDERGROUND ELECTRIC
	B-BOX/ WATER VALVE		CABLE/TV
	PRESSURE CONNECTION		FIBER OPTIC LINE
	SPIGOT / IRRIGATION STUB		GAS LINE
	GAS METER		WATER MAIN
	GAS VALVE		STORM SEWER PIPE
	PROPOSED OVERLAND FLOW ROUTE		SANITARY SEWER PIPE
	FLOW ARROW (PAVEMENT)		COMBINED SEWER PIPE
	FLOW ARROW (LANDSCAPE)		
	ELECTRIC METER		
	ELECTRIC TRANSFORMER		
	CABLE TV STRUCTURE		
	FIBER OPTIC STRUCTURE		
	TELEPHONE STRUCTURE		

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RETAIL - TINLEY PARK

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SPECIFICATIONS, NOTES & LEGENDS

BY	REVISION DESCRIPTION	DATE	NO.
KMP	PER VILLAGE COMMENT	04/22/2021	1

DESIGNED BY: BP KMP

REVIEWED BY: BP

DATE: 03/17/2021

PRI#: 4523-329-32-0

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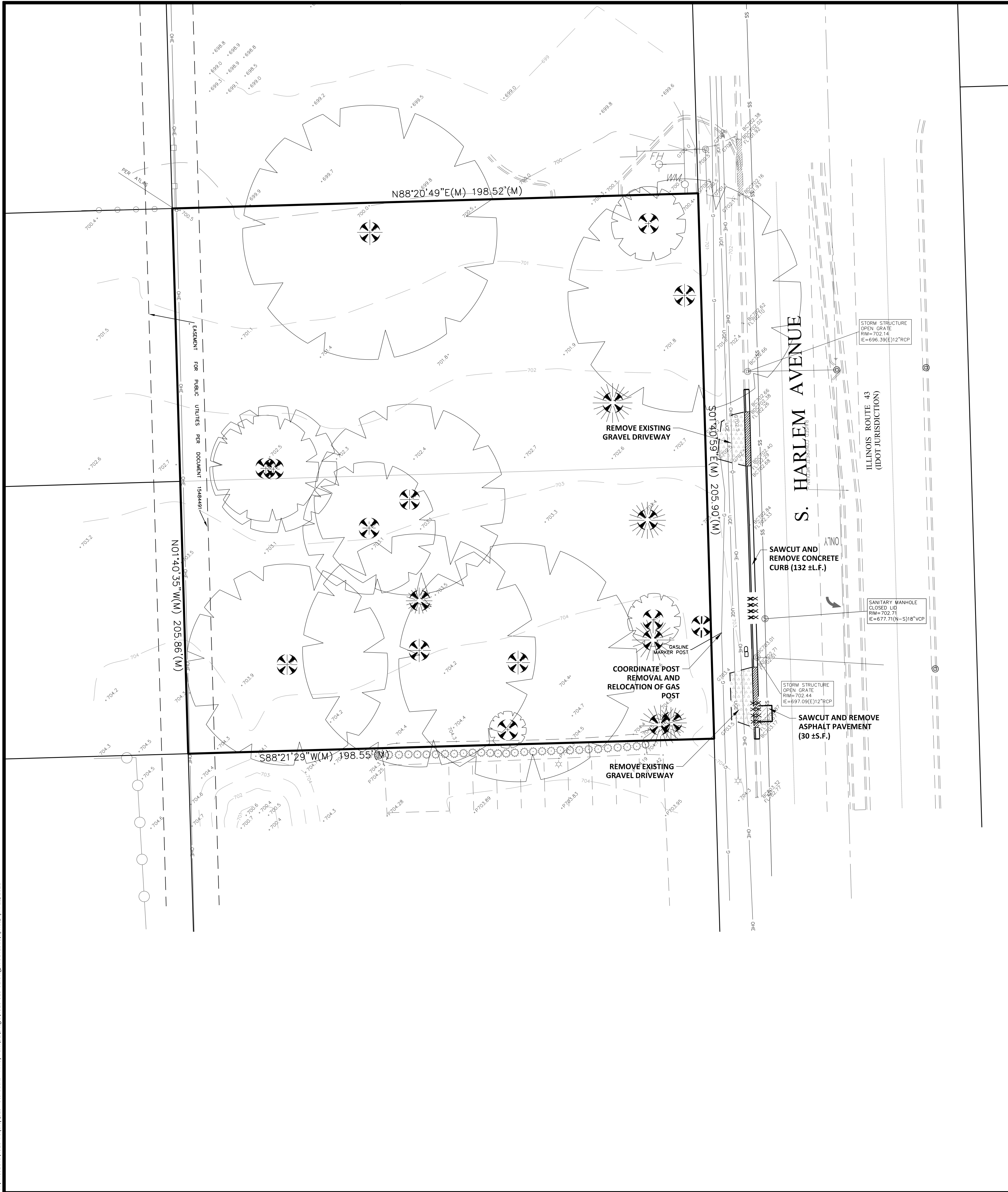


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DEMOLITION - KEY LEGEND	
SYMBOL	DESCRIPTION
	REMOVE GRAVEL
	REMOVE ASPHALT
	REMOVE CURB
	REMOVE ITEM
	REMOVE ITEM

MUNICIPAL/AGENCY APPROVAL STAMP

SPECIFICATIONS - DEMOLITION

- PERMITS:** CONTRACTOR SHALL APPLY FOR AND OBTAIN ALL REQUIRED PERMITS PRIOR TO DEMOLITION.
- EROSION CONTROL MEASURES:** CONTRACTOR SHALL COMPLY WITH THE EROSION CONTROL PLAN INCLUDING, BUT NOT LIMITED TO, PERIMETER SILT FENCE AND INLET PROTECTION, PRIOR TO THE START OF DEMOLITION.
- STRIPPING AND DEBRIS REMOVAL:** THE BUILDING PAD SITES, AREAS TO BE PAVED, AND ALL AREAS THAT ARE TO RECEIVE FILL MATERIAL SHALL BE STRIPPED OF VEGETATION, TREES, ROOTS, STUMPS, DEBRIS, AND OTHER ORGANIC MATERIAL. STRIPPED TOPSOIL SHALL BE STOCKPILED IN A LOCATION ON-SITE APPROVED BY THE DEVELOPER IF IT HAS BEEN DETERMINED THAT IT CAN BE RE-USED ON THE SITE. ALL TREES INCLUDING STUMPS AND ROOT SYSTEMS, VEGETATION, DEBRIS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OFF-SITE. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS GOVERNING SPILLAGE OF DEBRIS WHILE TRANSPORTING TO A DISPOSAL SITE. ALL COSTS ASSOCIATED WITH DISPOSAL OF MATERIAL SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- BURNING:** BURNING SHALL NOT BE PERMITTED ON THE PROJECT SITE UNLESS APPROVED IN WRITING BY THE GOVERNING AUTHORITIES AND THE DEVELOPER.
- EXISTING UTILITIES:** ALL EXISTING UTILITIES ARE TO BE PROTECTED UNLESS OTHERWISE NOTED OR AGREED TO BY THE OWNER AND ENGINEER. ALL EXISTING UTILITIES THAT ARE NOTED TO BE REMOVED SHALL BE CAPPED AND REMOVED AS INDICATED AFTER EXISTING LINES ARE TAKEN OUT OF SERVICE AND UTILITY COMPANY APPROVALS ARE OBTAINED. EXISTING UTILITIES THAT ARE NOTED TO BE ABANDONED SHALL BE FILLED OR CRUSHED TO AVOID FUTURE PIPE FAILURE.
- RE-USE OF EXISTING MATERIALS:** CONTRACTOR SHALL RE-USE EXISTING MATERIALS ON THE SITE FOR BACKFILL AND/OR SUB-GRADE ONLY IF APPROVAL IS OBTAINED IN WRITING FROM THE OWNER, ENGINEER AND GEOTECHNICAL ENGINEER. DURING BIDDING, CONTRACTOR SHALL NOT ASSUME THAT MATERIALS CAN BE RE-USED ON-SITE.
- PLUGGING EXISTING SANITARY SEWERS:** CONTRACTOR SHALL PLUG DOWNSTREAM END OF EXISTING SANITARY SEWER PRIOR TO DEMOLITION TO PREVENT STORMWATER AND DEBRIS FROM ENTERING THE SEWER.
- DRAINAGE:** POSITIVE DRAINAGE SHALL BE MAINTAINED THROUGHOUT DEMOLITION. CONTRACTOR SHALL PLAN DEMOLITION IN STAGES TO PREVENT EXCESS PONDING OR BLOCKAGE OF DRAINAGE. ALL STORM SEWER OR FIELD TILES DAMAGED DURING DEMOLITION SHALL BE REPAIRED AND/OR RECONNECTED BEFORE THE END OF THE WORKDAY.
- REMOVAL OF BELOW GRADE IMPROVEMENTS:** ANY BUILDINGS, FOUNDATIONS, WALLS, FOOTINGS, CONCRETE, ETC. THAT ARE SHOWN TO BE REMOVED SHALL BE REMOVED TO THE FULL DEPTH UNLESS APPROVED BY THE OWNER AND ENGINEER.
- TREE PROTECTION:** CONTRACTOR SHALL FOLLOW THE TREE PROTECTION PLAN IF IT HAS BEEN PROVIDED AS A PART OF THIS CONSTRUCTION SET. ANY TREES REMOVED THAT WERE INDICATED TO BE PROTECTED SHALL BE REPLACED BY THE CONTRACTOR AND FINED ACCORDINGLY.

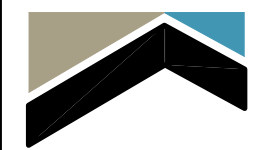
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TINLEY PARK, ILLINOIS

EX. COND & DEMO PLAN

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REVIEWED BY: BP			
DATE: 03/17/2021			
PLIN: 4523-329-32-01			

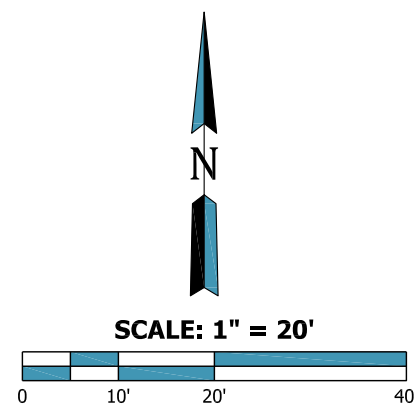
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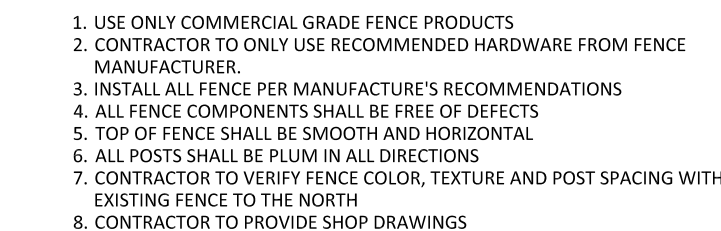


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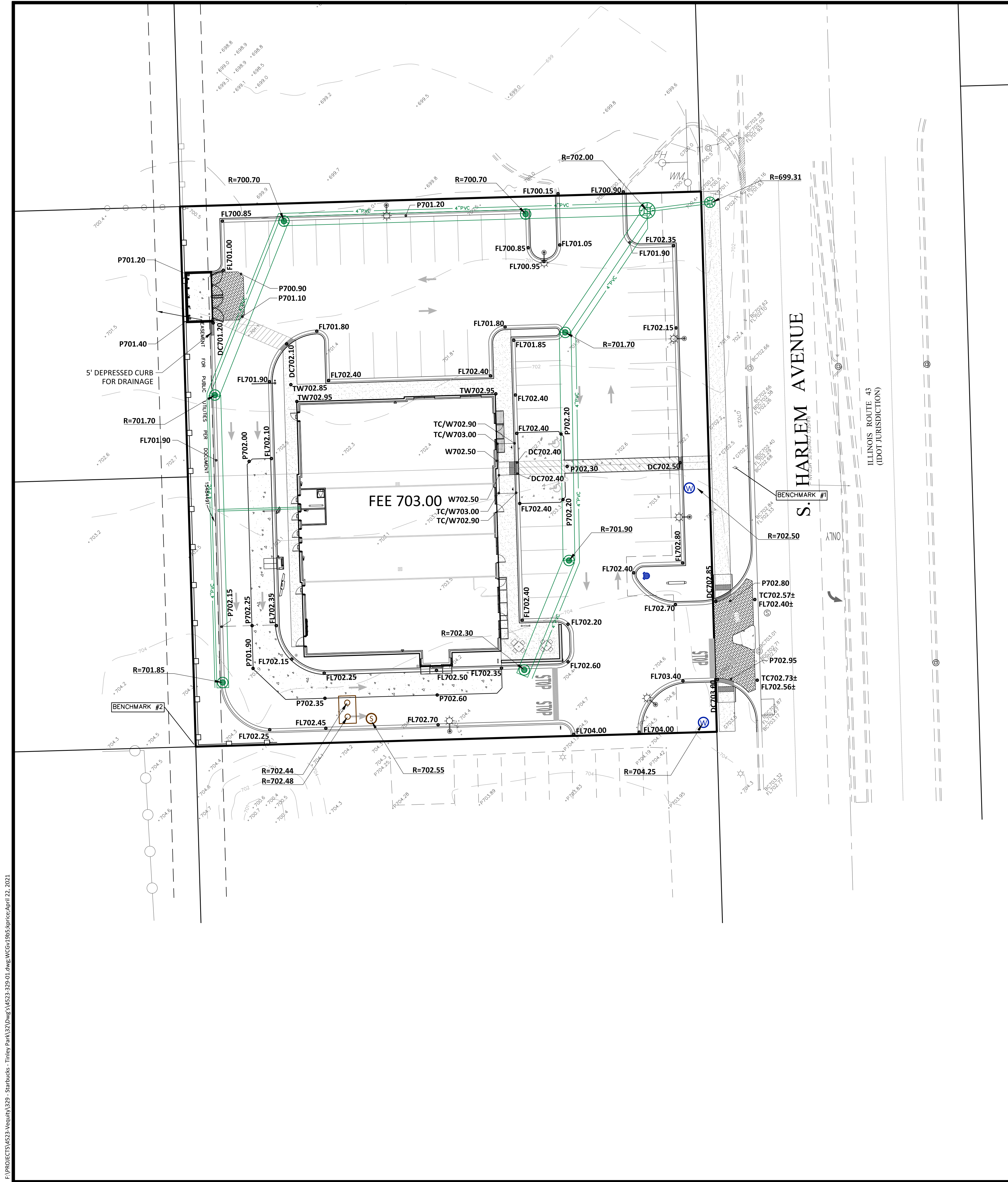
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SCALE: 1" = 20'

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MUNICIPAL/AGENCY APPROVAL STAMP

- GRADING NOTES:**
- UNLESS OTHERWISE SPECIFIED, ADD 0.5' TO ALL FLOWLINE (FL) OR PAVEMENT (P) GRADES TO OBTAIN TOP OF CURB (TC) ELEVATION.
 - CONTRACTOR TO MATCH EXISTING GRADE (ME) AT PERIMETER CONDITIONS. ALL GRADES SHOWN AS (+/-) HAVE BEEN INTERPRETED FROM THE SURVEY AND SHALL BE VERIFIED PRIOR TO CONSTRUCTION OF ADJACENT IMPROVEMENTS.
 - SEE ACCESSIBILITY PLAN FOR ADDITIONAL GRADES, DETAILS, AND REQUIREMENTS WITHIN THE ACCESSIBILITY AREAS.

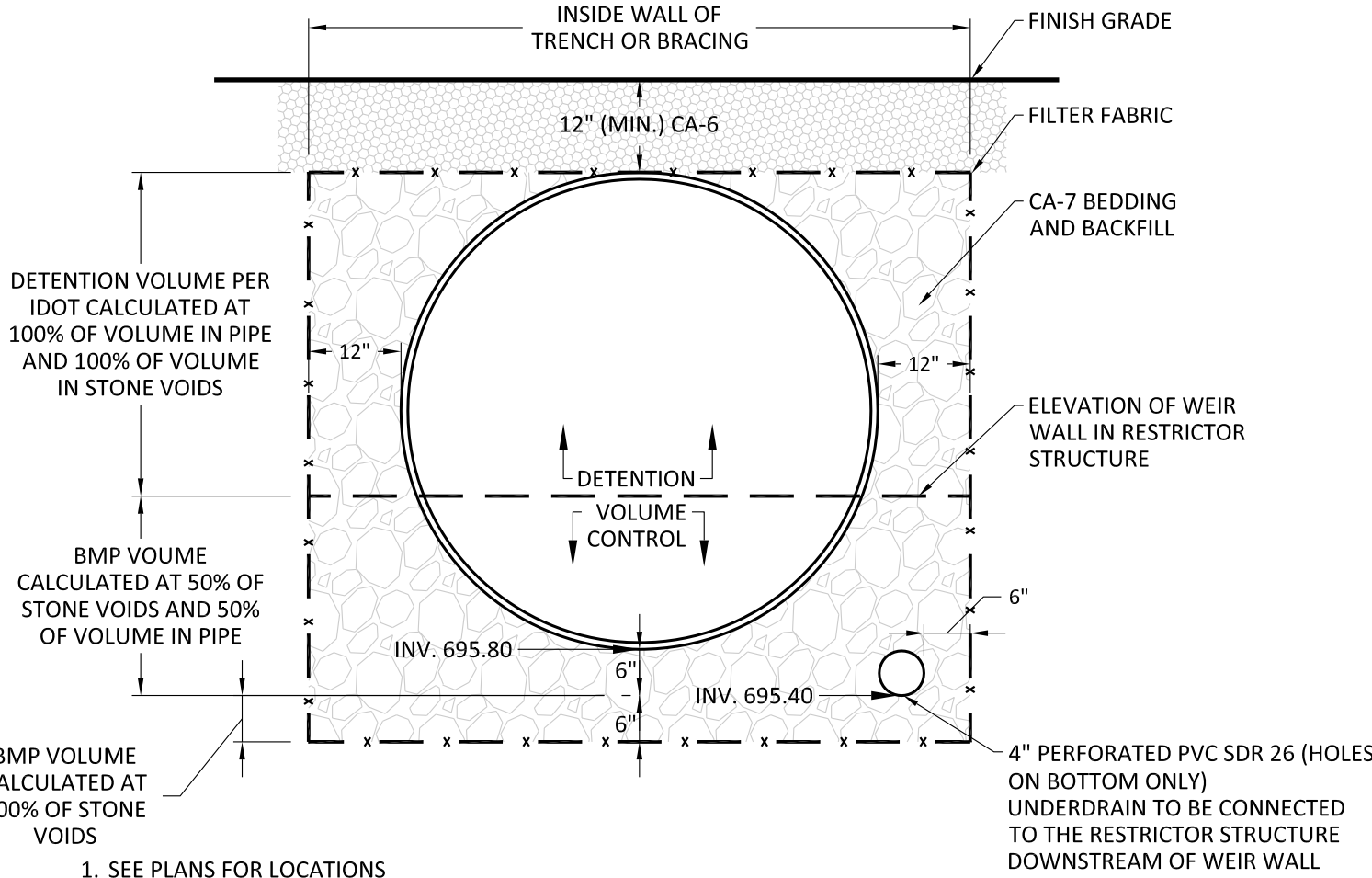
STORMWATER DETENTION SUMMARY:

JURISDICTIONAL AUTHORITY IS: MWRD AND IDOT

STORMWATER DETENTION IS REQUIRED FOR THIS SITE PER IDOT CRITERIA. IT IS NOT REQUIRED PER MWRD AS THE SITE IS UNDER 3 ACRES.

BMP'S ARE REQUIRED FOR THIS SITE PER MWRD.

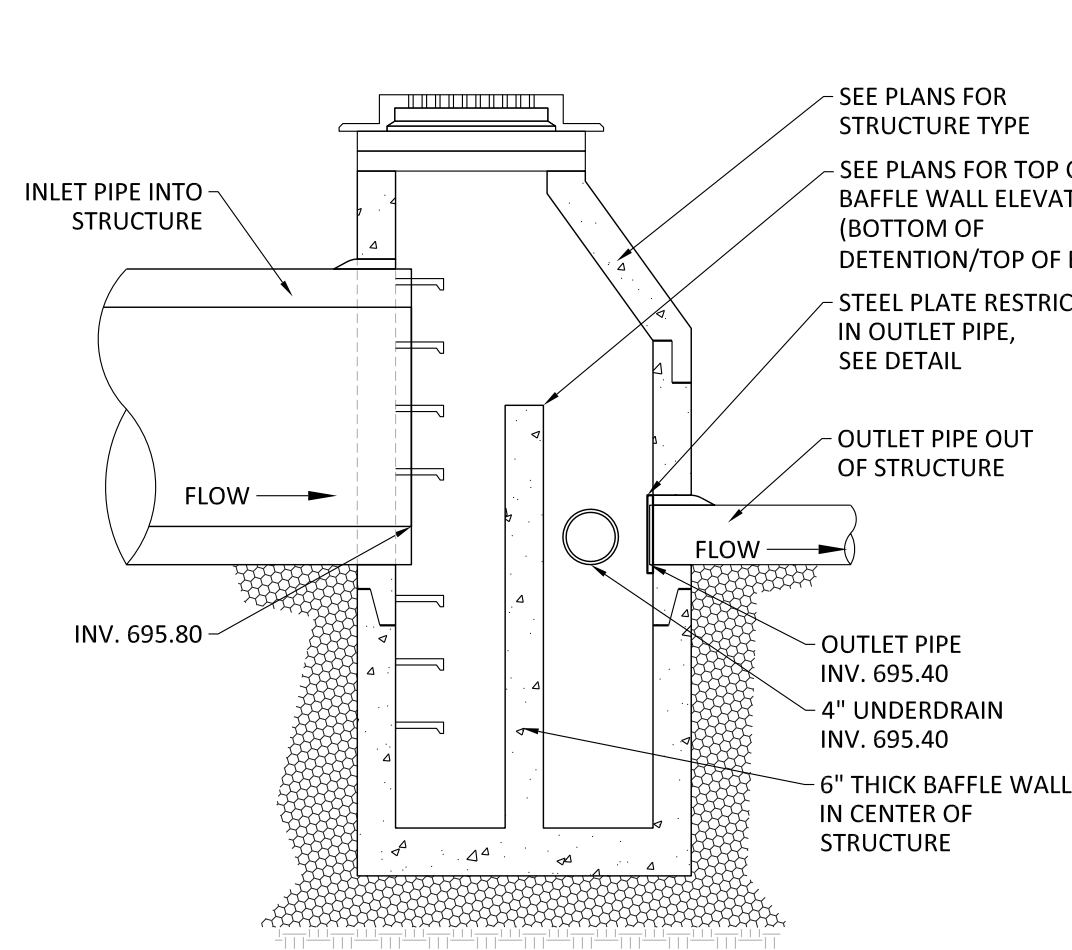
SITE AREA	=	40,895 (0.94 AC)
EXISTING IMPERVIOUS AREA	=	0.14 AC
EXISTING PERVIOUS AREA	=	0.80 AC
PROPOSED IMPERVIOUS AREA	=	0.78 AC
PROPOSED PERVIOUS AREA	=	0.16 AC
DETENTION REQUIRED	=	4,224 C.F.
BMP VOLUME REQUIRED	=	2,831 C.F.



1. SEE PLANS FOR LOCATIONS

PERFORATED CMP TRENCH AND BEDDING

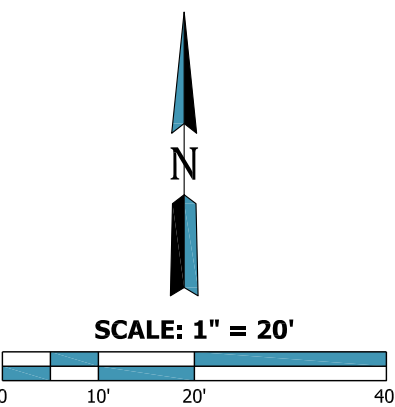
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- TO BE USED IN PLACE OF RESTRICTORS LESS THAN 4" IN DIAMETER.
- STEEL PLATE AND ANCHORS TO BE MADE OF SAME MATERIALS TO PREVENT ACCELERATED CORROSION.

RESTRICTOR CATCH BASIN

NOT TO SCALE



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GRADING & STM WATER PLAN

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1	04/22/2021	PER VILLAGE COMMENT	KMP
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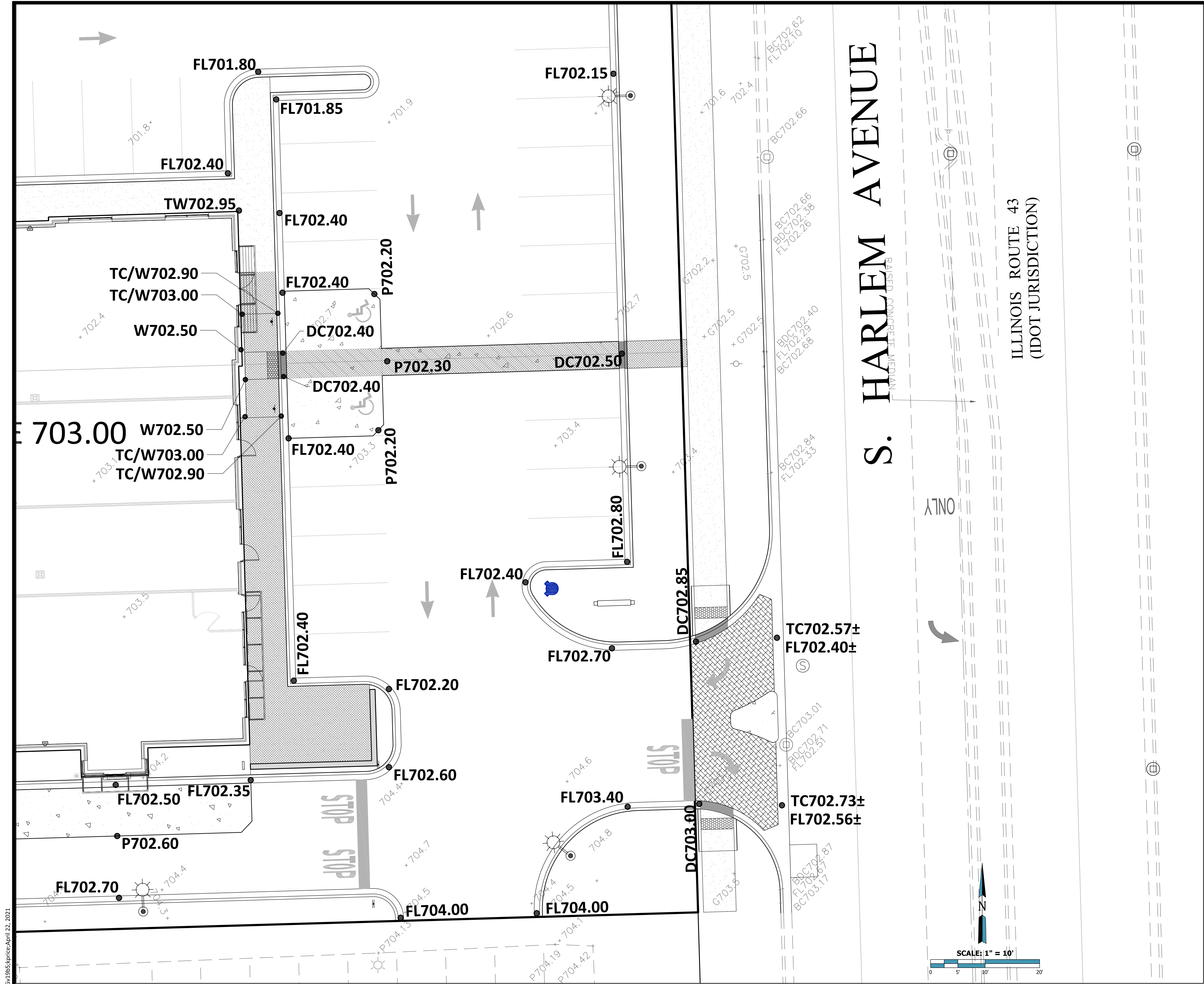


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ACCESSIBLE PATH - KEY



ACCESSIBILITY NOTES:

1. THIS PLAN HAS BEEN INCLUDED FOR SPECIFIC GRADING WITHIN THE ACCESSIBILITY AREAS. SEE GRADING AND STORMWATER PLAN FOR ADDITIONAL GRADES THROUGHOUT THE SITE.

MUNICIPAL/AGENCY APPROVAL STAMP

SPECIFICATIONS - ACCESSIBILITY

1. **STANDARDS AND SPECIFICATIONS:** THE CURRENT EDITION OF THE "ILLINOIS ACCESSIBILITY CODE" (IAC), THE "PROPOSED ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT-OF-WAY" (PROWAG), IDOT STANDARDS AND "ADA STANDARDS FOR ACCESSIBLE DESIGN" SHALL GOVERN THIS WORK.
2. **VERIFY SLOPES PRIOR TO CONSTRUCTION:** EXISTING GRADES HAVE BEEN INTERPOLATED BASED ON ELEVATIONS PROVIDED ON THE SURVEY. PROPOSED GRADES NEAR EXISTING OR RECENTLY CONSTRUCTED STRUCTURES (BUILDINGS, PAVEMENT, SIDEWALKS, ETC) MAY REQUIRE MODIFICATIONS IN ORDER TO ACHIEVE COMPLIANCE. PRIOR TO INSTALLATION OF ANY ACCESSIBLE ROUTES, THE CONTRACTOR SHALL VERIFY THE SLOPE OF THE SUB-GRADE AND CONCRETE FORMS FOR COMPLIANCE WITH THE MAXIMUM SLOPES ALLOWABLE. IF ANY SLOPES ARE GREATER THAN ALLOWABLE, CONTRACTOR SHALL CONTACT THE DESIGN ENGINEER IMMEDIATELY TO RE-DESIGN THE ACCESSIBLE ROUTE.
3. **DETECTABLE WARNINGS:** DETECTABLE WARNINGS ARE REQUIRED ON PRIVATE PROPERTY AS REQUIRED BY VILLAGE OF TINLEY PARK. DETECTABLE WARNINGS ARE REQUIRED IN THE PUBLIC RIGHT OF WAY AT STOP CONTROLLED INTERSECTIONS AND SHALL BE AN INTEGRAL PART OF THE RAMP. WARNINGS SHALL BE RED 2'X5' ARMOR TILES, ADA SOLUTIONS OR APPROVED EQUAL CAST-IN-PLACE INLINE TRUNCATED DOME TILES.
4. **ACCESSIBLE ROUTES:** AT LEAST ONE ACCESSIBLE ROUTE SHALL BE PROVIDED WITHIN THE SITE FROM ACCESSIBLE PARKING SPACES AND ACCESSIBLE PASSENGER LOADING ZONES; PUBLIC STREET AND SIDEWALKS; AND PUBLIC TRANSPORTATION STOPS TO THE ACCESSIBLE BUILDING OR FACILITY ENTRANCE THEY SERVE. ACCESSIBLE ROUTES SHALL NOT HAVE A RUNNING SLOPE OF GREATER THAN 5% NOR A CROSS SLOPE OF GREATER THAN 2%.
5. **CURB RAMPS:** CURB RAMPS MAY BE PROVIDED WHEN A SIDEWALK MEETS A CURB. CURB RAMP SLOPES SHALL NOT EXCEED A RUNNING SLOPE OF GREATER THAN 8.33% NOR A CROSS SLOPE OF GREATER THAN 2%. A LANDING NO SHORTER THAN 36" SHALL BE PROVIDED AT THE TOP OF A CURB RAMP.
6. **ACCESSIBLE PARKING SPACES:** ACCESSIBLE PARKING SPACES SHALL BE PROVIDED AS SHOWN ON THE PLANS AND SHALL NOT HAVE A SLOPE THAT IS GREATER THAN 2% IN ANY DIRECTION. ACCESSIBLE PARKING SPACES SHALL BE DESIGNATED AS RESERVED BY PROVIDING A PERMANENTLY MOUNTED SIGN. SEE DETAILS FOR STRIPING AND SIGN REQUIREMENTS.
7. **RAMPS:** AN ACCESSIBLE ROUTE WITH A RUNNING SLOPE GREATER THAN 5% IS CONSIDERED A RAMP AND SHALL COMPLY WITH THE RAMP REQUIREMENTS INCLUDING HANDRAILS. SEE ARCHITECTURAL PLANS FOR RAMP DETAILS.

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ACCESSIBILITY PLAN

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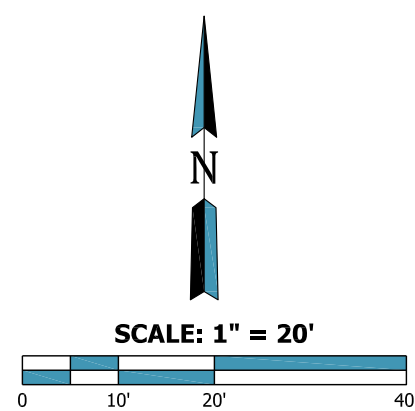


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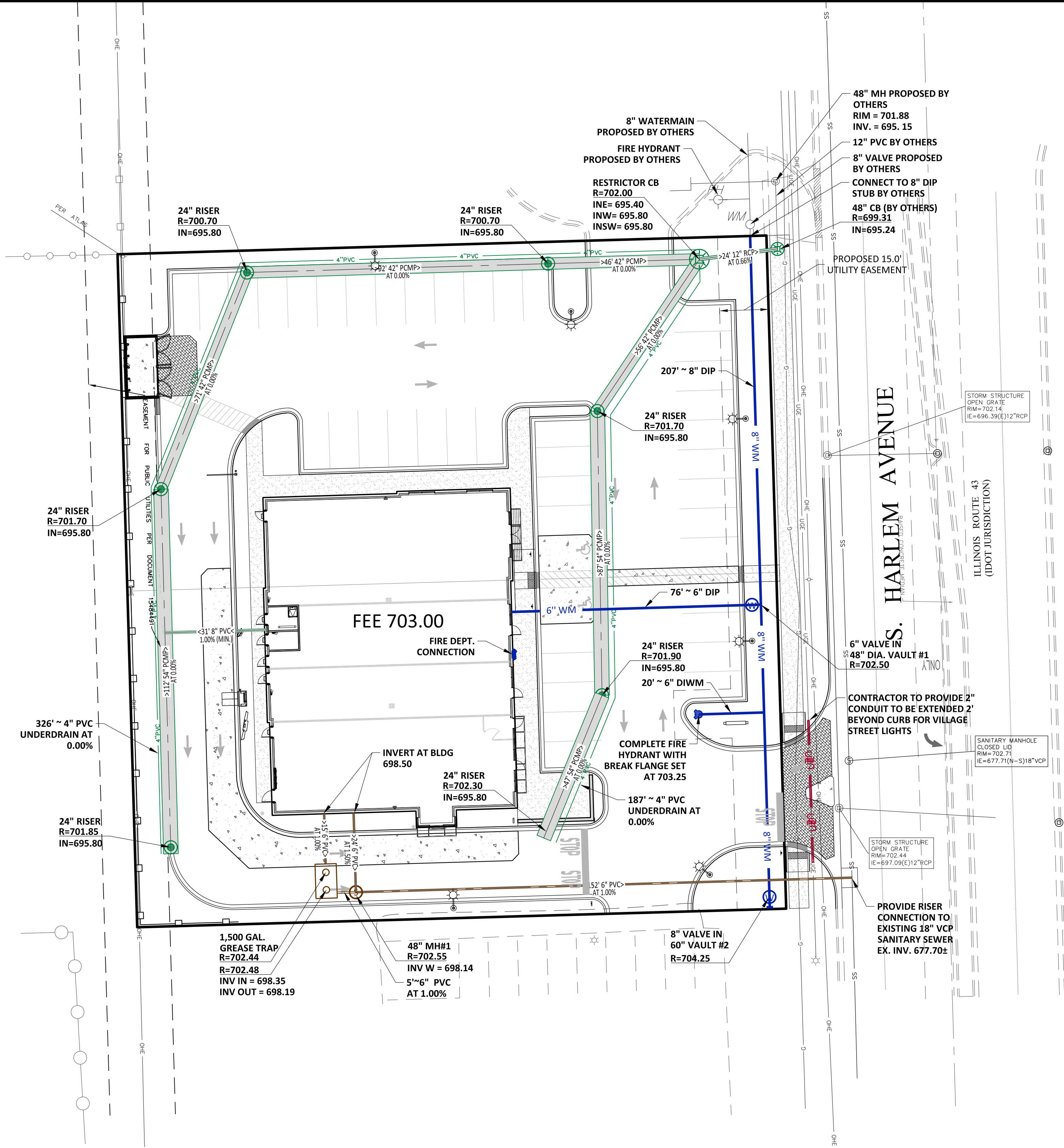
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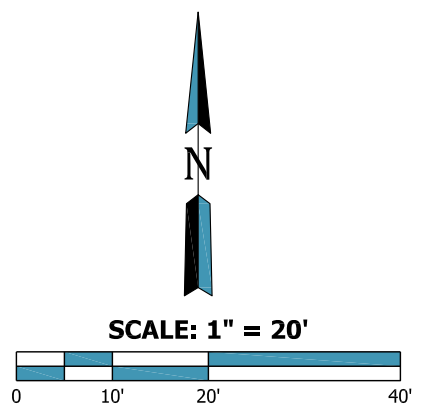


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- UTILITY NOTES:**
1. CONTRACTOR TO VERIFY WITH ARCHITECTURAL PLANS THAT THE UTILITIES AS THEY EXIT THE BUILDING ARE IN THE SAME LOCATION AS SHOWN ON THIS PLAN. NOTIFY THE DESIGN ENGINEER IF THERE ARE ANY DISCREPANCIES.
 2. GAS, TELEPHONE, AND ELECTRIC LOCATIONS SHALL BE COORDINATED WITH THE UTILITY COMPANIES PRIOR TO INSTALLATION. LINES SHOWN ON THIS PLAN ARE FOR BUDGETING AND GUIDANCE ONLY.

- UTILITY LEGEND:**
1. RCP = REINFORCED CONCRETE PIPE
CLASS IV, ASTM C-76 PIPE, ASTM C-443 JOINTS
 2. RCPWM = REINFORCED CONCRETE PIPE
CLASS IV, ASTM C-76 PIPE, ASTM C-361 JOINTS
 3. PVC = POLYVINYL CHLORIDE PIPE
SDR26, ASTM D-3034 PIPE, ASTM D-3212 JOINTS
 4. PVCWM = POLYVINYL CHLORIDE PIPE
AWWA C900, OR AWWA C905 OR ASTM D-2241 PIPE, ASTM D-3139 JOINTS
 5. DIP = DUCTILE IRON PIPE
CLASS 52, CEMENT LINED, ANSI A21.51 PIPE, ANSI A21.11 JOINTS
 6. HDPE = HIGH DENSITY POLYETHYLENE PIPE
AASHTO M-294 (12"-60") AASHTO M-252 (3"-10")
 7. CWM = TYPE "K" COPPER WATERMAIN
ASTM B-88 AND ASTM B-251 WITH SWEATED JOINTS
 8. ESWCP = EXTRA STRENGTH VITRIFIED CLAY PIPE
ASTM C-700 PIPE, ASTM C-425 JOINTS.
 9. PCMP = PERFORATED ALUMINIZED STEEL PIPE



MUNICIPAL/AGENCY APPROVAL STAMP

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UTILITY PLAN

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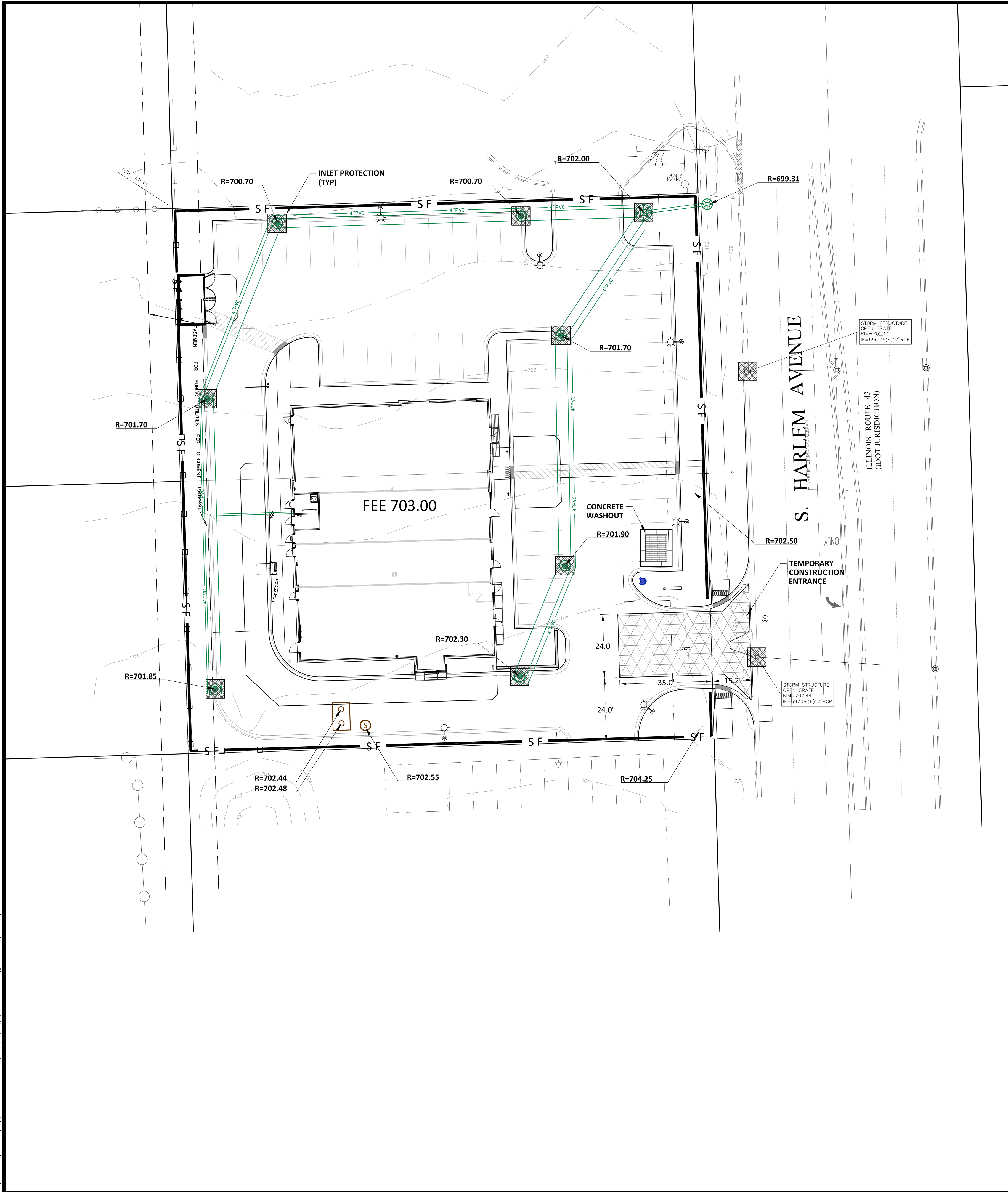


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SPECIFICATIONS - SOIL EROSION

- STANDARDS AND SPECIFICATIONS:** THE CURRENT EDITION OF THE "ILLINOIS URBAN MANUAL", ALL STATE AND FEDERAL REGULATIONS, AND THE NPDES (NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM) PERMIT PROVISIONS SHALL GOVERN THIS WORK.
- SWPPP INSPECTOR:** IF AN NPDES PERMIT IS REQUIRED FOR THE SITE, THE OWNER AND/OR CONTRACTOR SHALL APPOINT A QUALIFIED PERSON TO FULFILL THE INSPECTION REQUIREMENTS OF THE PERMIT (SWPPP INSPECTOR). THE SITE SHALL BE INSPECTED BY THE SWPPP INSPECTOR AT LEAST ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 1/2" OR GREATER (OR EQUIVALENT SNOWFALL). SWPPP INSPECTIONS SHALL CONTINUE UNTIL FINAL STABILIZATION AND TERMINATION REQUIREMENTS OF THE SWPPP HAVE BEEN MET.
- SWPPP COMPLIANCE:** THE CONTRACTOR SHALL COMPLY WITH THE CONDITIONS OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND CONDITIONS DETERMINED BY THE SWPPP INSPECTOR WHILE CONDUCTING ACTIVITIES ON THIS PROJECT. THE SWPPP PLANS AND DOCUMENTS ARE PROVIDED FOR THE SOLE BENEFIT OF THE CONTRACTOR AS A PLANNING TOOL FOR COMPLYING WITH THE ENVIRONMENTAL REGULATIONS OF THIS PROJECT. THE CONTRACTOR TOGETHER WITH THE SWPPP INSPECTOR IS EXPECTED TO PROVIDE, EXPAND, SUBMIT AND MONITOR A FULL COMPREHENSIVE SWPPP BEYOND WHAT IS PROVIDED.
- CLEANING, REPAIR, AND MAINTENANCE:** THE CONTRACTOR SHALL REFER TO THE SWPPP FOR SEQUENCING OF CONSTRUCTION, INSTALLATION OF NEW EROSION CONTROL DEVICES AND CLEANING, REPAIR AND MAINTENANCE OF EXISTING EROSION CONTROL DEVICES. THE CONTRACTOR SHALL REVISE, RELOCATE AND/OR ADD DEVICES TO REFLECT ACTUAL SITE CONDITIONS AND TO ACCOMMODATE LOCATIONS FOR CONSTRUCTION TRAILER AREAS, STORAGE AREAS, FUELING AREAS, TOILETS, TRASH RECEPTACLES AND WASHOUT AREAS. ANY ACCIDENTAL RELEASE OF SEDIMENT OR POLLUTANTS FROM THE SITE SHALL BE CLEANED BY THE CONTRACTOR.
- LIMIT OF EXPOSURE:** TO THE EXTENT POSSIBLE, THE EXPOSED AREAS AND DURATION OF EXPOSURE SHALL BE KEPT TO A MINIMUM AND ALL AREAS WHERE CONSTRUCTION HAS STOPPED FOR 7 DAYS OR MORE MUST BE STABILIZED PER THE SWPPP.
- SILT FENCE:** AT A MINIMUM, CONTRACTOR SHALL INSTALL SILT FENCE AS SHOWN ON THE EROSION CONTROL PLANS. SILT FENCE SHALL ALSO BE INSTALLED AS NEEDED AND DIRECTED BY THE SWPPP INSPECTOR IN ORDER TO CONTROL SILT ON THE SITE. SEDIMENT SHALL BE REMOVED FROM BEHIND A SILT FENCE WHEN IT HAS REACHED ONE THIRD THE HEIGHT OF THE FENCE. TEARS SHALL BE REPAIRED AND/OR REPLACED IMMEDIATELY. WHEN A SILT FENCE HAS BROKEN FREE AND IS NO LONGER TOED INTO THE GROUND, IT SHALL BE REPAIRED AS SOON AS POSSIBLE.
- INLET FILTERS:** ALL STORMWATER INLETS AND CATCH BASINS WITH AN OPEN LID ARE TO BE PROTECTED WITH AN INLET FILTER PER THE DETAIL. ALL INLET FILTERS ARE TO BE INSPECTED PERIODICALLY TO DETERMINE IF THEY ARE WORKING PROPERLY. FILTERS SHALL BE CLEANED WHEN ONE HALF OF THE FILTER HAS BEEN FILLED WITH SILT AND/OR DEBRIS.
- CONCRETE WASHOUT:** CONTRACTOR SHALL SUPPLY A CONCRETE WASHOUT AREA PER THE DETAILS AND DIRECT ALL CONCRETE TRUCKS TO USE IT PRIOR TO LEAVING THE SITE. CONCRETE WASHOUT SHALL BE MAINTAINED AS NEEDED TO KEEP FROM SPILLING OUT ON THE DIRT.
- CONSTRUCTION ENTRANCE:** CONTRACTOR SHALL PROVIDE A TEMPORARY CONSTRUCTION ENTRANCE PER THE DETAILS AND IN THE LOCATION SHOWN ON THE PLANS. IF ADDITIONAL ENTRANCES ARE REQUESTED, PLEASE CONTACT THEN ENGINEER AND/OR THE AGENCIES HAVING JURISDICTION OVER THE ROADWAY FOR APPROVAL. ENTRANCE SHALL BE MAINTAINED TO ALLOW DIRT TO FALL OFF VEHICLES BEFORE ENTERING THE ROADWAY.
- STOCKPILES:** ALL TEMPORARY STOCKPILES SHALL BE SURROUNDED BY SILT FENCE. IF TOPSOIL STOCKPILE REMAINS UNDISTURBED FOR MORE THAN SEVEN DAYS, TEMPORARY SEEDING AND STABILIZATION IS REQUIRED.
- SILT TRAPS:** SILT TRAPS SHALL BE INSTALLED TO CATCH SILT LADEN WATER BEFORE ENTERING PROTECTED AREAS. SILT TRAPS SHALL BE EMPTIED WHEN THEY REACH ONE HALF OF THE CAPACITY OF THE TRAP.
- DUST MANAGEMENT:** DURING PERIODS OF EXTENDED DRY WEATHER, THE CONTRACTOR SHALL MAINTAIN A WATER TRUCK ON THE SITE FOR WATERING DOWN THE SOIL TO PREVENT WIND EROSION (DUST).
- DEWATERING:** DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO A DANDY BAG, SEDIMENT BASINS OR SILT TRAPS. DEWATERING DIRECTLY INTO FIELD TILES OR STORMWATER STRUCTURES IS PROHIBITED.
- SITE ENTRY/EXIT LOCATIONS:** SITE ENTRY AND EXIT LOCATIONS SHALL BE MAINTAINED BY THE CONTRACTOR IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAYS. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAYS MUST BE REMOVED IMMEDIATELY. CONTRACTOR SHALL EMPLOY A STREET CLEANER TO USE AS OFTEN AS NEEDED AS DETERMINED BY THE MUNICIPAL ENGINEER AND/OR SWPPP INSPECTOR. WHEN WASHING OF VEHICLES IS REQUIRED TO REMOVE SEDIMENT PRIOR TO ENTRANCE TO A PUBLIC ROADWAY, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN. ALL FINES IMPOSED FOR TRACKING ONTO PUBLIC ROADS SHALL BE PAID BY THE CONTRACTOR.
- PROTECTION OF ADJACENT PROPERTY:** CONTRACTOR SHALL ASSUME FULL LIABILITY FOR DAMAGE TO ADJACENT PROPERTIES AND/OR PUBLIC RIGHT-OF-WAY RESULTING FROM FAILURE TO FULLY IMPLEMENT AND EXECUTE ALL EROSION CONTROL METHODS AND PROCEDURES SHOWN AND NOTED ON THE PLANS AND SWPPP.
- RE-VEGETATION:** AT THE COMPLETION OF PAVING AND FINAL GRADING OPERATIONS, ALL DISTURBED AREAS SHALL BE VEGETATED IN ACCORDANCE WITH THE LANDSCAPE PLANS. IN AREAS NOT COVERED BY LANDSCAPE PLAN, THE CONTRACTOR SHALL PROVIDE HYDROMULCH SEEDING AND/OR SODDING FOR ALL DISTURBED AREAS (NOT DESIGNATED TO BE PAVED) IN ACCORDANCE WITH ALL GOVERNING AUTHORITIES' SPECIFICATIONS.
- ESTABLISHED VEGETATION:** CONTRACTOR IS TO REGULARLY INSPECT SEEDED AREAS TO VERIFY THAT A GOOD STAND OF VEGETATION IS "ESTABLISHED". VEGETATION WILL NOT BE CONSIDERED "ESTABLISHED" UNTIL 100% OF THE SOIL SURFACE IS UNIFORMLY COVERED WITH PERMANENT VEGETATION WITH A DENSITY OF 70% OR GREATER. CONTRACTOR SHALL FERTILIZE, WATER, RE-SEED AND MULCH AS NEEDED.
- EROSION CONTROL PRODUCT REMOVAL:** THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL SEDIMENT BARRIERS AND INLET PROTECTION AFTER VEGETATION HAS BEEN COMPLETED AND ALL AREAS OF THE SITE HAVE BEEN STABILIZED AND ACCEPTED BY THE GOVERNING AUTHORITIES AND THE DEVELOPER.

MUNICIPAL/AGENCY APPROVAL STAMP

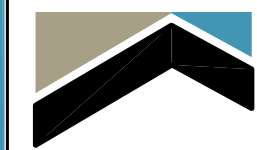
17118 S. HARLEM
TINLEY PARK LLC

RETAIL - TINLEY PARK
17120-17126 S. HARLEM AVE.
TINLEY PARK, ILLINOIS

SOIL EROSION CONTROL PH 2

NO.	DATE	REVISION DESCRIPTION	BY
1	04/22/2021	PER VILLAGE COMMENT	KMP
DESIGNED BY: BP KMP			
REVIEWED BY: BP			
DATE: 03/17/2021			
PLIN: 4523-329-32-01			

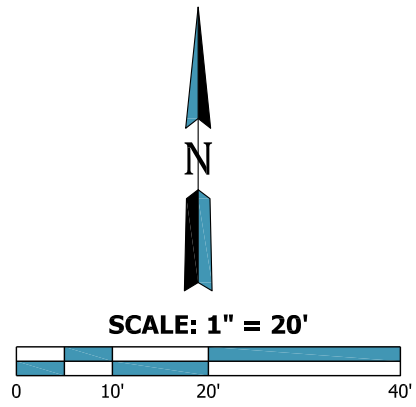
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SHEET #:
C-8



NOT TO SCALE

1. "2X2" NOMINAL HARDWOOD STAKES, 4' MINIMUM LENGTH, DRIVEN INTO GROUND APPROXIMATELY 18", DEEP, 12" FROM INLET FRAME.
2. AREA INSIDE THE FENCE FROM EDGE OF FABRIC TO STRUCTURE, MUST BE STABILIZED WITH EROSION CONTROL BLANKET, TURF REINFORCEMENT MAT, GEOTEXTILE 592 TABLE 2 CLASS 2 OR CA-7 STONE.
3. MAX. HEIGHT OF FABRIC ABOVE THE CREST OF THE INLET SHALL BE 30". PLACE THE BOTTOM 6" OF THE FABRIC IN A TRENCH AND BACKFILL WITH 6" OF 95% COMPACTED SOIL.
4. STAKES SHALL BE 4' MAX. SPACING.
5. A MAINTENANCE SCHEDULE SCHEDULE MUST MAINTAIN A SEDIMENT ACCUMULATION OF LESS THAN 50% OF THE HEIGHT OF THE MONOLIFAMENT FABRIC.
6. MONOLIFAMENT FABRIC SHALL MEET THE REQUIREMENT OF ASY 592 GEOTEXTILE TABLE 1 CLASS 4.
7. MONOLIFAMENT FABRIC SHALL BE TO EACH 2"x4" HARDWOOD STAKE WITH A MINIMUM OF 1" STAPLE STAPLE FASTENERS AND WOOD LATH. WOOD LATH SHALL BE A MINIMUM LENGTH OF 10". WIRE FASTENERS SHOULD BE USED IF METAL T-POSTS SHOULD BE USED IF T-POSTS ARE INSTALLED IN PLACE OF HARDWOOD STAKES.

INLET PROTECTION - BARRIER SILT FENCE

NOT TO SCALE

1. FILTER FABRIC SHALL MEET GEOTEXTILE 592 TABLE 1 OR 2, CLASS 1 WITH EQUIVALENT OPENING SIZE OF AT LEAST 30 FOR NONWOVEN AND 40 FOR WOVEN.
2. FENCE POSTS SHALL BE EITHER STANDARD STEEL POST OR WOOD POSTS WITH A MINIMUM CROSS SECTION AREA OF 3 SQ. IN.

SILT FENCE

NOT TO SCALE

DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
TEMPORARY SEEDING				21ST					30TH			
OAT COVER CROP (90 LBS./AC.) (NOTE 2)				1ST			4TH					
WHEAT COVER CROP (90 LBS./ AC.) (NOTE 2)				1ST					30TH			
ANNUAL RYE COVER CROP (90 LBS. AC.) (NOTE 2)				1ST					30TH			

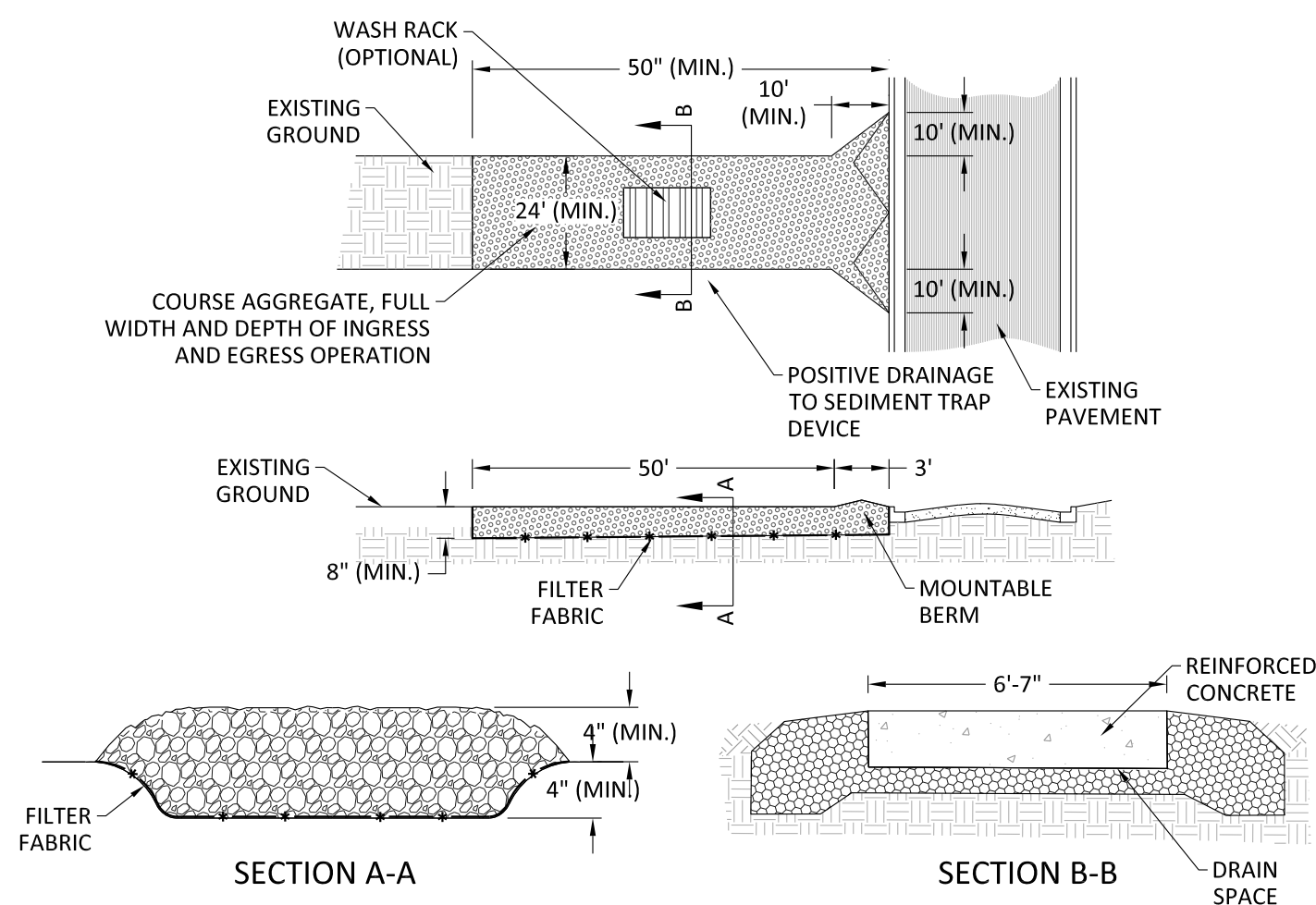
NOTE 1: CONTRACTOR TO COORDINATE WITH GROWER/ SUPPLIER TO ENSURE AVAILABILITY.
NOTE 2: COVER CROPS AS SHOWN MAY BE SUPERCEDED IN NATIVE SEED AREAS. SEE SPECIFICATION FOR NATIVE AREAS FOR SPECIFIC APPLICATIONS.

CONSTRUCTION SEQUENCE

- | | | | |
|-----|---|-----|---|
| 1. | Mobilize to the site. | | |
| 2. | Install soil erosion control measures. | | |
| 3. | Construct a temporary construction entrance/exit. | | |
| 4. | Topsoil stripping and stockpiling. Provide temporary seeding on stockpiles and all other areas of the site that will remain undisturbed for 30 days or more. Refer to landscape plan for seeding. | | |
| 5. | Mass grading of disturbed site. | | |
| 6. | Installation of building foundations. | | |
| 7. | Installation of all underground utilities. | | |
| 8. | Inspect soil erosion control measures and maintain or replace as necessary. | | |
| 9. | Installation of parking lot sub-base material. | | |
| 10. | Installation of parking lot base course | | |
| | | 11. | Installation of permanent soil stabilization measures and re-spread topsoil. |
| | | 12. | Installation of parking lot surface course |
| | | | Materials. |
| | | 13. | Installation of landscape. |
| | | 14. | Remove temporary soil erosion control measures after final soil stabilization measures and the establishment of adequate vegetative cover. |
| | | 15. | All storm sewers, catch basins, pavement surfaces and/or detention facilities are to be cleaned prior to final inspection. |
| | | 16. | All maintenance of the erosion control measures are the responsibility of the contractor. |
| | 1. | | Contractor is responsible to verify and adjust the sequence of operation if necessary. |
| | 2. | | See landscape plan for planting details, soil preparation, amendments, plant lists, landscape specifications. |
| | 3. | | Temporary seed shall conform to the "Indiana Handbook for Erosion Control in Developing Areas" for all areas to be disturbed areas less than a year or barren areas that need to be stabilized. |
| | 4. | | Contractor to utilize mulch for seed protection, soil protection, dust control, or stabilization as needed and when seeding cannot be performed. |

TEMPORARY SEEDING TABLE AND CONSTRUCTION SEQUENCE

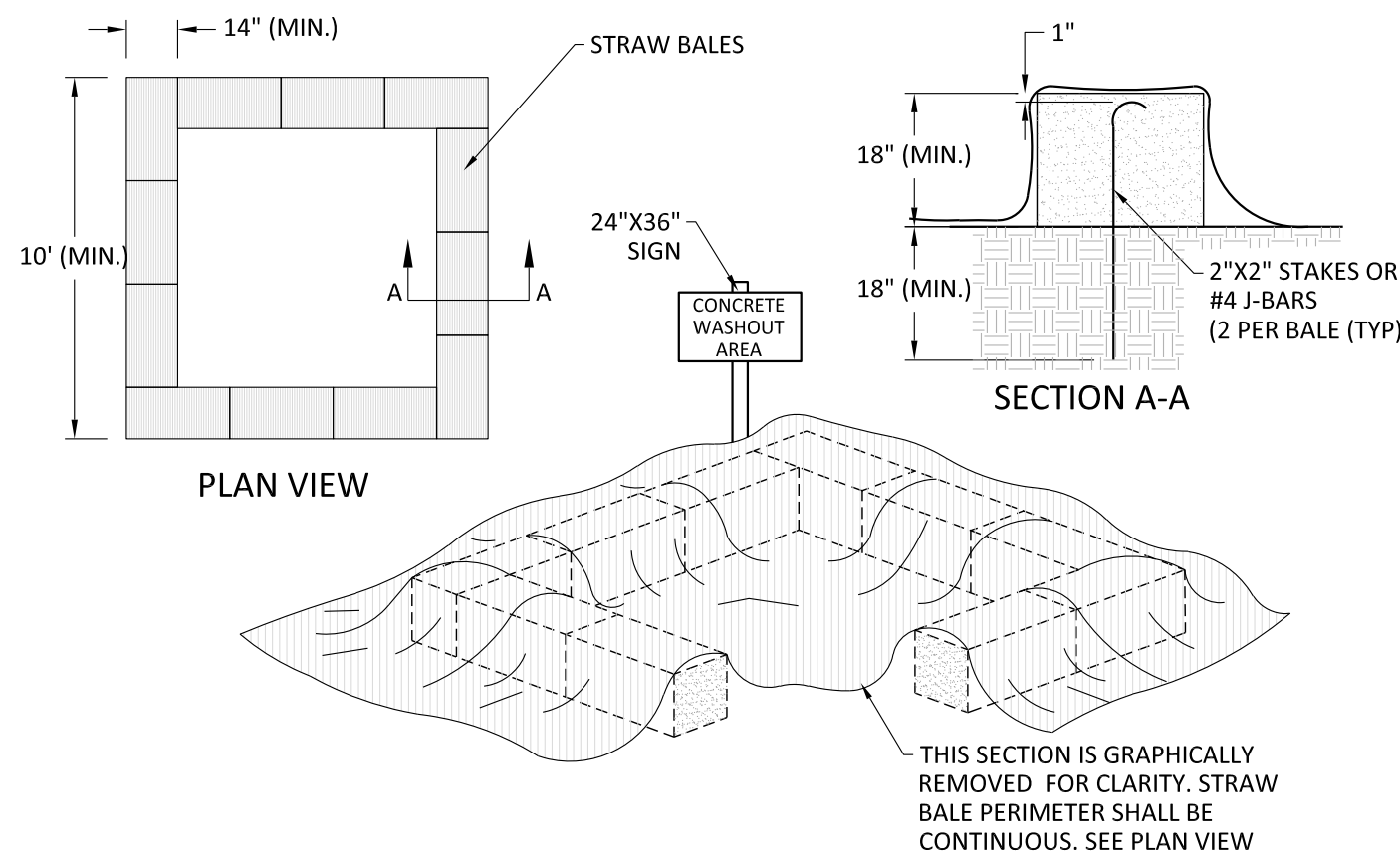
NOT TO SCALE



1. FILTER FABRIC SHALL MEET ASTM 52 GEOTEXTILE. TABLE 1 OR 2 FOR CLASS I, II, OR IV. AND SHALL BE PLACED OVER THE CLEARED AREA PRIOR TO PLACING STONE.
2. RECLAIMED CONCRETE OR COURSE AGGREGATE SHALL MEET EITHER IDOT GRADATION CA-1, CA-2, CA-3, OR CA-4 AND BE PLACED ACCORDING TO CONSTRUCTION SPECIFICATION 25 ROCKFILL USING PLACEMENT METHOD 1 OR CLASS II COMPACTION.
3. ANY DRAINAGE FACILITIES REQUIRED BECAUSE OF WASHING SHALL CONSTRUCTED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
4. IF WASH RACKS ARE USED, THEY SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.

TEMPORARY CONSTRUCTION ENTRANCE

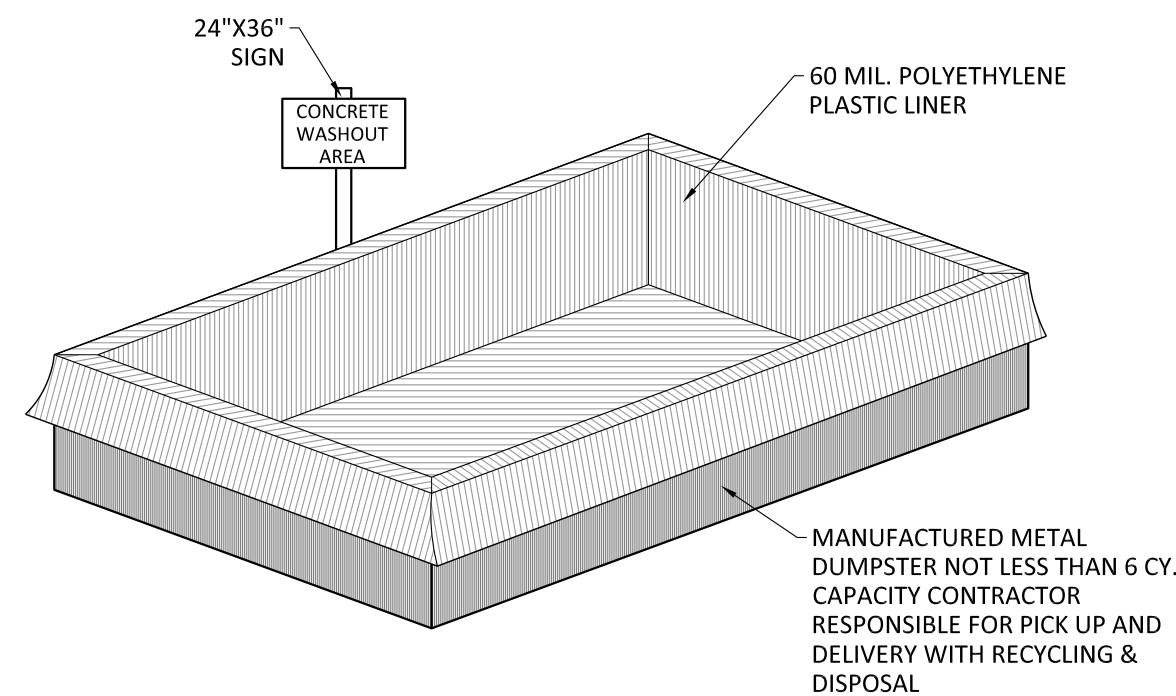
NOT TO SCALE



1. FACE SIGN TOWARD NEAREST STREET OR ACCESS POINT.
2. CONCRETE WASHOUT SHALL BE LOCATED BEHIND THE CURB AND 50' (MIN.) FROM NEAREST DRAINAGE INLET OR WATER COURSE.

CONCRETE WASHOUT

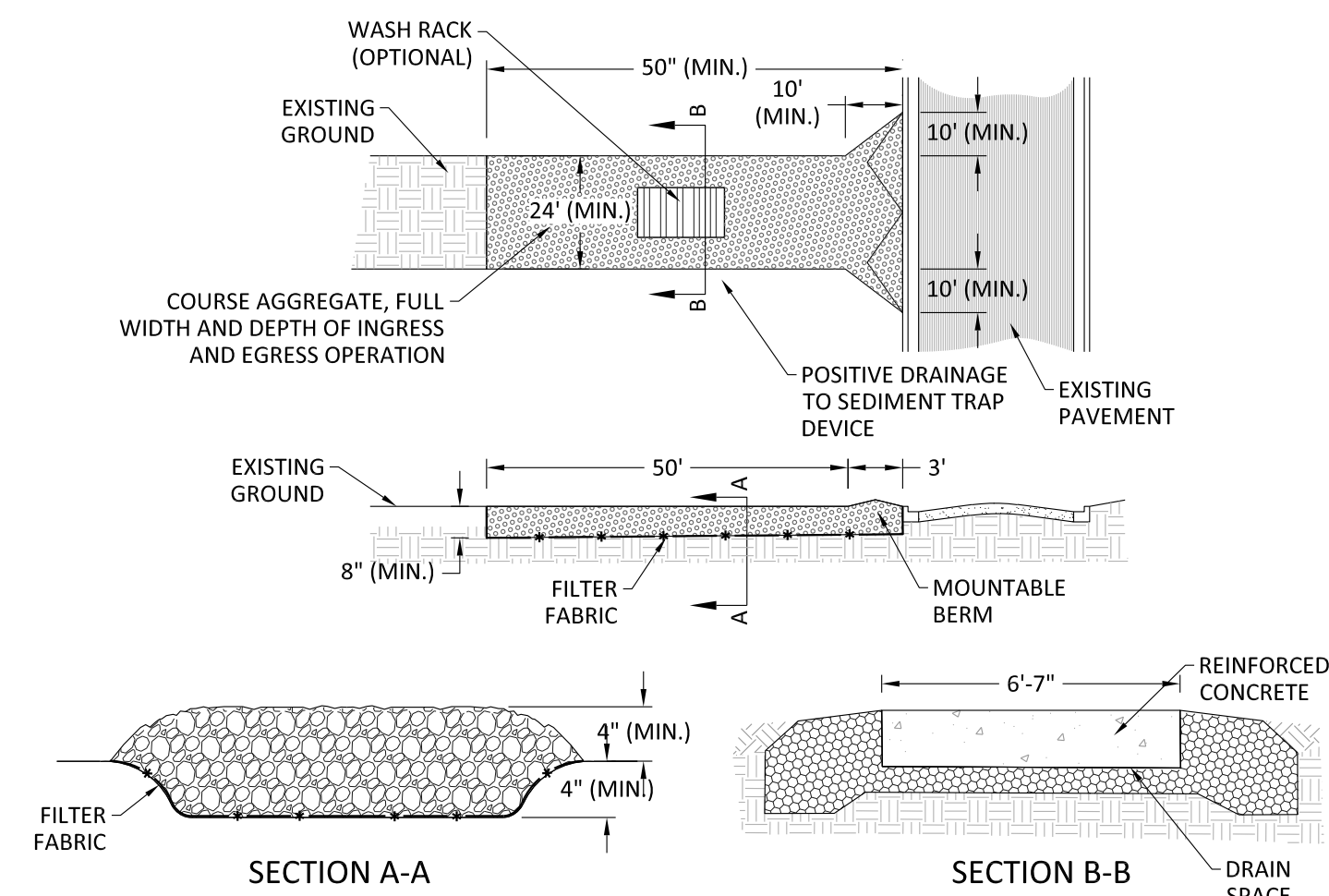
NOT TO SCALE



1. FACE SIGN TOWARD NEAREST STREET OR ACCESS POINT.
2. CONCRETE WASHOUT SHALL BE LOCATED BEHIND THE CURB AND 50' (MIN.) FROM NEAREST DRAINAGE INLET OR WATER COURSE.

CONCRETE WASHOUT IN DUMPSTER - OPTION

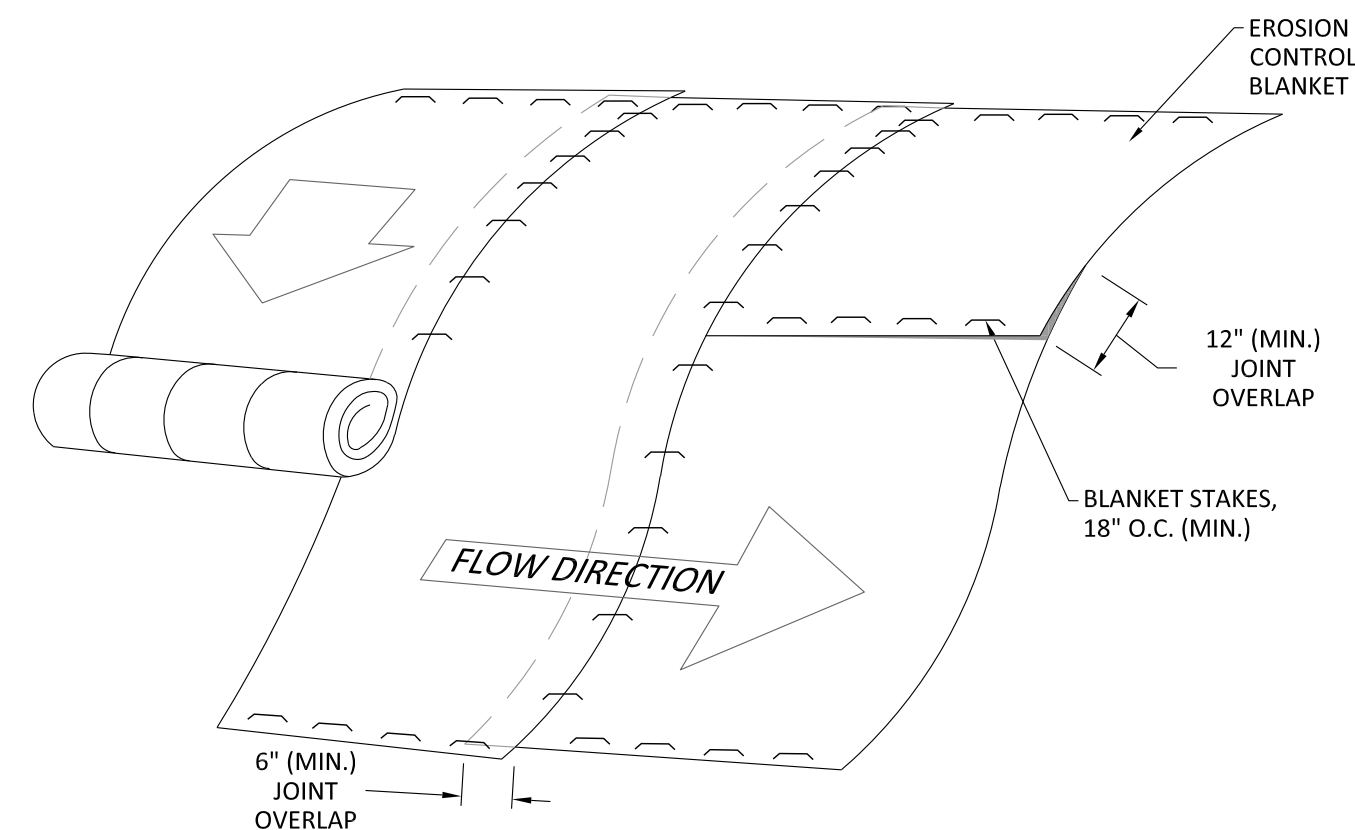
NOT TO SCALE



1. FILTER FABRIC SHALL MEET ASTM 592 GEOTEXTILE. TABLE 1 OR 2 FOR CLASS I, II, OR IV. AND SHALL BE PLACED OVER THE CLEARED AREA PRIOR TO PLACING STONE.
2. RECLAIMED CONCRETE OR COURSE AGGREGATE SHALL MEET EITHER IDOT GRADATION CA-1, CA-2, CA-3, OR CA-4 AND BE PLACED ACCORDING TO CONSTRUCTION SPECIFICATION 25 ROCKFILL USING PLACEMENT METHOD (I) OR CLASS III COMPACTED.
3. ANY DRAINAGE FACILITIES REQUIRED BECAUSE OF WASHING SHALL CONSTRUCTED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
4. IF WASH RACKS ARE USED, THEY SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.

TEMPORARY CONSTRUCTION ENTRANCE

NOT TO SCALE



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE (OR CHANNEL) BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL THE BLANKETS DOWN (STARTING AT DOWNSTREAM PROCEEDING UPSTREAM) HORIZONTALLY ACROSS THE SLOPE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH AN APPROXIMATELY (MIN) 4" OVERLAP.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY A (MIN) 6" OVERLAP. USE A DOUBLE ROW OF STAGGERED STAPLES 4" APART TO SECURE BLANKETS.
6. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHISEL SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A ROW OF STAPLES 4" APART OVER ENTIRE WIDTH OF THE CHANNEL. PLACE A SECOND ROW 4" BELOW THE FIRST ROW IN A STAGGERED PATTERN.
7. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

EROSION CONTROL BLANKET

NOT TO SCALE

MUNICIPAL/AGENCY APPROVAL STAMP

17118 S. HARLEM
TINLEY PARK LLC

RETAIL - TINLEY PARK
17120-17126 S. HARLEM AVE.

TINLEY PARK, ILLINOIS

SOIL EROSION DETAILS & SPECS

[illegible]

Weaver
Consultants
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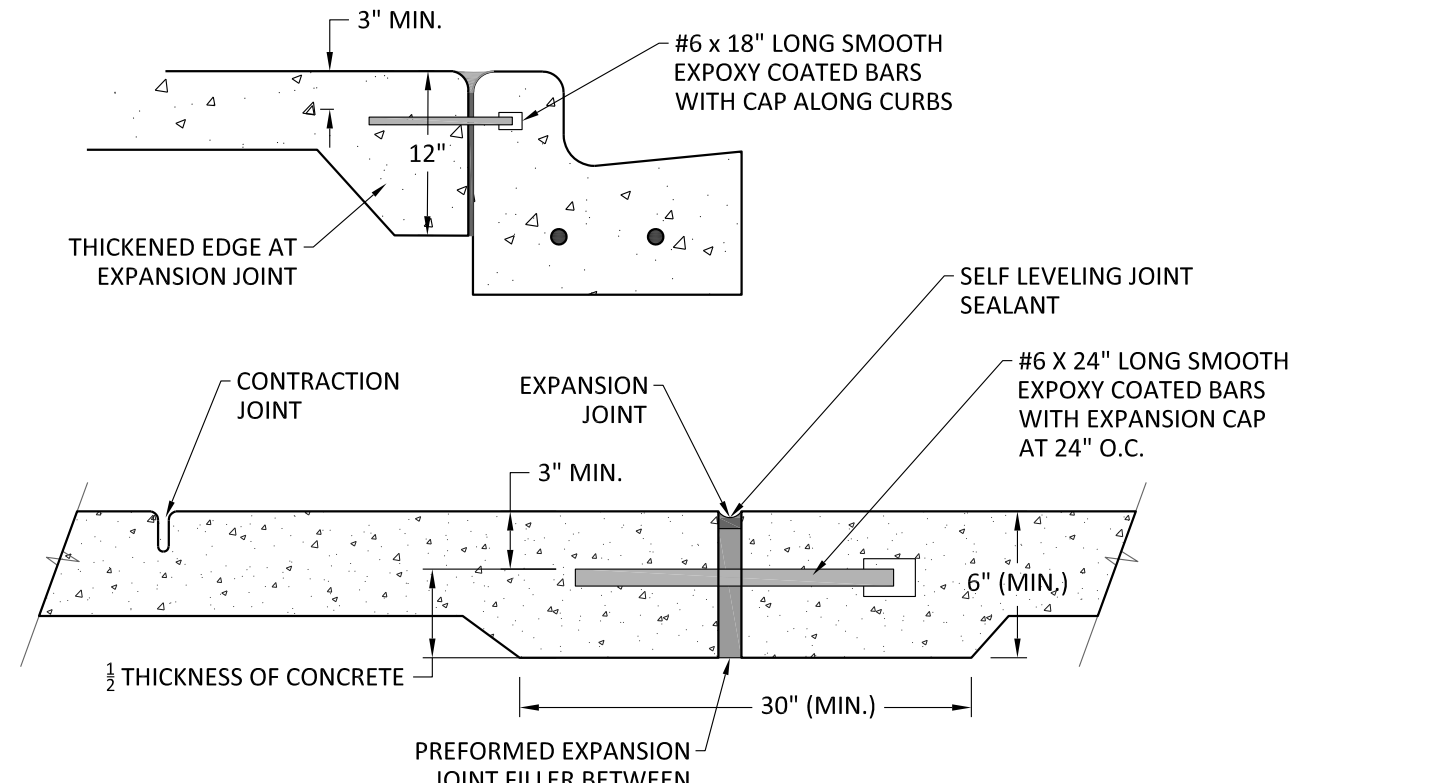
SHEET #:

C-9

ASPHALT DESCRIPTION	ASPHALT SECTION	SECTION DESCRIPTION	CONCRETE DESCRIPTION	CONCRETE SECTION	SECTION DESCRIPTION
			CONCRETE SIDEWALK		5" CONCRETE PAVEMENT 4" BASE COURSE COMPACTED SUB-BASE
STANDARD DUTY PAVEMENT		1.5" ASPHALT SURFACE COURSE 2.5" ASPHALT BINDER COURSE 8" BASE COURSE COMPACTED SUB-BASE	STANDARD CONCRETE PAVEMENT		6" CONCRETE PAVEMENT 4" BASE COURSE COMPACTED SUB-BASE
			HEAVY DUTY CONCRETE PAVEMENT		8" CONCRETE PAVEMENT 6" BASE COURSE COMPACTED SUB-BASE

- ALL ASPHALT SURFACE COURSE SHALL BE: IL-12.5, BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, N50 MIX C, 4% AIR Voids, MAX. RAP ALLOWED 15%, PG 64-22
- ALL ASPHALT BINDER COURSE SHALL BE: IL-19.0 BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, N50, 4% AIR Voids, MAX. RAP ALLOWED 25%, PG 64-22
- ALL CONCRETE SHALL BE: 4,000 PSI AT 14 DAYS, LIMESTONE AGGREGATE, 5 - 7% AIR ENTRAINMENT, 4" SLUMP LIMIT. PROVIDE CONCRETE SEALER AND A LIGHT BROOM FINISH.
- ALL BASE COURSE SHALL BE : CRUSHED STONE OR LIMESTONE (CA-6) COMPACTED TO 95% STANDARD LABORATORY DENSITY.
- ALL SUB-BASE SHALL BE: PROOF ROLLED TO THE SATISFACTION OF THE OWNER (OR OWNER'S REPRESENTATIVE), AND MUNICIPALITY.
- PRIOR TO THE PLACEMENT OF THE BINDER COURSE OF ASPHALT, THE BASE COURSE SHALL BE CLEANED AND A PRIME COAT SHALL BE APPLIED AT THE RATE OF 0.25 TO 0.50 GAL/SY PER IDOT STANDARDS.
- PRIOR TO THE PLACEMENT OF THE SURFACE COURSE OF ASPHALT, THE BINDER COURSE SHALL BE CLEANED AND A TACK COAT SHALL BE APPLIED AT A RATE OF 0.10 GAL/SY PER IDOT STANDARDS.
- SEE PAVING SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

PAVEMENT LEGEND

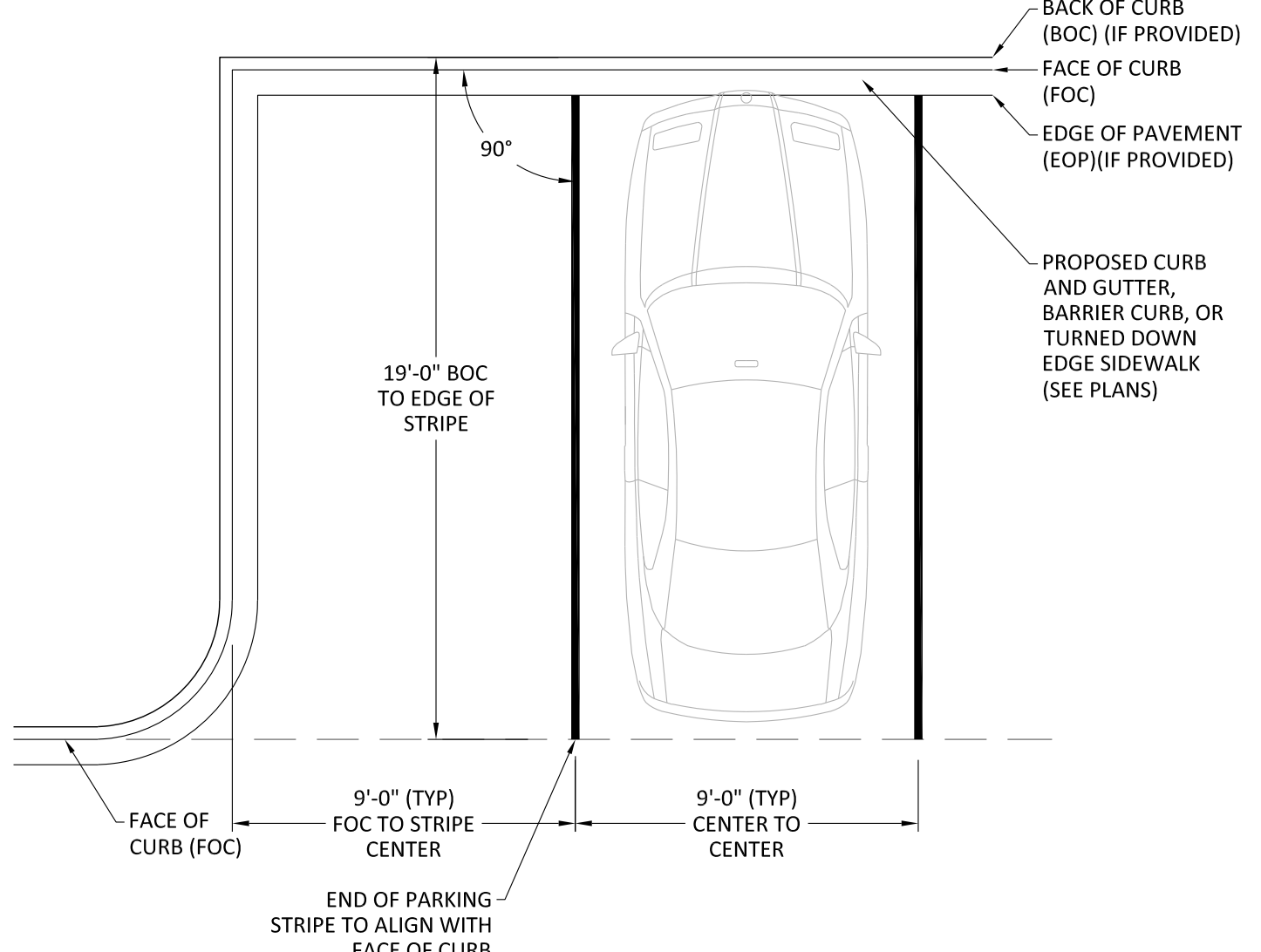


- CONTRACTION JOINTS**

 1. 3" DEEP FOR CONCRETE PAVEMENT, 2" DEEP FOR CONCRETE SIDEWALKS.
 2. TOOLED JOINTS WITH 3" JOINT RADII.
 3. 3" MAXIMUM WIDTH.
- EXPANSION JOINTS**

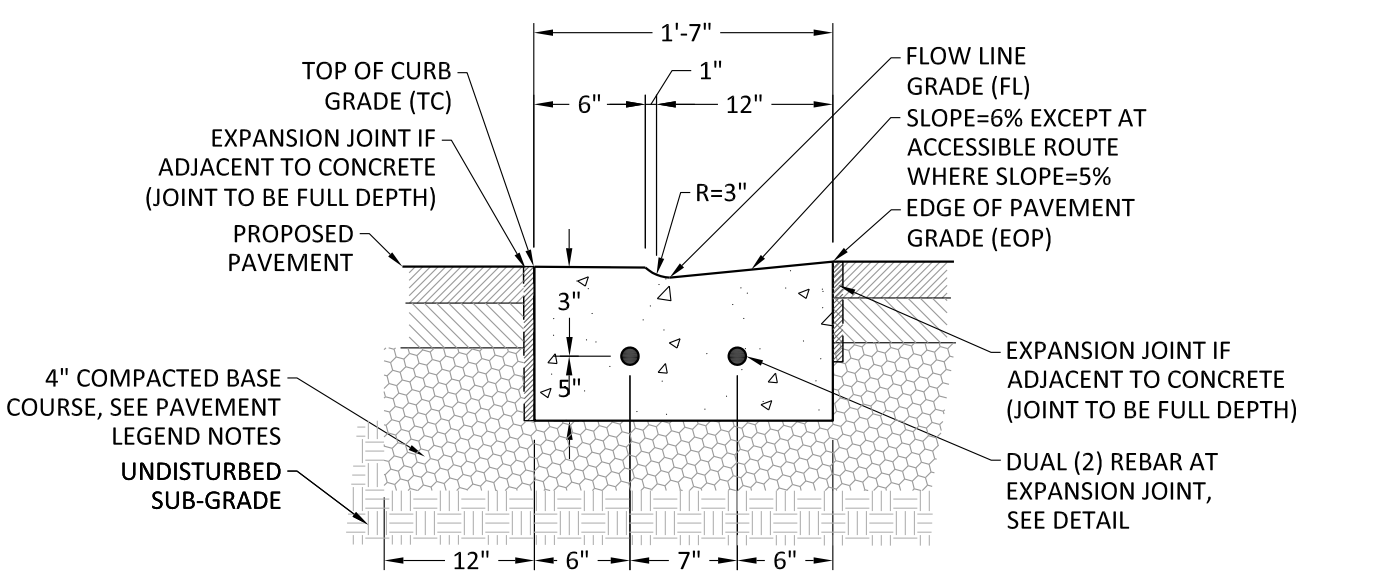
 1. ALL EXPANSION JOINTS TO BE 3" PREMOLDED JOINTS. JOINT TO BE FULL DEPTH OF CONCRETE.
 3. CLEAN ALL DEBRIS WITH HIGH PRESSURE AIR BEFORE JOINT SEALANT INSTALLATION.
 4. FIBER BOARD SHALL BE EXCLUDED AT ACCESSIBLE RAMPS ABUTTING A CURB.
 5. EXPANSION JOINTS SHALL BE PROVIDED AROUND THE PERIMETER OF ANY BLOCKOUT IN THE CONCRETE PAVING.
1. SEE PAVEMENT SECTIONS FOR DETAILS.
 2. SIDEWALK WIDTHS MAY VARY.
 3. ALL REINFORCEMENT BARS SHALL BE GRADE 40 KSI DEFORMED REINFORCING STEEL. SIZING AND SPACING SHALL BE IN ACCORDANCE WITH STATE DOT SPECIFICATIONS.

CONCRETE JOINTS



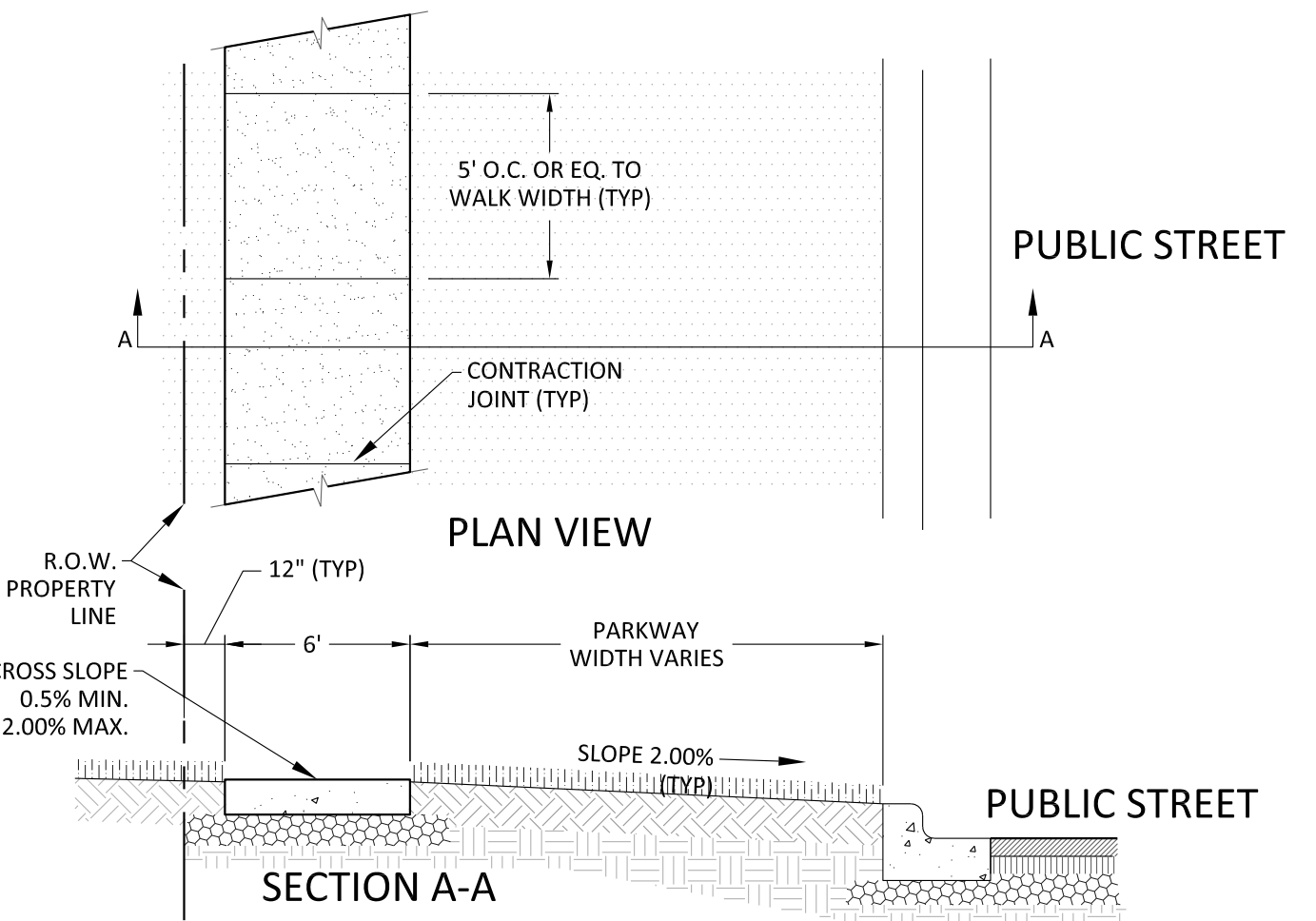
- ALL STRIPING SHALL BE DOUBLE COATED YELLOW PAVEMENT PAINT

PARKING STALL STRIPING - 90 DEGREE



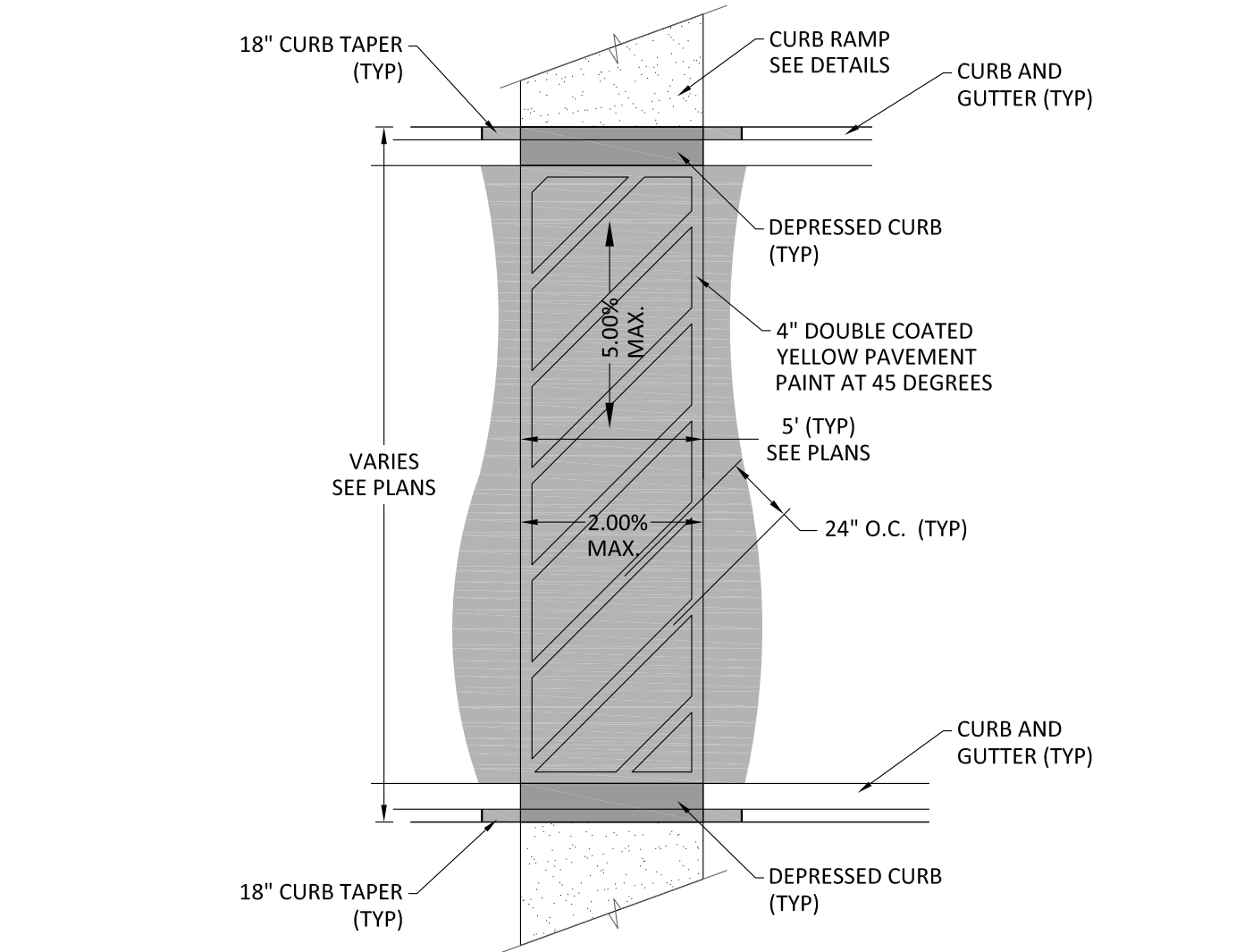
- USE REVERSED PITCH GUTTERS WHERE WATER IS DIVERTED AWAY FROM CURB AND STANDARD PITCH GUTTERS WHERE WATER DRAINS TOWARD CURB.
- LONGITUDINAL SLOPE SHALL BE 0.30% SLOPE MIN.
- PROVIDE EXPANSION JOINTS AT ALL POINT OF CURVATURE, AT 10' ON EITHER SIDE OF UTILITY TRENCHES OR STRUCTURES AND AT A DISTANCE NOT TO EXCEED 50'.
- PROVIDE HAND TOOLED CONTRACTION JOINTS IN BETWEEN EXPANSION JOINTS AT DISTANCES NOT TO EXCEED 20'.
- PROVIDE LIGHT BROOM FINISH IN DIRECTION OF FLOW.
- FIBER BOARD SHALL BE EXCLUDED AT ACCESSIBLE RAMPS

COMBINATION CONCRETE CURB AND GUTTER - DEPRESSED



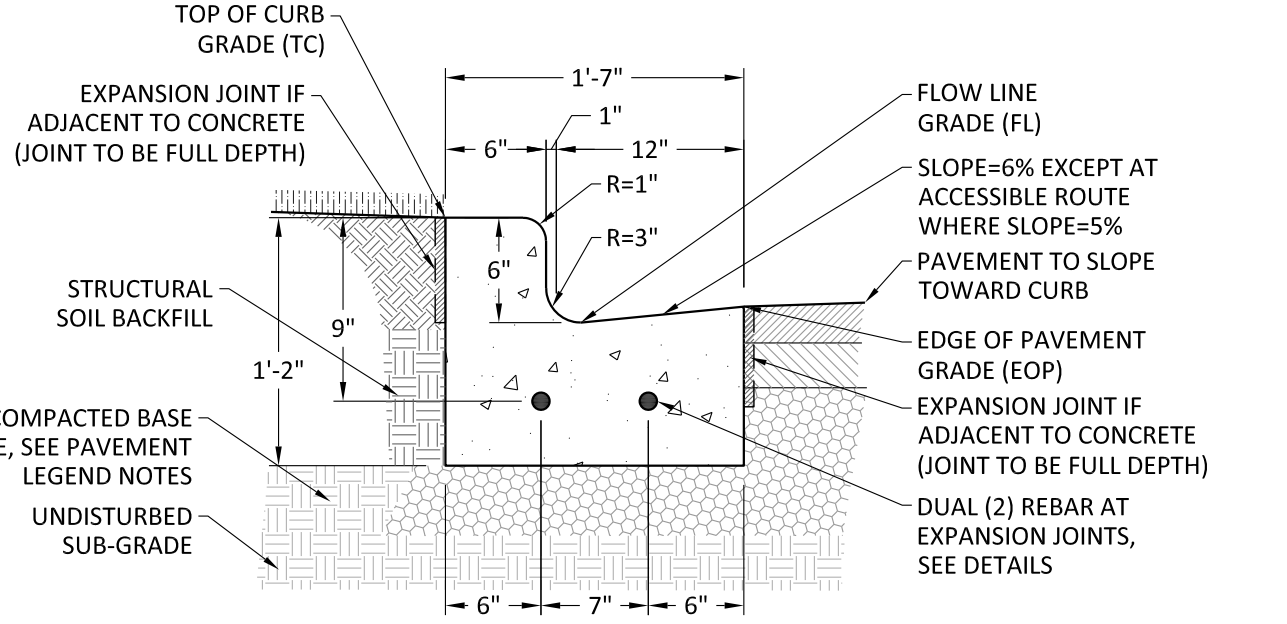
- AREAS WITHIN 10' OF A DRIVEWAY APPROACH (PROPOSED OR FUTURE) SHALL BE CONSTRUCTED PER CONCRETE APRON CROSS SECTIONS SEE PAVEMENT SECTIONS DETAIL.
- SIDEWALK INTERSECTIONS SHALL BE CAST MONOLITHICALLY WITH JOINT LINES PLACED PERPENDICULAR TO THE PATH.
- PROVIDE EXPANSION JOINTS AT 50' O.C. INTERVALS.
- PROVIDE CONTRACTION JOINTS 5' O.C. OR SHALL BE EQUAL TO THE WALK WIDTH (TYP).
- WHERE CONNECTION TO EXISTING CONCRETE WALKS, CONTRACTOR SHALL SAWCUT AT THE NEAREST JOINT (TYP).

CONCRETE PUBLIC SIDEWALK



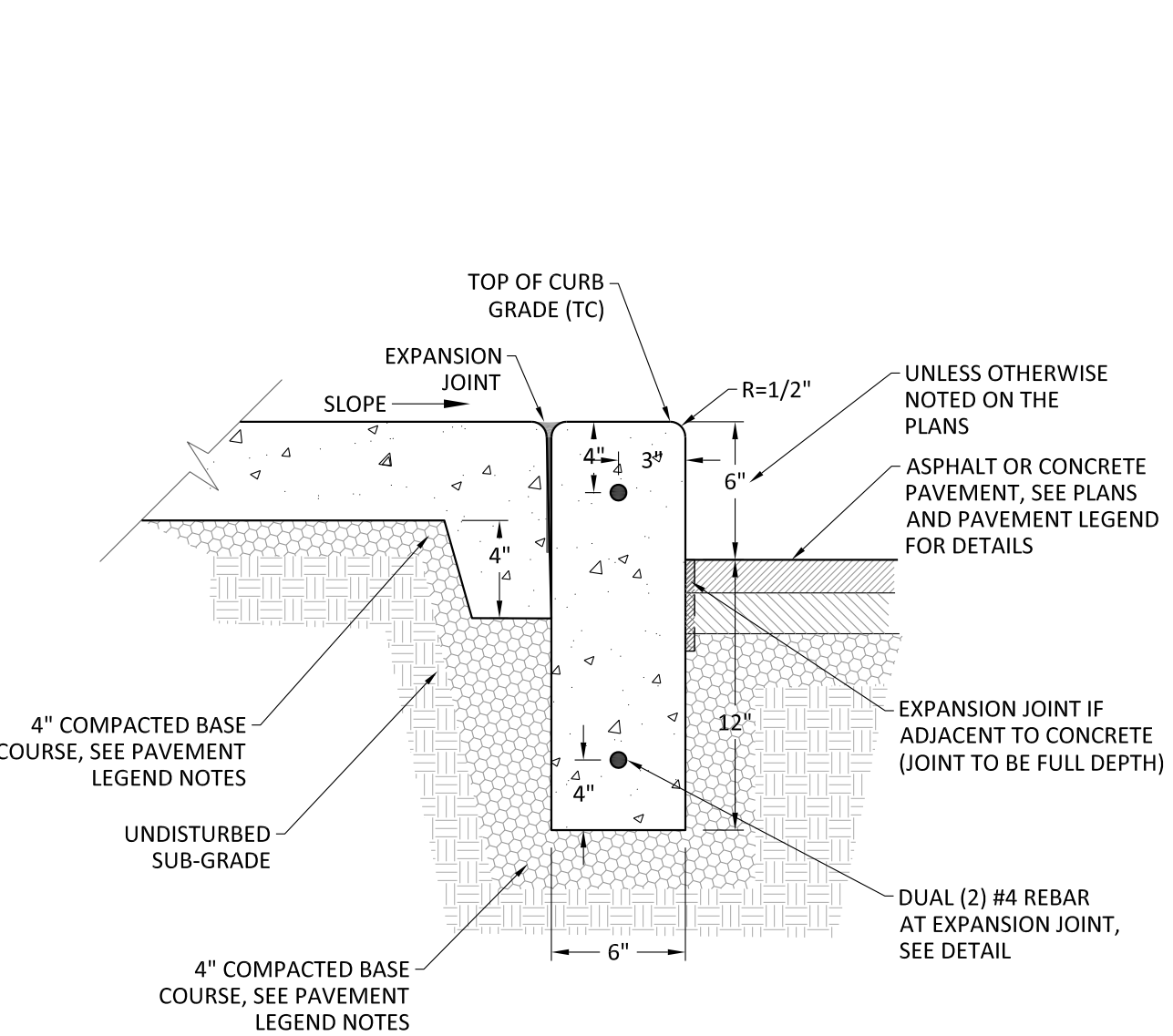
- ALL STRIPING SHALL BE DOUBLE COATED YELLOW PAVEMENT PAINT

ACCESSIBLE CROSSWALK



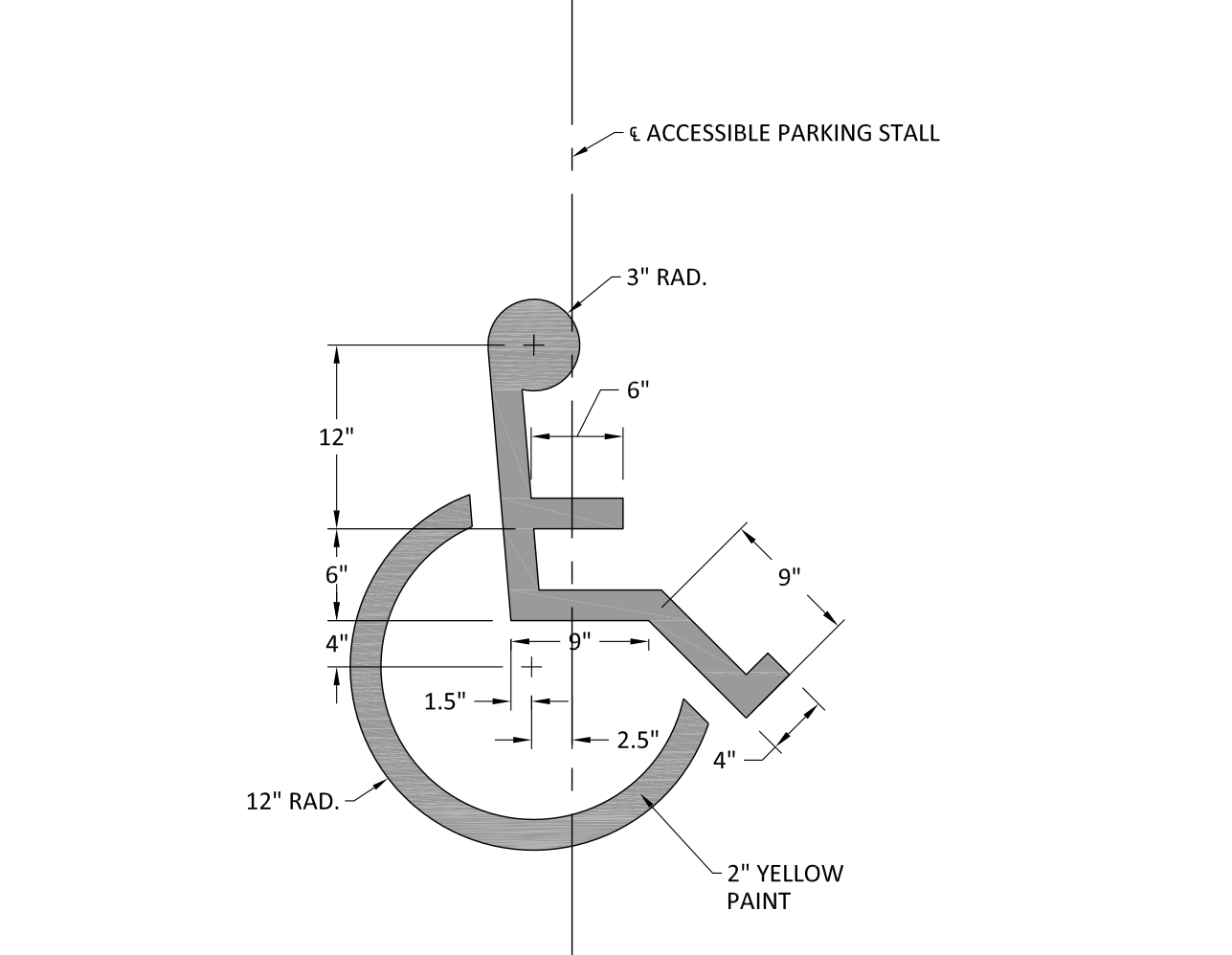
- USE STNDAR PITCH GUTTERS WHERE WATER IS DIVERTED TOWARD CURB.
- LONGITUDINAL SLOPE SHALL BE 0.50% MIN.
- PROVIDE EXPANSION JOINTS AT ALL POINT OF CURVATURE, AT 10' ON EITHER SIDE OF UTILITY TRENCHES OR STRUCTURES AND AT A DISTANCE NOT TO EXCEED 50'.
- PROVIDE HAND TOOLED CONTRACTION JOINTS IN BETWEEN EXPANSION JOINTS AT DISTANCES NOT TO EXCEED 20'.
- PROVIDE LIGHT BROOM FINISH IN DIRECTION OF FLOW.

COMBINATION CONCRETE CURB AND GUTTER - STANDARD PITCH



- SEE PLANS FOR LOCATIONS.

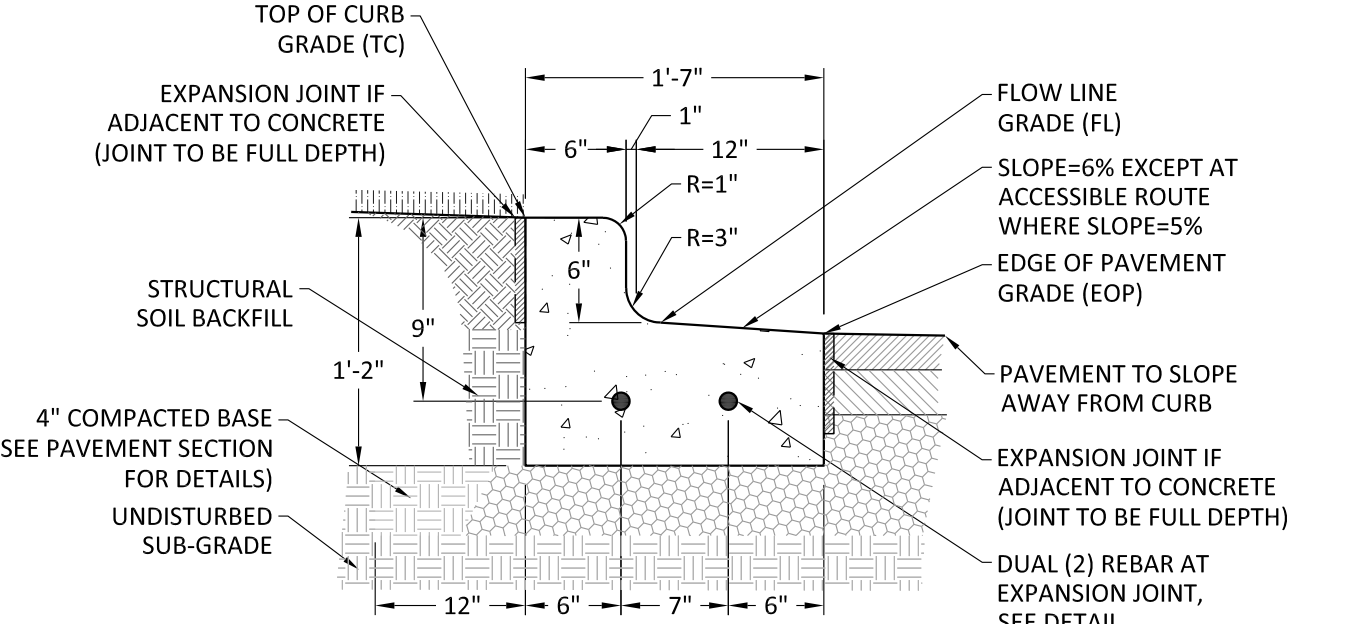
BARRIER CURB AT PAVEMENT



- SEE PLAN FOR QUANTITIES AND LOCATIONS.
- BOTTOM OF SYMBOL SHALL ALIGN WITH END OF STALL.

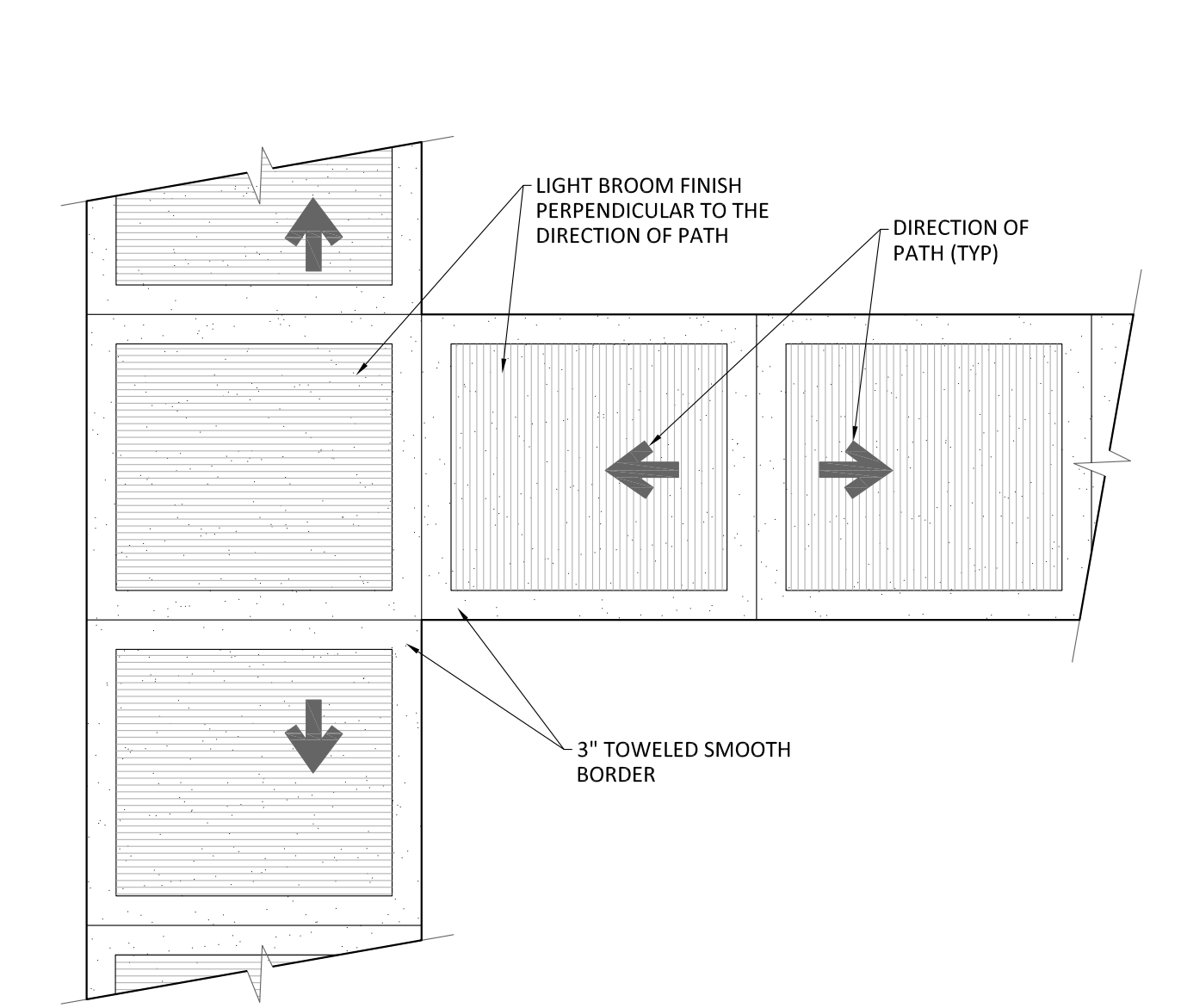
ACCESSIBLE PARKING STALL PAVEMENT SYMBOL

NOT TO SCALE



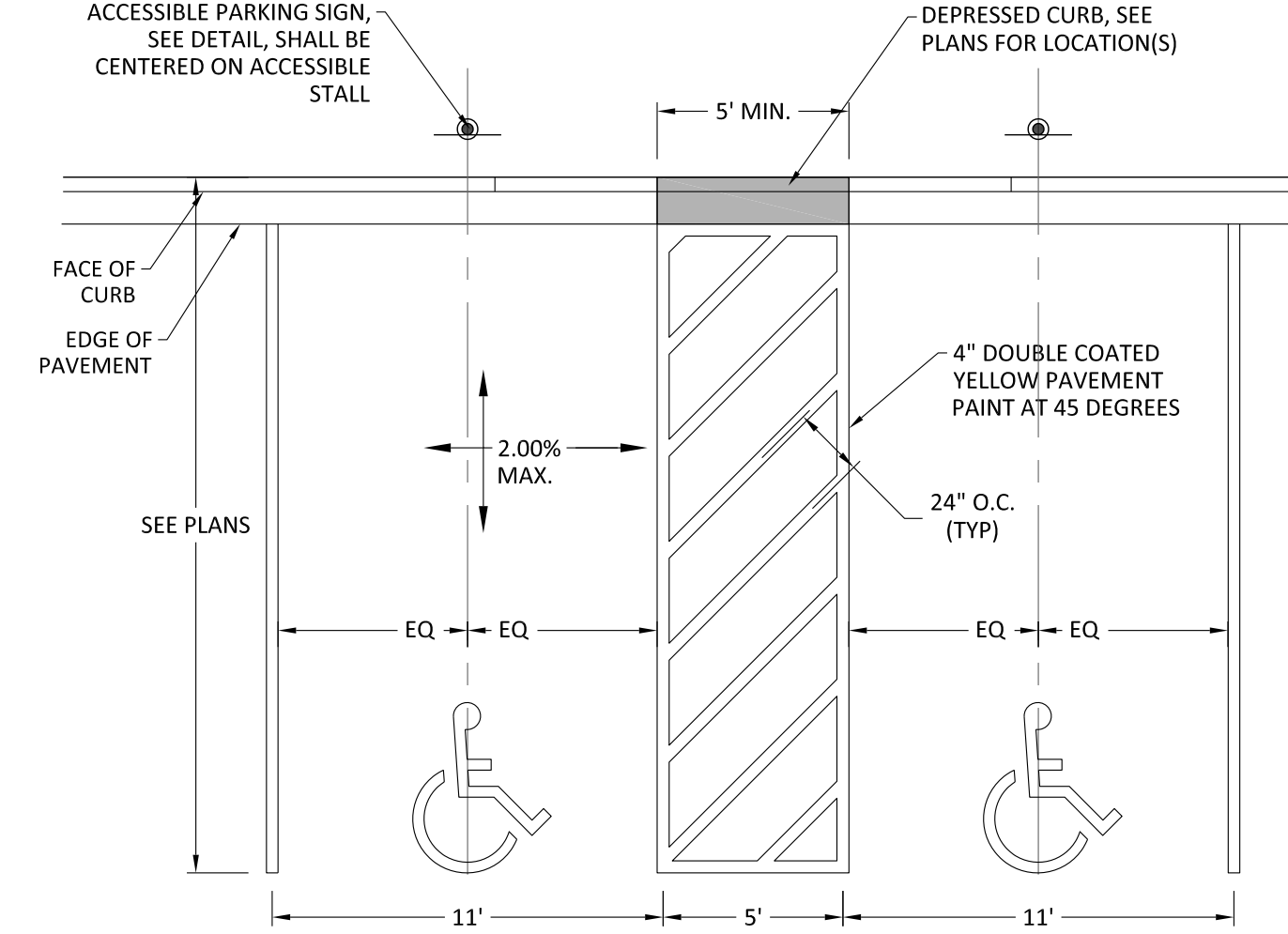
- USE REVERSED PITCH GUTTERS WHERE WATER IS DIVERTED AWAY FROM CURB.
- PROVIDE EXPANSION JOINTS AT ALL POINT OF CURVATURE, AT 10' ON EITHER SIDE OF UTILITY TRENCHES OR STRUCTURES AND AT A DISTANCE NOT TO EXCEED 50'.
- PROVIDE HAND TOOLED CONTRACTION JOINTS IN BETWEEN EXPANSION JOINTS AT DISTANCES NOT TO EXCEED 20'.
- PROVIDE LIGHT BROOM FINISH IN DIRECTION OF FLOW.

COMBINATION CONCRETE CURB AND GUTTER - REVERSE PITCH



- SEE PLANS FOR LOCATIONS.

CALIFORNIA FINISH CONCRETE



- SIGNS SHALL BE VERTICALLY MOUNTED ON A POST OR WALL AT FRONT CENTER OF THE PARKING SPACE, NO MORE THAN 6 FEET HORIZONTALLY FROM THE FRONT OF THE PARKING SPACE.
- ACCESSIBLE PARKING STALLS SLOPES NOT TO EXCEED 2.00% IN ANY DIRECTION.

ACCESSIBLE PARKING STALL - 90 DEG 11' x 5'

NOT TO SCALE

MUNICIPAL/AGENCY APPROVAL STAMP

17118 S. HARLEM
TINLEY PARK LLC

RETAIL - TINLEY PARK
17120-17126 S. HARLEM AVE.
TINLEY PARK, ILLINOIS

PROJECT DETAILS 1

NO.	DATE	REVISION DESCRIPTION	BY	RMP
1	04/22/2021	PER VILLAGE COMMENT		
DESIGNED BY: BP KMP				
REVIEWED BY: BP				
DATE: 03/17/2021				
PRJ# 4523-329-32-01				

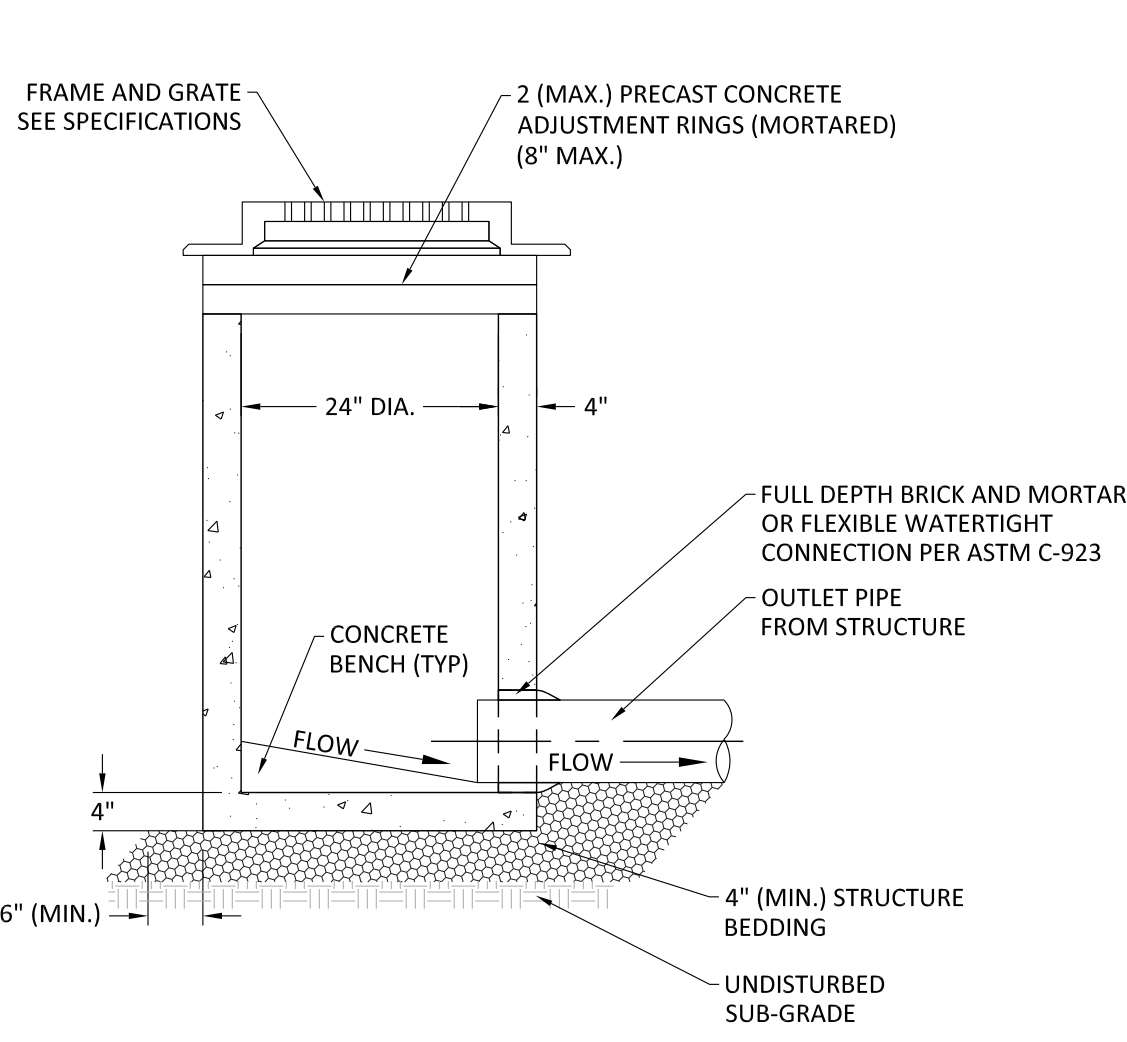
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Group



OFFICE LOCATION:
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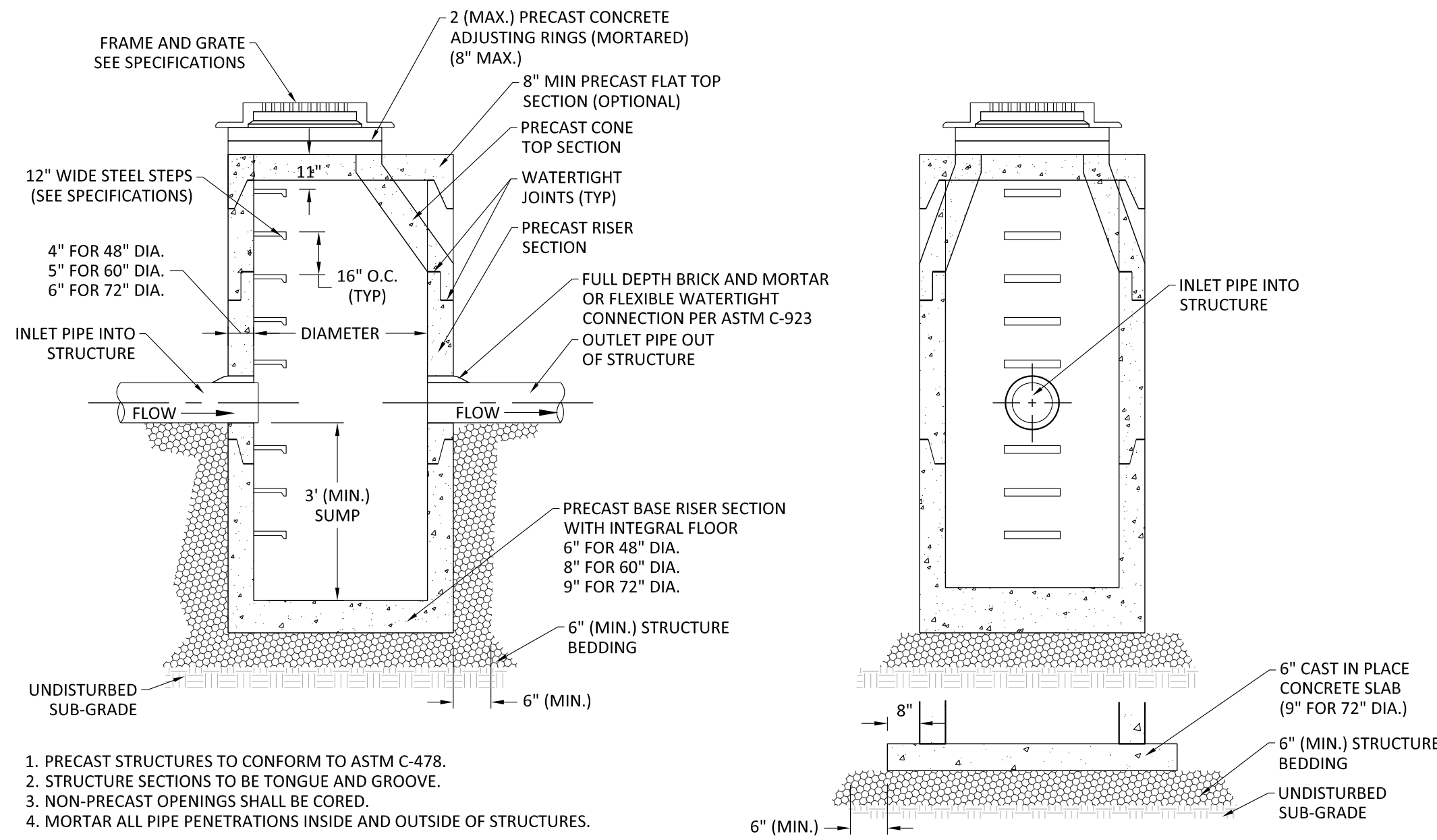
SHEET #:
C-10



1. PRECAST STRUCTURES TO CONFORM TO ASTM C-478.
2. MAXIMUM DEPTH FROM INVERT OF OUTLET PIPE TO TOP OF PAVEMENT SHALL NOT EXCEED 42". IF DESIGN OR CONSTRUCTION REQUIRES DEPTH BEYOND 42", STRUCTURE SHALL BE REVISED TO A 48" DIAMETER TYPE A CATCH BASIN.
3. BENCHES MUST BE PROVIDED IN ALL INLETS.
4. NON-PRECAST OPENINGS SHALL BE CORED.

TYPE A INLET

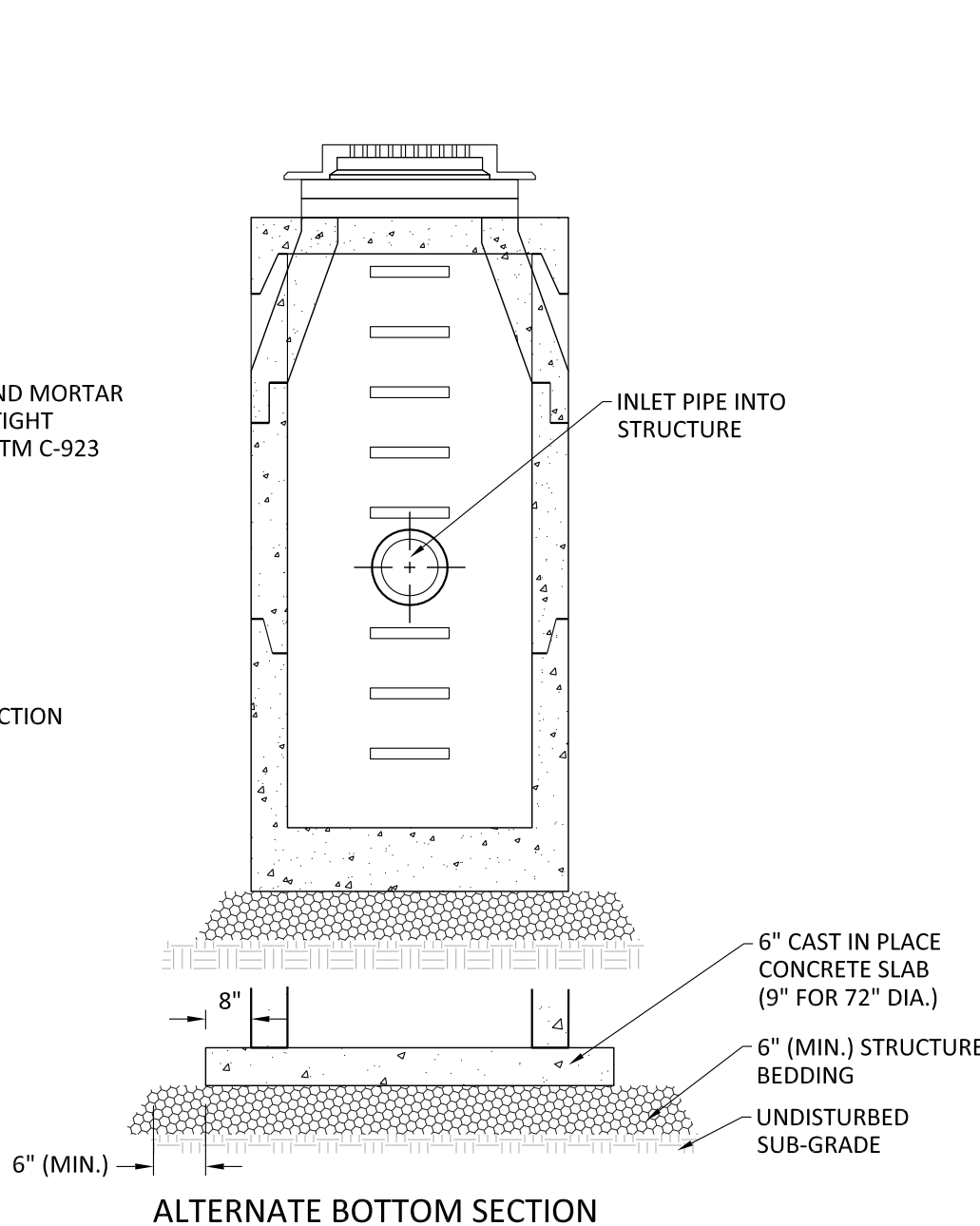
NOT TO SCALE



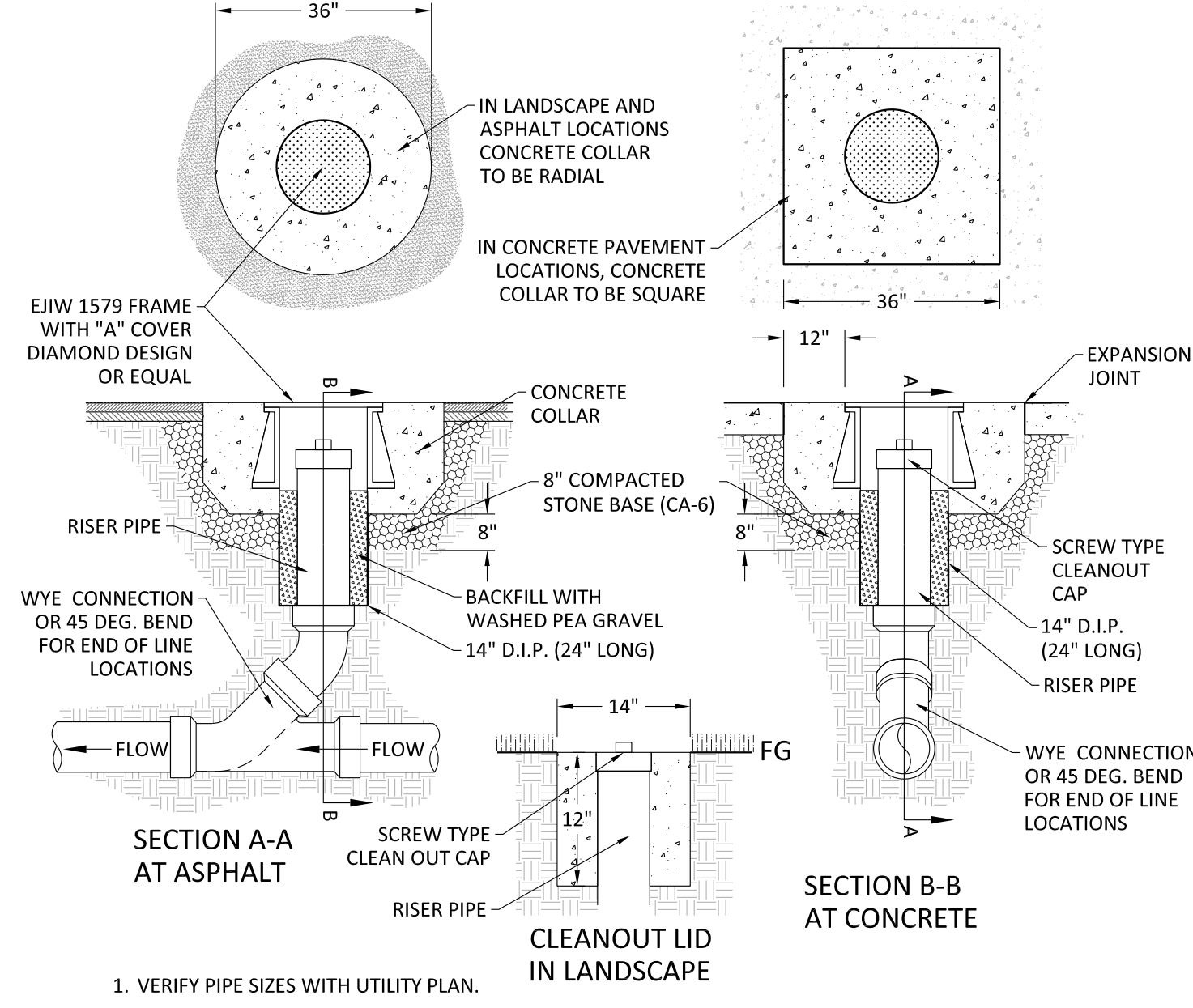
1. PRECAST STRUCTURES TO CONFORM TO ASTM C-478.
2. STRUCTURE SECTIONS TO BE TONGUE AND GROOVE.
3. NON-PRECAST OPENINGS SHALL BE CORED.
4. MORTAR ALL PIPE PENETRATIONS INSIDE AND OUTSIDE OF STRUCTURES.

TYPE A STORM CATCH BASIN

NOT TO SCALE



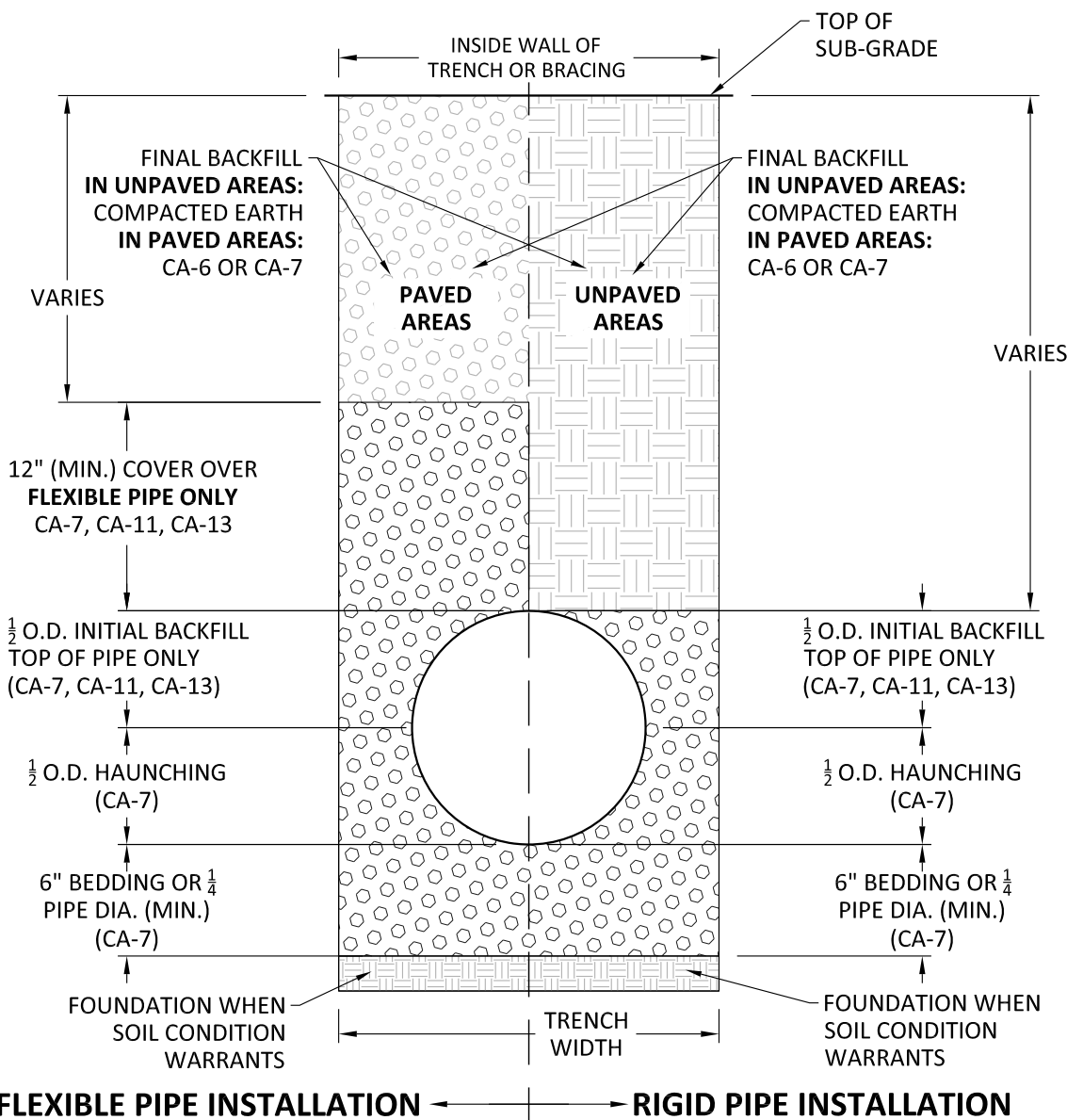
ALTERNATE BOTTOM SECTION



1. VERIFY PIPE SIZES WITH UTILITY PLAN.

CLEANOUT

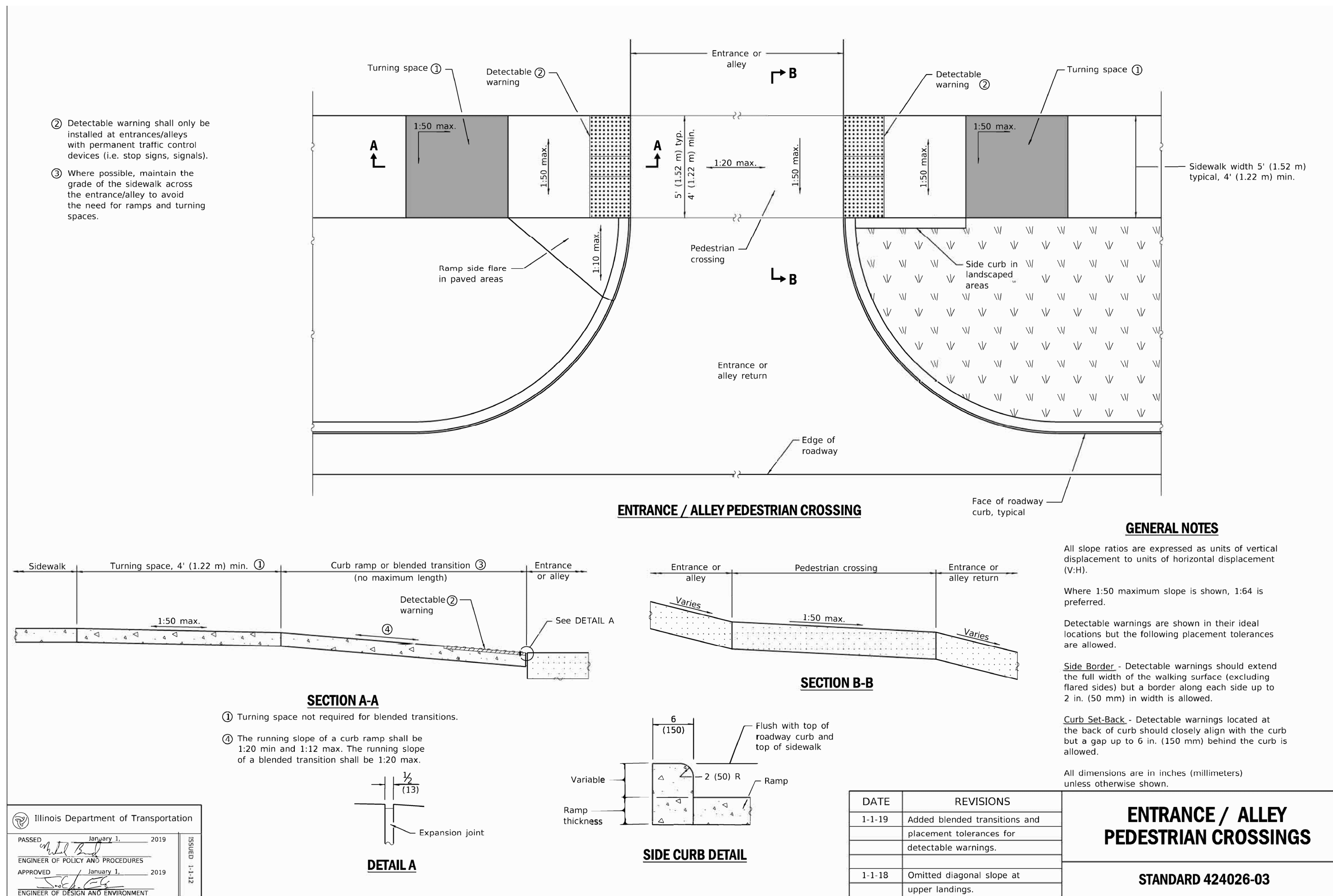
NOT TO SCALE



1. BEDDING NOT REQUIRED FOR WATERMAIN.

UTILITY TRENCH AND BEDDING DETAIL

NOT TO SCALE



DATE	REVISIONS
1-1-19	Added blended transitions and placement tolerances for detectable warnings.
1-1-18	Omitted diagonal slope at upper landings.

ENTRANCE / ALLEY PEDESTRIAN CROSSINGS

STANDARD 424026-03

MUNICIPAL/AGENCY APPROVAL STAMP

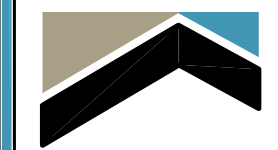
17118 S. HARLEM
TINLEY PARK LLC

RETAIL - TINLEY PARK
17120-17126 S. HARLEM AVE.
TINLEY PARK, ILLINOIS

PROJECT DETAILS 3

NO.	DATE	REVISION DESCRIPTION	BY
1	04/22/2021	PER VILLAGE COMMENT	KMP
DESIGNED BY:	BP KMP		
REVIEWED BY:	BP		
DATE:	03/17/2021		
FILE:	4523-329-32-01		

Weaver
Consultants
Group



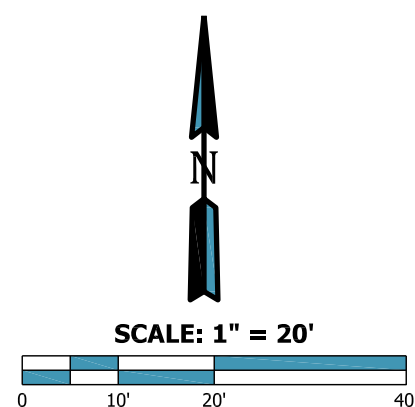
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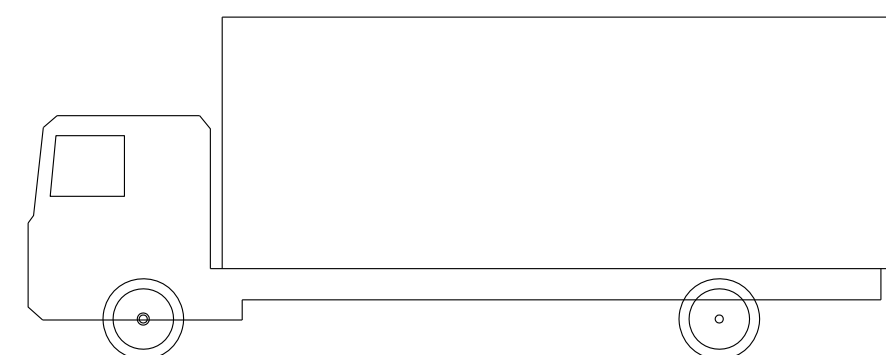
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C-12

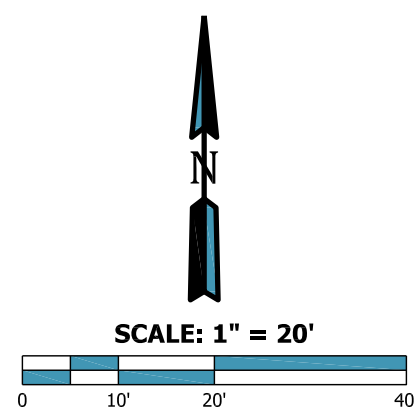


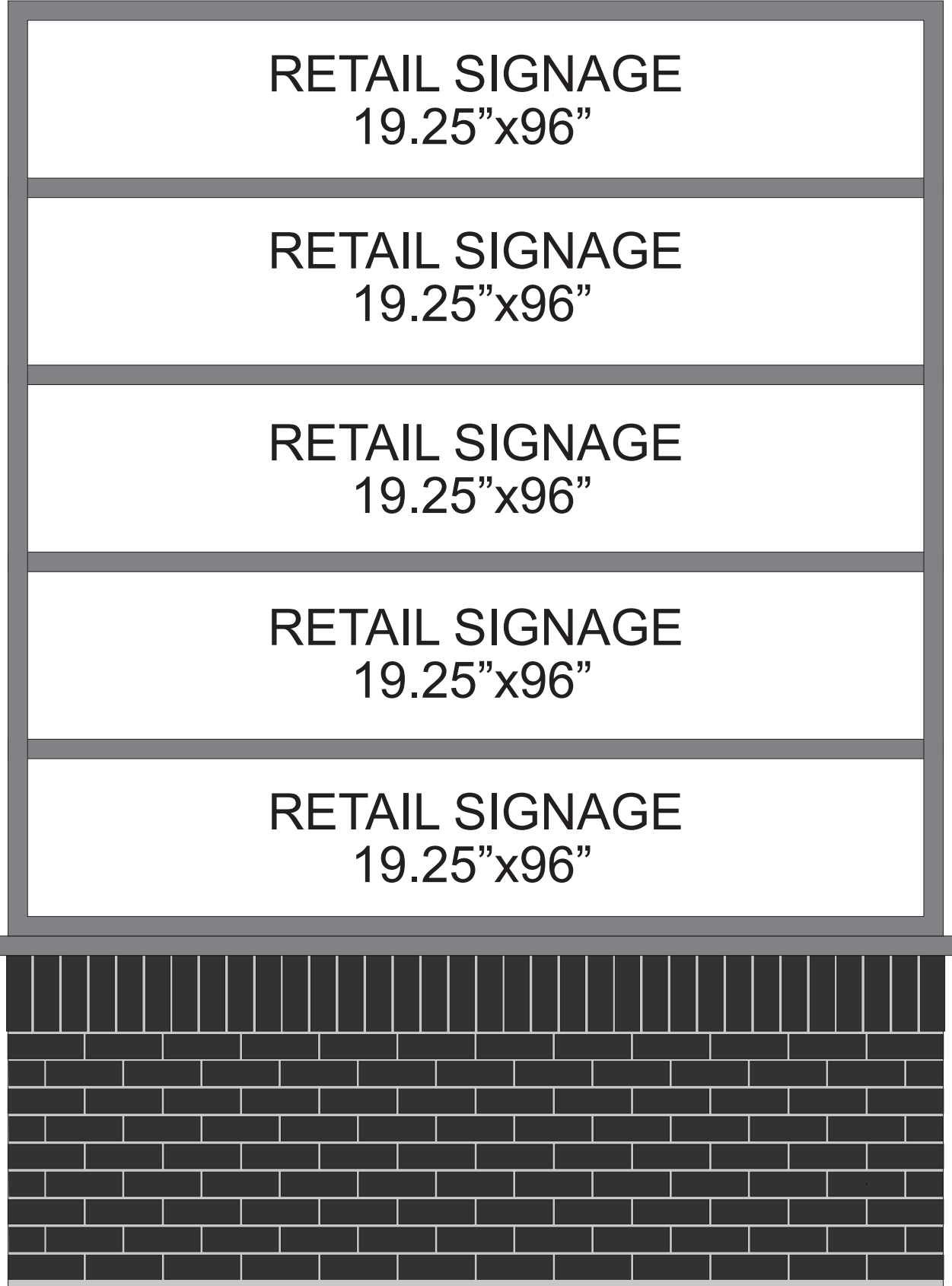
SHEET #: 1 OF 1





SU - Single Unit Truck	
Overall Length	30.000ft
Overall Width	8.000ft
Overall Body Height	11.881ft
Min Body Ground Clearance	1.367ft
Track Width	8.000ft
Lock-to-lock time	5.00s
Curb to Curb Turning Radius	42.000ft

[illegible]



847.222.0505

CLIENT



CORPORATE:
400 N. STATE SUITE 400
CHICAGO, IL 60654
LOCATION:
17118 S. HARLEM AVE.
TINLEY PARK, IL 60477

PROJECT

DATE: 12/10/2020

 Vequity 17118 S Harlem Tinley Park 12102020.ai

ACCOUNT REP: JD

DESIGNER: NP

DESIGN TIME: N/A

R1:00/00/00

R2:00/00/00

R3:00/00/00

R4:00/00/00

R5:00/00/00

DESIGN STATUS:

- ☐ REVISE & RESUBMIT
☐ APPROVED AS NOTED
☐ APPROVED

SIGN:

DATE:

MUNICIPALITY: TINLEY PARK, IL

PERMIT STATUS:

- ☐ REVISE & RESUBMIT
☐ APPROVED AS NOTED
☐ APPROVED

PRINT SIZE: ☒ 11"x17" ☐ 8.5"x11"

SACALE: N.T.S.



MONUMENT SIGNS

DETAIL

SHEET

1 OF 2

847.222.0505

CLIENT

vequity

CORPORATE:
400 N. STATE SUITE 400
CHICAGO, IL 60654

LOCATION:
17118 S. HARLEM AVE.
TINLEY PARK, IL 60477

PROJECT

DATE: 12/10/2020

Vequity 17118 S Harlem Tinley Park 12102020.ai

ACCOUNT REP: JD

DESIGNER: NP

DESIGN TIME: N/A

R1:00/00/00

R2:00/00/00

R3:00/00/00

R4:00/00/00

R5:00/00/00

DESIGN STATUS:

- ☐ REVISE & RESUBMIT
☐ APPROVED AS NOTED
☐ APPROVED

SIGN:

DATE:

MUNICIPALITY: TINLEY PARK, IL

PERMIT STATUS:

- ☐ REVISE & RESUBMIT
☐ APPROVED AS NOTED
☐ APPROVED

PRINT SIZE: ☒ 11"x17" ☐ 8.5"x11"

SACALE: N.T.S.

MONUMENT SIGNS

SITE PLAN

SHEET
2 OF 2

NOTE: SITE PLAN SHOWN FOR REFERENCE ONLY AND TO BE PERMITTED UNDER SEPARATE REVIEW.

THE INTERIOR CONDITIONS SHOWN WITHIN THE BUILDING IS FOR REFERENCE ONLY AND IS NOT TO BE CONSIDERED THE APPROVED INTERIOR LAYOUT.

THE SITE PLAN PROVIDED IS ARCHITECTURAL IN NATURE AND HAS NOT BEEN REVIEWED BY A CIVIL ENGINEER AT THE TIME OF THIS ISSUANCE. FINAL SITE CONFIGURATION AND OR SITE DRAINING WILL BE REVIEW AND OR UPDATED WHEN A CIVIL ENGINEER IS IN REVIEW OF THE PROJECT. THE FINAL SITE PLAN MAY DIFFER UPON RECEIPT OF SEALED CIVIL ENGINEERED DOCUMENTS.

④ KEY NOTES:

1. ADA PARKING, SIGN REFER TO CIVIL.
2. PROPOSED MONUMENT SIGN.
3. PROPERTY LINE.

 1 SITE PLAN
SCALE: 3/32"=1'-0"

your image is our priority.



Total Sign Square footage Calculations:	
Allowed:	120.0 sqft
Proposed:	129 sqft

Overall Height:	
Allowed Max:	10.0 Feet
Proposed:	11.0 Feet

SetBacks:	
Requirements:	5 Feet
Proposed:	5 Feet

Code Information:	
1. Monument sign square footage calculated as follows: 1 SF per 2.5 of linear frontage not to exceed 120 SF.	
2. 10' Setback restriction for all signs on site (directionals are exempt).	
3. Max overall height: 10'	
4. Freestanding signs shall be architecturally compatible with the building it identified. The sign shall have the same or similar materials to the materials used for the principle building.	

Face Detail - Mobil 2P Pricer Monument Structure - **Sign A**
 3/8" = 1'-0" **Must be printed at actual size for scale to apply*



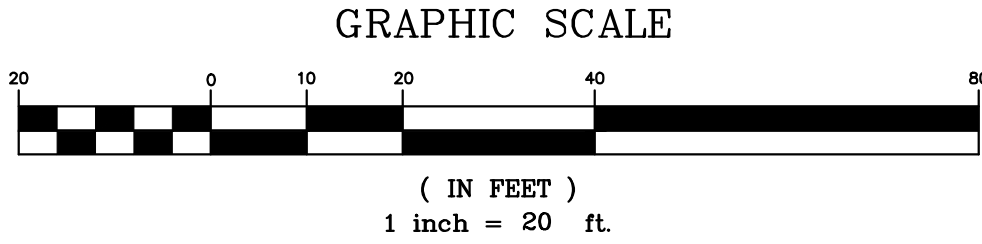
VICINITY MAP
NO SCALE

FINAL PLAT OF SUBDIVISION SOUTHLANDS SECOND CONSOLIDATION

IN THE SOUTHEAST QUARTER OF SECTION 25, TOWNSHIP
36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL
MERIDIAN, IN COOK COUNTY, ILLINOIS.

P.I.N. 27-25-403-015-0000 LOT 3
P.I.N. 27-25-403-016-0000 LOT 4

ADDRESS: 17120-17126 HARLEM AVENUE
TINLEY PARK, ILLINOIS



AREA SUMMARY			
GROSS	40,875 SQUARE FEET	OR	0.938 ACRES
R.O.W. DEDICATION	0 SQUARE FEET	OR	0 ACRES
NET AREA	40,875 SQUARE FEET	OR	0.938 ACRES
(TO HEAVY LINES)			
(BASED ON MEASURED VALUES)			



NOTES:

- 1.A BLANKET ACCESS EASEMENT IS HEREBY GRANTED OVER ALL PAVED DRIVEWAYS, ROADWAYS AND WALKWAYS AS PRESENTLY OR HEREAFTER CONSTRUCTED ON LOT 1.
- 2.SEE DECLARATION OF RECIPROCAL EASEMENTS RECORDED MAY 29, 2020 AS DOCUMENT NUMBER 2015015003 FOR ACCESS, INGRESS AND EGRESS EASEMENT OVER LOT 1 AS PLATTED HEREON AND OVER LOT 1 IN SOUTHLANDS FIRST CONSOLIDATION (FORMERLY LOTS 1 AND 2 IN BLOCK 1 OF ARTHUR T. MCINTOSH AND COMPANY'S SOUTHLANDS) OVER PAVED DRIVEWAYS, ROADWAYS AND WALKWAYS AND ALSO FOR PRIVATE UTILITY EASEMENTS.

LEGEND

- SET 7/8" O.D.I.P. UNLESS OTHERWISE NOTED
- IRON PIPE WITH CAP SET IN CONCRETE (5" MINIMUM DIAMETER X 24") UNLESS OTHERWISE NOTED
- + SET CROSS IN CONCRETE UNLESS OTHERWISE NOTED

ABBREVIATIONS

O.D.I.P. = OUTSIDE DIAMETER IRON PIPE
(R) = RECORD BEARING OR DISTANCE
(M) = MEASURED BEARING OR DISTANCE
(C) = CALCULATED BEARING OR DISTANCE
(D) = DEED BEARING OR DISTANCE
B.S.L. = BUILDING SETBACK LINE
U.E. = UTILITY EASEMENT
D.E. = DRAINAGE EASEMENT
P.U.E. = PUBLIC UTILITY EASEMENT
P.O.C. = POINT OF COMMENCEMENT
P.O.B. = POINT OF BEGINNING
P.U. & D.E. = PUBLIC UTILITY AND DRAINAGE EASEMENT

LINE LEGEND

- SUBDIVISION BOUNDARY LINE
- ADJACENT LAND PARCEL LINE
- LOT LINE
- EASEMENT LINE
- CENTERLINE
- BUILDING SETBACK LINE
- SECTION LINE



SUBMITTED BY AND RETURN TO:

SEND TAX BILL TO:

DATE	12/2/2020	PC	TK	DR	BY	BT	CHECKED BY	DW	BOOK	N/A	PG	N/A
NO.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
REVISIONS	DATE	2/17/21	DATE	2/17/21	DATE	2/17/21	DATE	2/17/21	DATE	2/17/21	DATE	2/17/21
PER EMAIL	DATE	2/17/21	DATE	2/17/21	DATE	2/17/21	DATE	2/17/21	DATE	2/17/21	DATE	2/17/21
PER LETTER	DATE	4/9/2021	DATE	4/9/2021	DATE	4/9/2021	DATE	4/9/2021	DATE	4/9/2021	DATE	4/9/2021

PROJECT	SOUTHLANDS SECOND CONSOLIDATION
OWNER/SUBMITTER	Tinley Park, Illinois
OWNER/SUBMITTER	17118 S. Harlem Tinley Park LLC
OWNER/SUBMITTER	226 N. Morgan Street, Suite 300
OWNER/SUBMITTER	Chicago, Illinois 60607

COMPASS SURVEYING LTD	ALTA SURVEYS • TOPOGRAPHY • CONSTRUCTION STAKING
COMPASS SURVEYING LTD	2631 GINGER WOODS PARKWAY, STE. 100
COMPASS SURVEYING LTD	AURORA, ILLINOIS 60002
COMPASS SURVEYING LTD	PHONE: (630) 820-9100 FAX: (630) 820-0700 EMAIL: ADMIN@CCLSURVEYING.COM

SCALE: 1" = 20'

1 OF 2

PROJ. NO.: 20.0290-01

Traffic Impact Study Proposed Retail Development

Tinley Park, Illinois



Prepared For:

Vequity



April 23, 2021

1. Introduction

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 retail development to be located in Tinley Park, Illinois. The site, which is vacant, is located on the west side of Harlem Avenue (IL Route 43) 300 feet south of 171st Street. As proposed, the site will be developed with an approximately 7,421 square-foot multi-tenant building that will be anchored by an approximately 2,202 square-foot Starbucks coffee shop. Access to the development will be provided via a proposed right-in/right-out access drive on Harlem Avenue and via cross connection to the planned 7-Eleven fuel center development to be located north of the site.

The purpose of this study was to examine background traffic conditions, assess the impact that the proposed development 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.

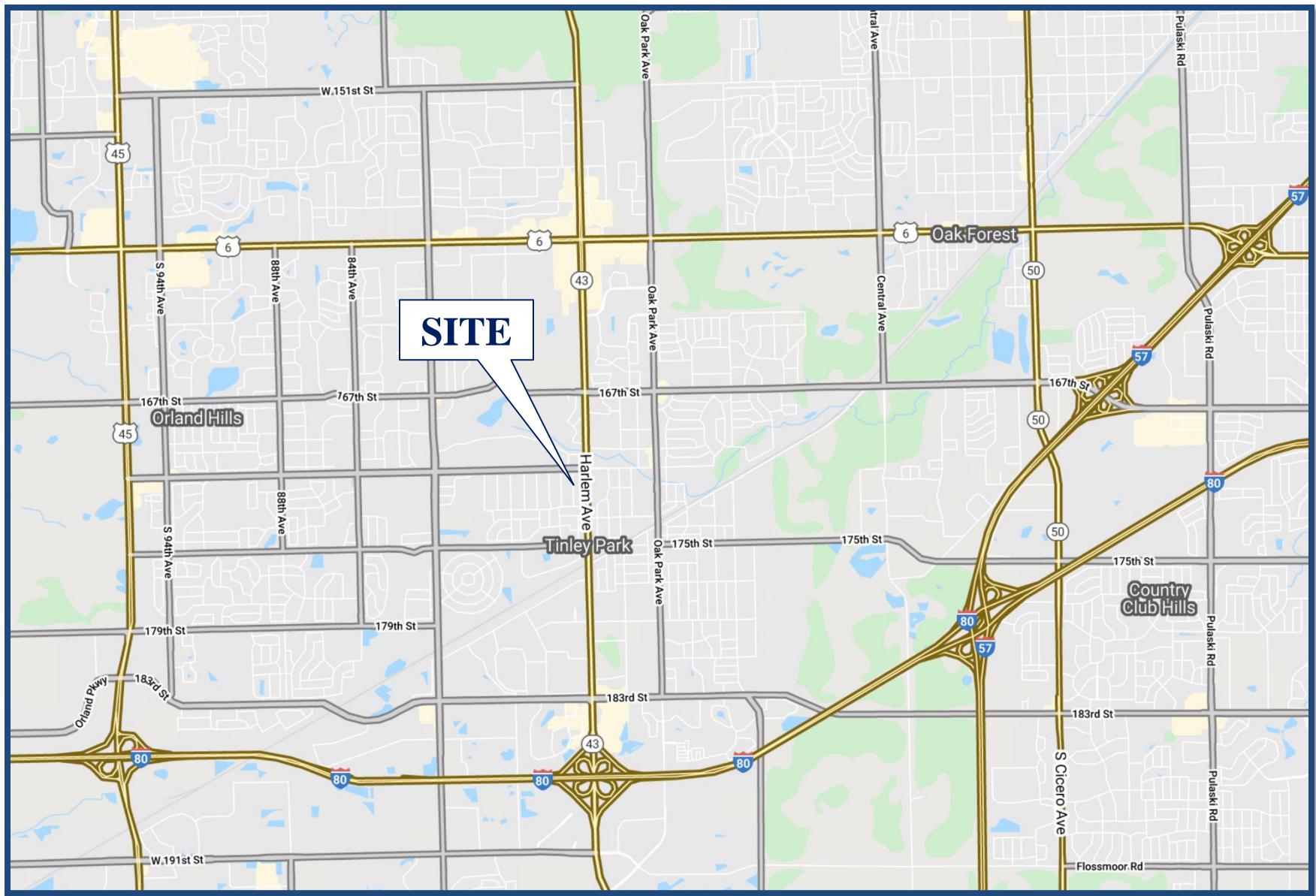
Figure 1 shows the location of the site in relation to the area roadway system. **Figure 2** shows an aerial view of the site.

The sections of this report present the following:

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

Traffic capacity analyses were conducted for the weekday morning and weekday evening peak hours for the following conditions:

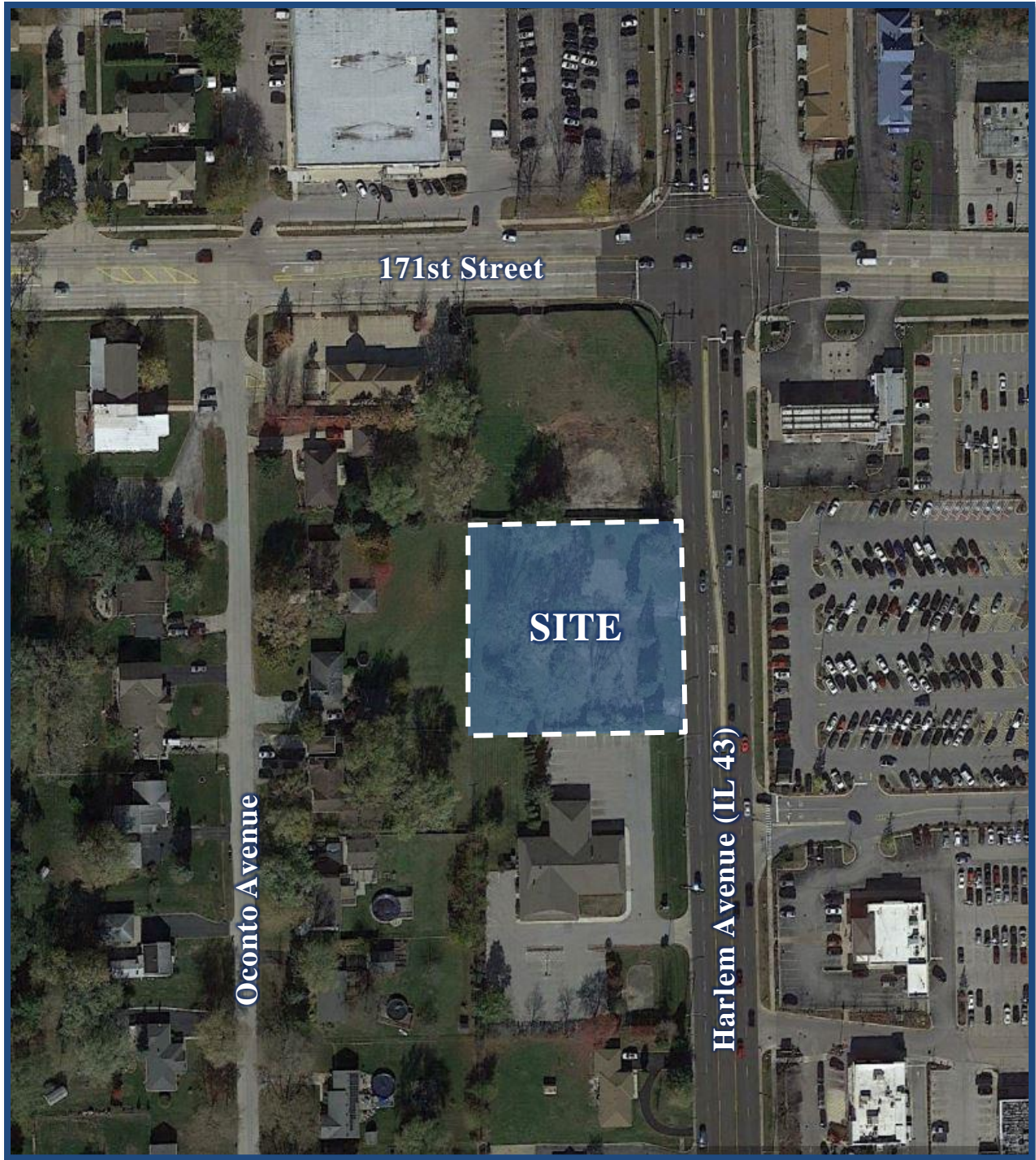
1. Year 2021 Base Conditions – Analyzes the capacity of the existing roadway system using peak hour traffic volumes conducted in 2019 increased to represent Year 2021 volumes.
2. Year 2027 No-Build Conditions – Analyzes the capacity of the existing roadway system using Year 2021 base traffic volumes increased by an ambient area growth factor not attributable to any particular development as well the traffic expected to be generated by the planned 7-Eleven development north of the site.
3. Year 2027 Total Projected Conditions – Analyzes the capacity of the future roadway system using the projected traffic volumes that include the Year 2027 no-build conditions and the traffic estimated to be generated by the proposed development.



Site Location

*Proposed Retail Development
Tinley Park, Illinois*

Figure 1



Aerial View of Site

Figure 2

2. Existing Conditions

Existing transportation conditions in the vicinity of the site were documented based on a field visit conducted by KLOA, Inc. in order to obtain a database for projecting future conditions. The following provides a description of the geographical location of the site, physical characteristics of the area roadway system including lane usage and traffic control devices, and existing peak hour traffic volumes.

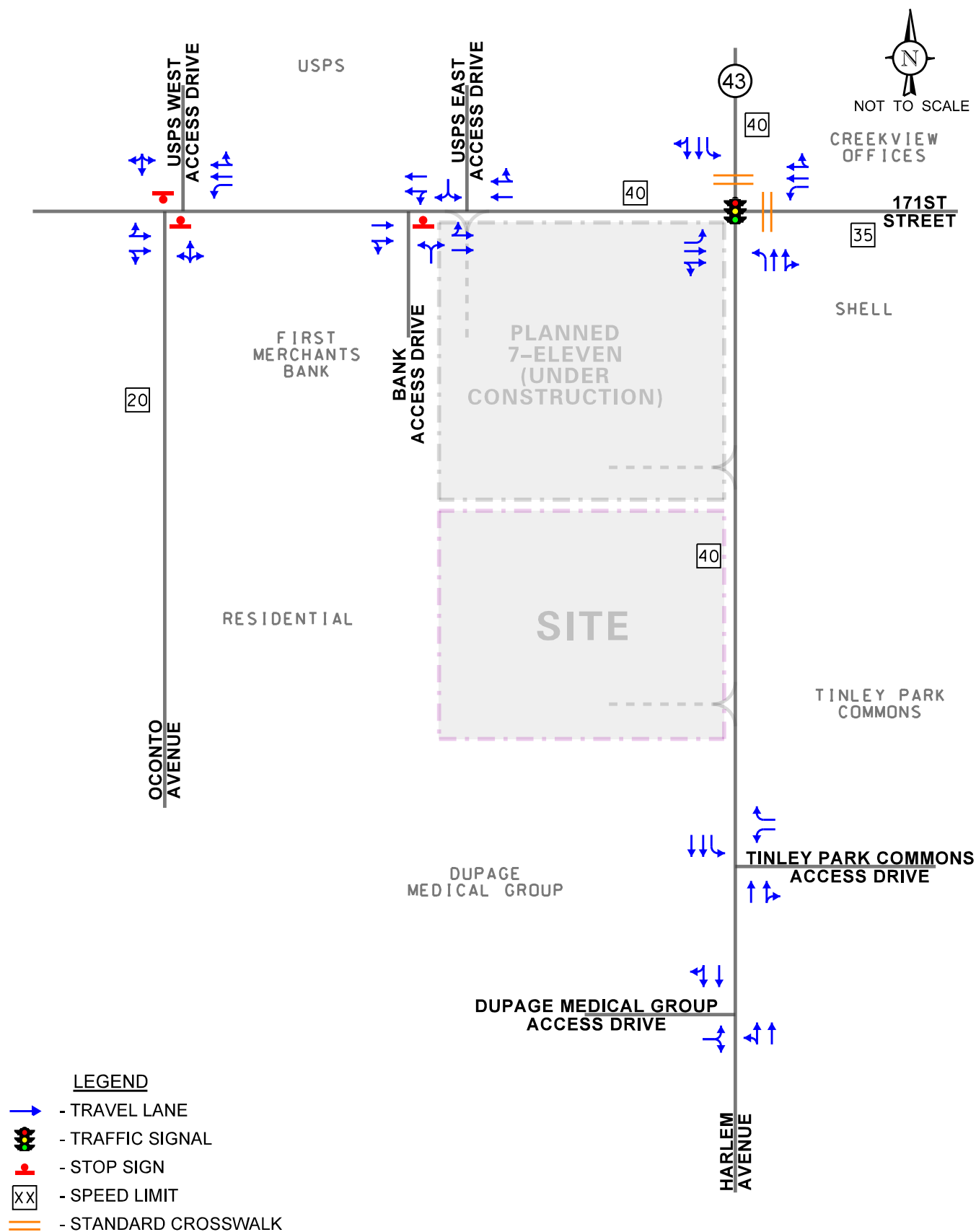
Site Location

The site, which is vacant, is bounded by the parcel that is to be developed with the planned 7-Eleven fuel center to the north, Harlem Avenue to the east, DuPage Medical Group to the south, and single-family homes to the west. Land uses in the area include the United States Postal Service (USPS) and the First Merchants Bank to the north, and Creekview Offices, a Shell fuel center, and Tinley Park Commons to the east.

Existing Roadway System Characteristics

The characteristics of the existing roadways near the development are described below. **Figure 3** illustrates the existing roadway characteristics.

Harlem Avenue (IL Route 43) is a north-south arterial roadway that provides two through lanes in each direction separated by a raised barrier median along the site frontage. At its signalized intersection with 171st Street, Harlem Avenue provides an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on the northbound and southbound approaches. The north leg of the intersection provides a standard style crosswalk and pedestrian countdown signals. At its unsignalized intersection with the Tinley Park Commons access drive, Harlem Avenue provides an exclusive southbound left-turn lane and the access drive provides two outbound lanes under stop sign control. At its unsignalized intersection with the DuPage Medical Group access drive, Harlem Avenue provides no exclusive turn lanes and the access drive provides one outbound lane under stop sign control. Harlem Avenue is under the jurisdiction of the Illinois Department of Transportation (IDOT), is classified as a Strategic Regional Arterial (SRA) route, carries an Annual Average Daily Traffic (AADT) volume of 33,800 vehicles north of 171st Street and 33,900 vehicles south of 171st Street (IDOT 2019), and has a posted speed limit of 40 miles per hour.



171st Street is an east-west collector roadway that in the vicinity of the site provides two through lanes in each direction separated by a mountable/striped median. At its signalized intersection with Harlem Avenue, 171st Street provides an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on the eastbound and westbound approaches. The east leg provides a standard style crosswalk and pedestrian countdown signals. At its unsignalized intersection with Oconto Avenue, 171st Street provides a shared left-turn/through lane and a shared through/right-turn lane on the eastbound approach and an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on the westbound approach. At its intersections with the USPS east access drive and the First Merchants Bank access drive, 171st Street provides no exclusive turn lanes and the access drives provide one outbound lane with outbound movements under stop sign control. West of Harlem Avenue, 171st Street is under the jurisdiction of the Cook County Department of Transportation and Highways, carries an AADT volume of 16,000 vehicles (IDOT 2018), and has a posted speed limit of 40 miles per hour. East of Harlem Avenue, 171st Street is under the jurisdiction of the Village of Tinley Park, carries an AADT volume of 11,800 vehicles (IDOT 2018), and has a posted speed limit of 35 miles per hour.

Oconto Avenue is a north-south local roadway that provides one through lane in each direction and extends from 171st Street to its terminus at 173rd Street approximately 1,300 feet to the south. At its unsignalized intersection with 171st Street, Oconto Avenue provides a shared left/right-turn lane under stop sign control. Oconto Avenue is under the jurisdiction of the Village of Tinley Park and has a posted speed limit of 20 miles per hour.

Traffic Signal Interconnect

The intersection of Harlem Avenue with 171st Street is part of a 16-signal interconnect system that extends along Harlem Avenue from 175th Street (located one-half mile to the south) to 151st Street (approximately 2.5 miles to the north) and also includes the traffic signals along US Route 6 (159th Street) between the Park Center/Home Depot signalized access drives and Laramie Avenue. These traffic signals are maintained by IDOT.

Planned 7-Eleven Development

The parcel in the southwest quadrant of the intersection of Harlem Avenue with 171st Street is to be developed with a 7-Eleven fuel center with 20 fueling positions, a convenience store, and an automated car wash. Access to the fuel center will be provided via a proposed right-in/right-out access drive off Harlem Avenue approximately 200 feet south of 171st Street, a right-in/right-out access drive off 171st Street aligned opposite the east USPS access drive, and cross connection to the existing First Merchants Bank which provides access to Oconto Avenue and Harlem Avenue.

Planned Harlem Avenue with 171st Pedestrian Improvements

The intersection of Harlem Avenue with 171st Street is planned to be improved with high visibility crosswalks with pedestrian countdown timers on the west and south legs. These improvements will be in addition to the existing standard style crosswalks and pedestrian countdown timers on the north and east legs of the intersection.

Year 2021 Base Traffic Volumes

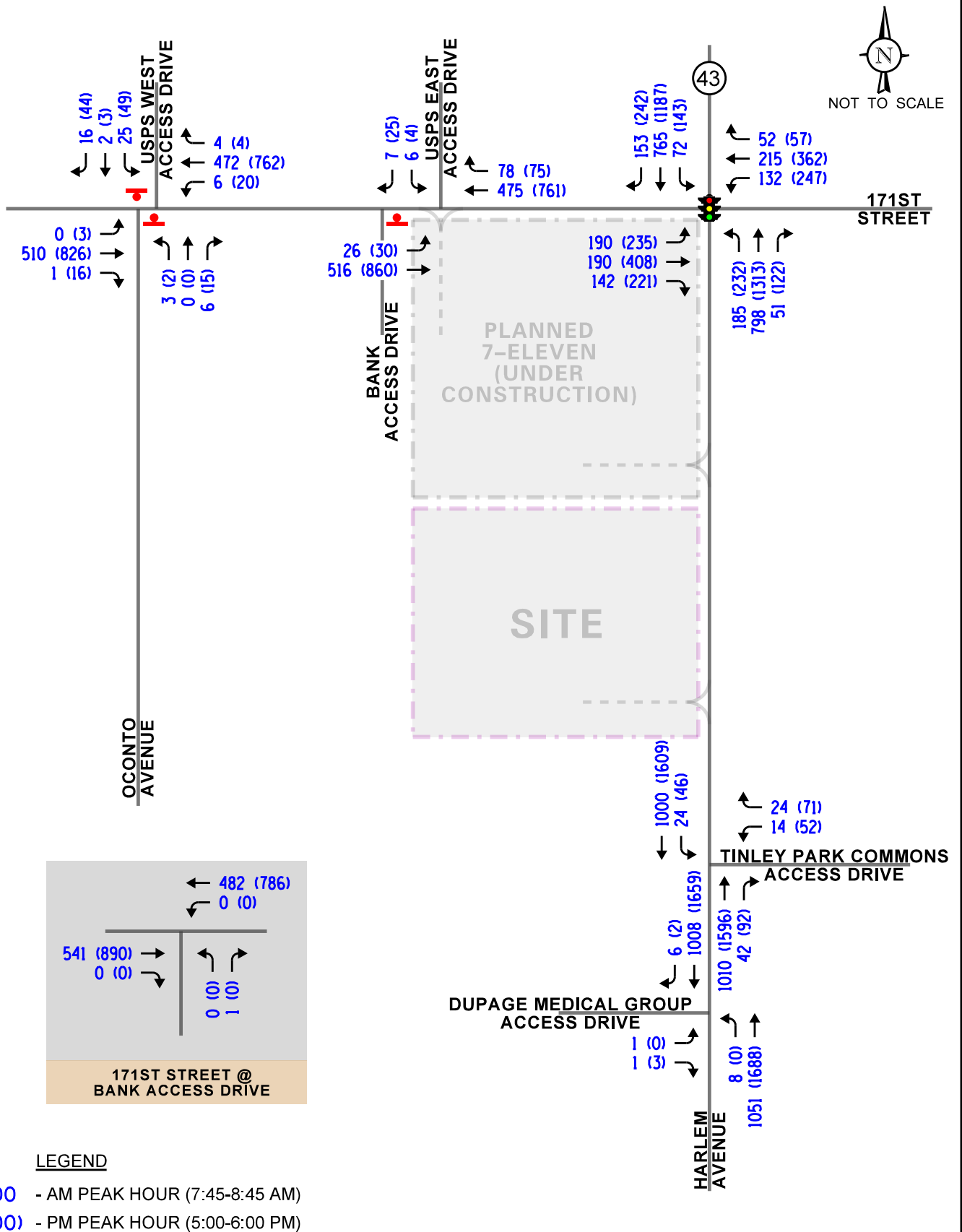
In order to determine current traffic conditions in the vicinity of the site, peak period traffic counts conducted in 2019 by KLOA, Inc were used. The counts were conducted utilizing Miovision Scout Collection Units during the weekday morning (7:00 to 9:00 A.M.) and evening (4:00 to 6:00 P.M.) peak periods on Tuesday, August 6, 2019 at the following intersections:

- Harlem Avenue with 171st Street
- 171st Street with the First Merchants Bank access drive
- 171st Street with Oconto Avenue/USPS west access drive
- 171st Street with USPS east access drive

The results of the traffic counts indicated that the weekday morning peak hour of traffic occurs from 7:45 A.M. to 8:45 A.M. and the weekday evening peak hour of traffic occurs from 5:00 P.M. to 6:00 P.M. In order to represent Year 2021 conditions, these volumes were increased by 1.6 percent based on CMAP 2050 projections as discussed later in the report. These counts were supplemented with additional counts conducted on Friday March 26, 2021 and Monday March 29, 2021 at the following intersections:

- Harlem Avenue with the Tinley Park Commons access drive
- Harlem Avenue with the DuPage Medical Group access drive

A review of these counts indicated that through volumes on Harlem Avenue were lower than the increased 2019 volumes. As such, the through volumes were increased to balance with the intersections to the north on Harlem Avenue. The Year 2021 base traffic volumes are illustrated in **Figure 4**. Copies of the traffic count summary sheets are included in the Appendix.



Crash Analysis

KLOA, Inc. obtained crash data¹ for the most recent available past five years (2015 to 2019) for the intersection of Harlem Avenue with 171st Street as summarized in **Table 1**. A review of the crash data indicated that no fatalities were reported at the intersection during the review period.

Table 1
HARLEM AVENUE WITH 171ST STREET

Year	Type of Crash Frequency						Total
	Angle	Object	Rear End	Sideswipe	Turning	Other	
2015	1	0	10	2	8	0	21
2016	1	0	13	3	5	1	23
2017	1	0	4	1	6	1	13
2018	0	1	6	0	7	0	14
2019	<u>1</u>	<u>0</u>	<u>9</u>	<u>0</u>	<u>4</u>	<u>0</u>	<u>14</u>
Total	4	1	42	6	30	2	85
Average/Year	<1.0	<1.0	8.4	1.2	6.0	<1.0	17

¹ IDOT DISCLAIMER: The motor vehicle crash data referenced herein was provided by the Illinois Department of Transportation. Any conclusions drawn from analysis of the aforementioned data are the sole responsibility of the data recipient(s). Additionally, for coding years 2015 to present, the Bureau of Data Collection uses the exact latitude/longitude supplied by the investigating law enforcement agency to locate crashes. Therefore, location data may vary in previous years since data prior to 2015 was physically located by bureau personnel.

3. Traffic Characteristics of the Proposed Development

In order to properly evaluate future traffic conditions in the surrounding area, it was necessary to determine the traffic characteristics of the proposed development, including the directional distribution and volumes of traffic that it will generate.

Proposed Site and Development Plan

As proposed, the site will be developed with an approximately 7,421 square-foot multi-tenant retail building that will be anchored by an approximately 2,202 square-foot Starbucks coffee shop. The remaining 5,219 square feet is to be occupied by three general retail tenants. Parking will be provided within a 44-space surface parking lot. Access to the development will be provided via the following:

- A right-in/right-out access drive on Harlem Avenue approximately 425 feet south of 171st Street. This access drive will provide one inbound lane and one outbound lane with outbound movements under stop sign control. Turning movements at this access drive will be restricted to right turns only via the existing raised median along Harlem Avenue and the proposed raised triangular “porkchop” island median and will be supplemented with appropriate striping and signage.
- A cross-access connection to the planned 7-Eleven fuel center that will border the site to the north. This development will provide access to the area roadway system as follows:
 - A right-in/right-out access drive off Harlem Avenue located approximately 200 feet south of 171st Street. This access drive will provide one inbound lane and one outbound lane with outbound movements under stop sign control. Turning movements at this access drive will be restricted to right turns only via the existing raised median along Harlem Avenue, a raised triangular “porkchop” island median, and appropriate striping and signage.
 - A right-in/right-out access drive off 171st Street located approximately 225 feet west of Harlem Avenue that will be aligned opposite the east USPS access drive. This access drive will provide one inbound lane and one outbound lane with outbound movements under stop sign control. Turning movements at this access drive will be physically restricted to right turns only via a raised triangular median, striping and signage.
 - Cross access to the existing First Merchants Bank site that borders the west side of the fuel center site. This connection will provide access to the existing full movement access drive off 171st Street approximately 275 feet west of Harlem Avenue and the existing three-quarters (right in, right out, left in) access drive off Oconto Avenue that is located approximately 110 feet south of 171st Street.

As part of the development, the existing driveways serving the single-family homes within the site will be removed. A copy of the site plan and drive-through stacking exhibit is included in the Appendix.

Directional Distribution

The directional distribution of future site-generated trips on the roadway system is a function of several variables, including the operational characteristics of the roadway system and the ease with which drivers can travel over various sections of the roadway system. It is important to note that there are five independent Starbucks developments within five miles of the site, indicating that site traffic will further consider ease of access to the site. Most importantly, there is a Starbucks development on the east side of Harlem Avenue approximately one- and one-half miles north of the site. This development is expected to service a large amount of the northbound traffic on Harlem Avenue that may otherwise access the proposed development. This is particularly true for pass-by traffic. The directions from which patrons and employees of the proposed development will approach and depart the site are illustrated in **Figure 5**.

Estimated Site Traffic Generation

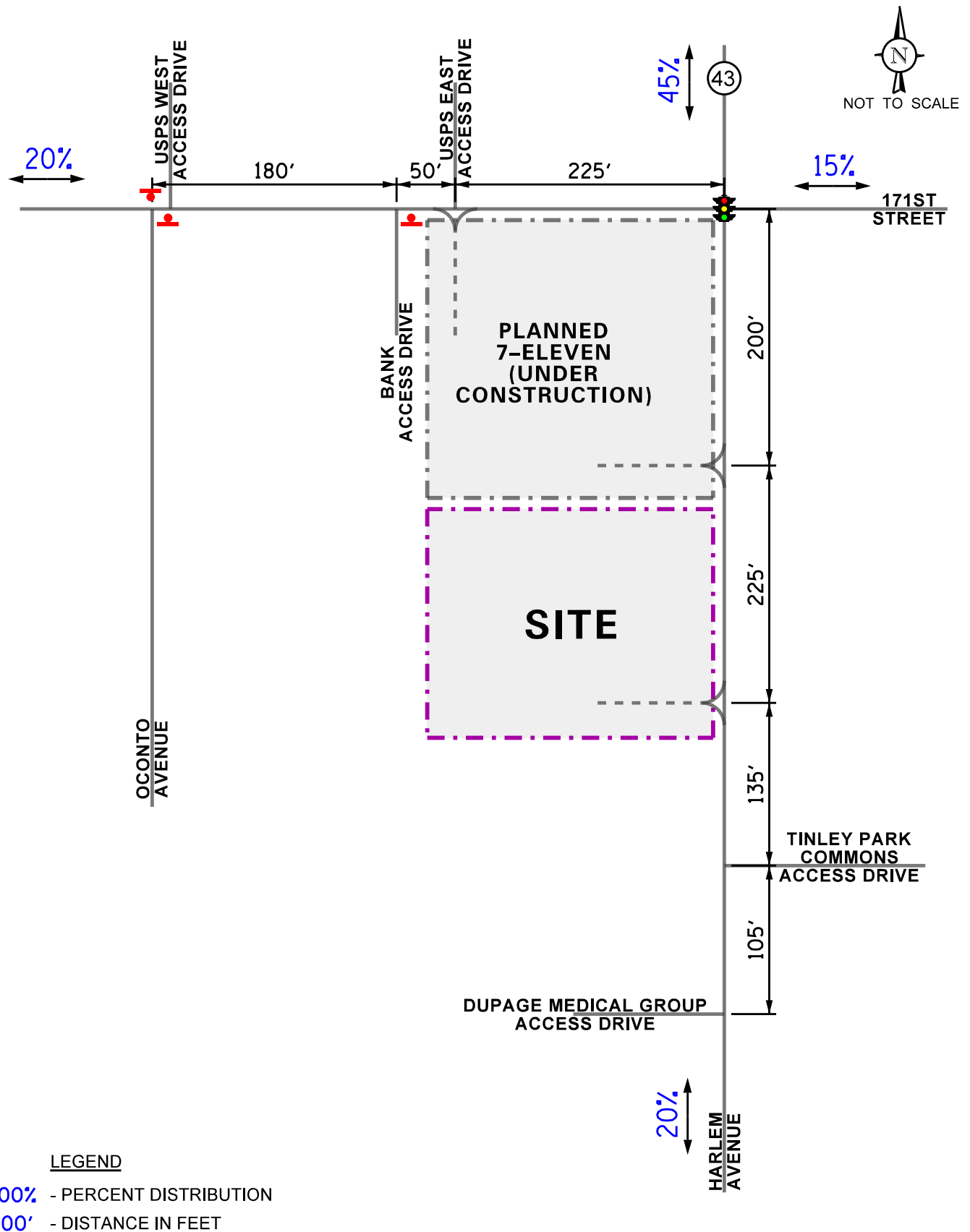
The volume of traffic generated by a development is based on the type of land uses and the size of the development. The number of peak hour vehicle trips estimated to be generated by the proposed development is based on vehicle trip generation rates contained in *Trip Generation Manual*, 10th Edition, published by the Institute of Transportation Engineers (ITE). The “Coffee/Donut Shop with Drive-Through Window” (ITE Land-Use Code 937) rate was used for the coffee shop and the “Shopping Center” (ITE Land-Use Code 820) was used for the retail tenants.

It should be noted that surveys conducted by ITE have shown that a considerable number of trips made to coffee shops are diverted from the existing traffic on the area roadways. This is particularly true during the weekday morning and evening peak hours when traffic is diverted from the home-to-work and work-to-home trips. Such diverted trips are referred to as pass-by traffic. These surveys indicate that, on average, 89 percent of the peak hour trips generated by a coffee shop are diverted from existing traffic on the adjacent roads. However, in order to provide a conservative (worst-case) analysis, a pass-by reduction of only 70 percent was applied to the site-generated traffic volumes. **Table 2** shows the site-generated traffic volumes for the proposed development. Copies of the ITE trip generation sheets are included in the Appendix.

Table 2

ESTIMATED SITE-GENERATED TRAFFIC VOLUMES

ITE Land Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Daily Two-Way Trips
		In	Out	Total	In	Out	Total	
937	Coffee/Donut Shop (2,202 s.f.)	99	96	195	48	47	95	1,802
	<i>70% Pass-By Reduction</i>	<i>-68</i>	<i>-68</i>	<i>-136</i>	<i>-48</i>	<i>-47</i>	<i>-95</i>	<i>-1,262</i>
	New Coffee Shop Trips	31	28	59	15	14	29	540
820	Shopping Center (5,219 s.f.)	<u>3</u>	<u>2</u>	<u>5</u>	<u>29</u>	<u>32</u>	<u>61</u>	<u>808</u>
	Total New Trips	34	30	64	44	46	90	1,348



4. Projected Traffic Conditions

The total projected traffic volumes include the existing traffic volumes, increase in background traffic due to growth, and the traffic estimated to be generated by the proposed subject development.

Development Traffic Assignment

The estimated weekday morning and evening peak hour traffic volumes that will be generated by the proposed development were assigned to the roadway system in accordance with the previously described directional distribution (Figure 5). The new site-generated traffic assignment for the proposed development is illustrated in **Figure 6** and the pass-by traffic assignment is illustrated in **Figure 7**.

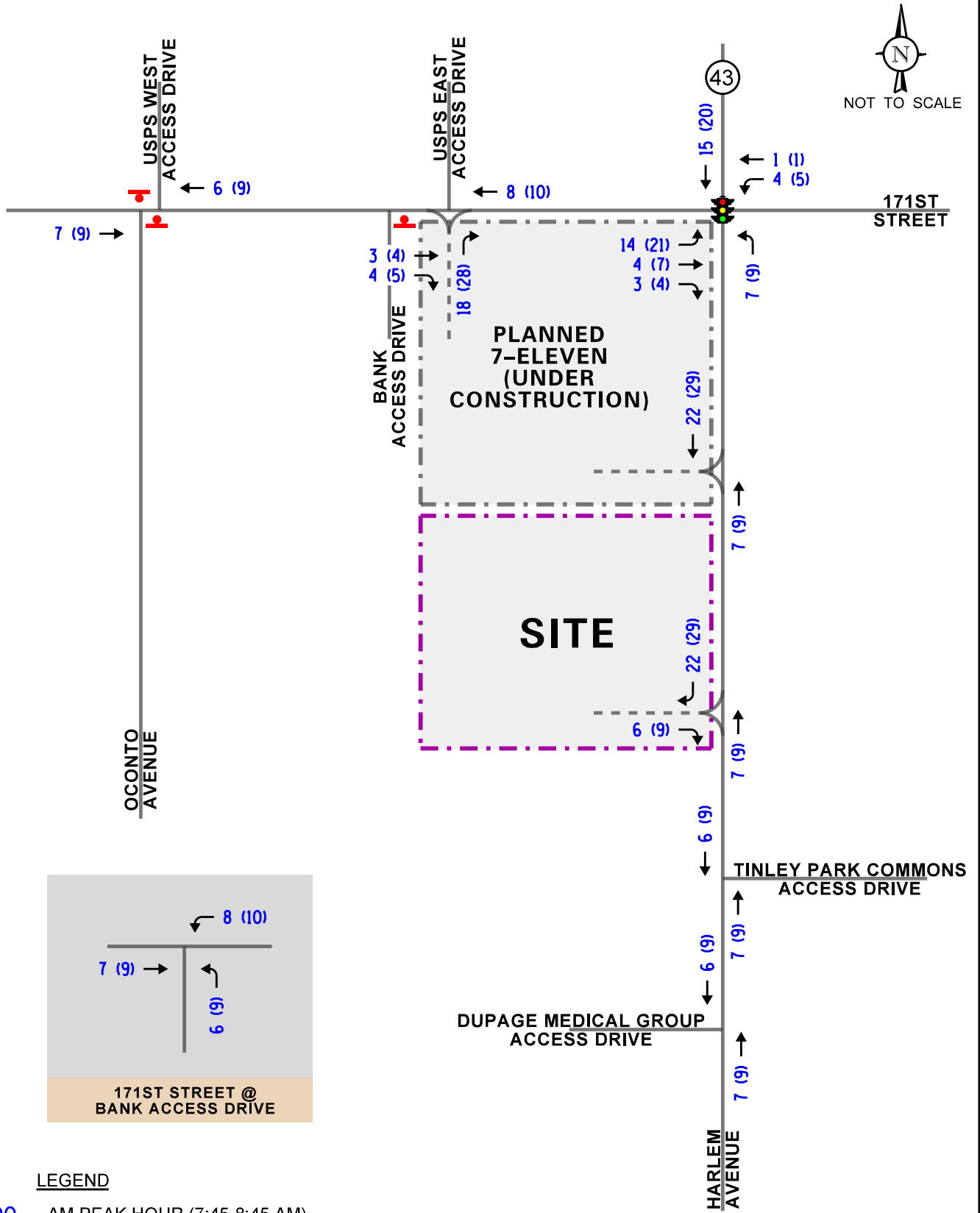
Background Traffic Conditions

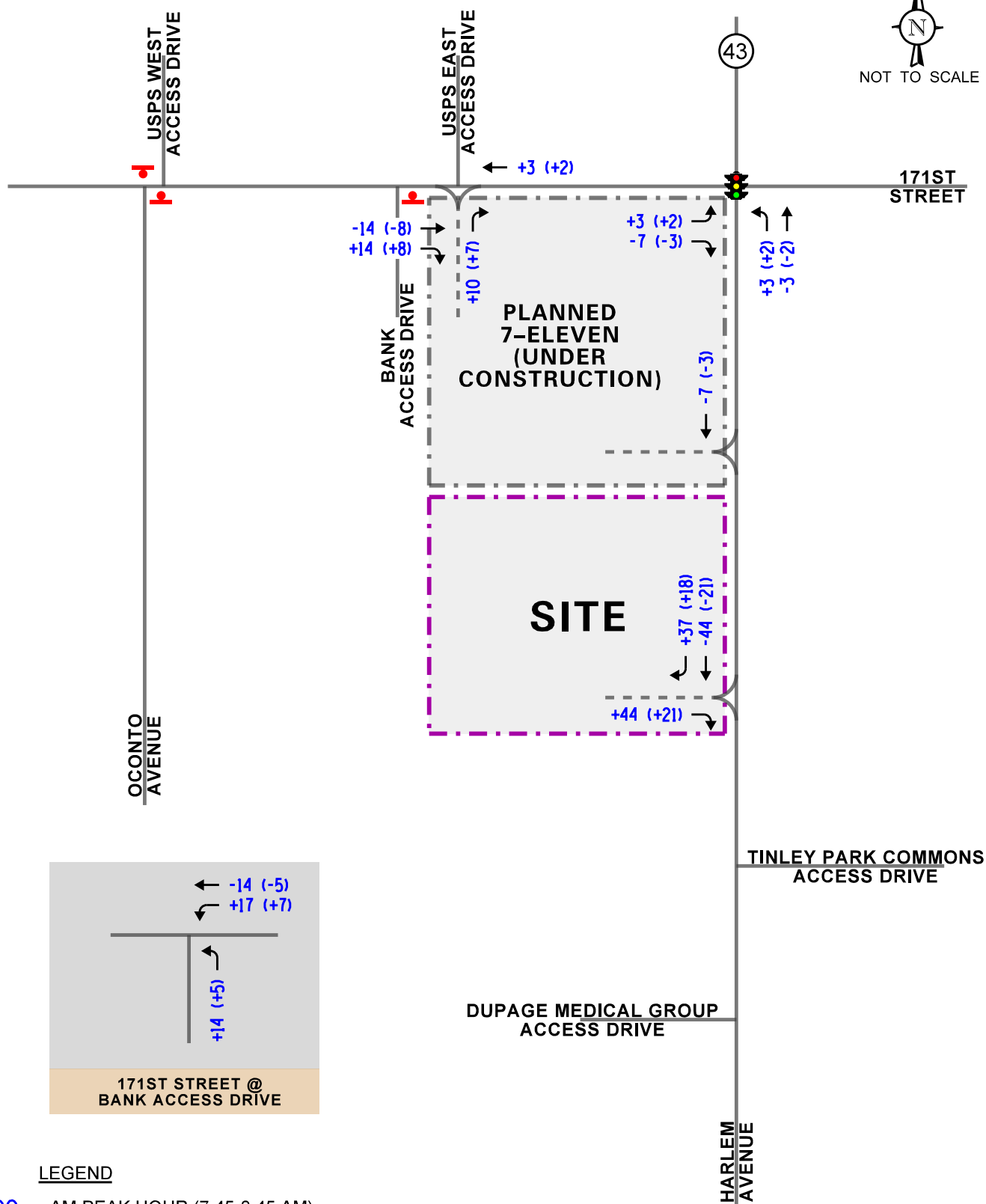
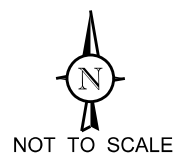
The Year 2021 base traffic volumes (Figure 4) were increased by a regional growth factor to account for the increase in existing traffic related to regional growth in the area (i.e., not attributable to any particular planned development). Based on ADT projections provided by the Chicago Metropolitan Agency for Planning (CMAP), an increase of approximately 0.8 percent per year for six years (buildout year plus five years) was applied to project Year 2027 conditions. A copy of the CMAP 2040 projections letter is included in the Appendix.

In addition, the traffic that is expected to be generated by the planned 7-Eleven fuel center was included in the no-build volumes. These volumes were based on the traffic impact study prepared for the fuel center by KLOA, Inc. in 2019. The Year 2027 no-build traffic volumes are illustrated in **Figure 8**.

Total Projected Traffic Volumes

The development-generated traffic (Figures 6 and 7) was added to the Year 2027 no-build traffic volumes (Figure 8) to determine the Year 2027 total projected traffic volumes, shown in **Figure 9**.





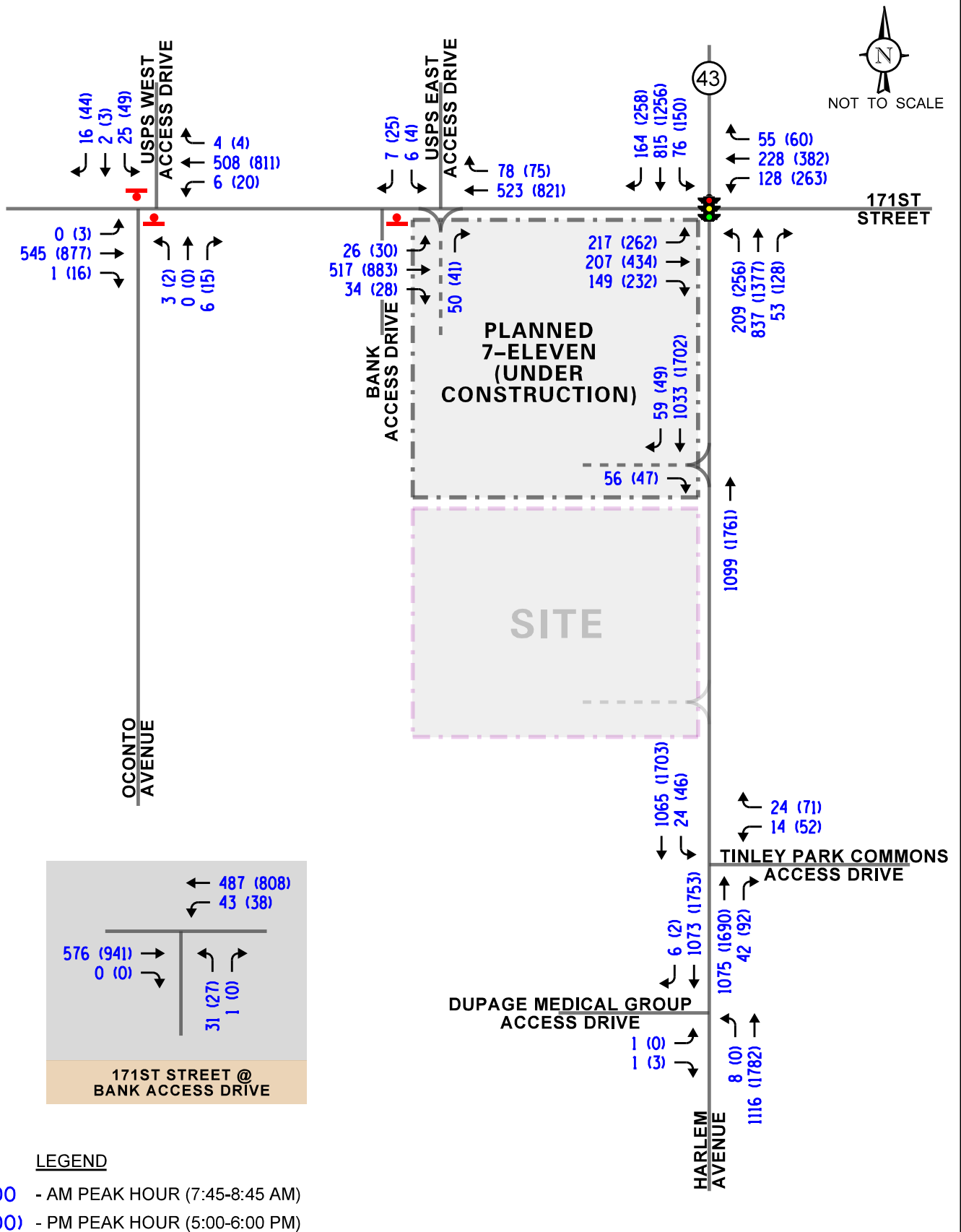
Proposed
Retail Development
Tinley Park, Illinois

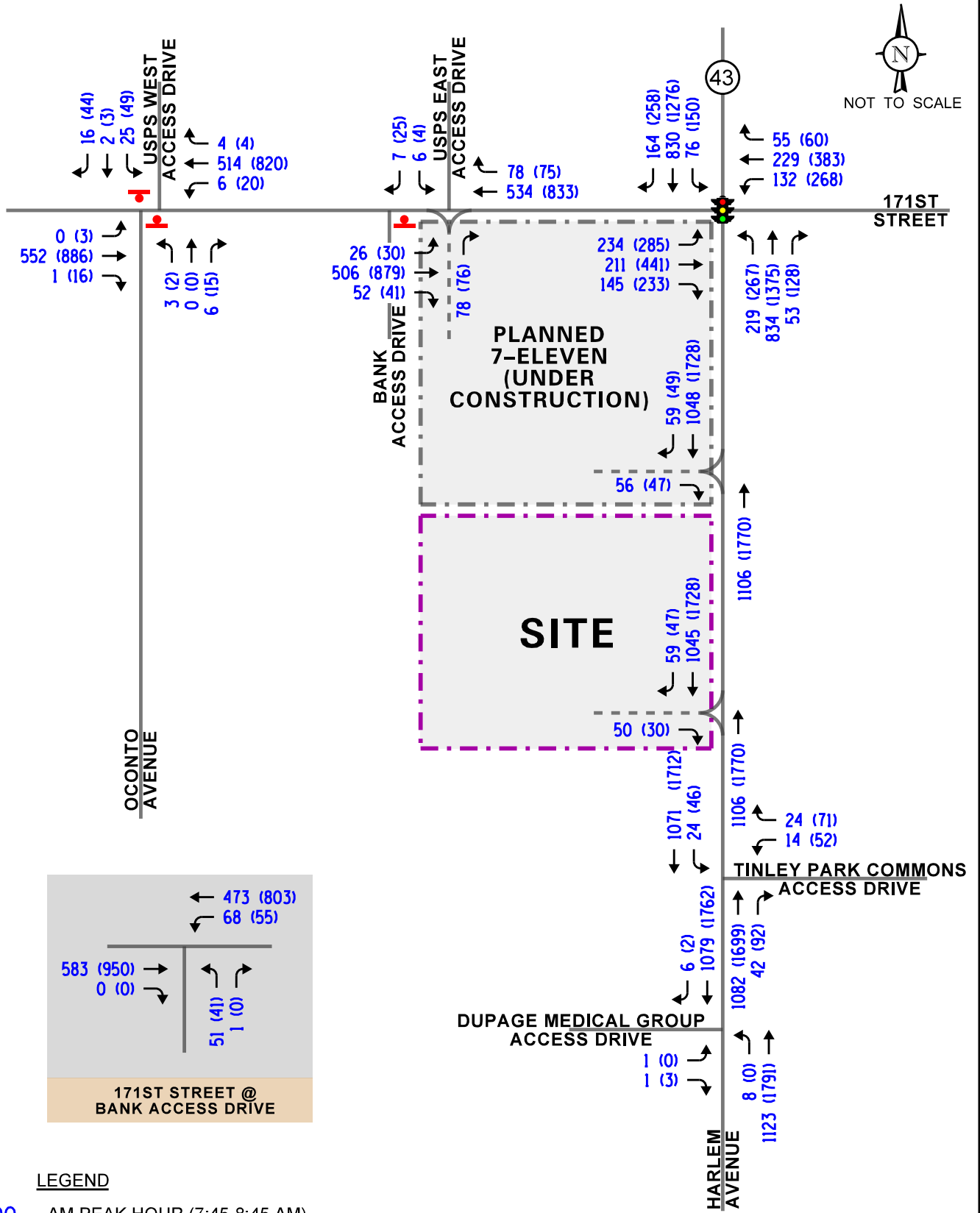
Pass-By Traffic Volumes



Job No: 21-073

Figure: 7





Proposed
Retail Development
Tinley Park, Illinois

Year 2027 Total Projected Traffic Volumes



Job No: 21-073

Figure: 9

5. Traffic Analysis and Recommendations

The following provides an evaluation conducted for the weekday morning and weekday evening peak hours. The analysis includes conducting capacity analyses to determine how well the roadway system and access drives are projected to operate and whether any roadway improvements or modifications are required.

Traffic Analyses

Roadway and adjacent or nearby intersection analyses were performed for the weekday morning and weekday evening peak hours for the Year 2021 base, Year 2027 no-build, and Year 2027 total projected traffic volumes.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM)*, 6th Edition and analyzed using Synchro/SimTraffic 10 software. The analysis for the traffic-signal controlled intersections were accomplished using actual 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 the projected Year 2021 base, Year 2027 no-build, and Year 2027 total projected conditions are presented in **Tables 3** through **6**. A discussion of each intersection follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 3

CAPACITY ANALYSIS RESULTS –HARLEM AVENUE WITH 171ST STREET– SIGNALIZED

	Peak Hour	Eastbound			Westbound			Northbound			Southbound			Overall
		L	T	R	L	T	R	L	T	R	L	T	R	
Year 2021 Base Conditions	Weekday Morning Peak Hour	D 39.1	D 49.0		C 34.0	D 53.0		B 18.1	C 21.3		B 11.7	C 26.8		C 30.3
		D – 45.4			D – 47.2			C – 20.8			C – 25.7			
	Weekday Evening Peak Hour	E 59.2	F 99+		F 81.6	E 63.6		E 63.7	D 36.4		D 48.5	D 47.4		E 61.8
		F – 99+			E – 70.3			D – 40.2			D – 47.5			
Year 2027 No Build Conditions	Weekday Morning Peak Hour	D 42.0	D 48.7		C 34.5	D 52.9		C 26.8	C 22.7		B 12.6	C 30.5		C 32.6
		D – 46.1			D – 47.1			C – 23.5			C – 29.2			
	Weekday Evening Peak Hour	E 77.6	F 99+		F 95.6	E 66.7		E 70.4	D 39.6		D 51.6	E 61.9		E 72.7
		F – 99+			E – 77.4			D – 44.1			E – 60.9			
Year 2027 Total Projected Conditions	Weekday Morning Peak Hour	D 45.0	D 48.4		C 34.8	D 52.9		C 30.0	C 22.7		B 12.7	C 32.6		C 33.8
		D – 47.1			D – 47.1			C – 24.2			C – 31.2			
	Weekday Evening Peak Hour	F 96.8	F 99+		F 99+	E 66.8		E 72.3	D 39.5		D 52.0	E 67.4		E 76.8
		F – 99+			E – 79.3			D – 44.4			E – 66.0			
Delay is measured in seconds. L – Left T – Through R – Right														

Table 4
CAPACITY ANALYSIS RESULTS
YEAR 2021 BASE CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
171st Street with Oconto Avenue/USPS West Access Drive				
• Eastbound Left Turn	--	--	B	10.6
• Westbound Left Turn	A	8.6	A	10.0
• Northbound Approach	B	12.1	B	12.8
• Southbound Approach	B	14.1	C	21.1
171st Street with First Merchants Bank Full Access Drive				
• Westbound Left Turn	--	--	--	--
• Northbound Approach	B	10.1	--	--
171st Street with USPS East Access Drive				
• Eastbound Left Turn	A	8.8	B	10.0
• Southbound Approach	B	12.3	B	13.3
Harlem Avenue with Tinley Park Commons Access Drive				
• Westbound Left Turn	D	25.6	F	99+
• Westbound Right Turn	B	13.1	C	22.9
• Southbound Left Turn	B	11.1	C	17.5
Harlem Avenue with DuPage Medical Group Access Drive				
• Eastbound Approach	C	18.0	C	17.8
• Northbound Left Turn	B	10.7	--	--
LOS = Level of Service Delay is measured in seconds.				

Table 5
CAPACITY ANALYSIS RESULTS
YEAR 2027 NO-BUILD TRAFFIC VOLUMES – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
171st Street with Oconto Avenue/USPS West Access Drive				
• Eastbound Left Turn	--	--	B	10.9
• Westbound Left Turn	A	8.7	B	10.3
• Northbound Approach	B	12.4	B	13.2
• Southbound Approach	B	14.7	C	22.8
171st Street with First Merchants Bank Full Access Drive				
• Westbound Left Turn	A	8.9	B	10.2
• Northbound Approach	C	16.5	C	23.3
171st Street with USPS East Access Drive and 7-Eleven Access Drive				
• Eastbound Left Turn	A	9.0	B	10.3
• Northbound Approach	B	10.6	B	12.6
• Southbound Approach	B	13.6	B	14.5
Harlem Avenue with Tinley Park Commons Access Drive				
• Westbound Left Turn	D	27.7	F	99+
• Westbound Right Turn	B	13.6	C	24.9
• Southbound Left Turn	B	11.5	C	19.0
Harlem Avenue with DuPage Medical Group Access Drive				
• Eastbound Approach	C	19.1	C	18.9
• Northbound Left Turn	B	11.1	--	--
Harlem Avenue with 7-Eleven Access Drive				
• Eastbound Approach	B	13.8	C	20.9
LOS = Level of Service Delay is measured in seconds.				

Table 6

CAPACITY ANALYSIS RESULTS

YEAR 2027 TOTAL PROJECTED TRAFFIC VOLUMES – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
171st Street with Oconto Avenue/USPS West Access Drive				
• Eastbound Left Turn	--	--	B	10.9
• Westbound Left Turn	A	8.8	B	10.3
• Northbound Approach	B	12.5	B	13.3
• Southbound Approach	B	14.8	C	23.2
171st Street with First Merchants Bank Full Access Drive				
• Westbound Left Turn	A	9.1	B	10.4
• Northbound Approach	C	18.8	C	26.6
171st Street with USPS East Access Drive and 7-Eleven Access Drive				
• Eastbound Left Turn	A	9.0	B	10.4
• Northbound Approach	B	10.9	B	13.3
• Southbound Approach	B	13.8	B	14.7
Harlem Avenue with Tinley Park Commons Access Drive				
• Westbound Left Turn	D	28.0	F	99+
• Westbound Right Turn	B	13.7	D	25.1
• Southbound Left Turn	B	11.5	C	19.1
Harlem Avenue with DuPage Medical Group Access Drive				
• Eastbound Approach	C	19.2	C	19.0
• Northbound Left Turn	B	11.1	--	--
Harlem Avenue with 7-Eleven Access Drive				
• Eastbound Approach	B	14.0	C	21.3
Harlem Avenue with Proposed Right-In/Right-Out Access Drive				
• Eastbound Approach	B	13.8	C	20.0
LOS = Level of Service Delay is measured in seconds.				

Discussion and Recommendations

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

Harlem Avenue with 171st Street

The results of the capacity analysis indicate that this intersection currently operates at Level of Service (LOS) C during the weekday morning peak hour and at LOS E during the weekday evening peak hour. This level of service during the weekday evening peak hour is a result of the eastbound approach which operates at LOS F and the westbound approach which operates at LOS E. Harlem Avenue is the major roadway at this intersection, is designated as an SRA, and is the coordinated movement and, as such, receives a majority of the green time.

Under Year 2027 no-build conditions, this intersection is projected to continue to operate at LOS C during the weekday morning peak hour and at LOS E during the weekday evening peak hour with increases in delay of approximately two and approximately 10 seconds, respectively. The eastbound approach is projected to continue operating at LOS F and the westbound approach is projected to continue operating at LOS E during the weekday evening peak hour.

Under Year 2027 total projected conditions, the intersection overall is projected to continue operating at LOS C during the weekday morning peak hour and at LOS E during the weekday evening peak hour with increases in delay of approximately one second and three seconds, respectively, over no-build conditions. The development is projected to increase the volume of traffic traversing this intersection by only 44 vehicles during the weekday morning peak hour and only 66 vehicles during the weekday evening peak hour. Under total projected conditions, the intersection is projected to carry 3,182 vehicles during the weekday morning peak hour and 5,124 vehicles of which only approximately one percent will be site generated traffic. ($44 \div 3,182 = 1.4\%$, $66 \div 5,124 = 1.3\%$). In addition, the development is projected to increase daily traffic on Harlem Avenue by only one to two percent ($((0.45 \times 1,348) \div 33,800 = 1.8\%$ north of the site, $((0.20 \times 1,348) \div 39,000 = 0.8\%$ south of the site). As such, the proposed development traffic will have a limited impact on the operations of this intersection.

171st Street with Oconto Avenue/USPS West Access Drive

The results of the capacity analysis indicate that the northbound (Oconto Avenue) approach currently operates at LOS B during the weekday morning and weekday evening peak hours and the southbound (USPS) approach currently operates at LOS B during the weekday morning peak hour and at LOS C during the weekday evening peak hour. Further, the eastbound and westbound left-turn movements operate at LOS B or better.

Under Year 2027 no-build and total projected conditions, the northbound and southbound approaches are projected to continue operating at the same LOS during both peak hours. Further, the eastbound and westbound movements are projected to continue to operate at LOS B or better during both peak hours. As such, the traffic projected to be generated by the proposed development will have a limited impact on the operations of this intersection and no roadway or traffic control improvements will be required.

171st Street with First Merchants Bank Access Drive

The results of the capacity analysis indicate that outbound movements from the First Merchants Bank access drive onto 171st Street currently operate at LOS B during the weekday morning peak hour.

With the completion of the planned 7-Eleven fuel center, this access drive will carry fuel center traffic entering from the south and east and returning to the west. Under Year 2027 no-build conditions, outbound movements from the access drive onto 171st Street are projected to operate at LOS C during the weekday morning and weekday evening peak hours and westbound left-turn movements from 171st Street onto the access drive are projected to operate at LOS B or better during the peak hours with 95th percentile queues of one to two vehicles.

The proposed development will provide cross access to this access drive via the planned 7-Eleven fuel center and will carry development traffic entering from the south and east and returning to the west. Under Year 2027 total projected conditions, outbound movements from the access drive onto 171st Street are projected to continue to operate at LOS C during the weekday morning and weekday evening peak hours and westbound left-turn movements from 171st Street onto the access drive are projected to continue to operate at LOS B or better during the peak hours with 95th percentile queues of one to two vehicles. As such, this access drive will be adequate in accommodating the traffic estimated to be generated by the proposed development and will ensure efficient and flexible access is provided.

171st Street with USPS East Access Drive and the 7-Eleven Right-In/Right-Out Access Drive

The results of the capacity analysis indicate that outbound movements from the east USPS access drive currently operate at LOS B during the weekday morning and weekday evening peak hours. Under Year 2027 no-build conditions, outbound movements from the east USPS access drive are projected to continue operating at LOS B during the weekday morning and weekday evening peak hours with increases in delay of approximately one second or less.

With the completion of the planned 7-Eleven fuel center, this access drive will carry fuel center traffic entering from the west and returning to the north and east. Under Year 2027 no-build conditions, the southbound (USPS) approach and the northbound (7-Eleven) approach are projected to operate at LOS B during both peak hours.

The proposed development will provide cross access to this access drive via the planned 7-Eleven fuel center and will carry development traffic entering from the west and returning to the north and east. Under Year 2027 total projected conditions, the southbound (USPS) approach and the northbound (7-Eleven) approach are projected to operate at LOS B during both peak hours. As such, this access drive will be adequate in accommodating the traffic estimated to be generated by the proposed development and will ensure efficient and flexible access is provided.

Harlem Avenue with the Tinley Park Commons Access Drive

The results of the capacity analysis indicate that westbound left-turn movements onto Harlem Avenue currently operate at LOS D during the weekday morning peak hour and LOS F during the weekday evening peak hour. This delay is typical and expected at the unsignalized intersection of an access drive and a major roadway such as Harlem Avenue. While outbound vehicles may experience some delays, a volume-to-capacity ratio (v/c) of less than one and 95th percentile queues of approximately four vehicles or less indicate that they will be able to exit. Further, westbound right-turn movements onto Harlem Avenue and southbound left-turn movements onto the access drive are projected to operate at LOS C or better during both peak hours.

Under Year 2027 total projected conditions, westbound left-turn movements are projected to continue operating at the same LOS during both peak hours. While these vehicles will continue to experience some delays, the volume-to-capacity ratio is projected to remain less than one and 95th percentile queues are not projected to exceed five vehicles. Further, westbound right-turn movements and southbound left-turn movements are projected to operate at LOS D or better during both peak hours. As such, the traffic projected to be generated by the proposed development will have a limited impact on the operations of this intersection and no roadway or traffic control improvements will be required.

Harlem Avenue with the DuPage Medical Group Access Drive

The results of the capacity analysis indicate that the eastbound approach of this intersection currently operates at LOS C during the weekday morning and weekday evening peak hours. Further, northbound left-turn movements onto the access drive are projected to operate at LOS B or better during both peak hours.

Under Year 2027 no-build and total projected conditions, the eastbound approach and northbound left-turn movements are projected to continue operating at the same LOS during both peak hours. As such, the traffic projected to be generated by the proposed development will have a limited impact on the operations of this intersection and no roadway or traffic control improvements will be required.

Harlem Avenue with the 7-Eleven Right-In/Right-Out Access Drive

As part of the planned 7-Eleven fuel center, a right-in/right-out access drive is to be provided on the west side of Harlem Avenue approximately 200 feet south of 171st Street. Under Year 2027 no-build conditions, the eastbound approach is projected to operate at LOS B during the weekday morning peak hour and LOS C during the weekday evening peak hour.

The proposed development will provide cross access to this access drive via the planned 7-Eleven fuel center. However, it is not expected that site traffic will utilize this access drive, as a separate site access drive will be provided on Harlem Avenue. Under Year 2027 total projected conditions, the eastbound approach is projected to continue to operate at LOS B during the weekday morning peak hour and LOS C during the weekday evening peak hour. As such, the traffic projected to be generated by the proposed development will have a limited impact on the operations of this intersection and no roadway or traffic control improvements will be required.

Harlem Avenue with the Proposed Right-In/Right-Out Access Drive

As proposed, a right-in/right-out access drive will be provided on Harlem Avenue approximately 425 feet south of 171st Street serving the site. This access drive will provide one inbound lane and one outbound lane with outbound movements under stop sign control. Turning movements at this access drive will be restricted to right turns only via the existing raised median along Harlem Avenue, a raised triangular “porkchop” median, and appropriate striping and signage.

Under Year 2027 total projected conditions, the eastbound approach of this intersection is projected to operate at LOS B during the weekday morning peak hour and LOS C during the weekday evening peak hour. As such, this access drive will be adequate in accommodating the traffic projected to be generated by the proposed development and will ensure efficient access is provided.

On-Site Circulation and Design

As proposed, the pick-up window will be located on the south side of the building with the order board located on the west side of the building. Vehicles will enter the drive-through lane at the northwest corner of the building and travel around the west and south sides of the building. A review of the site plan and drive-through stacking exhibit indicates that approximately five vehicles can stack from the pick-up window and approximately five vehicles can stack from the order board within the drive-through lane. Further, additional vehicles can stack within the site before reaching the right-in/right-out access drive on Harlem Avenue.

In order to determine the average and peak stacking that can be expected at the drive-through serving the proposed Starbucks coffee shop, surveys were conducted at the Starbucks located at 1048 Maple Avenue in Lisle, Illinois. **Table A**, included in the Appendix, summarizes the drive-through queue surveys in five-minute intervals. The results of the drive-through surveys indicated the following:

- During the weekday morning peak period (6:00 A.M. to 9:00 A.M.), the Starbucks had an average queue of six vehicles and a maximum queue of 11 vehicles, occurring twice.
- During the weekday midday peak period (11:30 A.M. to 1:30 P.M.), the Starbucks had an average queue of three vehicles and a maximum queue of six vehicles, occurring once.
- During the weekday evening peak period (4:00 P.M. to 6:00 P.M.), the Starbucks had an average queue of one vehicle and a maximum queue of four vehicles, occurring once.

In addition, this data was compared to data provided by Starbucks, which indicated the following:

- Starbucks drive-throughs are designed to operate most efficiently with an average queue of seven vehicles.
- Starbucks peak drive-through queues range from 10 to 12 vehicles, typically occurring between 7:00 A.M. 9:00 A.M.
- Typical service time for vehicles in the drive-through is 45 seconds.
- Starbucks traffic is typically 60 percent drive-through traffic.

This data coincides with the survey data and further confirms the average queue of approximately six vehicles and maximum queue of 11 vehicles. As such, the proposed drive-through design can accommodate the peak demand of the drive-through operation without impacting traffic flow within the site main parking lot. Should additional stacking be required, excess vehicles can be accommodated within the parking lot. If this were to occur, it would only be during the morning peak hour when the other retail uses within the building are expected to generate minimal traffic, thus not impacting and/or conflicting with their operations.

In order to provide efficient and orderly internal traffic flow, the following is recommended:

- Wayfinding signs directing traffic to the drive-through lane should be provided within the site, primarily near the southeast and northwest corners of the building, directing traffic to the entrance of the drive-through lane.
- “Do Not Enter” signs facing east should be posted at the exit of the drive-through lane.
- A stop sign facing west should be posted at the exit of the drive-through lane.

Parking Evaluation

As previously mentioned, the site will be developed with a 44-space surface parking lot.

Village of Tinley Park Requirements

The Tinley Park Zoning Ordinance requires a parking ratio of 6.5 parking spaces per 1,000 square feet of gross leasable space. Based on the above and the total gross leasable space of 7,279 square-feet, 47 spaces should be provided. As such, the proposed number of parking spaces is three spaces less than the Village of Tinley Park parking requirements.

ITE Parking Generation Manual

In reviewing the survey data published in the Institute of Transportation Engineers' (ITE) 5th Edition of the *Parking Generation Manual*, the following average peak parking demands were determined:

- Drive-Through Starbucks Coffee Shop (Coffee/Donut Shop with Drive-Through Window)
 - Monday-Friday: 12 parking spaces (ratio of 5.22 spaces per 1,000 square feet)
 - Saturday: 19 parking spaces (ratio of 8.70 spaces per 1,000 square feet)
- Retail Space (Shopping Center – Land Use Code 820)
 - Monday-Thursday: 11 parking spaces (ratio of 1.95 spaces per 1,000 square feet)
 - Friday: 14 parking spaces (ratio of 2.61 spaces per 1,000 square feet)
 - Saturday: 16 parking spaces (ratio of 2.91 spaces per 1,000 square feet)

Based on ITE *Parking Generation Manual* rates, the proposed retail building should provide a total of 35 parking spaces to accommodate the peak parking demand (Saturday), which results in a surplus of nine parking spaces.

Based on the above, the proposed parking supply should be adequate given the following:

- The proposed supply meets the parking demand based on ITE rates.
- The proposed Starbucks coffee shop parking demands peaks in the morning while the remaining retail uses' peak parking demand typically occurs in the afternoon and evening. This offset in the peak demands will allow for sharing of parking spaces and a reduction in the overall parking demand.
- The Village of Tinley Park Zoning Ordinance parking ratios are not specific to coffee shops and do not take into consideration the usage of the drive-through. Approximately 60 percent of Starbucks traffic will be drive-through traffic during the peak hours. This will reduce the demand for parking significantly.

6. Conclusion

Based on the preceding analyses and recommendations, the following conclusions have been made:

- The development is well located with respect to the area roadway system.
- The traffic projected to be generated by the proposed development will be reduced due to the high volume of pass-by traffic.
- The development-generated traffic is only projected to increase the traffic traversing the intersection of Harlem Avenue with 171st Street by approximately one percent during the peak hours and, as such, will have a limited impact on the operations of the intersection.
- The proposed access system on Harlem Avenue with cross access to 171st Street will be adequate in accommodating the development-generated traffic and will ensure that efficient and flexible access is provided.
- The drive-through lane will provide stacking adequate in accommodating the projected peak demand of the drive-through operation without impacting through traffic on Harlem Avenue or 171st Street.
- The proposed parking supply of 44 parking spaces will be adequate in accommodating the projected peak parking demand of the proposed development.

Appendix

Traffic Count Summary Sheets
Preliminary Site Plan
CMAP 2050 Projections Letter
ITE Trip Generation Worksheets
Level of Service Criteria
Capacity Analysis Summary Sheets
Table A

Traffic Count Summary Sheets



Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: 171st Street with Oconto Avenue
Site Code:
Start Date: 08/06/2019
Page No: 1

Turning Movement Data

Start Time	171st Street Eastbound						171st Street Westbound						Oconto Avenue Northbound						USPS Access Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	0	93	0	0	93	0	0	75	1	0	76	0	0	0	1	0	1	0	3	0	3	0	6	176
7:15 AM	0	0	114	1	0	115	0	0	72	0	0	72	0	1	0	0	0	1	0	4	0	1	0	5	193
7:30 AM	0	1	104	1	0	106	0	1	81	0	0	82	0	2	0	2	0	4	0	5	0	4	0	9	201
7:45 AM	0	0	120	0	0	120	0	0	130	0	0	130	0	0	0	2	0	2	0	5	1	3	0	9	261
Hourly Total	0	1	431	2	0	434	0	1	358	1	0	360	0	3	0	5	0	8	0	17	1	11	0	29	831
8:00 AM	0	0	84	0	0	84	1	0	107	3	0	111	0	1	0	1	0	2	0	3	0	4	0	7	204
8:15 AM	0	0	138	1	0	139	1	4	98	0	0	103	0	1	0	2	0	3	0	8	1	4	0	13	258
8:30 AM	0	0	150	0	0	150	0	0	121	1	0	122	0	1	0	1	0	2	0	9	0	5	0	14	288
8:45 AM	0	0	116	2	1	118	0	2	123	0	0	125	0	0	0	0	0	0	0	3	0	4	0	7	250
Hourly Total	0	0	488	3	1	491	2	6	449	4	0	461	0	3	0	4	0	7	0	23	1	17	0	41	1000
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	2	169	3	0	174	0	2	180	0	0	182	0	3	0	3	0	6	0	13	0	14	0	27	389
4:15 PM	0	0	177	5	0	182	0	1	149	1	0	151	0	2	0	4	0	6	0	15	0	11	0	26	365
4:30 PM	0	3	187	4	0	194	0	5	184	0	0	189	0	1	0	2	0	3	0	9	1	18	1	28	414
4:45 PM	0	4	189	7	0	200	0	4	170	0	0	174	0	1	0	3	0	4	0	11	0	19	0	30	408
Hourly Total	0	9	722	19	0	750	0	12	683	1	0	696	0	7	0	12	0	19	0	48	1	62	1	111	1576
5:00 PM	0	2	203	2	0	207	0	8	166	1	0	175	0	1	0	10	0	11	0	11	2	10	1	23	416
5:15 PM	0	0	200	2	0	202	0	3	181	0	0	184	0	0	0	5	0	5	0	13	0	14	0	27	418
5:30 PM	1	1	202	7	0	211	0	4	204	1	0	209	0	1	0	0	0	1	0	14	1	8	0	23	444
5:45 PM	0	0	208	5	0	213	2	3	185	2	0	192	0	0	0	0	0	0	0	11	0	12	0	23	428
Hourly Total	1	3	813	16	0	833	2	18	736	4	0	760	0	2	0	15	0	17	0	49	3	44	1	96	1706
Grand Total	1	13	2454	40	1	2508	4	37	2226	10	0	2277	0	15	0	36	0	51	0	137	6	134	2	277	5113
Approach %	0.0	0.5	97.8	1.6	-	-	0.2	1.6	97.8	0.4	-	-	0.0	29.4	0.0	70.6	-	-	0.0	49.5	2.2	48.4	-	-	-
Total %	0.0	0.3	48.0	0.8	-	49.1	0.1	0.7	43.5	0.2	-	44.5	0.0	0.3	0.0	0.7	-	1.0	0.0	2.7	0.1	2.6	-	5.4	-
Lights	1	10	2410	40	-	2461	4	35	2182	10	-	2231	0	14	0	35	-	49	0	134	6	134	-	274	5015
% Lights	100.0	76.9	98.2	100.0	-	98.1	100.0	94.6	98.0	100.0	-	98.0	-	93.3	-	97.2	-	96.1	-	97.8	100.0	100.0	-	98.9	98.1
Buses	0	0	8	0	-	8	0	0	19	0	-	19	0	0	0	1	-	1	0	0	0	0	-	0	28
% Buses	0.0	0.0	0.3	0.0	-	0.3	0.0	0.0	0.9	0.0	-	0.8	-	0.0	-	2.8	-	2.0	-	0.0	0.0	0.0	-	0.0	0.5
Single-Unit Trucks	0	3	26	0	-	29	0	2	17	0	-	19	0	1	0	0	-	1	0	0	0	0	-	0	49
% Single-Unit Trucks	0.0	23.1	1.1	0.0	-	1.2	0.0	5.4	0.8	0.0	-	0.8	-	6.7	-	0.0	-	2.0	-	0.0	0.0	0.0	-	0.0	1.0
Articulated Trucks	0	0	10	0	-	10	0	0	8	0	-	8	0	0	0	0	-	0	0	3	0	0	-	3	21
% Articulated Trucks	0.0	0.0	0.4	0.0	-	0.4	0.0	0.0	0.4	0.0	-	0.4	-	0.0	-	0.0	-	0.0	-	2.2	0.0	0.0	-	1.1	0.4
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: 171st Street with Oconto Avenue
Site Code:
Start Date: 08/06/2019
Page No: 3

Turning Movement Peak Hour Data (7:45 AM)

[illegible]



Kenig Lindgren O'Hara Aboona, Inc.
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Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: 171st Street with Oconto Avenue
Site Code:
Start Date: 08/06/2019
Page No: 4

Turning Movement Peak Hour Data (5:00 PM)

Start Time	171st Street Eastbound						171st Street Westbound						Oconto Avenue Northbound						USPS Access Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
5:00 PM	0	2	203	2	0	207	0	8	166	1	0	175	0	1	0	10	0	11	0	11	2	10	1	23	416
5:15 PM	0	0	200	2	0	202	0	3	181	0	0	184	0	0	0	5	0	5	0	13	0	14	0	27	418
5:30 PM	1	1	202	7	0	211	0	4	204	1	0	209	0	1	0	0	0	1	0	14	1	8	0	23	444
5:45 PM	0	0	208	5	0	213	2	3	185	2	0	192	0	0	0	0	0	0	0	11	0	12	0	23	428
Total	1	3	813	16	0	833	2	18	736	4	0	760	0	2	0	15	0	17	0	49	3	44	1	96	1706
Approach %	0.1	0.4	97.6	1.9	-	-	0.3	2.4	96.8	0.5	-	-	0.0	11.8	0.0	88.2	-	-	0.0	51.0	3.1	45.8	-	-	-
Total %	0.1	0.2	47.7	0.9	-	48.8	0.1	1.1	43.1	0.2	-	44.5	0.0	0.1	0.0	0.9	-	1.0	0.0	2.9	0.2	2.6	-	5.6	-
PHF	0.250	0.375	0.977	0.571	-	0.978	0.250	0.563	0.902	0.500	-	0.909	0.000	0.500	0.000	0.375	-	0.386	0.000	0.875	0.375	0.786	-	0.889	0.961
Lights	1	2	802	16	-	821	2	17	736	4	-	759	0	2	0	15	-	17	0	48	3	44	-	95	1692
% Lights	100.0	66.7	98.6	100.0	-	98.6	100.0	94.4	100.0	100.0	-	99.9	-	100.0	-	100.0	-	100.0	-	98.0	100.0	100.0	-	99.0	99.2
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	1	7	0	-	8	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	9
% Single-Unit Trucks	0.0	33.3	0.9	0.0	-	1.0	0.0	5.6	0.0	0.0	-	0.1	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.5
Articulated Trucks	0	0	4	0	-	4	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	5
% Articulated Trucks	0.0	0.0	0.5	0.0	-	0.5	0.0	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	2.0	0.0	0.0	-	1.0	0.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



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9575 W. Higgins Rd., Suite 400

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Count Name: 171st Street with USPS/First
Merchants Bank Access Drives
Site Code:
Start Date: 08/06/2019
Page No: 1

Turning Movement Data

Start Time	171st Street Eastbound						171st Street Westbound						First Merchants Bank Access Drive Northbound						USPS Access Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	3	95	0	0	98	0	0	79	6	0	85	0	0	0	1	0	1	0	0	0	0	0	0	184
7:15 AM	0	4	117	0	0	121	0	0	71	5	0	76	0	0	0	0	0	0	0	2	0	1	0	3	200
7:30 AM	0	5	106	0	0	111	0	0	84	7	0	91	0	0	0	0	0	0	0	1	0	1	0	2	204
7:45 AM	0	4	122	0	0	126	0	0	130	13	0	143	0	0	0	0	0	0	0	2	0	2	0	4	273
Hourly Total	0	16	440	0	0	456	0	0	364	31	0	395	0	0	0	1	0	1	0	5	0	4	0	9	861
8:00 AM	0	5	91	0	0	96	1	0	111	21	0	133	0	0	0	0	0	0	0	2	0	3	0	5	234
8:15 AM	0	9	145	0	0	154	0	0	102	26	0	128	0	0	0	0	0	0	0	1	0	1	0	2	284
8:30 AM	0	8	149	0	0	157	0	0	124	18	0	142	0	0	0	1	0	1	0	1	0	1	0	2	302
8:45 AM	0	5	122	0	0	127	0	0	121	11	0	132	0	0	0	1	0	1	0	0	0	2	0	2	262
Hourly Total	0	27	507	0	0	534	1	0	458	76	0	535	0	0	0	2	0	2	0	4	0	7	0	11	1082
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	10	175	0	0	185	0	0	170	27	0	197	0	0	0	0	0	0	0	2	0	4	0	6	388
4:15 PM	0	7	202	0	0	209	0	0	148	23	0	171	0	0	0	0	0	0	0	5	0	1	0	6	386
4:30 PM	0	7	182	0	0	189	0	0	175	26	0	201	0	0	0	2	0	2	0	3	1	8	1	12	404
4:45 PM	0	17	196	0	0	213	0	0	165	20	0	185	0	0	1	1	0	2	0	2	0	5	0	7	407
Hourly Total	0	41	755	0	0	796	0	0	658	96	0	754	0	0	1	3	0	4	0	12	1	18	1	31	1585
5:00 PM	0	7	197	0	0	204	0	0	175	18	0	193	0	0	0	0	0	0	0	1	0	7	1	8	405
5:15 PM	0	10	223	0	0	233	0	0	178	24	0	202	0	0	0	0	0	0	0	1	0	5	0	6	441
5:30 PM	0	7	198	0	0	205	0	0	207	18	0	225	0	0	0	0	0	0	0	2	0	7	0	9	439
5:45 PM	0	6	228	0	0	234	0	0	187	15	0	202	0	0	0	0	0	0	0	0	0	6	0	6	442
Hourly Total	0	30	846	0	0	876	0	0	747	75	0	822	0	0	0	0	0	0	0	4	0	25	1	29	1727
Grand Total	0	114	2548	0	0	2662	1	0	2227	278	0	2506	0	0	1	6	0	7	0	25	1	54	2	80	5255
Approach %	0.0	4.3	95.7	0.0	-	-	0.0	0.0	88.9	11.1	-	-	0.0	0.0	14.3	85.7	-	-	0.0	31.3	1.3	67.5	-	-	-
Total %	0.0	2.2	48.5	0.0	-	50.7	0.0	0.0	42.4	5.3	-	47.7	0.0	0.0	0.0	0.1	-	0.1	0.0	0.5	0.0	1.0	-	1.5	-
Lights	0	114	2502	0	-	2616	1	0	2183	275	-	2459	0	0	1	6	-	7	0	25	1	54	-	80	5162
% Lights	-	100.0	98.2	-	-	98.3	100.0	-	98.0	98.9	-	98.1	-	-	100.0	100.0	-	100.0	-	100.0	100.0	100.0	-	100.0	98.2
Buses	0	0	10	0	-	10	0	0	18	0	-	18	0	0	0	0	-	0	0	0	0	0	-	0	28
% Buses	-	0.0	0.4	-	-	0.4	0.0	-	0.8	0.0	-	0.7	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.5
Single-Unit Trucks	0	0	24	0	-	24	0	0	18	1	-	19	0	0	0	0	-	0	0	0	0	0	-	0	43
% Single-Unit Trucks	-	0.0	0.9	-	-	0.9	0.0	-	0.8	0.4	-	0.8	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.8
Articulated Trucks	0	0	12	0	-	12	0	0	8	2	-	10	0	0	0	0	-	0	0	0	0	0	-	0	22
% Articulated Trucks	-	0.0	0.5	-	-	0.5	0.0	-	0.4	0.7	-	0.4	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.4
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0

Start Time	171st Street Eastbound						171st Street Westbound						First Merchants Bank Access Drive Northbound						USPS Access Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:45 AM	0	4	122	0	0	126	0	0	130	13	0	143	0	0	0	0	0	0	0	2	0	2	0	4	273
8:00 AM	0	5	91	0	0	96	1	0	111	21	0	133	0	0	0	0	0	0	0	2	0	3	0	5	234
8:15 AM	0	9	145	0	0	154	0	0	102	26	0	128	0	0	0	0	0	0	0	1	0	1	0	2	284
8:30 AM	0	8	149	0	0	157	0	0	124	18	0	142	0	0	0	1	0	1	0	1	0	1	0	2	302
Total	0	26	507	0	0	533	1	0	467	78	0	546	0	0	0	1	0	1	0	6	0	7	0	13	1093
Approach %	0.0	4.9	95.1	0.0	-	-	0.2	0.0	85.5	14.3	-	-	0.0	0.0	0.0	100.0	-	-	0.0	46.2	0.0	53.8	-	-	-
Total %	0.0	2.4	46.4	0.0	-	48.8	0.1	0.0	42.7	7.1	-	50.0	0.0	0.0	0.0	0.1	-	0.1	0.0	0.5	0.0	0.6	-	1.2	-
PHF	0.000	0.722	0.851	0.000	-	0.849	0.250	0.000	0.898	0.750	-	0.955	0.000	0.000	0.000	0.250	-	0.250	0.000	0.750	0.000	0.583	-	0.650	0.905
Lights	0	26	495	0	-	521	1	0	444	77	-	522	0	0	0	1	-	1	0	6	0	7	-	13	1057
% Lights	-	100.0	97.6	-	-	97.7	100.0	-	95.1	98.7	-	95.6	-	-	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	96.7
Buses	0	0	5	0	-	5	0	0	16	0	-	16	0	0	0	0	-	0	0	0	0	0	-	0	21
% Buses	-	0.0	1.0	-	-	0.9	0.0	-	3.4	0.0	-	2.9	-	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	1.9
Single-Unit Trucks	0	0	5	0	-	5	0	0	6	0	-	6	0	0	0	0	-	0	0	0	0	0	-	0	11
% Single-Unit Trucks	-	0.0	1.0	-	-	0.9	0.0	-	1.3	0.0	-	1.1	-	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	1.0
Articulated Trucks	0	0	2	0	-	2	0	0	1	1	-	2	0	0	0	0	-	0	0	0	0	0	-	0	4
% Articulated Trucks	-	0.0	0.4	-	-	0.4	0.0	-	0.2	1.3	-	0.4	-	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.4
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	-	0.0	0.0	-	0.0	0.0	-	0.0	-	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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Count Name: 171st Street with USPS/First
Merchants Bank Access Drives
Site Code:
Start Date: 08/06/2019
Page No: 4

Turning Movement Peak Hour Data (5:00 PM)

Start Time	171st Street Eastbound						171st Street Westbound						First Merchants Bank Access Drive Northbound						USPS Access Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
5:00 PM	0	7	197	0	0	204	0	0	175	18	0	193	0	0	0	0	0	0	0	1	0	7	1	8	405
5:15 PM	0	10	223	0	0	233	0	0	178	24	0	202	0	0	0	0	0	0	0	1	0	5	0	6	441
5:30 PM	0	7	198	0	0	205	0	0	207	18	0	225	0	0	0	0	0	0	0	2	0	7	0	9	439
5:45 PM	0	6	228	0	0	234	0	0	187	15	0	202	0	0	0	0	0	0	0	0	0	6	0	6	442
Total	0	30	846	0	0	876	0	0	747	75	0	822	0	0	0	0	0	0	0	4	0	25	1	29	1727
Approach %	0.0	3.4	96.6	0.0	-	-	0.0	0.0	90.9	9.1	-	-	0.0	0.0	0.0	0.0	-	-	0.0	13.8	0.0	86.2	-	-	-
Total %	0.0	1.7	49.0	0.0	-	50.7	0.0	0.0	43.3	4.3	-	47.6	0.0	0.0	0.0	0.0	-	0.0	0.0	0.2	0.0	1.4	-	1.7	-
PHF	0.000	0.750	0.928	0.000	-	0.936	0.000	0.000	0.902	0.781	-	0.913	0.000	0.000	0.000	0.000	-	0.000	0.000	0.500	0.000	0.893	-	0.806	0.977
Lights	0	30	833	0	-	863	0	0	745	74	-	819	0	0	0	0	-	0	0	4	0	25	-	29	1711
% Lights	-	100.0	98.5	-	-	98.5	-	-	99.7	98.7	-	99.6	-	-	-	-	-	-	-	100.0	-	100.0	-	100.0	99.1
Buses	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Buses	-	0.0	0.1	-	-	0.1	-	-	0.0	0.0	-	0.0	-	-	-	-	-	-	-	0.0	-	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	7	0	-	7	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	9
% Single-Unit Trucks	-	0.0	0.8	-	-	0.8	-	-	0.3	0.0	-	0.2	-	-	-	-	-	-	-	0.0	-	0.0	-	0.0	0.5
Articulated Trucks	0	0	5	0	-	5	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	0	-	0	6
% Articulated Trucks	-	0.0	0.6	-	-	0.6	-	-	0.0	1.3	-	0.1	-	-	-	-	-	-	-	0.0	-	0.0	-	0.0	0.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	-	0.0	-	-	0.0	0.0	-	0.0	-	-	-	-	-	-	-	0.0	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Harlem Avenue with 171st Street
Site Code:
Start Date: 08/06/2019
Page No: 1

Turning Movement Data

Start Time	171st Street Eastbound						171st Street Westbound						Harlem Avenue Northbound						Harlem Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	35	42	23	0	100	0	31	31	9	0	71	0	29	136	2	0	167	0	11	156	15	0	182	520
7:15 AM	0	22	45	40	0	107	0	30	25	8	0	63	0	28	211	13	0	252	0	7	205	24	0	236	658
7:30 AM	0	34	53	26	0	113	0	34	36	12	0	82	1	27	177	11	0	216	0	16	220	26	1	262	673
7:45 AM	0	39	46	35	0	120	0	27	47	12	0	86	0	46	208	14	0	268	0	25	240	46	0	311	785
Hourly Total	0	130	186	124	0	440	0	122	139	41	0	302	1	130	732	40	0	903	0	59	821	111	1	991	2636
8:00 AM	0	35	27	32	0	94	0	24	63	13	0	100	0	42	194	10	0	246	0	13	157	28	0	198	638
8:15 AM	0	51	49	36	0	136	0	31	31	7	0	69	0	52	205	13	0	270	0	17	211	38	0	266	741
8:30 AM	0	62	59	37	0	158	0	33	60	19	0	112	0	42	178	13	0	233	0	16	145	39	0	200	703
8:45 AM	0	30	41	31	0	102	0	26	43	20	0	89	0	48	195	11	0	254	0	9	166	41	0	216	661
Hourly Total	0	178	176	136	0	490	0	114	197	59	0	370	0	184	772	47	0	1003	0	55	679	146	0	880	2743
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	51	93	35	0	179	0	37	92	16	0	145	0	41	277	23	0	341	0	36	269	56	0	361	1026
4:15 PM	0	62	81	52	0	195	0	42	86	29	0	157	0	36	262	28	0	326	0	31	256	51	0	338	1016
4:30 PM	0	50	92	41	0	183	1	55	80	14	0	150	0	62	332	33	0	427	0	28	289	58	0	375	1135
4:45 PM	0	55	86	65	0	206	0	68	80	22	0	170	0	53	302	36	0	391	0	35	267	43	0	345	1112
Hourly Total	0	218	352	193	0	763	1	202	338	81	0	622	0	192	1173	120	0	1485	0	130	1081	208	0	1419	4289
5:00 PM	0	50	90	46	0	186	0	57	71	17	0	145	0	40	325	38	0	403	0	30	313	61	0	404	1138
5:15 PM	0	66	107	52	0	225	0	64	86	14	0	164	0	57	314	31	0	402	0	47	295	66	0	408	1199
5:30 PM	0	54	85	59	0	198	0	61	89	15	0	165	0	69	303	22	0	394	0	30	273	52	0	355	1112
5:45 PM	0	61	87	61	0	209	0	61	81	10	0	152	1	62	350	29	0	442	0	34	287	59	0	380	1183
Hourly Total	0	231	369	218	0	818	0	243	327	56	0	626	1	228	1292	120	0	1641	0	141	1168	238	0	1547	4632
Grand Total	0	757	1083	671	0	2511	1	681	1001	237	0	1920	2	734	3969	327	0	5032	0	385	3749	703	1	4837	14300
Approach %	0.0	30.1	43.1	26.7	-	-	0.1	35.5	52.1	12.3	-	-	0.0	14.6	78.9	6.5	-	-	0.0	8.0	77.5	14.5	-	-	-
Total %	0.0	5.3	7.6	4.7	-	17.6	0.0	4.8	7.0	1.7	-	13.4	0.0	5.1	27.8	2.3	-	35.2	0.0	2.7	26.2	4.9	-	33.8	-
Lights	0	740	1072	656	-	2468	1	674	985	230	-	1890	2	719	3858	319	-	4898	0	382	3641	685	-	4708	13964
% Lights	-	97.8	99.0	97.8	-	98.3	100.0	99.0	98.4	97.0	-	98.4	100.0	98.0	97.2	97.6	-	97.3	-	99.2	97.1	97.4	-	97.3	97.7
Buses	0	5	4	0	-	9	0	0	4	1	-	5	0	5	11	2	-	18	0	0	9	8	-	17	49
% Buses	-	0.7	0.4	0.0	-	0.4	0.0	0.0	0.4	0.4	-	0.3	0.0	0.7	0.3	0.6	-	0.4	-	0.0	0.2	1.1	-	0.4	0.3
Single-Unit Trucks	0	5	6	8	-	19	0	6	10	5	-	21	0	3	54	5	-	62	0	2	59	7	-	68	170
% Single-Unit Trucks	-	0.7	0.6	1.2	-	0.8	0.0	0.9	1.0	2.1	-	1.1	0.0	0.4	1.4	1.5	-	1.2	-	0.5	1.6	1.0	-	1.4	1.2
Articulated Trucks	0	7	1	7	-	15	0	1	2	1	-	4	0	7	46	1	-	54	0	1	40	3	-	44	117
% Articulated Trucks	-	0.9	0.1	1.0	-	0.6	0.0	0.1	0.2	0.4	-	0.2	0.0	1.0	1.2	0.3	-	1.1	-	0.3	1.1	0.4	-	0.9	0.8
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0

Start Time	171st Street Eastbound						171st Street Westbound						Harlem Avenue Northbound						Harlem Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:45 AM	0	39	46	35	0	120	0	27	47	12	0	86	0	46	208	14	0	268	0	25	240	46	0	311	785
8:00 AM	0	35	27	32	0	94	0	24	63	13	0	100	0	42	194	10	0	246	0	13	157	28	0	198	638
8:15 AM	0	51	49	36	0	136	0	31	31	7	0	69	0	52	205	13	0	270	0	17	211	38	0	266	741
8:30 AM	0	62	59	37	0	158	0	33	60	19	0	112	0	42	178	13	0	233	0	16	145	39	0	200	703
Total	0	187	181	140	0	508	0	115	201	51	0	367	0	182	785	50	0	1017	0	71	753	151	0	975	2867
Approach %	0.0	36.8	35.6	27.6	-	-	0.0	31.3	54.8	13.9	-	-	0.0	17.9	77.2	4.9	-	-	0.0	7.3	77.2	15.5	-	-	-
Total %	0.0	6.5	6.3	4.9	-	17.7	0.0	4.0	7.0	1.8	-	12.8	0.0	6.3	27.4	1.7	-	35.5	0.0	2.5	26.3	5.3	-	34.0	-
PHF	0.000	0.754	0.767	0.946	-	0.804	0.000	0.871	0.798	0.671	-	0.819	0.000	0.875	0.944	0.893	-	0.942	0.000	0.710	0.784	0.821	-	0.784	0.913
Lights	0	179	177	139	-	495	0	114	192	50	-	356	0	177	747	47	-	971	0	71	709	140	-	920	2742
% Lights	-	95.7	97.8	99.3	-	97.4	-	99.1	95.5	98.0	-	97.0	-	97.3	95.2	94.0	-	95.5	-	100.0	94.2	92.7	-	94.4	95.6
Buses	0	4	1	0	-	5	0	0	4	0	-	4	0	4	3	1	-	8	0	0	5	7	-	12	29
% Buses	-	2.1	0.6	0.0	-	1.0	-	0.0	2.0	0.0	-	1.1	-	2.2	0.4	2.0	-	0.8	-	0.0	0.7	4.6	-	1.2	1.0
Single-Unit Trucks	0	2	3	1	-	6	0	1	4	1	-	6	0	1	20	2	-	23	0	0	19	3	-	22	57
% Single-Unit Trucks	-	1.1	1.7	0.7	-	1.2	-	0.9	2.0	2.0	-	1.6	-	0.5	2.5	4.0	-	2.3	-	0.0	2.5	2.0	-	2.3	2.0
Articulated Trucks	0	2	0	0	-	2	0	0	1	0	-	1	0	0	15	0	-	15	0	0	20	1	-	21	39
% Articulated Trucks	-	1.1	0.0	0.0	-	0.4	-	0.0	0.5	0.0	-	0.3	-	0.0	1.9	0.0	-	1.5	-	0.0	2.7	0.7	-	2.2	1.4
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Harlem Avenue with 171st Street
Site Code:
Start Date: 08/06/2019
Page No: 4

Turning Movement Peak Hour Data (5:00 PM)

[illegible]

Tinley Park, IL Weather: Cool and Dry
 Harlem Ave and DuPage Medical Group Access
 Friday/Monday 3-26-21 and 3-29-21

03/29/21
 11:14:37

URNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - by Mvmt

Intersection # 5 harlem/dupagedmed													
Begin Time	N-Approach			E-Approach			S-Approach			W-Approach			Int Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
700	0	0	0	0	0	0	0	0	0	0	0	0	0
715	0	0	0	0	0	0	0	0	3	0	0	0	3
730	1	0	0	0	0	0	0	0	3	1	0	0	5
745	3	0	0	0	0	0	0	0	1	0	0	0	4
800	1	0	0	0	0	0	0	0	1	0	0	1	3
815	1	0	0	0	0	0	0	0	3	0	0	0	4
830	1	0	0	0	0	0	0	0	1	0	0	1	3
845	2	0	0	0	0	0	0	0	1	1	0	0	4
1600	0	0	0	0	0	0	0	0	0	0	0	0	0
1615	0	0	0	0	0	0	0	0	0	0	0	0	0
1630	0	0	0	0	0	0	0	0	0	0	0	0	0
1645	0	0	0	0	0	0	0	0	0	1	0	0	1
1700	1	0	0	0	0	0	0	0	0	2	0	0	3
1715	0	0	0	0	0	0	0	0	0	0	0	0	0
1730	1	0	0	0	0	0	0	0	0	0	0	0	1
1745	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	12	0	0	0	0	0	0	0	13	5	0	2	32

URNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - Totals

Intersection # 5 harlem/dupagedmed									
Begin Time	Approach Totals				Exit Totals				Int Total
	N	E	S	W	N	E	S	W	
700	0	0	0	0	0	0	0	0	0
715	0	0	3	0	0	0	0	3	3
730	1	0	3	1	0	0	1	4	5
745	3	0	1	0	0	0	0	4	4
800	1	0	1	1	1	0	0	2	3
815	1	0	3	0	0	0	0	4	4
830	1	0	1	1	1	0	0	2	3
845	2	0	1	1	0	0	1	3	4
1600	0	0	0	0	0	0	0	0	0
1615	0	0	0	0	0	0	0	0	0
1630	0	0	0	0	0	0	0	0	0
1645	0	0	0	1	0	0	1	0	1
1700	1	0	0	2	0	0	2	1	3
1715	0	0	0	0	0	0	0	0	0
1730	1	0	0	0	0	0	0	1	1
1745	1	0	0	0	0	0	0	1	1
Total	12	0	13	7	2	0	5	25	32

Tinley Park, IL Weather: Cool and Dry
 Harlem Ave and Jewel Osco Access
 Friday/Monday 3-26-21 and 3-29-21

03/29/21
 11:10:58

URNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - by Mvmt

Intersection # 4 harlem/jeweloscoacc													
Begin Time	N-Approach			E-Approach			S-Approach			W-Approach			Int Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
700	0	153	1	3	0	1	8	197	0	0	0	0	363
715	0	196	3	4	0	2	9	194	0	0	0	0	408
730	0	263	3	7	0	3	8	204	0	0	0	0	488
745	0	227	4	5	0	1	8	241	0	0	0	0	486
800	0	186	4	5	0	3	8	200	0	0	0	0	406
815	0	201	3	10	0	4	11	213	0	0	0	0	442
830	0	202	10	5	0	2	13	253	0	0	0	0	485
845	0	204	7	4	0	5	10	237	0	0	0	0	467
1600	0	305	15	20	0	13	23	350	0	0	0	0	726
1615	0	317	17	17	0	14	23	355	0	0	0	0	743
1630	0	298	15	24	0	7	27	368	0	0	0	0	739
1645	0	321	11	16	0	12	21	386	0	0	0	0	767
1700	0	383	12	10	0	20	25	384	0	0	0	0	834
1715	0	314	8	21	0	13	19	360	0	0	0	0	735
1730	0	348	9	16	0	9	20	342	0	0	0	0	744
1745	0	322	6	13	0	10	21	315	0	0	0	0	687
Total	0	4240	128	180	0	119	254	4599	0	0	0	0	9520

URNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - Totals

Intersection # 4 harlem/jeweloscoacc									
Begin Time	Approach Totals				Exit Totals				Int Total
	N	E	S	W	N	E	S	W	
700	154	4	205	0	200	9	154	0	363
715	199	6	203	0	198	12	198	0	408
730	266	10	212	0	211	11	266	0	488
745	231	6	249	0	246	12	228	0	486
800	190	8	208	0	205	12	189	0	406
815	204	14	224	0	223	14	205	0	442
830	212	7	266	0	258	23	204	0	485
845	211	9	247	0	241	17	209	0	467
1600	320	33	373	0	370	38	318	0	726
1615	334	31	378	0	372	40	331	0	743
1630	313	31	395	0	392	42	305	0	739
1645	332	28	407	0	402	32	333	0	767
1700	395	30	409	0	394	37	403	0	834
1715	322	34	379	0	381	27	327	0	735
1730	357	25	362	0	358	29	357	0	744
1745	328	23	336	0	328	27	332	0	687
Total	4368	299	4853	0	4779	382	4359	0	9520

Preliminary Site Plan

CMAP 2050 Projections Letter



Chicago Metropolitan
Agency for Planning

433 West Van Buren Street
Suite 450
Chicago, IL 60607

312-454-0400
cmap.illinois.gov

March 26, 2021

Andrew Bowen
Traffic Engineer
Kenig, Lindgren, O'Hara and Aboona, Inc.
9575 West Higgins Road
Suite 400
Rosemont, IL 60018

Subject: 171st Street @ Harlem Avenue
IDOT

Dear Mr. Bowen:

In response to a request made on your behalf and dated March 26, 2021, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Current Volumes	Year 2050 ADT
Harlem Ave north of 171st St	33,800	44,300
Harlem Ave south of 171st St	33,900	41,800
171st St west of Harlem Ave	16,000	21,000
171st St east of Harlem Ave	11,800	14,200

Traffic projections are developed using existing ADT data provided in the request letter and the results from the June 2020 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2050 socioeconomic projections and assumes the implementation of the ON TO 2050 Comprehensive Regional Plan for the Northeastern Illinois area. The provision of this data in support of your request does not constitute a CMAP endorsement of the proposed development or any subsequent developments.

If you have any questions, please call me at (312) 386-8806.

Sincerely,

Jose Rodriguez, PTP, AICP
Senior Planner, Research & Analysis

cc: Quigley (IDOT)
2021_CY_TrafficForecast\TinleyPark\ck-41-21\ck-41-21.docx

ITE Trip Generation Worksheets

Coffee/Donut Shop with Drive-Through Window (937)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

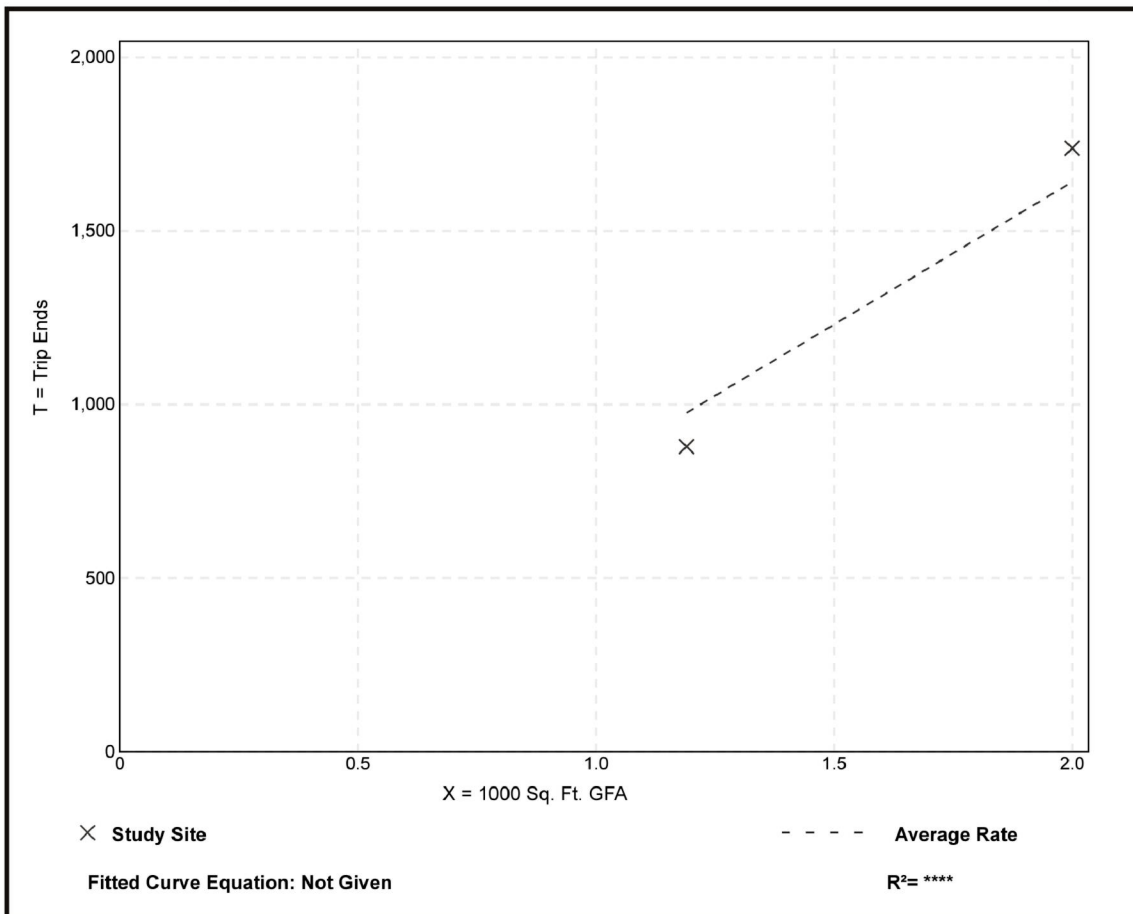
Setting/Location: General Urban/Suburban
Number of Studies: 2
1000 Sq. Ft. GFA: 2
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
820.38	738.66 - 869.00	*

Data Plot and Equation

Caution – Small Sample Size



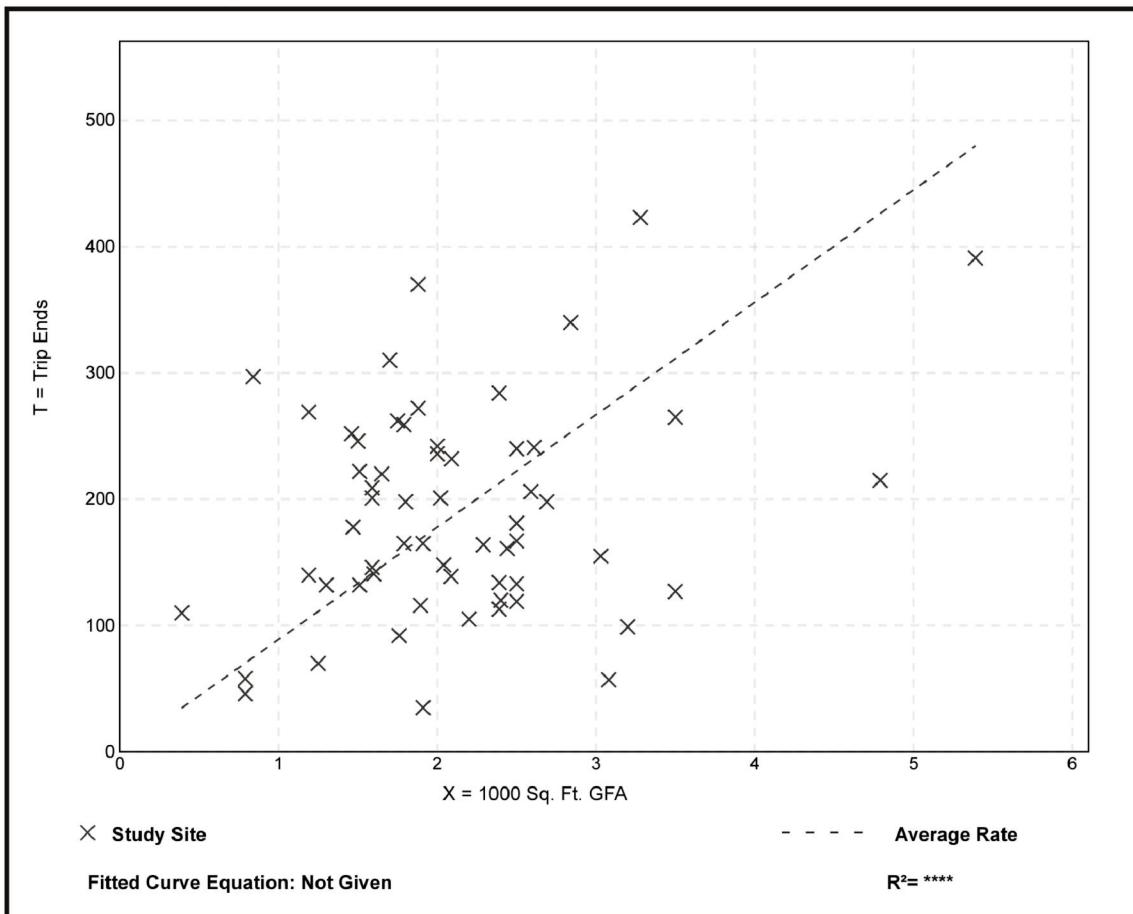
Coffee/Donut Shop with Drive-Through Window (937)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 61
 1000 Sq. Ft. GFA: 2
 Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
88.99	18.32 - 353.57	48.19

Data Plot and Equation



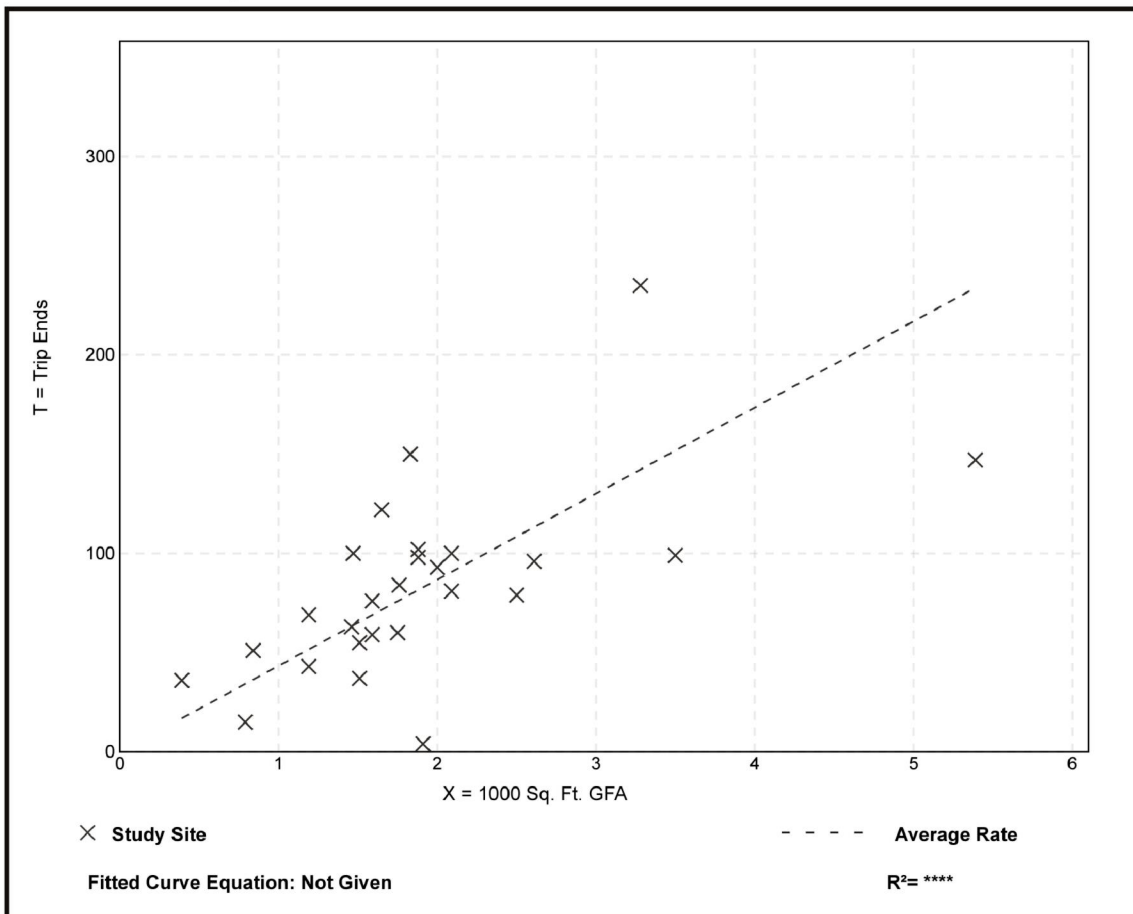
Coffee/Donut Shop with Drive-Through Window (937)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 4 and 6 p.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 26
 1000 Sq. Ft. GFA: 2
 Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
43.38	2.09 - 92.31	18.88

Data Plot and Equation



Shopping Center (820)

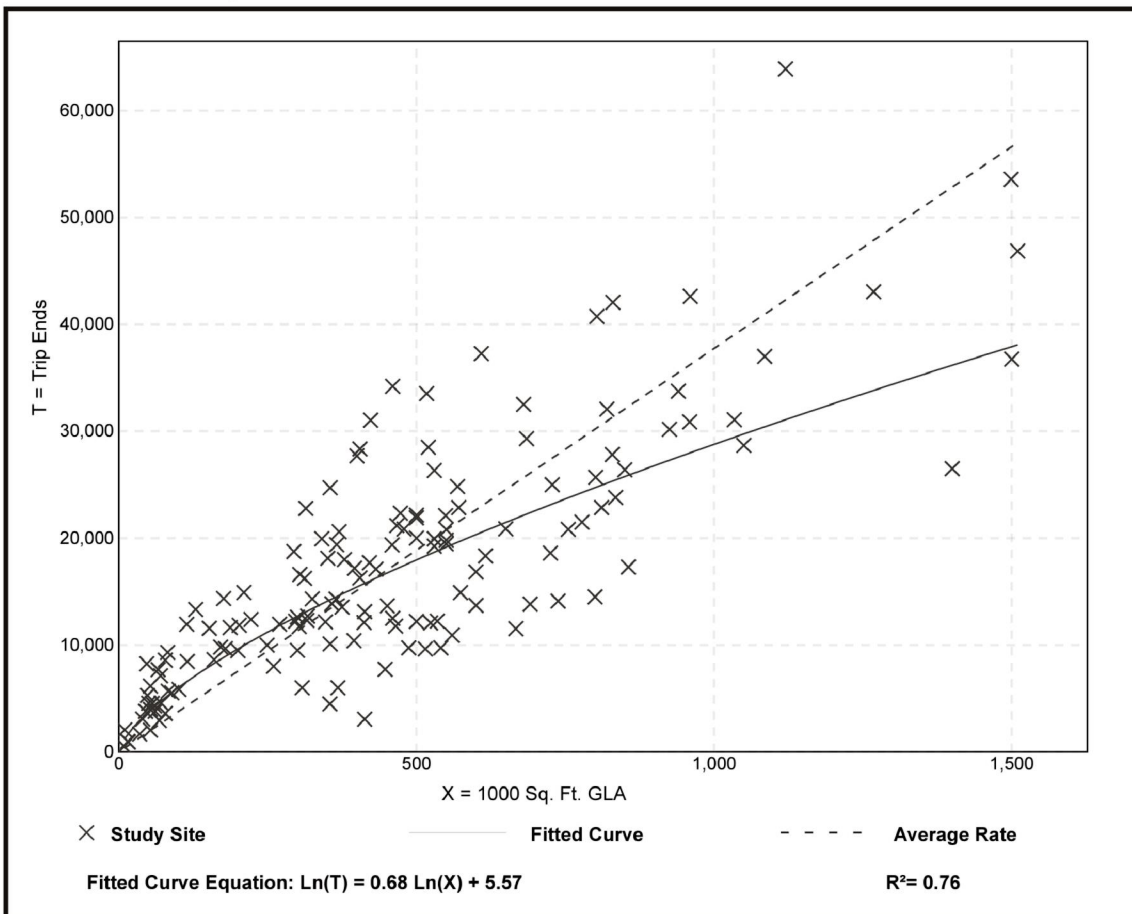
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 147
1000 Sq. Ft. GLA: 453
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
37.75	7.42 - 207.98	16.41

Data Plot and Equation



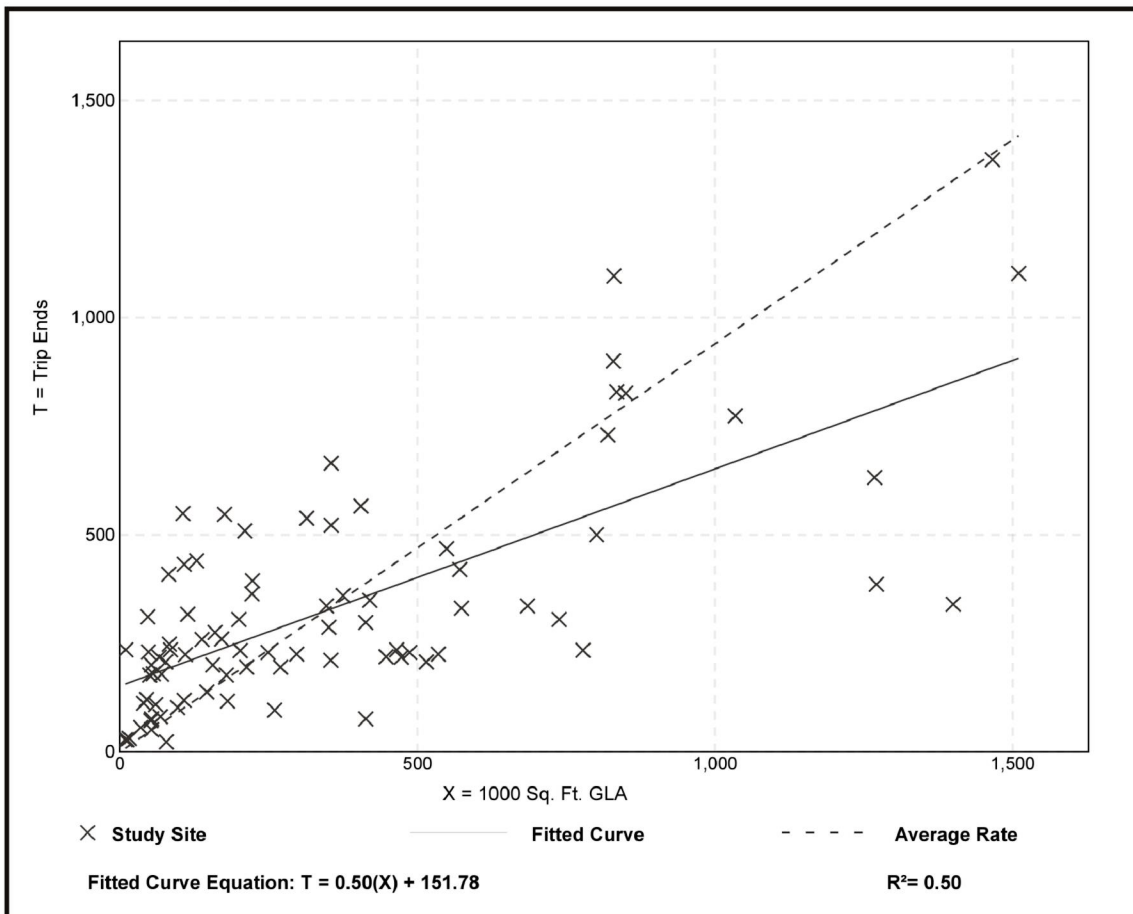
Shopping Center (820)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 7 and 9 a.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 84
 1000 Sq. Ft. GLA: 351
 Directional Distribution: 62% entering, 38% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
0.94	0.18 - 23.74	0.87

Data Plot and Equation



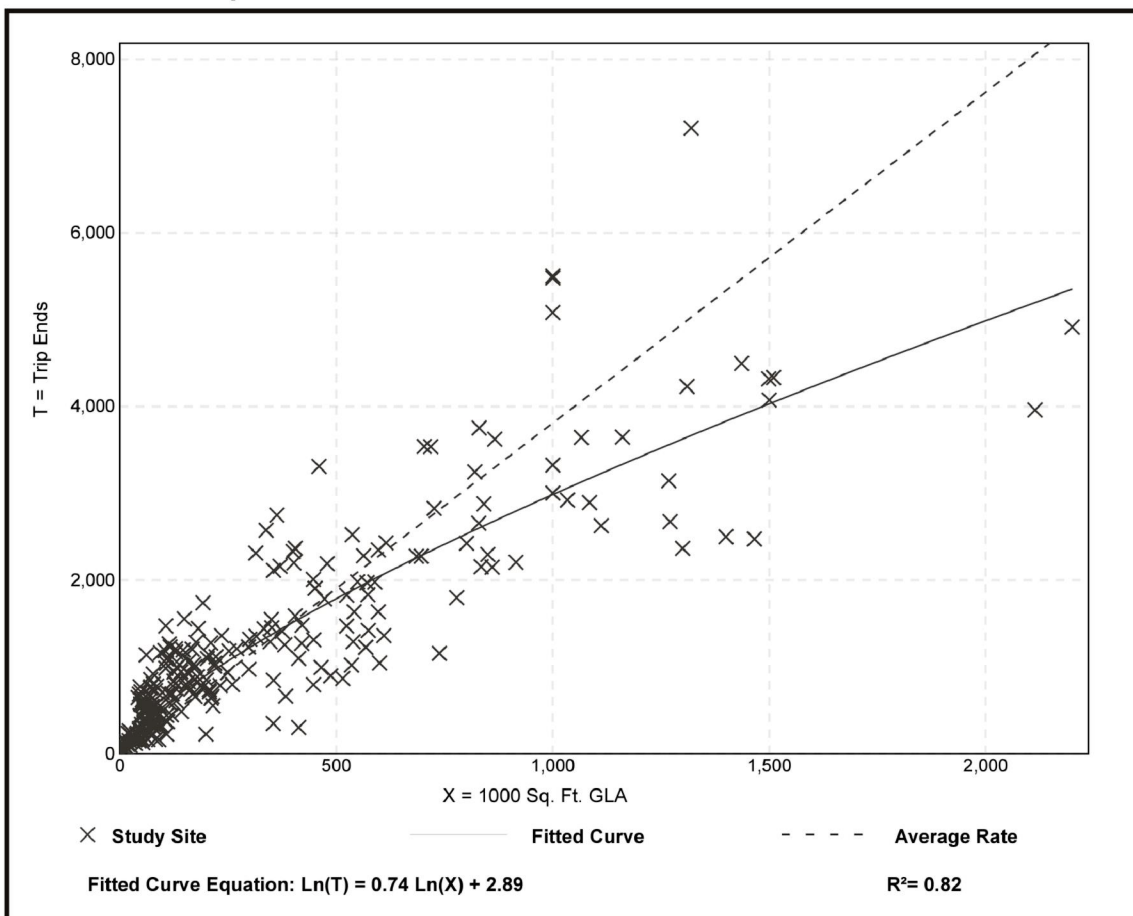
Shopping Center (820)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 4 and 6 p.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 261
 1000 Sq. Ft. GLA: 327
 Directional Distribution: 48% entering, 52% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
3.81	0.74 - 18.69	2.04

Data Plot and Equation



Level of Service Criteria

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: <i>Highway Capacity Manual</i> , 2010.		





















Capacity Analysis Summary Sheets

Existing Weekday Morning Peak Hour Conditions

Lanes, Volumes, Timings

1: Harlem Avenue & 171st Street













04/01/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	190	190	142	117	215	52	185	798	51	72	765	153
Future Volume (vph)	190	190	142	117	215	52	185	798	51	72	765	153
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	160		0	150		0	160		0	190		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	145			145			125			125		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.936			0.971			0.991			0.975	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	3327	0	1787	3383	0	1752	3405	0	1805	3315	0
Flt Permitted	0.377			0.496			0.175			0.251		
Satd. Flow (perm)	689	3327	0	933	3383	0	323	3405	0	477	3315	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			35			40			40	
Link Distance (ft)		229			789			567			516	
Travel Time (s)		3.9			15.4			9.7			8.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	2%	1%	1%	4%	2%	3%	5%	6%	0%	6%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	209	365	0	129	293	0	203	933	0	79	1009	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	8.0		3.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	9.5	24.0		9.5	24.0		9.5	24.0		9.5	24.0	
Total Split (s)	19.0	36.0		14.0	31.0		14.0	56.0		14.0	56.0	
Total Split (%)	15.8%	30.0%		11.7%	25.8%		11.7%	46.7%		11.7%	46.7%	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.0		3.5	4.0	
All-Red Time (s)	0.0	2.0		0.0	2.0		0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	37.8	21.8		29.7	17.3		75.2	63.4		67.9	57.7	
Actuated g/C Ratio	0.32	0.18		0.25	0.14		0.63	0.53		0.57	0.48	

Lanes, Volumes, Timings

1: Harlem Avenue & 171st Street

04/01/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.61	0.60		0.43	0.60		0.60	0.52		0.22	0.63	
Control Delay	39.1	49.0		34.0	53.0		18.1	21.3		11.7	26.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	39.1	49.0		34.0	53.0		18.1	21.3		11.7	26.8	
LOS	D	D		C	D		B	C		B	C	
Approach Delay		45.4			47.2			20.8			25.7	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)	124	137		72	113		64	252		23	307	
Queue Length 95th (ft)	180	178		115	152		112	354		48	421	
Internal Link Dist (ft)		149			709			487			436	
Turn Bay Length (ft)	160			150			160			190		
Base Capacity (vph)	352	831		310	704		344	1799		397	1595	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.59	0.44		0.42	0.42		0.59	0.52		0.20	0.63	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 30.3

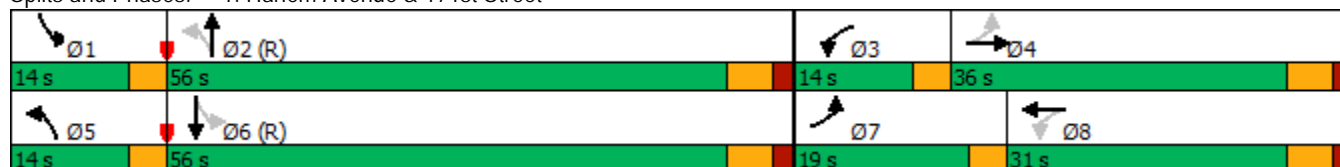
Intersection LOS: C

Intersection Capacity Utilization 71.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: Harlem Avenue & 171st Street



HCM 6th TWSC

2: 171st Street & USPS East Access Drive

04/01/2021

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕		↕↕	
Traffic Vol, veh/h	26	516	475	78	6	7
Future Vol, veh/h	26	516	475	78	6	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	2	5	1	0	0
Mvmt Flow	29	567	522	86	7	8
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	608	0	-	0	907	304
Stage 1	-	-	-	-	565	-
Stage 2	-	-	-	-	342	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	980	-	-	-	279	698
Stage 1	-	-	-	-	538	-
Stage 2	-	-	-	-	697	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	980	-	-	-	267	698
Mov Cap-2 Maneuver	-	-	-	-	384	-
Stage 1	-	-	-	-	515	-
Stage 2	-	-	-	-	697	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.6	0		12.3		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	980	-	-	-	-	507
HCM Lane V/C Ratio	0.029	-	-	-	-	0.028
HCM Control Delay (s)	8.8	0.2	-	-	-	12.3
HCM Lane LOS	A	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0.1

HCM 6th TWSC

3: First Merchant Bank Access Drive & 171st Street

04/01/2021

Intersection

Int Delay, s/veh 0






Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	541	0	0	482	0	1
Future Vol, veh/h	541	0	0	482	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	0	0	5	0	0
Mvmt Flow	595	0	0	530	0	1

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	595
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	991
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	991
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.1
HCM LOS			B




Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	704	-	-	991	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	10.1	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕		↗	↕↕			↕			↕	
Traffic Vol, veh/h	0	510	1	6	472	4	3	0	6	25	2	16
Future Vol, veh/h	0	510	1	6	472	4	3	0	6	25	2	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	2	0	0	5	0	0	0	17	4	0	0
Mvmt Flow	0	580	1	7	536	5	3	0	7	28	2	18
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	541	0	0	581	0	0	864	1136	291	843	1134	271
Stage 1	-	-	-	-	-	-	581	581	-	553	553	-
Stage 2	-	-	-	-	-	-	283	555	-	290	581	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	7.24	7.58	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.58	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.58	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.47	3.54	4	3.3
Pot Cap-1 Maneuver	1038	-	-	1003	-	-	251	204	663	254	204	733
Stage 1	-	-	-	-	-	-	472	503	-	480	518	-
Stage 2	-	-	-	-	-	-	706	516	-	688	503	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1038	-	-	1003	-	-	242	203	663	250	203	733
Mov Cap-2 Maneuver	-	-	-	-	-	-	359	324	-	364	323	-
Stage 1	-	-	-	-	-	-	472	503	-	480	514	-
Stage 2	-	-	-	-	-	-	681	512	-	681	503	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.1			12.1			14.1		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	517	1038	-	-	1003	-	-	445				
HCM Lane V/C Ratio	0.02	-	-	-	0.007	-	-	0.11				
HCM Control Delay (s)	12.1	0	-	-	8.6	-	-	14.1				
HCM Lane LOS	B	A	-	-	A	-	-	B				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.4				

Intersection							
Int Delay, s/veh	0.5						
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Traffic Vol, veh/h	14	24	1010	42	24	1000	
Future Vol, veh/h	14	24	1010	42	24	1000	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	
Storage Length	0	0	-	-	160	-	
Veh in Median Storage, #	1	-	0	-	-	0	
Grade, %	0	-	0	-	-	0	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	0	0	5	0	0	6	
Mvmt Flow	15	26	1098	46	26	1087	
Major/Minor	Minor1	Major1		Major2			
Conflicting Flow All	1717	572	0	0	1144	0	
Stage 1	1121	-	-	-	-	-	
Stage 2	596	-	-	-	-	-	
Critical Hdwy	6.8	6.9	-	-	4.1	-	
Critical Hdwy Stg 1	5.8	-	-	-	-	-	
Critical Hdwy Stg 2	5.8	-	-	-	-	-	
Follow-up Hdwy	3.5	3.3	-	-	2.2	-	
Pot Cap-1 Maneuver	83	468	-	-	618	-	
Stage 1	277	-	-	-	-	-	
Stage 2	519	-	-	-	-	-	
Platoon blocked, %			-	-		-	
Mov Cap-1 Maneuver	80	468	-	-	618	-	
Mov Cap-2 Maneuver	190	-	-	-	-	-	
Stage 1	265	-	-	-	-	-	
Stage 2	519	-	-	-	-	-	
Approach	WB	NB		SB			
HCM Control Delay, s	17.7	0		0.3			
HCM LOS	C						
Minor Lane/Major Mvmt		NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)		-	-	190	468	618	-
HCM Lane V/C Ratio		-	-	0.08	0.056	0.042	-
HCM Control Delay (s)		-	-	25.6	13.1	11.1	-
HCM Lane LOS		-	-	D	B	B	-
HCM 95th %tile Q(veh)		-	-	0.3	0.2	0.1	-

HCM 6th TWSC
6: Harlem Avenue & DuPage Medical Group

04/01/2021

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	8	1051	1008	6
Future Vol, veh/h	1	1	8	1051	1008	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	5	6	0
Mvmt Flow	1	1	9	1142	1096	7
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1689	552	1103	0	-	0
Stage 1	1100	-	-	-	-	-
Stage 2	589	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	86	483	640	-	-	-
Stage 1	285	-	-	-	-	-
Stage 2	523	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	83	483	640	-	-	-
Mov Cap-2 Maneuver	197	-	-	-	-	-
Stage 1	274	-	-	-	-	-
Stage 2	523	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	18	0.3		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	640	-	280	-	-	
HCM Lane V/C Ratio	0.014	-	0.008	-	-	
HCM Control Delay (s)	10.7	0.2	18	-	-	
HCM Lane LOS	B	A	C	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	





















Capacity Analysis Summary Sheets

Existing Weekday Evening Peak Hour Conditions

Lanes, Volumes, Timings

1: Harlem Avenue & 171st Street

04/01/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	235	408	221	247	362	57	232	1313	122	143	1187	242
Future Volume (vph)	235	408	221	247	362	57	232	1313	122	143	1187	242
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	160		0	150		0	160		0	190		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	145			145			125			125		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.947			0.980			0.987			0.975	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3361	0	1787	3538	0	1787	3525	0	1805	3485	0
Flt Permitted	0.273			0.171			0.059			0.063		
Satd. Flow (perm)	514	3361	0	322	3538	0	111	3525	0	120	3485	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			35			40			40	
Link Distance (ft)		229			789			567			516	
Travel Time (s)		3.9			15.4			9.7			8.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	3%	1%	0%	0%	1%	1%	2%	0%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	242	649	0	255	432	0	239	1480	0	147	1473	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	8.0		3.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	9.5	24.0		9.5	24.0		9.5	24.0		9.5	24.0	
Total Split (s)	20.0	29.0		20.0	29.0		24.0	73.0		18.0	67.0	
Total Split (%)	14.3%	20.7%		14.3%	20.7%		17.1%	52.1%		12.9%	47.9%	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.0		3.5	4.0	
All-Red Time (s)	0.0	2.0		0.0	2.0		0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	41.6	23.0		42.4	23.4		87.5	69.8		78.0	63.8	
Actuated g/C Ratio	0.30	0.16		0.30	0.17		0.62	0.50		0.56	0.46	













21-073 - Starbucks - Tinley Park
Existing Weekday Evening Peak

Synchro 10 Report

Lanes, Volumes, Timings

1: Harlem Avenue & 171st Street

04/01/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.81	1.18		0.94	0.73		0.85	0.84		0.71	0.93	
Control Delay	59.2	146.7		81.6	63.6		63.7	36.4		48.5	47.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	59.2	146.7		81.6	63.6		63.7	36.4		48.5	47.4	
LOS	E	F		F	E		E	D		D	D	
Approach Delay		122.9			70.3			40.2			47.5	
Approach LOS		F			E			D			D	
Queue Length 50th (ft)	172	~371		183	199		159	603		77	672	
Queue Length 95th (ft)	#255	#497		#350	261		#277	735		151	#850	
Internal Link Dist (ft)		149			709			487			436	
Turn Bay Length (ft)	160			150			160			190		
Base Capacity (vph)	304	552		270	591		314	1757		243	1588	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.80	1.18		0.94	0.73		0.76	0.84		0.60	0.93	

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.18

Intersection Signal Delay: 61.8

Intersection LOS: E

Intersection Capacity Utilization 102.1%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Harlem Avenue & 171st Street

 Ø1	 Ø2 (R)	 Ø3	 Ø4
18 s	73 s	20 s	29 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
24 s	67 s	20 s	29 s

HCM 6th TWSC

2: 171st Street & USPS East Access Drive

04/01/2021

Intersection

Int Delay, s/veh 0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	30	860	761	75	4	25
Future Vol, veh/h	30	860	761	75	4	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	1	1	2	0	0
Mvmt Flow	33	945	836	82	4	27

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	918	0	0 1416 459
Stage 1	-	-	- 877 -
Stage 2	-	-	- 539 -
Critical Hdwy	4.1	-	- 6.8 6.9
Critical Hdwy Stg 1	-	-	- 5.8 -
Critical Hdwy Stg 2	-	-	- 5.8 -
Follow-up Hdwy	2.2	-	- 3.5 3.3
Pot Cap-1 Maneuver	752	-	- 131 554
Stage 1	-	-	- 372 -
Stage 2	-	-	- 555 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	752	-	- 119 554
Mov Cap-2 Maneuver	-	-	- 238 -
Stage 1	-	-	- 338 -
Stage 2	-	-	- 555 -

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	13.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	752	-	-	-	468
HCM Lane V/C Ratio	0.044	-	-	-	0.068
HCM Control Delay (s)	10	0.4	-	-	13.3
HCM Lane LOS	B	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

HCM 6th TWSC

3: First Merchant Bank Access Drive & 171st Street

04/01/2021

Intersection

Int Delay, s/veh 0






Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	890	0	0	786	0	0
Future Vol, veh/h	890	0	0	786	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	1	0	1	0	0
Mvmt Flow	908	0	0	802	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	908
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	758
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	758
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	758	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔		↗	↗↗			↕			↕	
Traffic Vol, veh/h	3	826	16	20	762	4	2	0	15	49	3	44
Future Vol, veh/h	3	826	16	20	762	4	2	0	15	49	3	44
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	33	1	0	6	0	0	0	0	0	2	0	0
Mvmt Flow	3	860	17	21	794	4	2	0	16	51	3	46
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	798	0	0	877	0	0	1316	1715	439	1274	1721	399
Stage 1	-	-	-	-	-	-	875	875	-	838	838	-
Stage 2	-	-	-	-	-	-	441	840	-	436	883	-
Critical Hdwy	4.76	-	-	4.22	-	-	7.5	6.5	6.9	7.54	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.54	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.54	5.5	-
Follow-up Hdwy	2.53	-	-	2.26	-	-	3.5	4	3.3	3.52	4	3.3
Pot Cap-1 Maneuver	647	-	-	741	-	-	118	91	571	124	90	606
Stage 1	-	-	-	-	-	-	315	370	-	327	384	-
Stage 2	-	-	-	-	-	-	570	384	-	569	367	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	647	-	-	741	-	-	105	88	571	117	87	606
Mov Cap-2 Maneuver	-	-	-	-	-	-	220	208	-	232	203	-
Stage 1	-	-	-	-	-	-	312	367	-	324	373	-
Stage 2	-	-	-	-	-	-	508	373	-	548	364	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.3			12.8			21.1		
HCM LOS							B			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	481	647	-	-	741	-	-	322				
HCM Lane V/C Ratio	0.037	0.005	-	-	0.028	-	-	0.311				
HCM Control Delay (s)	12.8	10.6	0	-	10	-	-	21.1				
HCM Lane LOS	B	B	A	-	A	-	-	C				
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	1.3				




Intersection						
Int Delay, s/veh	2.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	52	71	1596	92	46	1609
Future Vol, veh/h	52	71	1596	92	46	1609
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	160	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	57	77	1735	100	50	1749
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	2760	918	0	0	1835	0
Stage 1	1785	-	-	-	-	-
Stage 2	975	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	~ 16	278	-	-	337	-
Stage 1	122	-	-	-	-	-
Stage 2	331	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 14	278	-	-	337	-
Mov Cap-2 Maneuver	74	-	-	-	-	-
Stage 1	104	-	-	-	-	-
Stage 2	331	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	72.5	0		0.5		
HCM LOS	F					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	74	278	337	-
HCM Lane V/C Ratio	-	-	0.764	0.278	0.148	-
HCM Control Delay (s)	-	-	140.3	22.9	17.5	-
HCM Lane LOS	-	-	F	C	C	-
HCM 95th %tile Q(veh)	-	-	3.6	1.1	0.5	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

HCM 6th TWSC
6: Harlem Avenue & DuPage Medical Group

04/01/2021

Intersection

Int Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	3	0	1688	1659	2
Future Vol, veh/h	0	3	0	1688	1659	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	0	3	0	1835	1803	2

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	2722	903	1805
Stage 1	1804	-	-
Stage 2	918	-	-
Critical Hdwy	6.8	6.9	4.1
Critical Hdwy Stg 1	5.8	-	-
Critical Hdwy Stg 2	5.8	-	-
Follow-up Hdwy	3.5	3.3	2.2
Pot Cap-1 Maneuver	17	284	346
Stage 1	119	-	-
Stage 2	354	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	17	284	346
Mov Cap-2 Maneuver	87	-	-
Stage 1	119	-	-
Stage 2	354	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	346	-	284	-	-
HCM Lane V/C Ratio	-	-	0.011	-	-
HCM Control Delay (s)	0	-	17.8	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-





















Capacity Analysis Summary Sheets

No Build Weekday Morning Peak Hour Conditions

Lanes, Volumes, Timings

1: Harlem Avenue & 171st Street













04/01/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	217	207	149	128	228	55	209	837	53	76	815	164
Future Volume (vph)	217	207	149	128	228	55	209	837	53	76	815	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	160		0	150		0	160		0	190		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	145			145			125			125		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.937			0.971			0.991			0.975	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	3330	0	1787	3383	0	1752	3405	0	1805	3315	0
Flt Permitted	0.360			0.473			0.141			0.235		
Satd. Flow (perm)	658	3330	0	890	3383	0	260	3405	0	446	3315	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			35			40			40	
Link Distance (ft)		229			789			227			516	
Travel Time (s)		3.9			15.4			3.9			8.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	2%	1%	1%	4%	2%	3%	5%	6%	0%	6%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	238	391	0	141	311	0	230	978	0	84	1076	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	8.0		3.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	9.5	24.0		9.5	24.0		9.5	24.0		9.5	24.0	
Total Split (s)	19.0	36.0		14.0	31.0		14.0	56.0		14.0	56.0	
Total Split (%)	15.8%	30.0%		11.7%	25.8%		11.7%	46.7%		11.7%	46.7%	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.0		3.5	4.0	
All-Red Time (s)	0.0	2.0		0.0	2.0		0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	38.8	22.7		30.5	17.9		73.9	62.2		65.2	54.8	
Actuated g/C Ratio	0.32	0.19		0.25	0.15		0.62	0.52		0.54	0.46	

Lanes, Volumes, Timings

1: Harlem Avenue & 171st Street

04/01/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.69	0.62		0.47	0.62		0.71	0.55		0.25	0.71	
Control Delay	42.0	48.7		34.5	52.9		26.8	22.7		12.6	30.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	42.0	48.7		34.5	52.9		26.8	22.7		12.6	30.5	
LOS	D	D		C	D		C	C		B	C	
Approach Delay		46.1			47.1			23.5			29.2	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)	143	147		79	120		75	272		25	358	
Queue Length 95th (ft)	203	189		123	160		#194	384		52	460	
Internal Link Dist (ft)		149			709			147			436	
Turn Bay Length (ft)	160			150			160			190		
Base Capacity (vph)	352	832		307	704		326	1764		371	1514	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.68	0.47		0.46	0.44		0.71	0.55		0.23	0.71	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 32.6

Intersection LOS: C

Intersection Capacity Utilization 76.1%

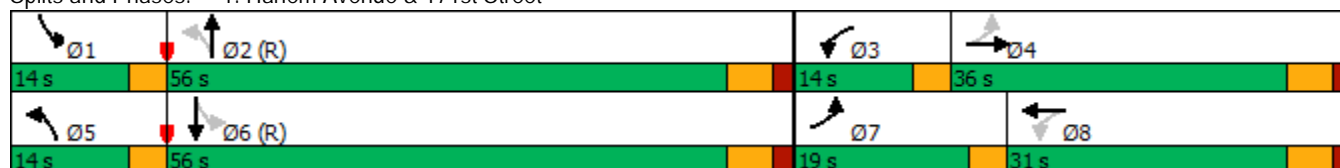
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Harlem Avenue & 171st Street



Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↕↕				↕		↔↔	
Traffic Vol, veh/h	26	517	34	0	523	78	0	0	50	6	0	7
Future Vol, veh/h	26	517	34	0	523	78	0	0	50	6	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	2	0	0	5	1	0	0	0	0	0	0
Mvmt Flow	29	568	37	0	575	86	0	0	55	7	0	8
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	661	0	0	-	-	0	-	-	303	960	1281	331
Stage 1	-	-	-	-	-	-	-	-	-	618	618	-
Stage 2	-	-	-	-	-	-	-	-	-	342	663	-
Critical Hdwy	4.1	-	-	-	-	-	-	-	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	-	-	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	937	-	-	0	-	-	0	0	699	214	167	671
Stage 1	-	-	-	0	-	-	0	0	-	448	484	-
Stage 2	-	-	-	0	-	-	0	0	-	652	462	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	937	-	-	-	-	-	-	-	699	190	159	671
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	307	283	-
Stage 1	-	-	-	-	-	-	-	-	-	427	484	-
Stage 2	-	-	-	-	-	-	-	-	-	573	440	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			0			10.6			13.6		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBT	WBR	SBLn1					
Capacity (veh/h)	699	937	-	-	-	-	434					
HCM Lane V/C Ratio	0.079	0.03	-	-	-	-	0.033					
HCM Control Delay (s)	10.6	9	0.2	-	-	-	13.6					
HCM Lane LOS	B	A	A	-	-	-	B					
HCM 95th %tile Q(veh)	0.3	0.1	-	-	-	-	0.1					

HCM 6th TWSC

3: First Merchant Bank Access Drive & 171st Street

04/01/2021

Intersection

Int Delay, s/veh 0.9






Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Vol, veh/h	576	0	43	487	31	1
Future Vol, veh/h	576	0	43	487	31	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	0	0	5	0	0
Mvmt Flow	633	0	47	535	34	1

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	633
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	960
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	960
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	16.5
HCM LOS			C




Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	349	-	-	960	-
HCM Lane V/C Ratio	0.101	-	-	0.049	-
HCM Control Delay (s)	16.5	-	-	8.9	0.3
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.2	-

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕		↕	↕↕			↕			↕	
Traffic Vol, veh/h	0	545	1	6	508	4	3	0	6	25	2	16
Future Vol, veh/h	0	545	1	6	508	4	3	0	6	25	2	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	2	0	0	5	0	0	0	17	4	0	0
Mvmt Flow	0	619	1	7	577	5	3	0	7	28	2	18
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	582	0	0	620	0	0	924	1216	310	904	1214	291
Stage 1	-	-	-	-	-	-	620	620	-	594	594	-
Stage 2	-	-	-	-	-	-	304	596	-	310	620	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	7.24	7.58	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.58	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.58	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.47	3.54	4	3.3
Pot Cap-1 Maneuver	1002	-	-	970	-	-	227	183	643	229	183	712
Stage 1	-	-	-	-	-	-	447	483	-	453	496	-
Stage 2	-	-	-	-	-	-	686	495	-	669	483	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1002	-	-	970	-	-	219	182	643	225	182	712
Mov Cap-2 Maneuver	-	-	-	-	-	-	337	306	-	341	304	-
Stage 1	-	-	-	-	-	-	447	483	-	453	493	-
Stage 2	-	-	-	-	-	-	661	492	-	662	483	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.1			12.4			14.7		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	494	1002	-	-	970	-	-	420				
HCM Lane V/C Ratio	0.021	-	-	-	0.007	-	-	0.116				
HCM Control Delay (s)	12.4	0	-	-	8.7	-	-	14.7				
HCM Lane LOS	B	A	-	-	A	-	-	B				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.4				

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	24	1075	42	24	1065
Future Vol, veh/h	14	24	1075	42	24	1065
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	160	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	5	0	0	6
Mvmt Flow	15	26	1168	46	26	1158
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1822	607	0	0	1214	0
Stage 1	1191	-	-	-	-	-
Stage 2	631	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	70	444	-	-	582	-
Stage 1	255	-	-	-	-	-
Stage 2	498	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	67	444	-	-	582	-
Mov Cap-2 Maneuver	174	-	-	-	-	-
Stage 1	244	-	-	-	-	-
Stage 2	498	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	18.8	0		0.3		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	174	444	582	-
HCM Lane V/C Ratio	-	-	0.087	0.059	0.045	-
HCM Control Delay (s)	-	-	27.7	13.6	11.5	-
HCM Lane LOS	-	-	D	B	B	-
HCM 95th %tile Q(veh)	-	-	0.3	0.2	0.1	-

HCM 6th TWSC
6: Harlem Avenue & DuPage Medical Group

04/01/2021

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	8	1116	1073	6
Future Vol, veh/h	1	1	8	1116	1073	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	5	6	0
Mvmt Flow	1	1	9	1213	1166	7
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1795	587	1173	0	-	0
Stage 1	1170	-	-	-	-	-
Stage 2	625	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	73	458	603	-	-	-
Stage 1	261	-	-	-	-	-
Stage 2	501	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	70	458	603	-	-	-
Mov Cap-2 Maneuver	179	-	-	-	-	-
Stage 1	249	-	-	-	-	-
Stage 2	501	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	19.1		0.4		0	
HCM LOS	C					
Minor Lane/Major Mvmt	NBL		NBT	EBLn1	SBT	SBR
Capacity (veh/h)	603		-	257	-	-
HCM Lane V/C Ratio	0.014		-	0.008	-	-
HCM Control Delay (s)	11.1		0.3	19.1	-	-
HCM Lane LOS	B		A	C	-	-
HCM 95th %tile Q(veh)	0		-	0	-	-

HCM 6th TWSC
7: Harlem Avenue & 7-Eleven RIRO Access Drive

04/01/2021

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	56	0	1099	1033	59
Future Vol, veh/h	0	56	0	1099	1033	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	5	6	0
Mvmt Flow	0	59	0	1157	1087	62
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	575	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	466	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	466	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	13.8	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT EBLn1		SBT	SBR		
Capacity (veh/h)	- 466		-	-		
HCM Lane V/C Ratio	- 0.126		-	-		
HCM Control Delay (s)	- 13.8		-	-		
HCM Lane LOS	- B		-	-		
HCM 95th %tile Q(veh)	- 0.4		-	-		





















Capacity Analysis Summary Sheets

No Build Weekday Evening Peak Hour Conditions

Lanes, Volumes, Timings

1: Harlem Avenue & 171st Street

04/01/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	262	434	232	263	382	60	256	1377	128	150	1256	258
Future Volume (vph)	262	434	232	263	382	60	256	1377	128	150	1256	258
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	160		0	150		0	160		0	190		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	145			145			125			125		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.948			0.980			0.987			0.974	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3365	0	1787	3538	0	1787	3525	0	1805	3481	0
Flt Permitted	0.234			0.174			0.060			0.064		
Satd. Flow (perm)	440	3365	0	327	3538	0	113	3525	0	122	3481	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			35			40			40	
Link Distance (ft)		229			789			227			516	
Travel Time (s)		3.9			15.4			3.9			8.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	3%	1%	0%	0%	1%	1%	2%	0%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	270	686	0	271	456	0	264	1552	0	155	1561	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	8.0		3.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	9.5	24.0		9.5	24.0		9.5	24.0		9.5	24.0	
Total Split (s)	20.0	29.0		20.0	29.0		24.0	73.0		18.0	67.0	
Total Split (%)	14.3%	20.7%		14.3%	20.7%		17.1%	52.1%		12.9%	47.9%	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.0		3.5	4.0	
All-Red Time (s)	0.0	2.0		0.0	2.0		0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	42.0	23.0		42.0	23.0		87.5	69.5		77.1	62.7	
Actuated g/C Ratio	0.30	0.16		0.30	0.16		0.62	0.50		0.55	0.45	













21-073 - Starbucks - Tinley Park
No Build Weekday Evening Peak

Synchro 10 Report

Lanes, Volumes, Timings

1: Harlem Avenue & 171st Street

04/01/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.93	1.24		1.00	0.78		0.89	0.89		0.73	1.00	
Control Delay	77.6	171.2		95.6	66.7		70.4	39.6		51.6	61.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	77.6	171.2		95.6	66.7		70.4	39.6		51.6	61.9	
LOS	E	F		F	E		E	D		D	E	
Approach Delay		144.7			77.4			44.1			60.9	
Approach LOS		F			E			D			E	
Queue Length 50th (ft)	196	~407		~197	212		183	662		84	~798	
Queue Length 95th (ft)	#339	#534		#383	276		#331	#803		160	#938	
Internal Link Dist (ft)		149			709			147			436	
Turn Bay Length (ft)	160			150			160			190		
Base Capacity (vph)	290	552		270	581		315	1750		243	1558	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.93	1.24		1.00	0.78		0.84	0.89		0.64	1.00	

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.24

Intersection Signal Delay: 72.7

Intersection LOS: E

Intersection Capacity Utilization 107.8%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Harlem Avenue & 171st Street

 Ø1	 Ø2 (R)	 Ø3	 Ø4
18 s	73 s	20 s	29 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
24 s	67 s	20 s	29 s

HCM 6th TWSC

2: 7-Eleven RIRO Access Drive/USPS Easterly Access Drive & 171st Street

04/01/2021

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↕↔				↕		↔↔	
Traffic Vol, veh/h	30	883	28	0	821	75	0	0	41	4	0	25
Future Vol, veh/h	30	883	28	0	821	75	0	0	41	4	0	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	1	0	0	1	2	0	0	0	0	0	0
Mvmt Flow	33	970	31	0	902	82	0	0	45	4	0	27
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	984	0	0	-	-	0	-	-	501	1494	2010	492
Stage 1	-	-	-	-	-	-	-	-	-	943	943	-
Stage 2	-	-	-	-	-	-	-	-	-	551	1067	-
Critical Hdwy	4.1	-	-	-	-	-	-	-	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	-	-	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	710	-	-	0	-	-	0	0	521	87	60	528
Stage 1	-	-	-	0	-	-	0	0	-	286	344	-
Stage 2	-	-	-	0	-	-	0	0	-	491	301	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	710	-	-	-	-	-	-	-	521	73	54	528
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	174	162	-
Stage 1	-	-	-	-	-	-	-	-	-	256	344	-
Stage 2	-	-	-	-	-	-	-	-	-	401	269	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.8			0			12.6			14.5		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBT	WBR	SBLn1					
Capacity (veh/h)	521	710	-	-	-	-	412					
HCM Lane V/C Ratio	0.086	0.046	-	-	-	-	0.077					
HCM Control Delay (s)	12.6	10.3	0.5	-	-	-	14.5					
HCM Lane LOS	B	B	A	-	-	-	B					
HCM 95th %tile Q(veh)	0.3	0.1	-	-	-	-	0.2					

HCM 6th TWSC

3: First Merchant Bank Access Drive & 171st Street






04/01/2021

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Vol, veh/h	941	0	38	808	27	0
Future Vol, veh/h	941	0	38	808	27	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	1	0	1	0	0
Mvmt Flow	960	0	39	824	28	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	960	0	1450	480
Stage 1	-	-	-	-	960	-
Stage 2	-	-	-	-	490	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	725	-	124	537
Stage 1	-	-	-	-	337	-
Stage 2	-	-	-	-	587	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	725	-	112	537
Mov Cap-2 Maneuver	-	-	-	-	224	-
Stage 1	-	-	-	-	304	-
Stage 2	-	-	-	-	587	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.9		23.3	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	224	-	-	725	-	
HCM Lane V/C Ratio	0.123	-	-	0.053	-	
HCM Control Delay (s)	23.3	-	-	10.2	0.5	
HCM Lane LOS	C	-	-	B	A	
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-	

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕		↗	↕↕			↕			↕	
Traffic Vol, veh/h	3	877	16	20	811	4	2	0	15	49	3	44
Future Vol, veh/h	3	877	16	20	811	4	2	0	15	49	3	44
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	33	1	0	6	0	0	0	0	0	2	0	0
Mvmt Flow	3	914	17	21	845	4	2	0	16	51	3	46
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	849	0	0	931	0	0	1395	1820	466	1352	1826	425
Stage 1	-	-	-	-	-	-	929	929	-	889	889	-
Stage 2	-	-	-	-	-	-	466	891	-	463	937	-
Critical Hdwy	4.76	-	-	4.22	-	-	7.5	6.5	6.9	7.54	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.54	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.54	5.5	-
Follow-up Hdwy	2.53	-	-	2.26	-	-	3.5	4	3.3	3.52	4	3.3
Pot Cap-1 Maneuver	615	-	-	706	-	-	103	78	549	109	78	583
Stage 1	-	-	-	-	-	-	292	349	-	304	364	-
Stage 2	-	-	-	-	-	-	551	363	-	548	346	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	615	-	-	706	-	-	91	75	549	103	75	583
Mov Cap-2 Maneuver	-	-	-	-	-	-	203	193	-	215	188	-
Stage 1	-	-	-	-	-	-	289	346	-	301	353	-
Stage 2	-	-	-	-	-	-	488	352	-	527	343	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.2			13.2			22.8		
HCM LOS							B			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	457	615	-	-	706	-	-	301				
HCM Lane V/C Ratio	0.039	0.005	-	-	0.03	-	-	0.332				
HCM Control Delay (s)	13.2	10.9	0.1	-	10.3	-	-	22.8				
HCM Lane LOS	B	B	A	-	B	-	-	C				
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	1.4				

Intersection

Int Delay, s/veh 3.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	52	71	1690	92	46	1703
Future Vol, veh/h	52	71	1690	92	46	1703
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	160	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	57	77	1837	100	50	1851

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2913	969	0
Stage 1	1887	-	-
Stage 2	1026	-	-
Critical Hdwy	6.8	6.9	-
Critical Hdwy Stg 1	5.8	-	-
Critical Hdwy Stg 2	5.8	-	-
Follow-up Hdwy	3.5	3.3	-
Pot Cap-1 Maneuver	~ 13	257	-
Stage 1	107	-	-
Stage 2	311	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	~ 11	257	-
Mov Cap-2 Maneuver	65	-	-
Stage 1	90	-	-
Stage 2	311	-	-

Approach	WB	NB	SB
HCM Control Delay, s	90.9	0	0.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	-	65	257
HCM Lane V/C Ratio	-	-	0.87	0.3
HCM Control Delay (s)	-	-	181.1	24.9
HCM Lane LOS	-	-	F	C
HCM 95th %tile Q(veh)	-	-	4.1	1.2

Notes




~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th TWSC
6: Harlem Avenue & DuPage Medical Group

04/01/2021

Intersection

Int Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	3	0	1782	1753	2
Future Vol, veh/h	0	3	0	1782	1753	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	0	3	0	1937	1905	2




Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	2875	954	1907
Stage 1	1906	-	-
Stage 2	969	-	-
Critical Hdwy	6.8	6.9	4.1
Critical Hdwy Stg 1	5.8	-	-
Critical Hdwy Stg 2	5.8	-	-
Follow-up Hdwy	3.5	3.3	2.2
Pot Cap-1 Maneuver	13	263	316
Stage 1	105	-	-
Stage 2	333	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	13	263	316
Mov Cap-2 Maneuver	77	-	-
Stage 1	105	-	-
Stage 2	333	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.9	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	316	-	263	-	-
HCM Lane V/C Ratio	-	-	0.012	-	-
HCM Control Delay (s)	0	-	18.9	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
7: Harlem Avenue & 7-Eleven RIRO Access Drive

04/01/2021

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	47	0	1761	1702	49
Future Vol, veh/h	0	47	0	1761	1702	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	0	49	0	1854	1792	52
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	922	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	276	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	276	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	20.9	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT EBLn1		SBT	SBR		
Capacity (veh/h)	- 276		-	-		
HCM Lane V/C Ratio	- 0.179		-	-		
HCM Control Delay (s)	- 20.9		-	-		
HCM Lane LOS	- C		-	-		
HCM 95th %tile Q(veh)	- 0.6		-	-		





















Capacity Analysis Summary Sheets

Total Projected Weekday Morning Peak Hour Conditions

Lanes, Volumes, Timings

1: Harlem Avenue & 171st Street













04/01/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	234	211	145	132	229	55	219	834	53	76	830	164
Future Volume (vph)	234	211	145	132	229	55	219	834	53	76	830	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	160		0	150		0	160		0	190		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	145			145			125			125		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.939			0.971			0.991			0.975	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	3337	0	1787	3383	0	1752	3405	0	1805	3315	0
Flt Permitted	0.359			0.476			0.128			0.244		
Satd. Flow (perm)	656	3337	0	895	3383	0	236	3405	0	464	3315	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			35			40			40	
Link Distance (ft)		229			789			227			516	
Travel Time (s)		3.9			15.4			3.9			8.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	2%	1%	1%	4%	2%	3%	5%	6%	0%	6%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	257	391	0	145	312	0	241	974	0	84	1092	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	8.0		3.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	9.5	24.0		9.5	24.0		9.5	24.0		9.5	24.0	
Total Split (s)	19.0	36.0		14.0	31.0		14.0	56.0		14.0	56.0	
Total Split (%)	15.8%	30.0%		11.7%	25.8%		11.7%	46.7%		11.7%	46.7%	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.0		3.5	4.0	
All-Red Time (s)	0.0	2.0		0.0	2.0		0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	39.0	22.9		30.5	17.9		73.7	62.0		63.3	52.9	
Actuated g/C Ratio	0.32	0.19		0.25	0.15		0.61	0.52		0.53	0.44	

Lanes, Volumes, Timings

1: Harlem Avenue & 171st Street

04/01/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.74	0.61		0.48	0.62		0.72	0.55		0.25	0.75	
Control Delay	45.0	48.4		34.8	52.9		30.0	22.7		12.7	32.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	45.0	48.4		34.8	52.9		30.0	22.7		12.7	32.6	
LOS	D	D		C	D		C	C		B	C	
Approach Delay		47.1			47.1			24.2			31.2	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)	156	147		82	120		81	270		25	380	
Queue Length 95th (ft)	220	189		126	161		#233	382		52	470	
Internal Link Dist (ft)		149			709			147			436	
Turn Bay Length (ft)	160			150			160			190		
Base Capacity (vph)	352	834		308	704		334	1759		372	1462	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.73	0.47		0.47	0.44		0.72	0.55		0.23	0.75	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 33.8

Intersection LOS: C

Intersection Capacity Utilization 78.0%

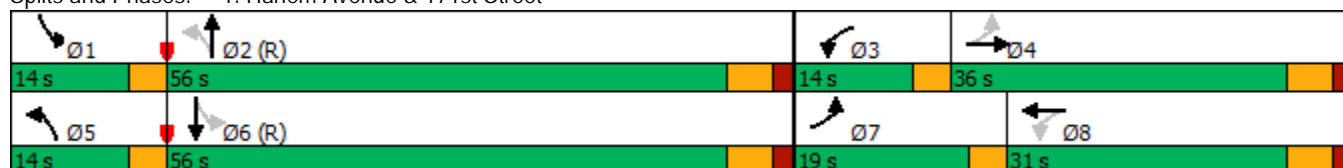
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Harlem Avenue & 171st Street



Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔				↗		↔↔	
Traffic Vol, veh/h	26	506	52	0	534	78	0	0	78	6	0	7
Future Vol, veh/h	26	506	52	0	534	78	0	0	78	6	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	2	0	0	5	1	0	0	0	0	0	0
Mvmt Flow	29	556	57	0	587	86	0	0	86	7	0	8
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	673	0	0	-	-	0	-	-	307	966	1301	337
Stage 1	-	-	-	-	-	-	-	-	-	630	630	-
Stage 2	-	-	-	-	-	-	-	-	-	336	671	-
Critical Hdwy	4.1	-	-	-	-	-	-	-	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	-	-	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	927	-	-	0	-	-	0	0	695	212	162	665
Stage 1	-	-	-	0	-	-	0	0	-	441	478	-
Stage 2	-	-	-	0	-	-	0	0	-	657	458	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	927	-	-	-	-	-	-	-	695	179	154	665
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	297	278	-
Stage 1	-	-	-	-	-	-	-	-	-	420	478	-
Stage 2	-	-	-	-	-	-	-	-	-	548	436	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			0			10.9			13.8		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBT	WBR	SBLn1					
Capacity (veh/h)	695	927	-	-	-	-	423					
HCM Lane V/C Ratio	0.123	0.031	-	-	-	-	0.034					
HCM Control Delay (s)	10.9	9	0.2	-	-	-	13.8					
HCM Lane LOS	B	A	A	-	-	-	B					
HCM 95th %tile Q(veh)	0.4	0.1	-	-	-	-	0.1					

HCM 6th TWSC

3: First Merchant Bank Access Drive & 171st Street

04/01/2021

Intersection						
Int Delay, s/veh	1.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	583	0	68	473	51	1
Future Vol, veh/h	583	0	68	473	51	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	0	0	5	0	0
Mvmt Flow	641	0	75	520	56	1
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	641	0	1051	321
Stage 1	-	-	-	-	641	-
Stage 2	-	-	-	-	410	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	953	-	226	681
Stage 1	-	-	-	-	492	-
Stage 2	-	-	-	-	644	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	953	-	201	681
Mov Cap-2 Maneuver	-	-	-	-	315	-
Stage 1	-	-	-	-	437	-
Stage 2	-	-	-	-	644	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.5		18.8	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	318	-	-	953	-	
HCM Lane V/C Ratio	0.18	-	-	0.078	-	
HCM Control Delay (s)	18.8	-	-	9.1	0.4	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.6	-	-	0.3	-	

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕		↕	↕↕			↕			↕	
Traffic Vol, veh/h	0	552	1	6	514	4	3	0	6	25	2	16
Future Vol, veh/h	0	552	1	6	514	4	3	0	6	25	2	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	2	0	0	5	0	0	0	17	4	0	0
Mvmt Flow	0	627	1	7	584	5	3	0	7	28	2	18
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	589	0	0	628	0	0	935	1231	314	915	1229	295
Stage 1	-	-	-	-	-	-	628	628	-	601	601	-
Stage 2	-	-	-	-	-	-	307	603	-	314	628	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	7.24	7.58	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.58	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.58	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.47	3.54	4	3.3
Pot Cap-1 Maneuver	996	-	-	964	-	-	223	179	639	225	179	707
Stage 1	-	-	-	-	-	-	442	479	-	449	493	-
Stage 2	-	-	-	-	-	-	683	492	-	666	479	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	996	-	-	964	-	-	215	178	639	221	178	707
Mov Cap-2 Maneuver	-	-	-	-	-	-	333	302	-	338	301	-
Stage 1	-	-	-	-	-	-	442	479	-	449	490	-
Stage 2	-	-	-	-	-	-	658	489	-	659	479	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.1			12.5			14.8		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	489	996	-	-	964	-	-	417				
HCM Lane V/C Ratio	0.021	-	-	-	0.007	-	-	0.117				
HCM Control Delay (s)	12.5	0	-	-	8.8	-	-	14.8				
HCM Lane LOS	B	A	-	-	A	-	-	B				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.4				






HCM 6th TWSC

5: Harlem Avenue & Tinley Park Commons Access Drive

04/01/2021

Intersection

Int Delay, s/veh 0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	24	1082	42	24	1071
Future Vol, veh/h	14	24	1082	42	24	1071
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	160	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	5	0	0	6
Mvmt Flow	15	26	1176	46	26	1164




Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1833	611	0
Stage 1	1199	-	-
Stage 2	634	-	-
Critical Hdwy	6.8	6.9	-
Critical Hdwy Stg 1	5.8	-	-
Critical Hdwy Stg 2	5.8	-	-
Follow-up Hdwy	3.5	3.3	-
Pot Cap-1 Maneuver	69	442	-
Stage 1	252	-	-
Stage 2	496	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	66	442	-
Mov Cap-2 Maneuver	172	-	-
Stage 1	241	-	-
Stage 2	496	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	-	172	442
HCM Lane V/C Ratio	-	-	0.088	0.059
HCM Control Delay (s)	-	-	28	13.7
HCM Lane LOS	-	-	D	B
HCM 95th %tile Q(veh)	-	-	0.3	0.2

HCM 6th TWSC
6: Harlem Avenue & DuPage Medical Group

04/01/2021




Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	8	1123	1079	6
Future Vol, veh/h	1	1	8	1123	1079	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	5	6	0
Mvmt Flow	1	1	9	1221	1173	7
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1806	590	1180	0	-	0
Stage 1	1177	-	-	-	-	-
Stage 2	629	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	72	456	599	-	-	-
Stage 1	259	-	-	-	-	-
Stage 2	499	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	69	456	599	-	-	-
Mov Cap-2 Maneuver	177	-	-	-	-	-
Stage 1	247	-	-	-	-	-
Stage 2	499	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	19.2	0.4		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	599	-	255	-	-	
HCM Lane V/C Ratio	0.015	-	0.009	-	-	
HCM Control Delay (s)	11.1	0.3	19.2	-	-	
HCM Lane LOS	B	A	C	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

HCM 6th TWSC
7: Harlem Avenue & 7-Eleven RIRO Access Drive

04/01/2021

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	56	0	1106	1048	59
Future Vol, veh/h	0	56	0	1106	1048	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	5	6	0
Mvmt Flow	0	59	0	1164	1103	62

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	583	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.9	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.3	-
Pot Cap-1 Maneuver	0	461	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	461	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	-	461	-
HCM Lane V/C Ratio	-	0.128	-
HCM Control Delay (s)	-	14	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0.4	-

HCM 6th TWSC

8: Harlem Avenue & Site Access Drive

04/01/2021





















Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	50	0	1106	1045	59
Future Vol, veh/h	0	50	0	1106	1045	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	5	6	0
Mvmt Flow	0	53	0	1164	1100	62
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	581	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	462	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	462	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	13.8	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT EBLn1		SBT	SBR		
Capacity (veh/h)	- 462		-	-		
HCM Lane V/C Ratio	- 0.114		-	-		
HCM Control Delay (s)	- 13.8		-	-		
HCM Lane LOS	- B		-	-		
HCM 95th %tile Q(veh)	- 0.4		-	-		

Capacity Analysis Summary Sheets
Total Projected Weekday Evening Peak Hour Conditions

Lanes, Volumes, Timings

1: Harlem Avenue & 171st Street













04/01/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	285	441	233	268	383	60	267	1375	128	150	1276	258
Future Volume (vph)	285	441	233	268	383	60	267	1375	128	150	1276	258
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	160		0	150		0	160		0	190		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	145			145			125			125		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.948			0.980			0.987			0.975	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3365	0	1787	3538	0	1787	3525	0	1805	3485	0
Flt Permitted	0.233			0.174			0.061			0.064		
Satd. Flow (perm)	438	3365	0	327	3538	0	115	3525	0	122	3485	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			35			40			40	
Link Distance (ft)		229			789			227			516	
Travel Time (s)		3.9			15.4			3.9			8.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	3%	1%	0%	0%	1%	1%	2%	0%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	294	695	0	276	457	0	275	1550	0	155	1581	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	8.0		3.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	9.5	24.0		9.5	24.0		9.5	24.0		9.5	24.0	
Total Split (s)	20.0	29.0		20.0	29.0		24.0	73.0		18.0	67.0	
Total Split (%)	14.3%	20.7%		14.3%	20.7%		17.1%	52.1%		12.9%	47.9%	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.0		3.5	4.0	
All-Red Time (s)	0.0	2.0		0.0	2.0		0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	42.0	23.0		42.0	23.0		87.5	69.5		76.6	62.1	
Actuated g/C Ratio	0.30	0.16		0.30	0.16		0.62	0.50		0.55	0.44	

Lanes, Volumes, Timings

1: Harlem Avenue & 171st Street

04/01/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	1.01	1.26		1.02	0.79		0.91	0.89		0.74	1.02	
Control Delay	96.8	177.3		100.0	66.8		72.3	39.5		52.0	67.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	96.8	177.3		100.0	66.8		72.3	39.5		52.0	67.4	
LOS	F	F		F	E		E	D		D	E	
Approach Delay		153.4			79.3			44.4			66.0	
Approach LOS		F			E			D			E	
Queue Length 50th (ft)	~220	~416		~208	212		193	661		84	~817	
Queue Length 95th (ft)	#390	#544		#396	276		#352	#798		160	#957	
Internal Link Dist (ft)		149			709			147			436	
Turn Bay Length (ft)	160			150			160			190		
Base Capacity (vph)	290	552		270	581		316	1750		243	1545	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.01	1.26		1.02	0.79		0.87	0.89		0.64	1.02	

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.26

Intersection Signal Delay: 76.8

Intersection LOS: E

Intersection Capacity Utilization 109.5%

ICU Level of Service H

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Harlem Avenue & 171st Street

 Ø1	 Ø2 (R)	 Ø3	 Ø4
18 s	73 s	20 s	29 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
24 s	67 s	20 s	29 s

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↑↑				↗		↕	
Traffic Vol, veh/h	30	879	41	0	833	75	0	0	76	4	0	25
Future Vol, veh/h	30	879	41	0	833	75	0	0	76	4	0	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	1	0	0	1	2	0	0	0	0	0	0
Mvmt Flow	33	966	45	0	915	82	0	0	84	4	0	27
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	997	0	0	-	-	0	-	-	506	1505	2033	499
Stage 1	-	-	-	-	-	-	-	-	-	956	956	-
Stage 2	-	-	-	-	-	-	-	-	-	549	1077	-
Critical Hdwy	4.1	-	-	-	-	-	-	-	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	-	-	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	702	-	-	0	-	-	0	0	517	85	58	522
Stage 1	-	-	-	0	-	-	0	0	-	281	339	-
Stage 2	-	-	-	0	-	-	0	0	-	493	298	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	702	-	-	-	-	-	-	-	517	65	52	522
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	165	159	-
Stage 1	-	-	-	-	-	-	-	-	-	251	339	-
Stage 2	-	-	-	-	-	-	-	-	-	369	266	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.8			0			13.3			14.7		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBT	WBR	SBLn1					
Capacity (veh/h)	517	702	-	-	-	-	402					
HCM Lane V/C Ratio	0.162	0.047	-	-	-	-	0.079					
HCM Control Delay (s)	13.3	10.4	0.5	-	-	-	14.7					
HCM Lane LOS	B	B	A	-	-	-	B					
HCM 95th %tile Q(veh)	0.6	0.1	-	-	-	-	0.3					

HCM 6th TWSC

3: First Merchant Bank Access Drive & 171st Street

04/01/2021

Intersection

Int Delay, s/veh 1.2






Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	950	0	55	803	41	0
Future Vol, veh/h	950	0	55	803	41	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	1	0	1	0	0
Mvmt Flow	969	0	56	819	42	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	969
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	719
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	719
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	26.6
HCM LOS			D




Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	208	-	-	719	-
HCM Lane V/C Ratio	0.201	-	-	0.078	-
HCM Control Delay (s)	26.6	-	-	10.4	0.7
HCM Lane LOS	D	-	-	B	A
HCM 95th %tile Q(veh)	0.7	-	-	0.3	-

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔		↗	↗↗			↔			↔	
Traffic Vol, veh/h	3	886	16	20	820	4	2	0	15	49	3	44
Future Vol, veh/h	3	886	16	20	820	4	2	0	15	49	3	44
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	33	1	0	6	0	0	0	0	0	2	0	0
Mvmt Flow	3	923	17	21	854	4	2	0	16	51	3	46
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	858	0	0	940	0	0	1409	1838	470	1366	1844	429
Stage 1	-	-	-	-	-	-	938	938	-	898	898	-
Stage 2	-	-	-	-	-	-	471	900	-	468	946	-
Critical Hdwy	4.76	-	-	4.22	-	-	7.5	6.5	6.9	7.54	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.54	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.54	5.5	-
Follow-up Hdwy	2.53	-	-	2.26	-	-	3.5	4	3.3	3.52	4	3.3
Pot Cap-1 Maneuver	609	-	-	701	-	-	100	76	545	106	76	580
Stage 1	-	-	-	-	-	-	288	346	-	301	361	-
Stage 2	-	-	-	-	-	-	548	360	-	545	343	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	609	-	-	701	-	-	88	73	545	100	73	580
Mov Cap-2 Maneuver	-	-	-	-	-	-	200	191	-	212	186	-
Stage 1	-	-	-	-	-	-	285	343	-	298	350	-
Stage 2	-	-	-	-	-	-	485	349	-	524	340	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.2			13.3			23.2		
HCM LOS							B			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	453	609	-	-	701	-	-	297				
HCM Lane V/C Ratio	0.039	0.005	-	-	0.03	-	-	0.337				
HCM Control Delay (s)	13.3	10.9	0.1	-	10.3	-	-	23.2				
HCM Lane LOS	B	B	A	-	B	-	-	C				
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	1.4				

Intersection						
Int Delay, s/veh	3.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	52	71	1699	92	46	1712
Future Vol, veh/h	52	71	1699	92	46	1712
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	160	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	57	77	1847	100	50	1861
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	2928	974	0	0	1947	0
Stage 1	1897	-	-	-	-	-
Stage 2	1031	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	~ 12	255	-	-	305	-
Stage 1	106	-	-	-	-	-
Stage 2	309	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 10	255	-	-	305	-
Mov Cap-2 Maneuver	64	-	-	-	-	-
Stage 1	89	-	-	-	-	-
Stage 2	309	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	93.5	0		0.5		
HCM LOS	F					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	64	255	305	-
HCM Lane V/C Ratio	-	-	0.883	0.303	0.164	-
HCM Control Delay (s)	-	-	186.8	25.1	19.1	-
HCM Lane LOS	-	-	F	D	C	-
HCM 95th %tile Q(veh)	-	-	4.2	1.2	0.6	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

HCM 6th TWSC
6: Harlem Avenue & DuPage Medical Group

04/01/2021

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	3	0	1791	1762	2
Future Vol, veh/h	0	3	0	1791	1762	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	0	3	0	1947	1915	2
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	2890	959	1917	0	-	0
Stage 1	1916	-	-	-	-	-
Stage 2	974	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	13	261	313	-	-	-
Stage 1	104	-	-	-	-	-
Stage 2	331	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	13	261	313	-	-	-
Mov Cap-2 Maneuver	76	-	-	-	-	-
Stage 1	104	-	-	-	-	-
Stage 2	331	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	19	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	313	-	261	-	-	
HCM Lane V/C Ratio	-	-	0.012	-	-	
HCM Control Delay (s)	0	-	19	-	-	
HCM Lane LOS	A	-	C	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

HCM 6th TWSC
7: Harlem Avenue & 7-Eleven RIRO Access Drive

04/01/2021

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	47	0	1770	1728	49
Future Vol, veh/h	0	47	0	1770	1728	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	0	49	0	1863	1819	52

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	- 936	- 0	- 0
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -
Critical Hdwy	- 6.9	- -	- -
Critical Hdwy Stg 1	- -	- -	- -
Critical Hdwy Stg 2	- -	- -	- -
Follow-up Hdwy	- 3.3	- -	- -
Pot Cap-1 Maneuver	0 270	0 -	- -
Stage 1	0 -	0 -	- -
Stage 2	0 -	0 -	- -
Platoon blocked, %		- -	- -
Mov Cap-1 Maneuver	- 270	- -	- -
Mov Cap-2 Maneuver	- -	- -	- -
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -

Approach	EB	NB	SB
HCM Control Delay, s	21.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 270	- -	- -
HCM Lane V/C Ratio	- 0.183	- -	- -
HCM Control Delay (s)	- 21.3	- -	- -
HCM Lane LOS	- C	- -	- -
HCM 95th %tile Q(veh)	- 0.7	- -	- -

HCM 6th TWSC
8: Harlem Avenue & Site Access Drive

04/01/2021




Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	30	0	1770	1728	47
Future Vol, veh/h	0	30	0	1770	1728	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	0	32	0	1863	1819	49
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	934	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	271	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	271	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	20	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT EBLn1		SBT	SBR		
Capacity (veh/h)	- 271		-	-		
HCM Lane V/C Ratio	- 0.117		-	-		
HCM Control Delay (s)	- 20		-	-		
HCM Lane LOS	- C		-	-		
HCM 95th %tile Q(veh)	- 0.4		-	-		

Table A

Table A

DRIVE THROUGH QUEUEING SURVEY – TUESDAY, MARCH 7, 2017

Weekday Morning		Weekday Midday		Weekday Evening	
Time	Total Queue	Time	Total Queue	Time	Total Queue
6:00 AM	2	11:30 AM	1	4:00 PM	0
6:05 AM	3	11:35 AM	5	4:05 PM	4
6:10 AM	1	11:40 AM	3	4:10 PM	3
6:15 AM	3	11:45 AM	5	4:15 PM	2
6:20 AM	3	11:50 AM	6	4:20 PM	2
6:25 AM	3	11:55 AM	5	4:25 PM	1
6:30 AM	3	12:00 PM	5	4:30 PM	1
6:35 AM	2	12:05 PM	2	4:35 PM	2
6:40 AM	3	12:10 PM	2	4:40 PM	2
6:45 AM	2	12:15 PM	1	4:45 PM	1
6:50 AM	3	12:20 PM	2	4:50 PM	1
6:55 AM	6	12:25 PM	3	4:55 PM	1
7:00 AM	7	12:30 PM	3	5:00 PM	1
7:05 AM	7	12:35 PM	2	5:05 PM	0
7:10 AM	6	12:40 PM	0	5:10 PM	1
7:15 AM	9	12:45 PM	2	5:15 PM	2
7:20 AM	7	12:50 PM	2	5:20 PM	1
7:25 AM	8	12:55 PM	2	5:25 PM	1
7:30 AM	7	1:00 PM	3	5:30 PM	2
7:35 AM	11	1:05 PM	1	5:35 PM	2
7:40 AM	6	1:10 PM	1	5:40 PM	2
7:45 AM	7	1:15 PM	3	5:45 PM	2
7:50 AM	10	1:20 PM	4	5:50 PM	0
7:55 AM	9	1:25 PM	1	5:55 PM	1
8:00 AM	11	1:30 PM	1	6:00 PM	0
8:05 AM	9				
8:10 AM	9				
8:15 AM	5				
8:20 AM	5				
8:25 AM	7				
8:30 AM	6				
8:35 AM	5				
8:40 AM	3				
8:45 AM	5				
8:50 AM	7				
8:55 AM	6				
9:00 AM	4				
Average	6		3		1
Maximum	11		6		4

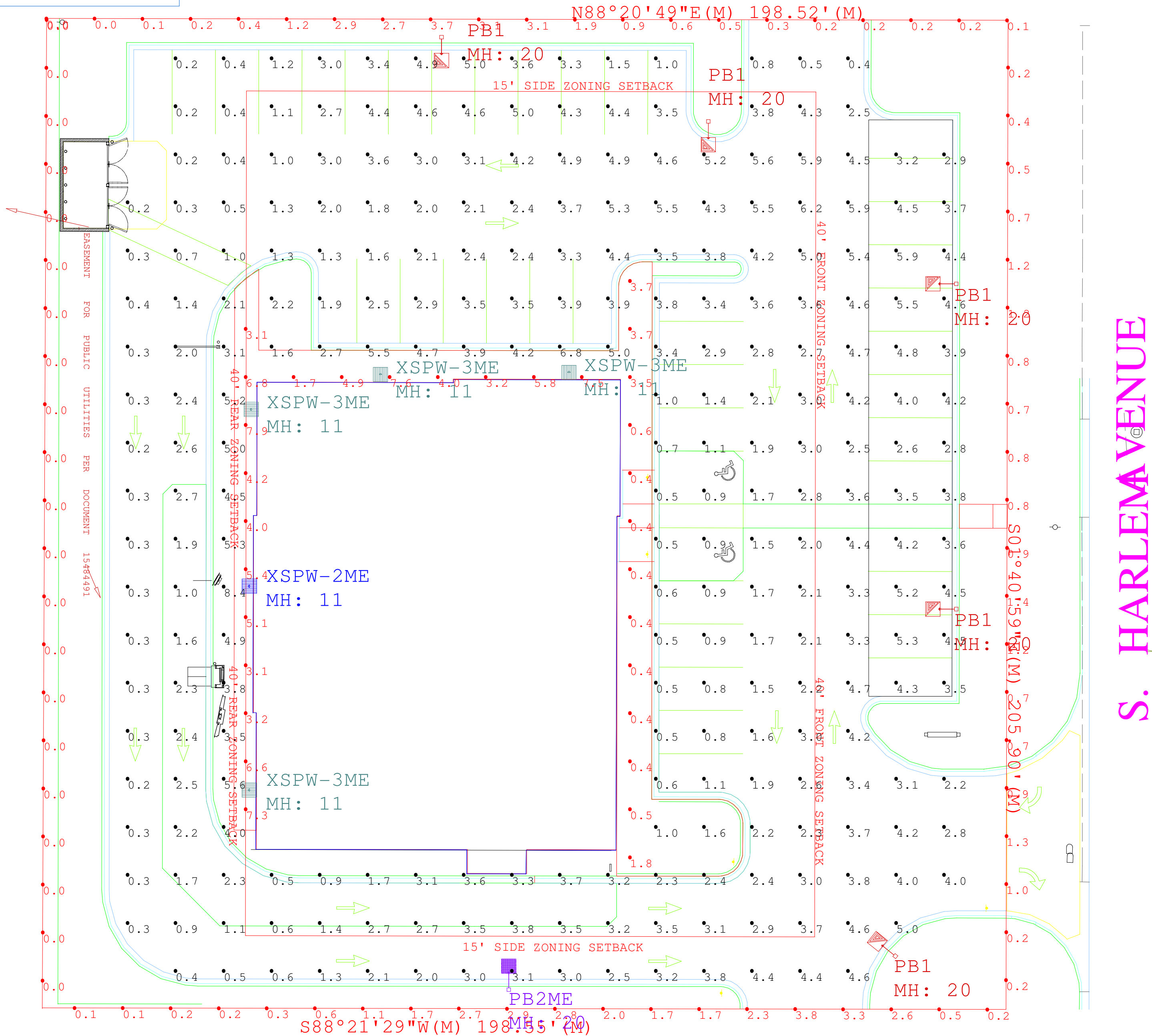
Luminaire Schedule							
Symbol	Qty	Label	Arrangement	LMF	Lum. Lumens	Lum. Watts	Part Number
	5	PB1	SINGLE	1.000	13032	130	OSQ-A-NM-4ME-K-40K-UL-BK w/OSQ-DABK + OSQ-BLSMF
	1	PB2ME	SINGLE	1.000	8779	86	OSQ-A-NM-2ME-B-40K-UL-BZ w/OSQ-B-AABZ + OSQ-BLSLF
	1	XSPW-2ME	SINGLE	1.000	4270	31	XSPW-B-WM-2ME-4L-40K-UL-BK
	4	XSPW-3ME	SINGLE	1.000	4270	31	XSPW-B-WM-3ME-4L-40K-UL-BK

Calculation Summary (Footcandles calculated using predicted lumen values @ Initial LLF)						
Label	Units	Avg	Max	Min	Avg/Min	Max/Min
Paved Area	Fc	2.79	8.4	0.2	13.95	42.00
Property Line	Fc	1.13	3.8	0.0	N.A.	N.A.
Sidewalk	Fc	3.48	7.9	0.4	8.70	19.75
West Property Line	Fc	0.00	0.0	0.0	N.A.	N.A.
Typical parking	Fc	4.14	5.9	2.6	1.59	2.27

Pole Schedule
(6) SSS-4-11-20-CW-BS-1D-C-BK (20' X 4" X 11ga STEEL SQUARE POLE)
Proposed poles meet 140 MPH sustained winds.

Additional Equipment:
(6) OSQ-DABK
(6) OSQ-BLSMF

*** CUSTOMER TO VERIFY ORDERING INFORMATION AND CATALOGUE NUMBER PRIOR TO PLACING ORDER ***



OSQ Series

OSQ™ LED Area/Flood Luminaire featuring Cree TrueWhite® Technology – Medium

Rev. Date: V27 10/21/2020

Product Description

The OSQ™ Area/Flood luminaire blends extreme optical control, advanced thermal management and modern, clean aesthetics. Built to last, the housing is rugged cast aluminum with an integral, weathertight LED driver compartment. Versatile mounting configurations offer simple installation. Its slim, low-profile design minimizes wind load requirements and blends seamlessly into the site providing even, quality illumination. The 'B' Input power designator is a suitable upgrade for HID applications up to 250 Watt, and the 'K' Input power designator is a suitable upgrade for HID applications up to 400 Watt.

Applications: Parking lots, walkways, campuses, car dealerships, office complexes, tunnels, underpasses, and internal roadways

Performance Summary

Utilizes Cree TrueWhite® Technology on 5000K Luminaires

NanoOptic® Precision Delivery Grid™ optic

Assembled in the U.S.A. of U.S. and imported parts

Initial Delivered Lumens: Up to 17,291

Efficacy: Up to 136 LPW

CRI: Minimum 70 CRI (3000K, 4000K & 5700K); 90 CRI (5000K)

CCT: 3000K, 4000K, 5000K, 5700K

Limited Warranty*: 10 years on luminaire; 10 years on Colorfast DeltaGuard® finish; up to 5 years for Synapse® accessories; 1 year on luminaire accessories

* See <http://creelighting.com/warranty> for warranty terms. For Synapse accessories, consult Synapse spec sheets for details on warranty terms.

Ordering Information

Fully assembled luminaire is composed of two components that must be ordered separately:

Example: **Mount:** OSQ-B-AASV + **Luminaire:** OSQ-A-NM-2ME-B-40K-UL-SV

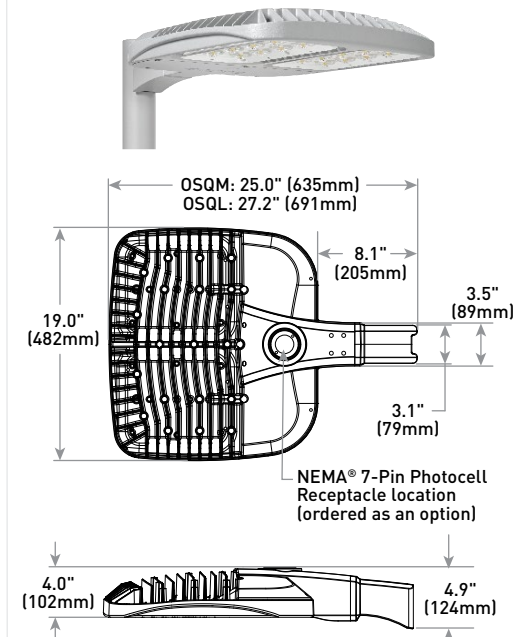
Mount (Luminaire must be ordered separately)*	
OSQ-	
OSQ-B-AA Adjustable Arm OSQ-DA Direct Arm OSQ-M-TSP Transportation Mount (stainless steel; do not specify color) OSQ-TM Trunnion Mount	Color Options: SV Silver BK Black BZ Bronze WH White

* Reference EPA and pole configuration suitability data beginning on page 10

Luminaire (Mount must be ordered separately)								
OSQ	A	NM						
Product	Version	Mounting	Optic	Input Power Designator	CCT	Voltage	Color Options	Options
OSQ	A	NM No Mount	Asymmetric 2ME* Type II 4ME* Type IV 3ME* Type III Symmetric 5ME Type V 25D 25° Flood 40D 40° Flood 5SH Type V 60D 60° Flood 5SQ Type V 120D 120° Flood WSN Wide Sign 15D 15° Flood	B 86W K 130W Z 53W	30K 3000K, 70 CRI 40K 4000K, 70 CRI 50K 5000K, 90 CRI 57K 5700K, 70 CRI	UL Universal 120-277V BZ Universal 347-480V ~ Available with B & K Input Power Designators only	BK Black BZ Bronze SV Silver WH White	F Fuse - Compatible only with 120V, 277V or 347V (phase to neutral) - Consult factory if fusing is required for 208V, 240V or 480V (phase to phase) - Refer to PML spec sheet for availability with PML options - When code dictates fusing, use time delay fuse PML Programmable Multi-Level, up to 40° Mounting Height - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt PML2 Programmable Multi-Level, 10-30° Mounting Height - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt Q9/Q6/Q5/Q4/Q3/Q2/Q1 Field Adjustable Output - Must select Q9, Q6, Q5, Q4, Q3, Q2, or Q1 - Offers full range adjustability - Refer to pages 12-13 for power and lumen values - Available with B & K Input Power Designators only - Not available with PML or PML2 options R NEMA® 7-Pin Photocell Receptacle - 7-pin receptacle per ANSI C136.41 - Intended for downlight applications with maximum 45° tilt - Factory connected 0-10V dim leads - 18" (457mm) seven-conductor cord exits luminaire - Requires photocell or shorting cap by others RL Rotate Left - LED and optic are rotated to the left - Refer to RR/RL configuration diagram on page 14 for optic directionality - Not for use with symmetric optics RR Rotate Right - LED and optic are rotated to the right - Refer to RR/RL configuration diagram on page 14 for optic directionality - Not for use with symmetric optics

* Available with Backlight Shield when ordered with field-installed accessory (see table above)

DA Mount



Weight

28.9 lbs. (13.1kg)

Product Specifications

CREE TRUEWHITE® TECHNOLOGY

A revolutionary way to generate high-quality white light, Cree TrueWhite® Technology is a patented approach that delivers an exclusive combination of 90+ CRI, beautiful light characteristics and lifelong color consistency, all while maintaining high luminous efficacy – a true no compromise solution.

CONSTRUCTION & MATERIALS

- Slim, low profile design minimizes wind load requirements
- Luminaire housing is rugged die cast aluminum with an integral, weathertight LED driver compartment and high-performance heat sink
- Convenient interlocking mounting method on direct arm mount. Mounting adaptor is rugged die cast aluminum and mounts to 3" (76mm) or larger square or round pole, secured by two 5/16-18 UNC bolts spaced on 2" (51mm) centers
- Mounting for the adjustable arm mount adaptor is rugged die cast aluminum and mounts to 2" (51mm) IP, 2.375" (60mm) O.D. tenon
- Adjustable arm mount can be adjusted 180° in 2.5° increments
- Transportation mount is constructed of 316 stainless steel and mounts to surface with (4) 3/8" fasteners by others
- Trunnion mount is constructed of A500 and A1011 steel and is adjustable from 0-180° in 15° degree increments. Trunnion mount secures to surface with (1) 3/4" bolt or (2) 1/2" or 3/8" bolts
- Includes 18" (340mm) 18/5 or 16/5 cord exiting the luminaire. When ordered with R option, 18" (340mm) 18/7 or 16/7 cord is provided
- Designed for uplight and downlight applications
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Silver, bronze, black, and white are available
- Weight:** OSQ-DA: 28.9 lbs. (13.1kg); OSQ-B-AA: 28.4 lbs. (12.9kg); OSQ-M-TSP: 42 lbs. (19.1kg); OSQ-TM: 32.6 lbs. (14.8kg)

ELECTRICAL SYSTEM

- Input Voltage:** 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- Power Factor:** > 0.9 at full load
- Total Harmonic Distortion:** < 20% at full load
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- Designed with 0-10V dimming capabilities. Controls by others
- Refer to Dimming spec sheet for details
- Maximum 10V Source Current:** 1.0mA
- Operating Temperature Range:** -40°C - +40°C (-40°F - +104°F)

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Enclosure rated IP66 per IEC 60529 when ordered without R option
- Consult factory for CE Certified products
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards with AA, DA, TM, and TSP mounts
- ANSI C136.2 10kV surge protection, tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Meets Buy American requirements within ARRA
- DLC and DLC Premium qualified versions available. Some exceptions apply. Please refer to <https://www.designlights.org/search/> for most current information
- RoHS compliant. Consult factory for additional details
- Dark Sky Friendly, IDA Approved when ordered with 30K CCT and direct or transportation mounts only. Please refer to <https://www.darksky.org/our-work/lighting/lighting-for-industry/fsa/fsa-products/> for most current information

 **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

Product Specifications

SYNAPSE® SIMPLYSNAP INTELLIGENT CONTROL

The Synapse SimplySNAP platform is a highly intuitive connected lighting solution featuring zone dimming, motion sensing, and daylight harvesting with utility-grade power monitoring and support of up to 1000 nodes per gateway. The system features a reliable and robust self-healing mesh network with a browser-based interface that runs on smartphones, tablets, and PCs. The Twist-Lock Lighting Controller (TL7-B2) and Site Controller (SS450-002) take the OSQ Series to a new performance plateau, providing extreme energy productivity, code compliance and a better light experience.

Electrical Data*							
Input Power Designator	System Watts 120-480V	Total Current (A)					
		120V	208V	240V	277V	347V	480V
B	86	0.73	0.43	0.37	0.32	0.25	0.19
K	130	1.09	0.65	0.56	0.49	0.38	0.28
Z	53**	0.46	0.26	0.22	0.19	N/A	N/A

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V or 347-480V +/- 10%

** Available with UL voltage only

OSQ Series Ambient Adjusted Lumen Maintenance¹

Ambient	Optic	Initial LMF	25K hr Reported² LMF	50K hr Reported² LMF	75K hr Reported²/ Estimated³ LMF	100K hr Reported²/ Estimated³ LMF
5°C (41°F)	Asymmetric	1.04	1.03	1.01	0.99²	0.97²
	Symmetric	1.05	1.05	1.05	1.05³	1.05³
10°C (50°F)	Asymmetric	1.03	1.02	1.00	0.98²	0.96²
	Symmetric	1.04	1.03	1.03	1.03³	1.03³
15°C (59°F)	Asymmetric	1.02	1.01	0.99	0.97²	0.95²
	Symmetric	1.02	1.02	1.02	1.02³	1.02³
20°C (68°F)	Asymmetric	1.01	1.00	0.98	0.96²	0.94²
	Symmetric	1.01	1.01	1.01	1.01³	1.01³
25°C (77°F)	Asymmetric	1.00	0.99	0.97	0.95²	0.93²
	Symmetric	1.00	1.00	1.00	1.00³	1.00³

¹ Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the [Temperature Zone Reference Document](#) for outdoor average nighttime ambient conditions.

² In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.

³ Estimated values are calculated and represent time durations that exceed the 6x test duration of the LED.

Accessories

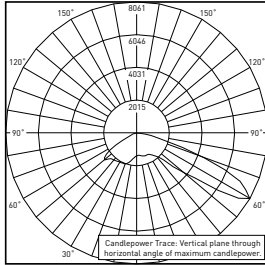
Field-Installed			
Backlight Shield OSQ-BLSMF - Front facing optics OSQ-BLSMR - Rotated optics	Hand-Held Remote XA-SENSREM - For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required	Bird Spikes OSQ-MED-BRDSPK	Shorting Cap XA-XLSHRT
Synapse Wireless Control Accessories			
Twist-Lock Lighting Controller TL7-B2 - Suitable for 120-277V (UL) voltage only - Requires NEMA/ANSI C136.41 7-Pin Dimming Receptacle - Not for use with PML or Q options - Provides On/Off switching, dimming, power metering, digital sensor input, and status monitoring of luminaires - Refer to TL7-B2 spec sheet for details SimplySNAP Central Base Station CBSSW-450-002 - Includes On-Site Controller (SS450-002) and 5-button switch - Indoor and Outdoor rated - Refer to CBSSW-450-002 spec sheet for details Synapse Wireless Sensor WSN-DPM - Motion and light sensor - Control multiple zones - Refer to WSN-DPM spec sheet for details		SimplySNAP On-Site Controller SS450-002 - Verizon® LTE-enabled - Designed for indoor applications - Refer to SS450-002 spec sheet for details Building Management System (BMS) Gateway BMS-GW-002 - Required for BACnet integration - Refer to BMS-GW-002 spec sheet for details Outdoor Antennas (Optional, for increased range, 8dB gain) KIT-ANT420SM - Kit includes antenna, 20' cable and bracket KIT-ANT360 - Kit includes antenna, 30' cable and bracket KIT-ANT600 - Kit includes antenna, 50' cable and bracket - Refer to Outdoor antenna spec sheet for details	

OSQ™ LED Area/Flood Luminaire featuring Cree TrueWhite® Technology – Medium

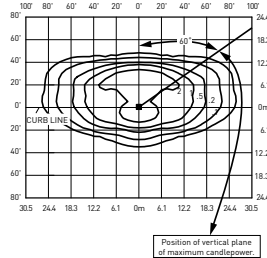
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult:
<https://creelighting.com/products/outdoor/area/osq-series>

2ME



RESTL Test Report #: PL08877-001A
 OSQ-A**-2ME-B-40K-UL
 Initial Delivered Lumens: 10,381

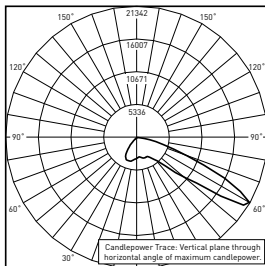


OSQ-A**-2ME-B-40K-UL
 Mounting Height: 25' (7.6m) A.F.G.
 Initial Delivered Lumens: 11,424
 Initial FC at grade

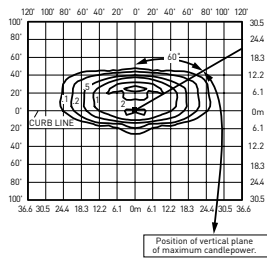
Type II Medium Distribution								
Input Power Designator	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
B	10,738	B2 U0 G2	11,424	B2 U0 G2	9,350	B2 U0 G2	11,648	B2 U0 G2
K	16,022	B3 U0 G3	16,959	B3 U0 G3	14,000	B3 U0 G2	17,291	B3 U0 G3
Z	6,481	B2 U0 G1	6,896	B2 U0 G1	5,750	B1 U0 G1	7,031	B2 U0 G1

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt



CESTL Test Report #: PL07700-001A
 OSQ-A**-2ME-U-57K-UL w/OSQ-BLSLF
 Initial Delivered Lumens: 22,822



OSQ-A**-2ME-U-57K-UL w/OSQ-BLSLF
 Mounting Height: 25' (7.6m) A.F.G.
 Initial Delivered Lumens: 8,779
 Initial FC at grade

Type II Medium w/BLS Distribution								
Input Power Designator	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM 15 11	Initial Delivered Lumens*	BUG Ratings** Per TM 15 11	Initial Delivered Lumens*	BUG Ratings** Per TM 15 11	Initial Delivered Lumens*	BUG Ratings** Per TM 15 11
B	8,251	B2 U0 G2	8,779	B2 U0 G2	7,200	B1 U0 G1	8,950	B2 U0 G2
K	12,312	B2 U0 G2	13,032	B2 U0 G2	10,750	B2 U0 G2	13,286	B2 U0 G2
Z	4,980	B1 U0 G1	5,299	B1 U0 G1	4,420	B1 U0 G1	5,402	B1 U0 G1

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

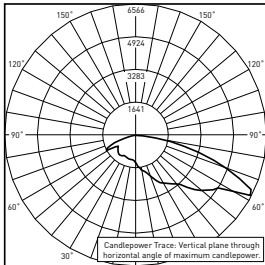
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

Photometry

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<https://creelighting.com/products/outdoor/area/osq-series>

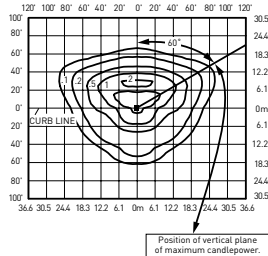
3ME



RESTL Test Report #: PL08876-001A

OSQ-A-**-3ME-B-30K-UL

Initial Delivered Lumens: 10,421



OSQ-A-**-3ME-B-40K-UL

Mounting Height: 25' (7.6m) A.F.G.

Initial Delivered Lumens: 11,424

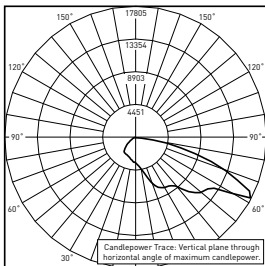
Initial FC at grade

Type III Medium Distribution

Input Power Designator	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
B	10,738	B3 U0 G3	11,424	B3 U0 G3	9,350	B2 U0 G2	11,648	B3 U0 G3
K	16,022	B3 U0 G3	16,959	B3 U0 G3	14,000	B3 U0 G3	17,291	B3 U0 G3
Z	6,481	B2 U0 G2	6,896	B2 U0 G2	5,750	B2 U0 G2	7,031	B2 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

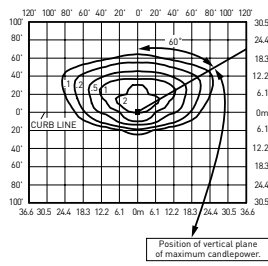
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt



CESTL Test Report #: PL07699-001A

OSQ-A-**-3ME-U-57K-UL w/OSQ-BLSLF

Initial Delivered Lumens: 23,601



OSQ-A-**-3ME-B-40K-UL w/OSQ-BLSMF

Mounting Height: 25' (7.6m) A.F.G.

Initial Delivered Lumens: 9,019

Initial FC at grade

Type III Medium w/BLS Distribution

Input Power Designator	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
B	8,477	B1 U0 G2	9,019	B1 U0 G2	7,400	B1 U0 G2	9,196	B1 U0 G2
K	12,649	B2 U0 G2	13,389	B2 U0 G2	11,050	B2 U0 G2	13,650	B2 U0 G2
Z	5,117	B1 U0 G1	5,444	B1 U0 G1	4,540	B1 U0 G1	5,551	B1 U0 G1

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

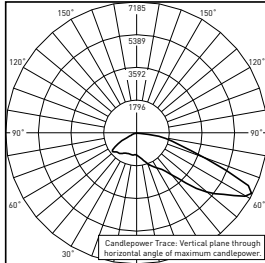
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

OSQ™ LED Area/Flood Luminaire featuring Cree TrueWhite® Technology – Medium

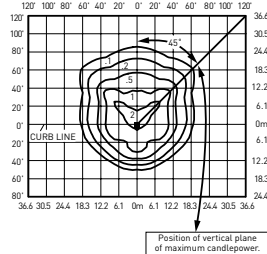
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult:
<https://creelighting.com/products/outdoor/area/osq-series>

4ME



RESTL Test Report #: PL08878-001A
 OSQ-A-**-4ME-B-30K-UL
 Initial Delivered Lumens: 10,230

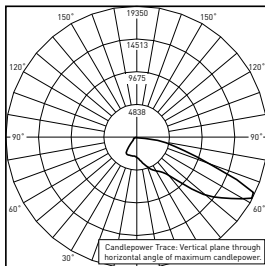


OSQ-A-**-4ME-B-40K-UL
 Mounting Height: 25' (7.6m) A.F.G.
 Initial Delivered Lumens: 11,424
 Initial FC at grade

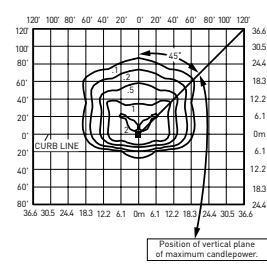
Type IV Medium Distribution								
Input Power Designator	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
B	10,738	B2 U0 G2	11,424	B2 U0 G2	9,350	B2 U0 G2	11,648	B2 U0 G2
K	16,022	B3 U0 G3	16,959	B3 U0 G3	14,000	B3 U0 G3	17,291	B3 U0 G3
Z	6,481	B2 U0 G2	6,896	B2 U0 G2	5,750	B2 U0 G1	7,031	B2 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt



CESTL Test Report #: PL07692-001A
 OSQ-A-**-4ME-U-57K-UL w/OSQ-BLSLF
 Initial Delivered Lumens: 22,793



OSQ-A-**-4ME-B-40K-UL w/OSQ-BLSMF
 Mounting Height: 25' (7.6m) A.F.G.
 Initial Delivered Lumens: 8,779
 Initial FC at grade

Type IV Medium w/BLS Distribution								
Input Power Designator	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
B	8,251	B1 U0 G2	8,779	B1 U0 G2	7,200	B1 U0 G2	8,950	B1 U0 G2
K	12,312	B2 U0 G2	13,032	B2 U0 G2	10,750	B2 U0 G2	13,286	B2 U0 G2
Z	4,980	B1 U0 G1	5,299	B1 U0 G1	4,420	B1 U0 G1	5,402	B1 U0 G1

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

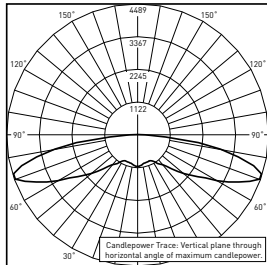
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult:

<https://creelighting.com/products/outdoor/area/osq-series>

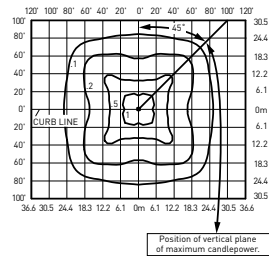
5ME



RESTL Test Report #: PL08534-001B

OSQ-A**-5ME-B-40K-UL

Initial Delivered Lumens: 10,519



OSQ-A**-5ME-B-40K-UL

Mounting Height: 25' (7.6m) A.F.G.

Initial Delivered Lumens: 10,867

Initial FC at grade

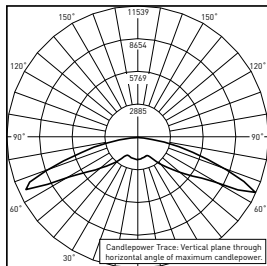
Type V Medium Distribution

Input Power Designator	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
B	10,232	B4 U0 G3	10,867	B4 U0 G3	10,000	B4 U0 G3	11,056	B4 U0 G3
K	15,063	B4 U0 G4	15,999	B4 U0 G4	14,925	B4 U0 G4	16,277	B4 U0 G4
Z	5,257	B3 U0 G3	6,086	B3 U0 G3	6,175	B3 U0 G3	6,192	B3 U0 G3

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

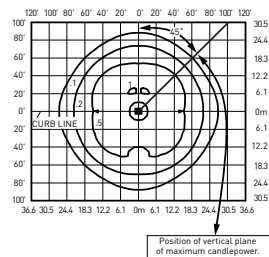
5SH



CESTL Test Report #: PL10754-001A

OSQ-A**-5SH-B-40K-UL

Initial Delivered Lumens: 25,679



OSQ-A**-5SH-B-40K-UL

Mounting Height: 25' (7.6m) A.F.G.

Initial Delivered Lumens: 11,478

Initial FC at grade

Type V Short Distribution

Input Power Designator	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
B	10,806	B4 U0 G2	11,478	B4 U0 G2	10,575	B4 U0 G2	11,678	B4 U0 G2
K	15,909	B4 U0 G3	16,897	B4 U0 G3	15,800	B4 U0 G3	17,191	B4 U0 G3
Z	5,552	B3 U0 G1	6,428	B3 U0 G2	6,525	B3 U0 G2	6,539	B3 U0 G2

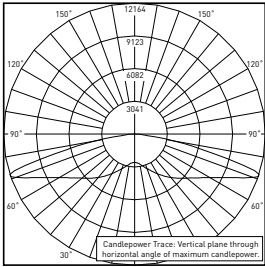
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

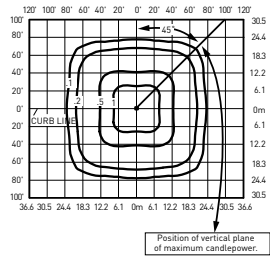
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult: <https://creelighting.com/products/outdoor/area/osq-series>

55Q



RESTL Test Report #: PL14561-001B
OSQ-A-**-55Q-U-57K-UL
Initial Delivered Lumens: 28,716



OSQ-A-NM-55Q-B-40K-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 11,478
Initial FC at grade

Type V Square Distribution								
Input Power Designator	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
B	10,806	B3 U0 G2	11,478	B4 U0 G2	10,575	B3 U0 G2	11,678	B4 U0 G2
K	15,909	B4 U0 G2	16,897	B4 U0 G2	15,800	B4 U0 G2	17,191	B4 U0 G2
Z	5,552	B3 U0 G1	6,428	B3 U0 G1	6,525	B3 U0 G1	6,539	B3 U0 G1

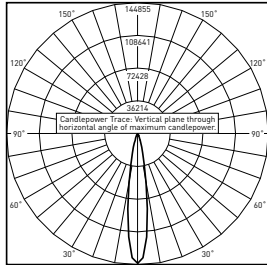
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

Photometry

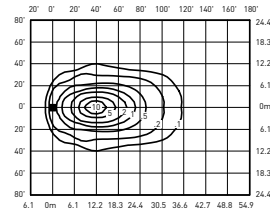
All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult:

<https://creelighting.com/products/outdoor/area/osq-series>

15D



CESTL Test Report #: PL07689-001A
OSQ-A**-15D-U-30K-UL
Initial Delivered Lumens: 23,254



OSQ-A**-15D-B-40K-UL
Mounting Height: 25' (7.6m) A.F.G., 60° Tilt
Initial Delivered Lumens: 11,478
Initial FC at grade

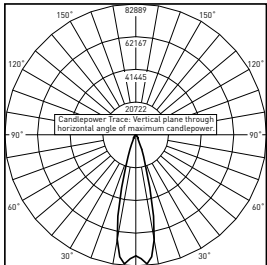
15° Flood Distribution

Input Power Designator	3000K (70 CRI)	4000K (70 CRI)	5000K (90CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
B	10,806	11,478	10,575	11,678
K	15,909	16,897	15,800	17,191
Z	5,552	6,428	6,525	6,539

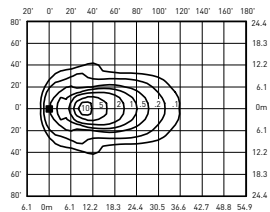
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

25D



CESTL Test Report #: PL07696-001A
OSQ-A**-25D-U-30K-UL
Initial Delivered Lumens: 23,265



OSQ-A**-25D-B-40K-UL
Mounting Height: 25' (7.6m) A.F.G., 60° Tilt
Initial Delivered Lumens: 11,478
Initial FC at grade

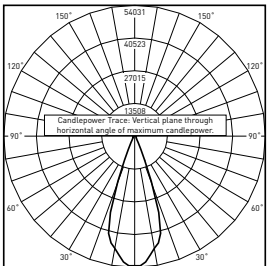
25° Flood Distribution

Input Power Designator	3000K (70 CRI)	4000K (70 CRI)	5000K (90CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
B	10,806	11,478	10,575	11,678
K	15,909	16,897	15,800	17,191
Z	5,552	6,428	6,525	6,539

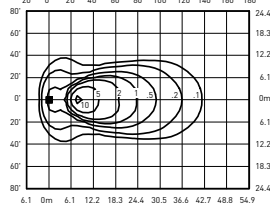
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

40D



CESTL Test Report #: PL07697-001A
OSQ-A**-40D-U-30K-UL
Initial Delivered Lumens: 22,943



OSQ-A**-40D-B-40K-UL
Mounting Height: 25' (7.6m) A.F.G., 60° Tilt
Initial Delivered Lumens: 11,478
Initial FC at grade

40° Flood Distribution

Input Power Designator	3000K (70 CRI)	4000K (70 CRI)	5000K (90 CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
B	10,806	11,478	10,575	11,678
K	15,909	16,897	15,800	17,191
Z	5,552	6,428	6,525	6,539

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

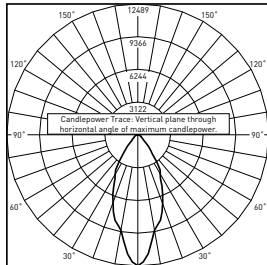
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult:

<https://creelighting.com/products/outdoor/area/osq-series>

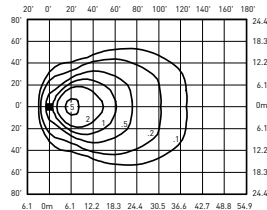
60D



CESTL Test Report #: PL08100-001B

OSQ-A-**-60D-B-30K-UL

Initial Delivered Lumens: 10,079



OSQ-A-**-60D-B-40K-UL

Mounting Height: 25' (7.6m) A.F.G., 60° Tilt

Initial Delivered Lumens: 11,478

Initial FC at grade

60° Flood Distribution

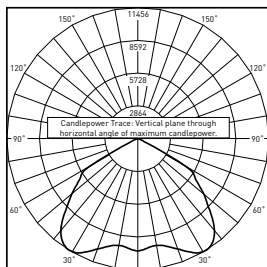
Input Power Designator	3000K (70 CRI)	4000K (70 CRI)	5000K (90 CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
B	10,806	11,478	10,575	11,678
K	15,909	16,897	15,800	17,191
Z	5,552	6,428	6,525	6,539

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit:

<https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

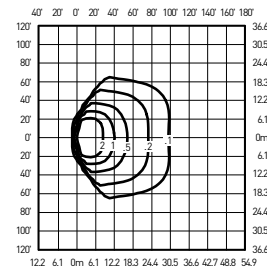
120D



RESTL Test Report #: PL15731-001A

OSQ-A-**-120D-B-40K-UL

Initial Delivered Lumens: 25,501



OSQ-A-**-120D-B-40K-UL

Mounting Height: 25' (7.6m) A.F.G., 60° Tilt

Initial Delivered Lumens: 11,478

Initial FC at grade

Type 120° Flood Distribution

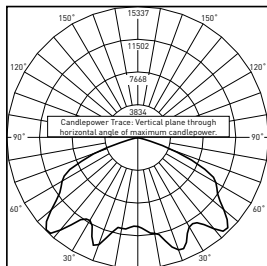
Input Power Designator	3000K (70 CRI)	4000K (70 CRI)	5000K (90 CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
B	10,806	11,478	10,575	11,678
K	15,909	16,897	15,800	17,191
Z	5,552	6,428	6,525	6,539

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit:

<https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

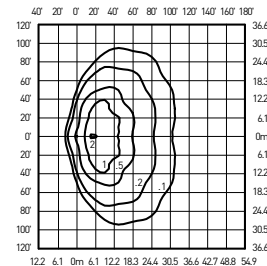
WSN



CESTL Test Report #: PL07695-001A

OSQ-A-**-WSN-B-40K-UL

Initial Delivered Lumens: 23,116



OSQ-A-**-WSN-B-40K-UL

Mounting Height: 25' (7.6m) A.F.G., 60° Tilt

Initial Delivered Lumens: 11,478

Initial FC at grade

Wide Sign Distribution

Input Power Designator	3000K (70 CRI)	4000K (70 CRI)	5000K (90 CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
B	10,806	11,478	10,575	11,678
K	15,909	16,897	15,800	17,191
Z	5,552	6,428	6,525	6,539









* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit:

<https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

OSQ™ LED Area/Flood Luminaire featuring Cree TrueWhite® Technology – Medium

Luminaire EPA

Adjustable Arm Mount – OSQ-B-AA Weight: 28.4 lbs. (12.9kg)							
Single	2 @ 180°	2 @ 90°	3 @ 90°	3 @ 120°	3 @ 180°	4 @ 180°	4 @ 90°
Tenon Configuration [0° -80° Tilt]; If used with Cree Lighting tenons, please add tenon EPA with Luminaire EPA							
							
PB-1A*; PT-1; PW-1A3**	PB-2A*; PB-2R2.375; PD-2A4(180); PT-2(180); PW-2A3**	PB-2A*; PD-2A4(90); PT-2(90)	PB-3A*; PD-3A4(90); PT-3(90)	PB-3A*; PT-3(120)	PB-3A*; PB-3R2.375	PB-4A*(180)	PB-4A*(90); PB-4R2.375; PD-4A4(90); PT-4(90)
0° Tilt							
0.74	1.48	1.19	1.93	1.63	3.33	4.66	2.38
10° Tilt							
0.75	1.48	1.49	2.23	2.15	4.22	5.84	2.98
20° Tilt							
1.12	1.48	1.86	2.60	2.85	5.31	7.32	3.72
30° Tilt							
1.46	1.48	2.20	2.94	3.56	6.34	8.68	4.40
45° Tilt							
1.96	1.96	2.69	3.43	4.54	7.83	10.68	5.38
60° Tilt							
2.33	2.33	3.07	3.81	5.11	8.94	12.16	6.14
70° Tilt							
2.49	2.49	3.23	3.97	5.11	9.43	12.80	6.46
80° Tilt							
2.58	2.58	3.32	4.06	5.11	9.71	13.16	6.64
Tenon Configuration [90° Tilt]; If used with Cree Lighting tenons, please add tenon EPA with Luminaire EPA							
PB-1A*; PT-1; PW-1A3**	PB-2A*; PB-2R2.375; PD-2A4(180); PT-2(180); PW-2A3**	PB-2A*	PB-3A*	PB-3A*; PT-3(120)	PB-3A*; PB-3R2.375	PB-4A*(180)	PB-4A*(90); PB-4R2.375
90° Tilt							
2.61	2.61	4.44	6.05	5.11	9.79	13.28	10.39

* Specify pole size: 3 [3"], 4 [4"], 5 [5"], or 6 [6"] for single, double or triple luminaire orientation or 4 [4"], 5 [5"], or 6 [6"] for quad luminaire orientation

** These EPA values must be multiplied by the following ratio: Fixture Mounting Height/Total Pole Height. Specify pole size: 3 [3"], 4 [4"], 5 [5"], or 6 [6"]

Tenon EPA

Part Number	EPA
PB-1A*	None
PB-2A*	0.82
PB-3A*	1.52
PB-4A*(180)	2.22
PB-4A*(90)	1.11
PB-2R2.375	0.92
PB-3R2.375	1.62
PB-4R2.375	2.32
PD Series Tenons	0.09
PT Series Tenons	0.10
PW-1A3**	0.47
PW-2A3**	0.94
WM-2	0.08
WM-4	0.25
WM-DM	None

* Specify pole size: 3 [3"], 4 [4"], 5 [5"], or 6 [6"] for single, double or triple luminaire orientation or 4 [4"], 5 [5"], or 6 [6"] for quad luminaire orientation

** These EPA values must be multiplied by the following ratio: Fixture Mounting Height/Total Pole Height. Specify pole size: 3 [3"], 4 [4"], 5 [5"], or 6 [6"]

Tenons and Brackets* (must specify color)	
Square Internal Mount Vertical Tenons (Steel) - Mounts to 3-6" (76-152mm) square aluminum or steel poles PB-1A* – Single PB-4A*(90) – 90° Quad PB-2A* – 180° Twin PB-4A*(180) – 180° Quad PB-3A* – 180° Triple	Round External Mount Vertical Tenons (Steel) - Mounts to 2.375" (60mm) O.D. round aluminum or steel poles or tenons PB-2R2.375 – Twin PB-4R2.375 – Quad PB-3R2.375 – Triple
Square Internal Mount Horizontal Tenons (Aluminum) - Mounts to 4" (102mm) square aluminum or steel poles PD-2A4(90) – 90° Twin PD-3A4(90) – 90° Triple PD-2A4(180) – 180° Twin PD-4A4(90) – 90° Quad	Round External Mount Horizontal Tenons (Aluminum) - Mounts to 2.375" (60mm) O.D. round aluminum or steel poles or tenons - Mounts to square pole with PB-1A* tenon PT-1 – Single (Vertical) PT-3(90) – 90° Triple PT-2(90) – 90° Twin PT-3(120) – 120° Triple PT-2(180) – 180° Twin PT-4(90) – 90° Quad
Wall Mount Brackets - Mounts to wall or roof WM-2 – Horizontal for OSQ-B-AA mount WM-4 – L-Shape for OSQ-B-AA mount WM-DM – Plate for OSQ-DA mount	Mid-Pole Bracket - Mounts to square pole PW-1A3** – Single PW-2A3** – Double
	Ground Mount Post - For ground-mounted flood luminaires PGM-1 – for OSQ-B-AA mount







* Refer to the [Bracket and Tenons spec sheet](#) for more details

US: creelighting.com (800) 236-6800

Canada: creelighting-canada.com (800) 473-1234

CREE  **LIGHTING**

Luminaire EPA

Direct Arm Mount – OSQ-DA Weight: 28.9 lbs. (13.1kg)					
Single	2 @ 180°	2 @ 90°	3 @ 90°	3 @ 120°	4 @ 90°
					
0.74	1.48	1.19	1.93	1.63	2.38

Direct Mount Configurations

Compatibility with OSQ-DA Direct Mount Bracket					
Input Power Designator	2 @ 90°	2 @ 180°	3 @ 90°	3 @ 120°	4 @ 90°
3" Square					
B, K & Z	N/A	✓	N/A	N/A	N/A
3" Round					
B, K & Z	N/A	✓	N/A	N/A	N/A
4" Square					
B, K & Z	✓	✓	✓	N/A	✓
4" Round					
B, K & Z	✓	✓	✓	✓	✓
5" Square					
B, K & Z	✓	✓	✓	N/A	✓
5" Round					
B, K & Z	✓	✓	✓	✓	✓
6" + Square					
B, K & Z	✓	✓	✓	N/A	✓
6" + Round					
B, K & Z	✓	✓	✓	✓	✓

Luminaire EPA

Trunnion Mount – OSQ-TM Weight: 32.6 lbs. (14.8kg)	
Single	
0° Tilt	
0.75	
15° Tilt	
0.99	
30° Tilt	
1.57	
45° Tilt	
2.07	
60° Tilt	
2.46	
75° Tilt	
2.67	
90° Tilt	
2.33	

Field Adjustable Output (Q9/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings.

Q Option Power & Lumen Data – Designator B

Q Option Setting	CCT/CRI	System Watts	Lumen Values						Optics Qualified on DLC QPL	
		120-480V	Asymmetric	5ME	5SH, 5SQ & Floods	2ME w/ BLS	3ME w/ BLS	4ME w/ BLS	Standard	Premium
Q9 (Full Power)	30K (70 CRI)	86	10,738	10,232	10,806	8,251	8,477	8,251	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		11,424	10,867	11,478	8,779	9,019	8,779	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		9,350	10,000	10,575	7,200	7,400	7,200	2ME, 3ME, 4ME	5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	57K (70 CRI)		11,648	11,056	11,678	8,950	9,196	8,950	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q6	30K (70 CRI)	77	9,449	9,004	9,509	7,261	7,460	7,261	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		10,053	9,563	10,101	7,726	7,937	7,726	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		8,350	8,950	9,450	6,425	6,600	6,425	2ME, 3ME, 4ME	5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	57K (70 CRI)		10,250	9,729	10,277	7,876	8,092	7,876	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q5	30K (70 CRI)	72	8,913	8,492	8,969	6,848	7,036	6,848	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		9,482	9,020	9,527	7,287	7,486	7,287	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		7,525	8,050	8,525	5,775	5,950	5,775	2ME, 3ME, 4ME	5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	57K (70 CRI)		9,668	9,176	9,693	7,429	7,633	7,429	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q4	30K (70 CRI)	62	7,731	7,367	7,780	5,941	6,103	5,941	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		8,225	7,824	8,264	6,321	6,494	6,321	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		6,575	7,025	7,425	5,050	5,175	5,050	2ME, 3ME, 4ME	5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	57K (70 CRI)		8,387	7,960	8,408	6,444	6,621	6,444	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q3	30K (70 CRI)	53	6,550	6,241	6,592	5,033	5,171	5,033	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		6,969	6,629	7,002	5,355	5,502	5,355	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		5,575	5,975	6,325	4,290	4,410	4,290	2ME, 3ME, 4ME	5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	57K (70 CRI)		7,105	6,744	7,124	5,460	5,610	5,460	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q2	30K (70 CRI)	45	5,476	5,218	5,511	4,208	4,323	4,208	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		5,826	5,542	5,854	4,477	4,600	4,477	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		4,550	4,890	5,175	3,500	3,590	3,500	2ME, 3ME, 4ME	5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	57K (70 CRI)		5,940	5,639	5,956	4,565	4,690	4,565	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q1	30K (70 CRI)	34	4,188	3,990	4,214	3,218	3,306	3,218	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		4,455	4,238	4,476	3,424	3,517	3,424	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		3,500	3,770	3,980	2,690	2,760	2,690	2ME, 3ME, 4ME	5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	57K (70 CRI)		4,543	4,312	4,554	3,491	3,586	3,491	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN

Field Adjustable Output (Q9/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

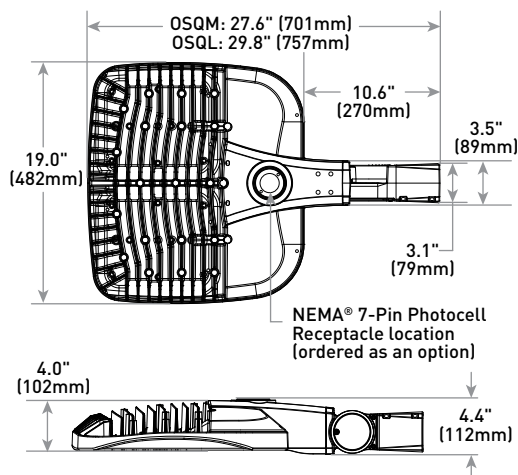
The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings.

Q Option Power & Lumen Data – Designator K

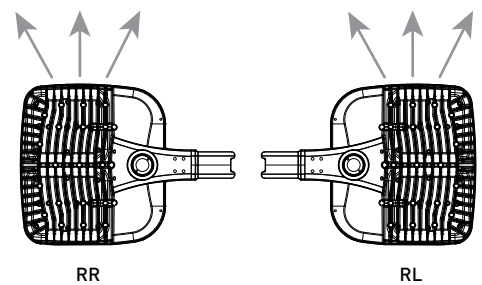
Q Option Setting	CCT/CRI	System Watts	Lumen Values						Optics Qualified on DLC QPL	
		120-480V	Asymmetric	5ME	5SH, 5SQ & Floods	2ME w/BLS	3ME w/BLS	4ME w/BLS	Standard	Premium
Q9 (Full Power)	30K (70 CRI)	130	16,022	15,063	15,909	12,312	12,649	12,312	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		16,959	15,999	16,897	13,032	13,389	13,032	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		14,000	14,925	15,800	10,750	11,050	10,750	2ME, 3ME, 4ME	5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	57K (70 CRI)		17,291	16,277	17,191	13,286	13,650	13,286	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q6	30K (70 CRI)	117	14,099	13,255	14,000	10,835	11,131	10,835	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		14,924	14,079	14,869	11,468	11,782	11,468	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		12,500	13,350	14,100	9,600	9,875	9,600	2ME, 3ME, 4ME	5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	57K (70 CRI)		15,216	14,324	15,128	11,692	12,012	11,692	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q5	30K (70 CRI)	110	13,298	12,502	13,204	10,219	10,499	10,219	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		14,076	13,279	14,025	10,817	11,113	10,817	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		11,250	12,050	12,725	8,650	8,900	8,650	2ME, 3ME, 4ME	5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	57K (70 CRI)		14,352	13,510	14,269	11,027	11,330	11,027	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q4	30K (70 CRI)	93	11,536	10,845	11,454	8,865	9,107	8,865	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		12,210	11,519	12,166	9,383	9,640	9,383	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		9,825	10,525	11,100	7,550	7,750	7,550	2ME, 3ME, 4ME	5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	57K (70 CRI)		12,450	11,719	12,378	9,566	9,828	9,566	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q3	30K (70 CRI)	80	9,773	9,188	9,704	7,510	7,716	7,510	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		10,345	9,759	10,307	7,950	8,167	7,950	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		8,350	8,950	9,475	6,425	6,600	6,425	2ME, 3ME, 4ME	5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	57K (70 CRI)		10,548	9,929	10,487	8,104	8,327	8,104	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q2	30K (70 CRI)	67	8,171	7,682	8,114	6,279	6,451	6,279	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		8,649	8,159	8,617	6,646	6,828	6,646	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		6,825	7,325	7,725	5,250	5,375	5,250	2ME, 3ME, 4ME	5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	57K (70 CRI)		8,818	8,301	8,767	6,776	6,962	6,776	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q1	30K (70 CRI)	51	6,249	5,875	6,205	4,802	4,933	4,802	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		6,614	6,240	6,590	5,082	5,222	5,082	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		5,250	5,650	5,975	4,030	4,150	4,030	2ME, 3ME, 4ME	5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	57K (70 CRI)		6,743	6,348	6,704	5,182	5,324	5,182	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN

OSQ™ LED Area/Flood Luminaire featuring Cree TrueWhite® Technology – Medium

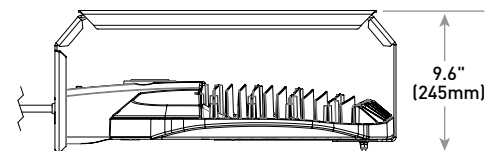
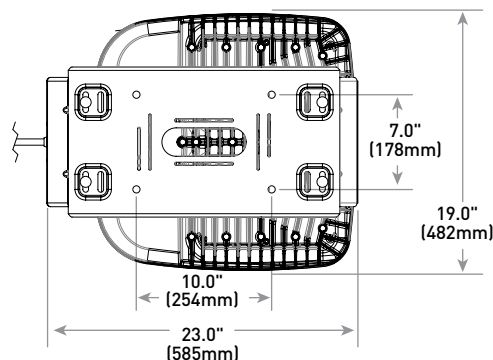
AA Mount



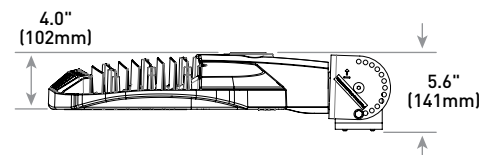
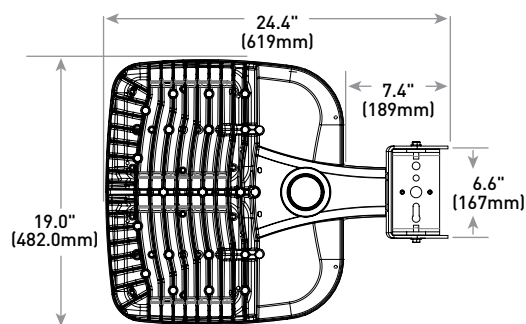
RR/RL Configuration



TSP Mount



TM Mount



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CREE LIGHTING

A COMPANY OF IDEAL INDUSTRIES, INC.

XSP Series

XSPW™ LED Wall Mount Luminaire featuring Cree TrueWhite® Technology

Rev. Date: VersionB V4 02/25/2020

Product Description

The XSPW™ LED wall mount luminaire has a slim, low profile design intended for outdoor wall mounted applications. The rugged lightweight aluminum housing and mounting box are designed for installation over standard single gang J-Boxes and mud ring single gang J-Boxes. The luminaire allows for through-wired or conduit entry from the top, bottom, sides and rear. The housing design is intended specifically for LED technology including a weathertight LED driver compartment and thermal management. Optic design features industry-leading NanoOptic® Precision Delivery Grid™ system in multiple distributions.

Applications: General area and security lighting

Performance Summary

NanoOptic® Precision Delivery Grid™ optic

Assembled in the U.S.A. of U.S. and imported parts

CRI: Minimum 70 CRI (3000K, 4000K & 5700K); 90 CRI (5000K)

CCT: 3000K, 4000K, 5000K, 5700K

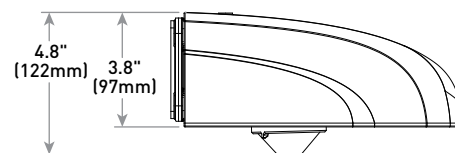
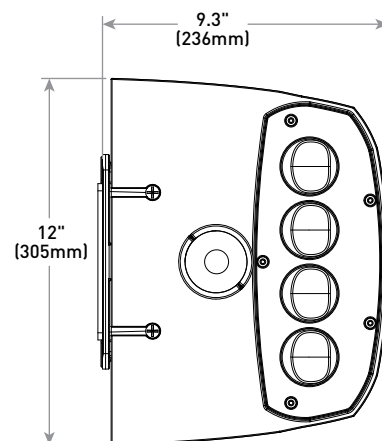
Limited Warranty*: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

* See <http://creelighting.com/warranty> for warranty terms

Accessories

Field-Installed	
Beauty Plate WM-PLT12** - 12" (305mm) Square WM-PLT14** - 14" (356mm) Square - Covers holes left by incumbent wall packs	Hand-Held Remote XA-SENSREM - For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required

** Must specify color



Multi-Level Sensor location
(ordered as an option)

Lumen Package	Weight
2L, 4L, 6L	11.0 lbs. (5.0kg)
8L	11.8 lbs. (5.4kg)

Ordering Information

Example: XSPW-B-WM-2ME-2L-30K-UL-BK

XSPW	B	WM						
Product	Version	Mounting	Optic	Lumen Package*	CCT	Voltage	Color Options	Options
XSPW	B	WM Wall	2ME Type II Medium 3ME Type III Medium 4ME Type IV Medium	2L 2,490 lumens 4L 4,270 lumens 6L 6,100 lumens 8L 8,475 lumens	30K 3000K ~ 70 CRI 40K 4000K ~ 70 CRI 50K 5000K ~ 90 CRI 57K 5700K ~ 70 CRI	UL Universal 120-277V UH Universal 347-480V 34 347V - For use with P option only	BK Black BZ Bronze SV Silver WH White	ML Multi-Level - Refer to ML spec sheet for details - Available with UL voltage only P Button Photocell - Not available with ML or PML options - Available with UL and 34 voltages only PML Programmable Multi-Level - Refer to PML spec sheet for details - Available with UL voltage only

* Lumen Package selection codes identify approximate light output only. Actual lumen output levels may vary depending on CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values



CREE LIGHTING

US: creelighting.com (800) 236-6800

Canada: creelighting-canada.com (800) 473-1234

Product Specifications

CREE TRUEWHITE® TECHNOLOGY

A revolutionary way to generate high-quality white light, Cree TrueWhite® Technology is a patented approach that delivers an exclusive combination of 90+ CRI, beautiful light characteristics and lifelong color consistency, all while maintaining high luminous efficacy – a true no compromise solution.

CONSTRUCTION & MATERIALS

- Slim, low profile design
- Luminaire housing specifically designed for LED applications with advanced LED thermal management and driver
- Luminaire mounting box designed for installation over standard single gang J-Boxes and mud ring single gang J-Boxes
- Luminaire can also be direct mounted to a wall and surface wired
- Secures to wall with four 3/16" (5mm) screws (by others)
- Conduit entry from top, bottom, sides, and rear
- Exclusive Colorfast DeltaGuard® finish features an E-coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Silver, black, white and bronze are available
- **Weight:** 2L, 4L, 6L - 11.0 lbs. (5.0kg); 8L - 11.8 lbs. (5.4kg)

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347-480V, 50/60Hz
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- Designed with 0-10V dimming capabilities. Controls by others
- **10V Source Current:** 0.15 mA
- Refer to [Dimming spec sheet](#) for details
- **Operating Temperature Range:** -40°C - +50°C (-40°F - +122°F)

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Designed for downlight applications only
- Enclosure rated IP66 per IEC 60598
- ANSI C136.2 10kV surge protection, tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Meets Buy American requirements within ARRA
- RoHS compliant. Consult factory for additional details
- Dark Sky Friendly, IDA Approved when ordered with 30K CCT. Please refer to <https://www.darksky.org/our-work/lighting/lighting-for-industry/fsa/fsa-products/> for most current information
- DLC and DLC Premium qualified versions available. Please refer to <https://www.designlights.org/search/> for most current information
- **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

Electrical Data*									
Lumen Package	CCT/CRI	System Watts	Efficacy	Total Current (A)					
		120-480V		120V	208V	240V	277V	347V	480V
2L	30K/70 CRI	20	125	0.17	0.10	0.08	0.07	0.06	0.05
	40K/70 CRI	19	131	0.16	0.09	0.08	0.07	0.06	0.04
	50K/90 CRI	24	104	0.20	0.11	0.10	0.08	0.07	0.05
	57K/70 CRI	19	131	0.16	0.09	0.08	0.07	0.06	0.04
4L	30K/70 CRI	33	129	0.28	0.16	0.14	0.13	0.10	0.07
	40K/70 CRI	31	138	0.27	0.15	0.13	0.12	0.09	0.07
	50K/90 CRI	40	107	0.34	0.20	0.17	0.16	0.12	0.09
	57K/70 CRI	31	138	0.26	0.15	0.13	0.12	0.09	0.07
6L	30K/70 CRI	51	120	0.43	0.25	0.22	0.19	0.14	0.11
	40K/70 CRI	47	130	0.40	0.23	0.20	0.18	0.14	0.10
	50K/90 CRI	60	102	0.51	0.29	0.25	0.23	0.17	0.13
	57K/70 CRI	47	130	0.40	0.23	0.20	0.17	0.14	0.10
8L	30K/70 CRI	77	110	0.65	0.38	0.32	0.28	0.22	0.16
	40K/70 CRI	72	118	0.61	0.35	0.31	0.27	0.21	0.15
	50K/90 CRI	78	89	0.66	0.37	0.33	0.29	0.22	0.16
	57K/70 CRI	71	119	0.60	0.35	0.30	0.26	0.20	0.15

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V or 347-480V +/- 10%

XSPW Series Ambient Adjusted Lumen Maintenance Factors ¹					
Ambient	Initial LMF	25K hr Reported ² LMF	50K hr Reported ² LMF	75K hr Estimated ³ LMF	100K hr Estimated ³ LMF
5°C (41°F)	1.03	0.98	0.96	0.94	0.92
10°C (50°F)	1.03	0.98	0.96	0.94	0.92
15°C (59°F)	1.02	0.97	0.95	0.93	0.92
20°C (68°F)	1.01	0.96	0.95	0.93	0.91
25°C (77°F)	1.00	0.96	0.94	0.92	0.90
30°C (86°F)	0.99	0.95	0.93	0.91	0.89
35°C (95°F)	0.98	0.94	0.92	0.90	0.88
40°C (104°F)	0.97	0.93	0.91	0.89	0.87

¹ Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the [Temperature Zone Reference Document](#) for outdoor average nighttime ambient conditions.

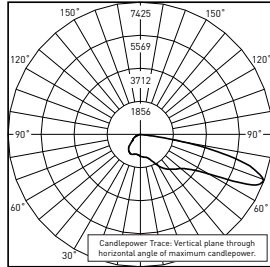
² In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.

³ Estimated values are calculated and represent time durations that exceed the 6x test duration of the LED.

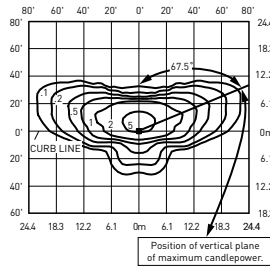
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult:
<http://creelighting.com/products/outdoor/wall-mount/xsp-series-wall>

2ME



CESTL Test Report #: PL12798-001A
XSPW-B-**-2ME-8L-40K-UL
Initial Delivered Lumens: 8,622



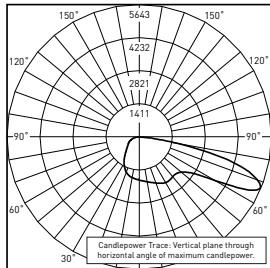
XSPW-B-**-2ME-8L-40K-UL
Mounting Height: 15' (4.6) A.F.G.
Initial Delivered Lumens: 8,475
Initial FC at grade

Type II Medium Distribution								
Lumen Package	3000K		4000K		5000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
2L	2,490	B1 U0 G1	2,490	B1 U0 G1	2,490	B1 U0 G1	2,490	B1 U0 G1
4L	4,270	B1 U0 G1	4,270	B1 U0 G1	4,270	B1 U0 G1	4,270	B1 U0 G1
6L	6,100	B1 U0 G2	6,100	B1 U0 G2	6,100	B1 U0 G2	6,100	B1 U0 G2
8L	8,475	B2 U0 G2	8,475	B2 U0 G2	6,925	B1 U0 G2	8,475	B2 U0 G2

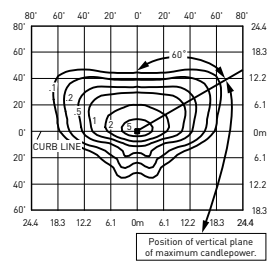
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

3ME



CESTL Test Report #: PL12366-007A
XSPW-B-**-3ME-8L-40K-UL
Initial Delivered Lumens: 8,543



XSPW-B-**-3ME-8L-40K-UL
Mounting Height: 15' (4.6m) A.F.G.
Initial Delivered Lumens: 8,475
Initial FC at grade

Type III Medium Distribution								
Lumen Package	3000K		4000K		5000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
2L	2,490	B1 U0 G1	2,490	B1 U0 G1	2,490	B1 U0 G1	2,490	B1 U0 G1
4L	4,270	B1 U0 G1	4,270	B1 U0 G1	4,270	B1 U0 G1	4,270	B1 U0 G1
6L	6,100	B1 U0 G2	6,100	B1 U0 G2	6,100	B1 U0 G2	6,100	B1 U0 G2
8L	8,475	B2 U0 G2	8,475	B2 U0 G2	6,925	B1 U0 G2	8,475	B2 U0 G2

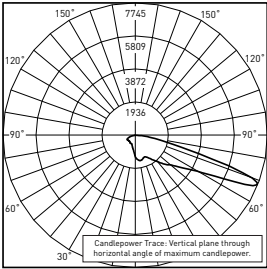
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

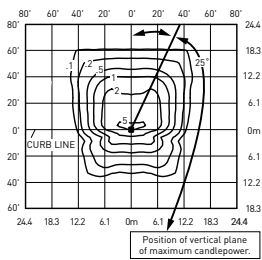
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult:
<http://creelighting.com/products/outdoor/wall-mount/xsp-series-wall>

4ME



RESTL Test Report #: PL14415-001A
XSPW-B-**-4ME-8L-40K-UL
Initial Delivered Lumens: 8,763



XSPW-B-**-4ME-8L-40K-UL
Mounting Height: 15' (4.6m) A.F.G.
Initial Delivered Lumens: 8,475
Initial FC at grade

Type IV Medium Distribution								
Lumen Package	3000K		4000K		5000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
2L	2,490	B1 U0 G1	2,490	B1 U0 G1	2,490	B1 U0 G1	2,490	B1 U0 G1
4L	4,270	B1 U0 G1	4,270	B1 U0 G1	4,270	B1 U0 G1	4,270	B1 U0 G1
6L	6,100	B1 U0 G2	6,100	B1 U0 G2	6,100	B1 U0 G2	6,100	B1 U0 G2
8L	8,475	B1 U0 G2	8,475	B1 U0 G2	6,925	B1 U0 G2	8,475	B1 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

REGIONAL CRITERIA

EXTERIOR LIGHTING

EXTERIOR CANOPY RECESSED FIXTURE



FEATURES & SPECIFICATIONS

INTENDED USE — The 4" Wafer-Thin LED recessed downlight with remote driver box combines high quality light output and efficiency while eliminating the pot light housing for competitive affordability. This innovative wafer-slim Type IC design allows easy installation for new construction or remodel from below the ceiling without the requirement of a pot light housing. The LED module maintains at least 70% light output for 36,000 hours. These LED Wafer downlights are intended for closets, attics, hallways, bathrooms, kitchens, basements, soffits, entry ways, porches, garages, stairwells, corridors, nursing/retirement homes, condos, elevators, apartments, and any other small areas.

CONSTRUCTION — Ideal for shallow ceiling plenum since a pot light housing is NOT required. IC rated driver and fixture - approved for direct contact with insulation. Aluminum die cast outer frame. Durable, powder coat paint to prevent rust. Round fixture with integral edge-lit LED's. Steel spring clip for easy installation. Plenum rated cable connector to connect from module to remote driver box. Isolated driver integrated inside steel remote box with four 7/8" knockouts with slots for pryout. Not suitable for pulling wires.

OPTICS — Wafer-Thin downlight edge-lit LED technology uses light guided plate to distribute light. Polycarbonate lens provides even illumination throughout the space. Utilized 3000K and 4000K color temperature LEDs.

ELECTRICAL — Connect directly to 120V power supply via provided UL recognized driver. High efficient driver with power factor > 0.9. Ambient operating temperature: -40°F (-40°C) to +104°F (+40°C). Dimming down to 10% (See page 2 for recommended dimmers). Standard input wattage is 9.6W, 70 lumens per watt.

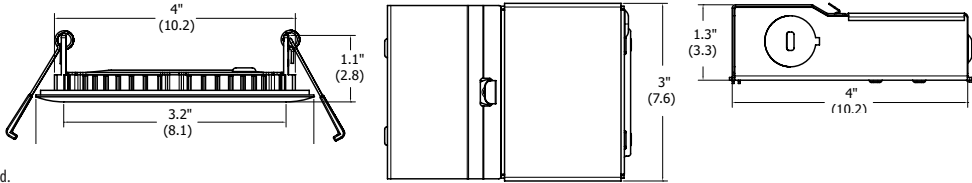
LISTINGS — CSA certified to Canadian safety standards. ENERGY STAR® certified. Wet location. Air Tight certified in accordance with ASTM E283-2004.

WARRANTY — 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Specifications

Aperture:	3.2 (8.1)
Ceiling opening:	4.2 (10.7)
Overlap trim:	4.7 (12.0)
Height:	1.1 (2.8)



All dimensions are inches (centimeters) unless otherwise indicated.

ORDERING INFORMATION For shortest lead times, configure product using **standard options (shown in bold)**. Example: WF4 LED 30K MW

WF4	LED		MW
Series	Lamp	CCT/CRI/W/Lumens ¹	Finish
WF4 4" wafer-thin LED downlight	LED LED	30K 3000K/80CRI/9.6W/675L 40K 4000K/80CRI/10W/765L	MW Matte white MB Matte black BN Brushed nickel ORB Oil-rubbed bronze

Accessories: Order as separate catalog number.	
WF4 PAN R12	4" new construction pan, retail pack of 12
WFJB R4	Remodel joist bar, retail pack of 4
WFEXC6 U	6' FT4 cable
WFEXC10 U	10' FT4 cable
WFEXC20 U	20' FT4 cable



Notes
1 Total system delivered lumens.

EXTERIOR SCONCE

LED 3000K Outdoor Up & Down Lantern - BKT
11251BKT30 (Textured Black)



Dimensions

Height	12.00"
Length	6.50"
Width	5.00"

Project Name: _____
Location: _____
Type: _____
Qty: _____
Comments: _____

Ordering Information

Product ID	11251BKT30
Finish	Textured Black
Available Finishes	AZT, BKT

Dimensions

Extension	6.50"
Height from center of Wall opening	6.20"
Base Backplate	5.00 X 5.00
Weight	4.10 LBS

Photometrics

Kelvin Temperature	3000K
Color Rendering Index	90

Specifications

Material	Aluminum
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Electrical

Voltage	120-277V
Input Voltage	Dual (120/140)

Qualifications

Safety Rated	Wet
Title 24	Yes
Class 2	Yes
Expected Life Span	40000 Hours
Warranty	www.kichler.com/warranty

Primary Lamping

Light Source	LED
Lamp Included	Integrated
# of Bulbs/LED Modules	1
Delivered Lumens	550
Delivered Efficacy	39
Max or Nominal Watt	15W

Kichler
7711 East Pleasant Valley Road
Cleveland, Ohio 44131-8010
Toll free: 866.558.5706 or kichler.com

Notes:
1) Information provided is subject to change without notice. All values are design or typical values when measured under laboratory conditions.
2) Incandescent Equivalent: The incandescent equivalent as presented is an approximate number and is for reference only.

