Plan Commission
Crest Hill, IL
September 11, 2025
7:00 PM
Council Chambers
20600 City Center Boulevard, Crest Hill, IL 60403

Agenda

CANCELED

Call to Order:

Pledge of Allegiance

Roll Call

1. Introduction of New Staff Members.
    a. Community and Economic Development Director Daniel Ritter, AICP
    b. City Planner Atefa Ghaznawi, AICP, LEED AP

Minutes:

2. Approve the Minutes from the Plan Commission Meeting Held on June 12, 2025.

New Business:

3. Public Hearing and consideration of Case Number V-25-2-9-1, request of Amazon.com Inc. for the approval of a variation form Section 15.04.040 of the City of Crest Hill Code of Ordinance that would increase the maximum permitted width of a proposed relocated commercial driveway on Lidice Parkway from 30-feet to approximately 71-feet, and a variation from Section 11.6-2 of the Crest Hill Zoning Ordinance that would allow existing required internal parking lot landscape islands to be replaced with pedestrian sidewalk improvements for the 26.63-acre, M-1 Limited Manufacturing District zoned property located at 16825 Churnovic Lane, in Crest Hill.

Other Business:

4. Finalize vote to approve reorganization of the Plan Commission (election of Chair, Vice Chair, and Secretary for one-year terms).

Public Comment:

Adjournment:

The Agenda for each regular meeting and special meeting (except a meeting held in the event of a bona fide emergency, rescheduled regular meeting, or any reconvened meeting) shall be posted at the City Hall and at the location where the meeting is to be held at least forty-eight (48) hours in advance of the holding of the meeting. The City Council shall also post on its website the agenda for any regular or special meetings. The City Council may modify its agenda for any regular or special meetings. The City Council may modify its agenda before or at the meeting for which public notice is given, provided that, in no event may the City Council act upon any matters which are not posted on the agenda at least forty-eight (48) hours in advance of the time for the holding of the meeting.

MINUTES OF THE
CREST HILL PLAN COMMISSION

The June 12, 2025, Plan Commission meeting was called to order by Chairman Bill Thomas, at 7:00 p.m. in the Council Chambers of the City Center, 20600 City Center Boulevard, Crest Hill, Will County, Illinois.

The Pledge of Allegiance was recited in unison.

Roll call indicated the following present: Chairman Bill Thomas, Commissioner Ken Carroll, Commissioner Cheryl Slabozeski, Commissioner Jeff Peterson, Commissioner Gordon Butler.

Also present were: Community & Economic Development Director Patrick Ainsworth, Community Development Consultant Ron Mentzer, City Attorney Mike Stiff, Executive Secretary Samantha Tilley.

Absent were: Commissioner Marty Flynn, Commissioner John Stanton.

Chairman Thomas welcomed Gordon Butler back to the Planning Commission for a second time. He introduced Mike Stiff as the City Attorney, Pat Ainsworth as the Economic and Community Development Director, and Ron Mentzer as the Economic and Community Development Consultant. He also introduced Samantha Tilley as the Executive Director.

APPROVAL OF MINUTES: Chairman Thomas asked for a motion to approve the minutes from the Special Plan Commission meeting held on April 24, 2025, for Commission approval.

(#1) Motion by Commissioner Carroll seconded by Commissioner Peterson, to approve the minutes from the Special Plan Commission meeting held on April 24, 2025.
On roll call, the vote was:
AYES: Commissioners Carroll, Peterson, Slabozeski, Butler, Chairman Thomas.
NAYES: None.
ABSENT: Commissioners Stanton, Flynn.
There being five (5) affirmative votes, the MOTION CARRIED.

PUBLIC HEARING: Chairman Bill Thomas presented case number V-25-1-6-1, Request of A & J Rehab Properties for the approval variations from various sections of the Crest Hill Zoning Ordinance and the City Code of Ordinances that would allow the existing four-unit apartment building on the 13,374 square foot, R-3 Multi-Family District zoned property located at 1813 N. Broadway Street in Crest Hill, Illinois to be renovated and numerous existing non-conforming conditions to remain on this property post completion of the apartment building renovation project.

Chairman Thomas asked if the paperwork is in order. The necessary paperwork was in order.

Chairman Thomas asked for a Motion to Open the Public Hearing on Case Number V-25-1-6-1.

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(#2) Motion by Commissioner Peterson seconded by Commissioner Slabozeski, to open a public hearing on case number V-25-1-6-1.
On roll call, the vote was:
AYES: Commissioners Peterson, Slabozeski, Carroll, Butler, Chairman Thomas.
NAYES: None.
ABSENT: Commissioners Stanton, Flynn.
There being five (5) affirmative votes, the MOTION CARRIED.

The Public Hearing was opened at 7:03 p.m.

Chairman Thomas asked the Community Development Consultant Ron Mentzer to present the specifics on this case.

Consultant Mentzer provided a comprehensive overview of the case, which involved a request from A & J Rehab Properties for approval of variations from various sections of the Crest Hill Zoning Ordinance and City Code of Ordinances for the property located at 1813 N. Broadway Street. A & J Rehab Properties is aiming to renovate the existing four-unit apartment building while maintaining numerous existing non-conforming conditions.

Consultant Mentzer detailed the property's history, dating back to the 1920s, originally developed before the City of Crest Hill was incorporated. Over time, this property evolved into what is currently a unique multi-family building on the only multi-family zoned property along this segment of Broadway Street.

The applicant, represented by BR Design and Architecture, purchased the property in a state of disrepair and after the City had posted the property “Not Approved for Occupancy” due to deplorable conditions. They initiated renovations, during which they discovered the central section of the building was structurally unsound, which led them to demolish this section of the building.

Consultant Mentzer highlighted the proposed improvements for the property, including reducing the impervious surface area, paving the driveway, and parking spaces—a compliance measure with the City's current regulations—and complying with landscape planting requirements. Additional improvements include constructing one or two enclosed refuse areas and installing downward-focused illumination for parking spaces.

Moreover, Consultant Mentzer discussed the variations being requested. These include maintaining existing setbacks, unit sizes, and other non-conforming conditions that if not allowed to continue, would require extensive rebuilding in order to comply with current codes, which are not deemed feasible or economically viable for the applicant.

Chairman Thomas asked the representative for the applicant to approach the podium and be sworn in.

Brian Gould, representing BR Design and Architecture, emphasized the property owner's vested interest in the community, given Mr. Cruz's (property owner) business interests close to the subject

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property. Mr. Gould detailed that the triggered need for variances stemmed predominantly from the demolition decision, a step taken to ensure structural integrity and safety.
Chairman Thomas asked the commissioners if anyone had a comment or question.

Commissioners engaged Mr. Brian Gould with questions surrounding garbage stations on the property. Mr. Gould clarified that while two garbage corrals were initially planned, the exact number would be tailored based on the emerging refuse disposal needs and vendor input.

Chairman Thomas asked if anyone in the audience would like to make a public comment. There were none.

Chairman Thomas asked for a Motion to Close the Public Hearing on Case Number V-25-1-6-1.

(#3) Motion by Commissioner Peterson seconded by Commissioner Slabozeski, to close the public hearing on case number V-25-1-6-1.
On roll call, the vote was:
AYES: Commissioners Peterson, Slabozeski, Butler, Carroll, Chairman Thomas.
NAYES: None.
ABSENT: Commissioners Stanton, Flynn.
There being five (5) affirmative votes, the MOTION CARRIED.

The Public Hearing was closed at 7:27 p.m.

Chairman Thomas commented that the home was built in 1920 before Crest Hill was even a City and it is a unique situation and if the City had told the owner to tear it down and start over the owner probably would not have done that because of the expense and that would not be a good thing for Crest Hill or that neighborhood. He also said after the rehab is complete this will enhance the neighborhood. Chairman Thomas then asked the applicant, Mr. Cruz, if he has seen and agreed to the eight (8) conditions and Mr. Cruz stated that he agrees to the eight (8) conditions.

Chairman Thomas asked for a motion to approve the recommendation of case number V-25-1-6-1, the Request of A & J Rehab Properties for the approval variations from various sections of the Crest Hill Zoning Ordinance and the City Code of Ordinances that would allow the existing four-unit apartment building on the 13,374 square foot, R-3 Multi-Family District zoned property located at 1813 N. Broadway Street in Crest Hill, Illinois to be renovated and numerous existing non-conforming conditions to remain on this property post completion of the apartment building renovation project, subject to the applicant's compliance with the eight (8) conditions – outlined in the June 12, 2025 Plan Commission Staff Report for this application.

(#4) Motion by Commissioner Butler seconded by Commissioner Peterson, to approve the recommendation of case number V-25-1-6-1, the Request of A & J Rehab Properties for the approval variations from various sections of the Crest Hill Zoning Ordinance and the City Code of Ordinances that would allow the existing four-unit apartment building on the 13,374 square foot, R-3 Multi-Family District zoned property located at 1813 N. Broadway Street in Crest Hill, Illinois to be renovated and numerous existing non-conforming conditions to remain on this

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property post completion of the apartment building renovation project, subject to the applicant's compliance with the following eight (8) conditions:

1. Remove existing private concrete stairs that connect to the public sidewalk along the west side of Broadway St. and restore disturbed area with grass.
2. Obtain a building permit and construct new refuse container enclosures in the locations reflected on Proposed Site Plan (Staff Report Exhibit F). The design of these enclosures shall comply with applicable City design requirements.
3. Reside and trim all four sides of the 4-unit building with LP Smart Siding composite trim and shake shingle accent details in substantial conformance with the Proposed Elevation Plan (Staff Report Exhibit H).
4. Obtain a building permit and pave the proposed driveway/parking improvements on the property in substantial conformance with the location and dimensions reflected on Proposed Site Plan (Staff Report Exhibit F). The design and striping of these improvements shall comply with applicable City design requirements.
5. Install new "One-Way Entrance" and One-Way Exit" Directional signs on the Subject Property at each private driveway connection to Broadway Street.
6. Restore Disturbed areas on the site that will not be covered with structures or pavement with topsoil and grass or mulch.
7. Install and maintain the landscaping reflected on the proposed Landscape Plan (Staff Report Exhibit I)
8. Amend existing building permit for the building renovation project to accommodate the installation of building mounted light fixtures that would illuminate the proposed parking spaces in front of the building. Cut sheets and mounting details for said fixtures shall be provided in the building permit amendment submittal. Said light fixtures shall be flat glass fixtures mounted so the lens of the fixture is oriented parallel to the ground surface below. "Flood lights" designed and mounted to project light perpendicular to the ground surface are prohibited.

On roll call, the vote was:
AYES: Commissioners Butler, Peterson, Carroll, Slabozeski, Chairman Thomas.
NAYES: None.
ABSENT: Commissioners Stanton, Flynn.
There being five (5) affirmative votes, the MOTION CARRIED.

Chairman Thomas informed the applicant that the Plan Commission is only a recommendation body and that the City Council would discuss the Plan Commission's recommendation on this case at their work session meeting on June 23, 2025.

PUBLIC HEARING: Chairman Bill Thomas presented case number SU-25-3-6-1, the Request from Redemption Hour Ministry (the Applicant), is seeking approval of a special use permit and variations to reactivate the existing subject building for a Church in the R-1, Single Family Residence District zoning property located at the northeast corner of Dearborn Street and Ludwig Avenue with the specific address of 1800 Dearborn Street in Crest Hill, Illinois. The variations being requested are related to bringing the existing conditions of the property into compliance in

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relation to the Crest Hill Zoning Ordinance. No major exterior modifications are being requested with this application.

Chairman Thomas asked if the paperwork is in order. The necessary paperwork was in order.

Chairman Thomas asked for a Motion to Open the Public Hearing on Case Number SU-25-3-6-1. (#5) Motion by Commissioner Peterson seconded by Commissioner Carroll, to open a public hearing on case number SU-25-3-6-1.
On roll call, the vote was:
AYES: Commissioners Peterson, Carroll, Slabozeski, Butler, Chairman Thomas.
NAYES: None.
ABSENT: Commissioners Stanton, Flynn.
There being five (5) affirmative votes, the MOTION CARRIED.

The Public Hearing was opened at 7:34 p.m.

Chairman Thomas asked the Community & Economic Development Director Patrick Ainsworth to present the specifics on this case.

Director Ainsworth presented the case, conveying that the request was from Redemption Hour Ministry for a special use permit and variations necessary to repurpose the structure at 1800 Dearborn Street for a church within the R-1 Single Family Residence District. The property includes a 9,400-square-foot building on a 45,900-square-foot lot, historically serving as a church and known for its stained-glass windows and architectural style, all which Redemption Hour Ministry intends to preserve. He relayed the property's historical context, highlighting its current ownership by the Catholic Archdiocese of Joliet, which ended operations in 2024. Redemption Hour Ministry aims to utilize the site for its worship activities. There are five requests for variations for the existing property, they are not modifying anything, but we are asking for them to add a trash enclosure. The five requests for variations for their existing property are:

1) Table 1 – Zoning District and Standards for Residential Districts – Maximum Lot Coverage – Variation of 9% of the Lot Coverage is being requested for a total allowed lot coverage of 59%.
    - A trash enclosure is required for this property which will slightly increase the total lot coverage for the subject property.
2) Section 11.8-5 - Off-Street Parking – Variation of five (5) parking spaces is being requested.
3) Section 11.4-1 – Parking Configurations – Variation to maintain the current aisle width at 17 feet and four inches instead of the twenty-six feet required is being requested.
4) Section 11.5-3 – Parking Adjacent to Residential – A 10-foot landscaped area needs to be provided in the required side and rear yards to help separate the parking lot from adjacent residential properties. This property is currently improved with an existing parking lot that does not contain landscaped areas in the rear and side yards.
5) Section 11.6-2 - Screening and Landscaping - The removal of parking spaces to install landscape islands would reduce the number of parking spaces provided. As such, a request is being made to eliminate the requirement for landscape islands in order to maintain the existing number of parking spaces on-site.

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Chairman Thomas asked the representatives for the applicant to approach the podium to present their case and be sworn in.

Representing Redemption Hour Ministry were Reverend Henry Amegatcher and Attorney Alena Jotkas who both affirmed their intent to tell the truth. Rev. Amegatcher delivered an in-depth presentation concerning the church's background, intentions, and future plans for the property, stressing preservation of the stained-glass windows and the architectural integrity. Rev. Amegatcher articulated the church's mission to fulfill spiritual and physical needs of society, committing to furthering societal value. Serving approximately seventy congregants, the church intends to use the multi-purpose hall to host activities excluding alcohol consumption, consistent with its tenets.

Chairman Thomas asked if anyone in the audience would like to make a public comment.

Residents like Christine Vershay-Hall and Ray Semplinski raised questions about church operations, including their impact on local parking and community integration. Rev. Amegatcher clarified that the Ministry practices street evangelism within designated areas without door-to-door approaches, ensuring non-invasive interaction. Their provision of counseling encompasses youth support, family services, marriage counseling, and education, extending beyond merely spiritual advice. The church aims to enhance well-being by offering services such as GED training and financial education, aligning with their mission to set captives free mentally and physically.

Maureen Harton, former General Counsel for the Diocese of Joliet, approached the podium and was sworn in. Ms. Harton endorsed the application, underlining the importance of a sustained religious presence supported by the diocese. She referenced data depicting street parking customs during services, consistent with when the property operated as St. Anne's Church. She noted that, when comparing the former St. Anne’s activities and attendance, to the facts stated in the Applicant’s content, the buyer’s activities will involve less people than when St. Anne’s was activated under the Diocese of Joliet.

Chairman Thomas asked if any commissioners had any questions or comments.

Commissioners, including Commissioner Slabozeski, inquired regarding operational facets such as fundraising and cultural event utilization. Rev. Amegatcher clarified that fundraising would center on traditional contributions and offerings primarily collected online. Additionally, he assured compliance with community standards, avoiding noise disturbances during events.

Genny Moore, a resident, approached the bench and was sworn in. Ms. Moore commented that they are excited to hear that it may open as a church but was concerned that the presentation stated that they would be sheltering the homeless. Reverend Amegatcher commented that there would be no sheltering the homeless, it is more serving the homeless, a quarterly service in helping the homeless with hygiene items out in the community, not at the subject property.

Chairman Thomas asked for a Motion to Close the Public Hearing on Case Number SU-25-3-6-1.

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(#6) Motion by Commissioner Carroll seconded by Commissioner Slabozeski, to close the public hearing on case number SU-25-3-6-1.
On roll call, the vote was:
AYES: Commissioners Carroll, Slabozeski, Butler, Peterson, Chairman Thomas.
NAYES: None.
ABSENT: Commissioners Stanton, Flynn.
There being five (5) affirmative votes, the MOTION CARRIED.
The Public Hearing was closed at 8:21 p.m.

Chairman Thomas pointed out a discrepancy in the parking evaluation document, suggesting efforts to rectify prior to presentation to the City Council.

Chairman Thomas asked Reverend Amegatcher if he has reviewed the six (6) condition and have agreed to the conditions and Reverend Amegatcher commented that he accepts and understands the six (6) conditions.

Chairman Thomas asked for a motion to approve the recommendation of case number SU-25-3-6-1, a Request of Redemption Hour Ministry (the Applicant), is seeking approval of a special use permit and variations to reactivate the existing subject building for a Church in the R-1, Single Family Residence District zoning property located at the northeast corner of Dearborn Street and Ludwig Avenue with the specific address of 1800 Dearborn Street in Crest Hill, Illinois. The variations being requested are related to bringing the existing conditions of the property into compliance in relation to the Crest Hill Zoning Ordinance. No major exterior modifications are being requested with this application. The approval is based on six (6) conditions.

(#7) Motion by Commissioner Peterson seconded by Commissioner Carroll, to approve the recommendation of case number SU-25-3-6-1, a Request of Redemption Hour Ministry (the Applicant), is seeking approval of a special use permit and variations to reactivate the existing subject building for a Church in the R-1, Single Family Residence District zoning property located at the northeast corner of Dearborn Street and Ludwig Avenue with the specific address of 1800 Dearborn Street in Crest Hill, Illinois with the following six (6) conditions:

1. The Applicant shall abide by the drawings submitted with this case and are identified below, unless otherwise noted in the remaining conditions:
    a. Drawing A0.5 – Existing Site Plan – last dated 6.3.2025.
    b. Drawings A1.0 and A1.1 – Existing Floor Plan - dated 3.15.2025.
2. Arrows and parking lot signage be added to the paved parking area dictating the direction of traffic for vehicles to ensure safety on the property. The arrow improvements and signage shall be provided to staff for review prior to occupying the principal building.
3. The four pews identified in the drawings labeled for removal within the main worship area shall be removed prior to occupying the building.
4. A trash enclosure shall be constructed by December 31, 2025, or sooner. A permit must first be obtained, and the trash enclosure shall comply with all applicable regulations.
5. The subject parking lot shall be repaved by June 12, 2026, or sooner. A permit must first be obtained prior to repaving the parking lot.

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6. All conditions made with this Ordinance shall be transferred to any new property owner.

On roll call, the vote was:
AYES: Commissioners Peterson, Carroll, Slabozeski, Butler, Chairman Thomas.
NAYES: None.
ABSENT: Commissioners Stanton, Flynn.
There being five (5) affirmative votes, the MOTION CARRIED.

Chairman Thomas informed the applicant that the Plan Commission is only a recommendation body and that the City Council would hear their case at the work session on June 23, 2025, and have an official vote.

PUBLIC HEARING: Chairman Bill Thomas presented case number TXT-25-1-6-1, regarding amendments to the Crest Hill Zoning Ordinance – the applicant is the City of Crest Hill. The amendments to the Crest Hill Zoning Ordinance would modify the following sections: Section 2 Definitions, Section 8 General Standards and Regulations of Uses, Section 11 Off Street Parking and Loading, Table 4 Index of Permitted & Special Uses: Non-Residential Uses, and other possible sections. The proposed text amendment will add or amend the following aspects of the Zoning Ordinance: defining Motor Vehicles, definition, land use concept and regulations for Junkyard, Motor Vehicle Salvage Yard, Bus, Truck, Tractor and Boat Storage Yard, Architectural Salvage Facility, Storage Garage, Contractor and Landscaping Based Business, Barber Shop/Beauty Parlor/Salon, Alternative Beauty and Personal Services, Fire Arm Sales, Off-Premise FFL Transfer Businesses, Firearm Manufacturer, amongst other possible topics.

Chairman Thomas asked if the paperwork is in order. The necessary paperwork was in order.

Chairman Thomas asked for a Motion to Open the Public Hearing on Case Number TXT-25-1-6-1.

(#8) Motion by Commissioner Carroll seconded by Commissioner Slabozeski, to open a public hearing on case number TXT-25-1-6-1.
On roll call, the vote was:
AYES: Commissioners Carroll, Slabozeski, Butler, Peterson, Chairman Thomas.
NAYES: None.
ABSENT: Commissioners Stanton, Flynn.
There being five (5) affirmative votes, the MOTION CARRIED.

The Public Hearing was opened at 8:35 p.m.

Chairman Thomas asked the Community & Economic Development Director Patrick Ainsworth to present the specifics on this case.

The applicant for this case is the City of Crest Hill Community Development Department, seeking approval for proposed text amendments to the Crest Hill Zoning Ordinance. Director Ainsworth presented the proposed amendments, emphasizing how these changes were designed to update and clarify definitions and regulations for four categories of land uses: motorized vehicle storage and salvage related activities, contractor and landscaping based businesses.

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Director Ainsworth detailed each category's proposed changes, starting with the motorized vehicle storage and salvage-related activities. These amendments include modifying definitions, reevaluating permitted uses, and adding specific conditions for special use permits within various zoning districts. Director Ainsworth explained that the amendments aim to create clear guidance for the City and potential business owners, helping streamline processes and ensure alignment with current community standards.
For contractors and landscaping-based businesses, Director Ainsworth noted that the amendments propose new definitions to clearly classify these businesses, addressing existing ambiguities. The revised zoning code would more accurately reflect the type and scope of such businesses permitted within Crest Hill, providing a structured framework for business operations. This includes certain allowances in the B-3 district, requiring special use permits to accommodate specific circumstances while maintaining community integrity.

In the category of beauty and personal service-related businesses, the amendments introduce precise definitions and stipulations to regulate emerging trends and services. Director Ainsworth expressed that these clarifications would support business compliance with state licensing requirements and local standards, such as the inclusion of alternative beauty services that were not previously defined.

The firearm-related business amendments were approached with careful consideration of constitutional rights, setting specific geographical restrictions to prevent proximity to sensitive areas like schools, parks, and residential zones. Director Ainsworth presented maps illustrating potential locations for firearm-related businesses under the proposed zoning ordinances, featuring a 150-foot buffer zone to safeguard community interests.

Chairman Thomas thanked and commended Director Ainsworth, Consultant Mentzer, and Attorney Stiff for cleaning up the zoning and commented that this will be great for the next generation to come.

Consultant Mentzer contributed additional remarks, highlighting the significance of these amendments in creating a transparent and coherent zoning framework. Consultant Mentzer also explained the challenges faced by city staff and business owners due to previous ambiguities in the zoning ordinance. The clarifications introduced in these amendments would substantially benefit administrative processes and the decision-making framework for potential developers and business operators within Crest Hill.

Commissioner Carroll thanked them as well for making his job easier in the great staff reports they give with all the information provided.

Chairman Thomas asked if there was any one in the audience who would like to comment or ask a question. There were none.

Chairman Thomas asked for a Motion to Close the Public Hearing on Case Number TXT-25-1-6-1.

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(#9) Motion by Commissioner Carroll seconded by Commissioner Peterson, to close the public hearing on case number TXT-25-1-6-1.
On roll call, the vote was:
AYES: Commissioners Carrol, Peterson, Slabozeski, Butler, Chairman Thomas.
NAYES: None.
ABSENT: Commissioners Stanton, Flynn.
There being five (5) affirmative votes, the MOTION CARRIED.
Chairman Thomas asked for a motion to approve the recommendation regarding amendments to the Crest Hill Zoning Ordinance – the applicant is the City of Crest Hill. The amendments to the Crest Hill Zoning Ordinance would modify the following sections: Section 2 Definitions, Section 8 General Standards and Regulations of Uses, Section 11 Off Street Parking and Loading, Table 4 Index of Permitted & Special Uses: Non-Residential Uses, and other possible sections. The proposed text amendment will add or amend the following aspects of the Zoning Ordinance: defining Motor Vehicles, definition, land use concept and regulations for Junkyard, Motor Vehicle Salvage Yard, Bus, Truck, Tractor and Boat Storage Yard, Architectural Salvage Facility, Storage Garage, Contractor and Landscaping Based Business, Barber Shop/Beauty Parlor/Salon, Alternative Beauty and Personal Services, Fire Arm Sales, Off-Premise FFL Transfer Businesses, Firearm Manufacturer, amongst other possible topics.

(#10) Motion by Commissioner Carroll seconded by Commissioner Butler, to approve the recommendation regarding amendments to the Crest Hill Zoning Ordinance – the applicant is the City of Crest Hill. The amendments to the Crest Hill Zoning Ordinance would modify the following sections: Section 2 Definitions, Section 8 General Standards and Regulations of Uses, Section 11 Off Street Parking and Loading, Table 4 Index of Permitted & Special Uses: Non-Residential Uses, and other possible sections. The proposed text amendment will add or amend the following aspects of the Zoning Ordinance: defining Motor Vehicles, definition, land use concept and regulations for Junkyard, Motor Vehicle Salvage Yard, Bus, Truck, Tractor and Boat Storage Yard, Architectural Salvage Facility, Storage Garage, Contractor and Landscaping Based Business, Barber Shop/Beauty Parlor/Salon, Alternative Beauty and Personal Services, Fire Arm Sales, Off-Premise FFL Transfer Businesses, Firearm Manufacturer, amongst other possible topics.
On roll call, the vote was:
AYES: Commissioner Carroll, Butler, Slabozeski, Peterson, Chairman Thomas.
NAYES: None.
ABSENT: Commissioner Stanton, Flynn.
There being five (5) affirmative votes, the MOTION CARRIED.

Chairman Thomas informed the applicant that the Plan Commission is only a recommendation body and that the City Council would hear their case at the work session on June 23, 2025, and have an official vote.

OTHER BUSINESS: Chairman Thomas initiated the annual reorganization of the Plan Commission Officers. He commented that this is to re-elect the officers of the Plan Commission.

Commissioner Carroll recommended to reappoint Bill Thomas as the Chairman of the Plan Commission.

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(#11) Motion by Commissioner Carroll seconded by Commissioner Slabozeski, to reappoint Bill Thomas as the Chairman of the Plan Commission. *No roll call was taken.

Chairman Thomas recommended to reappoint Ken Carroll as Vice-Chairman of the Plan Commission.
(#12) Motion by Chairman Thomas seconded by Commissioner Slabozeski, to reappoint Ken Carroll as the Vice-Chairman of the Plan Commission. *No roll call was taken.

Executive Secretary Samantha Tilley asked to do a roll call and Chairman Thomas stated that he would do one roll call at the end.

Chairman Thomas then recommended to appoint Cheryl Slabozeski as Secretary of the Plan Commission.

(#13) Motion by Chairman Thomas seconded by Commissioner Butler, to appoint Cheryl Slabozeski as the Secretary of the Plan Commission. * No roll call was taken.

Chairman Thomas then stated that the Plan Commission Officers are as follows:

Bill Thomas, Chairman
Ken Carroll, Vice-Chairman
Cheryl Slabozeski, Secretary

Chairman Thomas then asked if anyone had any other business. There was none.

Executive Secretary Samantha Tilley asked if there would be a roll call since motions were taken on the reorganization. Chairman Thomas commented that one roll call was done for all three. Attorney Stiff asked if the motion made was for all three. Chairman Thomas stated that yes it was for all three.

**(After talking to the attorney at the end of the meeting, no roll call was called, and the reorganization will be continued to the next meeting).

PUBLIC COMMENTS: There were no public comments.

There being no further business before the Commission, a motion for adjournment was in order.

(#14) Motion by Commissioner Peterson seconded by Commissioner Slabozeski, to adjourn the April 24, 2025, Plan Commission meeting.
On roll call, the vote was:
AYES: Commissioners Peterson, Slabozeski, Carroll, Butler, Chairman Thomas.
NAYES: None.
ABSENT: Commissioner Stanton, Flynn.
There being five (5) affirmative votes, the MOTION CARRIED

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The meeting was adjourned at 9:02 p.m.

As approved this_____day of_____, 2025.
As presented_____
As amended_____

_____
BILL THOMAS, COMMISSION CHAIRMAN

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To: Plan Commission

From: Daniel Ritter, AICP, Community and Economic Development Director
Ronald Mentzer, Community and Economic Development Consultant

Date: September 11, 2025

Re: 16825 Churnovic Lane, Amazon Sortation Facility - Variation City Code and Zoning Ordinance Variation Requests – Plan Commission Case # V-25-2-9-1

Project Details

Project:	MDW5 Yard Connection
Applicant:	Amazon.com
Requests:	A City Code Variation for increased driveway width on Lidice Parkway and a Zoning Variation for a reduction in parking lot landscape islands.
Location:	16825 Churnovic Lane (the "Subject Property")

Site Details

Lot Size:	Approximately 26.63 acres
Existing Zoning:	M-1 Limited Manufacturing District
Existing Improvements:	440,000 sq. ft. office/warehouse building, 539 space parking lot, and 118 semi-trailer parking spaces

Surrounding Zoning and Land Use Summary

	Land Use	Comp Plan	Zoning
Subject Parcel	Office/Warehouse	Light Industrial	M-1
North	Municipal Water Tower and Townhomes	Single-family Attached and Utilities	R-3 and M-1
South	Office/Warehouse Bldg.	Light Industrial	M-1
East	Vacant and Truck Terminal	Commercial and Light Industrial	M-1
West	Office/Warehouse/Industrial Bldg.	Light Industrial	M-1

Attachments

Application documents submitted by Applicant include:

- 6/03/2025 Application for Development/Variations
- 8/25/2025 Applicant response to Zoning Ordinance Standards for Variations
- 7/18/2025 Final Engineering Plans (includes Landscape Plans)
- 7/21/2025 Project Narrative
- 6/30/2025 Traffic Memorandum

Application Background and Project Summary

The Subject Property was originally developed as a speculative industrial/warehouse facility in 2016. The property was subsequently leased to the Applicant in 2017. The Applicant has been utilizing the facility for one of its midwest package sorting facilities since taking occupancy of the building in 2017.

At this time, the Applicant is proposing to implement a variety of site modifications that are collectively designed to reduce truck traffic and queueing on the surrounding public road network and make it safer for employees to walk between the building and parking areas on the site. Key proposed site modifications include:

1. Removal of the employee parking along the south end of the existing building and relocation of the existing guard shack driveway at the southeast corner of the property slightly to the east. These modifications allow Amazon trucks to circulate between the dock doors east and west sides of the building without using the adjacent public roadway network.
2. Adding new parking, sidewalk, crosswalk, signage, speed bump, and striping improvements in the existing northern employee parking lot to improve safety for employees walking between their vehicles and the building.

Summary of Requested Variations

To implement the above summarized site modifications, the Applicant is requesting City approval of the following variations:

1. **Increased Driveway Width:** A variation from Section 15.040 of the City of Crest Hill City Code that allows the proposed relocated southwest driveway onto Lidice Parkway to be approximately 71 feet wide. This section of the City Code establishes the maximum width of commercial driveways at 30 feet. The existing driveway at this location is approximately 80 feet in width and is considered a non-conforming condition. To reconstruct this driveway at a new location and comply with code, it needs to be constructed with a width of 30 feet or less.
2. **Reduced Parking Lot Landscaping:** A variation from Section 11.6-2 of the City of Crest Hill Zoning Ordinance that allows the existing required internal parking lot landscape islands in the north parking lot to be replaced with pedestrian sidewalk improvements. According to Section 11.6-2 of the Zoning Ordinance, a landscape island is required at the end of each row of parking and at a ratio of one landscape island for every 20 parking spaces. The Applicant proposes to replace eight existing landscape islands in the northern parking lot with pedestrian sidewalk islands.

Staff Analysis

Overall, staff believes the Applicant's proposed parking lot, site circulation, driveway, and landscaping improvements will enhance on-site pedestrian safety, improve on-site truck circulation, and reduce the amount of Amazon related truck traffic on the adjacent roadways. Staff is of the opinion that the variation requests are reasonable and acceptable given the underlying zoning of the property, history of the site improvements, and the character of the Applicant's site and the adjacent business park.

Staff feedback on specific aspects of the Applicant's proposed project:

Parking Requirements: The proposed project involves the elimination and relocation of 124 existing parking spaces along the south end of the existing building. 32 of these parking spaces will be replaced as part of the proposed northern parking lot improvements. Sheet C2.0 includes detailed "Required" and "Proposed" parking calculations for the site. Staff has reviewed these calculations and determined that the total number of proposed parking spaces on the site, post-project implementation, satisfies applicable Zoning Ordinance parking requirements. Based on the three-shift schedule the Applicant utilizes at this facility, staff believes the 447 parking spaces that will exist on the site post project implementation are sufficient to satisfy the parking needs of the facility.

Traffic and Circulation Study: The Applicant prepared and submitted a detailed traffic and circulation study for the proposed project. The City Engineer has reviewed the study and concurs with the following key study conclusions:

- The proposed site access changes are not expected to materially impact the study network.
- With the proposed access changes, site-generated truck traffic will circulate on-site, thereby minimizing truck traffic on Enterprise Boulevard.
- No off-site intersection improvements are necessary as a result of the proposed project.

The Lockport Fire Protection District has reviewed the application documents for this project and has no objections to the approval and implementation of the proposed site access, circulation, and parking lot revisions.

Landscaping: The proposed project requires the removal of 35 existing trees and the addition of 6,875 square feet of additional impervious area on the site. The proposed landscape plans for the project reflect the proposed installation of 106 new trees. The majority of the new trees will be planted in and around the existing and proposed parking lot improvements located at the north end of the building. Staff believes the proposed location, quantity, and species of trees around the north parking lot improvements materially enhance how these parking improvements are buffered from nearby residential properties and adjacent public streets.

Variation Approval Standards and Findings

Section 12.6-2 of the Zoning Ordinance states the Plan Commission shall recommend, and the City Council shall grant a variation only when it shall have been determined, and recorded in writing, that all of the following standards are complied with. Staff findings are identified in bold italic font. The Applicant has also included its responses to these standards in the supporting application materials distributed to the Plan Commission for this case.

1. That the property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in that zone.

   The requested variations involve proposed site improvements designed to improve pedestrian safety and truck circulation on the Applicant's site and reduce unnecessary truck traffic on adjacent public roadways. Approval of the variations required to implement these improvements ensures the property can continue to operate efficiently and safely and yield a reasonable return.

2. That the plight of the owner is due to unique circumstances.

   In combination, the configuration of the existing building, site, and adjacent roadway improvements, the nature of the Applicant's business, its three-shift operations schedule, and the significant amount of semi-trailer truck traffic it generates collectively represent unique circumstances that warrant the approval of the requested variations.

3. That the variation, if granted, will not alter the essential character of the locality. ***The existing driveway the Applicant is proposing to relocate at the southeast corner of the site is wider than the proposed new driveway. Therefore, the impact of a wider driveway width has on the character of the area has already been established and appears to be negligible. Furthermore, the proposed width of the relocated driveway is representative of the other commercial/truck access drives found throughout the Crest Hill Industrial Park.***

   The elimination and replacement of eight existing landscape islands in the northern parking lot with approximately 40 new deciduous and evergreen trees planted around the site perimeter is expected to enhance the overall character of the site when viewed from the adjacent public street network and the residential neighborhood to the north.

In addition, Section 12.6-2 of the Zoning Ordinance further suggests the Plan Commission supplement the above standards by taking into consideration the extent to which the facts listed on Exhibit A have been established by the evidence presented during the public hearing process and further support the approval of the Applicant's requests.

Staff Recommendation
Based on the findings reflected in this staff report, Staff recommends:

The Plan Commission recommends City Council conditional approval of variations from Sections 15.040 of the City of Crest Hill City Code and 11.6-2 of the City of Crest Hill Zoning Ordinance that allows (i) the proposed relocated Lidice Parkway driveway to be approximately 71-feet wide and (ii) eight existing required internal parking lot landscape islands in the north parking lot to be replaced with pedestrian sidewalk improvements subject to the project being implemented in substantial conformance with the application documents referenced in the September 11, 2025, Plan Commission Staff Report for Case # V-25-2-9-1.

Exhibit A

Supplemental Variation Approval Facts to Consider Per Zoning Ordinance Section 12.6-2

1. *That the particular physical surroundings, shape, or topographical condition of the specific property involved will result in a particular hardship upon the owner, as distinguished from a mere inconvenience, if the strict letter of the regulations were carried out.*
2. *The conditions upon which the petition for a variation is based are unique to the property owner for which the variation is sought and are not applicable, generally, to the other property within the same zoning classification.*
3. *That the alleged difficulty or hardship is caused by the Ordinance and has not been created by any person presently having an interest in the property.*
4. *That the proposed variation will not impair an adequate supply of light and air to adjacent property or substantially increase 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 adjacent neighborhood.*
5. *That the variation does not permit a use otherwise excluded from the particular zone except for uses authorized by the Plan Commission, subject to the approval of the City Council, as "similar and compatible uses."*
6. *That the variation granted is the minimum adjustment necessary for the reasonable use of the land.*
7. *That the granting of any variation is in harmony with the general purposes and intent of the Zoning Ordinance, and will not be injurious to the neighborhood, be detrimental to the public welfare, alter the essential character of the locality, or be in conflict with the Comprehensive Plan for development of the City.*
8. *That, for reasons fully set forth in the recommendations of the Plan Commission, and the report of the City Council, the aforesaid circumstances or conditions are such that the strict application of the provisions of the Zoning Ordinance deprives the applicant of any reasonable use of his land. Mere loss in value shall not justify a variation; there must be a deprivation of beneficial use of land.*

Docusign Envelope ID: B7A3ADE7-8BF3-46E7-87F4-9DF8CC05236B

Application for Development

For Office Use Only: **Case Number:**

Project Name: MDW5 - YARD CONNECTION

Owner: BREIT Industrial Canyon IL1B04 LLC

Street address: [redacted]

City, St., Zip: [redacted]

Phone: [redacted]

Email: [redacted]

Correspondence To: Agnes Jagoda - SPM

Street address: [redacted]

City, St., Zip: [redacted]

Phone:

Email:

Property Address:

Street address: 16825 CHURNOVIC LANE

City, St., Zip: CREST HILL, IL, 60435

PIN: 04-30-102-010-0000 AND 04-30-102-011-0000

Property Information:

Lot Width: LOT 15 - +/- 617' AND LOT 16 - +/- 993'

Lot Depth: LOT 15 - +/- 260' AND LOT 16 - +/- 1,015'

Total Area: 26.63 AC

*Submit an electronic version of the legal description only in a Word document to: buildingdepartment@cityofcresthill.com

Existing Zoning: M-1

Existing Land Use: WAREHOUSE & OFFICE

Requested Zoning: M-1

Proposed Land Use: WAREHOUSE & OFFICE

Adjoining Properties Zoning and Uses:

North of Property: R-3 - MULTIFAMILY RESIDENTIAL

South of Property: M-1 - INDUSTRIAL WAREHOUSE W/ SPECIAL USE

East of Property: M-1 - INDUSTRIAL WAREHOUSE

West of Property: M-1 - INDUSTRIAL WAREHOUSE

Purpose Statement (intended use and approval sought): pursuing a variance for section 15.04.040 that states the maximum width of a curb cut is 30'. The intent is to allow for a 45' curb cut.

Docusign Envelope ID: B7A3ADE7-8BF3-46E7-87F4-9DF8CC05236B

Development Request: Please check all that apply and describe:

[ ] Rezoning:_____

[ ] Special Use:_____

[X] Variance: pursuing a variance for section 15.04.040 that states the maximum width of a curb cut is 30'. The existing southeast curb cut and proposed curb cut is approximately 45' to allow for the connection of the truck yard and decrease the amount of truck queuing on adjacent roads.

[ ] Planned Unit Development:_____

[ ] Annexation:_____

[ ] Plat:_____

[ ] Other:_____

Contact Information – If not yet known, please indicate as TBD. Check those parties in which copies of all correspondences should be forwarded.

[X] Civil Engineer: MARTA GAPPY Phone: [redacted]

Company: KIMLEY-HORN AND ASSOCIATES Email: [redacted]M

[ ] Contractor:_____ Phone:_____

Company:_____ Email:_____

[X] Architect: SARAH VOSS Phone: [redacted]

Company: PDMS DESIGN GROUP Email: [redacted]

[ ] Builder:_____ Phone:_____

Company:_____ Email:_____

I agree to be present (in person or by counsel) when the Plan Commission and City Council hear this development request.

_____ _____

Signature of the Applicant Date

If you (the applicant) are not the owner of record, please provide the owner's signature.

DocuSigned by: Robert Damrat 20F0A473FEF3481... 6/30/25

Signature of the Owner Date

To whom it may concern:

The following is a response to the City of Crest Hill “Standards for Variations.” All responses are in **bold** lettering unless otherwise noted.

The variance may only be granted by the City Council if it is determined, and recorded in writing, that the following standards are met:

- *That the property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in that zone*
    - **There are no alterations to the existing and allowed use of the property as a part of these variance requests.**
- *That the plight of the owner is due to unique circumstances*
    - **The proposed curb cut width matches the existing condition and is not being increased. Relocation of the curb cut is necessary due to site constraints created by the existing yard configuration and building placement. Without this relocation, safe two-way truck traffic cannot be accommodated, creating a functional hardship for the operation of the facility.**
    - **The proposed pedestrian sidewalk connections within the north parking lot are essential to improving associate safety. Removing parking stalls to accommodate these crossings would create the need for additional ordinance variations with the City. Utilizing the existing landscape islands instead provides a practical solution that meets safety needs while minimizing regulatory conflicts, making it the most effective option for both the City and the applicant.**
- *That the variation, if granted, will not alter the essential character of the locality*
    - **There are no alterations to the existing and allowed use of the property as a part of these variance requests.**

The Plan Commission may issue a determination only upon finding that the following standards have been met:

- That 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.
    - **The proposed curb cut width matches the existing condition and is not being increased. Relocation of the curb cut is necessary due to site constraints created by the existing yard configuration and building placement. Without this relocation, safe two-way truck traffic cannot be accommodated, creating a functional hardship for the operation of the facility.**
    - **The proposed pedestrian sidewalk connections within the north parking lot are essential to improving associate safety. Removing parking stalls to accommodate these crossings would create the need for additional ordinance variations with the City. Utilizing the existing landscape islands instead provides a practical solution that meets safety needs while minimizing regulatory conflicts, making it the most effective option for both the City and the applicant given existing site constraints.**
- The conditions upon which the petition for a variance is based are unique to the property owner for which the variance is sought and are not applicable, generally, to the other property within the same zoning classification.

    - **To the developer's knowledge, this condition was not created by the current property owner and is unique to the site's existing configuration and operational needs of the tenant.**
- That the alleged difficulty or hardship is caused by the Ordinance and has not been created by any person presently having an interest in the property.
    - **To the developer's knowledge, this condition was not created by the current property owner but rather stems from the site's existing configuration and operational needs of the tenant.**
- That the proposed variation will not impair an adequate supply of light and air to adjacent property or substantially increase 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 adjacent neighborhood.
    - **The proposed variations are not anticipated to negatively impact light, air, traffic flow, safety, or surrounding property values. The design intent is to maintain safe operations while minimizing any potential effects on adjacent properties or the neighborhood.**
- That the variation does not permit a use otherwise excluded from the particular zone except for uses authorized by the Plan Commission, subject to the approval of the City Council, as "similar and compatible uses."
    - **There are no alterations to the existing and allowed use of the property as a part of these variance requests.**
- That the variation granted is the minimum adjustment necessary for the reasonable use of the land.
    - **The proposed curb cut width matches the existing condition and is not being increased. Relocation of the curb cut is necessary due to site constraints created by the existing yard configuration and building placement.**
    - **The minimum pedestrian sidewalks to maintain associate safety and meet tenant standards are proposed.**
- That the granting of any variation is in harmony with the general purposes and intent of the Zoning Ordinance, and will not be injurious to the neighborhood, be detrimental to the public welfare, alter the essential character of the locality, or be in conflict with the Comprehensive Plan for development of the City.
    - **The proposed variations are anticipated to be harmonious with the general purposes and intent of the Zoning Ordinance and not be injurious to the neighborhood, be detrimental to the public welfare, alter the essential character of the locality, or conflict with the Comprehensive Plan for development of the City.**

- That, for reasons fully set forth in the recommendations of the Plan Commission, and the report of the City Council, the aforesaid circumstances or conditions are such that the strict application of the provisions of the Zoning Ordinance would deprive the applicant of any reasonable use of his land. Mere loss in value shall not justify a variation; there must be a deprivation of beneficial use of land.
    - **To the developer's knowledge, this condition was not created by the current property owner but rather stems from the site's existing configuration and operational needs of the tenant. The proposed variations are not due to loss in value of land.**

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

FINAL ENGINEERING PLANS

TENANT IMPROVEMENTS

16825 CHURNOVIC LANE
CREST HILL, IL 60435

Call Before You Dig JULIE 1-800-892-0123

UTILITY AND GOVERNING AGENCY CONTACTS

COMMUNITY DEVELOPMENT
CITY OF CREST HILL
1610 PLAINFIELD ROAD
CREST HILL, IL 60403
TEL: (815) 741-5106
CONTACT: DON SEEMAN
EMAIL: DSEEMAN@@CITYOFCRESTHILL.COM

SANITARY SEWER SERVICE
WATER & WASTEWATER DEPARTMENT
CITY OF CREST HILL
2250 NORTH BROADWAY STREET
CREST HILL, IL 60403
TEL: (815) 741-5108
CONTACT: MIKE EULITZ
EMAIL: MEULITZ@CITYOFCRESTHILL.COM

STORM SEWER SERVICE
WATER & WASTEWATER DEPARTMENT
CITY OF CREST HILL
2250 NORTH BROADWAY STREET
CREST HILL, IL 60403
TEL: (815) 741-5108
CONTACT: MIKE EULITZ
EMAIL: MEULITZ@CITYOFCRESTHILL.COM

WATER SERVICE
WATER & WASTEWATER DEPARTMENT
CITY OF CREST HILL
2250 NORTH BROADWAY STREET
CREST HILL, IL 60403
TEL: (815) 741-5108
CONTACT: MIKE EULITZ
EMAIL: MEULITZ@CITYOFCRESTHILL.COM

ROADWAY AUTHORITY
PUBLIC WORKS & STREET DEPARTMENT
CITY OF CREST HILL
2250 NORTH BROADWAY STREET
CREST HILL, IL 60403
TEL: (815) 741-5108
CONTACT: MIKE EULITZ
EMAIL: MEULITZ@CITYOFCRESTHILL.COM

POWER COMPANY
COMMONWEALTH EDISON
TEL: (800) 334-7661

NATURAL GAS COMPANY
NORTHERN ILLINOIS GAS COMPANY (NICOR)
TEL: (888) 642-6748

TELEPHONE
AT&T
TEL: (800) 288-2020

PROJECT TEAM

TENANT
AMAZON
420 TERRY AVENUE NORTH
SEATTLE, WA 98109
CONTACT: ALYSSIA LESTER
EMAIL: ALYMLEST@AMAZON.COM

CIVIL ENGINEER
KIMLEY-HORN AND ASSOCIATES, INC.
4201 WINFIELD RD, SUITE 600
WARRENVILLE, IL 60555
CONTACT: JARED KENYON, P.E.
TEL: (331) 481-7329
EMAIL: JARED.KENYON@KIMLEY-HORN.COM

KIMLEY-HORN AND ASSOCIATES, INC.
4201 WINFIELD RD, SUITE 600
WARRENVILLE, IL 60555
CONTACT: MARTA GAPPY
TEL: (331) 888-3282
EMAIL: MARTA.GAPPY@KIMLEY-HORN.COM

LANDSCAPE ARCHITECT
KIMLEY-HORN AND ASSOCIATES, INC.
4201 WINFIELD RD, SUITE 600
WARRENVILLE, IL 60555
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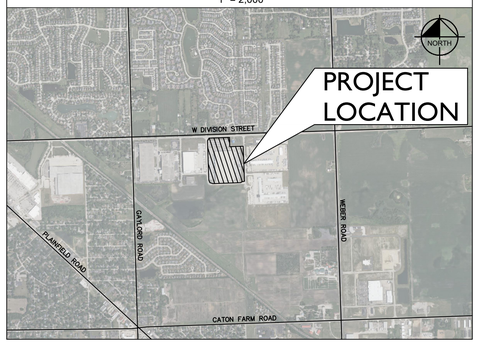
TEL: (331) 684-8940
EMAIL: JOE.COGSWELL@KIMLEY-HORN.COM

SURVEYOR
KIMLEY-HORN AND ASSOCIATES, INC.
4201 WINFIELD RD, SUITE 600
WARRENVILLE, IL 60555
CONTACT: BRADLEY A. STROHL
TEL: (331) 209-0476
EMAIL: BRAD.STROHL@KIMLEY-HORN.COM

LOCATION MAP

1" = 2,000'



BENCHMARKS

REFERENCE DATUM

NORTH AMERICAN VERTICAL DATUM 1988

BENCHMARK #1 ELEVATION = 639.47'

"+" CUT SET IN CONCRETE AT THE BASE OF AN AMAZON DIRECTORY SIGN, 50'± SOUTHEAST OF THE SOUTHEAST CORNER OF THE INTERSECTION OF W DIVISION STREET AND CHURNOVIC LANE, AND 24' EAST OF A STORM DRAIN MANHOLE.

BENCHMARK #2 ELEVATION = 641.76'

"+" CUT SET IN CONCRETE AT THE BASE OF A LIGHT POLE LOCATED SOUTH OF W DIVISION STREET AT THE CENTRAL PART OF SITE.

BENCHMARK #3 ELEVATION = 639.64'

BENCHMARK NORTH 15.07 FEET NORTH AND EAST 35.78 FEET OF WATER TOWER OVERFLOW ON THE EAST SIDE OF THE SITE.

BENCHMARK #4 ELEVATION = 635.83'

"+" CUT SET IN CONCRETE AT THE BASE OF A LIGHT POLE ON THE SOUTHEAST SIDE OF THE AMAZON PARKING LOT, 60'± NORTH OF THE NORTH EDGE OF LIDICE PKWY.

BENCHMARK #5 ELEVATION = 635.57'

"+" CUT SET IN CONCRETE SIDEWALK, NORTH 64.33' AND EAST 35.22' OF STORM MANHOLE.

BENCHMARK #6 ELEVATION = 638.51'

"+" CUT SET IN CONCRETE AT THE BASE OF A LIGHT POLE ON THE SOUTHWEST SIDE OF THE AMAZON PARKING LOT, 10'± WEST OF A FIRE HYDRANT, AND 25'± NORTH OF THE NORTH EDGE OF LIDICE PKWY.

LEGAL DESCRIPTION

LOTS 15 AND 16 IN CREST HILL INDUSTRIAL PARK PUD PHASE VI RESUBDIVISON NO. 1, BEING A SUBDIVISION OF PART OF THE NORTHWEST QUARTER AND THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 36 NORTH, RANGE 10 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED AS DOCUMENT NUMBER R2016-074215, ALL IN LOCKPORT TOWNSHIP, WILL COUNTY, ILLINOIS.

Sheet List Table

Sheet Number	Sheet Title
C0.0	COVER SHEET
C0.1	GENERAL NOTES
C1.0	DEMOLITION PLAN
C2.0	SITE PLAN
C3.0	SIGNAGE & STRIPING PLAN
C4.0	EROSION CONTROL PLAN
C4.1	EROSION CONTROL DETAILS
C5.0	GRADING PLAN
C5.1	GRADING DETAILS
C6.0	UTILITY PLAN
C6.1	UTILITY PROFILES & TABLES
C7.0	CONSTRUCTION DETAIL
C7.1	SIGNAGE & STRIPING DETAILS
C7.2	SIGNAGE & STRIPING DETAILS
L1.0	LANDSCAPE PLAN
L2.0	LANDSCAPE DETAILS
L2.1	LANDSCAPE SPECIFICATIONS
L3.0	LANDSCAPE AS-BUILT
L3.1	LANDSCAPE AS-BUILT
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PH1.0	OVERALL PHOTOMETRIC PLAN
E0.00	ELECTRICAL SYMBOLS & NOTES
E1.00	ELECTRICAL SITE PLAN
E2.00	GUARD SHACK PLANS & DETAILS
E3.00	ELECTRICAL ONE LINE DIAGRAM
A1.01	ENLARGED SITE PLAN & EXTERIOR ELEVATIONS
S0.00	STRUCTURAL GENERAL NOTES
S1.00	GUARD SHACK FOUNDATION PLAN AND DETAILS

PROFESSIONAL ENGINEER'S CERTIFICATION

I, JARED KENYON, A LICENSED PROFESSIONAL ENGINEER OF IL, HEREBY CERTIFY THAT THIS SUBMISSION, PERTAINING ONLY TO THE "C" SERIES CIVIL SHEETS LISTED ABOVE BUT EXCLUDING DETAILS PREPARED BY OTHERS, WAS PREPARED ON BEHALF OF AMAZON BY KIMLEY-HORN AND ASSOCIATES, INC. UNDER MY PERSONAL DIRECTION. THIS TECHNICAL SUBMISSION IS INTENDED TO BE USED AS AN INTEGRAL PART OF AND IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS AND CONTRACT DOCUMENTS.

DATED THIS 18TH DAY OF JULY , A.D., 2025.

_____
IL LICENSED PROFESSIONAL ENGINEER 062-059479
MY LICENSE EXPIRES ON NOVEMBER 30, 2025
DESIGN FIRM REGISTRATION NUMBER: 184002012-0006

LICENSED PROFESSIONAL ENGINEER
JARED J. KENYON
062-059479
STATE OF ILLINOIS

Date of Expiration: 11-30-25

No.	REVISIONS	DATE

Kimley»Horn

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4201 WINFIELD ROAD, SUITE 600, WARRENVILLE, IL 60555
PHONE: 630-487-5550
WWW.KIMLEY-HORN.COM

KHA PROJECT 168864455
DATE 7/18/2025
SCALE AS SHOWN
DESIGNED BY: MAG
DRAWN BY: MAG
CHECKED BY: JF

COVER SHEET

MDW5
16825 CHURNOVIC LANE
CREST HILL, IL 60435
WILL COUNTY IL

SHEET NUMBER C0.0

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GENERAL NOTES

1. EXISTING SITE TOPOGRAPHY, UTILITIES, RIGHT-OF-WAY AND HORIZONTAL CONTROL SHOWN ON THE DRAWINGS WERE OBTAINED FROM A SURVEY PREPARED BY:

   KIMLEY-HORN AND ASSOCIATES, INC.
   4201 WINFIELD RD, SUITE 600
   WARRENVILLE, IL 60555
   TEL: (331) 207-4823
   EMAIL: MATT.JONES@KIMLEY-HORN.COM
   CONTACT: MATT JONES

   COPIES OF THE SURVEY ARE AVAILABLE FROM THE ENGINEER. SITE CONDITIONS MAY HAVE CHANGED SINCE THE SURVEY WAS PREPARED. CONTRACTORS TO VISIT SITE TO FAMILIARIZE THEMSELVES WITH THE CURRENT CONDITIONS.

2. COPIES OF SOILS INVESTIGATION REPORTS MAY BE OBTAINED FROM THE OWNER. ANY BRACING, SHEETING OR SPECIAL CONSTRUCTION METHODS DEEMED NECESSARY BY THE CONTRACTOR IN ORDER TO INSTALL THE PROPOSED IMPROVEMENTS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE PROJECT. ANY ADDITIONAL SOILS DATA NEEDED TO CONFIRM THE CONTRACTOR'S OPINIONS OF THE SUBSOIL CONDITIONS SHALL BE DONE AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL OBTAIN THE OWNER'S WRITTEN AUTHORIZATION TO ACCESS THE SITE TO CONDUCT A SUPPLEMENTAL SOILS INVESTIGATION.

3. THE CONTRACTOR SHALL PHOTOGRAPH THE WORK AREA PRIOR TO CONSTRUCTION FOR THE PURPOSE OF DOCUMENTING EXISTING CONDITIONS.

4. EXCEPT WHERE MODIFIED BY THE CONTRACT DOCUMENTS, ALL PROPOSED WORK SHALL BE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS WHICH ARE HEREBY MADE A PART HEREOF:

   A. "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS," AS PREPARED BY IDOT, LATEST EDITION.

   B. "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" AS PUBLISHED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (IEPA), LATEST EDITION.

   C. "ILLINOIS RECOMMENDED STANDARDS FOR SEWAGE WORKS," AS PUBLISHED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (IEPA), LATEST EDITION.

   D. REGULATIONS, STANDARDS AND GENERAL REQUIREMENTS SET FORTH BY THE MUNICIPALITY, UNLESS OTHERWISE NOTED ON THE PLANS.

   E. THE NATIONAL ELECTRIC CODE.

   F. ALL APPLICABLE PROVISIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT ARE HEREIN INCORPORATED BY REFERENCE.

5. STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS, AND RECURRING SPECIAL PROVISIONS, CONSTRUCTION PLANS, AND SUBSEQUENT DETAILS ARE ALL TO BE CONSIDERED AS PART OF THE CONTRACT. INCIDENTAL ITEMS OR ACCESSORIES NECESSARY TO COMPLETE THE CONTRACTOR'S WORK MAY NOT BE SPECIFICALLY NOTED, BUT ARE CONSIDERED A PART OF THE CONTRACTOR'S CONTRACT.

6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL ITEMS REQUIRED FOR CONSTRUCTION OF THE PROJECT, AS SHOWN ON THE PLANS, ARE INCLUDED IN THE CONTRACT. ANY ITEM NOT SPECIFICALLY INCLUDED IN THE CONTRACT, BUT SHOWN ON THE PLANS, SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IN THE EVENT OF A DISCREPANCY BETWEEN THE PLANS AND THE QUANTITIES.

7. THE CONTRACTOR IS RESPONSIBLE FOR HAVING A SET OF "APPROVED" ENGINEERING PLANS WITH THE LATEST REVISION DATE ON THE JOB SITE PRIOR TO THE START OF CONSTRUCTION. IF THERE ARE ANY DISCREPANCIES WITH WHAT IS SHOWN ON THE CONSTRUCTION PLANS, HE MUST IMMEDIATELY REPORT THEM TO THE SURVEYOR OR ENGINEER BEFORE DOING ANY WORK. OTHERWISE, THE CONTRACTOR ASSUMES FULL RESPONSIBILITY. IN THE EVENT OF DISAGREEMENT BETWEEN THE CONSTRUCTION PLANS, SPECIFICATIONS, AND/OR DETAILS, THE CONTRACTOR SHALL SECURE WRITTEN INSTRUCTION FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY OMISSIONS OR DISCREPANCIES. FAILING TO SECURE SUCH INSTRUCTION, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT THE CONTRACTOR'S OWN RISK AND EXPENSE IN THE EVENT OF ANY DOUBT OR QUESTIONS ARISING WITH RESPECT TO THE TRUE MEANING OF THE CONSTRUCTION PLANS OR SPECIFICATIONS, THE DECISION OF THE ENGINEER SHALL BE FINAL AND CONCLUSIVE.

8. THE CONTRACTOR SHALL SUBSCRIBE TO ALL GOVERNING REGULATIONS AND SHALL OBTAIN ALL NECESSARY PUBLIC AGENCY PERMITS PRIOR TO STARTING WORK. THE CONTRACTOR BY USING THESE PLANS FOR THEIR WORK, AGREE TO HOLD HARMLESS KIMLEY-HORN AND ASSOCIATES, INC, THE MUNICIPALITY, THEIR EMPLOYEES AND AGENTS AND THE OWNER FROM AND AGAINST ANY AND ALL LIABILITY, CLAIMS, DAMAGES, AND THE COST OF DEFENSE ARISING OUT OF CONTRACTOR(S) PERFORMANCE OF THE WORK DESCRIBED HEREIN.

9. THE ENGINEER AND OWNER ARE NOT RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, TIME OF PERFORMANCE, PROGRAMS OR FOR ANY SAFETY PRECAUTIONS USED BY THE CONTRACTOR. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR EXECUTION OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS.

10. CONSTRUCTION MATERIALS AND/OR EQUIPMENT MAY NOT BE STORED IN THE RIGHT-OF-WAY, AS DIRECTED BY THE OWNER.

11. EASEMENTS FOR THE EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE, AND UTILITIES WITHIN PUBLIC RIGHT-OF-WAYS ARE SHOWN ON THE PLANS ACCORDING TO AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF THESE UTILITY LINES AND THEIR PROTECTION FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS. IF EXISTING UTILITY LINES OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT WITH LOCATIONS OF THE NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT MAY BE RESOLVED.

12. OWNER SHALL OBTAIN EASEMENTS AND APPROVAL OF PERMITS NECESSARY TO FACILITATE CONSTRUCTION OF THE PROPOSED UTILITIES. THE CONTRACTOR, HOWEVER, SHALL FURNISH ALL REQUIRED BONDS AND EVIDENCE OF INSURANCE NECESSARY TO SECURE THESE PERMITS AND EASEMENTS.

13. THE CONTRACTOR SHALL PRESERVE ALL CONSTRUCTION STAKES UNTIL THEY ARE NO LONGER NEEDED. ANY STAKES DESTROYED OR DISTURBED BY THE CONTRACTOR PRIOR TO THEIR USE SHALL BE RESET BY THE SURVEYOR AT THE CONTRACTOR'S EXPENSE.

14. NOTIFICATION OF COMMENCING CONSTRUCTION:

   14.A. THE CONTRACTOR SHALL NOTIFY AFFECTED GOVERNMENTAL AGENCIES IN WRITING AT LEAST THREE FULL WORKING DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION. IN ADDITION, THE CONTRACTOR SHALL NOTIFY, AS NECESSARY, ALL TESTING AGENCIES, THE MUNICIPALITY, AND THE OWNER 48-HOURS IN ADVANCE OF CONSTRUCTION.

   14.B. FAILURE OF THE CONTRACTOR TO ALLOW PROPER NOTIFICATION TIME WHICH RESULTS IN THE TESTING COMPANIES TO BE UNABLE TO VISIT THE SITE AND PERFORM TESTING WILL CAUSE THE CONTRACTOR TO SUSPEND THE OPERATION TO BE TESTED UNTIL THE TESTING AGENCY CAN SCHEDULE TESTING OPERATIONS. COST OF SUSPENSION OF WORK SHALL BE BORNE BY THE CONTRACTOR.

15. ALL CONTRACTORS SHALL KEEP ACCESS AVAILABLE AT ALL TIMES FOR ALL EMERGENCY TRAFFIC, AS DIRECTED BY THE MUNICIPALITY.

16. ANY EXISTING SIGNS, LIGHT STANDARDS, AND UTILITY POLES THAT INTERFERE WITH CONSTRUCTION OPERATIONS AND ARE NOT NOTED ON THE PLANS FOR DISPOSAL SHALL BE REMOVED AND RESET BY THE CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE, AS DIRECTED BY THE ENGINEER. ANY DAMAGE TO THESE ITEMS SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE TO THE SATISFACTION OF THE OWNER. ANY SIGNS NOT REQUIRED TO BE RESET SHALL BE DELIVERED TO THE RESPECTIVE OWNERS.

17. ALL TREES TO BE SAVED SHALL BE IDENTIFIED PRIOR TO CONSTRUCTION BY THE LANDSCAPE ARCHITECT AND SHALL BE PROTECTED PER IDOT SECTION 201.05. THE RIGHT-OF-WAY LINE AND LIMITS OF THE CONTRACTOR'S OPERATIONS SHALL BE CLEARLY DEFINED THROUGHOUT THE CONSTRUCTION PERIOD. ALL TREES NOTED TO REMAIN SHALL BE PROTECTED FROM DAMAGE TO TRUNKS, BRANCHES AND ROOTS. NO EXCAVATING, FILLING OR GRADING IS TO BE DONE INSIDE THE DRIP LINE OF TREES UNLESS OTHERWISE INDICATED.

18. LIMB PRUNING SHALL BE PERFORMED UNDER THE SUPERVISION OF AN APPROVED LANDSCAPE ARCHITECT, FORESTER, OR ARBORIST AND SHALL BE UNDERTAKEN IN A TIMELY FASHION SO AS NOT TO INTERFERE WITH CONSTRUCTION. ALL LIMBS, BRANCHES, AND OTHER DEBRIS RESULTING FROM CONTRACTOR'S WORK SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE. ALL CUTS OVER ONE (1) INCH IN DIAMETER SHALL BE PAINTED WITH AN APPROVED TREE PAINT.

19. ALL EXISTING PAVEMENT OR CONCRETE TO BE REMOVED SHALL BE SAWCUT ALONG LIMITS OF PROPOSED REMOVAL BEFORE COMMENCEMENT OF PAVEMENT REMOVAL.

20. ALL EXISTING UTILITIES OR IMPROVEMENTS, INCLUDING WALKS, CURBS, PAVEMENT, AND PARKWAYS DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE PROMPTLY RESTORED TO THEIR RESPECTIVE ORIGINAL CONDITION. THE CONTRACTOR'S WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT UNLESS A PAY ITEM IS LISTED ON THE BID LIST.

21. REMOVAL OF SPECIFIED ITEMS, INCLUDING BUT NOT LIMITED TO, PAVEMENT, SIDEWALK, CURB, CURB AND GUTTER, CULVERTS, ETC., SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR ANY PERMITS REQUIRED FOR SUCH DISPOSAL.

22. THE CONTRACTOR SHALL COLLECT AND REMOVE ALL CONSTRUCTION DEBRIS, EXCESS MATERIALS, TRASH, OIL AND GREASE RESIDUE, MACHINERY, TOOLS, AND OTHER MISCELLANEOUS ITEMS WHICH WERE NOT PRESENT PRIOR TO PROJECT COMMENCEMENT AT NO ADDITIONAL EXPENSE TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ANY AND ALL PERMITS NECESSARY FOR THE HAULING AND DISPOSAL REQUIRED FOR CLEANUP, AS DIRECTED BY THE ENGINEER OR OWNER. BURNING ON THE SITE IS NOT PERMITTED.

23. NO UNDERGROUND WORK WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE COVERED UNTIL IT HAS BEEN APPROVED BY THE MUNICIPALITY. APPROVAL TO PROCEED MUST BE OBTAINED FROM THE MUNICIPALITY PRIOR TO INSTALLING PAVEMENT BASE, BINDER, AND SURFACE, AND PRIOR TO POURING ANY CONCRETE AFTER FORMS HAVE BEEN SET, AS NECESSARY.

24. WHERE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER, EXISTING DRAINAGE STRUCTURES AND PIPE SHALL BE CLEANED OF DEBRIS AND PATCHED AS NECESSARY TO ASSURE INTEGRITY OF THE STRUCTURE. THE CONTRACTOR'S WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE MERGED INTO THE CONTRACT UNIT PRICE EACH FOR STRUCTURES AND CONTRACT UNIT PRICE PER LINEAL FOOT FOR STORM SEWERS, WHICH SHALL BE PAYMENT IN FULL FOR CLEANING, PATCHING, REMOVAL, AND DISPOSAL OF DEBRIS AND DIRT. DRAINAGE STRUCTURES AND STORM SEWERS CONSTRUCTED AS PART OF THE CONTRACTOR'S PROJECT SHALL BE MAINTAINED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. NO EXTRA PAYMENT WILL BE MADE FOR CLEANING STRUCTURES OR STORM SEWERS CONSTRUCTED AS PART OF THE CONTRACTOR'S PROJECT.

25. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING THE UTILITY COMPANIES LOCATE THEIR FACILITIES IN THE FIELD PRIOR TO CONSTRUCTION AND SHALL ALSO BE RESPONSIBLE FOR THE MAINTENANCE AND PRESERVATION OF THESE FACILITIES. THE ENGINEER DOES NOT WARRANT THE LOCATION OF ANY EXISTING UTILITIES SHOWN ON THE PLANS. THE CONTRACTOR SHALL CALL J.U.L.I.E. (1-800-892-0123) AND THE MUNICIPALITY FOR UTILITY LOCATIONS.

26. THE GENERAL CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES TO PROVIDE CABLE TV, PHONE, ELECTRIC, GAS AND IRRIGATION SERVICES. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING SITE LAYOUTS FOR THESE UTILITIES AND SHALL COORDINATE AND PROVIDE CONDUIT CROSSINGS AS REQUIRED. THIS COORDINATION SHALL BE CONSIDERED INCIDENTAL TO GENERAL CONTRACTOR AGREEMENT WITH THE OWNER. ANY CONFLICTS IN UTILITIES SHALL BE CORRECTED BY THE GENERAL CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

27. CONTRACTOR IS TO VERIFY ALL EXISTING STRUCTURES AND FACILITIES AT ALL PROPOSED UTILITY CONNECTION LOCATIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL AND STARTING WORK.

28. ANY FIELD TILES ENCOUNTERED SHALL BE INSPECTED BY THE ENGINEER. THE DRAIN TILE SHALL BE CONNECTED TO THE STORM SEWER SYSTEM AND A RECORD KEPT BY THE CONTRACTOR OF THE LOCATIONS AND TURNED OVER TO THE ENGINEER UPON COMPLETION OF THE PROJECT. THE COST OF THE CONTRACTOR'S WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT, AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

29. ALL FRAMES AND LIDS FOR STORM AND SANITARY SEWERS, VALVE VAULT COVERS, FIRE HYDRANTS, AND B-BOXES ARE TO BE ADJUSTED TO MEET FINISHED GRADE. THE CONTRACTOR'S ADJUSTMENT IS TO BE MADE BY THE SEWER AND WATER CONTRACTOR, AND THE COST IS TO BE CONSIDERED INCIDENTAL. THESE ADJUSTMENTS TO FINISHED GRADE WILL NOT ALLEVIATE THE CONTRACTOR FROM ANY ADDITIONAL ADJUSTMENTS AS REQUIRED BY THE MUNICIPALITY UPON FINAL INSPECTION OF THE PROJECT.

30. HYDRANTS SHALL NOT BE FLUSHED DIRECTLY ONTO THE ROAD SUBGRADES. WHENEVER POSSIBLE, HOSES SHALL BE USED TO DIRECT THE WATER INTO LOT AREAS OR THE STORM SEWER SYSTEM, IF AVAILABLE. DAMAGE TO THE ROAD SUBGRADE OR LOT GRADING DUE TO EXCESSIVE WATER SATURATION AND/OR EROSION FROM HYDRANT FLUSHING, OR FROM LEAKS IN THE WATER DISTRIBUTION SYSTEM, WILL BE REPAIRED BY THE CONTRACTOR FLUSHING OR USING THE HYDRANT AT THE CONTRACTOR'S OWN EXPENSE. ULTIMATE RESPONSIBILITY FOR THE WATER DISTRIBUTION SYSTEM, REGARDLESS OF THE WATER MAIN CONTRACTOR AND SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

31. TRENCH BACKFILL WILL BE REQUIRED TO THE FULL DEPTH ABOVE SEWERS AND WATERMAIN WITHIN TWO (2) FEET HORIZONTAL OF PROPOSED OR EXISTING PAVEMENT.

32. IF SOFT, SPONGY, OR OTHER UNSUITABLE SOILS WITH UNCONFINED COMPRESSIVE STRENGTH LESS THAN 0.5 TSF ARE ENCOUNTERED AT THE BOTTOM OF THE TRENCH, ALL SUCH MATERIAL SHALL BE REMOVED AND REPLACED WITH WELL-COMPACTED, CRUSHED LIMESTONE BEDDING MATERIAL. IF ROCK IS ENCOUNTERED, IT SHALL BE REMOVED TO AT LEAST SIX (6) INCHES BELOW THE BOTTOM OF THE PIPE TO ALLOW PROPER THICKNESS OF BEDDING. ANY SUCH EXCAVATION OF TWO (2) FEET OR MORE SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. DEPTHS GREATER THAN TWO (2) FEET SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PROCEEDING.

33. THE TRENCHES FOR PIPE INSTALLATION SHALL BE KEPT DRY AT ALL TIMES DURING PIPE PLACEMENT. APPROPRIATE FACILITIES TO MAINTAIN THE DRY TRENCH SHALL BE PROVIDED BY THE CONTRACTOR, AND THE COST OF SUCH SHALL BE INCIDENTAL TO THE UNIT PRICE BID FOR THE ITEM. PLANS FOR THE SITE DEWATERING, IF EMPLOYED, SHALL BE SUBMITTED TO AND APPROVED BY THE OWNER PRIOR TO IMPLEMENTATION. NO ADDITIONAL COMPENSATION SHALL BE MADE FOR DEWATERING DURING CONSTRUCTION UNLESS APPROVED IN WRITING BY THE OWNER.

34. AFTER THE STORM SEWER SYSTEM HAS BEEN CONSTRUCTED, THE CONTRACTOR SHALL PLACE PROPER INLET PROTECTION EROSION CONTROL AT LOCATIONS INDICATED BY THE ENGINEER. THE PURPOSE OF THE INLET PROTECTION WILL BE TO MINIMIZE THE AMOUNT OF SILTATION THAT NORMALLY WOULD ENTER THE STORM SEWER SYSTEM FROM ADJACENT AND/OR UPSTREAM DRAINAGE AREAS.

35. AT THE CLOSE OF EACH WORKING DAY AND AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE FROM ALL DEBRIS AND SILTATION.

36. EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH IEPA REGULATIONS AND IDOT STANDARDS FOR SOIL EROSION AND SEDIMENTATION CONTROL AND SHALL BE MAINTAINED BY THE CONTRACTOR AND REMAIN IN PLACE UNTIL A SUITABLE GROWTH OF GRASS, ACCEPTABLE TO THE MUNICIPALITY.

37. THE CONTRACTOR SHALL CONFORM TO ALL EROSION CONTROL REQUIREMENTS AS SET FORTH BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY THROUGH THE NPDES PHASE II PERMIT PROGRAM REQUIREMENTS AND GOVERNING MUNICIPALITY. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ALL EROSION CONTROL MEASURES AS INDICATED ON THE EROSION CONTROL DRAWINGS AND SPECIFICATIONS AS WELL AS THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED BY KIMLEY-HORN AND ASSOCIATES, INC. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING THE PROVISIONS INDICATED IN THE SWPPP AT A MINIMUM, INCLUDING EROSION CONTROL MEASURES AND INSPECTION FREQUENCY, AS REQUIRED BY THE IEPA NPDES PHASE II PERMIT PROGRAM REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE SWPPP DOCUMENTATION CURRENT AND READILY AVAILABLE ON THE PROJECT SITE AT ALL TIMES FOR REVIEW BY THE OWNER, ENGINEER, AND REGULATORY AGENCIES. KIMLEY-HORN AND ASSOCIATES, INC IS NOT RESPONSIBLE FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS OR SUPPLIERS, WHICH CONTRIBUTE TO DEFICIENCIES IN THE SWPPP OR ANY VIOLATIONS RESULTING FROM INADEQUATE EROSION CONTROL PROTECTION AND/OR DOCUMENTATION.

38. THE PAVEMENT SHALL BE KEPT FREE OF MUD AND DEBRIS AT ALL TIMES. IT MAY BE NECESSARY TO KEEP A SWEEPER ON-SITE AT ALL TIMES.

39. ALL DISTURBED AREAS OF THE RIGHT-OF-WAY SHALL BE FULLY RESTORED TO PRE-CONSTRUCTION CONDITIONS WITH A MINIMUM OF SIX (6) INCHES OF TOPSOIL, SEEDING, AND MULCH AS PER IDOT STANDARDS.

40. ALL PROPOSED GRADES SHOWN ON PLANS ARE FINISHED SURFACE ELEVATIONS, UNLESS NOTED OTHERWISE.

41. ALL TESTING SHALL BE THE RESPONSIBILITY AND EXPENSE OF THE CONTRACTOR. IF REQUESTED BY THE MUNICIPALITY OR ENGINEER, COPIES OF ALL TEST RESULTS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW AND APPROVAL.

42. PROVIDE SMOOTH VERTICAL CURVES THROUGH HIGH AND LOW POINTS INDICATED BY SPOT ELEVATIONS. PROVIDE UNIFORM SLOPES BETWEEN NEW AND EXISTING GRADES. AVOID RIDGES AND DEPRESSIONS.

43. WHEN REQUIRED, THE CONTRACTOR SHALL NOTIFY THE OWNER WHEN RECORD DRAWINGS CAN BE PREPARED. RECORD DRAWINGS SHALL INDICATE THE FINAL LOCATION AND LAYOUT OF ALL IMPROVEMENTS, INCLUDING VERIFICATION OF ALL CONCRETE PADS, INVERT, RIM, AND SPOT GRADE ELEVATIONS, AND INCORPORATE ALL FIELD DESIGN CHANGES APPROVED BY THE OWNER.

44. BEFORE ACCEPTANCE, ALL WORK SHALL BE INSPECTED BY THE MUNICIPALITY, AS NECESSARY.

EARTHWORK NOTES

1. GENERAL

   1.1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE SOIL AND GROUNDWATER CONDITIONS AT THE SITE.

   1.2. ANY QUANTITIES IN THE BID PROPOSAL ARE INTENDED AS A GUIDE FOR THE CONTRACTOR'S USE IN DETERMINING THE SCOPE OF THE COMPLETED PROJECT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ALL MATERIAL QUANTITIES AND BE KNOWLEDGEABLE OF ALL SITE CONDITIONS.

   1.3. THE CONTRACTOR WILL NOTE THAT THE ELEVATIONS SHOWN ON THE CONSTRUCTION PLANS ARE FINISHED GRADE AND THAT PAVEMENT THICKNESS, TOPSOIL, ETC., MUST BE ACCOUNTED FOR.

   1.4. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE DURING CONSTRUCTION AND PREVENT STORMWATER FROM RUNNING INTO OR STANDING IN EXCAVATED AREAS. THE FAILURE TO PROVIDE PROPER DRAINAGE WILL NEGATE ANY POSSIBLE ADDED COMPENSATION REQUESTED DUE TO DELAYS OR UNSUITABLE MATERIALS CREATED AS A RESULT THEREOF. FINAL GRADES SHALL BE PROTECTED AGAINST DAMAGE FROM EROSION, SEDIMENTATION, AND TRAFFIC.

   1.5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF THE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES. THE INITIAL ESTABLISHMENT OF EROSION CONTROL PROCEDURES AND THE PLACEMENT OF SILT AND FILTER FENCING, ETC., TO PROTECT ADJACENT PROPERTY, WETLANDS, ETC., SHALL OCCUR BEFORE GRADING BEGINS.

   1.6. PRIOR TO COMMENCEMENT OF GRADING ACTIVITIES, THE CONTRACTOR SHALL ERECT A CONSTRUCTION FENCE AROUND ANY TREE DESIGNATED TO BE PRESERVED. SAID FENCE SHALL BE PLACED IN A CIRCLE CENTERED AROUND THE TREE, THE DIAMETER OF WHICH SHALL BE SUCH THAT THE ENTIRE DRIP ZONE (EXTENT OF FURTHEST EXTENDING BRANCHES) SHALL BE WITHIN THE FENCE LIMITS. THE EXISTING GRADE WITHIN THE FENCED AREA SHALL NOT BE DISTURBED.

2. TOPSOIL EXCAVATION INCLUDES:

   2.1. EXCAVATION OF TOPSOIL AND OTHER STRUCTURALLY UNSUITABLE MATERIALS WITHIN THOSE AREAS THAT WILL REQUIRE EARTH EXCAVATION OR COMPACTED EARTH FILL MATERIAL. EXISTING VEGETATION SHALL BE REMOVED PRIOR TO STRIPPING TOPSOIL OR FILLING AREAS.

   2.2. PLACEMENT OF EXCAVATED MATERIAL IN OWNER-DESIGNATED AREAS FOR FUTURE USE WITHIN AREAS TO BE LANDSCAPED AND THOSE AREAS NOT REQUIRING STRUCTURAL FILL MATERIAL. PROVIDE NECESSARY EROSION CONTROL MEASURES FOR STOCKPILE.

   2.3. TOPSOIL STOCKPILED FOR RESPREAD SHALL BE FREE OF CLAY AND SHALL NOT CONTAIN ANY OF THE TRANSITIONAL MATERIAL BETWEEN THE TOPSOIL AND CLAY. THE TRANSITIONAL MATERIAL SHALL BE USED IN NON-STRUCTURAL FILL AREAS OR DISPOSED OF OFF-SITE.

   2.4. TOPSOIL RESPREAD SHALL INCLUDE HAULING AND SPREADING SIX (6) INCHES OF TOPSOIL DIRECTLY OVER AREAS TO BE LANDSCAPED WHERE SHOWN ON THE PLANS OR AS DIRECTED BY THE OWNER.

   2.5. MODERATE COMPACTION IS REQUIRED IN NON-STRUCTURAL FILL AREAS.

3. EARTH EXCAVATION INCLUDES:

   3.1. EXCAVATION OF SUBSURFACE MATERIALS WHICH ARE SUITABLE FOR USE AS STRUCTURAL FILL. THE EXCAVATION SHALL BE TO WITHIN A TOLERANCE OF 0.1 FEET OF THE PLAN SUBGRADE ELEVATIONS WHILE MAINTAINING PROPER DRAINAGE. THE TOLERANCE WITHIN PAVEMENT AREAS SHALL BE SUCH THAT THE EARTH MATERIALS SHALL "BALANCE" DURING THE FINE GRADING OPERATION.

   3.2. PLACEMENT OF SUITABLE MATERIALS SHALL BE WITHIN THOSE AREAS REQUIRING STRUCTURAL FILL IN ORDER TO ACHIEVE THE PLAN SUBGRADE ELEVATIONS TO WITHIN A TOLERANCE OF 0.1 FEET. THE FILL MATERIALS SHALL BE PLACED IN LOOSE LIFTS THAT SHALL NOT EXCEED EIGHT (8) INCHES IN THICKNESS, AND THE WATER CONTENT SHALL BE ADJUSTED IN ORDER TO ACHIEVE REQUIRED COMPACTION.

   3.3. STRUCTURAL FILL MATERIAL MAY BE PLACED WITHIN THOSE PORTIONS OF THE SITE NOT REQUIRING STRUCTURAL FILL, WITHIN SIX (6) INCHES OF THE PLAN FINISHED GRADE ELEVATION. IN AREAS REQUIRING STRUCTURAL FILL, HOWEVER, THIS MATERIAL SHALL NOT BE PLACED UNTIL TOPSOIL OR OTHER UNSUITABLE MATERIALS UNLESS SPECIFICALLY DIRECTED BY A SOILS ENGINEER WITH THE CONCURRENCE OF THE OWNER.

   3.4. COMPACTION OF SUITABLE MATERIALS SHALL BE TO AT LEAST 93% OF THE MODIFIED PROCTOR DRY DENSITY WITHIN PROPOSED PAVEMENT AREAS, SIDEWALK, ETC. COMPACTION SHALL BE AT LEAST 95% OF THE MODIFIED PROCTOR WITHIN PROPOSED BUILDING PAD AREAS.

4. UNSUITABLE MATERIAL: UNSUITABLE MATERIALS SHALL BE CONSIDERED MATERIAL THAT IS NOT SUITABLE FOR THE SUPPORT OF PAVEMENT AND BUILDING CONSTRUCTION, AND IS ENCOUNTERED BELOW NORMAL TOPSOIL DEPTHS AND THE PROPOSED SUBGRADE ELEVATION. THE DECISION TO REMOVE SAID MATERIAL AND TO WHAT EXTENT SHALL BE MADE BY THE ENGINEER WITH THE CONCURRENCE OF THE OWNER.

5. MISCELLANEOUS. THE CONTRACTOR SHALL:

   5.1. SPREAD AND COMPACT UNIFORMLY TO THE DEGREE SPECIFIED ALL EXCESS TRENCH SPOIL AFTER COMPLETION OF THE UNDERGROUND IMPROVEMENTS.

   5.2. SCARIFY, DISC, AERATE, AND COMPACT, TO THE DEGREE SPECIFIED, THE UPPER TWELVE (12) INCHES OF THE SUITABLE SUBGRADE MATERIAL IN ALL AREAS THAT MAY BE SOFT DUE TO EXCESS MOISTURE CONTENT. THIS APPLIES TO CUT AREAS AS WELL AS FILL AREAS.

   5.3. ADD WATER TO DRY MATERIAL IN ORDER TO ADJUST THE MOISTURE CONTENT FOR THE PURPOSE OF ACHIEVING THE SPECIFIED COMPACTION.

   5.4. BACKFILL THE CURB AND GUTTER AFTER ITS CONSTRUCTION AND PRIOR TO THE PLACEMENT OF THE BASE COURSE MATERIAL.

6. TESTING AND FINAL ACCEPTANCE

   6.1. THE CONTRACTOR SHALL PROVIDE AS A MINIMUM A FULLY LOADED SIX-WHEEL TANDEM AXLE TRUCK FOR PROOF ROLLING THE PAVEMENT SUBGRADE PRIOR TO THE PLACEMENT OF THE CURB AND GUTTER AND THE BASE MATERIAL. THIS SHALL BE WITNESSED BY THE TESTING ENGINEER AND THE OWNER. (SEE PAVING SPECIFICATION.)

   6.2. ANY UNSUITABLE AREA ENCOUNTERED AS A RESULT OF PROOF ROLLING SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL OR OTHERWISE CORRECTED AND APPROVED BY THE ENGINEER.

PAVING NOTES

1. GENERAL

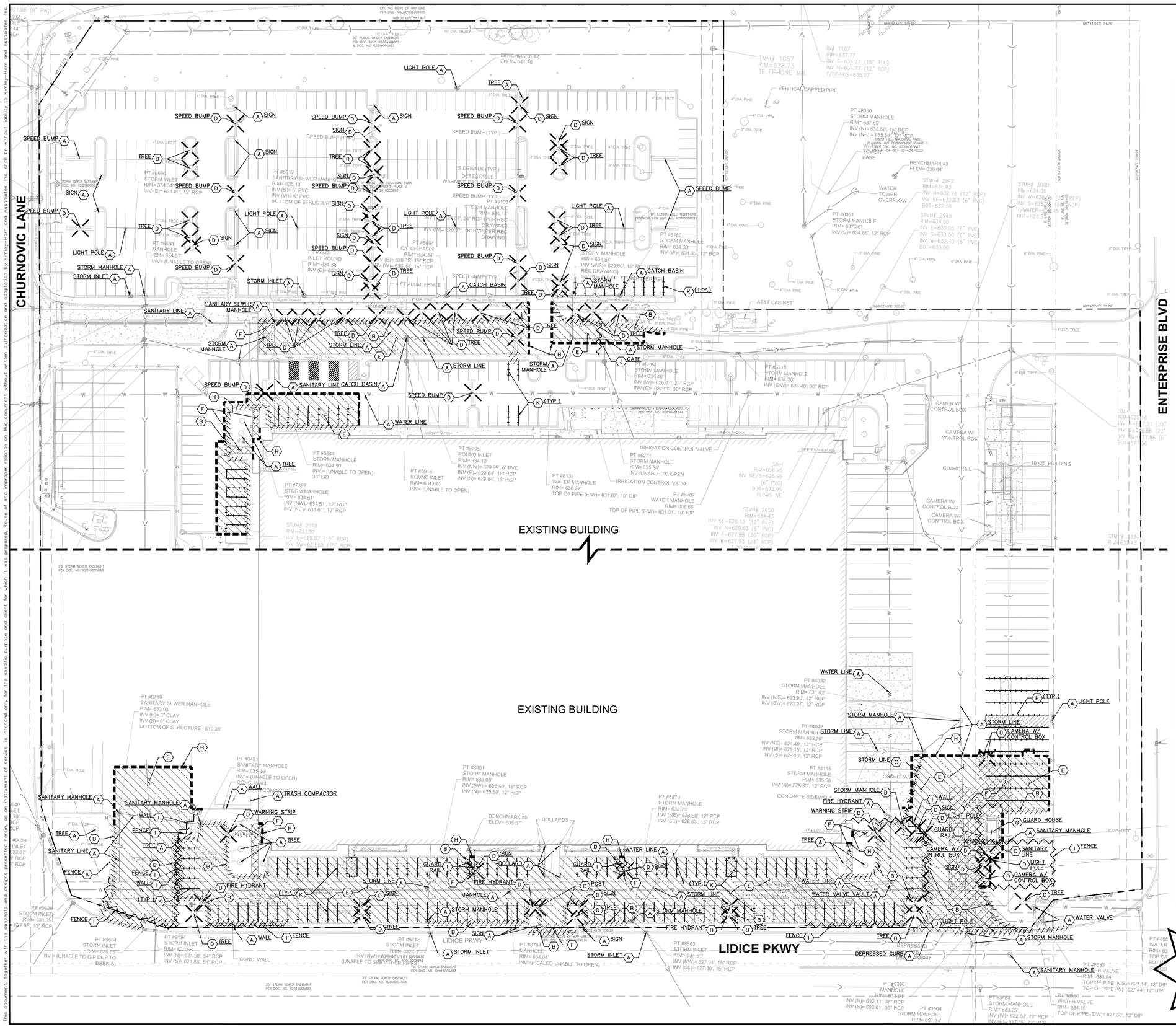
   1.1. PAVING WORK INCLUDES FINAL SUBGRADE SHAPING, PREPARATION, AND COMPACTION; PLACEMENT OF SUBBASE OR BASE COURSE MATERIALS; BITUMINOUS BINDER AND/OR SURFACE COURSES; FORMING, FINISHING, AND CURING CONCRETE PAVEMENT, CURBS, AND WALKS; AND FINAL CLEAN-UP AND ALL RELATED WORK.

   1.2. COMPACTION REQUIREMENTS [REFERENCE ASTM D-1557 (MODIFIED PROCTOR)] FOR SUBGRADE, SUBBASE, AGGREGATE BASE COURSE, AND BITUMINOUS COURSES SHALL MEET ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT) HIGHWAY STANDARDS.

   1.3. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE PROPER BARRICADING WARNING DEVICES, AND THE SAFE MANAGEMENT OF TRAFFIC WITHIN THE AREA OF CONSTRUCTION. ALL SUCH DEVICES AND LOCATION SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION, AND IN ACCORDANCE WITH THE MUNICIPALITY CODE.

2. SUBGRADE PREPARATION

   2.1. EARTHWORK FOR PROPOSED PAVEMENT SUBGRADE SHALL BE FINISHED TO WITHIN 0.1 FOOT, PLUS OR MINUS, OF PLAN ELEVATION. THE CONTRACTOR SHALL CONFIRM THAT THE SUBGRADE HAS BEEN PROPERLY PREPARED AND THAT THE FINISHED TOP SUBGRADE ELEVATION HAS BEEN GRADED WITHIN TOLERANCES ALLOWED IN THESE SPECIFICATIONS, UNLESS THE CONTRACTOR ADVISES THE ENGINEER IN WRITING PRIOR TO FINE GRADING FOR BASE COURSE CONSTRUCTION. IT IS U



DEMOLITION NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF THE EXISTING STRUCTURES, RELATED UTILITIES, PAVING, AND ANY OTHER EXISTING IMPROVEMENTS AS NOTED.
2. CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS. DISPOSAL WILL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND/OR FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS.
3. THE GENERAL CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASES OF THIS PROJECT. CONTRACTOR SHALL NOT DEMOLISH ANYTHING OUTSIDE THE OWNERS LEASE/PROPERTY LINE UNLESS SPECIFICALLY MENTIONED ON THIS SHEET.
4. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES.
5. IF DEMOLITION OR CONSTRUCTION ON SITE WILL INTERFERE WITH THE ADJACENT PROPERTY OWNER'S TRAFFIC FLOW, THE CONTRACTOR SHALL COORDINATE WITH ADJACENT PROPERTY OWNER, TO MINIMIZE THE IMPACT ON TRAFFIC FLOW. TEMPORARY RE-ROUTING OF TRAFFIC IS TO BE ACCOMPLISHED BY USING IDOT APPROVED TRAFFIC BARRICADES, BARRELS, AND/OR CONES. TEMPORARY SIGNAGE AND FLAGMEN MAY BE ALSO NECESSARY.
6. QUANTITIES DEPICTED ON THIS SHEET SHALL SERVE AS A GUIDE ONLY. CONTRACTOR TO VERIFY ALL DEMOLITION QUANTITIES.
7. REFER TO GEOTECHNICAL REPORT PROVIDED BY OTHERS FOR ALL SUBSURFACE INFORMATION.
8. CONTRACTOR SHALL BEGIN CONSTRUCTION OF ANY LIGHT POLE BASES FOR RELOCATED LIGHT FIXTURES AND RELOCATION OF ELECTRICAL SYSTEM AS SOON AS DEMOLITION BEGINS. CONTRACTOR SHALL BE AWARE THAT INTERRUPTION OF POWER TO ANY LIGHT POLES OR SIGNS SHALL NOT EXCEED 24 HOURS.
9. EROSION CONTROL MUST BE ESTABLISHED PRIOR TO ANY WORK ON SITE INCLUDING DEMOLITION.
10. THE EXTENT OF SITE DEMOLITION WORK IS AS SHOWN ON THE CONTRACT DOCUMENTS AND AS SPECIFIED HEREIN.
11. CONTRACTOR MUST RECEIVE APPROVAL FROM CIVIL ENGINEER AND GEOTECHNICAL ENGINEER FOR THE MATERIAL TYPE AND USE IF CONTRACTOR DESIRES TO REUSE DEMOLISHED SITE PAVEMENT AS STRUCTURAL FILL.
12. EXISTING UTILITIES, WHICH DO NOT SERVICE STRUCTURES BEING DEMOLISHED, ARE TO BE KEPT IN SERVICE AND PROTECTED AGAINST DAMAGE DURING DEMOLITION OPERATIONS. CONTRACTOR SHALL ARRANGE FOR SHUT-OFF OF UTILITIES SERVING STRUCTURES TO BE DEMOLISHED. 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.
13. UNDERGROUND UTILITIES SHOWN ARE BASED ON ATLASES AND AVAILABLE INFORMATION PRESENTED AT THE TIME OF SURVEY. CONTRACTOR SHOULD CALL 'JULIE' (1-800-892-0123) 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.
14. 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.
15. COMPLETELY FILL BELOW-GRADE AREAS AND VOIDS RESULTING FROM DEMOLITION OF STRUCTURES TO THE FINAL LINES AND GRADES SHOWN ON THE CONTRACT DOCUMENTS. BACKFILL MATERIAL SHALL BE IDOT APPROVED CRUSHED LIMESTONE (CA-6) OR APPROVED EQUAL. USE SATISFACTORY SOIL MATERIALS CONSISTING OF STONE, GRAVEL AND SAND, FREE FROM DEBRIS, TRASH, FROZEN MATERIALS, ROOTS AND OTHER ORGANIC MATTER. PRIOR TO PLACEMENT OF FILL MATERIALS ENSURE THAT AREAS TO BE FILLED ARE FREE OF STANDING WATER, FROST, FROZEN MATERIAL, TRASH AND DEBRIS. PLACE FILL MATERIALS IN HORIZONTAL LAYERS NOT EXCEEDING 9" IN LOOSE DEPTH. COMPACT EACH LAYER AT OPTIMUM MOISTURE CONTENT OF FILL MATERIAL TO 95% OF MODIFIED PROCTOR DENSITY UNLESS SUBSEQUENT EXCAVATION FOR NEW WORK IS REQUIRED.

DEMOLITION LEGEND

A	ITEM TO REMAIN, PROTECT DURING CONSTRUCTION
B	CURB REMOVAL
C	UTILITY TO ABANDON IN PLACE
D	ITEM TO BE REMOVED
E	FULL-DEPTH ASPHALT PAVEMENT REMOVAL
F	CONCRETE REMOVAL
G	BUILDING REMOVAL
H	SAWCUT LINE
I	FENCE/WALL REMOVAL
J	STRIPING REMOVAL

DATE	REVISIONS
	No.

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KHA PROJECT	168864455
DATE	7/16/2025
SCALE	AS SHOWN
DESIGNED BY:	MAG
DRAWN BY:	MAG
CHECKED BY:	JF

DEMOLITION PLAN

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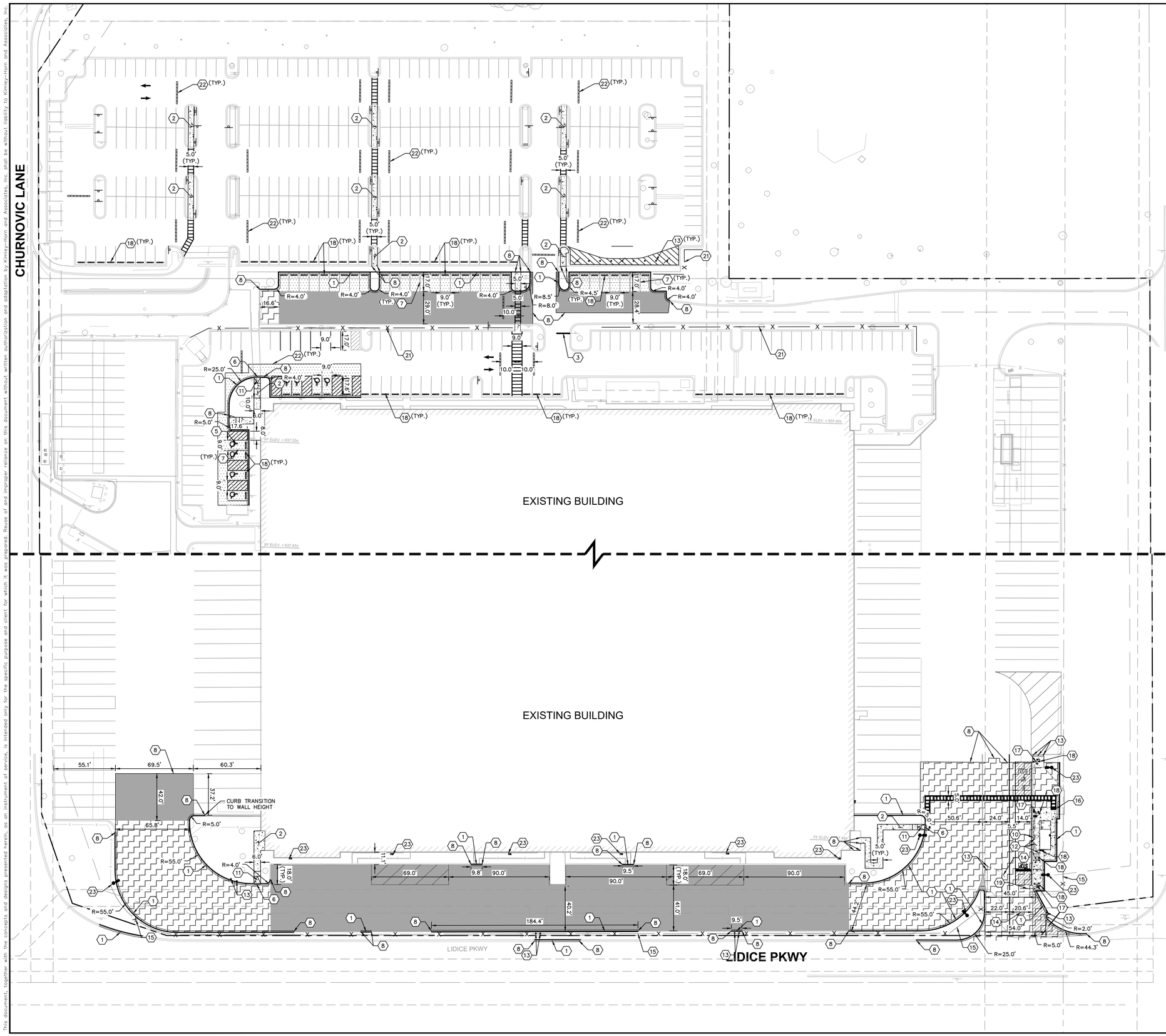

PAVING AND CURB LEGEND

- STANDARD DUTY ASPHALT PAVEMENT — SEE CONSTRUCTION DETAILS FOR PAVEMENT SECTION
- HEAVY DUTY ASPHALT PAVEMENT — SEE CONSTRUCTION DETAILS FOR PAVEMENT SECTION
- CONCRETE SIDEWALK — SEE CONSTRUCTION DETAILS FOR PAVEMENT SECTION
- HEAVY DUTY CONCRETE PAVEMENT — SEE CONSTRUCTION DETAILS FOR PAVEMENT SECTION
- STANDARD PITCH CONCRETE CURB AND GUTTER
- CONCRETE DEPRESSED CURB AND GUTTER

GENERAL NOTES

1. ALL DIMENSIONS REFER TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
2. BUILDING DIMENSIONS ARE TO THE OUTSIDE FACE OF BUILDING UNLESS OTHERWISE NOTED.
3. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS TO VERIFY ALL BUILDING DIMENSIONS.
4. RADII ADJACENT TO PARKING STALL AND NOT DIMENSIONED ON THIS PLAN SHALL BE 3-FEET, TYPICAL.
5. REFER TO ARCHITECTURAL PLANS FOR MONUMENT SIGN DETAILS. SEE MEP PLANS FOR SITE ELECTRICAL DRAWINGS.
6. ALL PROPOSED ON-SITE STRIPING SHALL BE PAINTED UNLESS OTHERWISE NOTED.

KEY NOTES

1. B6.12 CONCRETE CURB AND GUTTER, TYP. (SEE DETAILS)
2. CONCRETE SIDEWALK, TYP. (SEE DETAILS)
3. 24" WIDE STOP BAR, TYP. (SEE DETAILS)
4. STOP SIGN, TYP. (MUTCD R1-1)
5. ACCESSIBLE PAVEMENT MARKINGS, TYP.
6. DEPRESSED CURB AND GUTTER
7. 4" WIDE PAINTED SOLID LINE, TYP.
8. CONNECT TO EXISTING PAVEMENT, SIDEWALK, CURB, TYP.
9. LIGHT POLES SHOWN FOR COORDINATION ONLY (SEE SITE LIGHTING PLANS)
10. HANDRAIL
11. ACCESSIBLE RAMP (SEE DETAILS)
12. UNDERGROUND PVC CONDUIT RACEWAYS (SEE ELECTRICAL PLANS FOR DETAILS)
13. BOLLARD, TYP. (SEE DETAILS)
14. SWING GATE (SEE DETAILS)
15. 8' SECURITY CHAIN LINK FENCE (SEE DETAILS)
16. 2' WIDE TACTILE WARNING STRIP
17. ALPR (SEE ELECTRICAL PLANS FOR DETAILS)
18. NEMA 3R RATED ENCLOSURE (SEE ELECTRICAL PLANS FOR DETAILS)
19. AUTOMATED GATE
20. CONCRETE WHEEL STOP (SEE DETAILS)
21. 4' PEDESTRIAN FENCE (SEE DETAILS)
22. SPEED BUMP (SEE DETAILS)
23. LIGHT (SEE PHOTOMETRIC PLAN)

ASSOCIATE PARKING LOT	REQUIRED (AHJ)	CURRENT	PROPOSED	DELTA +/-
ASSOCIATE STALLS (9'X17')	438	527	438	-89
ACCESSIBLE (ADA) STALLS	9	12	9	-3

*ACCESSIBLE STALL COUNTS INCLUDED IN OVERALL PARKING COUNT. CITY CODE DOES NOT DIFFERENTIATE.
**PER CITY OF CREST HILL ZONING ORDINANCE – WAREHOUSE = ONE STALL PER EMPLOYEE PLUS ONE STALL FOR EVERY VEHICLE USED IN THE CONDUCT OF ENTERPRISE = 350 STALLS + OFFICE = 5 STALLS FOR FIRST 1,000 SF AND 1 SPACE FOR EVERY 300 SF THERE AFTER = 88 STALLS

TRUCK YARD	CURRENT	PROPOSED	DELTA +/-
TRAILER PARKING STALLS	118	114	-4
DOCK DOORS	97	97	0

SHIFT	START	END	AVG HC	PEAK HC	OFFICE HC
MORNING	2:30	5:30-7:30	195	270	30
DAY	8:30	11:30-13:30	220	320	30
TWILIGHT	14:30	17:30-19:30	220	320	30
NIGHT	20:30	23:30-01:30	220	320	30

*ALL PARKING/SHIFT/HEADCOUNT INFORMATION WAS PROVIDED TO KIMLEY-HORN BY AMAZON. KIMLEY-HORN DOES NOT TAKE RESPONSIBILITY FOR ACCURACY OF INFORMATION PROVIDED.

Call Before You Dig JULIE 1-800-892-0123

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KHA PROJECT 168864455
DATE
SCALE AS SHOWN
DESIGNED BY: MAG
DRAWN BY: MAG
CHECKED BY: JF

SITE PLAN

MDW5
16825 CHURNOVIC LANE
CREST HILL, IL 60435
WILL COUNTY IL

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CHURNOVIC LANE

ENTERPRISE BLVD

LIDICE PKWY

EXISTING BUILDING

EXISTING BUILDING

EXISTING S-15 TO REMAIN IN PLACE

GRAPHIC SCALE IN FEET
0 20 40 80

NORTH

TENANT SIGN FACE LEGEND

AS-22	DROP-OFF AND PICK-UP

SIGN FACE LEGEND

S-3(MOD)	SPEED BUMP WITH 5 MPH PLACARD
S-5(L)	PEDESTRIAN CROSSING, LEFT ARROW

STRIPING (PAVEMENT GRAPHIC) LEGEND

PG-1	STOP BAR
PG-5	STRAIGHT ARROW
PG-10	18" STRIPING OUTLINE AND FILL AT 45-DEGREES
PG-16	SPEED BUMP
PG-17	ACCESSIBLE CAR PARKING

"DO NOT BLOCK" AND HASH MARKS (SEE SIGNAGE AND STRIPING DETAILS)

FRONT HAS MARKS PAINTINGS (SEE SIGNAGE AND STRIPING DETAILS)

STOP BAR AND STOP LETTERS (SEE SIGNAGE AND STRIPING DETAILS)

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DRAWN BY: MAG
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SIGNAGE & STRIPING PLAN

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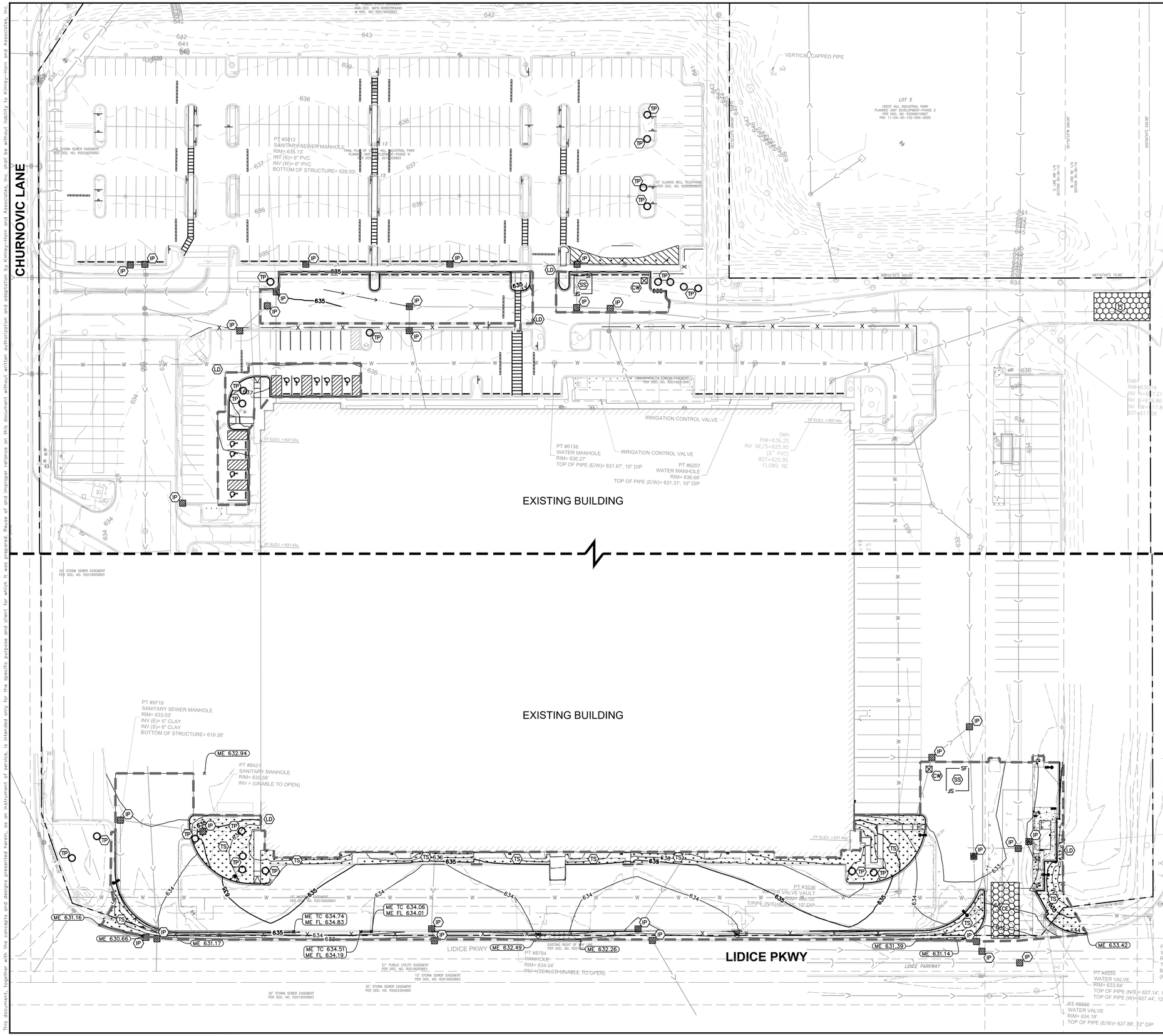

GRAPHIC SCALE IN FEET
0 20 40 80

NORTH

EROSION CONTROL NOTES

1. SEE C4.1 FOR EROSION CONTROL NOTES.

EROSION CONTROL LEGEND

- TS — TEMPORARY SEEDING (SEE EROSION CONTROL DETAILS)
- EB — TEMPORARY EROSION CONTROL BLANKET (SEE EROSION CONTROL NOTE #7)
- CE — CONSTRUCTION ENTRANCE (SEE EROSION CONTROL DETAILS)
- SF — SILT FENCE (SEE EROSION CONTROL DETAILS)
- IP — INLET PROTECTION (SEE EROSION CONTROL DETAILS)
- CW — CONCRETE WASHOUT (SEE EROSION CONTROL DETAILS) (TO BE DETERMINED BY CONTRACTOR)
- TP — CONCRETE WASHOUT (SEE EROSION CONTROL DETAILS) (TO BE DETERMINED BY CONTRACTOR)
- SS — TEMPORARY SOIL STOCKPILE
- LD — LIMITS OF DISTURBANCE
- XXX — EXISTING CONTOURS
- XXX — PROPOSED CONTOURS

EROSION CONTROL SCHEDULE AND SEQUENCING:

I.	ROUGH GRADING	CONSTRUCTION ENTRANCE/EXIT, SILT FENCE PROTECTION, CONCRETE WASHOUT AREA AND TREE PROTECTION SHALL BE INSTALLED PRIOR TO THE INITIATION OF ROUGH GRADING, AS NEEDED. TEMPORARY EROSION CONTROL MEASURES TO BE INSTALLED UPON COMPLETION OF ROUGH GRADING AND AS NECESSARY THROUGHOUT CONSTRUCTION.
II.	UTILITY INSTALLATION	ALL PRIOR EROSION CONTROL MEASURES INSTALLED ABOVE TO BE MAINTAINED AS NECESSARY DURING UTILITY INSTALLATION. STORM STRUCTURE INLET PROTECTION SHALL BE INSTALLED AS STORM DRAINAGE SYSTEM IS CONSTRUCTED.
III.	PAVING	ALL PRIOR EROSION CONTROL MEASURES INSTALLED ABOVE TO BE MAINTAINED AS NECESSARY DURING PAVING AND THROUGHOUT THE REMAINDER OF THE PROJECT.
IV.	FINAL GRADING/SOIL STABILIZATION/ LANDSCAPING	ALL TEMPORARY EROSION CONTROL MEASURES TO BE REMOVED AT THE CONCLUSION OF THE PROJECT AS DIRECTED BY THE LOCAL MUNICIPALITY.

NOTE: THE SEQUENCE OF CONSTRUCTION SHOWN ABOVE IS A GENERAL OVERVIEW AND IS INTENDED TO CONVEY THE GENERAL CONCEPTS OF THE EROSION CONTROL DESIGN AND SHOULD NOT BE RELIED UPON FOR CONSTRUCTION PURPOSES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETAILED PHASING AND CONSTRUCTION SEQUENCING NECESSARY TO CONSTRUCT THE PROPOSED IMPROVEMENTS INCLUDED IN THESE PLANS. THE CONTRACTOR SHALL NOTIFY ENGINEER IN WRITING IMMEDIATELY, PRIOR TO AND/OR DURING CONSTRUCTION IF ANY ADDITIONAL INFORMATION ON THE CONSTRUCTION SEQUENCE IS NECESSARY. CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPLYING WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION AND ALL OTHER APPLICABLE LAWS.

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Item 3.

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EROSION CONTROL PLAN

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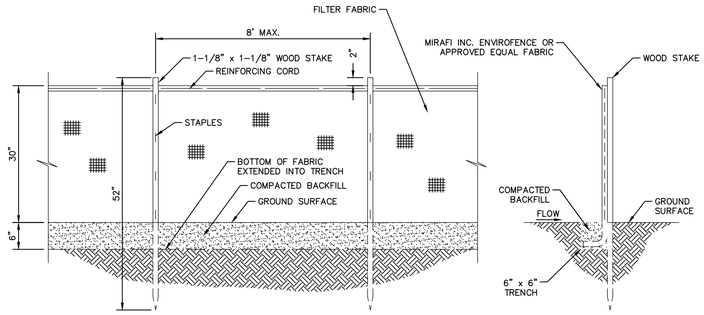
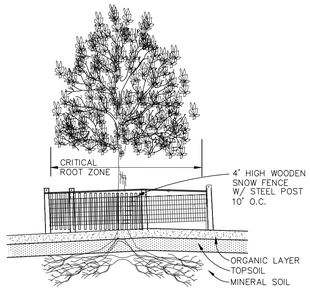


FRONT VIEW SIDE VIEW

SEDIMENTATION/SILT FENCE (SF)

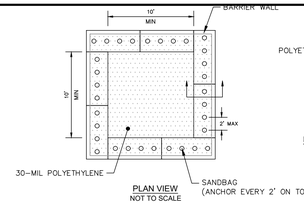
N.T.S.



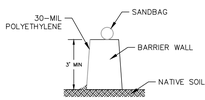
PROVIDE FENCE AROUND CRITICAL ROOT ZONE OF TREE. FENCE SHALL BE PLACED IN A CIRCLE WITH A RADIUS OF 1' PER 1" DIAMETER OF THE TREE MEASURED AT 4.5' ABOVE GROUND FOR INDIVIDUAL TREES OR STANDS OF TREES.

TREE PROTECTION (TP)

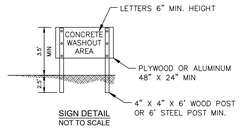
N.T.S.



PLAN VIEW
NOT TO SCALE



BARRIER WALL ANCHOR SECTION
NOT TO SCALE



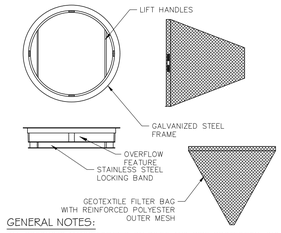
SIGN DETAIL
NOT TO SCALE

NOTES

1. MAINTAINING TEMPORARY CONCRETE WASHOUT FACILITIES SHALL INCLUDE REMOVING AND DISPOSING OF HARDEND CONCRETE AND/OR SLURRY AND RETURNING THE FACILITIES TO A FUNCTIONAL CONDITION.
2. FACILITY SHALL BE CLEANED OR RECONSTRUCTED IN A NEW AREA ONCE WASHOUT BECOMES TWO-THIRDS FULL.

CONCRETE WASHOUT (CW)

N.T.S.



GENERAL NOTES:

ALL PRODUCTS MANUFACTURED BY INLET AND PIPE PROTECTION, INC OR APPROVED EQUAL.

NOTE: INLET FILTERS ARE SLIGHTLY SMALLER THAN THE INLET GRATE SIZES. WHEN IDENTIFYING OR SPECIFYING FILTERS/CASTINGS PLEASE REFER TO THE DIAMETER "D" OR WIDTH "W" AND HEIGHT "H" OF FILTER FRAMES OR CASTING GRATES. YOU MAY ALSO REFER TO OUR CASTING CROSS REFERENCE GUIDE FOR IDOT STANDARDS

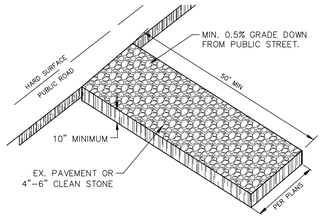
IDOT TYPE 1 ROUND INLET FILTER DEPICTED

NOTE: ROUND AND SQUARE INLET FILTERS AVAILABLE FOR MOST NEENAH AND EAST JORDAN BEEHIVE, ROLL CURB AND CURB BOX FRAME TYPES

ALL IPP INLET FILTERS TO CONFORM TO IDOT SPECIFICATIONS AS OUTLINED IN ARTICLE 1081.15 OF IDOT'S STANDARD SPECIFICATIONS GUIDE.

INLET PROTECTION (IP)

N.T.S.



CONSTRUCTION ENTRANCE (CE)

N.T.S.

STABILIZATION TYPE	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
PERMANENT SEEDING			A			*	*					
DORMANT SEEDING	B										B	
TEMPORARY SEEDING			C				D					
SODDING			E **									
MULCHING	F											

A KENTUCKY BLUEGRASS 90 LBS/ACRE MIXED WITH PERENNIAL RYEGRASS 30 LBS/ACRE

B KENTUCKY BLUEGRASS 135 LBS/ACRE MIXED WITH PERENNIAL RYEGRASS 45 LBS/ACRE + 2 TONS STRAW MULCH/ACRE

C SPRING OATS 100 LBS/ACRE

D WHEAT OR CEREAL RYE 150 LBS/ACRE

E SOD

F STRAW MULCH 2 TONS/ACRE

* WATERING NEEDED DURING JUNE AND JULY

** WATERING NEEDED FOR 2 TO 3 WEEKS AFTER APPLYING SOD

SEEDING CHART (TS)

EROSION CONTROL NOTES

1. CONSTRUCTION ENTRANCE SHALL BE LOCATED SO AS TO PROVIDE THE LEAST AMOUNT OF DISTURBANCE TO THE FLOW OF TRAFFIC IN AND OUT OF THE SITE. ADDITIONALLY, CONSTRUCTION ENTRANCE SHALL BE LOCATED TO COINCIDE WITH THE PHASING OF THE PAVEMENT REPLACEMENT.
2. POST CONSTRUCTION STORM WATER POLLUTION CONTROL MEASURES INCLUDE STABILIZATION BY PERMANENT PAVING, DRAINAGE SYSTEM STRUCTURE, OR LANDSCAPING.
3. TEMPORARY AND PERMANENT STABILIZATION PRACTICES AND BMP'S SHALL BE INSTALLED AT THE EARLIEST POSSIBLE TIME DURING THE CONSTRUCTION SEQUENCE. AS AN EXAMPLE, PERIMETER SILT FENCE SHALL BE INSTALLED BEFORE COMMENCEMENT OF ANY GRADING ACTIVITIES. OTHER BMP'S SHALL BE INSTALLED AS SOON AS PRACTICABLE AND SHALL BE MAINTAINED UNTIL FINAL SITE STABILIZATION IS ATTAINED. CONTRACTOR SHALL ALSO REFERENCE CIVIL AND LANDSCAPE PLANS SINCE PERMANENT STABILIZATION IS PROVIDED BY LANDSCAPING, THE BUILDING(S), AND SITE PAVING.
4. BMP'S HAVE BEEN LOCATED AS INDICATED ON THIS PLAN IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES IN ORDER TO MINIMIZE SEDIMENT TRANSFER. FOR EXAMPLE: SILT FENCES LOCATED AT TOE OF SLOPE AND INLET PROTECTION FOR INLETS RECEIVING SEDIMENT FROM SITE RUN-OFF.
5. THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN.
6. ANY MAJOR VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OR FENCES FROM THOSE SHOWN ON THE APPROVED PLANS WILL REQUIRE A REVISION AND MUST BE APPROVED BY THE REVIEWING ENGINEER, ENVIRONMENTAL SPECIALIST, OR ARBORIST AS APPROPRIATE. MAJOR REVISIONS MUST BE APPROVED BY THE PLANNING AND DEVELOPMENT DEPARTMENT AND THE DRAINAGE UTILITY DEPARTMENT. MINOR CHANGES OR ADDITIONAL CONTROL MEASURES TO BE MADE AS FIELD REVISIONS TO THE EROSION AND SEDIMENTATION CONTROL PLAN MAY BE REQUIRED BY THE ENVIRONMENTAL INSPECTOR DURING THE COURSE OF CONSTRUCTION TO CORRECT CONTROL INADEQUACIES AT NO ADDITIONAL COST TO THE OWNER.
7. CONTRACTOR SHALL PLACE EROSION CONTROL BLANKET (NORTH AMERICAN GREEN S150BN OR APPROVED EQUAL) ON ALL SITE AREAS WITH SLOPES GREATER THAN 4:1, AND IN THE BOTTOM AND SIDE SLOPES OF ALL SWALES.
8. PRIOR TO FINAL ACCEPTANCE, HAUL ROADS AND WATERWAY CROSSINGS CONSTRUCTED FOR TEMPORARY CONTRACTOR ACCESS MUST BE REMOVED, ACCUMULATED SEDIMENT REMOVED FROM THE WATERWAY AND THE AREA RESTORED TO THE ORIGINAL GRADE AND REVEGETATED. ALL LAND CLEARING SHALL BE DISPOSED OF IN APPROVED SPOIL DISPOSAL SITES.
9. PERMANENT, FINAL PLANT COVERING OR STRUCTURES SHALL BE INSTALLED PRIOR TO FINAL ACCEPTANCE.
10. ALL CONTROL DEVICES THAT FUNCTION SIMILARLY TO SILT FENCE OR FIBER ROLLS MUST BE REPAIRED, REPLACED OR SUPPLEMENTED WITH EFFECTIVE CONTROLS WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES ONE-THIRD THE HEIGHT OF THE DEVICE. THESE REPAIRS MUST BE MADE WITHIN 24 HOURS OF THE RAINFALL EVENT OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS.
11. ALL SEDIMENT DELTAS AND DEPOSITS MUST BE REMOVED FROM SURFACE WATERS, DRAINAGE WAYS, CATCH BASINS AND OTHER DRAINAGE SYSTEMS. ALL AREAS WHERE SEDIMENT REMOVAL RESULTED IN EXPOSED SOIL MUST BE RESTABILIZED. THE REMOVAL AND STABILIZATION MUST TAKE PLACE IMMEDIATELY, BUT NO MORE THAN 7 DAYS AFTER THE RAINFALL EVENT UNLESS PRECLUDED BY LEGAL, REGULATORY OR PHYSICAL ACCESS CONSTRAINTS. ALL REASONABLE EFFORTS MUST BE USED TO OBTAIN ACCESS. ONCE ACCESS IS OBTAINED, REMOVAL AND STABILIZATION MUST TAKE PLACE IMMEDIATELY, BUT NO MORE THAN 7 DAYS LATER. CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL APPROPRIATE AUTHORITIES AND RECEIVING THE APPLICABLE PERMITS PRIOR TO CONDUCTING ANY WORK.
12. ACCUMULATIONS OF TRACKED AND DEPOSITED SEDIMENT MUST BE REMOVED FROM OFF-SITE PAVED SURFACES WITHIN 24 HOURS OR SOONER IF REQUIRED. SEDIMENT TRACKING MUST BE MINIMIZED BY THE APPROPRIATE MANAGEMENT PRACTICE, LIKE A DEDICATED SITE EXIT WITH AN AGGREGATE SURFACE OR DESIGNATED OFFSITE PARKING AREA. CONTRACTOR IS RESPONSIBLE FOR STREET SWEEPING AND/OR SCRAPING IF YOUR PRACTICES ARE NOT ADEQUATE TO PREVENT SEDIMENT FROM BEING TRACKED FROM THE SITE.
13. SURFACE WATERS, DRAINAGE DITCHES AND CONVEYANCE SYSTEMS MUST BE INSPECTED FOR SEDIMENT DEPOSITS.
14. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ALL EROSION CONTROL MEASURES AS INDICATED ON THIS SHEET IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED BY KIMLEY-HORN AND ASSOCIATES, INC. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING THE PROVISIONS INDICATED IN THE SWPPP, INCLUDING EROSION CONTROL MEASURES AND INSPECTION FREQUENCY, AS REQUIRED BY THE IEPA NPDES PHASE II PERMIT PROGRAM REQUIREMENTS.
15. PUMPING SEDIMENT LADEN WATER INTO ANY STORMWATER FACILITY THAT IS NOT DESIGNATED TO BE A SEDIMENT TRAP, DRAINAGEWAY, OR OFFSITE AREA EITHER DIRECTLY OR INDIRECTLY WITHOUT FILTRATION IS PROHIBITED.
16. SOIL STOCKPILES SHALL NOT BE LOCATED IN A DRAINAGEWAY, FLOOD PLAIN AREA OR A DESIGNATED BUFFER, UNLESS OTHERWISE APPROVED, UNDER SPECIFIC CONDITIONS TO BE ESTABLISHED BY THE DIRECTOR OR ADMINISTRATOR.
17. STOCKPILES TO REMAIN IN PLACE FOR MORE THAN THREE DAYS SHALL BE PROVIDED WITH SESC MEASURES. MATERIAL IS TO BE HAULED OFF IMMEDIATELY AND LEGALLY IF NO STOCKPILE IS TO REMAIN IN PLACE.
18. ALL TEMPORARY SESC MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL STABILIZATION IS ACHIEVED.TRAPPED SEDIMENT AND OTHER DISTURBED SOILS RESULTING FROM TEMPORARY MEASURES SHALL BE PROPERLY DISPOSED OF PRIOR TO PERMANENT STABILIZATION.
19. WATER REMOVED FROM TRAPS, BASINS, AND OTHER WATER HOLDING DEPRESSIONS OR EXCAVATIONS MUST FIRST PASS THROUGH A SEDIMENT CONTROL AND/OR FILTRATION DEVICE. WHEN DEWATERING DEVICES ARE USED, DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION.
20. SITE STABILIZATION REQUIREMENTS ARE AS FOLLOWS:

20.1. WHERE THE INITIATION OF STABILIZATION MEASURE BY THE 7TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASES ON A PORTION OF THE SITE IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURE SHALL BE INITIATED AS SOON AS PRACTICABLE.

20.2. WHERE CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN 14 DAYS FROM WHEN ACTIVITIES CEASED, (E.G. THE TOTAL TIME PERIOD THAT CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED IS LESS THAN 14 DAYS) THEN STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE 7TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY CEASED.

Call Before You Dig JULIE 1-800-892-0123

Item 3.

No.	REVISIONS	DATE

Kimley»Horn
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4201 WINFIELD ROAD, SUITE 600, WARRENVILLE, IL 60555
PHONE: 630-487-5550
WWW.KIMLEY-HORN.COM

KHA PROJECT 168864455
DATE 7/18/2025
SCALE AS SHOWN
DESIGNED BY: MAG
DRAWN BY: MAG
CHECKED BY: JF

EROSION CONTROL DETAILS

MDW5
16825 CHURNOVIC LANE
CREST HILL, IL 60435
WILL COUNTY IL

SHEET NUMBER
C4.1

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CHURNOVIC LANE

Call Before You Dig
JULIE
1-800-892-0123

GRAPHIC SCALE IN FEET
0 20 40 80

NORTH

EXISTING BUILDING

EXISTING BUILDING

LIDICE PKWY

GRADING DETAIL 1 SEE DETAIL ON SHEET C5.1

GRADING DETAIL 2 SEE DETAIL ON SHEET 5.1

GRADING DETAIL 3 SEE DETAIL ON SHEET C5.1

GRADING NOTES

1. CONTRACTOR TO VERIFY ALL EXISTING TOPOGRAPHY AND STRUCTURES ON THE SITE AND IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING WORK.
2. ALL PAVEMENT SPOT GRADE ELEVATIONS AND RIM ELEVATIONS WITHIN OR ALONG CURB AND GUTTER REFER TO FLOW LINE ELEVATIONS UNLESS OTHERWISE NOTED.
3. ALL ELEVATIONS SHOWN DEPICT FINISHED GRADE UNLESS OTHERWISE NOTED. GENERAL CONTRACTOR TO COORDINATE WITH EXCAVATION, LANDSCAPE AND PAVING SUBCONTRACTORS REGARDING TOPSOIL THICKNESS FOR LANDSCAPE AREAS AND PAVEMENT SECTION THICKNESS FOR PAVED AREAS TO PROPERLY ENSURE ADEQUATE CUT TO ESTABLISH SUBGRADE ELEVATIONS.
4. NO EARTHEN SLOPE SHALL BE GREATER THAN 3:1, UNLESS OTHERWISE NOTED.
5. MAXIMUM SLOPE IN ACCESSIBLE PARKING SPACES AND LOADING ZONES SHALL NOT EXCEED 2.0% IN ALL DIRECTIONS.
6. MAXIMUM RUNNING SLOPE SHALL NOT EXCEED 5% AND CROSS SLOPE SHALL NOT EXCEED 2% ON ALL SIDEWALKS AND ACCESSIBLE ROUTES.
7. WHEN NATURAL FLOW OF DRAINAGE IS AWAY FROM CURB, CONTRACTOR TO INSTALL REVERSE GUTTER PITCH.
8. MATCH EXISTING ELEVATIONS AT THE PROPERTY LIMITS.

GRADING LEGEND

TP = TOP OF PAVEMENT
EP = EDGE OF PAVEMENT
FL = FLOW LINE
TC = TOP OF CURB
TF = TOP OF FOUNDATION
R = RIM ELEVATION
TW = TOP OF WALL
FG = FINISHED GRADE
TS = TOP OF STAIRS
BS = BOTTOM OF STAIRS
ME = MATCH ELEVATION

(CONTRACTOR TO VERIFY ALL MATCH EXISTING SPOT GRADE ELEVATIONS AND IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.)

- XXX — PROPOSED CONTOUR
- XXX — EXISTING CONTOUR
- RIDGE — RIDGE LINE
- X.XX% — SLOPE AND FLOW DIRECTION
- ◄ — 100-YEAR OVERLAND OVERFLOW ROUTE
- ⇦ — DETENTION BASIN 100-YEAR EMERGENCY OVERLAND OVERFLOW ROUTE
- PROPOSED SWALE
- PROPOSED RETAINING WALL

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GRADING PLAN

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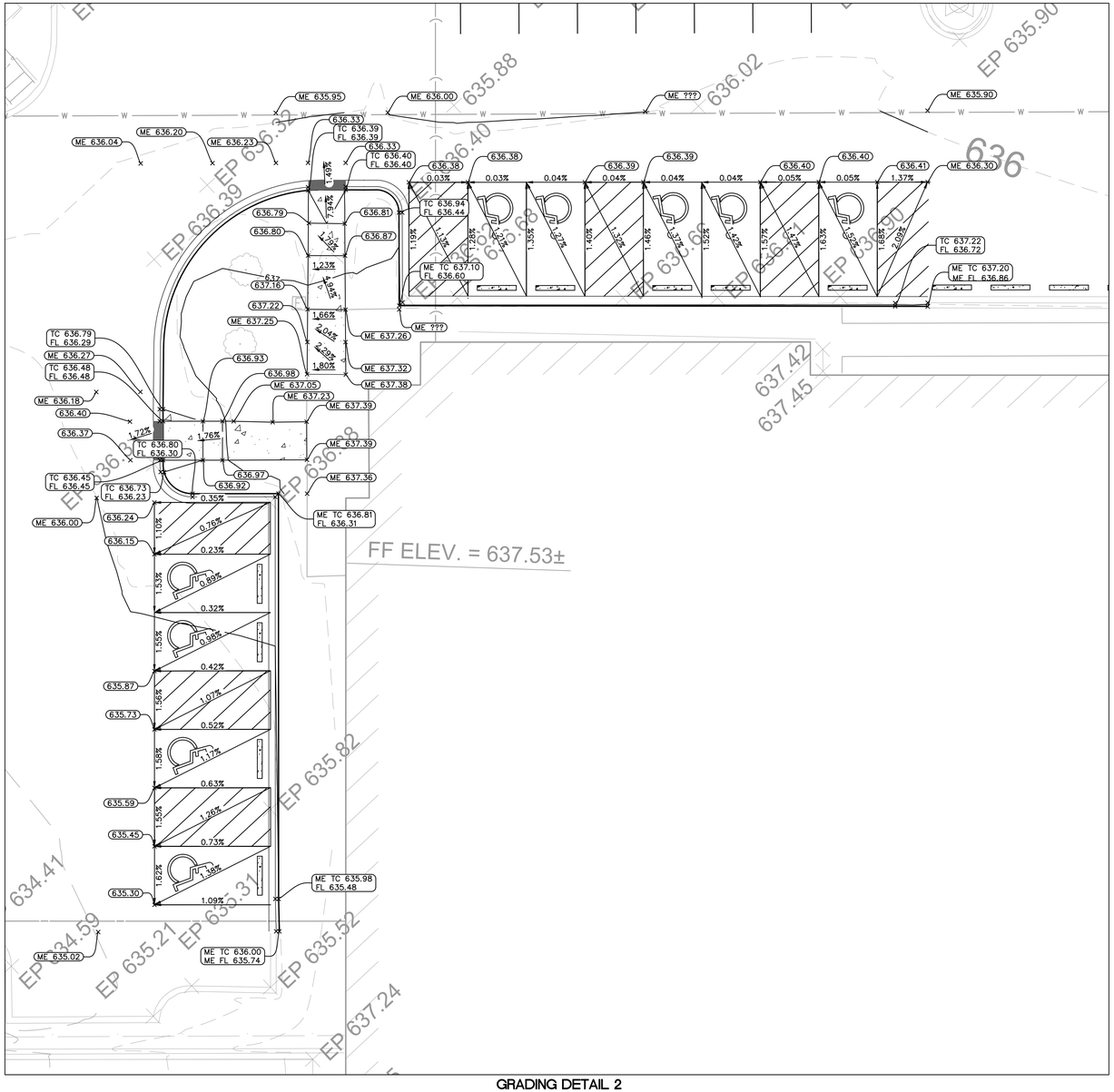
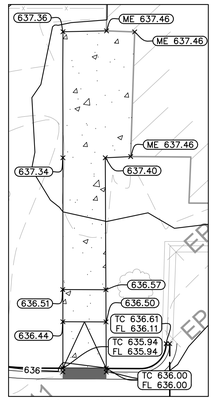
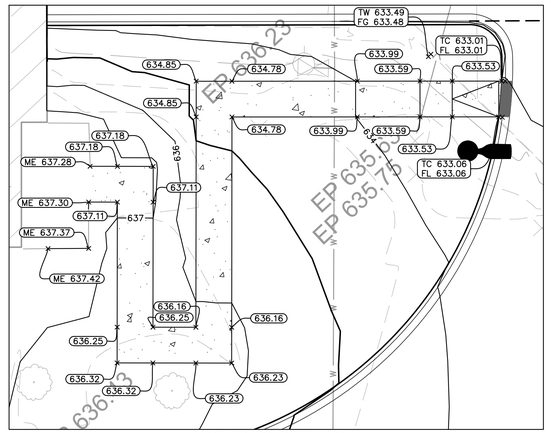


GRADING DETAIL 2
1" = 10'



GRADING DETAIL 2
1" = 10'



GRADING DETAIL 3
1" = 10'

GRADING NOTES

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(CONTRACTOR TO VERIFY ALL MATCH EXISTING SPOT GRADE ELEVATIONS AND IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.)

XXX	PROPOSED CONTOUR
XXX	EXISTING CONTOUR
RIDGE	RIDGE LINE
X.XX%	SLOPE AND FLOW DIRECTION
	100-YEAR OVERLAND OVERFLOW ROUTE
	DETENTION BASIN 100-YEAR EMERGENCY OVERLAND OVERFLOW ROUTE
	PROPOSED SWALE
	PROPOSED RETAINING WALL

GRAPHIC SCALE IN FEET
0 ## ## ##

NORTH

Item 3.

No.	REVISIONS	DATE

Kimley»Horn

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KHA PROJECT 168864455
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GRADING DETAILS

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CHURNOVIC LANE

ENTERPRISE BLVD

LIDICE PKWY

EXISTING BUILDING

EXISTING BUILDING

GRAPHIC SCALE IN FEET
0 20 40 80

NORTH

PT #6690
STORM INLET
RIM= 634.34'
INV (E)= 631.09', 12" RCP

PT #5812
SANITARY SEWER MANHOLE
RIM= 635.13'
INV (S)= 6" PVC
INV (W)= 6" PVC
BOTTOM OF STRUCTURE= 628.03'

PT #6698
MANHOLE
RIM= 634.67'
INV= (UNABLE TO OPEN)

PT #7223
INLET ROUND
RIM= 634.39'
INV (E)= 631.19', 15" RCP

PT #5694
CATCH BASIN
RIM= 634.34'
INV (E)= 630.39', 15" RCP
INV (W)= 630.44', 15" RCP

PT #5109
STORM MANHOLE
RIM= 634.14'
INV (E)= 629.07', 24" RCP (PER REC DRAWING)
INV (W)= 629.07', 18" RCP(PER REC DRAWING)

PT #5177
STORM MANHOLE
RIM= 634.87'
INV (WS)= 629.66', 15" RCP (PER REC DRAWING)
INV (E)= 630.69', 12" RCP (PER REC DRAWING)

PT #5183
STORM MANHOLE
RIM= 634.38'
INV (W)= 631.33', 12" RCP

PT #5094
STORM MANHOLE
RIM= 634.46'
INV (W)= 628.01', 24" RCP
INV (E)= 627.96', 30" RCP

PT #6318
STORM MANHOLE
RIM= 634.30'
INV (E/W)= 628.40', 30" RCP

PT #5844
STORM MANHOLE
RIM= 634.90'
INV = (UNABLE TO OPEN)
36" LID

PT #7392
STORM MANHOLE
RIM= 634.61'
INV (NW)= 631.51', 12" RCP
INV (NE)= 631.61', 12" RCP

STMH# 2018
RIM=633.97
INV E=629.57 (15" RCP)
INV SW=629.59 (15" RCP)
BOT=629.35

FF ELEV. = 637.43±

PT #5916
ROUND INLET
RIM= 634.66'
INV= (UNABLE TO OPEN)

PT #5795
ROUND INLET
RIM= 634.13'
INV (NW)= 629.99', 6" PVC
INV (E)= 629.64', 18" RCP
INV (S)= 629.84', 15" RCP

PT #6138
WATER MANHOLE
RIM= 636.27'
TOP OF PIPE (E/W)= 631.67', 10" DIP

IRRIGATION CONTROL VALVE

PT #6271
STORM MANHOLE
RIM= 635.34'
INV=UNABLE TO OPEN

IRRIGATION CONTROL VALVE

PT #6207
WATER MANHOLE
RIM= 636.66'
TOP OF PIPE (E/W)= 631.31', 10" DIP

FF ELEV. = 637.49±

SMH
RIM=636.25
INV NE/S=625.95 (6" PVC)
BOT=625.95
FLOWS NE

STMH# 2950
RIM=634.43
INV SE=628.13 (12" RCP)
INV N=629.63 (6" PVC)
INV E=627.88 (30" RCP)
INV W=627.93 (24" RCP)
T/WATER=627.53
BOT=624.73

STMH# 3122
RIM=635.06
INV NW=628.26 (12" RCP)

IN# 1107
RIM=637.77
INV S=634.77 (15" RCP)
INV N=634.77 (12" RCP)
T/DEBRIS=635.07

VERTICAL CAPPED PIPE

PT #8050
STORM MANHOLE
RIM= 637.69'
INV (N)= 635.59', 15" RCP
INV (NE) = 635.64', 12" RCP

PT #8051
STORM MANHOLE
RIM= 637.36'
INV (S)= 634.86', 12" RCP

STMH# 2942
RIM=636.93
INV N=632.78 (12" RCP)
INV SE=632.63 (6" PVC)
BOT=632.58

STMH# 2949
RIM=636.00
INV E=630.05 (6" PVC)
INV S=630.00 (6" PVC)
INV W=632.40 (6" PVC)
BOT=630.00

STMH# 3000
RIM=634.05
INV W=628.55 (30" RCP)
INV S=628.45 (30" RCP)
T/WATER=628.45
BOT=625.35

PT #9719
SANITARY SEWER MANHOLE
RIM= 633.03'
INV (E)= 6" CLAY
INV (S)= 6" CLAY
BOTTOM OF STRUCTURE= 619.38'

PT #9421
SANITARY MANHOLE
RIM= 635.56'
INV = (UNABLE TO OPEN)

PT #8801
STORM MANHOLE
RIM= 633.09'
INV (SW) = 629.59', 18" RCP
INV (N)= 629.59', 12" RCP

PT #8870
STORM MANHOLE
RIM= 632.78'
INV (NE)= 628.58', 12" RCP
INV (SE)= 628.53', 15" RCP

PT #4032
STORM MANHOLE
RIM= 631.62'
INV (N/S)= 623.90', 42" RCP
INV (SW)= 623.97', 12" RCP

PT #4046
STORM MANHOLE
RIM= 632.56'
INV (NE)= 624.49', 12" RCP
INV (W)= 629.13', 12" RCP
INV (S)= 628.93', 12" RCP

FF ELEV. = 637.46±

19 LF OF 6" PVC

91 LF OF 6" PVC

21 LF OF 6" PVC

11 LF OF 6" PVC @ 30.31%

11 LF OF 6" PVC @ 30.32%

19 LF OF 6" DIP

33 LF OF 6" DIP

33 LF OF 6" DIP

PT #3536
WATER VALVE VAULT
RIM= 635.01'
T/PIPE (N/S)=626.98', 10" DIP

PT #9628
STORM INLET
RIM= 631.35'
627.95', 12" RCP

PT #9604
STORM INLET
RIM= 630.55'
INV= (UNABLE TO DIP DUE TO DEBRIS)

PT #9594
STORM INLET
RIM= 630.58'
INV (N)= 621.98', 54" RCP
INV (S)= 621.88', 54" RCP

PT #8712
STORM INLET
RIM= 632.01'
INV (NW)= 628.46', 18" RCP
(UNABLE TO SEE OTHER PIPES)

PT #8794
MANHOLE
RIM= 634.04'
INV = (SEALED-UNABLE TO OPEN)

PT #8983
STORM INLET
RIM= 631.51'
INV (NW)= 627.91', 15" RCP
INV (SE)= 627.86', 15" RCP

PT #8386
MANHOLE
RIM= 631.94'
INV (N)= 622.11', 36" RCP
INV (S)= 622.01', 36" RCP

PT #3504
STORM MANHOLE
RIM= 631.14'

PT #3434
STORM MANHOLE
RIM= 633.25'
INV (W)= 622.60', 72" RCP
INV (E)= 617.56', 72" RCP

PT #8555
WATER VALVE
RIM= 633.84'
TOP OF PIPE (N/S)= 627.14', 12" DIP
TOP OF PIPE (W)= 627.44', 12" DIP

PT #8550
WATER VALVE
RIM= 634.18'
TOP OF PIPE (E/W)= 627.88', 12" DIP

PT #858
WATER
RIM= 63
TOP OF
BOTTOM
(FLOOD

SMH
RIM=636.16
INV N=617.21 (22"
INV S=616.86 (22"
INV SW=617.86 (6"
BOT=617.06

STMH# 3334
RIM=633.43
INV N=628.93 (12" RCP
INV W=629.03 (12" RCP
INV SE=626.98 (15" RCP
BOT=626.73

UTILITY LEGEND

- EX. WATER LINE
- EX. WATER VALVE
- EX. FIRE HYDRANT
- EX. SANITARY SEWER LINE
- EX. SANITARY SEWER MANHOLE
- EX. STORM DRAIN LINE
- EX. STORM MANHOLE
- EX. STORM STRUCTURE/INLET
- EX. LIGHT POLE
- EX. TELECOM. PEDESTAL
- PROPOSED OPEN LID STORM STRUCTURE (PAVEMENT USE NEENAH R-2540) (GRASS USE NEENAH R-4340-B BEEHIVE)
- PROPOSED SANITARY SEWER LINE
- PROPOSED SANITARY MANHOLE
- PROPOSED WATER LINE
- PROPOSED FIRE HYDRANT

UTILITY NOTES

1. ALL WATER LINES ≥ 3" SHALL BE DUCTILE IRON PIPE, CLASS 52.
2. ALL SANITARY SEWER LINES SHALL BE PVC MEETING, ASTM D-3034 SDR 26 EXCEPT FOR SANITARY SEWER THAT CROSSES ABOVE WATER MAIN, THIS PIPE SHALL BE AWWA C900 (UNLESS WATER MAIN CASING IS UTILIZED). PROVIDE 42" MINIMUM COVER.
3. CONTRACTOR SHALL COORDINATE ANY DISRUPTIONS TO EXISTING UTILITY SERVICES WITH ADJACENT PROPERTY OWNERS.
4. ALL ELECTRIC AND TELEPHONE EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE DESIGNATED UTILITY COMPANIES.
5. CONSTRUCTION SHALL NOT START ON ANY PUBLIC UTILITY SYSTEM UNTIL WRITTEN APPROVAL HAS BEEN RECEIVED BY THE ENGINEER FROM THE APPROPRIATE GOVERNING AUTHORITY AND CONTRACTOR HAS BEEN NOTIFIED BY THE ENGINEER.
6. CONTRACTOR TO CALL "JULIE" (1-800-892-0123) TO COORDINATE FIELD LOCATIONS OF EXISTING UNDERGROUND UTILITIES BEFORE ORDERING MATERIALS OR COMMENCING CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES IMMEDIATELY.
7. PRIOR TO THE CONSTRUCTION OF OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, WATER MAIN OR ANY OTHER UTILITIES, THE CONTRACTOR SHALL EXCAVATE, VERIFY AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND INFORM THE ENGINEER AND THE OWNER/ DEVELOPER OF ANY CONFLICT OR REQUIRED DEVIATIONS FROM THE PLAN. NOTIFICATION SHALL BE MADE A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION. THE ENGINEER AND ITS CLIENTS SHALL BE HELD HARMLESS IN THE EVENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION. THE MUNICIPALITY SHALL BE NOTIFIED OF ANY AND ALL CHANGES TO THE DESIGN PLANS.
8. CONTRACTOR SHALL COMPLY COMPLETELY WITH THE LATEST STANDARDS OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING AND OTHER MEANS OF PROTECTION. THIS IS TO INCLUDE, BUT NOT LIMITED FOR ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH PERFORMANCE CRITERIA AS REQUIRED BY OSHA.
9. CONTRACTOR TO AVOID DISRUPTION OF ANY ADJACENT TENANT'S TRAFFIC OPERATIONS DURING INSTALLATION OF UTILITIES.
10. ALL DIMENSIONS ARE TO CENTERLINE OF PIPE OR CENTER OF MANHOLE UNLESS NOTED OTHERWISE.
11. SEE ARCHITECTURAL AND MEP PLANS FOR EXACT UTILITY CONNECTION LOCATIONS AT BUILDING.
12. LIGHT POLES SHOWN FOR COORDINATION PURPOSES ONLY AND DO NOT REPRESENT ACTUAL SIZE. SEE SITE LIGHTING PLANS BY OTHERS FOR MORE INFORMATION.
13. SEE DETAILS FOR LOCATING STORM STRUCTURES WITHIN THE CURB LINE.
14. STORMWATER FACILITIES MUST BE FUNCTIONAL BEFORE BUILDING CONSTRUCTION BEGINS IF REQUIRED BY AUTHORITY HAVING JURISDICTION.

UTILITY CROSSING LEGEND

X1	42" STORM 6" WATER	B/P = 623.13 T/P = 621.63
X2	6"WATER 12"SAN.	B/P = 628.10 T/P = 624.36

NOTE: WHERE THERE IS LESS THAN 10 FT HORIZONTAL OR 18-IN VERTICAL SEPARATION BETWEEN A SEWER AND WATER MAIN, OR IF WATER MAIN CROSSES UNDER A SEWER, WATER MAIN QUALITY PIPE IS TO BE USED TO CONSTRUCT THE SEWER OR EITHER PIPE IS TO BE ENCASED. THE PROTECTION MUST EXTEND ON EACH SIDE OF THE CROSSING UNTIL THE DISTANCE BETWEEN THE WATER MAIN AND SEWER IS AT LEAST 10 FT. ACCEPTABLE WATER MAIN QUALITY PIPE INCLUDES PVC SDR/WMQ MEETING ASTM D2241 WITH JOINTS MEETING ASTM D3139 OR DUCTILE IRON PIPE. RCP STORM SEWER WITH FLEXIBLE GASKET JOINTS MEETING ASTM C361 OR ASTM C443 IS ALSO ACCEPTABLE AT CROSSINGS.

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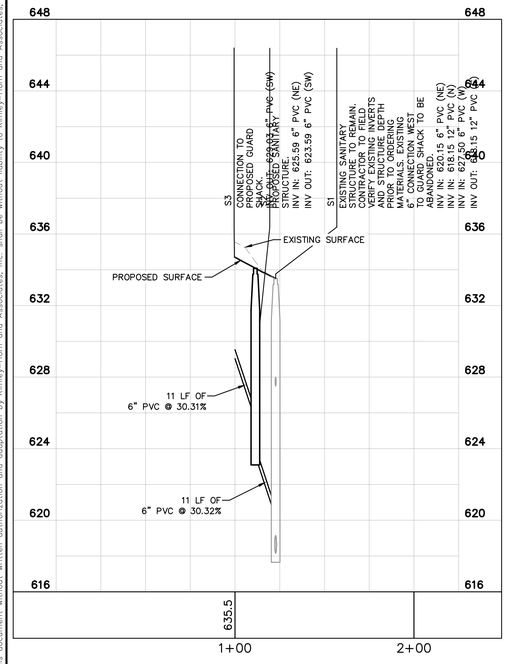
CREST HILL, IL 60435
WILL COUNTY IL

SHEET NUMBER
C6.0



SANITARY SEWER

V: 1"= 4' H: 1"= 40'

STORM STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
D1	PROPOSED STORM STRUCTURE. CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING STORM PIPE PRIOR TO ORDERING MATERIALS. RIM: 632.00 INV IN: 622.82 (N, 42") INV OUT: 622.82 (S, 42")

SANITARY STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
S1	EXISTING SANITARY STRUCTURE TO REMAIN. CONTRACTOR TO FIELD VERIFY EXISTING INVERTS AND STRUCTURE DEPTH PRIOR TO ORDERING MATERIALS. EXISTING 6" CONNECTION WEST TO GUARD SHACK TO BE ABANDONED. RIM: 633.51 INV IN: 620.15 (NE, 6") INV IN: 618.15 (N, 12") INV IN: 627.50 (W, 6") INV OUT: 618.15 (S, 12")
S2	PROPOSED SANITARY STRUCTURE. RIM: 634.09 INV IN: 625.59 (NE, 6") INV OUT: 623.59 (SW, 6")

MISCELLANEOUS SANITARY STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
S3	CONNECTION TO PROPOSED GUARD SHACK. INV OUT: 629.03 (SW, 6")

WATER STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
W1	CONNECTION TO EXISTING 10" WATER MAIN. CONTRACTOR TO FIELD VERIFY EXACT LOCATION, SIZE, & DEPTH PRIOR TO ORDERING MATERIALS. FG ELEV: 634.37
W2	CONNECTION TO PROPOSED GUARD SHACK. METER AND BACKFLOW PREVENTER TO BE INSTALLED INTERNAL TO GUARD SHACK. FG ELEV: 634.70
W3	CUT IN CONNECTION TO EXISTING 10" WATER MAIN. CONTRACTOR TO FIELD VERIFY EXACT LOCATION, SIZE, & DEPTH PRIOR TO ORDERING MATERIALS. FG ELEV: 634.42
W4	PROPOSED FIRE HYDRANT. SEE CONSTRUCTION DETAILS FOR HYDRANT AND VALVE ASSEMBLY. FG ELEV: 633.65

WATER STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
W5	CUT IN CONNECTION TO EXISTING 10" WATER MAIN. CONTRACTOR TO FIELD VERIFY EXACT LOCATION, SIZE, & DEPTH PRIOR TO ORDERING MATERIALS. FG ELEV: 634.14
W6	PROPOSED FIRE HYDRANT. SEE CONSTRUCTION DETAILS FOR HYDRANT AND VALVE ASSEMBLY. FG ELEV: 633.98
W7	CUT IN CONNECTION TO EXISTING 10" WATER MAIN. CONTRACTOR TO FIELD VERIFY EXACT LOCATION, SIZE, & DEPTH PRIOR TO ORDERING MATERIALS. FG ELEV: 635.10
W8	PROPOSED FIRE HYDRANT. SEE CONSTRUCTION DETAILS FOR HYDRANT AND VALVE ASSEMBLY. FG ELEV: 635.94

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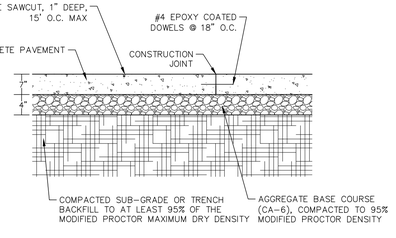
KHA PROJECT 168664455
DATE 7/18/2025
SCALE AS SHOWN
DESIGNED BY: MAG
DRAWN BY: MAG
CHECKED BY: JF

UTILITY PROFILES & TABLES

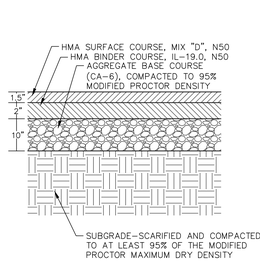
MDW5
16825 CHURNOVIC LANE
CREST HILL, IL 60435
WILL COUNTY IL

SHEET NUMBER C6.1



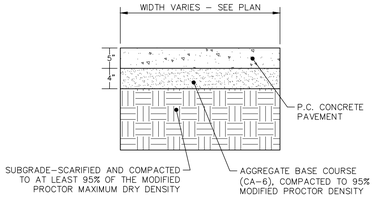
HEAVY DUTY CONCRETE PAVEMENT SECTION

N.T.S.



HEAVY DUTY ASPHALT PAVEMENT SECTION

N.T.S.

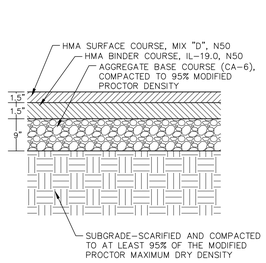


NOTES:

1. PROVIDE 1/2" EXPANSION JOINTS AT 20', MAXIMUM, SPACING AND FILLED WITH PREMOLDED BITUMINOUS EXPANSION JOINT FILLER MATERIAL OR REDWOOD. EXPANSION JOINTS SHALL HAVE #4 DOWELS, LUBRICATED, 18" LONG, AT 12" CENTERS, 6" FROM EDGE.
2. PROVIDE 3/8" GROOVED CONTROL JOINTS AT 5' CENTERS.
3. WELDED WIRE FABRIC (6X6-6X6) SHALL BE INSTALLED THROUGH DRIVEWAYS AT 2" ABOVE SLAB BOTTOM.
4. PROVIDE 1/2" BITUMINOUS EXPANSION JOINT FILLER MATERIAL WHERE WALK ABUTS EXISTING IMPROVEMENTS AND AT ALL CHANGES IN GRADE
5. USE 2-#4 REINFORCING BARS, 10' LONG OVER ALL UTILITY TRENCHES FOR NEW SIDEWALK AND CONNECTIONS TO EXISTING SIDEWALK.
6. AT DRIVE APPROACHES, SIDEWALK PCC AND BASE THICKNESS SHALL MATCH THAT OF THE DRIVE.

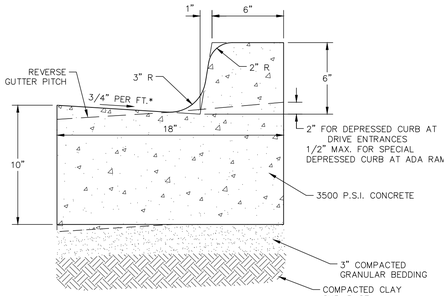
CONCRETE SIDEWALK

N.T.S.



STANDARD DUTY ASPHALT PAVEMENT SECTION

N.T.S. 10/19/20

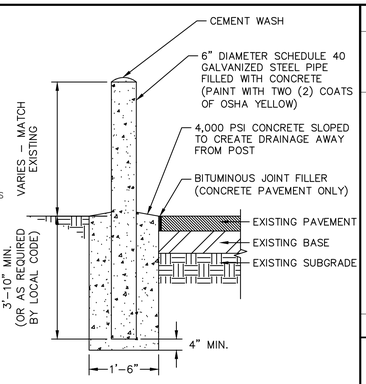


NOTES: USE TWO - #5 REBARS FOR 10 L.F. ON EITHER SIDE OF ALL UTILITY TRENCHES. INSTALL EXPANSION JOINTS EVERY 50 FT. AND SAW-CUT CONSTRUCTION JOINTS EVERY 25 FT.

* MAXIMUM GUTTER SLOPE AT ADA RAMPS TO BE 5.0%

B6.12 CURB & GUTTER

N.T.S.



BOLLARD

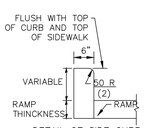
N.T.S.

GENERAL NOTES:

1. THE MAXIMUM SLOPE OF THE SIDE FLARE FOR TYPE B RAMPS SHALL BE 1:10; HOWEVER, IF THE WIDTH OF THE LANDING AREA BETWEEN THE TOP OF THE RAMP AND AN OBSTRUCTION IS LESS THAN (4'-0") THEN THE MAXIMUM SLOPE SHALL BE 1:12.
2. ALL SLOPE RATIOS ARE EXPRESSED AS UNITS OF VERTICAL DISPLACEMENT TO UNITS OF HORIZONTAL DISPLACEMNT (V:H).
3. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.
4. RAMP DETAILS TO BE COORDINATED PER VILLAGE REQUIREMENTS.
5. DETECTABLE WARNINGS SHALL CONSIST OF TRUNCATED DOMES WHICH CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT.
6. CONTRACTOR TO SELECT ADA DETECTABLE WARNING PERMEABLE PAVERS OR CONCRETE WITH ADA DETECTABLE WARNING DOMES FOR RAMPS.

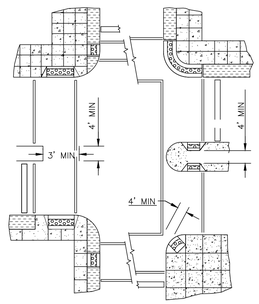
LEGEND

- SIDEWALK
- RAMP
- DETECTABLE WARNINGS
- NON WALKING AREA
- FACE OF BUILDING

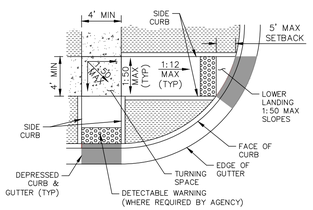


DETAIL OF SIDE CURB

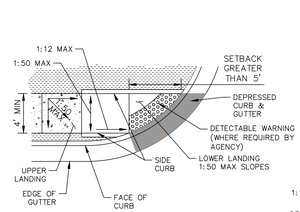
(SIDE CURB MAY BE CONSTRUCTED MONOLITHICALLY WITH RAMP)



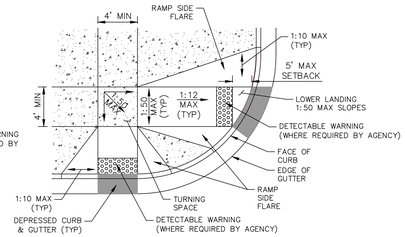
RECOMMENDED LOCATION OF RAMPS



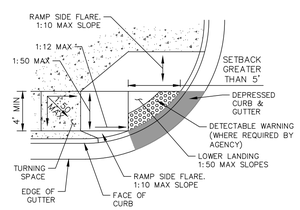
RAMPS IN LANDSCAPED AREA (SETBACK < 5')



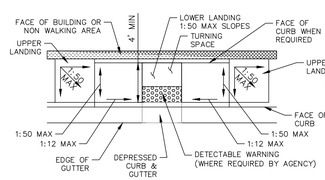
RAMPS IN LANDSCAPED AREA (SETBACK > 5')



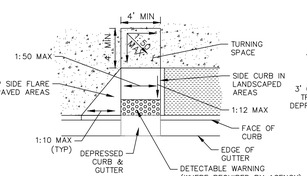
RAMPS IN PAVED AREA (SETBACK < 5')



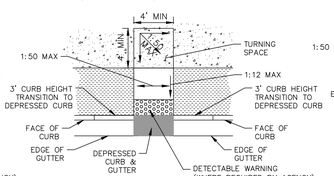
RAMPS IN PAVED AREA (SETBACK > 5')



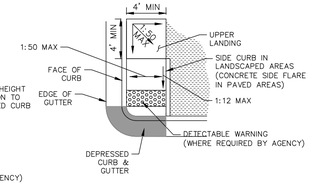
PARALLEL MID-BLOCK CURB RAMP



PERPENDICULAR MID-BLOCK CURB RAMP



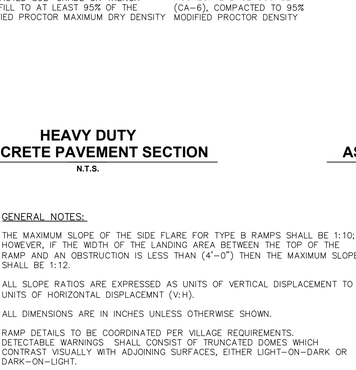
PERPENDICULAR MID-BLOCK CURB RAMP (OPTION 2)



RAMPS ADJACENT TO PAVEMENT

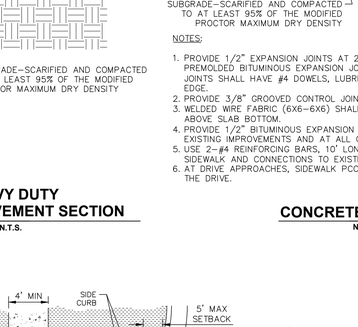
SIDEWALK AND SIDEWALK RAMPS

N.T.S.



STORM MANHOLE TYPE A

N.T.S.

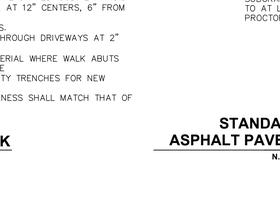


NOTES:

1. UNLESS OTHERWISE NOTED, USE THE FOLLOWING FRAMES & GRATES OR EQUALS:
   1.1. -IN PAVED AREAS: NEENAH R-1713 OR APPROVED EQUAL W/TYPE B COVER (CLOSED)
   1.2. -IN GRASS: NEENAH R-1711 W/TYPE B COVER (CLOSED)
2. EAST JORDAN EQUIVALENTS ALSO MAY BE USED.
3. ALL COVERS SHALL BE SELF SEALING WITH CONCEALED PICK HOLES AND HAVE "SANITARY" CAST ON THE COVER.
4. SANITARY MANHOLES NEED WATER PROOF COATING ON EXTERIOR AND STEPS.
5. MASTIC ROPE REQUIRED BETWEEN ALL PRECAST SECTIONS WITH CHIMNEY SEAL.
6. WATER PROOF WRAP REQUIRED ON ALL JOINTS.
7. HYRDRAULIC CEMENT REQUIRED FOR ANY ANNULAR SPACES AROUND THE PIPES AND BOOTS.

SANITARY MANHOLE

N.T.S.



① MECHANICALLY COMPACTED CA-6 CRUSHED STONE IN 6 INCH LIFTS UNDER OR WITHIN 2 FEET OF ANY PAVEMENT, CURB, GUTTER, OR SIDEWALK. MACHINE COMPACTION OF EXCAVATED MATERIAL IN OTHER LOCATIONS WHERE SUITABLE.

② WATERMAIN & FORCEMAIN:
CA-11 CRUSHED STONE TAMPED INTO PLACE TO SPRING LINE OF DUCTILE IRON PIPE

STORM SEWER & SANITARY SEWER:
CA-11 CRUSHED STONE TAMPED INTO PLACE TO SPRING LINE OF PIPE
*ADDITIONAL 12" OF CA-11 CRUSHED STONE ABOVE TOP OF PVC PIPE.

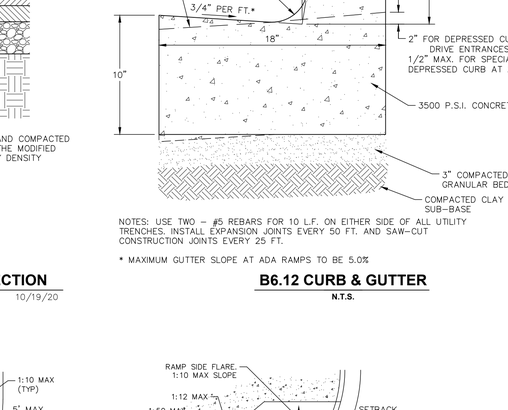
③ 4" BED MECHANICALLY COMPACTED CA-11 CRUSHED STONE

④ UNSUITABLE MATERIAL TO BE REMOVED AND REPLACED WITH GRANULAR MATERIAL AS DIRECTED BY GEOTECHNICAL ENGINEER.

⑤ TRENCH WIDTH: OUTSIDE DIAMETER + 18 IN.

PIPE BEDDING DETAIL

N.T.S.

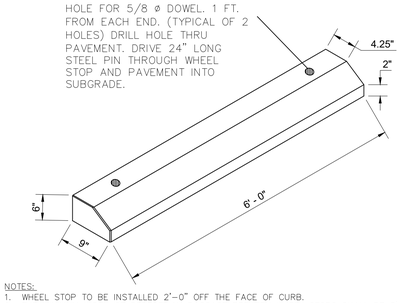


GENERAL NOTES:

1. MAXIMUM BARREL EXTENSIONS ARE 18 INCHES AND SHALL BE WATEROUS EXTENSION FOR WATEROUS HYDRANTS.
2. ALL HYDRANTS ARE TO BE SUPPLIED WITH A 6" FLANGED AND MECHANICAL JOINT AUXILIARY VALVE THAT CONFORMS TO AWWA 500-80. ALL TRIM BOLTS ARE TO BE STAINLESS STEEL.
3. ALL BELOW GRADE FASTENERS TO BE STAINLESS STEEL:
   A. BOLTS AND THREADED RODS - GRADE #304
   B. NUTS AND WASHERS - GRADE #300
4. MEGA-LUG RETAINERS MUST BE INSTALLED ON ALL MECHANICAL FITTINGS.

FIRE HYDRANT

N.T.S.



NOTES:

1. WHEEL STOP TO BE INSTALLED 2'-0" OFF THE FACE OF CURB.
2. THE MINIMUM WIDTH OF PEDESTRIAN PASSAGE BETWEEN WHEEL STOPS SHALL BE 3'.
3. WHEEL STOPS SHOULD BE NO LONGER THAN 6' WIDE AND PLACED IN THE CENTER OF PARKING STALLS.
4. WHEEL STOPS SHALL NOT EXCEED 6.5" IN HEIGHT ABOVE THE PARKING LOT SURFACE.
5. CONCRETE WHEEL STOP TO BE PAINTED SAFETY YELLOW.

CONCRETE WHEEL STOP

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Item 3.

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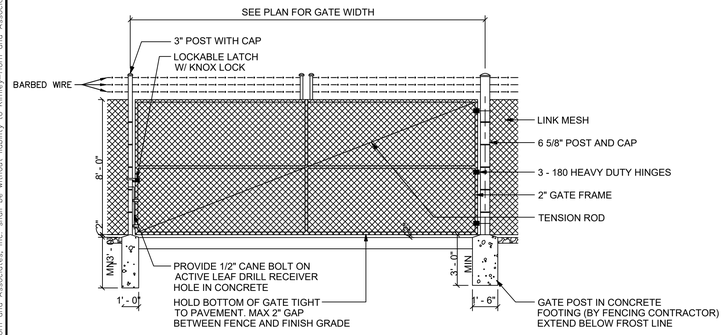
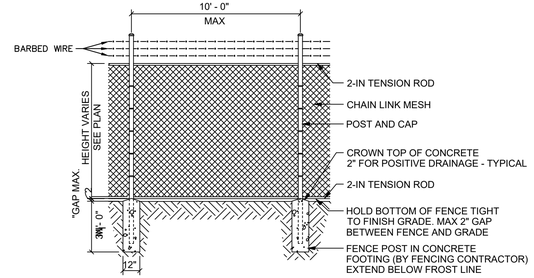


DOUBLE SWING GATES

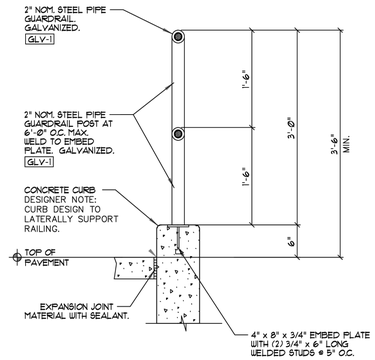
N.T.S.

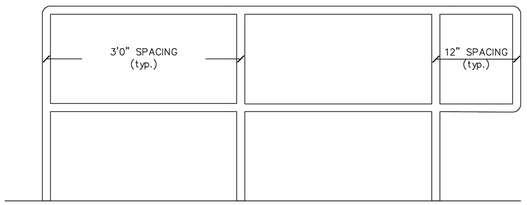


CHAIN LINK FENCE

N.T.S.

NOTE:
ALL JOINTS SHALL BE WELDED AND GROUND SMOOTH. ALL PIPE TO BE SCHEDULE 40. PAINT SAFETY YELLOW.





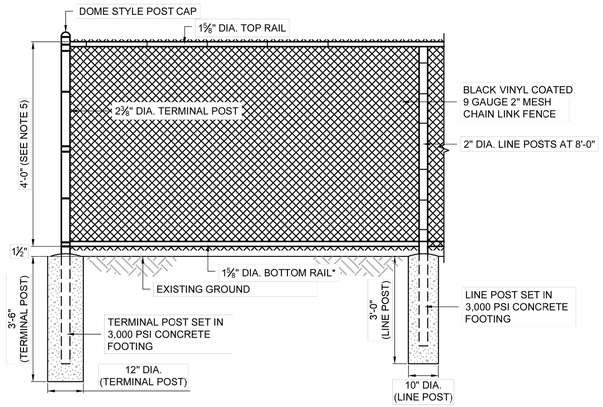
NOTE:
VERIFY RAILING POST SPACING AND CURB EMBED DESIGN WITH STRUCTURAL ENGINEER OF RECORD.

GUARDRAIL DETAIL

0 1' 2' 3' 4'
GRAPHIC SCALE

NOTES:
1. ALL FENCE ELEMENTS SHALL BE BLACK VINYL COATED
2. POST CAPS SHALL BE DOME STYLE
3. FENCE TIES SHALL BE 9 GAUGE BLACK VINYL COATED
4. FENCE DEPTHS MAY VARY PER LOCAL CODES
5. FENCE HEIGHT MAY REQUIRE PERMITTING BY LOCAL AUTHORITY HAVING JURISDICTION
6. TO BE INSTALLED TO SAFELY ROUTE PEDESTRIANS TO DESIGNATED CROSSWALKS AND TO PREVENT UNSAFE CROSSING OUTSIDE DESIGNATED AREAS
7. FENCE SETBACK FROM CURBING VARIES PER LOCAL REGULATORY REQUIREMENTS, SNOW CONDITIONS AND SIGHTLINES

*BOTTOM RAIL MAY BE REPLACED BY A BOTTOM WIRE



PEDESTRIAN BARRIER FENCE DETAIL

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KHA PROJECT
168864455
DATE
7/18/2025
SCALE AS SHOWN
DESIGNED BY: MAC
DRAWN BY: MAG
CHECKED BY: JF

SIGNAGE & STRIPING DETAILS

MDW5
16825 CHURNOVIC LANE
CREST HILL, IL 60435
WILL COUNTY
IL

SHEET NUMBER
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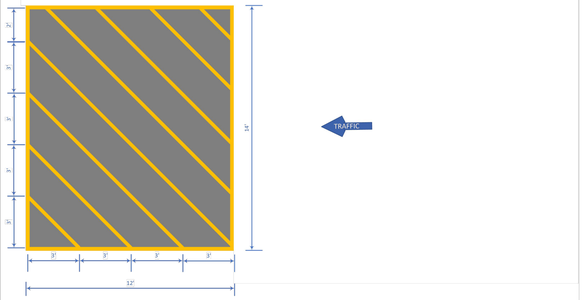
FRONT HASH MARKS PAINTING SPECIFICATIONS

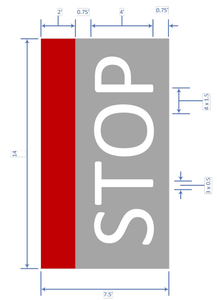
Front yellow hash markings to be done in 4 inch thick lines. Reflective glass beads MUST be added to the paint. Paint must be water based in Highway Gothic Sans Serif font Layout on how to prepare for this is on sheets 11 and 12.



Client	Amazon TOM TIE	Page 11 of 20	Prepared by	Charles Mayaka	Date	2/17/2023
Process	ALPR STANDARD LAYOUT		Approved by	Seth Dorfman	Date	2/17/2023

STOP BAR AND STOP LETTERS SPECIFICATIONS

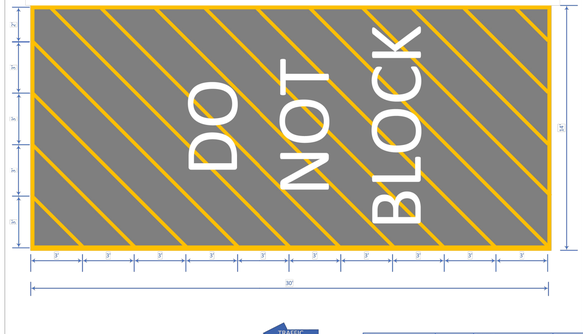
STOP Box letters heights 4', width 1.5'. Paint must be water based or acrylic and all lettering must be done in sans serif font (Highway Gothic recommended)
Reflective glass beads MUST be added to the paint



Client	Amazon TOM TIE	Page 13 of 20	Prepared by	Charles Mayaka	Date	2/17/2023
Process	ALPR STANDARD LAYOUT		Approved by	Seth Dorfman	Date	2/17/2023

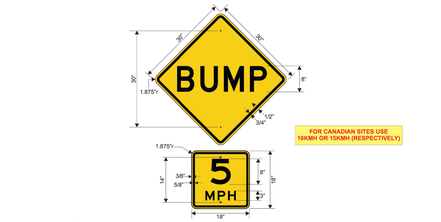
"DO NOT BLOCK" AND HASH MARKS SPECIFICATIONS

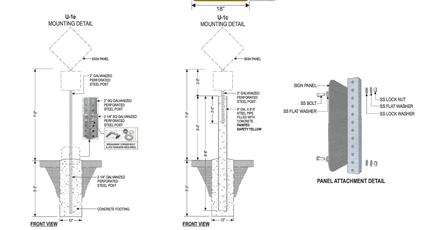
DO NOT BLOCK letter heights 4', width 1.5'. Paint must be water based or acrylic and all lettering must be done in sans serif font (Highway Gothic recommended)
Yellow hash markings to be done in 4 inch thick lines. Layout on how to prepare for this is on sheets 9 and 10.
Reflective glass beads MUST be added to the paint



Client	Amazon TOM TIE	Page 12 of 20	Prepared by	Charles Mayaka	Date	2/17/2023
Process	ALPR STANDARD LAYOUT		Approved by	Seth Dorfman	Date	2/17/2023

BU / Program / Type: ALL

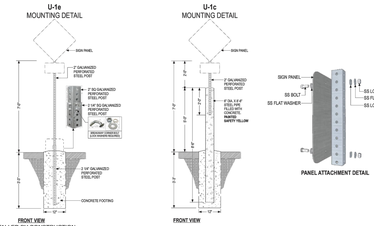




INSTALLED BY CONSTRUCTION

Designation:	S-3(Mod)	Notes:	Colors:
Description:	Bump/Speed Limit 5mph Sign MUTCD W8-1 AND W13-1P	DOT standard SPEED BUMP sign, with 5 MPH sign supplemental placard. Use at speed bumps. Post and panel mount.Hardware	OPAQUE BLACK; REFLECTIVE YELLOW
Substrate:	.080" Alum.		
Graphics:	Digitally printed graphics on high intensity reflective sheeting		

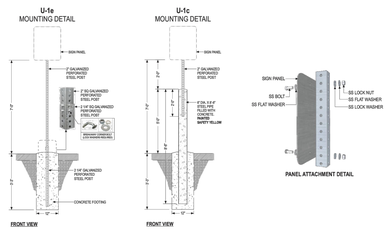
BU / Program / Type: ALL



INSTALLED BY CONSTRUCTION

Designation:	S-5(L)	Notes:	Colors:
Description:	Pedestrian Walking Sign / MUTCD W11-2 and W16-7pL	DOT standard PEDESTRIAN CROSSING sign with LEFT arrow. 30" x 30" sign with 12" x 24" placard DOT standard PEDESTRIAN CROSSING sign with arrow. Use at mid-block pedestrian crossings. Post and Panel mount. **Designer's Note:** LED lights or Rectangular Rapid Flash Beacon may be added at high traffic intersections as determined by Civil Engineer / IIIHS This sign shall not be used at stop controlled intersections.	OPAQUE BLACK; REFLECTIVE YELLOW
Substrate:	.080" Alum.		
Graphics:	Digitally printed graphics on high intensity reflective sheeting		

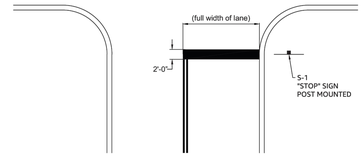
BU / Program / Type: ALL; Except SSD-FC



INSTALLED BY CONSTRUCTION

Designation:	AS-22	Notes:	Colors:
Description:	Standing Only - Pick-Up Drop-Off	**Use to identify drop off/pick up zone.** **Panel :** 18" Alum. panel with high intensity reflective white sheeting. **Copy :** Direct print copy **Font :** Amazon Ember **Installation :** Mounted with (1) square galvanized steel post.	BLACK; WHITE; TRANS SAFETY RED PMS 186 C
Substrate:	.080" Alum.		
Graphics:	Digitally printed graphics on high intensity reflective sheeting		

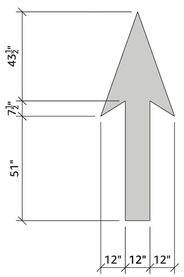
BU / Program / Type: All; Except AMZL; Exist. Bldg.; AVI, FSC



INSTALLED BY CONSTRUCTION

Designation:	PG-1	Notes:	Colors:
Description:	Parking Striping Graphics	Used at all STOP sign (5-1 or 5-1b) locations. Stop and yield lines should be placed a minimum of 4' in advance of and parallel to the nearest crosswalk line at controlled intersections. In the absence of a marked crosswalk, the stop line should be placed at the desired stopping point, but should be placed no more than 30' nor less than 4' from the nearest edge of the intersecting traveled way. Stop lines should be placed to allow sufficient sight distance to all other approaches to an intersection. Guidance for STOP pavement graphic: MUTCD Section 3B.20 Pavement Word, Symbol, and Arrow Markings. (source: https://mutcd.fhwa.dot.gov/htm/2009/part3/part3b.htm#section3B20) Guidance: Letters and numerals should be 6 feet or more in height.	C1 WHITE
Substrate:	PAVEMENT		
Graphics:	Hot Applied Thermoplastic Graphic		

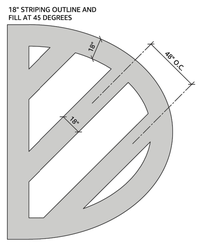
BU / Program / Type: All; Except AMZL; Exist. Bldg.; AVI, FSC



INSTALLED BY CONSTRUCTION

Designation:	PG-5	Notes:	Colors:
Description:	Parking Striping Graphics	Used to direct traffic at one-way drive aisles. Color shall be white on asphalt and yellow on concrete, unless otherwise noted.	C1 WHITE; SAFETY YELLOW PMS 109 C
Substrate:	PAVEMENT		
Graphics:	Hot Applied Thermoplastic Graphic		

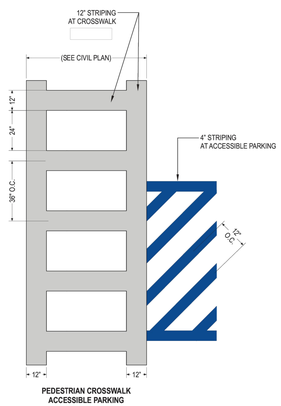
BU / Program / Type: All; Except AMZL; Exist. Bldg.; AVI, FSC



INSTALLED BY CONSTRUCTION

Designation:	PG-10	Notes:	Colors:
Description:	Parking Striping Graphics/prohibit vehicle travel and parking.	18" striping outline and fill at 45 degrees. Used to prohibit vehicle travel and parking. C3 yellow at NO TRAFFIC, C8 accessible blue at ACCESSIBLE PARKING, C1 white at VENDOR PARKING. Included at emergency exits into the parking lot at all parking spaces that impede direct access to the thoroughfare.	C1 WHITE; SAFETY YELLOW PMS 109 C; C8 BLUE
Substrate:	PAVEMENT		
Graphics:	Hot Applied Thermoplastic Graphic		

BU / Program / Type: All; Except AMZL; Exist. Bldg.; AVI, FSC

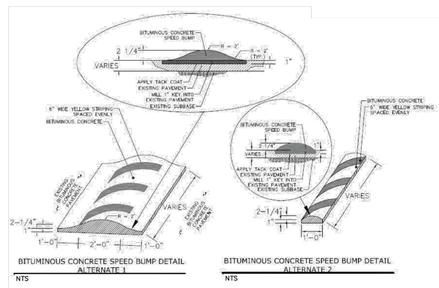


PEDESTRIAN CROSSWALK
ACCESSIBLE PARKING

INSTALLED BY CONSTRUCTION

Designation:	PG-11	Notes:	Colors:
Description:	Parking Striping Graphics/Pedestrian crossing	Used to indicate pedestrian crossing. See Civil plan for width of crosswalk. Color shall be white on asphalt and yellow on concrete, unless otherwise noted.	C1 WHITE; SAFETY YELLOW PMS 109 C; BLUE PMS 293
Substrate:	PAVEMENT		
Graphics:	Hot Applied Thermoplastic Graphic		

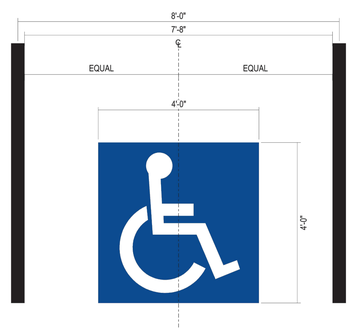
BU / Program / Type: All; Except AMZL; AVI, FSC



INSTALLED BY CONSTRUCTION

Designation:	PG-16	Notes:	Colors:
Description:	Pavement Graphics - Small Speed Bump	Use to control speed at interior drive aisles with 5 mph (10 kmph) speeds. Reflective yellow stripe. **Designer's Note:** All speed bumps shall be asphalt or concrete. Heavy duty rubber speed bumps are not permitted. The speed bump should be 2.25 to 2.5 inches high as measured from the road surface to the highest point on the speed bump and 1 foot wide (in the direction of travel) from the leading edge to the termination edge. The radius of curvature should be no more than 24 inches and no less than 36 inches. Speed bumps may be constructed with parallel or radial installation stripes oriented perpendicular or diagonal to the long axis of the bump to indicate it's presence and that there is a change in elevation. The stripes should be evenly spaced and a width ranging from 6 to 8 inches	SAFETY YELLOW PMS 109 C
Substrate:	PAVEMENT		
Graphics:	Hot Applied Thermoplastic Graphic		

BU / Program / Type: All; Except AMZL; AVI, FSC



INSTALLED BY CONSTRUCTION

Designation:	PG-17	Notes:	Colors:
Description:	Parking Striping Graphics	Used to indicate accessible parking spaces. 4'-0" x 4'-0" Use at all accessible parking spaces. White symbol with Accessible Blue background.	BLUE PMS 293; C1 WHITE
Substrate:	PAVEMENT		
Graphics:	Hot Applied Thermoplastic Graphic		

No.	REVISIONS	DATE

Kimley»Horn
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PHONE: 630-487-5550
WWW.KIMLEY-HORN.COM

KHA PROJECT 168864455
DATE 7/18/2025
SCALE AS SHOWN
DESIGNED BY: MAG
DRAWN BY: MAG
CHECKED BY: JF

SIGNAGE & STRIPING DETAILS

MDW5
16825 CHURNOVIC LANE
CREST HILL, IL 60435
WILL COUNTY IL

SHEET NUMBER
C7.2

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

CHURNOVIC LANE

EXISTING BUILDING

EXISTING BUILDING

LIDICE PKWY

EXISTING OFFSITE TREES TO REMAIN, TYP.

GRAPHIC SCALE IN FEET
0 20 40 80

NORTH

IMPERVIOUS SURFACE COVERAGE				
DESCRIPTION	TOTAL SQUARE FEET	IMPERVIOUS SQUARE FEET	PERVIOUS SQUARE FEET	% IMPERVIOUS
Project Site	1,160,264	988,173	172,091	85%

LANDSCAPE PLANTING ANALYSIS CHART		
LANDSCAPE AS-BUILT PLANS (DATED 06.19.17)	EXISTING LANDSCAPE	PROPOSED LANDSCAPE
TREES		
96 PROPOSED IN AS-BUILT LANDSCAPE PLANS	59 TREES EXIST ON SITE (FIELD WORK PERFORMED 05.22.25) 35 TREES TO BE REMOVED 59 - 35 = 24 EXISTING TREES TO REMAIN	**24 EXISTING TREES TO BE PROTECTED-IN-PLACE** **72 NEW TREES PROPOSED** **(96 TOTAL)**
CREST HILL CODE ORDINANCE 15.04.040		
CODE	**REQUIRED**	**PROPOSED**
THE APPLICANT SHALL PROVIDE ONE APPROVED PLANTING FOR EACH 725 SQFT OF GROSS LOT AREA	1 APPROVED PLANTING REQUIRED PER 725 SQFT OF IMPERVIOUS AREA 6,875 SQFT / 725 SQFT = 9.2 TREES REQUIRED	**10 ADDITIONAL TREE PROVIDED**

PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT	CAL
TREES					
	AF	6	ACER RUBRUM 'FRANK JR.' / REDPOINTE® MAPLE	B & B	2.5" CAL. MIN.
	CI2	5	AMELANCHIER LAEVIS / ALLEGHENY SERVICEBERRY	B & B	6' HT. MIN.
	CO	12	CELTIS OCCIDENTALIS / COMMON HACKBERRY	B & B	2.5" CAL. MIN.
	CI	5	CRATAEGUS CRUS-GALLI INERMIS / THORNLESS COCKSPUR HAWTHORN	B & B	1.5" CAL. MIN.
	CO2	6	GINKGO BILOBA / GINKGO NON FRUIT BEARING	B & B	2.5" CAL. MIN.
	QA	8	QUERCUS ALBA / WHITE OAK	B & B	2.5" CAL. MIN.
	QR	9	QUERCUS RUBRA / NORTHERN RED OAK	B & B	2.5" CAL. MIN.
	UP	9	ULMUS AMERICANA 'PRINCETON' / PRINCETON AMERICAN ELM	B & B	2.5" CAL. MIN.
EVERGREEN TREES					
	JH	5	JUNIPERUS VIRGINIANA 'HILLSPIRE' / HILLSPIRE EASTERN REDCEDAR	B & B	6' HT. MIN.
	MG	6	METASEQUOIA GLYPTOSTROBOIDES / DAWN REDWOOD	B & B	6' HT. MIN.
	PA	8	PICEA ABIES / NORWAY SPRUCE	B & B	6' HT. MIN.
	PP	6	PICEA ABIES 'PENDULA' / WEEPING NORWAY SPRUCE	B & B	6' HT. MIN.
	PO	4	PICEA OMORIKA / SERBIAN SPRUCE	B & B	6' HT. MIN.
	PW	7	PINUS ALBA / WHITE PINE	B & B	6' HT. MIN.
	PD	10	PSEUDOTSUGA MENZIESII / DOUGLAS FIR	B & B	6' HT. MIN.

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME
GROUND COVERS			
	RC		1"-2" LOCALLY SOURCED ROCK COBBLE
	TX		TURF SEED / TURF SEED

LANDSCAPE KEYNOTES

1. PROPERTY LINE, TYP.
2. EXISTING TREE TO REMAIN, PROTECT IN PLACE, TYP.
3. EXISTING TREE TO BE REMOVED AND REPLACED, TYP.
4. FURNISH & INSTALL STONE MULCH WITH METAL EDGER, TYP.

NOTE:
1.) REFER TO AS-BUILT DRAWINGS ON SHEETS L3.0-L3.2
2.) REFER TO DEMOLITION PLANS FOR EXISTING TREE(S) PROPOSED TO BE REMOVED.
3.) CONTRACTOR TO TURF SEED ALL AREAS DISTURBED BY SHOWN IMPROVEMENTS.

Call Before You Dig
JULIE
1-800-892-0123

No.	REVISIONS	DATE

Kimley»Horn
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KHA PROJECT 168864455
DATE 7/16/2025
SCALE AS SHOWN
DESIGNED BY: MAG
DRAWN BY: MAG
CHECKED BY: JF

LANDSCAPE PLAN

MDW5
16825 CHURNOVIC LANE
CREST HILL, IL 60435
WILL COUNTY IL

SHEET NUMBER
L1.0

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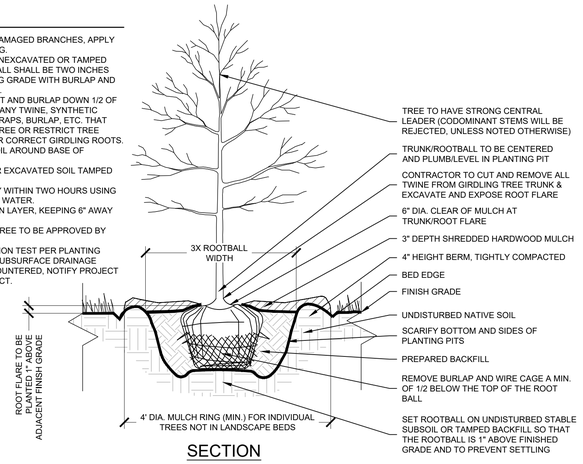
NOTES:

1. INSPECT TREE FOR DAMAGED BRANCHES, APPLY CORRECTIVE PRUNING.
2. SET ROOT BALL ON UNEXCAVATED OR TAMPED SOIL. TOP OF ROOTBALL SHALL BE TWO INCHES ABOVE SURROUNDING GRADE WITH BURLAP AND WIRE BASKET INTACT.
3. REMOVE WIRE BASKET AND BURLAP DOWN 1/2 OF ROOT BALL. REMOVE ANY TWINE, SYNTHETIC MATERIAL, WIRES, STRAPS, BURLAP, ETC. THAT COULD GIRDLE THE TREE OR RESTRICT TREE GROWTH. REMOVE OR CORRECT GIRDLING ROOTS.
4. TAMP EXCAVATED SOIL AROUND BASE OF ROOTBALL.
5. BACKFILL REMAINDER EXCAVATED SOIL TAMPED LIGHTLY.
6. WATER THOROUGHLY WITHIN TWO HOURS USING 10 TO 15 GALLONS OF WATER.
7. APPLY MULCH IN EVEN LAYER, KEEPING 6" AWAY FROM ROOT FLARE.
8. FINAL LOCATION OF TREE TO BE APPROVED BY OWNER.
9. PERFORM PERCOLATION TEST PER PLANTING SPECIFICATIONS. IF SUBSURFACE DRAINAGE PROBLEMS ARE ENCOUNTERED, NOTIFY PROJECT LANDSCAPE ARCHITECT.



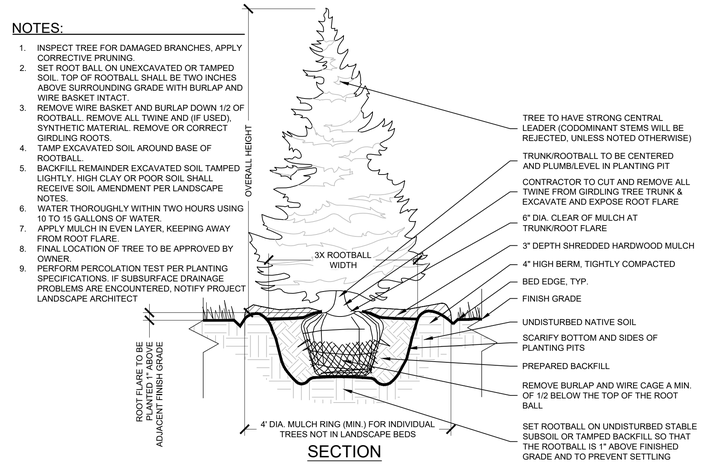
SECTION

1 TYPICAL TREE PLANTING

N.T.S.

NOTES:

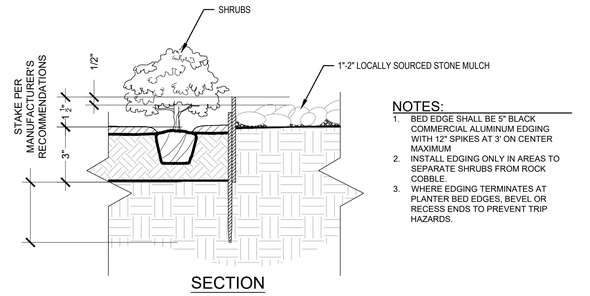
1. INSPECT TREE FOR DAMAGED BRANCHES, APPLY CORRECTIVE PRUNING.
2. SET ROOT BALL ON UNEXCAVATED OR TAMPED SOIL. TOP OF ROOTBALL SHALL BE TWO INCHES ABOVE SURROUNDING GRADE WITH BURLAP AND WIRE BASKET INTACT.
3. REMOVE WIRE BASKET AND BURLAP DOWN 1/2 OF ROOTBALL. REMOVE ALL TWINE AND (IF USED), SYNTHETIC MATERIAL. REMOVE OR CORRECT GIRDLING ROOTS.
4. TAMP EXCAVATED SOIL AROUND BASE OF ROOTBALL.
5. BACKFILL REMAINDER EXCAVATED SOIL TAMPED LIGHTLY. HIGH CLAY OR POOR SOIL SHALL RECEIVE SOIL AMENDMENT PER LANDSCAPE NOTES.
6. WATER THOROUGHLY WITHIN TWO HOURS USING 10 TO 15 GALLONS OF WATER.
7. APPLY MULCH IN EVEN LAYER, KEEPING AWAY FROM ROOT FLARE.
8. FINAL LOCATION OF TREE TO BE APPROVED BY OWNER.
9. PERFORM PERCOLATION TEST PER PLANTING SPECIFICATIONS. IF SUBSURFACE DRAINAGE PROBLEMS ARE ENCOUNTERED, NOTIFY PROJECT LANDSCAPE ARCHITECT



SECTION

2 EVERGREEN TREE PLANTING

N.T.S.



NOTES:

1. BED EDGE SHALL BE 5" BLACK COMMERCIAL ALUMINUM EDGING WITH 12" SPIKES AT 3' ON CENTER MAXIMUM
2. INSTALL EDGING ONLY IN AREAS TO SEPARATE SHRUBS FROM ROCK COBBLE.
3. WHERE EDGING TERMINATES AT PLANTER BED EDGES, BEVEL OR RECESS ENDS TO PREVENT TRIP HAZARDS.

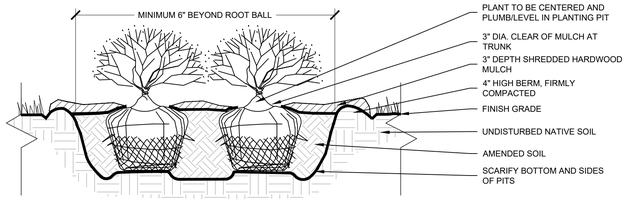
SECTION

3 METAL BED EDGING

N.T.S.

NOTES:

1. APPLY CORRECTIVE PRUNING.
2. SET ROOT BALL OR CONTAINER ON UNEXCAVATED OR TAMPED SOIL. TOP OF ROOTBALL (CONTAINER) SHALL BE ONE INCH ABOVE SURROUNDING GRADE. FOR LARGER SHRUBS WITHIN PLANTING BED DIG A DEEPER PIT ONLY FOR THOSE SHRUBS.
3. REMOVE BURLAP FROM TOP HALF THE LENGTH OF ROOTBALL. TWINE AND (IF USED) SYNTHETIC MATERIAL SHALL BE REMOVED FROM PLANTING BED. FOR CONTAINER GROWN SHRUBS, REMOVE CONTAINER AND LOOSEN ROOTS PRIOR TO INSTALLATION.
4. REMOVE OR CORRECT GIRDLING ROOTS.
5. PLUMB AND BACKFILL WITH AMENDED SOIL PER LANDSCAPE NOTES. WATER THOROUGHLY WITHIN TWO HOURS.
6. APPLY MULCH IN EVEN LAYER, KEEPING AWAY FROM ROOT FLARE. MULCH LIMITS FOR SHRUBS EXTEND TO ALL LIMITS OF PLANTING BED, SEE PLANS FOR BED LAYOUTS.



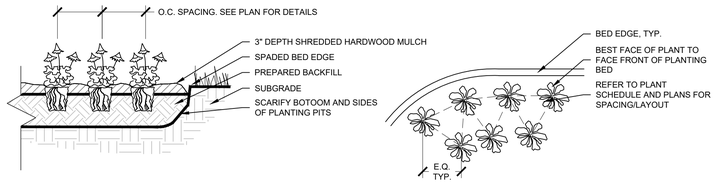
SECTION

4 SHRUB PLANTING

N.T.S.

NOTES:

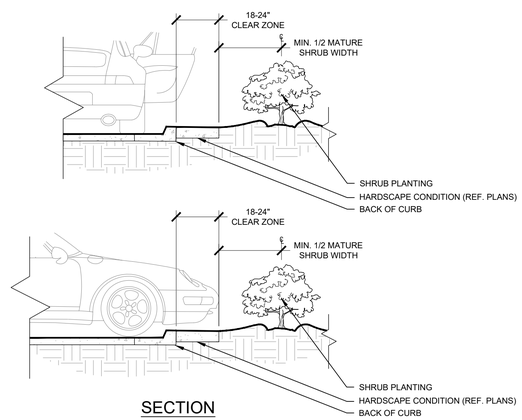
1. EXCAVATE PLANTING BED.
2. BED HEIGHT IS TO BE 2" ABOVE FINISH GRADE AND WELL DRAINED.
3. REMOVE CONTAINER. SCORE SOIL MASS TO REDIRECT AND PREVENT CIRCLING ROOTS. CORRECT GIRDLING ROOTS.
2. PLANT MATERIAL SHALL BE LAID OUT BY FOLLOWING THE BED EDGE, WORKING TOWARDS THE CENTER OF THE BED USING TRIANGULAR (STAGGERED) SPACING AS PLAUSIBLE.
3. PLUMB AND BACKFILL WITH PLANTING MIX AS SPECIFIED IN LANDSCAPE NOTES.
4. APPLY MULCH IN EVEN LAYER, KEEPING AWAY FROM ROOT FLARE. MULCH LIMITS FOR PERENNIALS/GROUNDCOVER EXTEND TO ALL LIMITS OF PLANTING BED, SEE PLANS FOR BED LAYOUTS.
5. SPACING TO BE AS SPECIFIED IN THE PLANT LIST OR AS SHOWN ON DRAWINGS. PERENNIALS SHALL BE PLACED WITH THEIR CENTER 24" FROM EDGE OF BED.



SECTION PLAN

5 PERENNIAL PLANTING

N.T.S.



SECTION

7 SHRUB PLANTING AT CURB

N.T.S.

LANDSCAPE NOTES

1. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING MATERIALS AND PLANTS SHOWN ON THE LANDSCAPE PLAN. THE CONTRACTOR IS RESPONSIBLE FOR THE COST TO REPAIR UTILITIES, ADJACENT LANDSCAPE, PUBLIC AND PRIVATE PROPERTY THAT IS DAMAGED BY THE CONTRACTOR OR THEIR SUBCONTRACTOR'S OPERATIONS DURING INSTALLATION OR DURING THE SPECIFIED MAINTENANCE PERIOD. CALL FOR UTILITY LOCATIONS PRIOR TO ANY EXCAVATION.
2. THE CONTRACTOR SHALL REPORT ANY DISCREPANCY IN PLAN VS. FIELD CONDITIONS IMMEDIATELY TO THE LANDSCAPE ARCHITECT, PRIOR TO CONTINUING WITH THAT PORTION OF WORK.
3. NO PLANTING WILL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY OF THEIR TRENCHES OR EXCAVATIONS THAT SETTLE.
5. ALL PLANTS TO BE SPECIMEN GRADE, WELL BRANCHED, HEALTHY, FULL, PRE-INOCULATED AND FERTILIZED. PLANTS SHALL BE FREE FROM DISEASE, PESTS, WOUNDS, AND SCARS. PLANTS SHALL BE FREE FROM NOTICEABLE GAPS, HOLES, OR DEFORMITIES. PLANTS SHALL BE FREE FROM BROKEN OR DEAD BRANCHES. TRUNKS WILL BE WRAPPED IF NECESSARY TO PREVENT SUN SCALD AND INSECT DAMAGE. THE LANDSCAPE CONTRACTOR SHALL REMOVE THE WRAP AT THE PROPER TIME AS PART OF THIS CONTRACT.
6. THE OWNER'S REPRESENTATIVE MAY REJECT ANY PLANT MATERIALS THAT ARE DISEASED, DEFORMED, OR OTHERWISE NOT EXHIBITING SUPERIOR QUALITY.
7. ALL NURSERY STOCK SHALL BE GUARANTEED, BY THE CONTRACTOR, FOR ONE YEAR FROM DATE OF FINAL INSPECTION. THE GUARANTEE BEGINS ON THE DATE OF THE LANDSCAPE ARCHITECT'S OR OWNERS WRITTEN ACCEPTANCE OF THE INITIAL PLANTING. REPLACEMENT PLANT MATERIAL SHALL HAVE A ONE YEAR GUARANTEE COMMENCING UPON PLANTING.
8. PLANTS TO MEET AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2014 OR MOST CURRENT VERSION) REQUIREMENTS FOR SIZE AND TYPE SPECIFIED.
9. PRUNE PLANTS AS NECESSARY- PER STANDARD NURSERY PRACTICE AND TO CORRECT POOR BRANCHING OF EXISTING AND PROPOSED TREES.
10. TOPSOIL SHALL BE PROVIDED AND GRADED BY THE GENERAL CONTRACTOR UP TO 6 INCHES BELOW FINISHED GRADE IN TURF AREAS AND 18 INCHES IN PLANTING AREAS.
11. PLANTING AREA TOPSOIL SHALL BE TESTED AND AMENDED PER THE RECOMMENDATIONS OF THE AGRONOMICAL SOIL REPORT. CONTRACTOR SHALL OBTAIN AGRONOMICAL SOIL REPORT.
12. SEED/SOD LIMIT LINES ARE APPROXIMATE. CONTRACTOR SHALL SEED/SOD ALL AREAS WHICH ARE DISTURBED BY GRADING WITH THE SPECIFIED SEED/SOD MIXES.
13. EDGING TO BE A SPADED EDGE UNLESS INDICATED OTHERWISE ON THE PLANS. SPADED EDGE TO PROVIDE V-SHAPED DEPTH AND WIDTH TO CREATE SEPARATION BETWEEN MULCH AND GRASS. A SPADED BED EDGE SHALL SEPARATE MULCH BEDS FROM TURF OR SEEDED AREAS. A SPADED EDGE IS NOT REQUIRED ALONG CURBED EDGES.
14. CONTRACTOR SHALL INSTALL SHREDDED HARDWOOD MULCH AT A 3" DEPTH TO ALL TREES, SHRUB, PERENNIAL, AND GROUNDCOVER AREAS. TREES PLACED IN AREA COVERED BY TURF SHALL RECEIVE A 4 FT WIDE MAXIMUM TREE RING WITH 3" DEPTH SHREDDED HARDWOOD MULCH.
15. INSTALLATION OF TREES WITHIN PARKWAYS SHALL BE COORDINATED IN THE FIELD WITH LOCATIONS OF UNDERGROUND UTILITIES. TREES SHALL NOT BE LOCATED CLOSER THAN 5' FROM UNDERGROUND UTILITY LINES AND NO CLOSER THAN 10' FROM UTILITY STRUCTURES.
16. DO NOT DISTURB THE EXISTING PAVING, LIGHTING, OR LANDSCAPING THAT EXISTS ADJACENT TO THE SITE UNLESS OTHERWISE NOTED ON PLAN.
17. ALL DISTURBED AREAS TO BE SODDED OR SEEDED, UNLESS OTHERWISE NOTED. SOD/SEED SHALL BE LOCAL HARDY TURF GRASS MIX UNLESS, OTHERWISE NOTED.
18. PLANT QUANTITIES SHOWN ARE FOR THE CONVENIENCE OF THE OWNER AND JURISDICTIONAL REVIEW AGENCIES. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES AS DRAWN.
19. THE CONTINUED MAINTENANCE OF ALL REQUIRED LANDSCAPING SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY ON WHICH SAID MATERIALS ARE REQUIRED. ALL PLANT MATERIALS REQUIRED BY THIS SECTION SHALL BE MAINTAINED AS LIVING VEGETATION AND SHALL BE PROMPTLY REPLACED IF THE PLANT MATERIAL HAS DIED PRIOR TO FINAL ACCEPTANCE. PLANTING AREAS SHALL BE KEPT FREE OF TRASH, LITTER, AND WEEDS AT ALL TIMES.

No.	REVISIONS	DATE

Kimley»Horn
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KHA PROJECT 168864455
DATE 7/18/2025
SCALE AS SHOWN
DESIGNED BY: MAG
DRAWN BY: MAG
CHECKED BY: JF

LANDSCAPE DETAILS

MDW5
16825 CHURNOVIC LANE
CREST HILL, IL 60435
WILL COUNTY IL

SHEET NUMBER
L2.0

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SECTION 02800
LANDSCAPE

Part 1.00 General

1.01 SCOPE OF WORK
A. This section covers furnishing and installing all landscape plants and nonplant materials covered by the drawings and these specifications. The work shall include materials, labor, equipment and services as described herein and indicated on the drawings. Also, the work shall include the maintenance of all plants and planting areas until acceptance by the Owner, and the fulfillment of all guarantee provisions as herein specified.

1.02 PLANTING LAYOUT
A. Before beginning work, the contractor shall investigate and verify, in the field, the existence and location of all underground utilities and irrigation piping, and take precautions to prevent their disturbance. It shall be the responsibility of the contractor to obtain all such information as it is made available. Plans and specifications of related work may be obtained from the owner.
B. The contractor shall locate all general reference points, take precautions to prevent their disturbance, perform the layout work, be responsible for all lines, elevations and measurements of work executed under the contract, exercise proper precaution to verify figures on drawings before laying out work and be responsible for any error resulting from failure to exercise such precaution. The contractor shall make field measurements for his own work and be responsible for its accuracy.
C. Discrepancies between conditions existing on the site and conditions indicated on the drawings shall be called to the attention of the owner before or at the time plant locations are staked out.
D. In the event of a variation between the plant list and the actual number of plants shown on the plans, the plans shall control.

1.03 HORTICULTURAL STANDARDS
A. Unless otherwise noted, plant material, including collected materials, shall be grade No. 1 or better as outlined under Grades and Standards for Nursery Plants, and shall also conform to American Standard for Nursery Stock, ANSI (American National Standards Institute, Inc.) Z60.1—1996 as approved by the American Association of Nurserymen.
B. All plant names shall conform to the names given in Standardized Plant Names, 1942 Edition, prepared by the American Joint Committee on Horticultural Nomenclature. Names of varieties not included therein shall conform generally with names accepted in the nursery trade. All plant materials shall be true to botanical, common and variety names. Botanical name shall have precedence over common name.
C. The landscape architect shall have the right, at any stage of the operations, to reject any and all work and materials which, in his opinion, do not meet with the requirements of these specifications. Such rejected material shall be removed from the site and acceptable material substituted in its place.

1.04 CERTIFICATES OF INSPECTION
A. All plant material shall be inspected by the Department of Agriculture, as required by state law. Plants of a grade less than that specified in the article titled HORTICULTURE STANDARDS will not be accepted.

Part 2.00 Non-Plant Materials

2.01 SOIL BACKFILL
A. Soil for backfilling planting areas and plant pits shall be the existing surface soil, free from subsoil, objectionable weeds, litter, sods, stiff clay, stones, stumps, roots, trash, toxic substances, mortar, cement or any other material which may be harmful to plant growth or hinder planting operations. Poorly drained soil shall not be used.
B. The contractor shall obtain current agronomic soils report and include soil amendment recommendations on these plans. Soil shall be amended to provide 3%–6% percent organic matter.
C. Soil amendments shall be added to the soil in the amount and manner prescribed by soil analysis to obtain a pH of 6.0 to 7.0. Results from soil analysis and a list of the prescribed amendments shall be presented to the owner and verified by the landscape architect prior to being incorporated into the soil.
D. If additional soil is required; it shall be furnished by the contractor and shall be a natural, friable soil representative of productive, well-drained soils in the vicinity. It shall be obtained from well drained areas which have never been stripped before ±_and shall be free of admixture of subsoil and foreign matter, stones, toxic substances and any material or substance that may be harmful to plant growth.
E. The contractor shall provide the following information on imported topsoil:
1. Specific location from which topsoil will be (or was) stripped.
2. Present owner of that property.
3. Approximate amount of topsoil available.
4. Test results showing topsoil composition and analysis.
F. Soil test shall be performed by a qualified soils laboratory, in accordance with "Methods of Soils Analysis — Agronomy 9" as published by the American Society of Agronomy and shall be performed at the Contractor's expenses.
G. Planting soil backfill for raised architectural planters, if applicable, shall consist of 40% potting soil, 40% coarse washed builders sand and 20% horticultural perlite.
H. Areas designated to be planted with flowering annuals, if applicable, shall be excavated to a depth of 18" and backfilled with a mixture consisting of 40% peat, 40% D.O.T. (coarse) sand, 10% pine bark (decomposed) and 10% cypress chips.
I. Planting soil backfill for tree wells, if applicable, shall be approved topsoil.
J. Planting area topsoil, if applicable, shall be 25% sphagnum peatmoss, 5% humus, and 70% pulverized soil for all non turf seed mix areas, shrub, ornamental grass, perennial, and annual beds.

2.02 FERTILIZER
A. Commercial fertilizer shall be 14—14—14 formulation of Osmocote brand, 3—4 month release of which 60% of the nitrogen is in urea—formaldehyde form and shall conform to the applicable state fertilizer laws. Fertilizer shall be uniform in composition, dry and free flowing.

2.03 PRE—EMERGENCE WEED CONTROL
A. Weed control shall be Ronstar 2G as manufactured by Rhodia, Inc., Monmouth Junction, New Jersey 08852 or Princap (Simazine) as manufactured by Gelgy Agricultural Chemicals, Ardsley, New York 10502, or an approved equal.

2.04 WATER
A. Water will be available for use on site during the landscape installation at no cost to the contractor. Care shall be exercised to assure that water is kept free of harmful chemicals, acids, alkalis, or any substance, which might be harmful to plant growth.

2.05 ANTIDESICCANT
A. Antidesiccant shall be an emulsion type; film—forming agent designed to permit transpiration, but retard excessive loss of moisture from plants, such as Dowax by Dow Chemical Co., or Wilt—Pruf by Nursery Specialty Products, Inc., or an acceptable equal. The antidesiccant shall be delivered in the manufacturer's fully identified containers and shall be mixed in accordance with manufacturer's instructions.

2.06 BORICIDE
A. Boricide shall be Lindane as manufactured by Platt, or an approved equal.

2.07 MULCH
A. Wood Mulch shall be shredded hardwood mulch at 3" in. depth. Furnish and install mulch to all trees, shrubs, perennial, and groundcover areas. Trees placed in area covered by turf shall receive a 4' wide tree ring with 3" depth shredded hardwood mulch. Submit a mulch sample to owner and landscape architect for review and approval.

2.08 GUYING AND STAKING MATERIAL
A. Stakes for supporting trees shall be as detailed on the drawings or as necessary. Wire for fastening trees to duckbill and turnbuckle shall be galvanized aircraft grade guying cable as specified in the detail. Wires in contact with trees shall be encased in two—ply reinforced garden hose. Material for wrapping tree trunks shall be burlap, heavy crepe paper, or other acceptable material in strips 6 to 10 inches wide.

2.09 DRAINAGE GRAVEL
A. Where indicated on the drawings, or where soil conditions deem it necessary, the contractor shall install gravel subdrains beneath trees and/or planting areas to aid in soil drainage and percolation. The subdrain shall be constructed as detailed on the drawings, or as directed by the landscape architect. Drainage gravel shall consist of washed, clean gravel 3/4 inch to 2 inches in size.

2.10 SOIL SEPARATION MATS
A. Soil separation mats, if indicated on the drawings, shall be Bidim (gray felt) as manufactured by Monsanto Co., 800 North Lindbergh Road, St. Louis, MO 63166 or approved equal. Mats shall be installed as indicated on the drawings, and edges overlapped a minimum of 4 inches. Care shall be taken to prevent tearing or excessive crushing during the installation process.

Part 3.00 Plant Material

3.01 QUALITY OF PLANT MATERIAL
A. During inspection, as set forth hereinafter, all plant material will be judged, and rejections shall be based upon these standards. All plants shall comply with federal and state law requiring inspection for plant diseases and infestations. Inspection certificates required by law shall be made available to the owner or owner's representative at his/her request.
B. In determining the quality of plant material, the following elements will be valued:
1. Root condition.
2. Plant size (above ground).
3. Insect and disease free condition.
4. General appearance (color, shape, pruning).
A deficiency in one or more of these areas will be sufficient reason to reject selectively or by lot.
C. The landscape architect shall have the right, at any stage of the operations, to reject any and all work and materials which, in his opinion, do not meet with the requirements of these specifications. Such rejected material shall be removed from the site and acceptable material substituted in its place.

3.02 SIZE AND MEASUREMENTS
A. Plants shall be measured when branches are in their normal position. Heights and spread dimensions specified refer to the main body of the plant and not to extreme branch tip to tip. The measurements specified are the minimum size acceptable and where pruning is required, these are measurements after pruning. When sizes are indicated as a range, the plant shall have the proper proportion as outlined in Department of Agriculture, Grades and Standards for Nursery Plants Part 1 and 11. Caliper of trees shall be taken 6 inches above the ground level and shall be the determining measurement for nursery trees. Diameter at breast height (DBH) shall be taken 4.5' above the ground level and shall be the determining measurement for established trees.
B. Plants, which have been headed back to conform to the size specified, will not be acceptable. Plants larger than specified may be used if approved by the owner; however, the use of such plants shall not increase the contract price.

3.03 LABEL
A. Plant materials shall have durable, legible labels stating, in weather resistant ink, the correct botanical and common names and size as indicated in the Plant List. Each plant, or sufficient representative samples of each delivered shipment, shall have labels securely attached in a fashion that will not interfere with normal plant growth. Plant materials which have (or will have) a seasonal bloom shall be tagged with labels indicating the specific variety of that species' botanical and common name.

3.04 COLLECTED PLANTS
A. All plant material shall be nursery grown. Collected plants shall have been grown under climatic conditions similar to those in the locality of the project. All collected plants shall meet the requirements as specified and shall meet all specified grades and standards, unless otherwise qualified in the Plant List or these specifications. Root balls shall be increased in size one third greater than nursery grown plants.

3.05 CONTAINERIZED PLANTS
A. All container grown plants shall be well rooted and established in the container in which they are delivered to the site. The plants shall have been in that container sufficiently long for the fibrous roots to hold the soil together when the plant is removed from the container. Container grown plants found to be root—bound at planting will not be acceptable. Containerized trees have a tendency to dry out quickly. The contractor shall be responsible for hand watering the trees at time of delivery through the time of final acceptance at a rate consistent with the nursery watering schedule to assure that the tree does not go into shock.

3.06 SPECIMEN PLANTS
A. After receiving the Notice to Proceed, the contractor shall locate all plants specified as specimen. The contractor shall notify the owner so they may agree on a time to mutually inspect the selected plants. The owner will inspect and tag those plants, which are acceptable for use. Expenses incurred by the owner for any subsequent inspection of specimen plants, at any time, in addition to the mutually agreed time shall be the responsibility of the contractor.

3.07 SUBSTITUTIONS
A. The use of materials differing in kind, quality or size from those specified will be allowed only after the owner is convinced that all means of obtaining the specified materials have been exhausted.
B. Where it is indicated that the contractor may furnish or use a substitute that is equal to the material or equipment specified and if the contractor is to furnish or use a proposed substitute, he shall, after the award of the contract, make written application to the owner for acceptance of such a substitute. The substituted product or method shall be equal or superior in all respects to the specified product or method, shall perform adequately the duties imposed by the general design, shall be compatible with all other elements of the job, and shall be sufficient to complete the job. The substitution shall not add cost to the contract. Should it be necessary to accept a substitute of a quality less than specified, the unit price shall be used to adjust the contract price downward accordingly. No substitution shall be ordered or installed without the written permission of the owner and governing municipality.

Part 4.00 Delivery, Storage and Handling

4.01 PLANT MATERIAL
A. The contractor shall exercise care in handling, loading and unloading, storage and transporting all plant material and allied materials to prevent damage. The contractor shall assume full responsibility for protection and safekeeping of products stored on the job.
B. The contractor shall dig and prepare plant material for shipment in a manner that will not damage roots, branches, shape and future development after planting.
C. Trees indicated on the plans where size, soil conditions and distance of transport to the site would warrant, shall be wireballed. Bottom wired baskets manufactured specifically for use in tree handling may be used.
D. The contractor shall handle all plants so that roots and branches are protected at all times from drying out, heating and from other injury. All plants shall be handled by the ball or container.
E. Before moving plants from the nursery or storage area to the site; they shall be thoroughly sprayed with a solution of antidesiccant. Antidesiccant shall be applied to all collected pines and oaks. Two weeks after planting or as specified by the product manufacturer; the material shall be sprayed again with the antidesiccant. The antidesiccant shall be applied using power spray to provide an adequate film over trunks, branches, stems, twigs and foliage.
F. When transporting plants to and at the site, the contractor shall make provisions to protect plants from wind damage by avoiding high—speed highways, transporting in enclosed or partially enclosed vehicles, or covering the plants with burlap or other suitable material. Plants severely damaged by wind will be rejected.
G. Any plant with signs of insects, their eggs or larvae or disease will be rejected and shall be removed from the project site.
H. Only the nursery stock intended for planting on a particular day shall be delivered and stored on the site during the day unless otherwise acceptable to the owner. All plants shall be stored in one location as designated by the owner, protected from wind and kept moist. The roots of all plants that cannot be planted immediately in soil shall be covered with mulch and other suitable material. No plants shall be taken from the temporary storage area for planting on the project until after the tree pits or holes for the plants in the section to be planted have been properly excavated and prepared ready to receive the trees and shrubs.
I. Trees moved by winch or crane shall be thoroughly protected from chain marks, girdling or other bark slippage by means of burlap, wood battens or other acceptable method.

4.02 NONPLANT MATERIAL
A. Fertilizer shall be delivered to the site in original, unopened containers bearing manufacturer's guaranteed chemical analysis, name, trade name, trademark and conformance to state law. In lieu of containers and provided that it is to be applied at the time of delivery, fertilizer may be furnished in bulk and a certificate indicating the above information shall accompany each delivery.
B. Pesticide and herbicide materials shall be delivered to the site in the original, unopened containers. Containers that do not have a legible label that identifies the Environmental Protection Agency registration number and the manufacturer's registered uses will be rejected.
C. Storage of materials shall be in the area designated for use by the owner. All materials shall be kept in dry storage and away from contaminants.

Part 5.00 Installation

5.01 PREPARATION BEFORE PLANTING
A. The contractor shall verify that all final grades have been established prior to beginning planting operations. All unsatisfactory grading shall be reported to the owner, and the contractor shall not proceed with this work until the unsatisfactory conditions have been corrected. When conditions detrimental to plant growth are encountered, such as rubble, fill or adverse drainage conditions, the contractor shall notify the owner for directions.
B. Should undesirable existing vegetation be present on the site at the time of installation, the contractor shall prepare the site for planting by use of chemicals, when used as recommended by the manufacturer, and/or mechanical means acceptable to the owner. Care shall be exercised to avoid any misuse of chemicals, which would create detrimental residual conditions. Care must also be used not to alter final grades, which have been established or cause damage to previously established turf areas.

5.02 SITE PREPARATION
A. If so called for by the owner, all plant locations and the areas of all planting beds shall be staked out on the ground, for acceptance by the owner, before planting operations begin. The contractor shall stake the location of the center of each tree and paint the outline of each shrub and groundcover bed. The stakes shall be oriented in a vertical manner so that they can be viewed and read from one direction. The contractor shall give the owner notice 24 hours prior to the completion staking described herein.
B. The contractor shall verify the location of underground utilities, and irrigation heads and valves, and provide markers or other suitable protection, where necessary, to prevent damage.

5.03 EXCAVATION OF PLANTING AREAS
A. No tree or shrub pit shall be dug or prepared until their location is acceptable to the owner. Reasonable care shall be exercised to have pits dug and prepared prior to moving plants to respective locations for planting to ensure that they will not be unnecessarily exposed to drying elements or to physical damage.
B. Circular pits with vertical sides shall be excavated for all plants. The depth of all plant pits shall be enough to accommodate the ball or roots and the prepared soil in the bottom of the pit. Diameter of pits for trees shall be at least 1 foot greater than the diameter of the ball.
C. Plant beds and pits shall be tested for proper drainage by filling with water twice successively. Conditions permitting the retention of more than 6 inches of water in 1 hour shall be brought to the attention of the owner. A written proposal and cost estimate for correction of such conditions shall be submitted to the owner for acceptance, before proceeding with the work.
D. All tree pits curbed planting islands, tree wells, or in areas, in which the soil has been compacted to an undesirable density, shall be excavated to a depth at least two feet greater than the measured depth and diameter of the ball. The minimum depth and diameter of excavation shall be four feet.
E. In shrub and groundcover beds where soils have been compacted to a density, which is detrimental to plant growth, the contractor shall loosen soils to a depth of 18" minimum to allow root penetration beyond the planting pit.
F. If acceptable for use, existing topsoil in shrub and groundcover beds shall be treated with the specified soil amendments, at rates determined by soil tests. Amendments shall be incorporated into the soil to a depth of 12 inches. Where soil is not acceptable as determined by soil tests, the soil in the entire area shall be removed to a depth of a min. 12 inches and replaced with the specified planting soil.

5.04 PLANTING
A. All plants, except as otherwise specified, shall be centered in their pits, faced for best effect and set plumb for backfilling.
B. All synthetic strings, straps, and wire cages shall be removed from the top of third of the root ball. Synthetic burlap shall be removed completely.
C. Plants shall be removed from cans by cutting two sides of a container with an acceptable can cutter. Sides shall not be cut with a spade. Sides of knockout cans shall not be cut. Plastic containers with slanted sides shall not require cutting. Plants shall be removed from the container carefully, without injury or damage to the plant and root system.
D. The contractor shall hand water—containerized trees from the time of delivery until the time of the final acceptance at a rate consistent with the nursery conditions from which the trees were obtained. Trees, which go into shock due to insufficient water, may be rejected.
E. Plants shall be set in the center of the pits and shall be plumb and straight and at such a level that after settlement the root crown will be level with the surrounding grade.
F. Plant holes shall be backfilled with the specified planting mixture placed in layers around the roots or ball. Each layer shall be carefully tamped in place in manner to avoid injury to the roots or ball or disturbing the position of the plant. When approximately two thirds of the plant hole has been backfilled, the hole shall be filled with water and the soil allowed to settle around the roots. Balled and burlapped plants shall have the burlap cut away or folded back from the top of the ball before applying water. After the water has been absorbed, the plant hole shall be filled and tamped lightly to grade. Any subsequent settlement shall be brought to grade.
G. Immediately after each tree pit is backfilled, a shallow basin slightly larger than the pit shall be formed with a ridge of topsoil to facilitate watering. This soil saucer shall be formed in a circle and tamped around each tree so that the saucer will retain water. Where curbing occurs around plant pits, the saucer shall be omitted.

5.05 FERTILIZING
A. Each tree and shrub shall be fertilized by placing the manufacturer's recommended amount around the base of the ball before backfilling.

5.06 STAKING, GUYING AND WRAPPING
A. Staking or guying and wrapping of trees shall be done immediately after they are planted, as necessary. Each plant shall stand plumb after staking or guying has been completed. It shall be the Contractor's responsibility to ensure that all trees are plumb and secure after planting. Staking of trees of a 10 foot height or less shall be at the discretion of the Owner. All other trees shall be staked.

5.07 MULCHING
A. Immediately after planting operations are completed, all tree and shrub saucers, and shrub and groundcover beds shall be covered with a 3 inch layer of shredded hardwood mulch. 3 Inch depth shall be provided throughout all landscape beds as shown annotated in the drawings.

5.08 PRUNING
A. Each tree and shrub shall be pruned in accordance with standard horticultural practice to preserve the natural character of the plant and in the manner fitting its use in the landscape design. Pruning shall be done with clean, sharp tools and as indicated on the drawings.
B. Approximately one third of the growth of large deciduous trees (those with 2 inch caliper or larger) shall be pruned by removal of superfluous branches. Main leaders of trees shall not be cut back. Branches shall be thinned out and not merely cut back. Long side branches may be shortened. Shrubbery with extremely heavy tops shall have one fourth to one third of the weaker growth removed by thinning.

5.09 CLEANUP
A. During the course of planting, excess and waste materials shall be continuously and promptly removed daily, lawns kept clear, and all reasonable precautions taken to avoid damage to existing structures, plants and grass. After completion of the work, the entire site shall be cleared of excess soils, waste material, debris and all objects that may hinder maintenance and affect the visual appearance of the site.

The Contractor shall clean all roads and walks of dirt film and soil clods. The Contractor shall also pressure clean and broom sweep all asphalt pavement prior to the final lift of asphalt to be laid.

5.10 DISTURBED AREAS
A. All areas outside of the limits of work that are disturbed by the Contractor's construction activities shall be repaired and replanted to its original condition.

Part 6.00 Guarantees

6.01 GUARANTEED PROVING PERIOD
A. There shall be a guarantee period of 1 year for trees and specimen material and 1 year for shrubs. This guarantee period shall start at the final acceptance date. Contractor shall replace any and all plant material, which die during this guarantee proving period. Replacement of plants necessary during the guarantee period shall be the responsibility of the Contractor, except for possible replacements of plants resulting from removal, vandalism, acts of neglect on the part of others, or acts of God. All replacement material shall have the same guarantee time (1 year from installation of replacement for trees and specimen material and 1 year for shrubs).
B. Planting maintenance shall include all necessary watering, cultivation, weeding, pruning and spraying, wrapping and mulching, straightening of plants which lean or sag and which develop more than a normal amount of settlement such adjustments to include excavating around and leveling or raising the ball when so directed and all other incidental work necessary for proper maintenance as directed by the Owner until substantial completion and written release.
C. Transplanted material (if applicable) shall not be guaranteed, however, good horticultural practices should be used before, during and after the material is transplanted. Good horticultural practices should include but not be limited to, all necessary watering, pruning and spraying, wrapping and mulching, fertilizing, moving, maintaining the same orientation and grade level from the original location, and all other incidental work necessary for proper transplanting.

6.02 FINAL INSPECTION AND ACCEPTANCE
A. The Contractor shall notify the Owner in writing when the work has been completed in accordance with this Contract and request an inspection. The Owner will make the inspection of the work and report findings as to acceptability and completeness. Any work remaining to be done shall be subject to reinspection before final acceptance. The Contractor will be notified in writing by the Owner of the final acceptance of the work.

6.03 CONTRACTOR'S RESPONSIBILITY AFTER ACCEPTANCE
A. The Owner may elect to assume maintenance of all work, at the time of acceptance, or may elect to contract for maintenance by others for a specified period. Should maintenance after final acceptance be the responsibility of those other than the Contractor, the Contractor shall monitor all work for which he is responsible by guarantee, to assure that maintenance being performed will not jeopardize the condition and quality of the work and materials guaranteed by the Contractor. Any inadequate or damaging maintenance practices shall be reported immediately in writing to the Owner so that appropriate measures may be taken to correct the condition. Failure to so notify the Owner will invalidate any later claim of negligence or malpractice in maintenance.

6.04 ACCEPTANCE AND REPLACEMENT OF PLANT MATERIAL
A. At the expiration of the proving period, an inspection of the plantings will be made by the Owner. Only those plants that are alive and normally healthy will be accepted. Unaccepted material shall be removed and replaced by the Contractor at his own expense, during the next planting season. Material and method of replacement planting shall be the same as specified for the original planting unless otherwise directed. The Contractor shall continue to make replacements until a plant shows vigorous and healthy growth for a period of 1 year from the date of acceptance by the Owner. All such replacements will be inspected for acceptance at the end of the proving period by the Owner.

6.05 REQUIRED MAINTENANCE
A. Landscape contractor shall be responsible for the maintenance and upkeep for 90 days past the final inspection. At that point contact the general manager and determine if the landscape contractor will remain on. If yes, contractor will be responsible for the maintenance and warrantee of all landscaping for one full year. If no, the landscape contractor is to walk the site with the general manager, manager, the facilities manager and the new landscaper and they shall agree that all planting is in good shape prior to the new landscaper taking over.

END OF SECTION

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

No.	REVISIONS	DATE

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KHA PROJECT 168864455
DATE 7/18/2025
SCALE AS SHOWN
DESIGNED BY: MAG
DRAWN BY: MAG
CHECKED BY: JF

LANDSCAPE SPECIFICATIONS

MDW5
16825 CHURNOVIC LANE
CREST HILL, IL 60435
WILL COUNTY IL

SHEET NUMBER
L2.1

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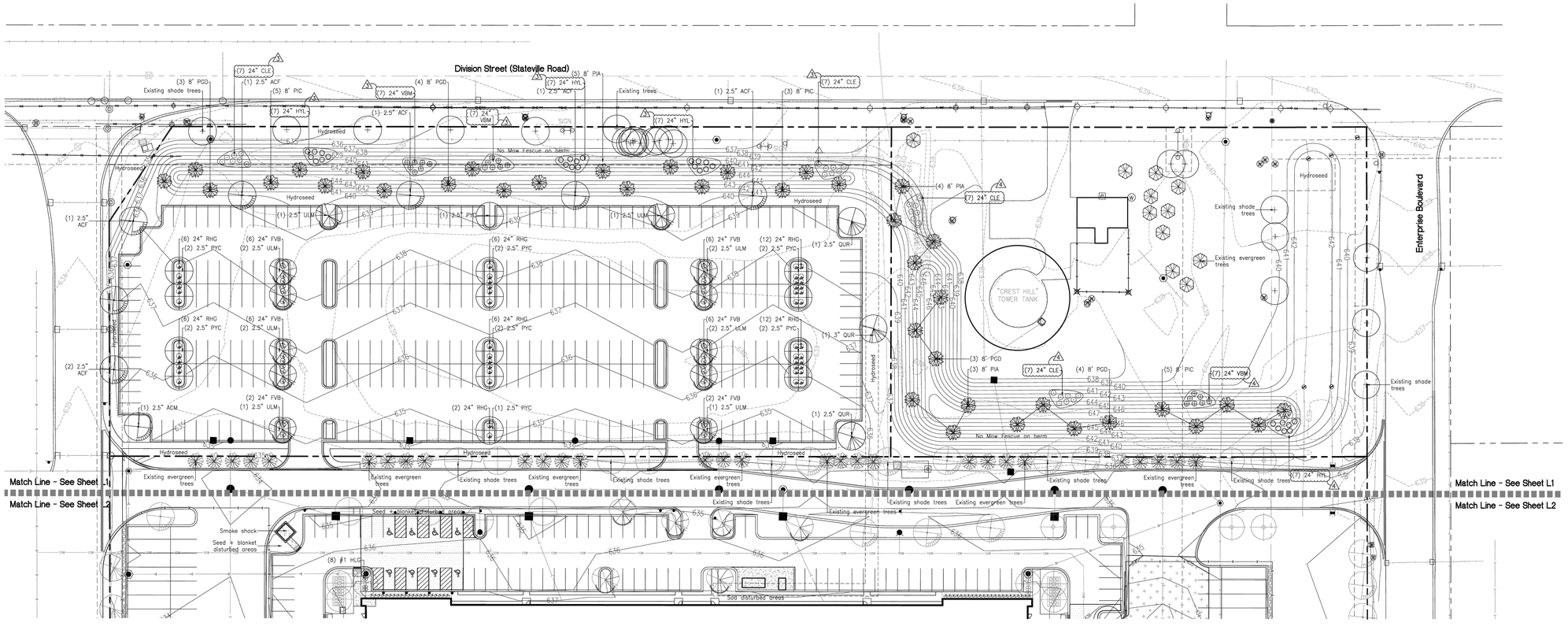

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2.) REFER TO SHEET L1.0 FOR PROPOSED LANDSCAPE PLAN.
3.) REFER TO DEMOLITION PLANS FOR EXISTING TREE(S) PROPOSED TO BE REMOVED.

Plant List

*Shade Trees

Key	Qty.	Size	Botanical Name	Common Name	Remarks
ACF	8	2.5"	Acer x freemanii 'Autumn Blaze'	Autumn Blaze Freeman Maple	BB
ARM	4	2.5"	Acer rubrum 'Armstrong'	Armstrong Red Maple	BB
GIB	0	2.5"	Ginkgo biloba	Ginkgo	BB
OST	0	2.5"	Ostrya virginiana	Ironwood/American Hophornbeam	BB
PYC	14	2.5"	Pyrus calleryana 'Chanticleer	Chanticleer	BB
QUR	3	3"	Quercus rubra	Red Oak	BB
ULM	12	2.5"	Ulmus x 'Morton Glossy'	Triumph Elm	BB

Evergreen Trees

Key	Qty.	Size	Botanical Name	Common Name	Remarks
PGD	14	8'	Picea glauca 'Densata'	Black Hills Spruce	BB
PIA	12	8'	Picea abies	Norway Spruce	BB
PIC	13	8'	Picea pungens	Colorado Green Spruce	BB

Shrubs

Key	Qty.	Size	Botanical Name	Common Name	Remarks
FVB	28	24"	Forsythia viridissima 'Bronxensis'	Bronx Dwarf Forsythia	BB
CLE	28	24"	Clethra alnifolia 'Hummingbird'	Hummingbird Summersweet	BB
HYL	28	24"	Hydrangea paniculata 'Limelight'	Limelight Hydrangea	BB
RHG	30	24"	Rhus aromatica 'Gro-Low	Gro-Low Fragrant Sumac	BB
TMD	6	24"	Taxus x media 'Densiformis'	Dense Yew	BB
VBM	21	24"	Viburnum dentatum 'Christom'	Blue Muffin Arrowwood Viburnum	BB

Perennials

Key	Qty.	Size	Botanical Name	Common Name	Remarks
ALL	36	#1	Allium 'Summer Beauty'	Summer Beauty Allium	Container
HLG	8	#1	Hemerocallis 'Little Grapette'	Little Grapette Daylily	Container

*Note: Shade trees shall not be less than 6' in height per City of Crest Hill City Code.

Landscape Plan
As-Built

Mark	Description	Date
5	As-Built	10.04.17
4	City Review Comments	08.03.17
3	City Review Comments	07.31.17
2	For Review	06.28.17
1	For Review	06.09.17

Issuance

Number
467317

Scale
1" = 40'

North

File
4673FP6A

Sheet
L1

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JULIE
1-800-892-0123

Amazon Sortation Center

16824 Enterprise Boulevard
Crest Hill, Illinois

DAVID R. McCALLUM ASSOCIATES, INC.
LANDSCAPE ARCHITECTS
350 N. Milwaukee Avenue | Libertyville, Illinois 60048
T: 847.362.2209 | F: 847.362.0214

McCALLUM ASSOCIATES

KRUSINSKI CONSTRUCTION COMPANY
General Contractors

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4201 WINFIELD ROAD, SUITE 600, WARRENVILLE, IL 60555
PHONE: 630-487-5550
WWW.KIMLEY-HORN.COM

No.	DATE

KHA PROJECT
168864455

DATE
7/18/2025

SCALE AS SHOWN

DESIGNED BY: MAG

DRAWN BY: MAG

CHECKED BY: JF

LANDSCAPE AS-BUILT

MDW5
16825 CHURNOVIC LANE
CREST HILL, IL 60435

IL

WILL COUNTY

SHEET NUMBER
L3.0

Item 3.

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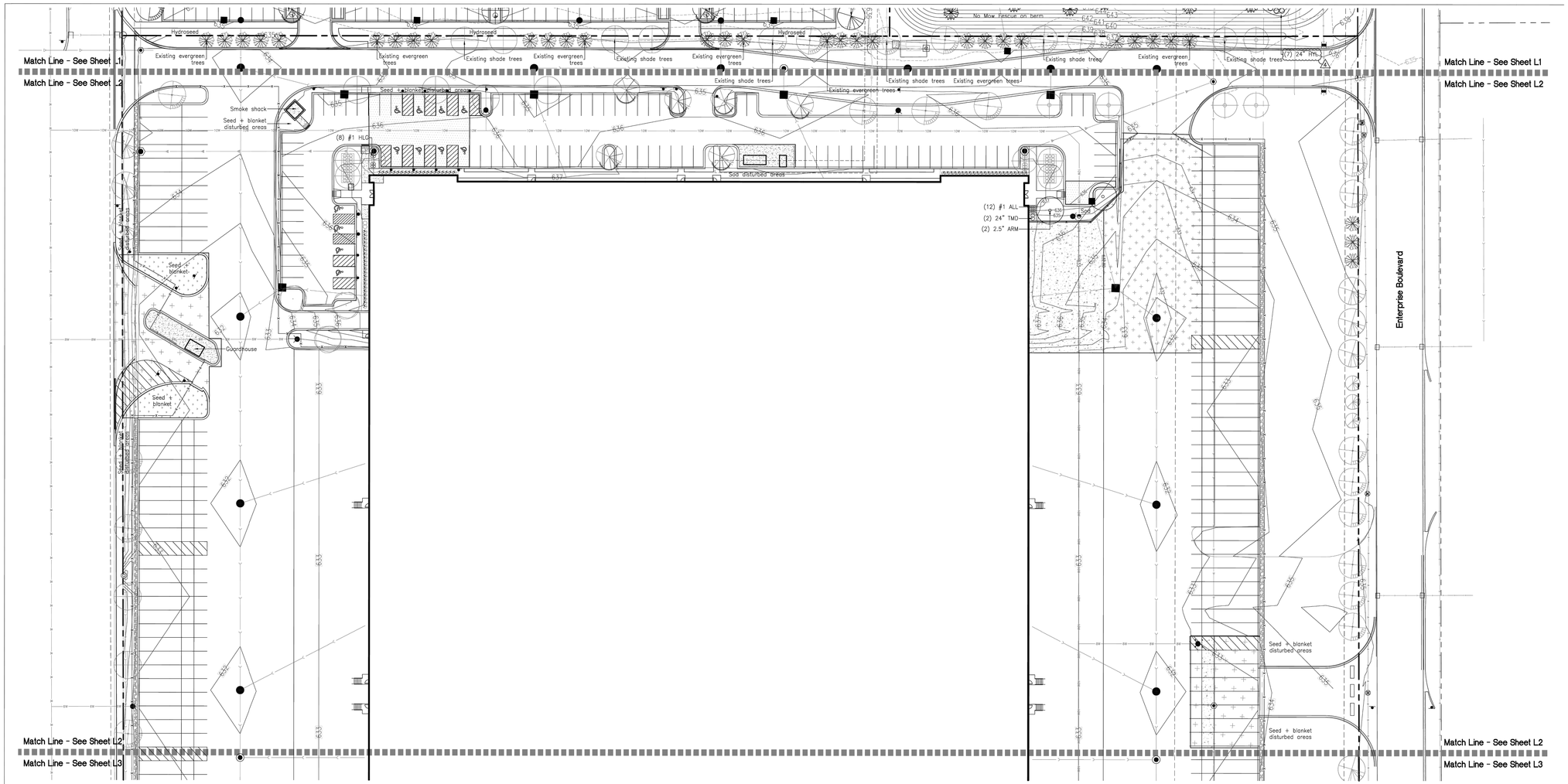
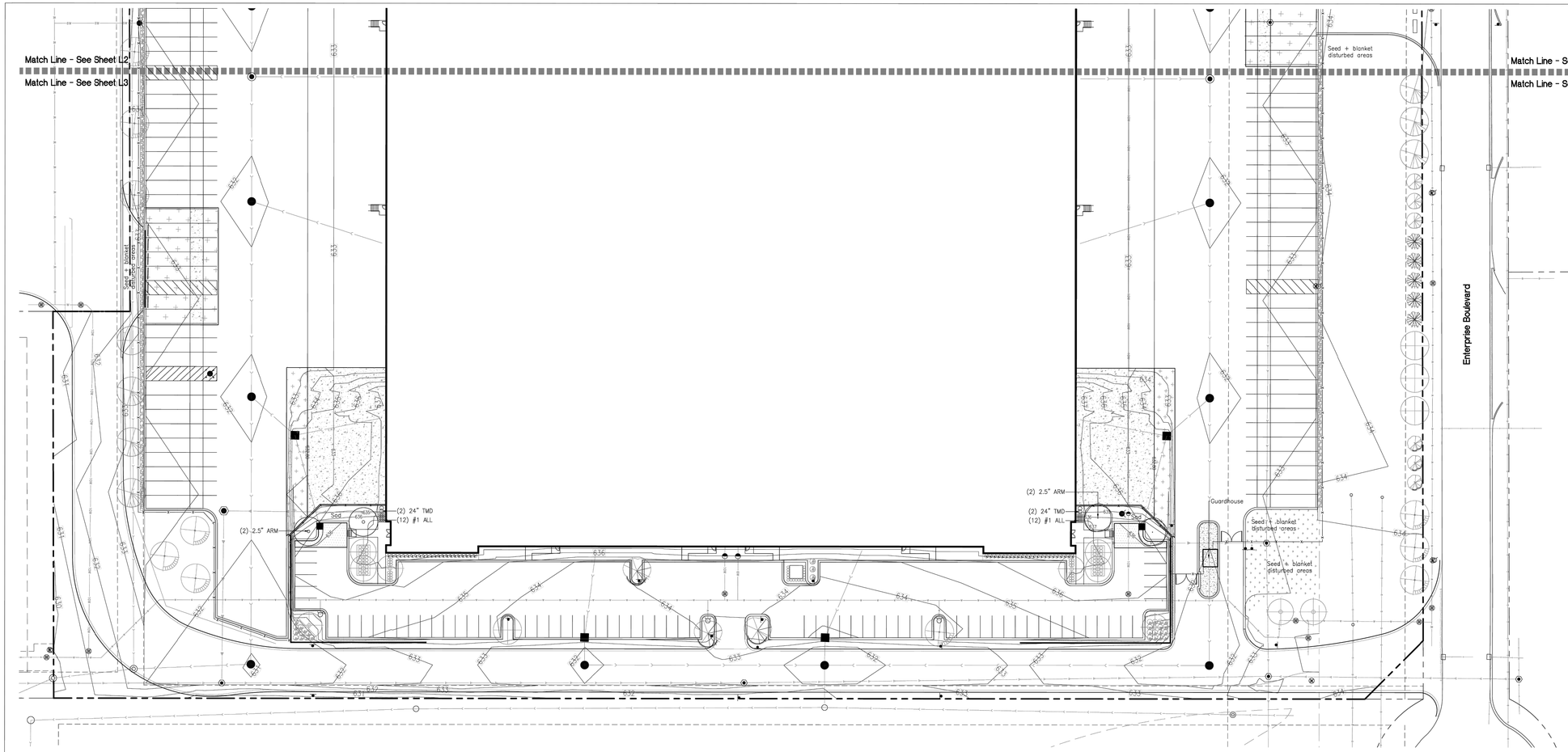
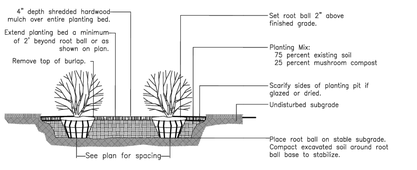
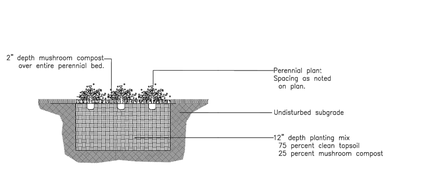

Match Line - See Sheet L1
Match Line - See Sheet L2
Hydroseed
Existing evergreen trees
Existing shade trees
Existing evergreen trees
Existing shade trees
Existing evergreen trees
Existing shade trees





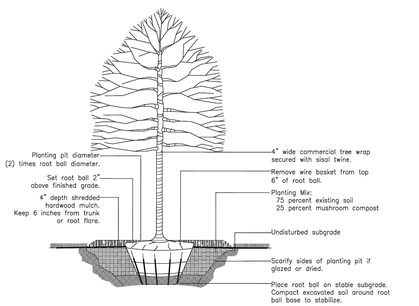
Detail

Shrub Planting



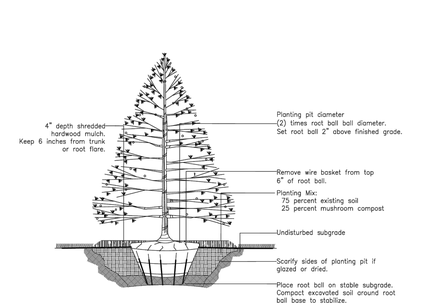
Detail

Perennial Planting



Detail

Deciduous Tree Planting



Detail

Evergreen Tree Planting

Hydroseed | Seed + Blanket

All perennial weeds shall be removed prior to seeding with an approved herbicide.

All seeded areas shall be blanketed with North American Green DS-75 Erosion Control Blanket following seeding.

Seed shall be applied at the rate of 5 lbs. per 1000 square feet between August 20 – September 20 or March 15 – May 15. Seed shall be covered with one-fourth inch (1/4") of soil.

Notes

Per the City of Crest Hill Weed Ordinance, at no point shall the grassed areas exceed 6" height.

Plant List

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Key	Qty.	Size	Botanical Name	Common Name	Remarks
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North

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Sheet
L3

Landscape Plan
As-Built

KHA PROJECT
168864455
DATE
7/18/2025
SCALE AS SHOWN
DESIGNED BY: MAG
DRAWN BY: MAG
CHECKED BY: JF

LANDSCAPE AS-BUILT

MDW5
16825 CHURNOVIC LANE
CREST HILL, IL 60435
WILL COUNTY IL

SHEET NUMBER
L3.2

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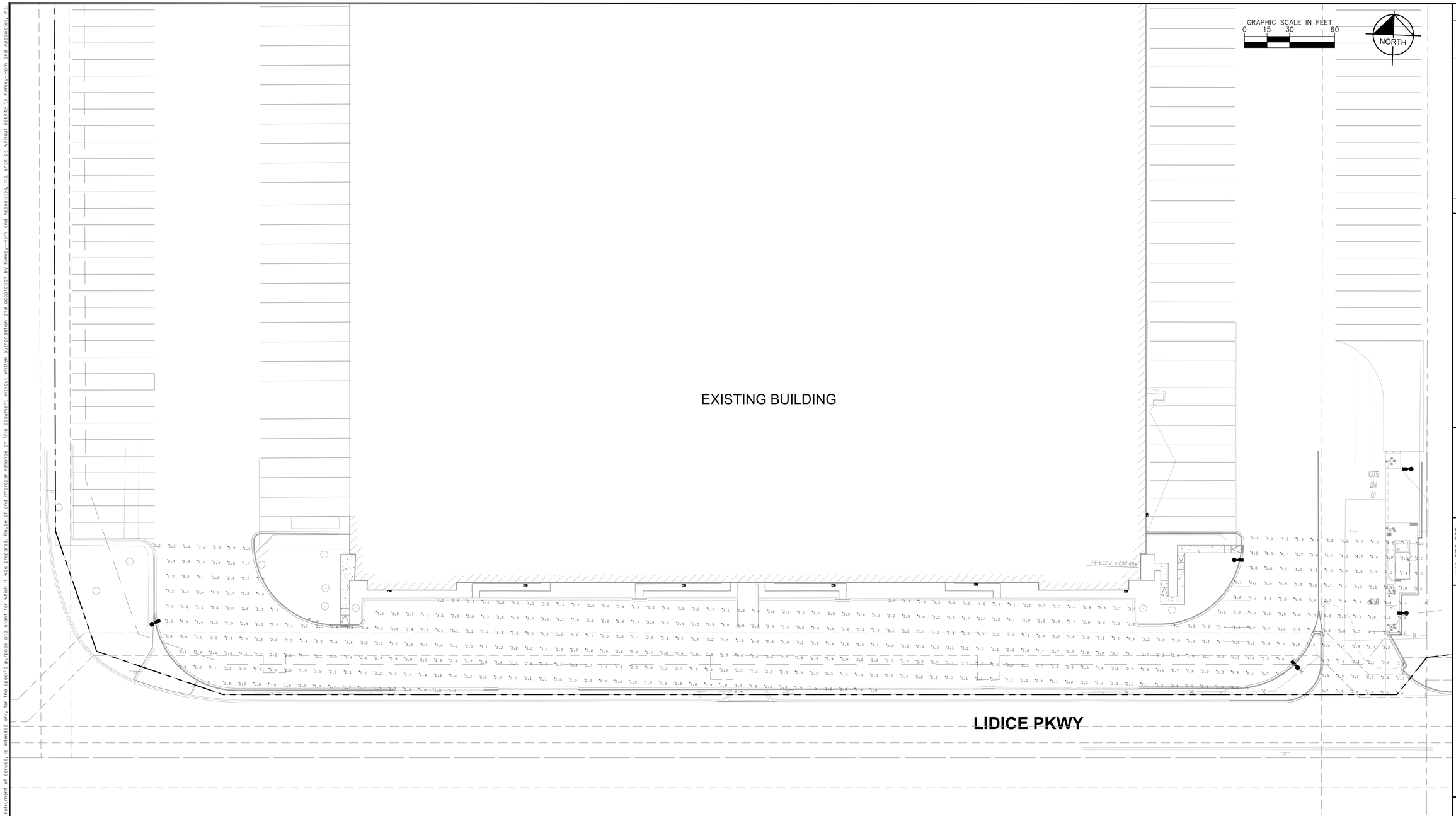

LIGHTING SCHEDULE						
TAG	PRODUCT NUMBER	EXISTING QUANTITY	MOUNTING STYLE	LUMENS	WATTS	DESCRIPTION
●▬	DSX2 LED P4 40K 80CRI T4M	5	32FT POLE, SINGLE	32,627	322	PROPOSED WIDE THROW AREA LIGHT
◥	DSX2 LED 90C 1200 40K T4M MVOLT	7	WALL MOUNTED	32,943	322	WALL MOUNTED EXISTING LIGHTS

PROPOSED LIGHTING CALCULATIONS						
AREA	*ILLUMINANCE - AVERAGE (FC)*	*MAX (Fc)*	*MIN (Fc)*	*AVG/MIN*	*MAX/MIN*	*SUBSTANTIALLY CONFORMING?**
SOUTH PARKING LOT	3.02	5.90	1.50	2.01	3.93	YES

*BASED ON LIGHTING REQUIREMENTS DENOTED IN "AMAZON ASSOCIATE PARKING LOT DESIGN" DATED JUNE 26, 2023:
MINIMUM PARKING LOT LIGHTING: 1.5 FC
MAXIMUM MAX/MIN RATIO: 15:1
MAXIMUM AVG/MIN RATIO: 4:1

LEGEND

- PROPERTY LINE
- ●▬ PROPOSED LIGHT POLE AND FIXTURE
- # TAG CALLOUT
- ◥ EXISTING BUILDING MOUNTED WALLPACK

GENERAL NOTES

1. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY/COUNTY/STATE REGULATION AND CODES.
2. ALL PHOTOMETRIC VALUES SHOWN ON SITE PLAN IN TABLES ARE IN FOOTCANDLES (FC). 1 FC = 10.76 LUX.
3. CALCULATED VALUES ARE DERIVED THROUGH A COMPUTER BASED MODEL WITH LIGHT FIXTURE DATA AS SUPPLIED BY MANUFACTURER THROUGH IES FILES.
4. ANY DEVIATION FROM SPECIFIED FIXTURE MODELS AND MOUNTING HEIGHTS IN THIS EXHIBIT WILL DISCOUNT THE VALIDITY OF THESE CALCULATIONS.
5. THE PHOTOMETRIC ANALYSIS EXCLUDES ALL EXISTING OFF SITE STREET LIGHTING AND LANDSCAPE LIGHTING.
6. ALL LUMINAIRE SYMBOLS ARE DIAGRAMMATIC ONLY. CONTRACTOR TO FIELD COORDINATE EXACT LOCATIONS AND SETBACKS AGAINST UNDERGROUND UTILITY AND OTHER OBSTRUCTIONS.
7. ALL SITE LIGHTING POLES TO BE 29' AND MOUNTED ATOP A 4' CONCRETE BASE FOR A TOTAL MOUNTING HEIGHT OF 33'.

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JULIE
1-800-892-0123

Item 3.

No.	REVISIONS	DATE

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WWW.KIMLEY-HORN.COM

KHA PROJECT 188864455
DATE 7/18/2025
SCALE AS SHOWN
DESIGNED BY: PY
DRAWN BY: PY
CHECKED BY: CWW

OVERALL PHOTOMETRIC PLAN

MDW5
16825 CHURNOVIC LANE
CREST HILL, IL 60435
WILL COUNTY IL

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CALLOUTS/REFERENCE SYMBOLS

SYMBOL	DESCRIPTION
1	KEYED NOTE DESIGNATOR
1	REVISION DESIGNATOR
XX / XX	HVAC EQUIPMENT DESIGNATOR
XX / XX	DETAIL DESIGNATOR. TOP DESIGNATOR IS DETAIL NUMBER, LOWER DESIGNATOR IS SERIES SHEET WHERE DETAIL APPEARS
1 / E-X	SECTION DESIGNATOR, TOP DESIGNATOR IS SECTION LETTER, LOWER DESIGNATOR IS SERIES SHEET WHERE DETAIL APPEARS.

SITE LIGHTING

SYMBOL	DESCRIPTION
	LIGHT POLE WITH DUAL LUMINARIES AS SHOWN. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	LIGHT POLE WITH SINGLE LUMINARY AS SHOWN. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	WALL MOUNTED (WALLPACK) LIGHT FIXTURE FIXTURE. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	FLAG POLE, FLOODLIGHT FIXTURE. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	PEDESTRIAN LIGHT POLE. TYPE AS INDICATED IN FIXTURE SCHEDULE

EMERGENCY/EXIT LIGHTING

SYMBOL	DESCRIPTION
	CEILING MOUNTED EXIT FIXTURE AND OUTLET WITH DIRECTIONAL INDICATOR. TYPE AS INDICATED IN FIXTURE SCHEDULE. SOLID PORTION REPRESENTS ILLUMINATED SIDE.
	WALL MOUNTED EXIT LIGHT FIXTURE AND OUTLET WITH DIRECTIONAL INDICATOR. TYPE AS INDICATED IN FIXTURE SCHEDULE. SOLID PORTION REPRESENTS ILLUMINED SIDE.
	WALL MOUNTED COMBO EXIT/EMERGENCY LIGHT FIXTURE AND OUTLET WITH DIRECTIONAL INDICATOR. TYPE AS INDICATED IN FIXTURE SCHEDULE. SOLID PORTION REPRESENTS ILLUMINATED SIDE.
	SELF-CONTAINED TWO-HEAD EMERGENCY BATTERY PACK FIXTURE. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	EXTERIOR MOUNTED EMERGENCY EGRESS. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	WALL MOUNTED DECORATIVE TWO-HEAD EMERGENCY BATTERY PACK FIXTURE. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	RECESS MOUNTED TWO-HEAD EMERGENCY BATTERY PACK FIXTURE. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	WALL MOUNTED LIGHT FIXTURE ON EMERGENCY. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	RECESSED EMERGENCY FIXTURE. TYPE AS INDICATED IN FIXTURE SCHEDULE.

SWITCHES

SYMBOL	DESCRIPTION
$XX	SINGLE POLE WALL SWITCH. FLUSH MOUNTED UP 44" TO BOTTOM OF BOX UNLESS OTHERWISE INDICATED TYPE AS DESIGNATED BELOW

DESIGNATION	SYSTEM
2	DOUBLE POLE-SINGLE THROW
3	THREE WAY
4	FOUR WAY
EC	EVAPORATIVE COOLER
EXP	EXPLOSION PROOF
F	FAN SWITCH
K	KEYED
L	LIMIT
LV	LOW VOLTAGE
M	MOTOR RATED (i.e. HP RATED)
P	PILOT
WP	WEATHERPOOF

ELECTRICAL PREFERRED VENDORS

TENANT HAS NEGOTIATED UPFRONT PRICING WITH THE FOLLOWING VENDORS FOR ELECTRICAL EQUIPMENT. GENERAL CONTRACTOR AND/OR DEVELOPERS ARE DIRECTED TO INCLUDE THE FOLLOWING PREFERRED VENDORS IN THEIR SITE SPECIFIC BIDS. UPON REVIEW OF ALL PROPOSALS EITHER TENANT OR GENERAL CONTRACTOR/DEVELOPER SHALL AWARD FROM SHORT LIST OF PREFERRED VENDORS FOR LOW-MEDIUM VOLTAGE EQUIPMENT.

1. ABB
   CONTACT: ROBERT EVERS
   ROBERT.EVERS@US.ABB.COM
   PH. 404-312-4517

2. SCHNEIDER ELECTRIC (OEM)
   CONTACT: SCOTT WALTERS
   SCOTT.WALTERS@SE.COM
   PH. 262-617-9951

   GRAYBAR (OEM DISTRIBUTOR REFERENCE)
   CONTACT: STEVE BREEDEN
   STEVEN.BREEDEN@GRAYBAR.COM
   PH. 425-203-1568

3. EATON (OEM)
   CONTACT: DOUG BOGEN
   DOUGCBOGEN@EATON.COM
   PH. 503-804-6297

   STANDARD ELECTRIC (OEM DISTRIBUTOR REFERENCE)
   CONTACT: RYAN HUNT
   RHUNT@STANDARDELECTRIC.COM
   PH. 978-661-1884

ONE LINE SYMBOLS

SYMBOL	DESCRIPTION
	TRANSFORMER AS NOTED.
225AF 200AT 3P 35K AIC	CIRCUIT BREAKER, FRAME SIZE, TRIP SIZE, # SIZE, AIC RATING
600AS 300AF LPS	FUSIBLE SWITCH, SWITCH SIZE, FUSE SIZE, FUSE TYPE
M	UTILITY METERING
	MAIN LUGS ONLY CONNECTION
GFP	GROUND FAULT PROTECTION
	GROUND
	MAIN BREAKER PANELBOARD
	MAIN LUGS ONLY PANELBOARD
	FUSIBLE SAFETY SWITCH, PROVIDED AND INSTALLED UNDER DIV. 16. TO HAVE POLES AND RATIN. NEMA 3R UNLESS NOTED OTHERWISE.
	NON-FUSIBLE SAFETY SWITCH, PROVIDED AND INSTALLED UNDER DIV. 16. TO HAVE POLES AND RATIN. NEMA 3R UNLESS NOTED OTHERWISE.
LINE #1 / LOAD / LINE #2	DOUBLE POLE, DOUBLE THROW SAFETY SWITCH, PROVIDED AND INSTALLED UNDER DIV. 16. TO HAVE POLES AND RATING. NEMA 3R UNLESS NOTED OTHERWISE.
	ENCLOSED CIRCUIT BREAKER, FRAME SIZE, TRIP SIZE, # POLES, AIC RATING
SIZE 3	MAGNETIC STARTER PROVIDED AND INSTALLED UNDER DIV. 16.
SIZE 3	COMBO MAGNETIC STARTER PROVIDED AND INSTALLED UNDER DIV. 16.
M 2	MOTOR CONCECTION WITH HP INDICATED.
25 HP VFD	VFD WITH INTEGRAL CIRCUIT BREAKER
25 HP VFD	VFD WITH INTEGRAL FUZIBLE SWITCH
25 HP VFD	VFD WITHOUT BYPASS SWITCH
	WEATHERHEAD
K	KIRK KEY INTERLOCK

POWER

SYMBOL	DESCRIPTION
XX	DUPLEX CONVENIENCE OUTLET. UP 18" OR AS INDICATED. TYPE AS DESIGNATED BELOW.

DESIGNATION	SYSTEM
C	OCCUPANCY CONTROLLED FOR TITLE 24
TR	TAMPER RESISTANT
WP	WEATHERPROOF
EXP	EXPLOSION PROOF
D	DEDICATED 20A, 120V CIRCUIT

WC	GFCI DUPLEX OUTLET AT 18" FOR WATER COOLER CONNECTION
	GFCI DUPLEX OUTLET, UP 18" OR AS INDICATED.
	DOUBLE DUPLEX OUTLET, UP 18" OR AS INDICATED.
	OUTLET MOUNTED HORIZONTALLY, 6" ABOVE COUNTER OR TOP OF BACKSPLASH
6"AC	DOUBLE DEPLEX OUTLET 6" ABOVE COUNTER OR TOP OF BACKSPLASH.
GFCI	ROOF MOUNTED 20A WP GFCI SERVICE OUTLET PER NEC
	250 VOLT RECEPTACLE UP 24" OR AS INDICATED. AMPERAGE AS NOTED ON DRAWINGS.
	SPECIAL RECEPTACLE UP 24" OR AS INDICATED.
	20A 125V SIMPLEX OUTLET MOUNTED 18" A.F.F. UNLESS NOTED OTHERWISE.
	PEDESTAL MOUNT 20A 125V DUPLEX OUTLET MOUNTED 24" A.F.F. UNLESS NOTED OTHERWISE.
24"	PEDSTAL MOUNT 20A 250V OUTLET MOUNTED 24" A.F.F. UNLESS NOTED OTHERWISE.
24"	SWITCH CONTROLLED DUPLEX CONVENIENCE OUTLET, UP 18" OR AS INDICATED
SW	ISOLATED GROUND DUPLEX CONVENIECE OUTLET, UP 18" OR AS INDICATED
ISO	DOUBLE DUPLEX OUTLET, UP 18" OR AS INDICATED. CONNECT TO A DEDICATED 20A CIRCUIT.
D	

LIGHTING

SYMBOL	DESCRIPTION
	LAY-IN 1X4 FLUORESCENT FIXTURE. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	LAY-IN 2X4 FLUORESCENT FIXTURE. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	LAY-IN 2X2 FLUORESCENT FIXTURE. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	LAY-IN 2X2 PARABOLIC FIXTURE. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	LAY-IN 2X4 PARABOLIC FIXTURE. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	LAY-IN 2X2 DIRECT/INDIRECT FIXTURE. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	LAY-IN 2X4 DIRECT/INDIRECT FIXTURE. TYPE AS INDICATED IN FIXTURE SCHEDULE.
J	JUNCTION BOX WITH FLEXTAILS. MAXIMUM 6'-0" LENGTH OF CONDUIT WITH REQUIRED CONDUCTORS. ALONG WITH GREEN WIRE GROUND.
	LIGHTING FIXTURE INDICATED WITH CROSS SHADING IS CONNECTED TO EMERGENCY POWER SOURCE, OR HAS INTEGRAL BATTERY PACK 1350 LUMEN MIN.
	FLANGED OR SURFACE MOUNTED FLUORESCENT FIXTURE AND OUTLET. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	FLANGE OF SURFACE MOUNTED 2X4 FLUORESCENT FIXTURE AND OUTLET. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	FLANGE OR SURFACE MOUNTED 2X2 FLUORESCENT OR HID FIXTURE AND OUTLET. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	FLUORESCENT UTILITY STRIP FIXTURE AND OUTLET. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	FLUORESCENT INDUSTRIAL FIXTURE AND OUTLET. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	ROUND RECESSED DOWNLIGHT. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	SUSPENDED INDIRECT FIXTURE. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	COVE FIXTURE. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	RECESSED WALL WASH FLUORESCENT FIXTURE. TYPE AS INDICATED IN SCHEDULE.
	SURFACE MOUNTED WASH FLUORESCENT. TYPE AS INDICATED IN SCHEDULE.
	HI-BAY MOUNTED FIXTURE. TYPE AS INDICATED IN FIXTURE SCHEDULE.
HB	LINEAR FLUORESCENT HI-BAY MOUNTED FIXTURE. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	WALL MOUNTED LIGHT FIXTURE AND OUTLET. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	INTERIOR WALL SCONCE LIGHT FIXTURE AND OUTLET. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	EXTERIOR WAS SCONCE LIGHT FIXTURE AND OUTLET. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	SURFACE CEILING FIXTURE AND OUTLET. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	PENDANT HUNG FIXTURE. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	STEM MOUNTED DECORATIVE FIXTURE. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	WALL MOUNTED FLUORESCENT FIXTURE AND OUTLET. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	UNDERCOUNTER FIXTURE AND OUTLET. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	STEP LIGHT. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	SQUARE DOWNLIGHT. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	RECESSED WALL WASH DOWNLIGHT. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	TRACK MOUNTED LIGHT FIXTURE AND OUTLET (LENGTH AS INDICATED). TYPE AS INDICATED IN FIXTURE SCHEDULE.
TR	LOW VOLTAGE LIGHTING STEP DOWN TRANSFORMER.

BOXES

SYMBOL	DESCRIPTION
J	JUNCTION BOX, WALL OR CEILING MOUNTED.
JH	JUNCTION BOX FLUSH IN WALL. HEIGHT AS INDICATED FOR CONNECTION TO EQUIPMENT.
J	SCREW COVER JUNCTION BOX. SIZE AND TYPE AS SCHEDULED.

DESIGNATION	SYSTEM
CD	CORD DROP
CCTV	CLOSED CIRCUIT TELEVISION
DATA	DATA
FA	FIRE ALARM
IA	SECURITY
PA	PAGING/INTERCOM
PWR	POWER
TEL	TELEPHONE
TV	VIDEO

APPARATUS LEGEND

SYMBOL	DESCRIPTION
	SERVICE ENTRANCE RATED SWITCHBOARD.
	480/277V SURFACE MOUNTED DISTRIBUTION PANELBOARD. SEE PANEL SCHEDULE FOR CHARACTERISTICS.
	480/277 SURFACE MOUNTED PANELBOARD. SEE PANEL SCHEDULE FOR CHARACTERISTICS.
	480/277V FLUSH MOUNTED PANELBOARD. SEE PANEL SCHEDULE FOR CHARACTERISTICS.
	208/120V SURFACE MOUNTED DISTRIBUTION PANELBOARD. SEE PANEL SCHEDULE FOR CHARACTERISTICS.
	208/120V SURFACE MOUNTED PANELBOARD. SEE PANEL SCHEDULE FOR CHARACTERISTICS.
	208/120V FLUSH MOUNTED PANELBOARD. SEE PANEL SCHEDULE FOR CHARACTERISTICS.
T	FRY-TYPE TRANSFORMER AS NOTED.
	SAFETY SWITCH, PROVIDED AND INSTALLED UNDER DIV. 26. TO HAVE POLES AND RATIN. NEMA 3R UNLESS NOTED OTHERWISE.
	ENCLOSED CIRCUIT BREAKER, FRAME SIZE, TRIP SIZE, # POLES, AIC RATING
M	UTILITY METER ENCLOSURE, PROVIDE METER SOCKET ENCLOSER PER UTILITY STANDARDS
SM	SUB-METER ENCLOSURE. REFER TO DRAWINGS/SPECS FOR MORE INFORMATION.
	SPECIAL CABINET AS NOTED.
	SURGE PROTECTION DEVICES (SPD)

IMPORTANT NOTES

1.	FIELD COORDINATE ALL EQUIPMENT LOCATIONS REQUIREMENTS WITH TENANT PRIOR TO START OF ANY WORK.
2.	MAINTAIN MINIMUM CLEAR HEIGHT, AS DEFINED BY TENANT/ARCHITECT, BELOW ALL CEILING MOUNTED HVAC EQUIPMENT, FIRE PROTECTION SYSTEMS AND LIGHTING.
3.	NO ITEMS OR OBSTRUCTIONS SHALL BE INSTALLED BELOW SET CLEAR HEIGHT WITHOUT WRITTEN APPROVAL OF TENANT (CLEAR HEIGHT SHALL BE VERIFIED WITH TENANT/ARCHITECT PRIOR TO START OF WORK)
4.	NO ITEMS OR DEVICES SHALL BE INSTALLED ON THE FACE OF ANY INTERIOR STRUCTURAL COLUMN WITHOUT THE WRITTEN APPROVAL OF TENANT.
5.	ALL INTERIOR SWITCHBOARDS AND TRANSFORMERS SHALL BE MOUNTED ON 4" HOUSE-KEEPING PADS.
6.	NO CONDUIT SHALL BE MOUNTED TO THE BOTTOM OF ANY TRUSSES.
7.	ALL COLUMN MOUNTED DEVICES SHALL BE CENTERED IN SUCH A WAY THAT NO PORTION OF THE DEVICE, CONDUIT OR HARDWARE EXTEND BEYOND THE EDGE OF THE COLUMN.
8.	PROVIDE TYPED/PRINTED PERMANENT LABELS FOR ALL SWITCH BOARDS, PANELS, TRANSFORMERS AND DISCONECTS INDICATING DESIGNATION, VOLTAGE, PHASE AND WHERE IS IT FED FROM.
9.	ALL OUTLETS SHALL BE 20 AMPS UNLESS NOTED OTHERWISE.
10.	LABEL ALL WIRE'S WITH CIRCUIT DESIGNATION.
11.	ALL BRANCH CIRCUITS CONNECTIONS AT PANELS AND FEEDER CONNECTIONS AT SWITCHBOARDS SHALL BE ROUTED IN CONDUIT AND NOT MC. IT SHALL BE ACCEPTABLE TO TRANSITION TO MC HORIZONTALLY (OVERHEAD).
12.	ALL WIRING, INCLUDING GROUND WIRES, BELOW 10' AFF SHALL BE ROUTED IN CONDUIT.
13.	LABEL ALL WIRE'S WITH CIRCUIT DESIGNATION.
14.	ALL RECEPTACLES SHALL BE PERMANENTLY LABELED WITH PANEL AND BRANCH CIRCUIT. (UTILIZING A P-TOUCH OR SIMILAR TYPE LABEL)
15.	ALL CONDUIT TERMINATIONS AT/INTO PANELS SHALL BE IN CONDUIT. IT SHALL BE ACCEPTABLE TO TRANSITION TO MC CABLE FOR OVERHEAD ROUTING. (MC CABLE SHALL BE ACCEPTABLE WITHIN WALLS)
16.	ALL EXISTING PANELS AFFECTED BY THIS SCOPE OF WORK SHALL BE PROVIDED WITH NEW TYPED DIRECTORIES AND NEW NAMEPLATES IF NONE CURRENTLY EXIST.

ELECTRICAL COMPONENTS AND THEIR SUPPORTS SHALL BE INSTALLED IN ACCORDANCE WITH ASCE 7 SECTION 30.11 & 13.6 FOR SEISMIC/WIND CONCECTIONS AND GRAVITY SUPPORT.

No.	REVISIONS	DATE	BY

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KHA PROJECT	168864455
DATE	07-18-25
SCALE	AS SHOWN
DESIGNED BY:	JD
DRAWN BY:	JD
CHECKED BY:	SJV

Electrical Symbols & Notes

MDW5
16825 CHURNOVIC LANE
CREST HILL, IL 60435
WILL COUNTY IL

SHEET NUMBER
E0.00

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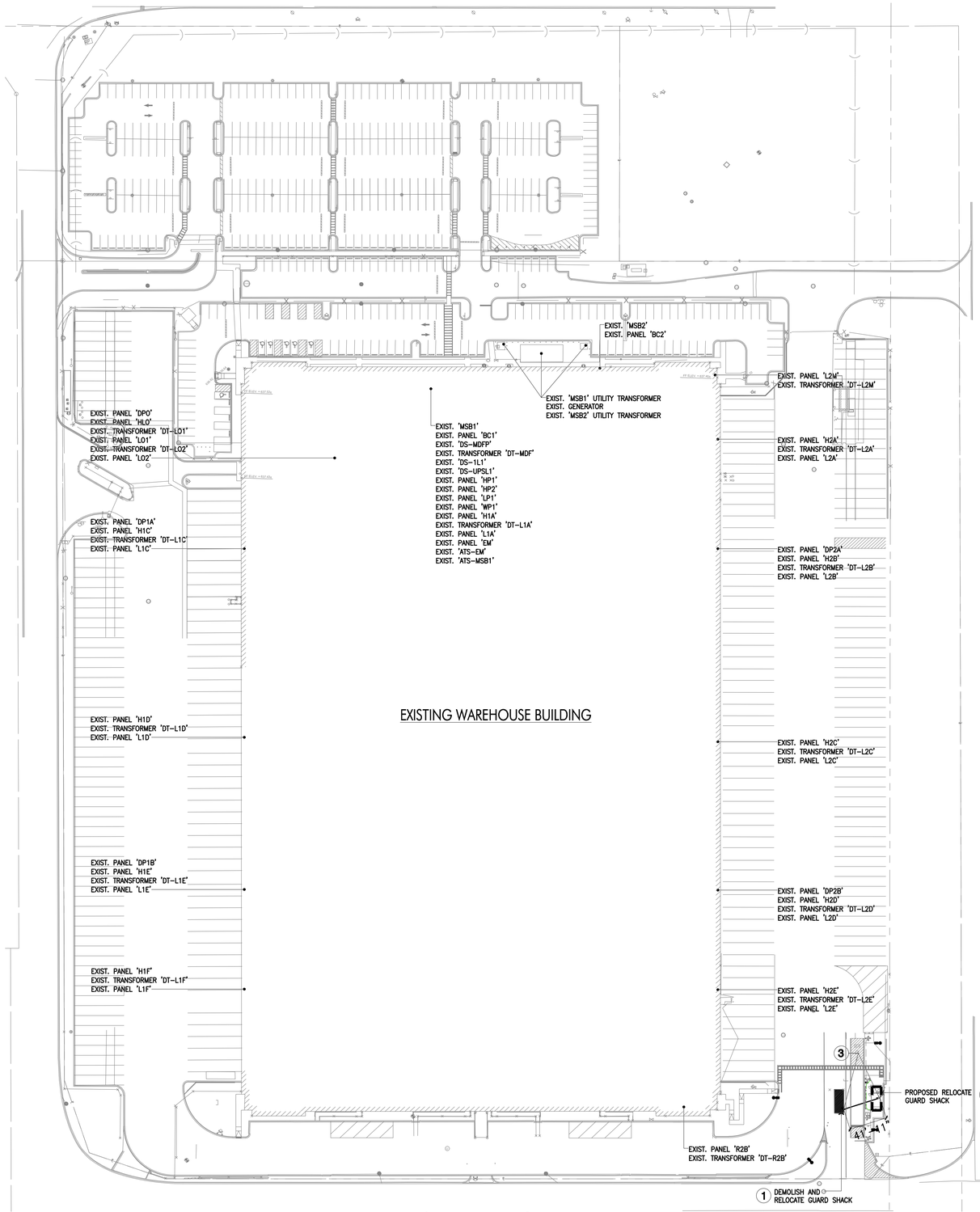

1 **Electric Site Plan**
SCALE: 1/64" = 1'-0"

KEYED NOTES

1. REMOVE EXISTING GUARD SHACK AND REINSTALL TO NEW LOCATION AS INDICATED ON THE SITE PLAN.
2. RELOCATE PROPOSED EXISTING GUARD SHACK TO DESIGNATED LOCATION INDICATED ON THE SITE PLAN.
3. THE ELECTRICAL CONTRACTOR SHALL EXCAVATE THE AREA SURROUNDING THE EXISTING UNDERGROUND CONDUIT AND PROPOSE ROUTING/TRENCHING TO EXTEND THE CONDUITS (POWER AND DATA/TELE) FROM THE EXISTING GUARD SHACK TO THE PROPOSED RELOCATED GUARD SHACK LOCATION. PROVIDE NEW CONDUIT AS REQUIRED. UPON COMPLETION, BACKFILL AND RESTORE THE EXCAVATED AREA TO ITS ORIGINAL CONDITION. COORDINATE WITH CIVIL DRAWINGS FOR ADDITIONAL INFORMATION AND TRENCHING REQUIREMENTS

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Electrical Site Plan

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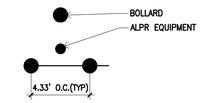
ALPR Legend:

(1) FRONT CAMERA AND BOLLARDS

(2) ULTRASONIC SENSOR AND BOLLARDS

(3) REAR CAMERA AND BOLLARDS



ALPR Detail

ALPR KEYED NOTES (#)

A. (2) 4" UNDERGROUND PVC CONDUIT RACEWAYS. GC TO PROVIDE WITH PULLSTRINGS.

B. PROVIDE 12"x12"x8" NEMA 3R RATED ENCLOSURE WITH BOTTOM MOUNTED 12" ABOVE GROUND AND TERMINATE (1) 4" CONDUIT FROM GUARD HOUSE FOR FUTURE REQUIREMENTS. LOCATE WITHIN 24" OF ALPR CAMERA LOCATIONS. PROVIDE SUPPORT FOR FUTURE BOX.

C. ABOVE GROUND NEMA 3R RATED 42"x36"x12" ENCLOSURE WITH BOTTOM MOUNTED 12" ABOVE GROUND TO TERMINATE (5) 4" CONDUITS FROM ALPR CAMERA/SENSOR LOCATIONS AS DETAILED. (3) 4" CONDUITS SHALL BE PROVIDED FROM ENCLOSURE INTO GUARDHOUSE, UNDERNEATH OF WORK SURFACE WITHIN. PROVIDE UNISTRUT SUPPORT FOR BOX.

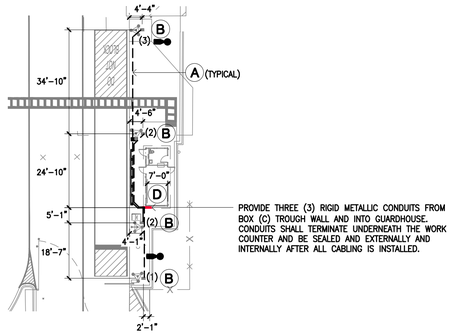
D. ABOVE GROUND NEMA 3R RATED 36"x32"x12" ENCLOSURE WITH BOTTOM 12" ABOVE GROUND TO TERMINATE (3) 4" CONDUITS FROM ALPR CAMERA/SENSOR LOCATIONS. (2) 4" CONDUITS SHALL BE PROVIDED FROM ENCLOSURE TO CENTRALLY LOCATED ENCLOSURE ADJACENT TO GUARDHOUSE (SEE NOTE C). PROVIDE UNISTRUT SUPPORT BOX.

GENERAL NOTES

1. "ALPR" IS THE USERS AUTOMATED LICENSE PLATE READER SYSTEM. THE SCOPE OF THIS DRAWING IS THE RACEWAY SYSTEM ASSOCIATED WITH THIS EQUIPMENT. ALL RACEWAYS SHALL BE INSTALLED UNDERGROUND AND ALL ELBOWS SHALL BE LONG SWEEPING TYPE SUITABLE FOR FIBER OPTIC CABLING.

SCOPE DEFINED
ALL INFRASTRUCTURE ROUGH-IN SHALL BE IN GC SCOPE INCLUDING CONDUIT AND NEMA BOXES.

CABLING SHALL BE PROVIDED AND INSTALLED BY AMAZON START-UP.



PROVIDE THREE (3) RIGID METALLIC CONDUITS FROM BOX (C) TROUGH WALL AND INTO GUARDHOUSE. CONDUITS SHALL TERMINATE UNDERNEATH THE WORK COUNTER AND BE SEALED AND EXTERNALLY AND INTERNALLY AFTER ALL CABLING IS INSTALLED.

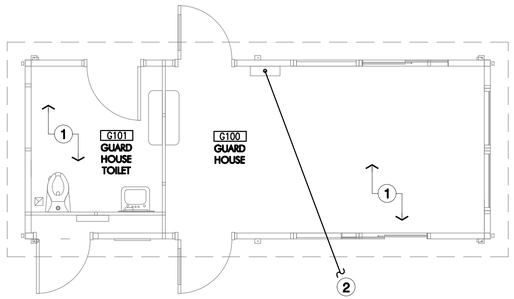
1 ALPR Low Voltage (Relocate Guard Shack)

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

KEYED NOTES (#)

1. THE EXISTING GUARD SHACK SHALL BE RELOCATED AS SHOWN. GC SHALL VERIFY THAT ALL EXISTING SYSTEMS, INCLUDING LIGHTING AND POWER WILL BE REUSED AS-IS.

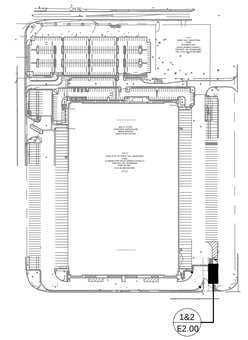
2. THE ELECTRICAL CONTRACTOR SHALL EXTEND THE CONDUITS (POWER AND DATA/TELE) FROM THE EXISTING GUARD SHACK TO THE PROPOSED RELOCATED GUARD SHACK LOCATION. PROVIDE NEW CONDUIT AS REQUIRED. UPON COMPLETION, BACKFILL AND RESTORE THE EXCAVATED AREA TO ITS ORIGINAL CONDITION. COORDINATE WITH CIVIL DRAWINGS AND SHEET E1.00 FOR ADDITIONAL INFORMATION.



2 Enlarged Electrical Plan (Relocate Guard Shack)

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

KEY PLAN



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DRAWN BY:	JD
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Guard Shack Plans & Details

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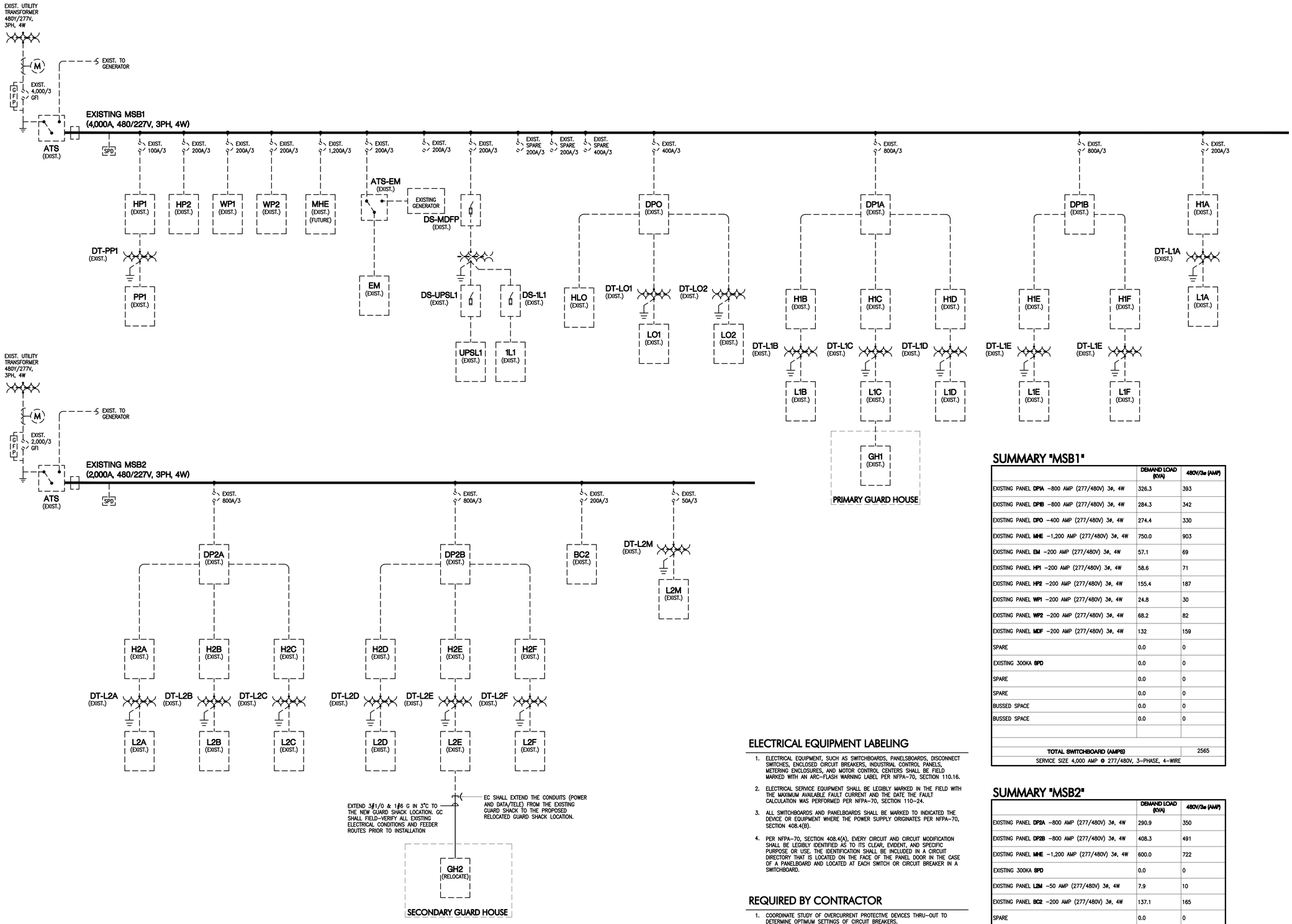

2 One-Line Power Riser Diagram (MSB1 & MSB2)

Scale: NTS

SUMMARY "MSB1"

	DEMAND LOAD (KVA)	480V/3ø (AMP)
EXISTING PANEL **DP1A** –800 AMP (277/480V) 3ø, 4W	326.3	393
EXISTING PANEL **DP1B** –800 AMP (277/480V) 3ø, 4W	284.3	342
EXISTING PANEL **DPO** –400 AMP (277/480V) 3ø, 4W	274.4	330
EXISTING PANEL **MHE** –1,200 AMP (277/480V) 3ø, 4W	750.0	903
EXISTING PANEL **EM** –200 AMP (277/480V) 3ø, 4W	57.1	69
EXISTING PANEL **HP1** –200 AMP (277/480V) 3ø, 4W	58.6	71
EXISTING PANEL **HP2** –200 AMP (277/480V) 3ø, 4W	155.4	187
EXISTING PANEL **WP1** –200 AMP (277/480V) 3ø, 4W	24.8	30
EXISTING PANEL **WP2** –200 AMP (277/480V) 3ø, 4W	68.2	82
EXISTING PANEL **MDF** –200 AMP (277/480V) 3ø, 4W	132	159
SPARE	0.0	0
EXISTING 300KA **SPD**	0.0	0
SPARE	0.0	0
SPARE	0.0	0
BUSSED SPACE	0.0	0
BUSSED SPACE	0.0	0
TOTAL SWITCHBOARD (AMPS)		2565
SERVICE SIZE 4,000 AMP @ 277/480V, 3-PHASE, 4-WIRE		

SUMMARY "MSB2"

	DEMAND LOAD (KVA)	480V/3ø (AMP)
EXISTING PANEL **DP2A** –800 AMP (277/480V) 3ø, 4W	290.9	350
EXISTING PANEL **DP2B** –800 AMP (277/480V) 3ø, 4W	408.3	491
EXISTING PANEL **MHE** –1,200 AMP (277/480V) 3ø, 4W	600.0	722
EXISTING 300KA **SPD**	0.0	0
EXISTING PANEL **L2M** –50 AMP (277/480V) 3ø, 4W	7.9	10
EXISTING PANEL **BC2** –200 AMP (277/480V) 3ø, 4W	137.1	165
SPARE	0.0	0
SPARE	0.0	0
TOTAL SWITCHBOARD (AMPS)		1738
SERVICE SIZE 2,000 AMP @ 277/480V, 3-PHASE, 4-WIRE		

ELECTRICAL EQUIPMENT LABELING

1. ELECTRICAL EQUIPMENT, SUCH AS SWITCHBOARDS, PANELSBOARDS, DISCONNECT SWITCHES, ENCLOSED CIRCUIT BREAKERS, INDUSTRIAL CONTROL PANELS, METERING ENCLOSURES, AND MOTOR CONTROL CENTERS SHALL BE FIELD MARKED WITH AN ARC-FLASH WARNING LABEL PER NFPA-70, SECTION 110.16.
2. ELECTRICAL SERVICE EQUIPMENT SHALL BE LEGIBLY MARKED IN THE FIELD WITH THE MAXIMUM AVAILABLE FAULT CURRENT AND THE DATE THE FAULT CALCULATION WAS PERFORMED PER NFPA-70, SECTION 110-24.
3. ALL SWITCHBOARDS AND PANELBOARDS SHALL BE MARKED TO INDICATED THE DEVICE OR EQUIPMENT WHERE THE POWER SUPPLY ORIGINATES PER NFPA-70, SECTION 408.4(B).
4. PER NFPA-70, SECTION 408.4(A), EVERY CIRCUIT AND CIRCUIT MODIFICATION SHALL BE LEGIBLY IDENTIFIED AS TO ITS CLEAR, EVIDENT, AND SPECIFIC PURPOSE OR USE. THE IDENTIFICATION SHALL BE INCLUDED IN A CIRCUIT DIRECTORY THAT IS LOCATED ON THE FACE OF THE PANEL DOOR IN THE CASE OF A PANELBOARD AND LOCATED AT EACH SWITCH OR CIRCUIT BREAKER IN A SWITCHBOARD.

REQUIRED BY CONTRACTOR

1. COORDINATE STUDY OF OVERCURRENT PROTECTIVE DEVICES THRU-OUT TO DETERMINE OPTIMUM SETTINGS OF CIRCUIT BREAKERS.
2. SET ALL CIRCUIT BREAKERS AT RECOMMENDED SETTINGS AT COMPLETION OF PROJECT.
3. PROVIDE SELECTIVE COORDINATION OF EMERGENCY SYSTEMS.
4. PROVIDE ARC-FLASH STUDY AND ALL REQUIRED LABELS AT PANELS.

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Item 3.

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KHA PROJECT 168864455
DATE 07-18-25
SCALE AS SHOWN
DESIGNED BY: JD
DRAWN BY: JD
CHECKED BY: SJV

Electrical One Line Diagram

MDW5
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CREST HILL, IL 60435
WILL COUNTY IL

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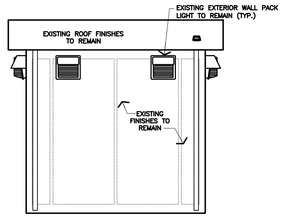
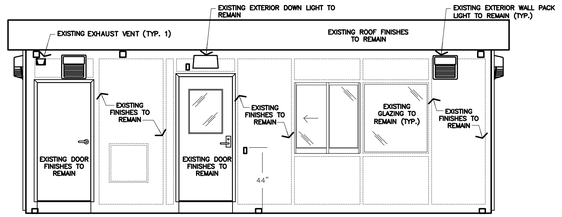
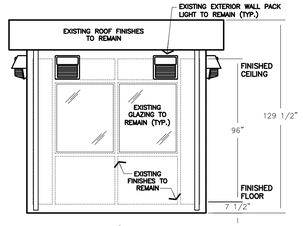


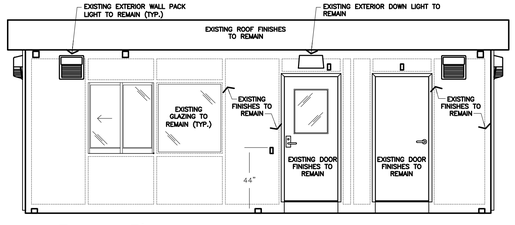
5 Exterior Elevation
SCALE 1/4" = 1'-0"



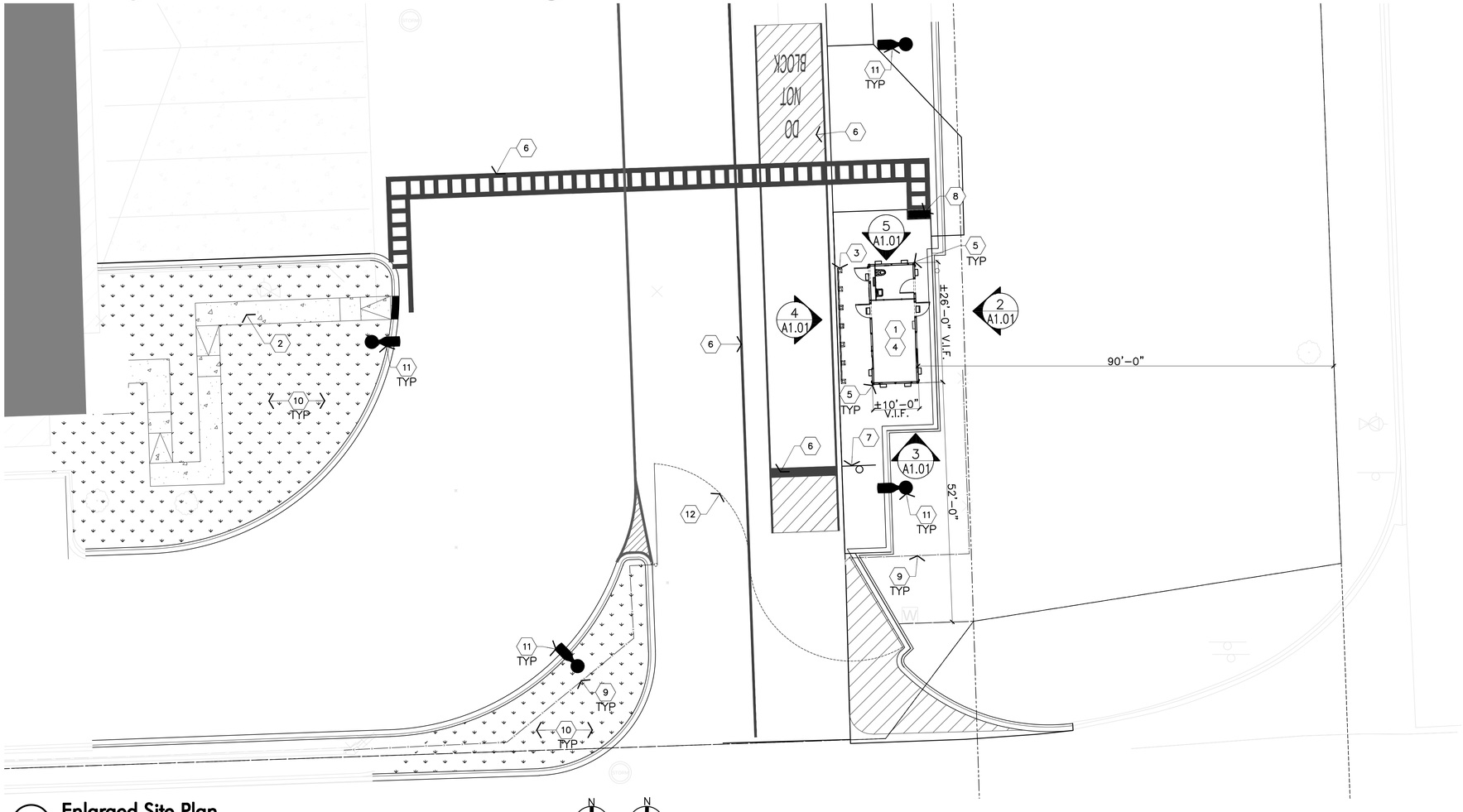
4 Exterior Elevation
SCALE 1/4" = 1'-0"



3 Exterior Elevation
SCALE 1/4" = 1'-0"



2 Exterior Elevation
SCALE 1/4" = 1'-0"



1 Enlarged Site Plan
SCALE 1" = 20'-0"

NOTE:
SITE PLAN SHOWN FOR REFERENCE ONLY.
ALL SITE WORK IS UNDER SEPARATE PERMIT.

PLAN NORTH / TRUE NORTH

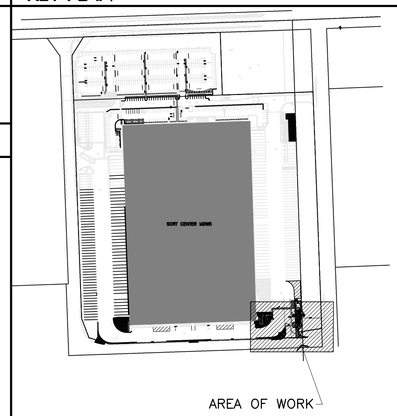
GENERAL NOTES

1. BUILDING DIMENSIONS TAKEN FROM INSIDE FACE OF CONCRETE PANEL.
2. DRIVE AISLE DIMENSIONS SHOWN ARE MEASURED FROM FACE OF CURB TO FACE OF CURB, OR BACK OF PARKING STALL TO BACK OF PARKING STALL.
3. SITE PLAN LAYOUT TO GRAPHICALLY ILLUSTRATE INTENT ONLY. OWNERS AND DESIGN TEAMS ARE RESPONSIBLE FOR RECONCILING WITH SITE SPECIFIC CONSTRAINTS AND JURISDICTIONAL REQUIREMENTS

KEY NOTES

1. LOCATION OF RELOCATED OUTBOUND GUARDSHACK.
2. NEW CONCRETE SIDEWALK, REF: CIVIL DRAWINGS.
3. EXISTING GUARDRAIL TO BE RE-INSTALLED IN NEW CONCRETE.
4. G.C. TO RE-INSTALLED ALL EXISTING SECURITY CAMERAS, LIGHTNING RODS, AND EXISTING EXTERIOR EQUIPMENT.
5. G.C. TO PROTECT/REPAIR EXISTING DOWNSPOUTS DURING CONSTRUCTION.
6. NEW PAVEMENT STRIPING, REF: CIVIL DRAWINGS.
7. NEW STOP SIGN LOCATION. REF: CIVIL DRAWINGS.
8. NEW CURB RAMP, REF: CIVIL DRAWINGS.
9. EXISTING SITE FENCE TO REMAIN.
10. NEW SITE LANDSCAPING. REF: CIVIL DRAWINGS.
11. NEW SITE LIGHT POLE, REF: ELECTRICAL DRAWINGS.
12. EXISTING CHAINLINK GATE TO REMAIN.

KEY PLAN



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TIMOTHY LOTT
001.026969
7-18-25
STATE OF ILLINOIS

KHA PROJECT	168864455
DATE	07-18-25
SCALE	AS SHOWN
DESIGNED BY	JD
DRAWN BY	JD
CHECKED BY	SJV

Enlarged Site Plan & Exterior Elevations

MDW5
16825 CHURNOVIC LANE
CREST HILL, IL 60435
WILL COUNTY IL

SHEET NUMBER
A1.01

1.00 DESIGN CRITERIA

1.01 2015 INTERNATIONAL BUILDING CODE WITH 2024 ILLINOIS STATE AMENDMENTS

1.02 RISK CATEGORY = II

1.03 DEFLECTION CRITERIA: SEE IBC TABLE 1604.3

1.04 LOADING INFORMATION

A. DEAD: BUILDING LOADS ARE LISTED ON PRE-ENGINEERED GUARD SHACK. DRAWINGS PROVIDED BY OTHERS.

B. LIVE: BUILDING LOADS ARE LISTED ON PRE-ENGINEERED GUARD SHACK. DRAWINGS PROVIDED BY OTHERS.

C. SNOW:

IMPORTANCE FACTOR, Is	= 1.0
GROUND SNOW LOAD. Pg	= 25 PSF

D. FROST:

FROST DEPTH	= 42 INCHES (BELOW GRADE. THE BOTTOM OF ALL FOUNDATIONS SHALL EXTEND TO THE FROST DEPTH, MINIMUM.)

E. WIND:

IMPORTANCE FACTOR, Iw	= 1.0
WIND SPEED, V (SITE SPECIFIC)	= 115 MPH (3 SEC GUST)
EXPOSURE CATEGORY	= C
INTERNAL PRESSURE COEFFICIENT, GCpi	= +/- 0.18

THE WIND PRESSURE IN TERMS OF POUNDS PER SQUARE FOOT TO BE USED FOR THE DESIGN OF EXTERIOR COMPONENTS AND CLADDING MATERIALS SHALL BE INDICATED ON THE SHOP DRAWINGS SUBMITTED BY THE SUPPLIER AND CERTIFIED BY A REGISTERED ENGINEER IN THE STATE OF THE PROJECT.

F. SEISMIC:

IMPORTANCE FACTOR, Ie	= 1.00
SPECTRAL RESPONSE ACCELERATION, Ss	= 0.138
SPECTRAL RESPONSE ACCELERATION, S1	= 0.068
SITE CLASS	= D
SITE COEFFICIENT, Fa	= 1.6
SITE COEFFICIENT, Fv	= 2.4
SPECTRAL RESPONSE COEFFICIENT, Sds	= 0.147
SPECTRAL RESPONSE COEFFICIENTS, Sd1	= 0.11
SEISMIC DESIGN CATEGORY	= A

2.00 DOCUMENTS AND LIMITATIONS

2.01 THESE STRUCTURAL DOCUMENTS, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, ARE INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. MUST BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

2.02 IT IS UNDERSTOOD THAT THE CONSULTANT MAKES NO WARRANTY, EITHER EXPRESSED OR IMPLIED, AS TO FINDINGS, DESIGNS, RECOMMENDATIONS, SPECIFICATIONS, OPINION, OR PROFESSIONAL ADVICE, EXCEPT THAT THESE INSTRUMENTS OF SERVICE HAVE BEEN PREPARED IN ACCORDANCE WITH THE CURRENT GENERALLY ACCEPTED PROFESSIONAL ENGINEER PRACTICES.

2.03 ALL NON-STRUCTURAL ELEMENTS INDICATED ON THE STRUCTURAL DRAWINGS HAVE BEEN SHOWN IN GENERAL TO THE RELATIONSHIP TO THE STRUCTURAL ELEMENTS ONLY. ACCORDINGLY, THEY MUST NOT BE ASSUMED TO BE ACCURATE AND REFERENCE MUST BE MADE TO THE APPROPRIATE CONSULTANT(S), PLANS, AND SPECIFICATIONS.

2.04 NOTES ON THIS AND THE FOLLOWING SHEETS ARE PART OF THE PROJECT REQUIREMENTS BUT ARE NOT INTENDED TO REPLACE THE PROJECT SPECIFICATIONS. IN CASE OF CONFLICTS BETWEEN THE REQUIREMENTS OF THE SPECIFICATIONS AND THESE NOTES, THE MORE STRINGENT REQUIREMENT MUST APPLY.

3.00 CONSTRUCTION SAFETY

3.01 IT IS UNDERSTOOD THAT THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK ON THE PROJECT. THE CONTRACTOR MUST TAKE ALL NECESSARY PRECAUTIONS FOR THE SAFETY OF THE PERSONS AND PROTECT THEM AGAINST INJURY. LIKEWISE, THE CONTRACTOR MUST PROTECT ALL PROPERTY AGAINST DAMAGE OR LOSS.

3.02 THE CONTRACTOR MUST COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, RULES, REGULATIONS, AND ORDERS OF ANY PUBLIC BODY HAVING JURISDICTION FOR THE SAFETY OF PERSONS OF PROPERTY.

3.03 THE CONTRACTOR'S DUTIES AND RESPONSIBILITIES FOR THE SAFETY AND PROTECTION OF THE WORK MUST CONTINUE UNTIL SUCH TIME AS THE WORK IS SATISFACTORILY COMPLETED, AND THE ENGINEER OF RECORD HAS ISSUED A NOTICE TO THAT EFFECT TO THE OWNER AND THE CONTRACTOR.

4.00 DIMENSIONS

4.01 BEFORE STARTING WORK, THE CONTRACTOR MUST VERIFY ALL DIMENSIONS ON THE SITE BEFORE STARTING WORK AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER OF RECORD.

4.02 BEFORE STARTING ANY WORK, THE CONTRACTOR MUST CHECK ALL DIMENSIONS GIVEN ON THE STRUCTURAL DRAWINGS RELATING TO GRID LINES, COLUMN AND WALL LOCATIONS, STRUCTURAL AND FINISHED FLOOR ELEVATIONS, MEMBER SIZES, ETC. WITH THE ARCHITECTURAL, CIVIL, AND MEP DRAWINGS. IF ANY DISCREPANCY IS NOTICED, IT MUST BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT AND THE ENGINEER, AND WORK MUST NOT COMMENCE UNTIL INSTRUCTIONS ARE RECEIVED FROM THE ENGINEER.

4.03 THE CONTRACTOR MUST REFER TO THE ENGINEER OF RECORD FOR INSTRUCTION FOR ANY DIMENSION NOT GIVEN ON OR OBTAINABLE FROM THE CONSTRUCTION DRAWINGS. THE CONTRACTOR MUST NOT USE SCALE TO OBTAIN OR VERIFY ANY DIMENSION SHOWN ON THE CONSTRUCTION DRAWINGS.

5.00 SHOP DRAWINGS

5.01 REVIEW OF SHOP DRAWINGS BY THE ENGINEER OF RECORD IS LIMITED TO A REVIEW OF CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE PLANS AND SPECIFICATIONS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DIMENSIONS, QUANTITIES, PERFORMANCE, SAFETY, COORDINATION WITH OTHER WORKS, AND ALL OTHER REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. REVIEW DOES NOT AUTHORIZE CHANGES TO THE CONTRACT.

5.02 THE CONTRACTOR MUST SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW IN ACCORDANCE WITH A SCHEDULE OF SUBMITTALS ACCEPTABLE TO THE ENGINEER. THESE SHOP DRAWINGS MUST HAVE BEEN CHECKED BY, AND STAMPED WITH THE APPROVAL OF THE CONTRACTOR, AND IDENTIFIED AS THE ENGINEER MAY REQUIRE. THE DATA SHOWN ON THE SHOP DRAWINGS MUST BE COMPLETE WITH RESPECT TO DIMENSIONS, DESIGN CRITERIA, AND DULY SIGNED AND SEALED BY A PROFESSIONAL ENGINEER (WHERE APPLICABLE).

5.03 COMPLETE STRUCTURAL SHOP DRAWINGS FOR CONSTRUCTION OF EACH BUILDING COMPONENT NOT DESIGNED BY THE DESIGN TEAM-OF-RECORD AND NOT SPECIFIED ON THE PROJECT CONSTRUCTION DOCUMENTS SHALL BE SEALED AND SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF ILLINOIS AND GET APPROVAL FROM ENGINEER OF RECORD PRIOR TO THE SUBMITTAL AND SHALL BE AVAILABLE AT THE JOB SITE DURING THE TIMES OF INSPECTION.

5.04 THE CONTRACTOR SHALL SUBMIT THE FOLLOWING SUBMITTALS, AT A MINIMUM:
A. FOUNDATION REBAR SUBMITTAL
B. CONCRETE MIX DESIGN SUBMITTAL
C. ANCHOR BOLTS SUBMITTAL

6.00 DEFERRED SUBMITTALS

6.01 THE FOLLOWING SUBMITTALS ARE DEFERRED FOR THEIR DESIGN TO BE PROVIDED BY THE SUPPLIER:

A. MISCELLANEOUS EQUIPMENT ANCHORAGE

6.02 DOCUMENTS FOR THE DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED A MINIMUM OF 30 DAYS BEFORE ITEMS ARE TO BE INSTALLED. THESE ITEMS ARE TO BE REVIEWED BY THE GENERAL CONTRACTOR AND THE ENGINEER OF RECORD FOR GENERAL CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS. REFER TO THE PROJECT MANUAL FOR DEFERRED SUBMITTAL DESIGN QUALIFICATIONS AND ADDITIONAL DEFERRED SUBMITTAL REQUIREMENTS.

7.00 REINFORCED CONCRETE (CAST-IN-PLACE)

7.01 THE GENERAL CONTRACTOR MUST ASSIST AND COOPERATE WITH AN INDEPENDENT TESTING LABORATORY (TO BE RETAINED BY THE OWNER) WHICH MUST CONDUCT ALL THE SPECIFIED TESTS REQUIRED FOR THE CONCRETE WORK AND REPORT THE RESULTS OF THESE TESTS DIRECTLY AND PROMPTLY TO THE ENGINEER FOR THEIR REVIEW.

7.02 DETAILING OF REBAR MUST BE IN ACCORDANCE WITH THE LATEST REVISION OF THE ACI DETAILING MANUAL, AND CONCRETE REINFORCING INSTITUTE'S LATEST EDITION OF "MANUAL OF STANDARD PRACTICE". ALL SHOP DRAWINGS PERTAINING TO REBAR DETAILS MUST BE SUBMITTED TO THE ENGINEER FOR HIS REVIEW.

7.03 CONCRETE MIX DESIGN FOR ALL CONCRETE WORK IS REQUIRED TO BE SUBMITTED TO THE ENGINEER FOR REVIEW. THE CONCRETE SUPPLIER MUST HAVE A QUALITY CONTROL PROCEDURE FOR THE PRODUCTION OF ALL CONCRETE, WHICH MUST BE ACCEPTABLE TO THE ENGINEER AND MEET CURRENT ACI STANDARDS.

7.04 CONSTRUCTION JOINTS MUST BE AS APPROVED BY THE STRUCTURAL ENGINEER AND THE ARCHITECT. ENGINEER MUST BE INFORMED AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONCRETE WORK.

7.05 A COPY OF ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" AND ACI SP 17 "FIELD REFERENCE MANUAL" MUST BE KEPT IN THE PROJECT FIELD OFFICE AT ALL TIMES.

7.06 CONCRETE PLACEMENT AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS". CONCRETE SHALL BE PLACED WITHIHN 90 MINUTES OF BATCH TIME.

7.07 CONCRETE SHALL HAVE, AT THE POINT OF DELIVERY, A SLUMP OF 4 INCHES AS DETERMINED BY ASTM C163/C163M. SLUMP TOLERANCES SHALL MEET THE REQUIREMENTS OF ACI 116. WHEN A PLASTICIZING ADMIXTURE OR HIGH-RANGE WATER-REDUCING ADMIXTURE CONFORMING TO ASTM C494/C494M IS PERMITTED TO INCREASE THE SLUMP OF CONCRETE, CONCRETE SHALL HAVE BEEN PROPORTIONED TO A SLUMP OF 2 TO 4 IN. BEFORE THE ADMIXTURE IS ADDED AND A MAXIMUM SLUMP OF 8 IN. AT THE POINT OF DELIVERY AFTER THE ADMIXTURE IS ADDED.

7.08 GENERAL CONTRACTORS SHALL SUBMIT SHOP DRAWINGS FOR CAST-IN-PLACE CONCRETE THAT SHALL INCLUDE LOCATIONS AND COORDINATION OF ALL PENETRATIONS AND/OR EMBED PLATES. THE CONTRACTOR AND ALL UTILITY/MEPFP CONTRACTORS SHALL ACKNOWLEDGE REVIEW AND COORDINATION OF PENETRATIONS AND EMBED LOCATIONS, PRIOR TO ENGINEER'S SHOP DRAWING REVIEW.

7.09 SUBMITTALS:
a. DETAILED SHOP DRAWINGS OF REINFORCING BARS SHOWING NUMBER, SIZE, AND LOCATION. INCLUDED BAR LIST AND BEND DIAGRAMS.
b. MIX DESIGNS FOR EACH TYPE OF CONCRETE SPECIFIED SHALL BE SUBMITTED FOR APPROVAL.
c. PRODUCT DATA AND MATERIAL CERTIFICATES.

7.10 MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED. ENSURE FULL CONSOLIDATION OF CONCRETE AROUND REINFORCING STEEL, DOWELS, ANCHOR BOLTS, DEFORMED BAR ANCHORS, HEADED CONCRETE ANCHORS AND OTHER SIMILAR ITEMS DURING CONCRETE PLACEMENT.

7.11 TOLERANCES FOR REINFORCEMENT FABRICATION, REINFORCEMENT PLACEMENT AND CONCRETE CONSTRUCTION MUST CONFORM TO THE LATEST EDITION OF ACI 117 "SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS."

7.12 EMBEDDED ITEMS THAT WILL SUPPORT STRUCTURAL STEEL CONSTRUCTION SHALL BE PLACED WITHIN THE TOLERANCES PRESCRIBED IN THE LATEST EDITION OF THE AISC " CODE OF STANDARD PRACTICE". GENERAL CONTRACTOR SHALL FIELD VERIFY LOCATION OF EMBEDDED ITEMS PRIOR TO FABRICATION AND DELIVERY OF STRUCTURAL STEEL TO THE PROJECT SITE.

7.13 PROVIDE BAR DETAILS AND SUPPORTS PER THE LATEST EDITION OF THE ACI DETAILING MANUAL AND BUILDING CODE. LAP ALL SPLICES AS SHOWN ON THE STRUCTURAL DRAWINGS.

7.14 CLEAR DISTANCE FROM FACE OF CONCRETE TO MAIN STEEL MUST BE AS SHOWN ON THE STRUCTURAL DRAWINGS. WHERE CLEAR DISTANCE IS NOT SHOWN, ACI 301 MUST BE THE CONTROLLING GUIDANCE.

7.15 ALL REINFORCEMENT SHOWN IS INTENDED TO BE CONTINUOUS UNLESS NOTED OTHERWISE. REFER TO REINFORCEMENT STEEL CHART FOR TENSION LAP SPLICES. PROVIDE CLASS B LAP SPLICES FOR ALL REBAR SPLICES RELATING TO FOUNDATION WORK UNLESS NOTED OTHERWISE.

7.16 WHERE SHOWN, BUT NOT SPECIFICALLY NOTED, PROVIDE STANDARD ACI 90-DEGREE OF 180-DEGREE HOOKS TO REBAR AS APPLICABLE.

7.17 PROVIDE 3/4 INCH CHAMFERS AT ALL EXPOSED EDGES UNO.

7.18 CORE DRILLING MUST NOT BE ALLOWED THROUGH IN-PLACE CONCRETE ELEMENTS UNLESS SPECIFICALLY APPROVED BY THE ENGINEER. PENETRATIONS THROUGH CONCRETE ELEMENTS MUST BE ILLUSTRATED ON SHOP DRAWINGS AND MUST UTILIZE SCHEDULE 40 STEEL PIPE. CLEARANCE REQUIRED WITHIN PIPE SLEEVE MUST BE CONFIRMED BY SUBCONTRACTOR RESPONSIBLE FOR THE MATERIAL PASSING THROUGH THE SLEEVE. REINFORCEMENT CLEAR COVER MUST BE MAINTAINED AROUND THE SLEEVE PENETRATION.

7.19 STRUCTURAL CONCRETE MATERIALS SHALL CONFORM TO THE FOLLOWING:
a. PORTLAND CEMENT SHALL CONFORM TO ONE OF THE FOLLOWING:
1. TYPE I/II (ASTM C150)
2. TYLE IL (ASTM C595)
3. TYPE IP (ASTM C595)
4. TYPE IS (ASTM C595)
5. TYPE IT (ASTM C595)
b. AGGREGATES (3/4" MAX.) - ASTM C33
c. AIR ENTRAINING (4.5% - 7% MAX.) - ASTM C260
d. WATER REDUCING - ASTM C494
e. FLY ASH (MAX 25% BY WEIGHT), TYPE F - ASTM C618
f. WATER - CLEAN AND POTABLE
g. REINFORCING STEEL: ASTM A615 GRADE 60
h. WELDED WIRE FABRIC: ASTM A1064
i. GROUT SHALL BE NON-SHRINK, NON-METALLIC
j. USE OF CALCIUM CHLORIDE IS NOT PERMITTED

7.20 PROVIDE SURFACE CLASS A FINISH FOR ALL CONCRETE EXPOSED TO PUBLIC VIEW.

8.00 POST-INSTALLED ANCHORS

8.01 UNLESS OTHERWISE INDICATED ON PLANS, POST-INSTALLED ANCHORS MUST CONSIST OF THE FOLLOWING ANCHOR TYPES, OR APPROVED EQUAL:

	ADHESIVE ANCHOR
SOLID CONCRETE	HILTI RE 500v3 SAFE SET SYSTEM HILTI HY 200 SAFE SET SYSTEM

8.02 SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE. CONTRACTOR MUST PROVIDE CALCULATIONS DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT. SUBSTITUTIONS WILL BE EVALUATED BY THEIR HAVING AN ICC ESR SHOWING COMPLIANCE WITH THE RELEVANT AND CURRENT BUILDING CODE.

8.03 INSTALL ANCHORS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS, AS INCLUDING IN THE ANCHOR PACKAGING.

8.04 THE CONTRACTOR MUST ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. THE STRUCTURAL ENGINEER OF RECORD MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS.

8.05 ANCHOR CAPACITY IS DEPENDENT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.

8.06 EXISTING REINFORCING BARS IN THE CONCRETE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. UNLESS NOTED ON THE DRAWINGS THAT THE BARS CAN BE CUT, THE CONTRACTOR MUST REVIEW THE EXISTING STRUCTURAL DRAWINGS AND MUST UNDERTAKE TO LOCATE THE POSITION OF THE REINFORCING BARS AT THE LOCATIONS OF THE CONCRETE ANCHORS. CONTRACTOR MUST IMMEDIATELY CONTACT THE EOR IF A CONFLICT IS IDENTIFIED.

8.07 PERFORM A MINIMUM NUMBER OF FIELD PULL TEST PER BATCH OF ADHESEIVE AND PER NO. OF MECHANICAL ANCHORS AS SPECIFIED BELOW:
A. NO. OF TESTS
1. EPOXY ADHESIVE ANCHORING SYSTEM - 5 TESTS PER BATCH
B. ACCEPTANCE CRITERIA
1. FIELD PROOF LOAD TO BE SPECIFIED BY ENGINEER
2. ALLOWABLE DISPLACEMENT/SLIP AT FIELD TEST LOAD IS 1/16" UNO BY ENGINEER

9.00 FOUNDATION NOTES

9.01 FOUNDATIONS, FOUNDATION DRAINAGE, SLABS ON GRADE & OTHER ITEMS RELATED TO THE SOILS ARE DESIGNED IN ACCORDANCE WITH THE PRESUMPTIVE LOAD - BEARING VALUES, TYPE CH/CL SOIL IN LATEST IBC TABLE 1806.2.

A. ALLOWABLE BEARING PRESSURE = 1500 PSF

9.02 NO FOUNDATIONS SHALL BE PLACED ONTO OR AGAINST SUBGRADES CONTAINING FREE WATER, FROST OR ICE.

9.03 THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY IN THE EVENT THAT THE SOILS CONDITIONS ENCOUNTERED VARY FROM THOSE SHOWN ON THE BORING LOGS OF THE GEOTECHNICAL ENGINEERING REPORT.

9.04 THE CONTRACTOR SHALL DESIGN AND CONSTRUCT ALL TEMPORARY CASING, PROTECTION, SHORING, BRACING, DEWATERING, AND UNDERPINNING NECESSARY TO COMPLETE THE WORK. ALL TEMPORARY SYSTEMS SHALL BE DESIGNED BY AN ENGINEER LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED.

9.05 LOCATE AND PROTECT EXISTING UTILITIES TO REMAIN DURING AND AFTER CONSTRUCTION.

9.06 REMOVE ABANDONED FOUNDATIONS AND UTILITES WHICH INTERFERE WITH NEW CONSTRUCTION UNLESS OTHERWISE INDICATED.

9.07 CONCRETE WORK BELOW GRADE SHALL BE DETAILED AS WATERTIGHT CONSTRUCTION. CONSTRUCTION JOINTS BELOW GRADE SHALL BE WATERTIGHT.

9.08 MINIMUM DEPTH FROM GRADE TO BOTTOM OF FOOTINGS SHALL BE 18 INCHES MINIMUM.

9.09 BACKFILL MATERIALS & SUBGRADE MATERIAL, AND COMPACTION REQUIREMENTS SHALL BE AS RECOMMENDED IN THE GEOTECHNICAL REPORT.

9.10 COMPACT ALL SOIL UNDER FOUNDATIONS AND SLABS TO 95% STANDARD PROCTOR DENSITY AS DETERMINED BY ASTM D-698.

9.11 FOOTING AND SLAB SUBGRADE REQUIREMENTS:

A. THE TOP 1 FOOT OF SOIL FOOTING AND SLAB SUBGRADES CONSISTING OF COMPACTED FILL, RESIDUAL SOIL INTERMEDIATE ZONE SOILS OR BASE COURSE TYPE MATERIAL SHOULD BE COMPACTED IN PLACE TO ATTAIN AT LEAST 95% OF THE MATERIAL'S MAXIMUM DRY DENSITY IN ACCORDANCE WITH THE STANDARD PROCTOR COMPACTION TEST (ASTM D 698) WITHIN +/- 2% OF THE MATERIAL'S OPTIMUM MOISTURE CONTENT.

9.12 ALLOWABLE DIFFERENTIAL SETTLEMENT LIMITED TO 1/4", AND ALLOWABLE TOTAL SETTLEMENT TO 1/4"

10.00 SPECIAL INSPECTION

10.1 THE OWNER SHALL EMPLOY SPECIAL INSPECTORS, QUALIFIED TO THE SATISFACTION OF THE BUILDING OFFICIAL, WHO SHALL PROVIDE SPECIAL INSPECTIONS DURING CONSTRUCTION FOR THE WORK INDICATED BELOW.

10.2 SPECIAL INSPECTIONS AND ASSOCIATED TESTING SHALL BE PERFORMED BY AN APPROVED ACCREDITED INDEPENDENT AGENCY. INSPECTORS FOR EACH SYSTEM AND MATERIAL SHALL BE INTERNATIONAL CODE COUNCIL (ICC) CERTIFIED OR OTHERWISE APPROVED BY THE BUILDING OFFICIAL.

10.3 THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE TO THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.

10.4 THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, CONTRACTOR, OWNER, AND ENGINEER OF RECORD. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE PROPER DESIGN AUTHORITY AND TO THE BUILDING OFFICIAL.

10.5 SEE PROJECT SPECIFICATIONS AND REFERENCED STANDARDS FOR FREQUENCY OF TESTING.

10.6 AT THE CONCLUSION OF CONSTRUCTION, A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS AND CORRECTION OF PREVIOUSLY NOTED DISCREPANCIES SHALL BE SUBMITTED.

10.7 THE FOLLOWING TYPES OF WORK SHALL BE INSPECTED BY A SPECIAL INSPECTOR IN ACCORDANCE WITH CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE:

SCHEDULE OF SPECIAL INSPECTION SERVICES

	ITEM	QUALIFICATIONS	SCOPE
CAST-IN-PLACE CONCRETE	1. MIX DESIGN / MATERIAL CERTIFICATION	ACI-CCI ICC-RCSI / SER	• COLLECT MIX DESIGNS AND VERIFY APPROPRIATE MIX USE DURING SPECIFIC INSTALLATION
	2. REINFORCEMENT INSTALLATION	SER / ACI-CCI ICC-RCSI	• PERIODIC INSPECTION, PRIOR TO EACH POUR, OF REINFORCING STEEL • COLLECTION AND REVIEW OF CERTIFIED MILL TEST REPORTS • CONTINUOUS INSPECTION OF REINFORCING STEEL WELDING
	3. CONCRETE PLACEMENT/ MONITORING FRESH CONCRETE, SAMPLING & PREP OF TEST SAMPLES	ACI-CCI ICC-RCSI ACI-CFTT ACI-STT	• CONTINUOUS INSPECTION OF CAST-IN-PLACE CONCRETE PLACEMENT • CONTINUOUS MONITORING OF SAMPLING OF FRESH CONCRETE, SLUMP TEST, AIR CONTENT TEST, TEMPERATURE OF CONCRETE AND CREATION OF STRENGTH TEST SPECIMENS • CONTINUOUS INSPECTION OF EMBEDS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT
	4. POST-INSTALLED ANCHORS	ACI-CCI ICC-RCSI	• CONTINUOUS INSPECTION OF ANCHORS AND REINFORCING STEEL POST INSTALLED IN HARDENED CONCRETE IN CONFORMANCE WITH MANUFACTURER'S REQUIREMENTS
	5. FORMWORK GEOMETRY	ACI-CCI ICC-RCSI	• PERIODIC VERIFICATION, PRIOR TO EACH POUR, THAT FORMWORK GEOMETRY COMPLIES WITH CONTRACT DOCUMENTS
	6. EVALUATION OF CONCRETE STRENGTH	PE/ SER	• COLLECT AND REVIEW CONCRETE STRENGTH TEST REPORTS • NOTIFY SER OF FAILING TESTS
	7 CURING AND PROTECTION	ACI-CCI ICC-RCSI	• PERIODIC INSPECTIONS OF CURING TEMPERATURE AND TECHNIQUES
	8. EXPANSION JOINTS	PE/ SER	• CONTINUOUS INSPECTION OF BEARINGS OF CAST-IN-PLACE CONCRETE ELEMENTS AT EXPANSION JOINTS PRIOR TO AND DURING PLACEMENT
SOILS	1. SITE PREPARATION	EIT PE/GE	• DETERMINE THAT SITE HAS BEEN PREPARED IN ACCORDANCE WITH THE APPROVED SOILS REPORT AND GEOTECHNICAL RECOMMENDATIONS
	2. FILL PLACEMENT	EIT	• DETERMINE THAT MATERIAL USED AND MAXIMUM LIFT THICKNESS COMPLY WITH APPROVED SOILS REPORT AND GEOTECHNICAL RECOMMENDATIONS
	3. DENSITY EVALUATION	EIT	• DETERMINE THAT IN-PLACE DRY DENSITY OF THE COMPACTED FILL COMPLIES WITH APPROVED SOILS REPORT

CONCRETE MIXTURES

APPLICATION	EXPOSURE	F'c	MAXIMUM W/C	AIR CONTENT	NOMINAL MAXIMUM AGGREGATE SIZE (NOTE 4)	MAXIMUM CONCRETE WEIGHT
EXTERIOR PAD	F2	4000 PSI	0.42	4.5% - 7.5%	1"	150 PCF

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No.	REVISIONS	DATE	BY

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KYLE STEVEN SWENSON 081-008286 LICENSED STRUCTURAL ENGINEER STATE OF ILLINOIS
2025-07-18

KHA PROJECT	195250258
DATE	07/18/25
SCALE	As indicated
DESIGNED BY	JTH
DRAWN BY	JTH
CHECKED BY	KS

STRUCTURAL GENERAL NOTES

MDW5
16825 CHURNOVIC LANE
IL
CREST HIL

SHEET NUMBER
S0.00

Autodesk Docs://ATL-MIDTOWN Internal Projects-Revit 2023/195250258-MDW5_Retaining Wall-Pad.rvt

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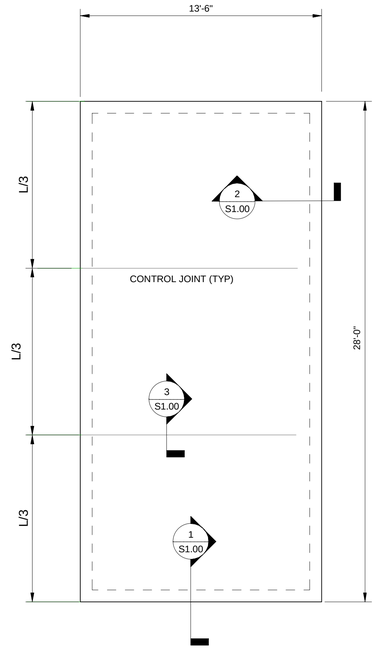
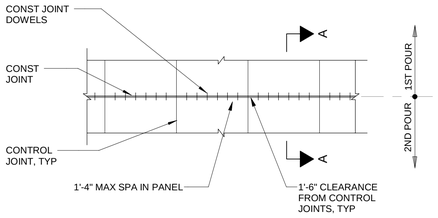
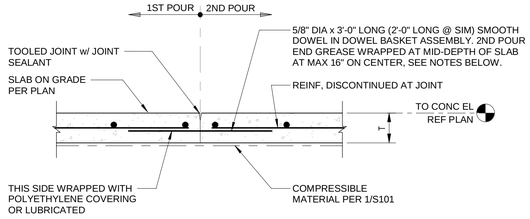


FOUNDATION NOTES:

1. REFER TO CIVIL FOR PLAN LOCATION OF GUARD SHACK.
2. WHERE SHOWN, BUT NOT SPECIFICALLY NOTED, PROVIDE STANDARD ACI 90 DEGREE OR 180 DEGREE HOOKS, AS APPLICABLE, TO REBAR.
3. GUARD SHACK TO BE CENTERED ON FOUNDATION.



PLAN (NTS)



SECTION A-A

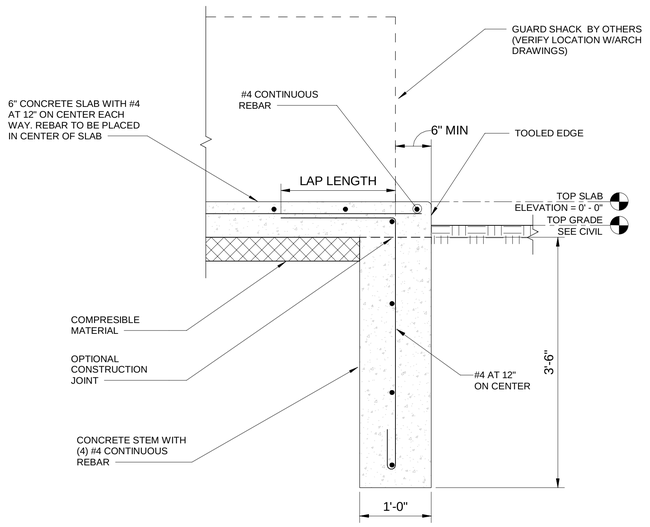
NOTES:
1. PAINT FACE OF JOINT WITH BOND BREAKING COMPOUND PRIOR TO 2ND POUR.
2. DO NOT PLACE DOWELS WITHIN 1'-6" OF SLAB PANEL CORNERS TO ALLOW CONTROL JOINTS TO ACTIVATE. MAX SPACING OF 3'-0" ACROSS CONTROL JOINTS.

4 S1.00 GUARD SHACK FOUNDATION PLAN

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

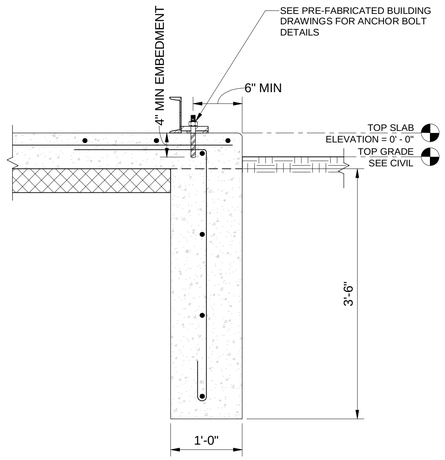
5 S1.00 GUARD SHACK CONSTRUCTION JOINT

SCALE: 1" = 1'-0"



1 S1.00 TYPICAL DETAIL - GUARD SHACK PAD

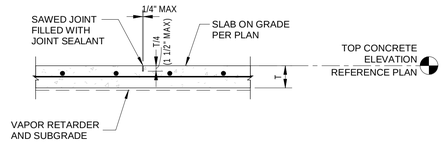
SCALE: 1" = 1'-0"



NOTE:
1. FOR MORE INFORMATION NOT SHOWN, SEE 1/S101.

2 S1.00 GUARD SHACK ANCHOR BOLT DETAIL

SCALE: 1" = 1'-0"



NOTES:
1. JOINT SHALL BE SAWED AS SOON AS CONCRETE SURFACE IS FIRM ENOUGH TO NOT BE DAMAGED BY THE BLADE AND BEFORE CONCRETE STARTS TO COOL.
2. PROVIDE CONTROL JOINT AT COLUMN CENTERLINES, BETWEEN COLUMN CENTERLINES AND AT FACE OF WALL WITH A MAXIMUM SPACING AS NOTED ON FOUNDATION PLAN, UNLESS NOTED OTHERWISE.
3. CONTROL JOINTS SHOULD BE CONTINUOUS ACROSS INTERSECTING JOINTS AND NOT STAGGERED OR OFFSET. JOINTS THAT CREATE L- AND T- SHAPED PANELS SHOULD BE AVOIDED. WHERE OFFSETS CANNOT BE AVOIDED, PROVIDE REINFORCING PER PLAN.

3 S1.00 GUARD SHACK CONTROL JOINT

SCALE: 3/4" = 1'-0"

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LICENSED STRUCTURAL ENGINEER
STATE OF ILLINOIS
2025-07-18

KHA PROJECT	195250258
DATE	07/18/25
SCALE	As indicated
DESIGNED BY	JTH
DRAWN BY	JTH
CHECKED BY	KS

GUARD SHACK FOUNDATION PLAN AND DETAILS

MDW5 16825 CHURNOVIC LANE

IL

CREST HIL

SHEET NUMBER

S1.00

Autodesk Docs://ATL-MIDTOWN Internal Projects-Revit 2023/195250258-MDW5_Retaining Wall-Pad.rvt

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To whom it may concern:

The current tenant is proposing the yard connection and improvement project at the existing MDW Sortation facility within the City of Crest Hill (16825 Churnovic Lane). As part of the project scope, a variance is being sought from Section 15.04.040 of the City of Crest Hill Zoning Ordinance regarding the maximum allowable curb cut width. This variance is necessary to accommodate internal truck circulation improvements that will enhance operational efficiency and improve traffic safety.

The proposed improvements include the following:

- Relocation of the existing guard shack in the southeast corner
- Relocation of southeastern curb cut
- Removal of associate parking in the southern lot to accommodate east/west truck yard connection
- Additional associate parking in northern lot
- Safety improvements to associate parking lot - sidewalks, crosswalks, signage and striping

The primary goals for this project are twofold. First, by connecting the truck yard internally, we can significantly reduce truck traffic and queuing on public roads adjacent to the facility. Currently, trucks are required to fully exit the secure yard on one side of the site and re-enter from the other, creating unnecessary congestion and potential safety hazards. The proposed connection will allow trucks to travel between the east and west sides of the yard without leaving the secure perimeter, streamlining operations and reducing the impact on local traffic. The intension of the associate parking lot improvements is to make it safer for associates to travel to and from the building through the addition of designated sidewalks and crosswalks.

Second, the improvements to the associate parking areas are intended to create a safer environment for employees. By adding clearly marked sidewalks and crosswalks, as well as improving signage and striping, we aim to provide a more pedestrian-friendly layout that prioritizes associate safety during shift changes and high-traffic periods.

The tenant is committed to being a responsible and responsive member of the Crest Hill community. We believe this project reflects that commitment by reducing traffic impact, improving safety for both associates and the public, and enhancing the overall functionality of the site. We respectfully request the Planning Commission’s support for the proposed variance and associated site improvements, and we welcome any questions or feedback you may have. Thank you for your time and consideration.

Should you have any questions regarding the scope or proposed improvements, please contact Marta Gappy at 331-888-3282.

Thank you,

Alyssia Lester E=alymlest@amazon.com, O=Amazon, OU=Preconstruction, CN="Alyssia

Alyssia Lester,
Applicant

Marta Gappy, PE

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MEMORANDUM

From: Rory Fancler-Splitt, AICP, PTP
Brandon Forsythe, P.E.
Marta Gappy, P.E.

Date: June 3, 2025

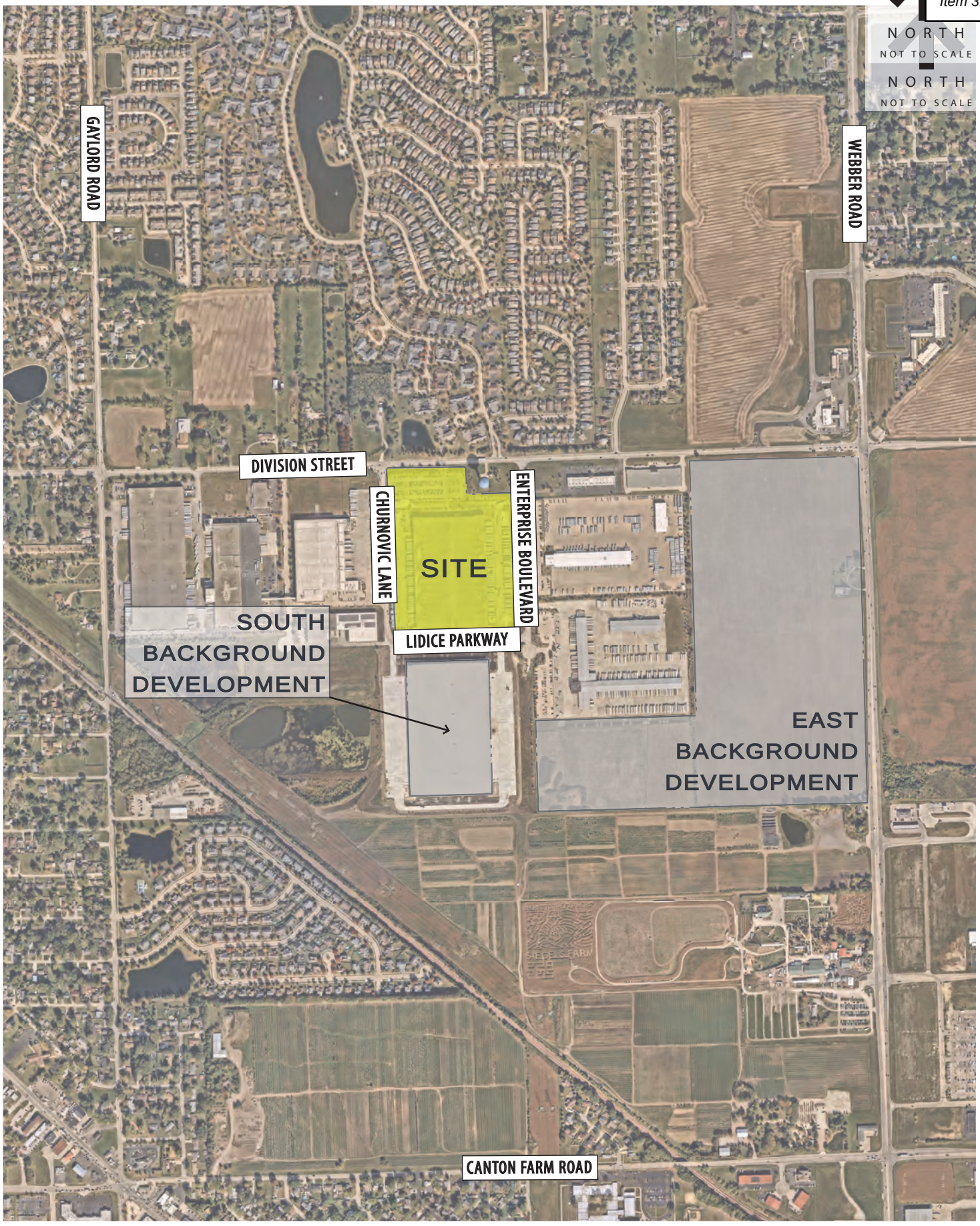
Subject: Traffic and Circulation Study
Warehouse/Distribution Site Modifications
Crest Hill, Illinois

Kimley-Horn prepared a traffic and circulation study to evaluate site modifications proposed for the warehouse/distribution development located south of Division Street, between Churnovic Lane and Enterprise Boulevard at 16825 Churnovic Lane in Crest Hill, Illinois. The site is fully operational. The proposed site modifications, including driveway changes and connection of the truck loading areas on the east and west sides of the building, would improve access and circulation; changes to site operations/trip generation are not planned. This memorandum presents a summary of the proposed site modifications and an evaluation of key intersections. An aerial view of the study location and surrounding area roadway network is presented in **Exhibit 1.**

Summary

Existing and future traffic conditions were analyzed for key intersections in the site vicinity. Based on a review of the area development pattern and site operational characteristics, traffic conditions were evaluated for the weekday morning, midday, and evening peak hours. A summary of the scenarios evaluated is provided below.

- Existing (2025)
  - No site modifications were included; reflects existing site access and circulation.
- Alternative 1 (2031)
  - The following site modifications were assumed: All inbound trucks were assumed at Access D; outbound trucks were assumed at Access B. The parking on the south side of the building would be repurposed as a circulating loop for trucks to navigate internal to the site from entry to exit.
  - Background traffic projections were developed using an annual growth rate derived from data obtained from the Chicago Metropolitan Agency for Planning (CMAP) and traffic projections for the future development located east of the site.
- Alternative 2 (2031)
  - Included the site modifications identified under Alternative 1.
  - Background traffic projections from Alternative 1 were assumed. In addition, the Crest Hill Business Park roadway connection planned by others, from Enterprise Boulevard to Weber Road, was assumed.



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ATTACHMENT A

BACKGROUND DEVELOPMENTS - LOCATION MA

Based on the results of the analysis, the proposed site access changes are not expected to materially impact the study network. With the proposed access changes, site-generated truck traffic would circulate onsite, thereby minimizing truck traffic on Enterprise Boulevard. Offsite improvements were not identified for key intersections in the site vicinity.

With the roadway improvement planned by others as part of the Crest Hill Business Park, some site-generated traffic may use the future roadway. The planned roadway extension would provide an alternate route for site-generated traffic; however, it is not expected to substantially change site traffic circulation. To improve operational conditions at the intersection of Division Street/Churnovic Lane, the existing split phasing on the north-south approaches should be removed.

Existing Conditions

In order to establish baseline traffic conditions, existing traffic counts were conducted for key intersections providing access to the site. An analysis of existing intersection operations, including delay and queues, was completed.

Traffic Count Data

Weekday turning movement count data was collected in May 2025 during the weekday morning (6:00 to 9:00AM), midday (11:00AM to 2:00 PM) and evening (3:00 to 6:00PM) peak periods. These count periods were selected in order to capture the peak traffic conditions for the site and the surrounding roadway network. Count data was collected at the intersections listed below. For purposes of this analysis, site driveways were labeled Access A through Access D with a counterclockwise orientation starting at the employee parking lot access at the northwest corner of the site.

- Division Street / Churnovic Lane
- Churnovic Lane / Access A
- Churnovic Lane / Access B
- Lidice Parkway / Access C
- Lidice Parkway / Enterprise Boulevard
- Enterprise Boulevard / Access D
- Division Street / Enterprise Boulevard

The traffic count data indicates that peak traffic volumes occur from 7:30 to 8:30AM, 1:00 to 2:00PM and 4:00 to 5:00PM during a typical weekday. In this case, the peak hours of the generator overlap with the peak hours of the roadway network.

Based on the existing traffic counts, the site currently generates 340 morning peak hour trips, 225 midday peak hour trips, and 65 evening peak hour trips as summarized in **Table 1**. These trips reflect typical operational conditions; changes to site trip generation are not planned.

Table 1. Summary of Site-Generated Traffic

Vehicle Type	AM Peak Hour (7:30 to 8:30AM)			Midday Peak Hour (1:00 to 2:00PM)			PM Peak Hour (4:00 to 5:00PM)		
	In	Out	Total	In	Out	Total	In	Out	Total
Cars	165	125	290	40	135	175	10	15	25
Trucks	15	35	50	20	30	50	15	25	40
Total	180	160	340	60	165	225	25	40	65

For purposes of this analysis, the peak hour vehicle traffic volumes were rounded to the nearest multiple of five. Due to the presence of driveways along Churnovic Lane and Enterprise Boulevard, traffic volumes were not balanced between intersections. Existing peak hour traffic volumes are summarized in **Exhibit 2**. Count data is provided in **Attachment 3**.

Capacity Analysis

Synchro capacity software was used to evaluate the operational conditions at the study intersections during the weekday peak hours. The capacity of an intersection quantifies its ability to accommodate traffic volumes and is expressed in terms of level of service (LOS), measured in average delay per vehicle. LOS grades range from A to F, with LOS A as the highest (best traffic flow and least delay), LOS E as saturated or at-capacity conditions, and LOS F as the lowest (oversaturated conditions). The lowest LOS grade typically accepted by jurisdictional transportation agencies in Northeastern Illinois is LOS D.

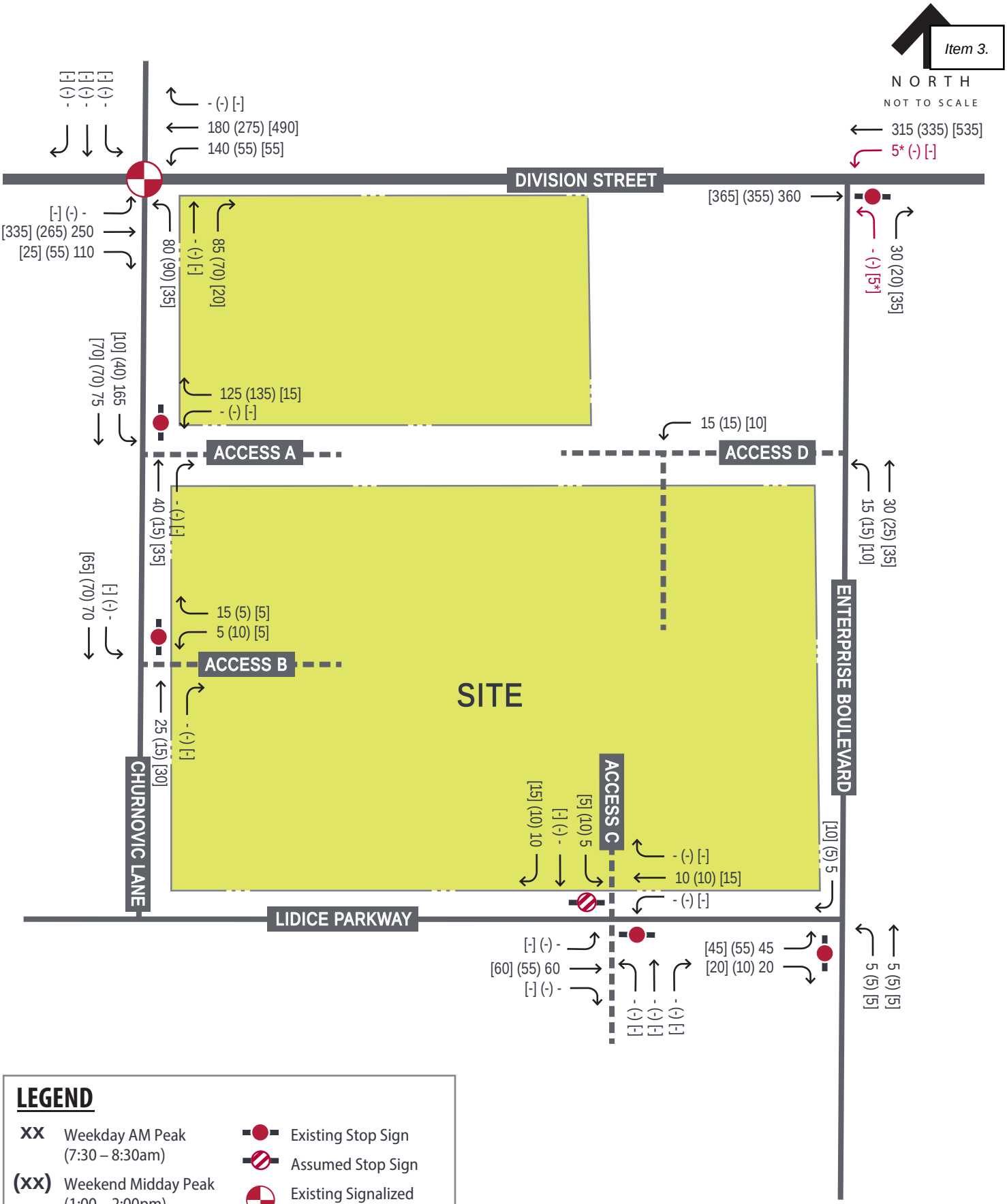
The LOS grades shown below, which are provided in the Transportation Research Board's Highway Capacity Manual (HCM), quantify and categorize the driver's discomfort, frustration, fuel consumption, and travel times experienced as a result of intersection control and the resulting traffic queuing. A detailed description of each LOS rating can be found in **Table 2.**

Table 2. Level of Service Grading Descriptions[1]

Level of Service	Description
A	Minimal control delay; traffic operates at primarily free-flow conditions; unimpeded movement within traffic stream.
B	Minor control delay at signalized intersections; traffic operates at a fairly unimpeded level with slightly restricted movement within traffic stream.
C	Moderate control delay; movement within traffic stream more restricted than at LOS B; formation of queues contributes to lower average travel speeds.
D	Considerable control delay that may be substantially increased by small increases in flow; average travel speeds continue to decrease.
E	High control delay; average travel speed no more than 33 percent of free flow speed.
F	Extremely high control delay; extensive queuing and high volumes create exceedingly restricted traffic flow.

[1]Highway Capacity Manual, 7th Edition.

The range of control delay for each rating (as detailed in the HCM) is shown in **Table 3**. Because signalized intersections are expected to carry a larger volume of vehicles and stopping is required during red time, note that higher delays are tolerated for the corresponding LOS ratings.



LEGEND

XX	Weekday AM Peak (7:30 – 8:30am)		Existing Stop Sign
(XX)	Weekend Midday Peak (1:00 – 2:00pm)		Assumed Stop Sign
[XX]	Weekday PM Peak (4:00 – 5:00pm)		Existing Signalized Intersection
		—	Less than Five Vehicles
		*	Illegal Movements

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EXHIBIT 2

EXISTING (2025) TRAFFIC VOLUME

Table 3. Level of Service Grading Criteria[1]

Level of Service	Average Control Delay (s/veh) at:	
	Unsignalized Intersections	Signalized Intersections
A	0 – 10	0 – 10
B	> 10 – 15	> 10 – 20
C	> 15 – 25	> 20 – 35
D	> 25 – 35	> 35 – 55
E	> 35 – 50	> 55 – 80
F[2]	> 50	> 80

[1]Highway Capacity Manual, 7th Edition

[2]All movements with a Volume to Capacity (v/C) ratio greater than 1 receive a rating of LOS F.

For purposes of the analysis, signal timings for the intersection of Division Street/Churnovic Lane were based on field observations. The signalized intersection operates with split-phasing for the northbound and southbound approaches, with the southbound approach called every cycle, despite low traffic volumes noted (less than two vehicles under all peak hours).

Right-turn-on-red (RTOR) movements were not included in the analysis despite being observed in the field. The posted speed limit along Division Street is 35 miles per hour (mph). The posted speed limit along Churnovic Lane and Lidice Parkway is 20 mph. There is no posted speed limit along Enterprise Boulevard. Based on Synchro minimum settings, Churnovic Lane, Lidice Parkway, Enterprise Boulevard, and all site driveways were assumed to have a speed limit of 25 mph.

Access D operates as a free-flow inbound left-turn movement due to one-way northbound traffic on Enterprise Boulevard; and therefore, delay was not reported for this movement.

Based on these standards, capacity results were identified for the study intersections under existing conditions as summarized in **Table 4**. In this table, operation on each approach is quantified according to the average delay per vehicle and the corresponding level of service. Overall intersection operations are reported for the signalized intersection of Division Street/Churnovic Lane. Overall intersection level of service is not reported for minor-leg stop-controlled intersections, since the majority of vehicles are able to move through the intersection with little to no delay. The results are based on Synchro's HCM 7th Edition reports, copies of which are included as **Attachment 4**.

Table 4. Existing (2025) Level of Service

Intersection	AM Peak Hour		Midday Peak Hour		PM Peak Hour	
	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
Division Street / Churnovic Lane ★						
Eastbound	17	B	16	B	13	B
Westbound	8	A	9	A	9	A
Northbound	23	C	19	B	21	C
Southbound	51	D	47	D	47	D
Intersection	*15*	*B*	*14*	*B*	*11*	*B*
Churnovic Lane / Access A △						
Westbound	9	A	9	A	9	A
Southbound (Left)	8	A	7	A	7	A
Churnovic Lane / Access B △						
Westbound	9	A	9	A	9	A
Southbound (Left)	7	A	7	A	7	A
Lidice Parkway / Access C △						
Eastbound (Left)	7	A	7	A	7	A
Westbound (Left)	7	A	7	A	7	A
Northbound	9	A	9	A	9	A
Southbound	9	A	9	A	9	A
Lidice Parkway / Enterprise Boulevard △						
Eastbound	9	A	9	A	9	A
Northbound (Left)	7	A	7	A	7	A
Division Street / Enterprise Boulevard △						
Northbound	12	B	11	B	12	B

★ - Signalized Intersection △- Minor-Leg Stop-Controlled Intersection

Under existing conditions, all movements and approaches at unsignalized intersections operate at an acceptable LOS B or better during the weekday peak hours. The 95th percentile queues are less than one vehicle at all unsignalized intersections and site access driveways. At the signalized intersection of Division Street/Churnovic Lane all movements and approaches operate at LOS D or better during the weekday peak hours. The 95th percentile queues for this intersection are accommodated within the existing geometry.

Site Modifications

The site is fully operational. The proposed site modifications, including driveway changes and connection of the truck loading areas on the east and west sides of the building, would improve access and circulation; changes to site trip generation (Table 1) are not planned. A summary of the existing and proposed site access and circulation plan is provided in **Table 5**. As previously noted, site driveways were labeled Access A through Access D with a counterclockwise orientation starting at the employee parking lot access at the northwest corner of the site. A copy of the site plan is included as **Attachment 1**.

Table 5. Site Access Summary – Existing and Proposed

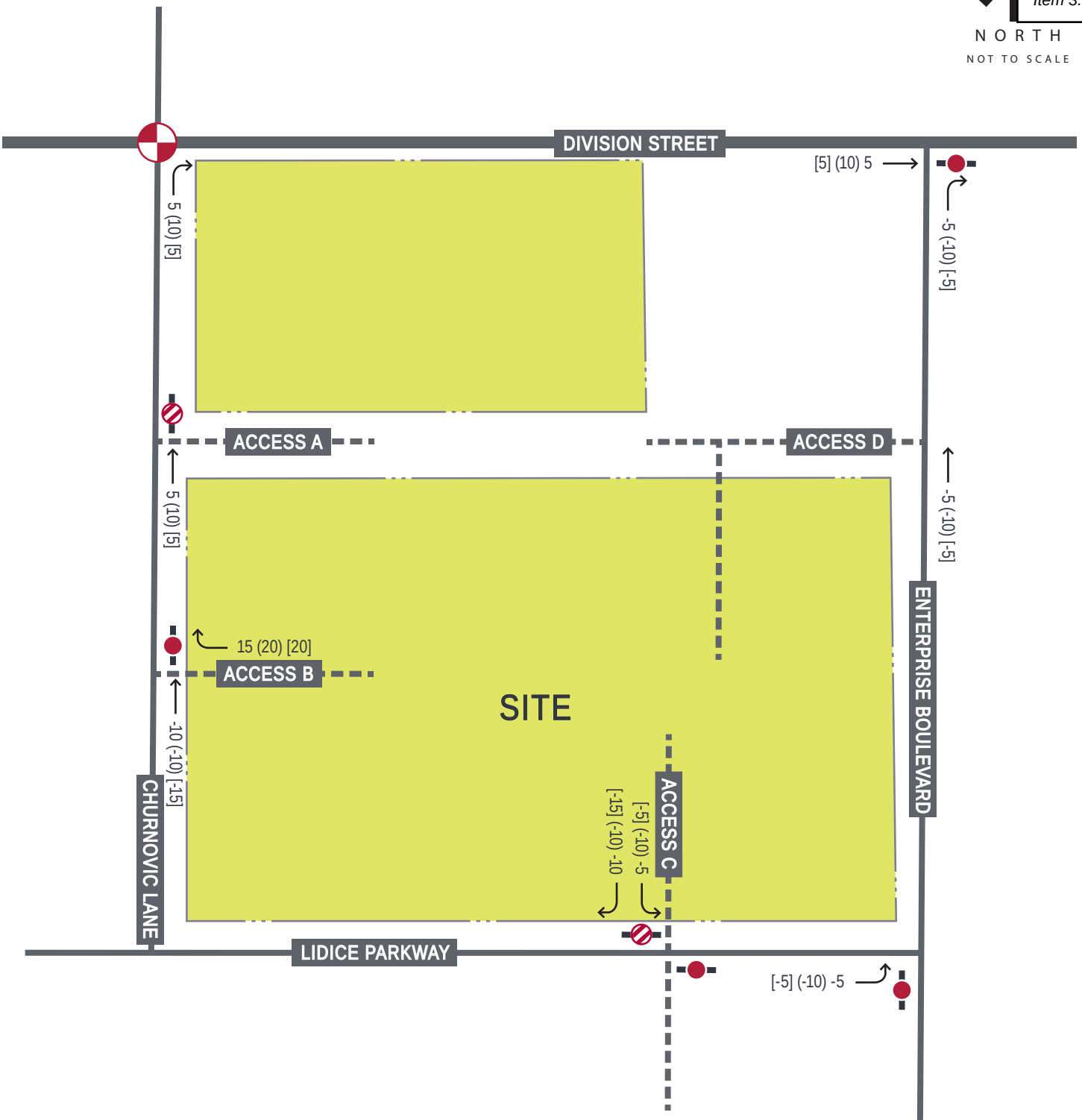
Site Driveway	Location	Existing Configuration	Proposed Configuration
Access A	East side of Churnovic Lane, 310 feet south of Division Street[1]	Full-movement employee access to north parking lot	None
Access B	East side of Churnovic Lane, 215 feet south of Access A[1]	Full-movement truck access	Primary outbound truck access Secondary inbound truck access
Access C	North side of Lidice Parkway, 200 feet west of Enterprise Boulevard[1]	Outbound-only truck access	Secondary outbound truck access (inbound lane to be removed)
Access D	West side of Enterprise Boulevard, 325 feet south of Division Street[1]	Northbound left-turn inbound-only truck access	Primary inbound truck access

[1]Measured centerline-to-centerline

In addition to the site access modifications, the following changes are proposed for the subject site to facilitate onsite truck circulation; truck staging would occur onsite. Truck queues on Churnovic Lane and Enterprise Boulevard are not anticipated.

- Remove driveway to Lidice Parkway approximately 100 feet east of Churnovic Lane (currently closed).
- Remove parking lot on south side of the building, including existing driveway to Churnovic Lane, to provide for onsite truck circulation between the loading areas on the east and west sides of the building.
- Provide additional employee parking on the north side of the building.

With these site modifications, redistribution of site-generated traffic is presented in **Exhibit 3**.



LEGEND

XX	Weekday AM Peak (7:30 – 8:30am)		Existing Stop Sign
(XX)	Weekend Midday Peak (1:00 – 2:00pm)		Assumed Stop Sign
[XX]	Weekday PM Peak (4:00 – 5:00pm)		Existing Signalized Intersection
		—	Less than Five Vehicles

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EXHIBIT 3

SITE TRAFFIC REDISTRIBUTION - ALTERNATIVE

Future Traffic Projections

For purposes of this analysis, the proposed site modifications were assumed to be complete in Year 2026. Traffic conditions were evaluated for Future 2031 (build-plus-five years), per Illinois Department of Transportation (IDOT) standards.

Background Traffic Projections

Background traffic growth estimates were developed using Year 2050 data from the Chicago Metropolitan Agency for Planning (CMAP). As summarized in **Table 6**, the average annual growth rate for the area roadway network is approximately 0.63 percent. An annual compounded growth rate of 0.63 percent was applied for the period of six years to reflect traffic growth between Year 2025 (existing traffic counts) and Future 2031. A copy of the correspondence from CMAP is provided as **Attachment 5**.

Table 6. CMAP Projected Growth Rates

Roadway Segment	CMAP Projected Annual Growth Rate
Division Street, west of Gaylord Road	0.63%
Division Street, between Gaylor Road and Weber Road	0.63%
Division Street, east of Weber Road	0.63%
Gaylord Road, north of Division Street	0.64%
Gaylor Road, south of Division Street	0.64%
Weber Road, north of Division Street	0.63%
Weber Road, south of Division Street	0.63%
Average Annual Growth Rate	0.63%

Background Development

Future development is anticipated in the site vicinity. The following planned developments were included in the analysis of Future 2031 background conditions.

- South Background Development: Located on the south side of Lidice Parkway, the site was developed but not operational at the time of traffic count data collection. For purposes of this analysis, a 580,000 square-foot warehouse facility was assumed.
- East Background Development: Future development of the Crest Hill Business Park is anticipated at the southwest quadrant of the intersection of Division Street/Weber Road. A final site plan was not available at the time of this analysis; therefore, land use and density assumptions were developed for this site. A floor-to-area ratio (FAR) of 0.5 was applied to the estimated 4,000,000 square feet of land area; and therefore, 2,000,000 square feet of industrial warehouse use was assumed for the purposes of analysis.

To estimate site-generated traffic for the future background development, data was referenced from the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition. For the future development, ITE data for LUC 150 (Warehousing) was referenced. **Table 7** provides a summary of the ITE data. A copy of the ITE data is provided as **Attachment 6**.

Table 7. ITE Trip Generation Data – Background Development

ITE Land Use	ITE Trip Generation Data			
	Daily	AM Peak Hour	Midday Peak Hour[1]	PM Peak Hour
Warehousing (LUC 150)	T = 1.58X + 38.29 50% in/50% out	T = 0.12X +23.62 77% in/23% out	T = 0.12X +26.48 28% in/72% out	T = 0.12X +26.48 28% in/72% out

T = trips; X = 1000 square feet (SF)

[1]No ITE data for midday peak hour is provided, PM peak hour data was assumed for conservative analysis.

Based on existing patterns, it was assumed that 45 percent of traffic estimated for South Background Development would travel to/from the west along Division Street and 55 percent would travel to/from the east along Division Street. The anticipated South Background Development traffic assignment referenced for Alternative 1 is presented in **Attachment 7a**.

East Background Development was assumed to include access to Weber Road. Therefore, 20 percent of site-generated trips would travel to/from the west along Division Street and 10 percent would travel to/from the east along Division Street. The remaining 70 percent would access the site via Weber Road. The anticipated East Background Development traffic assignment assumed in Alternative 1 is presented in **Attachment 8a**.

Future Geometry

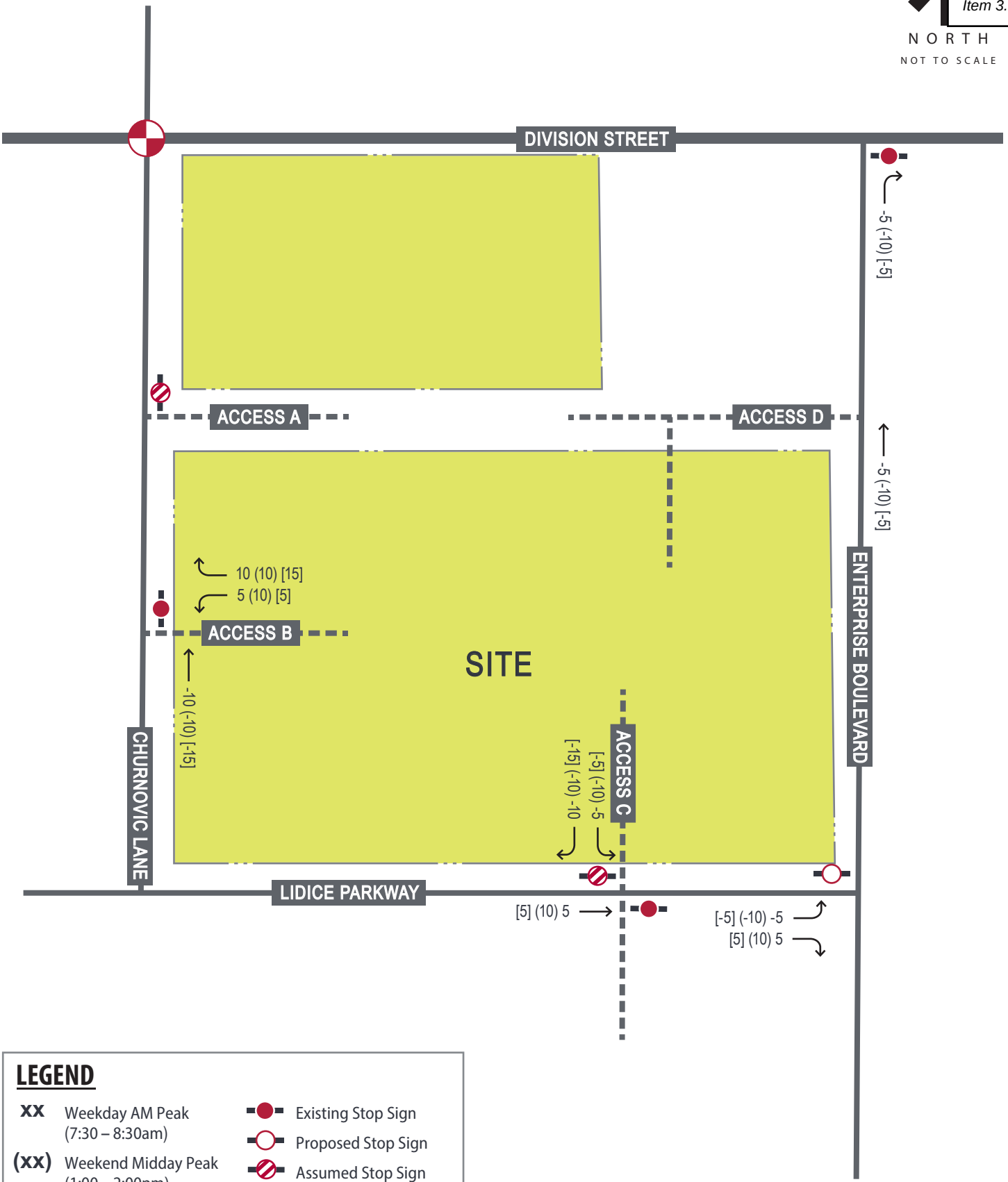
With the addition traffic estimated for background development, an eastbound right-turn lane may be considered on Division Street at Churnovic Lane. Using guidelines in the IDOT *Bureau of Design and Environment (BDE) Manual*, a right-turn may be warranted at signalized intersections where more than 150 right-turn vehicles are present. With background development, the eastbound right-turn movement is projected to exceed the 150-vehicle threshold during the morning peak hour under Alternative 1 and Alternative 2. However, the eastbound approach is projected to operate at LOS B during all peak hours analyzed. There are no known plans identified for this improvement; therefore, it was not included in the analysis of future conditions.

Future Roadway Traffic Redistribution

Per direction from the City of Crest Hill, Alternative 2 considered changes to traffic distribution resulting from the Crest Hill Business Park roadway connection between Enterprise Boulevard and Weber Road, which was assumed to be constructed by others prior to Year 2031. A copy of the roadway concept plan is provided as **Attachment 2**.

This roadway connection would facilitate traffic for existing and future industrial development. With the future roadway improvements, the minor-leg stop control at the intersection of Lidice Parkway/Enterprise Boulevard would change from the west leg to the north leg. Based on a review of the area roadway network and site operations, significant redistribution of the current site traffic is not anticipated as a result of the new connection; however, some shift in traffic may occur. The redistribution of site-generated trips for Alternative 2 is presented in **Exhibit 4**.

NORTH
NOT TO SCALE



LEGEND

xx	Weekday AM Peak (7:30 – 8:30am)
(xx)	Weekend Midday Peak (1:00 – 2:00pm)
[xx]	Weekday PM Peak (4:00 – 5:00pm)

- Existing Stop Sign
- Proposed Stop Sign
- Assumed Stop Sign
- Existing Signalized Intersection
- — Less than Five Vehicles

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EXHIBIT 4

SITE TRAFFIC REDISTRIBUTION - ALTERNATIVE

For purposes of the Alternative 2 analysis, it was assumed that 20 percent of existing westbound left-turn and northbound right-turn traffic at the intersection of Division Street/Churnovic Lane and 20 percent of northbound right-turn traffic at Division Street/Enterprise Boulevard would be redistributed to the future roadway. The same distribution assumptions were applied to South Background Development traffic. The anticipated South Background Development traffic assignment for Alternative 2 is presented in **Attachment 7b.**

For the East Background Development, 20 percent of traffic approaching from the west was assumed to utilize the intersection of Division Street/Churnovic Lane to access the proposed roadway. This would result in additional traffic on the northbound left-turn and eastbound right-turn movements at Division Street/Churnovic Lane. The anticipated East Background Development traffic assignment assumed in Alternative 2 is presented in **Attachment 8b**.

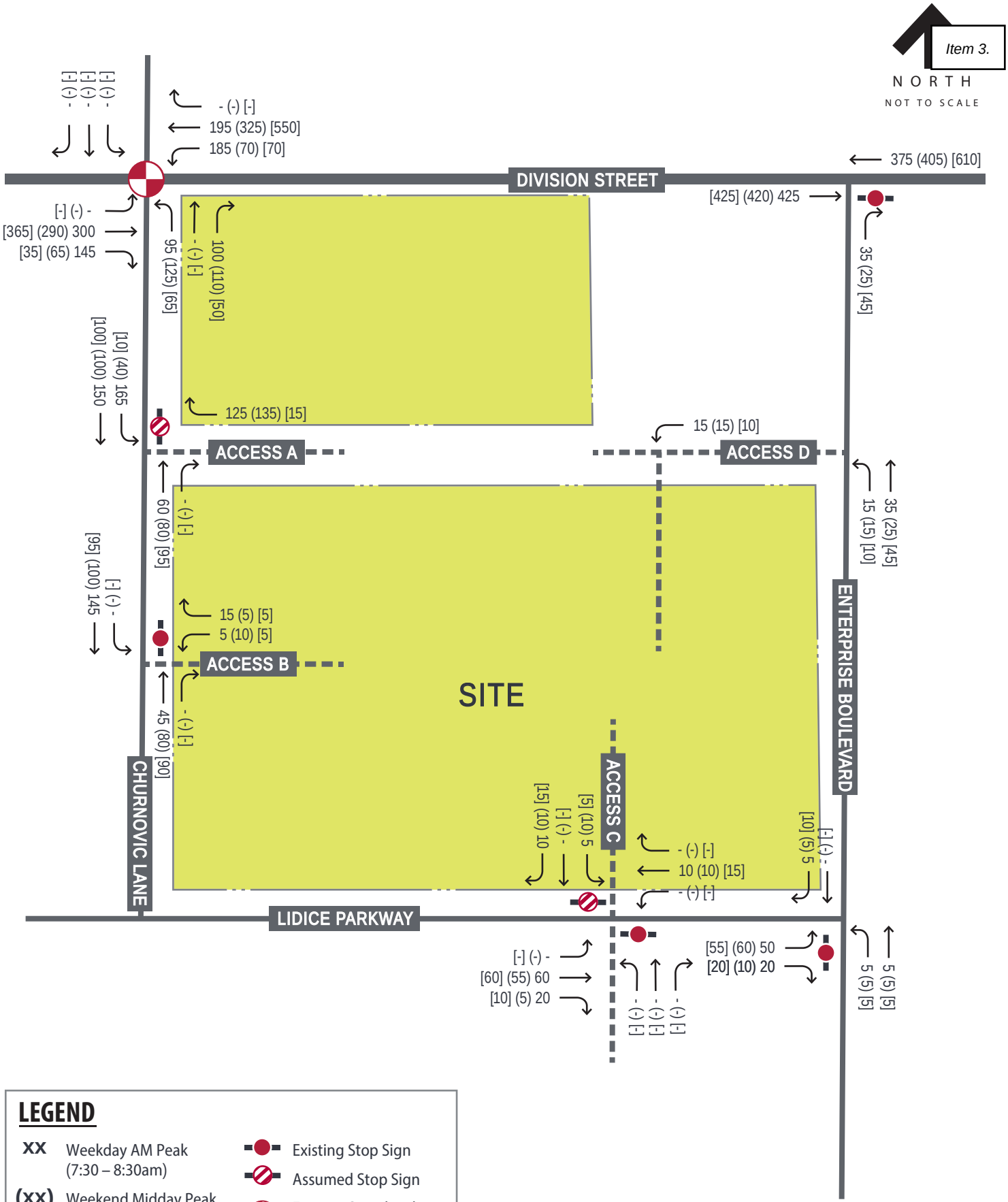
Capacity Analysis

For the analysis of future conditions, two alternatives were considered based on input from the City of Crest Hill: site modifications only (Alternative 1); and site modifications and future roadway connection planned by others (Alternative 2). A summary of the capacity analysis prepared for each alternative is provided below.

Alternative 1

Year 2031 background projections for Alternative 1 were analyzed including the addition of ambient background growth, South Background Development trip assignment, and East Background Development trip assignment. Future (2031) Background Traffic Projections for Alternative 1 are presented in **Exhibit 5**.

To develop build traffic projections for Year 2031 Alternative 1, site-traffic redistribution (Exhibit 3) was added to Year 2031 background projections (Exhibit 4). Traffic projections for Future (2031) Build Traffic Projections for Alternative 1 are presented in **Exhibit 6**.



LEGEND

xx	Weekday AM Peak (7:30 – 8:30am)		Existing Stop Sign
(xx)	Weekend Midday Peak (1:00 – 2:00pm)		Assumed Stop Sign
[xx]	Weekday PM Peak (4:00 – 5:00pm)		Existing Signalized Intersection
		—	Less than Five Vehicles

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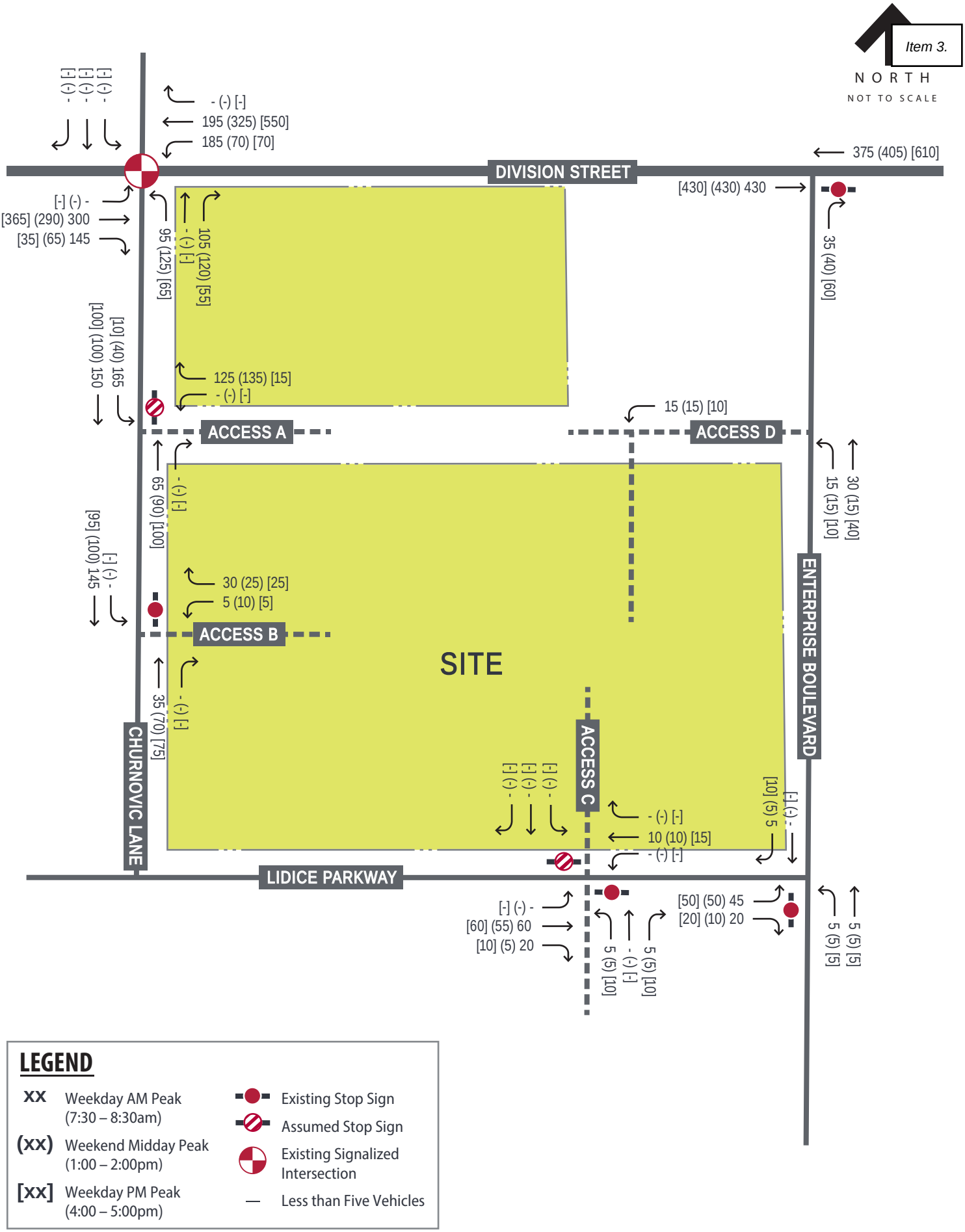
EXHIBIT 5

FUTURE (2031) BACKGROUND TRAFFIC PROJECTIO
ALTERNATIVE 1



LEGEND

xx	Weekday AM Peak (7:30 – 8:30am)		Existing Stop Sign
(xx)	Weekend Midday Peak (1:00 – 2:00pm)		Assumed Stop Sign
[xx]	Weekday PM Peak (4:00 – 5:00pm)		Existing Signalized Intersection
		—	Less than Five Vehicles

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EXHIBIT 6

FUTURE (2031) TRAFFIC PROJECTIONS - ALTERNATIVE

Similar to existing conditions, capacity results were identified for the study intersections under Year 2031 Alternative 1 conditions as summarized in **Table 8**. Signal timings were maintained from existing conditions. Copies of the Synchro HCM 7th Edition reports are provided in **Attachment 9**.

Table 8. Future (2031) Build Level of Service – Alternative 1

Intersection	AM Peak Hour		Midday Peak Hour		PM Peak Hour	
	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
Division Street / Churnovic Lane ★						
Eastbound	18	B	17	B	14	B
Westbound	7	A	10-	A	10+	B
Northbound	29	C	21	C	23	C
Southbound	55+	E	48	D	51	D
Intersection	*16*	*B*	*15*	*B*	*13*	*B*
Churnovic Lane / Access A △						
Westbound	9	A	9	A	9	A
Southbound (Left)	8	A	8	A	7	A
Churnovic Lane / Access B △						
Westbound	9	A	10-	A	10-	A
Southbound (Left)	7	A	7	A	7	A
Lidice Parkway / Access C △						
Westbound (Left)	A	8	7	A	7	A
Northbound	A	9	9	A	9	A
Lidice Parkway / Enterprise Boulevard △						
Eastbound	9	A	9	A	9	A
Northbound (Left)	7	A	7	A	7	A
Division Street / Enterprise Boulevard △						
Northbound	12	B	12	B	13	B

★ - Signalized Intersection △- Minor-Leg Stop-Controlled Intersection

Under Alternative 1, all movements and approaches at the unsignalized intersections are expected to operate at an acceptable LOS B or better during the weekday peak hours. The 95th percentile queues are anticipated to be less than one vehicle (25 feet) at all unsignalized intersections and site access driveways.

At the signalized intersection of Division Street / Churnovic Lane all movements and approaches would operate at LOS D or better during the weekday peak hours with one exception. The southbound approach is anticipated to operate at LOS E during the morning peak hour. Similar to existing, the signalized intersection operates with split-phasing for the northbound and southbound approaches with the southbound approach called every cycle despite low traffic volumes. Due to the low volume, a majority of the green time is allocated to the major east-west movements. Based on the existing traffic counts (Exhibit 2), only two vehicles were observed on the southbound approach in the morning peak

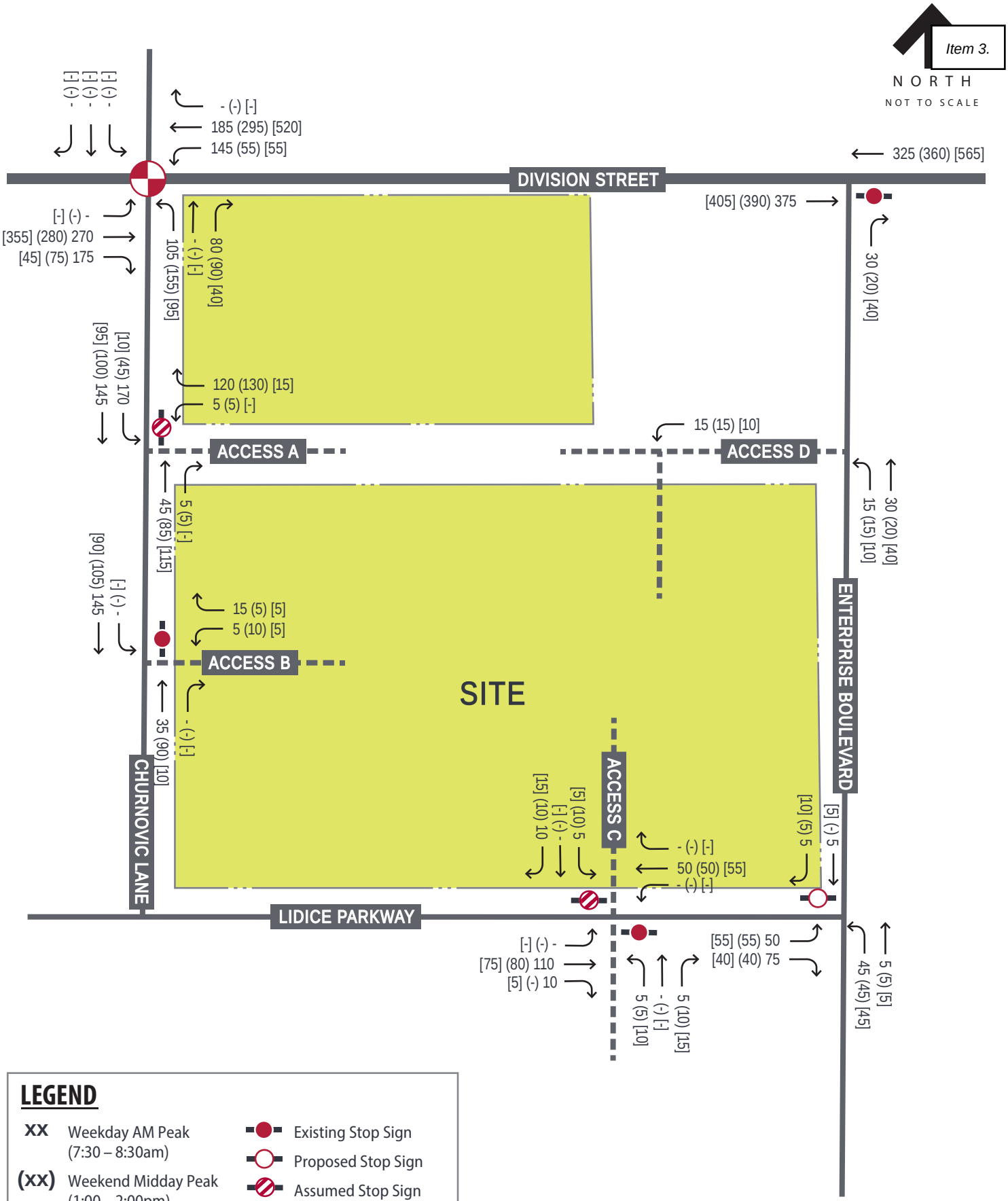
hour. With the planned modifications, the site is not anticipated to contribute traffic to this movement. Further, the site modifications are not expected to materially impact operational conditions at the signalized intersection. At the signalized intersection, the 95th percentile queues are anticipated to be contained within existing geometry.

Alternative 2

Year 2031 background projections for Alternative 2 were analyzed including the addition of ambient background growth, South Background Development trip assignment, and East Background Development trip assignment. Future (2031) Background Traffic Projections for Alternative 2 are presented in **Exhibit 7**.

To develop build traffic projections for Alternative 2, site-traffic redistribution (Exhibit 4) was added to Year 2031 background projections (Exhibit 7). Traffic projections for Future (2031) Build Traffic Projections for Alternative 2 are presented in **Exhibit 8**.

Capacity analysis results were identified for the study intersections under Year 2031 Alternative 2 conditions as summarized in **Table 9**. Signal timings were maintained from existing conditions. Copies of the Synchro HCM 7th Edition reports are provided in **Attachment 10**.



LEGEND

xx Weekday AM Peak (7:30 – 8:30am)	Existing Stop Sign
(xx) Weekend Midday Peak (1:00 – 2:00pm)	Proposed Stop Sign
[xx] Weekday PM Peak (4:00 – 5:00pm)	Assumed Stop Sign
	Existing Signalized Intersection
	— Less than Five Vehicles

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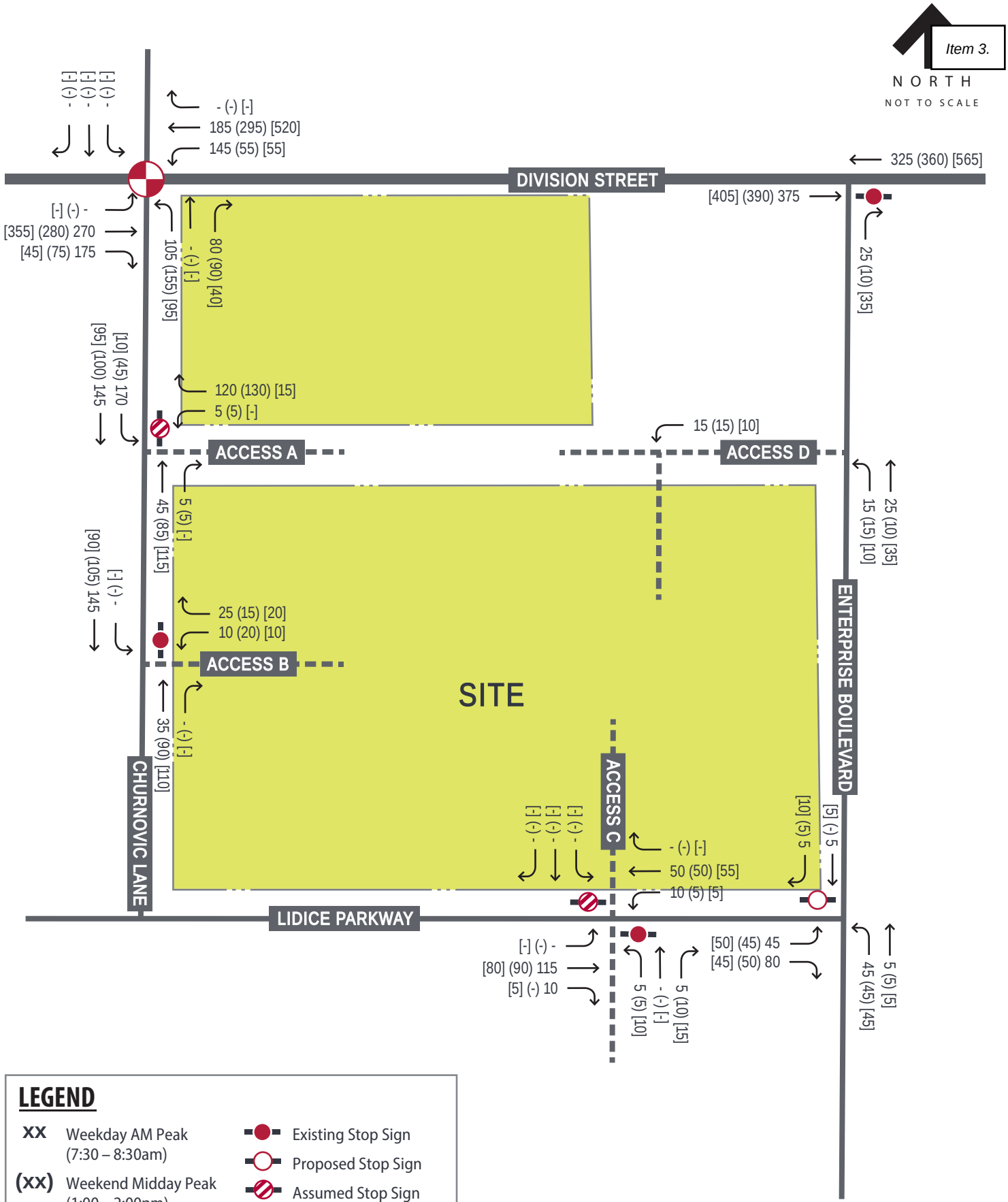
EXHIBIT 7

FUTURE (2031) BACKGROUND TRAFFIC PROJECTIONS ALTERNATIVE 2



LEGEND

XX	Weekday AM Peak (7:30 – 8:30am)
(XX)	Weekend Midday Peak (1:00 – 2:00pm)
[XX]	Weekday PM Peak (4:00 – 5:00pm)
	Existing Stop Sign
	Proposed Stop Sign
	Assumed Stop Sign
	Existing Signalized Intersection
—	Less than Five Vehicles

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EXHIBIT 8

FUTURE (2031) TRAFFIC PROJECTIONS - ALTERNATIVE

Table 9. Future (2031) Level of Service – Alternative 2

Intersection	AM Peak Hour		Midday Peak Hour		PM Peak Hour	
	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
Division Street / Churnovic Lane ★						
Eastbound	17	B	16	B	15	B
Westbound	7	A	10-	A	10+	B
Northbound	28	C	22	C	23	C
Southbound	54	D	48	D	50	D
Intersection	*16*	*B*	*15*	*B*	*14*	*B*
Churnovic Lane / Access A △						
Westbound	9	A	9	A	9	A
Southbound (Left)	8	A	8	A	8	A
Churnovic Lane / Access B △						
Westbound	10-	A	10-	A	10+	B
Southbound (Left)	7	A	7	A	7	A
Lidice Parkway / Access C △						
Westbound (Left)	8	A	7	A	7	A
Northbound	9	A	9	A	9	A
Lidice Parkway / Enterprise Boulevard △						
Eastbound (Left)	8	A	8	A	8	A
Southbound	10-	A	9	A	9	A
Division Street / Enterprise Boulevard △						
Northbound	12	B	11	B	12	B

★ - Signalized Intersection △- Minor-Leg Stop-Controlled Intersection

The future roadway connection is not expected to materially impact operational conditions at the study intersections. Under Alternative 2, all movements and approaches at the unsignalized intersections are projected to operate at an acceptable LOS B or better during the weekday peak hours. The 95th percentile queues are expected to be less than one vehicle at the unsignalized intersections and site access driveways.

At the signalized intersection of Division Street/Churnovic Lane all movements and approaches are anticipated to operate at LOS D or better during the weekday peak hours. The southbound approach, is projected to operate at LOS D under Alternative 2 (compared to LOS E under Alternative 1). The decrease in delay (less than one second per vehicle) is attributable to the green time being reallocated to the southbound approach due to slightly lower east-west through volumes. At the signalized intersection the 95th percentile queues are expected to be contained by existing geometry.

Conclusion

Based on the results of the analysis, the proposed site access changes are not anticipated to materially impact the study network. With the proposed access changes, site-generated truck traffic on Enterprise Boulevard would be reduced as compared to existing conditions.

As development plans for the South Background Development and East Background Development are further refined, an eastbound right-turn lane may be needed at the intersection of Division Street/Churnovic Lane. Additionally, to improve delay at the intersection of Division Street/Churnovic Lane, removal of the existing split phase operations of the northbound and southbound approaches should be considered.

Regardless of the final configuration of site driveway geometrics, several additional items should be taken into consideration when preparing site improvement plans for the subject development. As the site design progresses, care should be taken with landscaping, signage, and monumentation at the site access locations to ensure that adequate horizontal sight distance is provided from the new stop bars. If alterations to the site plan or land use should occur, changes to the analysis provided within this traffic impact study may be needed.

Attachments

1. Conceptual Site Plan
2. Future Roadway Concept Plan
3. Traffic Count Data
4. Existing (2025) Capacity Analysis Reports
5. CMAP Year 2050 Traffic Projections
6. Data from ITE *Trip Generation Manual*, 11th Edition
7. South Background Development
    a. South Background Development Site Trip Assignment – Alternative 1
    b. South Background Development Site Trip Assignment – Alternative 2
8. East Background Development
    a. East Background Development Site Trip Assignment – Alternative 1
    b. East Background Development Site Trip Assignment – Alternative 2
9. Future (2031) Capacity Analysis Reports – Alternative 1
10. Future (2031) Capacity Analysis Reports – Alternative 2

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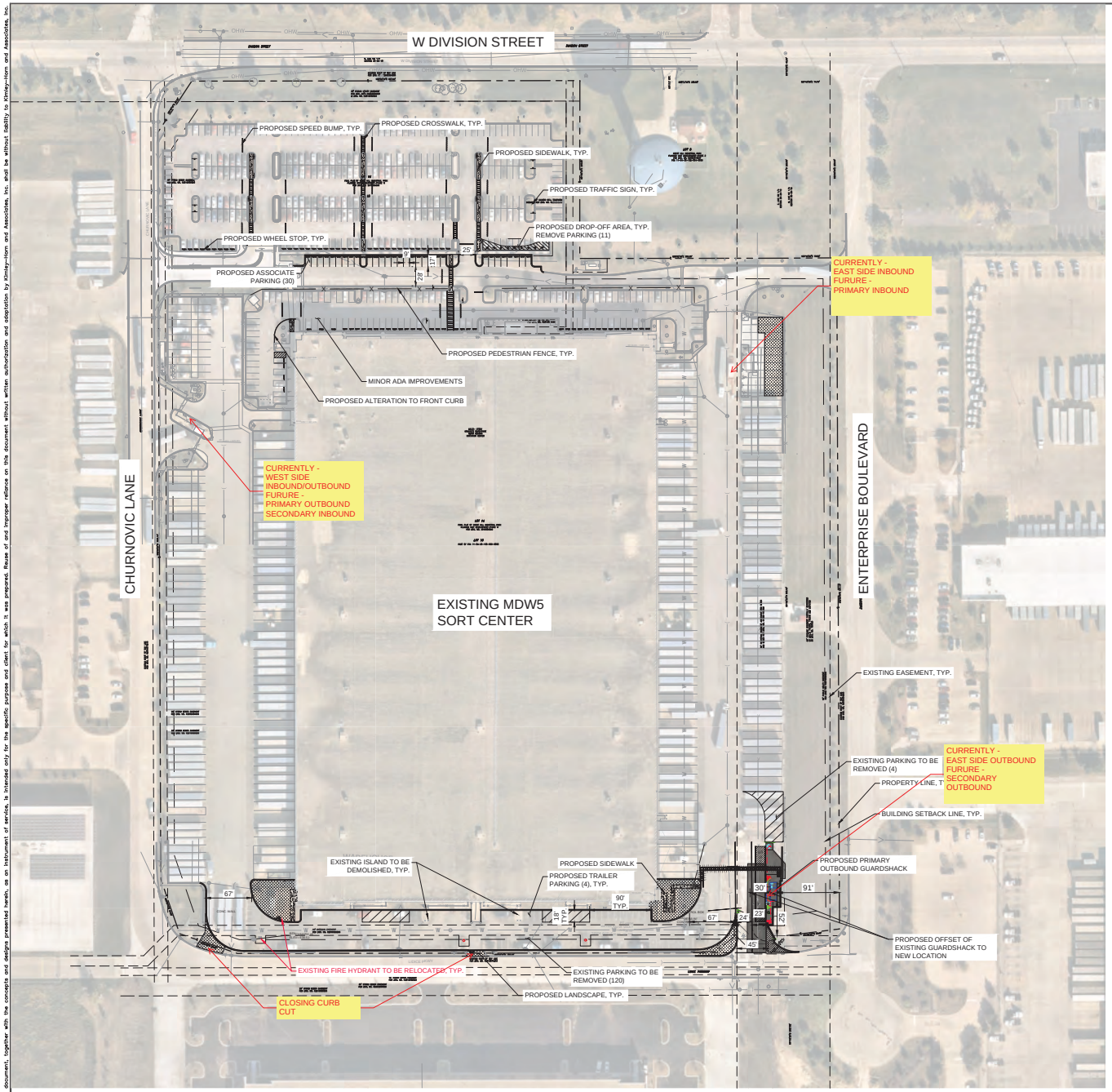
ATTACHMENT 1 – CONCEPTUAL SITE PLAN



LEGEND:

- PROPERTY LINE
- EXISTING EASEMENT
- PROPOSED CURB
- PROPOSED PARKING STRIPING
- PROPOSED FENCE LINE
- PROPOSED CONCRETE
- PROPOSED STRIPING
- PROPOSED LANDSCAPE
- PROPOSED SIDEWALK

PARKING:

ASSOCIATE PARKING LOT	REQUIRED (AHJ)	CURRENT	PROPOSED	DELTA +/-
ASSOCIATE STALLS (9'X17')	438	527	438	-89

*ACCESSIBLE STALL COUNTS INCLUDED IN OVERALL PARKING COUNT. CITY CODE DOES NOT DIFFERENTIATE.
**PER CITY OF CREST HILL ZONING ORDINANCE - WAREHOUSE = ONE STALL PER EMPLOYEE PLUS ONE STALL FOR EVERY VEHICLE USED IN THE CONDUCT OF ENTERPRISE = 350 STALLS + OFFICE = 5 STALLS FOR FIRST 1,000 SF AND 1 SPACE FOR EVERY 300 SF THERE AFTER = 88 STALLS

TRUCK YARD	CURRENT	PROPOSED	DELTA +/-
TRAILER PARKING STALLS	118	118	0
DOCK DOORS	97	97	0

APPROX. EXISTING IMPERVIOUS	84.2%
APPROX. PROPOSED IMPERVIOUS	84.5%
MAX IMPERVIOUS COVER	85.0%

EXISTING BUILDING AREA	
WAREHOUSE/SUPPORT	411,860 SF
OFFICE/SUPPORT 'A' AREA	11,020 SF
OFFICE/SUPPORT 'B' AREA	14,680 SF
GUARD SHACKS	480 SF

**INFORMATION PROVIDED FROM CONSTRUCTION DOCUMENTS BY ASM ENGINEERING CONSULTANTS DATED 2/14/2024. .

NOTES:

THIS SITE CONCEPT WAS PREPARED BASED ON AVAILABLE AUTOCAD OR PDF DRAWINGS, AERIAL, AND GIS BOUNDARY INFORMATION. KIMLEY-HORN WILL RELY ON THE ACCURACY OF THESE DOCUMENTS. MUNICIPAL RESEARCH HAS NOT BEEN EVALUATED AS PART OF THIS DELIVERABLE AND MAY YIELD FINDINGS IMPACTFUL TO THE SITE DESIGN.
NEW ISSUES MAY ARISE DURING DEVELOPMENT BECAUSE OF CHANGES IN GOVERNMENTAL RULES AND POLICY, CHANGED CIRCUMSTANCES, OR UNFORESEEN CONDITIONS.
THIS CONCEPT PLAN SHOULD NOT BE USED AS THE SOLE BASIS FOR THE CLIENT'S DECISION MAKING. WE ENDEAVORED TO CONSIDER SITE DEVELOPMENT ISSUES AND CONSTRAINTS TO THE EXTENT PRACTICAL GIVEN THE SCOPE, BUDGET, AND SCHEDULE AGREED TO WITH THE CLIENT. GUARD SHACK AND YARD DESIGN IS BASED ON AMAZON PROVIDED DRAWINGS BY ASM DATED 2/14/2024.

NORTH

GRAPHIC SCALE IN FEET
0 35 70 140

No.	REVISIONS	DATE	BY

Kimley»Horn
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401 WHITFIELD ROAD, SUITE 600, WARRENVILLE, IL 60555
PHONE: 630-487-5000
WWW.KIMLEY-HORN.COM

NOT FOR CONSTRUCTION

KHA PROJECT 168864455
DATE 3/19/2025
SCALE AS SHOWN
DESIGNED BY: MAG
DRAWN BY: MAG
CHECKED BY: JF

CONCEPT SITE PLAN

MDW5
16825 CHURNOVIC LANE
CREST HIL, IL 60435
WILL COUNTY IL

SHEET NUMBER
SC-1

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

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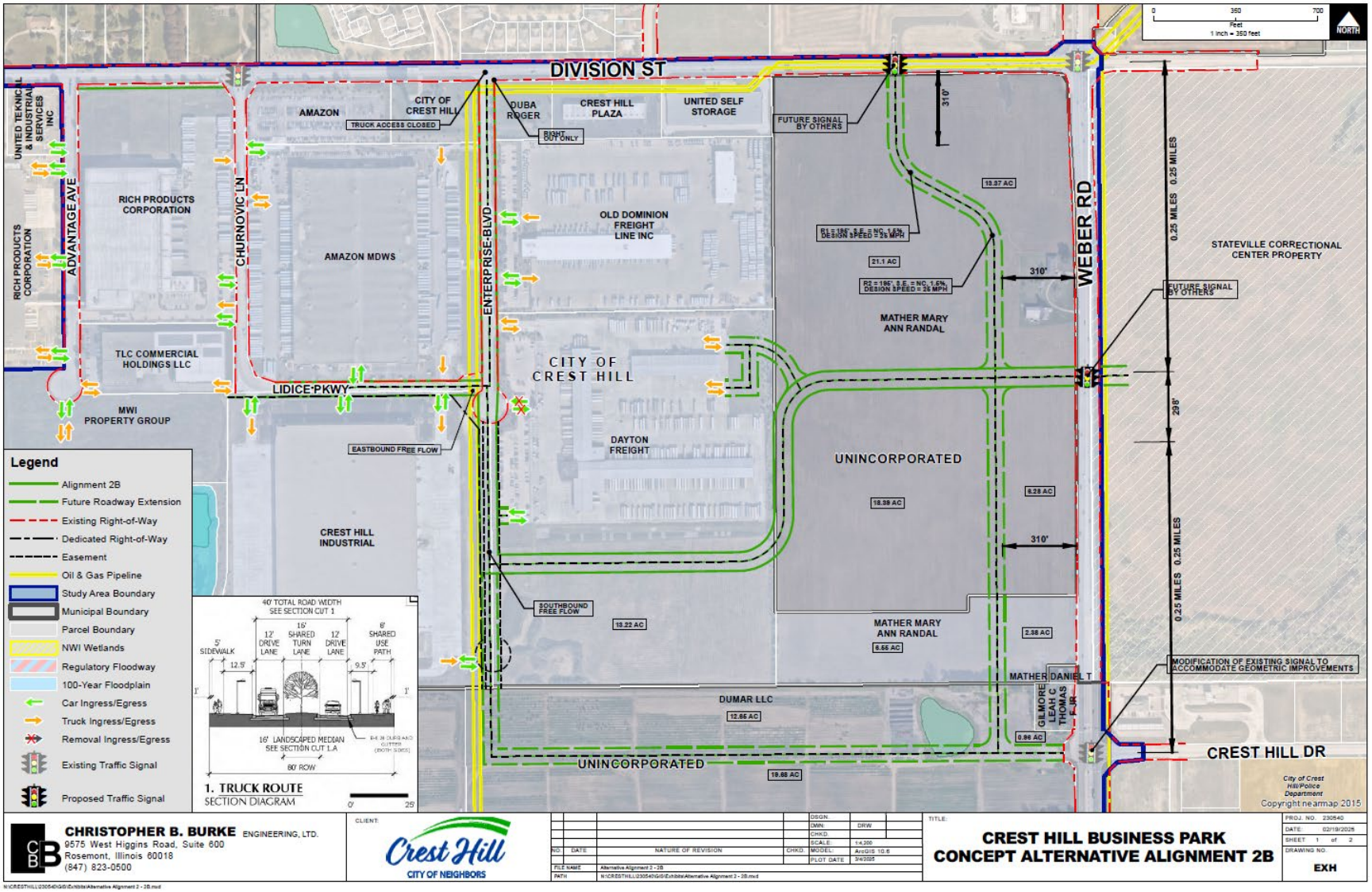
ATTACHMENT 2 – FUTURE ROADWAY CONCEPT PLAN


DIVISION ST
CITY OF CREST HILL
TRUCK ACCESS CLOSED
AMAZON
DUBA ROGER
CREST HILL PLAZA
UNITED SELF STORAGE
RIGHT OUT ONLY
FUTURE SIGNAL BY OTHERS
310'
UNITED TEKNICAL & INDUSTRIAL SERVICES INC
RICH PRODUCTS CORPORATION
ADVANTAGE AVE
CHURNOVIC LN
AMAZON MDWS
OLD DOMINION FREIGHT LINE INC
ENTERPRISE BLVD
18.37 AC
21.1 AC
R1 = 185' S.E. = NO. 1.5% DESIGN SPEED = 25 MPH
R2 = 185' S.E. = NO. 1.5% DESIGN SPEED = 25 MPH
WEBER RD
0.25 MILES
STATEVILLE CORRECTIONAL CENTER PROPERTY
MATHER MARY ANN RANDAL
TLC COMMERCIAL HOLDINGS LLC
CITY OF CREST HILL
LIDICE PKWY
MWI PROPERTY GROUP
EASTBOUND FREE FLOW
DAYTON FREIGHT
UNINCORPORATED
18.38 AC
6.28 AC
298'
CREST HILL INDUSTRIAL
SOUTHBOUND FREE FLOW
18.22 AC
6.55 AC
2.38 AC
MODIFICATION OF EXISTING SIGNAL TO ACCOMMODATE GEOMETRIC IMPROVEMENTS
MATHER DANIEL T
GILMORE LEAH C THOMAS F JR
DUMAR LLC
12.66 AC
0.86 AC
CREST HILL DR
UNINCORPORATED
18.88 AC
City of Crest Hill Police Department
Copyright nearmap 2015
Legend
Alignment 2B
Future Roadway Extension
Existing Right-of-Way
Dedicated Right-of-Way
Easement
Oil & Gas Pipeline
Study Area Boundary
Municipal Boundary
Parcel Boundary
NWI Wetlands
Regulatory Floodway
100-Year Floodplain
Car Ingress/Egress
Truck Ingress/Egress
Removal Ingress/Egress
Existing Traffic Signal
Proposed Traffic Signal
40' TOTAL ROAD WIDTH SEE SECTION CUT 1
5' SIDEWALK
12.5'
12' DRIVE LANE
16' SHARED TURN LANE
12' DRIVE LANE
6' SHARED USE PATH
9.5'
16' LANDSCAPED MEDIAN SEE SECTION CUT 1-A
80' ROW
1. TRUCK ROUTE SECTION DIAGRAM
0'
25'
CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 West Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500
CLIENT:
Crest Hill
CITY OF NEIGHBORS
NO. DATE NATURE OF REVISION
DSGN.
DWN. DRW
CHKD.
SCALE: 1:4,200
CHKD. MODEL: ArcGIS 10.8
PLOT DATE 5/4/2025
FILE NAME Alternative Alignment 2 - 2B
PATH N:\CREST HILL\23054\GIS\Exhibits\Alternative Alignment 2 - 2B.mxd
TITLE:
CREST HILL BUSINESS PARK
CONCEPT ALTERNATIVE ALIGNMENT 2B
PROJ. NO. 23054G
DATE: 02/19/2025
SHEET 1 of 2
DRAWING NO.
EXH

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ATTACHMENT 3 – TRAFFIC COUNT DATA

Division Street at Churnovic Lane - TMC

Thu May 15, 2025
Full Length (6 AM-9 AM, 11 AM-2 PM, 3 PM-6 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296364, Location: 41.580379, -88.135282

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg	Division St						Division St						Churnovic Lane						Access						
Direction	Eastbound						Westbound						Northbound						Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2025-05-15 6:00AM	0	44	5	0	**49**	0	8	25	0	0	**33**	0	8	0	7	0	**15**	0	0	0	0	0	**0**	0	**97**
6:15AM	0	51	12	0	**63**	0	5	42	0	0	**47**	1	5	0	4	0	**9**	1	0	0	0	0	**0**	0	**119**
6:30AM	0	44	7	0	**51**	0	9	36	0	0	**45**	0	9	0	12	0	**21**	0	0	0	0	0	**0**	0	**117**
6:45AM	0	53	15	0	**68**	0	13	37	0	0	**50**	0	6	0	4	0	**10**	0	0	0	0	0	**0**	0	**128**
Hourly Total	0	192	39	0	**231**	0	35	140	0	0	**175**	1	28	0	27	0	**55**	1	0	0	0	0	**0**	0	**461**
7:00AM	0	47	13	0	**60**	0	13	34	0	0	**47**	0	5	0	7	0	**12**	0	0	0	0	0	**0**	0	**119**
7:15AM	0	65	16	0	**81**	0	12	36	0	0	**48**	0	10	0	9	0	**19**	0	0	0	0	0	**0**	0	**148**
7:30AM	0	48	14	0	**62**	0	17	39	0	0	**56**	0	44	0	52	0	**96**	0	0	0	0	0	**0**	0	**214**
7:45AM	0	74	30	0	**104**	0	26	40	0	0	**66**	0	14	0	22	0	**36**	0	1	0	0	0	**1**	0	**207**
Hourly Total	0	234	73	0	**307**	0	68	149	0	0	**217**	0	73	0	90	0	**163**	0	1	0	0	0	**1**	0	**688**
8:00AM	0	64	23	0	**87**	0	35	48	0	0	**83**	0	10	0	6	0	**16**	0	1	0	0	0	**1**	0	**187**
8:15AM	0	66	42	0	**108**	0	57	55	0	0	**112**	0	13	0	7	0	**20**	0	0	0	0	0	**0**	0	**240**
8:30AM	0	53	29	0	**82**	0	35	48	1	1	**85**	0	5	0	5	0	**10**	0	0	0	0	0	**0**	0	**177**
8:45AM	0	52	26	0	**78**	0	22	56	0	0	**78**	0	6	0	2	0	**8**	0	0	0	0	0	**0**	0	**164**
Hourly Total	0	235	120	0	**355**	0	149	207	1	1	**358**	0	34	0	20	0	**54**	0	1	0	0	0	**1**	0	**768**
11:00AM	0	47	4	0	**51**	0	5	82	0	0	**87**	0	9	0	13	0	**22**	0	0	0	0	0	**0**	0	**160**
11:15AM	0	54	9	0	**63**	0	9	63	0	0	**72**	0	20	0	9	0	**29**	0	1	0	0	0	**1**	0	**165**
11:30AM	0	43	8	0	**51**	0	7	68	0	0	**75**	0	8	0	4	0	**12**	0	0	0	0	0	**0**	0	**138**
11:45AM	0	67	7	0	**74**	0	6	66	0	0	**72**	0	7	0	4	0	**11**	0	0	0	0	0	**0**	0	**157**
Hourly Total	0	211	28	0	**239**	0	27	279	0	0	**306**	0	44	0	30	0	**74**	0	1	0	0	0	**1**	0	**620**
12:00PM	0	62	10	0	**72**	0	10	66	0	0	**76**	0	5	0	3	1	**9**	0	0	0	0	0	**0**	0	**157**
12:15PM	0	83	8	0	**91**	0	5	81	0	0	**86**	0	8	0	7	0	**15**	0	0	0	0	0	**0**	0	**192**
12:30PM	0	67	11	0	**78**	0	6	64	0	0	**70**	0	8	0	5	0	**13**	0	0	0	0	0	**0**	0	**161**
12:45PM	0	69	16	0	**85**	0	4	76	0	0	**80**	0	13	0	7	0	**20**	0	0	0	0	0	**0**	0	**185**
Hourly Total	0	281	45	0	**326**	0	25	287	0	0	**312**	0	34	0	22	1	**57**	0	0	0	0	0	**0**	0	**695**
1:00PM	0	76	11	0	**87**	0	7	70	0	0	**77**	0	7	0	5	0	**12**	0	0	0	0	0	**0**	0	**176**
1:15PM	0	70	8	0	**78**	0	14	66	0	0	**80**	0	6	0	11	0	**17**	0	0	0	0	0	**0**	0	**175**
1:30PM	0	45	15	0	**60**	0	16	66	0	0	**82**	0	59	0	47	0	**106**	0	0	0	0	0	**0**	0	**248**
1:45PM	0	76	20	0	**96**	0	19	74	0	0	**93**	0	11	0	8	0	**19**	0	0	0	0	0	**0**	0	**208**
Hourly Total	0	267	54	0	**321**	0	56	276	0	0	**332**	0	83	0	71	0	**154**	0	0	0	0	0	**0**	0	**807**
3:00PM	0	73	10	0	**83**	0	9	116	0	0	**125**	0	8	0	8	0	**16**	1	0	0	0	0	**0**	0	**224**
3:15PM	0	68	7	0	**75**	0	9	106	2	0	**117**	0	7	0	4	0	**11**	0	0	0	0	0	**0**	0	**203**
3:30PM	0	93	10	0	**103**	0	7	96	0	0	**103**	0	11	0	1	0	**12**	0	0	0	0	0	**0**	0	**218**
3:45PM	0	78	7	0	**85**	0	10	88	0	0	**98**	0	4	0	5	0	**9**	0	0	0	0	0	**0**	0	**192**
Hourly Total	0	312	34	0	**346**	0	35	406	2	0	**443**	0	30	0	18	0	**48**	1	0	0	0	0	**0**	0	**837**
4:00PM	0	100	8	0	**108**	0	21	120	0	0	**141**	0	8	0	5	0	**13**	0	0	0	0	0	**0**	0	**262**
4:15PM	0	80	4	0	**84**	0	8	133	0	0	**141**	0	6	0	2	0	**8**	0	0	0	0	0	**0**	0	**233**
4:30PM	0	87	7	0	**94**	0	12	120	0	0	**132**	0	13	0	9	0	**22**	0	0	0	0	0	**0**	0	**248**
4:45PM	0	70	4	0	**74**	0	12	115	0	0	**127**	0	10	0	4	0	**14**	0	0	0	0	0	**0**	0	**215**
Hourly Total	0	337	23	0	**360**	0	53	488	0	0	**541**	0	37	0	20	0	**57**	0	0	0	0	0	**0**	0	**958**
5:00PM	0	86	5	0	**91**	0	13	103	0	0	**116**	0	7	0	6	0	**13**	0	1	0	0	0	**1**	1	**221**
5:15PM	0	99	1	0	**100**	0	14	123	0	0	**137**	0	6	0	3	0	**9**	0	0	0	0	0	**0**	0	**246**
5:30PM	0	72	3	0	**75**	0	18	94	2	0	**114**	0	11	0	7	0	**18**	0	0	0	0	0	**0**	0	**207**
5:45PM	0	96	12	0	**108**	0	14	68	0	0	**82**	0	6	0	4	0	**10**	0	0	0	0	0	**0**	0	**200**
Hourly Total	0	353	21	0	**374**	0	59	388	2	0	**449**	0	30	0	20	0	**50**	0	1	0	0	0	**1**	1	**874**
Total	0	2422	437	0	**2859**	0	507	2620	5	1	**3133**	1	393	0	318	1	**712**	2	4	0	0	0	**4**	1	**6708**
% Approach	0%	84.7%	15.3%	0%	**-**	-	16.2%	83.6%	0.2%	0%	**-**	-	55.2%	0%	44.7%	0.1%	**-**	-	100%	0%	0%	0%	**-**	-	-
% Total	0%	36.1%	6.5%	0%	**42.6%**	-	7.6%	39.1%	0.1%	0%	**46.7%**	-	5.9%	0%	4.7%	0%	**10.6%**	-	0.1%	0%	0%	0%	**0.1%**	-	-
Lights	0	2260	296	0	**2556**	-	306	2475	5	1	**2787**	-	297	0	244	0	**541**	-	4	0	0	0	**4**	-	5888
% Lights	0%	93.3%	67.7%	0%	**89.4%**	-	60.4%	94.5%	100%	100%	**89.0%**	-	75.6%	0%	76.7%	0%	**76.0%**	-	100%	0%	0%	0%	**100%**	-	87.8%
Articulated Trucks	0	103	97	0	**200**	-	155	79	0	0	**234**	-	73	0	47	1	**121**	-	0	0	0	0	**0**	-	555
% Articulated Trucks	0%	4.3%	22.2%	0%	**7.0%**	-	30.6%	3.0%	0%	0%	**7.5%**	-	18.6%	0%	14.8%	100%	**17.0%**	-	0%	0%	0%	0%	**0%**	-	8.3%
Buses and Single-Unit Trucks	0	59	44	0	**103**	-	46	66	0	0	**112**	-	23	0	27	0	**50**	-	0	0	0	0	**0**	-	-

Leg	Division St						Division St						Churnovic Lane						Access						
Direction	Eastbound						Westbound						Northbound						Southbound						
Time	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	**Int**
% Buses and Single-Unit Trucks	0%	2.4%	10.1%	0%	**3.6%**	-	9.1%	2.5%	0%	0%	**3.6%**	-	5.9%	0%	8.5%	0%	**7.0%**	-	0%	0%	0%	0%	**0%**	-	4.0%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	1	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Division Street at Churnovic Lane - TMC

Thu May 15, 2025
AM Peak (7:30 AM - 8:30 AM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296364, Location: 41.580379, -88.135282

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg / Direction	Division St Eastbound						Division St Westbound						Churnovic Lane Northbound						Access Southbound						
Time	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	**Int**
2025-05-15 7:30AM	0	48	14	0	**62**	0	17	39	0	0	**56**	0	44	0	52	0	**96**	0	0	0	0	0	**0**	0	**214**
7:45AM	0	74	30	0	**104**	0	26	40	0	0	**66**	0	14	0	22	0	**36**	0	1	0	0	0	**1**	0	**207**
8:00AM	0	64	23	0	**87**	0	35	48	0	0	**83**	0	10	0	6	0	**16**	0	1	0	0	0	**1**	0	**187**
8:15AM	0	66	42	0	**108**	0	57	55	0	0	**112**	0	13	0	7	0	**20**	0	0	0	0	0	**0**	0	**240**
Total	0	252	109	0	**361**	0	135	182	0	0	**317**	0	81	0	87	0	**168**	0	2	0	0	0	**2**	0	**848**
% Approach	0%	69.8%	30.2%	0%	**-**	-	42.6%	57.4%	0%	0%	**-**	-	48.2%	0%	51.8%	0%	**-**	-	100%	0%	0%	0%	**-**	-	-
% Total	0%	29.7%	12.9%	0%	**42.6%**	-	15.9%	21.5%	0%	0%	**37.4%**	-	9.6%	0%	10.3%	0%	**19.8%**	-	0.2%	0%	0%	0%	**0.2%**	-	-
PHF	-	0.851	0.649	-	**0.836**	-	0.592	0.827	-	-	**0.708**	-	0.460	-	0.418	-	**0.438**	-	0.500	-	-	-	**0.500**	-	0.883
Lights	0	227	94	0	**321**	-	121	169	0	0	**290**	-	66	0	75	0	**141**	-	2	0	0	0	**2**	-	754
% Lights	0%	90.1%	86.2%	0%	**88.9%**	-	89.6%	92.9%	0%	0%	**91.5%**	-	81.5%	0%	86.2%	0%	**83.9%**	-	100%	0%	0%	0%	**100%**	-	88.9%
Articulated Trucks	0	16	12	0	**28**	-	11	7	0	0	**18**	-	12	0	9	0	**21**	-	0	0	0	0	**0**	-	67
% Articulated Trucks	0%	6.3%	11.0%	0%	**7.8%**	-	8.1%	3.8%	0%	0%	**5.7%**	-	14.8%	0%	10.3%	0%	**12.5%**	-	0%	0%	0%	0%	**0%**	-	7.9%
Buses and Single-Unit Trucks	0	9	3	0	**12**	-	3	6	0	0	**9**	-	3	0	3	0	**6**	-	0	0	0	0	**0**	-	27
% Buses and Single-Unit Trucks	0%	3.6%	2.8%	0%	**3.3%**	-	2.2%	3.3%	0%	0%	**2.8%**	-	3.7%	0%	3.4%	0%	**3.6%**	-	0%	0%	0%	0%	**0%**	-	3.2%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Division Street at Churnovic Lane - TMC

Thu May 15, 2025
Midday Peak (1 PM - 2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296364, Location: 41.580379, -88.135282

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg / Direction	Division St Eastbound						Division St Westbound						Churnovic Lane Northbound						Access Southbound						
Time	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	**Int**
2025-05-15 1:00PM	0	76	11	0	**87**	0	7	70	0	0	**77**	0	7	0	5	0	**12**	0	0	0	0	0	**0**	0	**176**
1:15PM	0	70	8	0	**78**	0	14	66	0	0	**80**	0	6	0	11	0	**17**	0	0	0	0	0	**0**	0	**175**
1:30PM	0	45	15	0	**60**	0	16	66	0	0	**82**	0	59	0	47	0	**106**	0	0	0	0	0	**0**	0	**248**
1:45PM	0	76	20	0	**96**	0	19	74	0	0	**93**	0	11	0	8	0	**19**	0	0	0	0	0	**0**	0	**208**
Total	0	267	54	0	**321**	0	56	276	0	0	**332**	0	83	0	71	0	**154**	0	0	0	0	0	**0**	0	**807**
% Approach	0%	83.2%	16.8%	0%	**-**	-	16.9%	83.1%	0%	0%	**-**	-	53.9%	0%	46.1%	0%	**-**	-	0%	0%	0%	0%	**-**	-	-
% Total	0%	33.1%	6.7%	0%	**39.8%**	-	6.9%	34.2%	0%	0%	**41.1%**	-	10.3%	0%	8.8%	0%	**19.1%**	-	0%	0%	0%	0%	**0%**	-	-
PHF	-	0.878	0.675	-	**0.836**	-	0.737	0.932	-	-	**0.892**	-	0.352	-	0.378	-	**0.363**	-	-	-	-	-	**-**	-	0.814
Lights	0	247	37	0	**284**	-	38	254	0	0	**292**	-	74	0	63	0	**137**	-	0	0	0	0	**0**	-	713
% Lights	0%	92.5%	68.5%	0%	**88.5%**	-	67.9%	92.0%	0%	0%	**88.0%**	-	89.2%	0%	88.7%	0%	**89.0%**	-	0%	0%	0%	0%	**-**	-	88.4%
Articulated Trucks	0	16	10	0	**26**	-	12	10	0	0	**22**	-	7	0	5	0	**12**	-	0	0	0	0	**0**	-	60
% Articulated Trucks	0%	6.0%	18.5%	0%	**8.1%**	-	21.4%	3.6%	0%	0%	**6.6%**	-	8.4%	0%	7.0%	0%	**7.8%**	-	0%	0%	0%	0%	**-**	-	7.4%
Buses and Single-Unit Trucks	0	4	7	0	**11**	-	6	12	0	0	**18**	-	2	0	3	0	**5**	-	0	0	0	0	**0**	-	34
% Buses and Single-Unit Trucks	0%	1.5%	13.0%	0%	**3.4%**	-	10.7%	4.3%	0%	0%	**5.4%**	-	2.4%	0%	4.2%	0%	**3.2%**	-	0%	0%	0%	0%	**-**	-	4.2%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Division Street at Churnovic Lane - TMC

Thu May 15, 2025
PM Peak (4 PM - 5 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296364, Location: 41.580379, -88.135282

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg / Direction	Division St Eastbound						Division St Westbound						Churnovic Lane Northbound						Access Southbound						
Time	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	**Int**
2025-05-15 4:00PM	0	100	8	0	**108**	0	21	120	0	0	**141**	0	8	0	5	0	**13**	0	0	0	0	0	**0**	0	**262**
4:15PM	0	80	4	0	**84**	0	8	133	0	0	**141**	0	6	0	2	0	**8**	0	0	0	0	0	**0**	0	**233**
4:30PM	0	87	7	0	**94**	0	12	120	0	0	**132**	0	13	0	9	0	**22**	0	0	0	0	0	**0**	0	**248**
4:45PM	0	70	4	0	**74**	0	12	115	0	0	**127**	0	10	0	4	0	**14**	0	0	0	0	0	**0**	0	**215**
Total	0	337	23	0	**360**	0	53	488	0	0	**541**	0	37	0	20	0	**57**	0	0	0	0	0	**0**	0	**958**
% Approach	0%	93.6%	6.4%	0%	**-**	-	9.8%	90.2%	0%	0%	**-**	-	64.9%	0%	35.1%	0%	**-**	-	0%	0%	0%	0%	**-**	-	-
% Total	0%	35.2%	2.4%	0%	**37.6%**	-	5.5%	50.9%	0%	0%	**56.5%**	-	3.9%	0%	2.1%	0%	**5.9%**	-	0%	0%	0%	0%	**0%**	-	-
PHF	-	0.843	0.719	-	**0.833**	-	0.631	0.917	-	-	**0.959**	-	0.712	-	0.556	-	**0.648**	-	-	-	-	-	**-**	-	0.914
Lights	0	323	11	0	**334**	-	20	473	0	0	**493**	-	27	0	12	0	**39**	-	0	0	0	0	**0**	-	866
% Lights	0%	95.8%	47.8%	0%	**92.8%**	-	37.7%	96.9%	0%	0%	**91.1%**	-	73.0%	0%	60.0%	0%	**68.4%**	-	0%	0%	0%	0%	**-**	-	90.4%
Articulated Trucks	0	7	8	0	**15**	-	25	12	0	0	**37**	-	5	0	7	0	**12**	-	0	0	0	0	**0**	-	64
% Articulated Trucks	0%	2.1%	34.8%	0%	**4.2%**	-	47.2%	2.5%	0%	0%	**6.8%**	-	13.5%	0%	35.0%	0%	**21.1%**	-	0%	0%	0%	0%	**-**	-	6.7%
Buses and Single-Unit Trucks	0	7	4	0	**11**	-	8	3	0	0	**11**	-	5	0	1	0	**6**	-	0	0	0	0	**0**	-	28
% Buses and Single-Unit Trucks	0%	2.1%	17.4%	0%	**3.1%**	-	15.1%	0.6%	0%	0%	**2.0%**	-	13.5%	0%	5.0%	0%	**10.5%**	-	0%	0%	0%	0%	**-**	-	2.9%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Division Street at Enterprise Boulevard - TMC

Thu May 15, 2025
Full Length (6 AM-9 AM, 11 AM-2 PM, 3 PM-6 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296365, Location: 41.580523, -88.131473

GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg / Direction	Division St Eastbound					Division St Westbound					Enterprise Blvd Northbound					
Time	T	R	U	**App**	Ped*	L	T	U	**App**	Ped*	L	R	U	**App**	Ped*	**Int**
2025-05-15 6:00AM	54	0	0	**54**	0	2	33	0	**35**	0	0	2	0	**2**	0	**91**
6:15AM	54	0	0	**54**	0	0	45	0	**45**	0	0	5	0	**5**	0	**104**
6:30AM	57	0	0	**57**	0	0	47	0	**47**	0	0	3	0	**3**	0	**107**
6:45AM	58	1	0	**59**	0	1	48	0	**49**	0	0	6	0	**6**	0	**114**
Hourly Total	223	1	0	**224**	0	3	173	0	**176**	0	0	16	0	**16**	0	**416**
7:00AM	58	0	0	**58**	0	1	46	0	**47**	0	1	3	0	**4**	0	**109**
7:15AM	83	0	0	**83**	0	1	51	0	**52**	0	0	5	0	**5**	0	**140**
7:30AM	107	0	0	**107**	0	0	58	0	**58**	0	0	4	0	**4**	0	**169**
7:45AM	101	0	0	**101**	0	4	62	0	**66**	0	0	7	0	**7**	0	**174**
Hourly Total	349	0	0	**349**	0	6	217	0	**223**	0	1	19	0	**20**	0	**592**
8:00AM	79	0	0	**79**	0	0	79	0	**79**	0	1	10	0	**11**	0	**169**
8:15AM	71	0	0	**71**	0	0	116	0	**116**	0	0	8	0	**8**	0	**195**
8:30AM	67	0	0	**67**	0	0	77	0	**77**	0	1	9	0	**10**	0	**154**
8:45AM	64	0	0	**64**	0	0	71	0	**71**	0	3	12	0	**15**	0	**150**
Hourly Total	281	0	0	**281**	0	0	343	0	**343**	0	5	39	0	**44**	0	**668**
11:00AM	63	0	0	**63**	0	0	81	0	**81**	0	1	2	0	**3**	0	**147**
11:15AM	75	0	0	**75**	0	1	70	0	**71**	0	1	4	0	**5**	0	**151**
11:30AM	51	0	0	**51**	0	0	75	0	**75**	0	1	7	0	**8**	0	**134**
11:45AM	76	0	0	**76**	0	0	87	0	**87**	0	0	8	0	**8**	0	**171**
Hourly Total	265	0	0	**265**	0	1	313	0	**314**	0	3	21	0	**24**	0	**603**
12:00PM	62	0	0	**62**	0	0	75	0	**75**	0	0	3	0	**3**	0	**140**
12:15PM	90	0	0	**90**	0	0	82	0	**82**	0	1	5	0	**6**	0	**178**
12:30PM	73	0	0	**73**	0	0	72	0	**72**	0	2	9	0	**11**	0	**156**
12:45PM	73	0	0	**73**	0	1	75	0	**76**	0	1	4	0	**5**	0	**154**
Hourly Total	298	0	0	**298**	0	1	304	0	**305**	0	4	21	0	**25**	0	**628**
1:00PM	90	0	0	**90**	0	0	81	0	**81**	0	1	9	0	**10**	1	**181**
1:15PM	73	0	0	**73**	0	0	78	1	**79**	0	1	5	0	**6**	0	**158**
1:30PM	98	0	0	**98**	0	1	88	0	**89**	0	2	4	0	**6**	0	**193**
1:45PM	93	0	0	**93**	0	0	86	0	**86**	0	0	4	0	**4**	0	**183**
Hourly Total	354	0	0	**354**	0	1	333	1	**335**	0	4	22	0	**26**	1	**715**
3:00PM	91	0	0	**91**	0	0	114	0	**114**	0	0	6	0	**6**	0	**211**
3:15PM	75	0	0	**75**	0	0	121	0	**121**	0	0	9	0	**9**	0	**205**
3:30PM	89	0	0	**89**	0	0	114	0	**114**	0	0	6	0	**6**	0	**209**
3:45PM	91	1	0	**92**	0	1	97	0	**98**	0	1	5	0	**6**	0	**196**
Hourly Total	346	1	0	**347**	0	1	446	0	**447**	0	1	26	0	**27**	0	**821**
4:00PM	104	0	0	**104**	0	0	136	0	**136**	0	0	6	0	**6**	0	**246**
4:15PM	81	0	0	**81**	0	0	143	0	**143**	0	0	9	0	**9**	0	**233**
4:30PM	102	0	0	**102**	0	0	137	0	**137**	0	0	10	0	**10**	0	**249**
4:45PM	76	1	0	**77**	0	0	121	0	**121**	0	0	10	0	**10**	0	**208**
Hourly Total	363	1	0	**364**	0	0	537	0	**537**	0	0	35	0	**35**	0	**936**
5:00PM	96	0	0	**96**	0	0	116	0	**116**	0	0	10	0	**10**	0	**222**
5:15PM	111	0	0	**111**	0	0	138	0	**138**	0	0	8	0	**8**	0	**257**
5:30PM	77	0	0	**77**	0	0	116	0	**116**	0	0	12	0	**12**	0	**205**
5:45PM	103	0	0	**103**	0	0	88	0	**88**	0	0	6	0	**6**	0	**197**
Hourly Total	387	0	0	**387**	0	0	458	0	**458**	0	0	36	0	**36**	0	**881**
Total	2866	3	0	**2869**	0	13	3124	1	**3138**	0	18	235	0	**253**	1	**6260**
% Approach	99.9%	0.1%	0%	**-**	-	0.4%	99.6%	0%	**-**	-	7.1%	92.9%	0%	**-**	-	-
% Total	45.8%	0%	0%	**45.8%**	-	0.2%	49.9%	0%	**50.1%**	-	0.3%	3.8%	0%	**4.0%**	-	-
Lights	2629	3	0	**2632**	-	10	2775	1	**2786**	-	11	98	0	**109**	-	5527
% Lights	91.7%	100%	0%	**91.7%**	-	76.9%	88.8%	100%	**88.8%**	-	61.1%	41.7%	0%	**43.1%**	-	88.3%
Articulated Trucks	152	0	0	**152**	-	0	234	0	**234**	-	5	109	0	**114**	-	500
% Articulated Trucks	5.3%	0%	0%	**5.3%**	-	0%	7.5%	0%	**7.5%**	-	27.8%	46.4%	0%	**45.1%**	-	8
Buses and Single-Unit Trucks	85	0	0	**85**	-	3	115	0	**118**	-	2	28	0	**30**	-	

Leg	Division St					Division St					Enterprise Blvd					
Direction	Eastbound					Westbound					Northbound					
Time	T	R	U	**App**	Ped*	L	T	U	**App**	Ped*	L	R	U	**App**	Ped*	**Int**
% Buses and Single-Unit Trucks	3.0%	0%	0%	**3.0%**	-	23.1%	3.7%	0%	**3.8%**	-	11.1%	11.9%	0%	**11.9%**	-	3.7%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	1	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Division Street at Enterprise Boulevard - TMC

Thu May 15, 2025
AM Peak (7:30 AM - 8:30 AM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296365, Location: 41.580523, -88.131473

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Division St Eastbound					Division St Westbound					Enterprise Blvd Northbound					
Time	T	R	U	**App**	Ped*	L	T	U	**App**	Ped*	L	R	U	**App**	Ped*	**Int**
2025-05-15 7:30AM	107	0	0	**107**	0	0	58	0	**58**	0	0	4	0	**4**	0	**169**
7:45AM	101	0	0	**101**	0	4	62	0	**66**	0	0	7	0	**7**	0	**174**
8:00AM	79	0	0	**79**	0	0	79	0	**79**	0	1	10	0	**11**	0	**169**
8:15AM	71	0	0	**71**	0	0	116	0	**116**	0	0	8	0	**8**	0	**195**
Total	358	0	0	**358**	0	4	315	0	**319**	0	1	29	0	**30**	0	**707**
% Approach	100%	0%	0%	**-**	-	1.3%	98.7%	0%	**-**	-	3.3%	96.7%	0%	**-**	-	**-**
% Total	50.6%	0%	0%	**50.6%**	-	0.6%	44.6%	0%	**45.1%**	-	0.1%	4.1%	0%	**4.2%**	-	**-**
PHF	0.836	-	-	**0.836**	-	0.250	0.679	-	**0.688**	-	0.250	0.725	-	**0.682**	-	0.906
Lights	321	0	0	**321**	-	3	286	0	**289**	-	1	12	0	**13**	-	623
% Lights	89.7%	0%	0%	**89.7%**	-	75.0%	90.8%	0%	**90.6%**	-	100%	41.4%	0%	**43.3%**	-	88.1%
Articulated Trucks	27	0	0	**27**	-	0	20	0	**20**	-	0	15	0	**15**	-	62
% Articulated Trucks	7.5%	0%	0%	**7.5%**	-	0%	6.3%	0%	**6.3%**	-	0%	51.7%	0%	**50.0%**	-	8.8%
Buses and Single-Unit Trucks	10	0	0	**10**	-	1	9	0	**10**	-	0	2	0	**2**	-	22
% Buses and Single-Unit Trucks	2.8%	0%	0%	**2.8%**	-	25.0%	2.9%	0%	**3.1%**	-	0%	6.9%	0%	**6.7%**	-	3.1%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Division Street at Enterprise Boulevard - TMC

Thu May 15, 2025
Midday Peak (1 PM - 2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296365, Location: 41.580523, -88.131473

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg	Division St					Division St					Enterprise Blvd					
Direction	Eastbound					Westbound					Northbound					
Time	T	R	U	**App**	Ped*	L	T	U	**App**	Ped*	L	R	U	**App**	Ped*	**Int**
2025-05-15 1:00PM	90	0	0	**90**	0	0	81	0	**81**	0	1	9	0	**10**	1	**181**
1:15PM	73	0	0	**73**	0	0	78	1	**79**	0	1	5	0	**6**	0	**158**
1:30PM	98	0	0	**98**	0	1	88	0	**89**	0	2	4	0	**6**	0	**193**
1:45PM	93	0	0	**93**	0	0	86	0	**86**	0	0	4	0	**4**	0	**183**
Total	354	0	0	**354**	0	1	333	1	**335**	0	4	22	0	**26**	1	**715**
% Approach	100%	0%	0%	**-**	-	0.3%	99.4%	0.3%	**-**	-	15.4%	84.6%	0%	**-**	-	**-**
% Total	49.5%	0%	0%	**49.5%**	-	0.1%	46.6%	0.1%	**46.9%**	-	0.6%	3.1%	0%	**3.6%**	-	**-**
PHF	0.903	-	-	**0.903**	-	0.250	0.946	0.250	**0.941**	-	0.500	0.611	-	**0.650**	-	0.926
Lights	328	0	0	**328**	-	1	293	1	**295**	-	1	12	0	**13**	-	636
% Lights	92.7%	0%	0%	**92.7%**	-	100%	88.0%	100%	**88.1%**	-	25.0%	54.5%	0%	**50.0%**	-	89.0%
Articulated Trucks	19	0	0	**19**	-	0	22	0	**22**	-	2	7	0	**9**	-	50
% Articulated Trucks	5.4%	0%	0%	**5.4%**	-	0%	6.6%	0%	**6.6%**	-	50.0%	31.8%	0%	**34.6%**	-	7.0%
Buses and Single-Unit Trucks	7	0	0	**7**	-	0	18	0	**18**	-	1	3	0	**4**	-	29
% Buses and Single-Unit Trucks	2.0%	0%	0%	**2.0%**	-	0%	5.4%	0%	**5.4%**	-	25.0%	13.6%	0%	**15.4%**	-	4.1%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	1	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Division Street at Enterprise Boulevard - TMC

Thu May 15, 2025
PM Peak (4 PM - 5 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296365, Location: 41.580523, -88.131473

GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Division St Eastbound					Division St Westbound					Enterprise Blvd Northbound					
Time	T	R	U	**App**	Ped*	L	T	U	**App**	Ped*	L	R	U	**App**	Ped*	**Int**
2025-05-15 4:00PM	104	0	0	**104**	0	0	136	0	**136**	0	0	6	0	**6**	0	**246**
4:15PM	81	0	0	**81**	0	0	143	0	**143**	0	0	9	0	**9**	0	**233**
4:30PM	102	0	0	**102**	0	0	137	0	**137**	0	0	10	0	**10**	0	**249**
4:45PM	76	1	0	**77**	0	0	121	0	**121**	0	0	10	0	**10**	0	**208**
Total	363	1	0	**364**	0	0	537	0	**537**	0	0	35	0	**35**	0	**936**
% Approach	99.7%	0.3%	0%	**-**	-	0%	100%	0%	**-**	-	0%	100%	0%	**-**	-	-
% Total	38.8%	0.1%	0%	**38.9%**	-	0%	57.4%	0%	**57.4%**	-	0%	3.7%	0%	**3.7%**	-	-
PHF	0.873	0.250	-	**0.875**	-	-	0.939	-	**0.939**	-	-	0.875	-	**0.875**	-	0.940
Lights	340	1	0	**341**	-	0	490	0	**490**	-	0	15	0	**15**	-	846
% Lights	93.7%	100%	0%	**93.7%**	-	0%	91.2%	0%	**91.2%**	-	0%	42.9%	0%	**42.9%**	-	90.4%
Articulated Trucks	15	0	0	**15**	-	0	38	0	**38**	-	0	16	0	**16**	-	69
% Articulated Trucks	4.1%	0%	0%	**4.1%**	-	0%	7.1%	0%	**7.1%**	-	0%	45.7%	0%	**45.7%**	-	7.4%
Buses and Single-Unit Trucks	8	0	0	**8**	-	0	9	0	**9**	-	0	4	0	**4**	-	21
% Buses and Single-Unit Trucks	2.2%	0%	0%	**2.2%**	-	0%	1.7%	0%	**1.7%**	-	0%	11.4%	0%	**11.4%**	-	2.2%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Enterprise Boulevard at Lidice Parkway - TMC

Thu May 15, 2025
Full Length (6 AM-9 AM, 11 AM-2 PM, 3 PM-6 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296366, Location: 41.576855, -88.13127

GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg	Lidice Parkway					Enterprise Dr					Enterprise Dr					
Direction	Eastbound					Northbound					Southbound					
Time	L	R	U	App	Ped*	L	T	U	App	Ped*	T	R	U	App	Ped*	Int
2025-05-15 6:00AM	10	1	0	**11**	0	0	0	0	**0**	0	2	1	0	**3**	0	**14**
6:15AM	10	3	0	**13**	0	1	1	0	**2**	0	0	1	0	**1**	0	**16**
6:30AM	11	4	0	**15**	0	0	0	0	**0**	0	0	1	0	**1**	0	**16**
6:45AM	14	7	0	**21**	0	0	1	0	**1**	0	0	1	0	**1**	0	**23**
Hourly Total	45	15	0	**60**	0	1	2	0	**3**	0	2	4	0	**6**	0	**69**
7:00AM	15	4	0	**19**	0	0	0	0	**0**	0	2	1	0	**3**	0	**22**
7:15AM	14	3	1	**18**	0	1	2	0	**3**	0	0	3	0	**3**	0	**24**
7:30AM	10	2	0	**12**	0	1	0	0	**1**	0	0	2	0	**2**	0	**15**
7:45AM	9	8	0	**17**	0	3	1	0	**4**	0	0	0	0	**0**	0	**21**
Hourly Total	48	17	1	**66**	0	5	3	0	**8**	0	2	6	0	**8**	0	**82**
8:00AM	12	5	0	**17**	0	1	2	0	**3**	0	0	3	0	**3**	0	**23**
8:15AM	12	4	0	**16**	0	0	2	0	**2**	0	0	2	0	**2**	0	**20**
8:30AM	9	4	0	**13**	0	0	1	0	**1**	0	0	1	0	**1**	0	**15**
8:45AM	11	8	0	**19**	0	0	2	0	**2**	0	0	3	0	**3**	0	**24**
Hourly Total	44	21	0	**65**	0	1	7	0	**8**	0	0	9	0	**9**	0	**82**
11:00AM	4	2	0	**6**	0	0	0	0	**0**	0	0	1	0	**1**	0	**7**
11:15AM	15	1	0	**16**	0	1	1	0	**2**	0	0	0	0	**0**	0	**18**
11:30AM	11	3	0	**14**	0	1	1	0	**2**	0	1	2	0	**3**	0	**19**
11:45AM	10	3	0	**13**	0	0	1	0	**1**	0	0	3	0	**3**	0	**17**
Hourly Total	40	9	0	**49**	0	2	3	0	**5**	0	1	6	0	**7**	0	**61**
12:00PM	10	4	0	**14**	0	1	0	0	**1**	0	0	2	0	**2**	0	**17**
12:15PM	10	1	0	**11**	0	0	1	0	**1**	0	0	1	0	**1**	0	**13**
12:30PM	7	1	0	**8**	0	0	1	0	**1**	0	0	3	0	**3**	0	**12**
12:45PM	10	4	0	**14**	0	0	0	0	**0**	0	0	1	0	**1**	0	**15**
Hourly Total	37	10	0	**47**	0	1	2	0	**3**	0	0	7	0	**7**	0	**57**
1:00PM	14	1	0	**15**	0	0	2	0	**2**	0	0	0	0	**0**	0	**17**
1:15PM	13	0	0	**13**	0	0	1	0	**1**	0	1	1	0	**2**	0	**16**
1:30PM	13	1	0	**14**	0	0	1	0	**1**	0	0	0	0	**0**	0	**15**
1:45PM	14	3	0	**17**	0	2	0	0	**2**	0	0	1	0	**1**	0	**20**
Hourly Total	54	5	0	**59**	0	2	4	0	**6**	0	1	2	0	**3**	0	**68**
3:00PM	14	1	0	**15**	0	2	0	0	**2**	0	0	1	0	**1**	0	**18**
3:15PM	9	0	0	**9**	0	1	2	0	**3**	0	0	2	0	**2**	0	**14**
3:30PM	9	1	0	**10**	0	4	1	0	**5**	0	0	2	0	**2**	0	**17**
3:45PM	13	2	0	**15**	0	0	0	0	**0**	0	0	3	0	**3**	0	**18**
Hourly Total	45	4	0	**49**	0	7	3	0	**10**	0	0	8	0	**8**	0	**67**
4:00PM	20	5	0	**25**	0	1	0	0	**1**	0	0	5	0	**5**	0	**31**
4:15PM	8	2	0	**10**	0	0	2	0	**2**	0	0	1	0	**1**	0	**13**
4:30PM	9	3	0	**12**	0	2	2	0	**4**	0	0	3	0	**3**	0	**19**
4:45PM	9	5	0	**14**	0	1	2	0	**3**	0	0	2	0	**2**	0	**19**
Hourly Total	46	15	0	**61**	0	4	6	0	**10**	0	0	11	0	**11**	0	**82**
5:00PM	11	2	0	**13**	0	0	3	0	**3**	0	0	3	0	**3**	0	**19**
5:15PM	18	1	0	**19**	0	1	4	0	**5**	0	0	1	0	**1**	0	**25**
5:30PM	7	3	0	**10**	0	0	3	0	**3**	0	0	2	0	**2**	0	**15**
5:45PM	24	1	0	**25**	0	0	2	0	**2**	0	0	0	0	**0**	0	**27**
Hourly Total	60	7	0	**67**	0	1	12	0	**13**	0	0	6	0	**6**	0	**86**
Total	419	103	1	**523**	0	24	42	0	**66**	0	6	59	0	**65**	0	**654**
% Approach	80.1%	19.7%	0.2%	**-**	-	36.4%	63.6%	0%	**-**	-	9.2%	90.8%	0%	**-**	-	-
% Total	64.1%	15.7%	0.2%	**80.0%**	-	3.7%	6.4%	0%	**10.1%**	-	0.9%	9.0%	0%	**9.9%**	-	-
Lights	89	103	1	**193**	-	24	42	0	**66**	-	6	28	0	**34**	-	293
% Lights	21.2%	100%	100%	**36.9%**	-	100%	100%	0%	**100%**	-	100%	47.5%	0%	**52.3%**	-	44.8%
Articulated Trucks	218	0	0	**218**	-	0	0	0	**0**	-	0	24	0	**24**	-	242
% Articulated Trucks	52.0%	0%	0%	**41.7%**	-	0%	0%	0%	**0%**	-	0%	40.7%	0%	**36.9%**	-	37
Buses and Single-Unit Trucks	112	0	0	**112**	-	0	0	0	**0**	-	0	7	0	**7**	-	

Leg	Lidice Parkway					Enterprise Dr					Enterprise Dr					
Direction	Eastbound					Northbound					Southbound					
Time	L	R	U	**App**	Ped*	L	T	U	**App**	Ped*	T	R	U	**App**	Ped*	**Int**
% Buses and Single-Unit Trucks	26.7%	0%	0%	**21.4%**	-	0%	0%	0%	**0%**	-	0%	11.9%	0%	**10.8%**	-	18.2%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Enterprise Boulevard at Lidice Parkway - TMC

Thu May 15, 2025
Forced Peak (7:30 AM - 8:30 AM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296366, Location: 41.576855, -88.13127

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Lidice Parkway Eastbound					Enterprise Dr Northbound					Enterprise Dr Southbound					
Time	L	R	U	**App**	Ped*	L	T	U	**App**	Ped*	T	R	U	**App**	Ped*	**Int**
2025-05-15 7:30AM	10	2	0	**12**	0	1	0	0	**1**	0	0	2	0	**2**	0	**15**
7:45AM	9	8	0	**17**	0	3	1	0	**4**	0	0	0	0	**0**	0	**21**
8:00AM	12	5	0	**17**	0	1	2	0	**3**	0	0	3	0	**3**	0	**23**
8:15AM	12	4	0	**16**	0	0	2	0	**2**	0	0	2	0	**2**	0	**20**
Total	43	19	0	**62**	0	5	5	0	**10**	0	0	7	0	**7**	0	**79**
% Approach	69.4%	30.6%	0%	**-**	-	50.0%	50.0%	0%	**-**	-	0%	100%	0%	**-**	-	**-**
% Total	54.4%	24.1%	0%	**78.5%**	-	6.3%	6.3%	0%	**12.7%**	-	0%	8.9%	0%	**8.9%**	-	**-**
PHF	0.896	0.594	-	**0.912**	-	0.417	0.625	-	**0.625**	-	-	0.583	-	**0.583**	-	0.859
Lights	19	19	0	**38**	-	5	5	0	**10**	-	0	2	0	**2**	-	50
% Lights	44.2%	100%	0%	**61.3%**	-	100%	100%	0%	**100%**	-	0%	28.6%	0%	**28.6%**	-	63.3%
Articulated Trucks	15	0	0	**15**	-	0	0	0	**0**	-	0	5	0	**5**	-	20
% Articulated Trucks	34.9%	0%	0%	**24.2%**	-	0%	0%	0%	**0%**	-	0%	71.4%	0%	**71.4%**	-	25.3%
Buses and Single-Unit Trucks	9	0	0	**9**	-	0	0	0	**0**	-	0	0	0	**0**	-	9
% Buses and Single-Unit Trucks	20.9%	0%	0%	**14.5%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	11.4%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Enterprise Boulevard at Lidice Parkway - TMC

Thu May 15, 2025
Forced Peak (1 PM - 2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296366, Location: 41.576855, -88.13127

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Lidice Parkway Eastbound					Enterprise Dr Northbound					Enterprise Dr Southbound					
Time	L	R	U	**App**	Ped*	L	T	U	**App**	Ped*	T	R	U	**App**	Ped*	**Int**
2025-05-15 1:00PM	14	1	0	**15**	0	0	2	0	**2**	0	0	0	0	**0**	0	**17**
1:15PM	13	0	0	**13**	0	0	1	0	**1**	0	1	1	0	**2**	0	**16**
1:30PM	13	1	0	**14**	0	0	1	0	**1**	0	0	0	0	**0**	0	**15**
1:45PM	14	3	0	**17**	0	2	0	0	**2**	0	0	1	0	**1**	0	**20**
Total	54	5	0	**59**	0	2	4	0	**6**	0	1	2	0	**3**	0	**68**
% Approach	91.5%	8.5%	0%	**-**	-	33.3%	66.7%	0%	**-**	-	33.3%	66.7%	0%	**-**	-	**-**
% Total	79.4%	7.4%	0%	**86.8%**	-	2.9%	5.9%	0%	**8.8%**	-	1.5%	2.9%	0%	**4.4%**	-	**-**
PHF	0.964	0.417	-	**0.868**	-	0.250	0.500	-	**0.750**	-	0.250	0.500	-	**0.375**	-	0.850
Lights	15	5	0	**20**	-	2	4	0	**6**	-	1	1	0	**2**	-	28
% Lights	27.8%	100%	0%	**33.9%**	-	100%	100%	0%	**100%**	-	100%	50.0%	0%	**66.7%**	-	41.2%
Articulated Trucks	21	0	0	**21**	-	0	0	0	**0**	-	0	1	0	**1**	-	22
% Articulated Trucks	38.9%	0%	0%	**35.6%**	-	0%	0%	0%	**0%**	-	0%	50.0%	0%	**33.3%**	-	32.4%
Buses and Single-Unit Trucks	18	0	0	**18**	-	0	0	0	**0**	-	0	0	0	**0**	-	18
% Buses and Single-Unit Trucks	33.3%	0%	0%	**30.5%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	26.5%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Enterprise Boulevard at Lidice Parkway - TMC

Thu May 15, 2025
Forced Peak (4 PM - 5 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296366, Location: 41.576855, -88.13127

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Lidice Parkway Eastbound					Enterprise Dr Northbound					Enterprise Dr Southbound					
Time	L	R	U	**App**	Ped*	L	T	U	**App**	Ped*	T	R	U	**App**	Ped*	**Int**
2025-05-15 4:00PM	20	5	0	**25**	0	1	0	0	**1**	0	0	5	0	**5**	0	**31**
4:15PM	8	2	0	**10**	0	0	2	0	**2**	0	0	1	0	**1**	0	**13**
4:30PM	9	3	0	**12**	0	2	2	0	**4**	0	0	3	0	**3**	0	**19**
4:45PM	9	5	0	**14**	0	1	2	0	**3**	0	0	2	0	**2**	0	**19**
Total	46	15	0	**61**	0	4	6	0	**10**	0	0	11	0	**11**	0	**82**
% Approach	75.4%	24.6%	0%	**-**	-	40.0%	60.0%	0%	**-**	-	0%	100%	0%	**-**	-	**-**
% Total	56.1%	18.3%	0%	**74.4%**	-	4.9%	7.3%	0%	**12.2%**	-	0%	13.4%	0%	**13.4%**	-	**-**
PHF	0.575	0.750	-	**0.610**	-	0.500	0.750	-	**0.625**	-	-	0.550	-	**0.550**	-	0.661
Lights	4	15	0	**19**	-	4	6	0	**10**	-	0	7	0	**7**	-	36
% Lights	8.7%	100%	0%	**31.1%**	-	100%	100%	0%	**100%**	-	0%	63.6%	0%	**63.6%**	-	43.9%
Articulated Trucks	32	0	0	**32**	-	0	0	0	**0**	-	0	3	0	**3**	-	35
% Articulated Trucks	69.6%	0%	0%	**52.5%**	-	0%	0%	0%	**0%**	-	0%	27.3%	0%	**27.3%**	-	42.7%
Buses and Single-Unit Trucks	10	0	0	**10**	-	0	0	0	**0**	-	0	1	0	**1**	-	11
% Buses and Single-Unit Trucks	21.7%	0%	0%	**16.4%**	-	0%	0%	0%	**0%**	-	0%	9.1%	0%	**9.1%**	-	13.4%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Access Road at West Access - TMC

Thu May 15, 2025
Full Length (6 AM-9 AM, 11 AM-2 PM, 3 PM-6 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296367, Location: 41.579541, -88.134598

GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg / Direction	Parking Lot Eastbound						Parking Lot Westbound						From/To Churnovic Lane Northbound						Parking Lot Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2025-05-15 6:00AM	0	0	1	0	**1**	0	0	0	0	0	**0**	0	0	0	3	0	**3**	0	0	9	1	0	**10**	0	**14**
6:15AM	0	0	1	0	**1**	1	0	0	0	0	**0**	2	0	0	0	0	**0**	0	0	3	0	0	**3**	0	**4**
6:30AM	0	0	4	0	**4**	4	0	0	0	0	**0**	6	0	0	2	0	**2**	4	0	12	0	0	**12**	0	**18**
6:45AM	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0	2	0	**2**	0	0	3	0	0	**3**	0	**5**
Hourly Total	0	0	6	0	**6**	5	0	0	0	0	**0**	8	0	0	7	0	**7**	4	0	27	1	0	**28**	0	**41**
7:00AM	0	0	0	0	**0**	2	0	0	0	0	**0**	2	0	0	5	0	**5**	2	0	8	2	0	**10**	2	**15**
7:15AM	0	0	0	0	**0**	1	0	0	0	0	**0**	8	0	0	9	0	**9**	5	0	14	1	0	**15**	2	**24**
7:30AM	0	0	8	0	**8**	0	0	0	0	0	**0**	28	0	0	17	0	**17**	9	0	74	0	0	**74**	3	**99**
7:45AM	0	0	3	0	**3**	1	0	0	0	0	**0**	6	0	0	27	0	**27**	6	0	20	1	0	**21**	0	**51**
Hourly Total	0	0	11	0	**11**	4	0	0	0	0	**0**	44	0	0	58	0	**58**	22	0	116	4	0	**120**	7	**189**
8:00AM	0	0	1	0	**1**	1	0	0	0	0	**0**	12	0	0	42	0	**42**	6	0	8	2	0	**10**	1	**53**
8:15AM	0	0	0	0	**0**	0	0	0	0	0	**0**	31	0	0	81	0	**81**	14	0	10	3	0	**13**	0	**94**
8:30AM	0	0	2	0	**2**	0	0	0	0	0	**0**	16	0	0	51	0	**51**	3	0	5	1	0	**6**	1	**59**
8:45AM	0	0	0	0	**0**	0	0	0	0	0	**0**	6	0	0	22	0	**22**	2	0	3	0	0	**3**	3	**25**
Hourly Total	0	0	3	0	**3**	1	0	0	0	0	**0**	65	0	0	196	0	**196**	25	0	26	6	0	**32**	5	**231**
11:00AM	0	0	0	0	**0**	4	0	0	0	0	**0**	25	0	0	2	0	**2**	9	0	15	0	0	**15**	8	**17**
11:15AM	0	0	1	0	**1**	0	0	0	0	0	**0**	9	0	0	2	0	**2**	0	0	20	0	0	**20**	2	**23**
11:30AM	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0	3	0	**3**	0	0	4	0	0	**4**	0	**7**
11:45AM	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0	2	0	**2**	0	0	6	0	0	**6**	0	**8**
Hourly Total	0	0	1	0	**1**	4	0	0	0	0	**0**	34	0	0	9	0	**9**	9	0	45	0	0	**45**	10	**55**
12:00PM	0	0	1	0	**1**	0	0	0	0	0	**0**	1	0	0	0	0	**0**	1	0	3	0	0	**3**	0	**4**
12:15PM	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0	2	0	**2**	0	0	1	0	0	**1**	0	**3**
12:30PM	0	0	1	0	**1**	0	0	0	0	0	**0**	2	0	0	2	0	**2**	1	0	4	0	0	**4**	0	**7**
12:45PM	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0	5	0	**5**	1	0	5	1	0	**6**	0	**11**
Hourly Total	0	0	2	0	**2**	0	0	0	0	0	**0**	3	0	0	9	0	**9**	3	0	13	1	0	**14**	0	**25**
1:00PM	0	0	0	0	**0**	0	0	0	0	0	**0**	4	0	0	4	0	**4**	1	0	5	0	0	**5**	1	**9**
1:15PM	0	0	1	0	**1**	0	0	0	0	0	**0**	16	0	0	4	0	**4**	0	0	18	0	0	**18**	8	**23**
1:30PM	0	0	8	0	**8**	0	0	0	0	0	**0**	34	0	0	11	0	**11**	9	0	90	1	0	**91**	9	**110**
1:45PM	0	0	0	0	**0**	0	0	0	0	0	**0**	5	0	0	21	0	**21**	3	0	12	0	0	**12**	2	**33**
Hourly Total	0	0	9	0	**9**	0	0	0	0	0	**0**	59	0	0	40	0	**40**	13	0	125	1	0	**126**	20	**175**
3:00PM	0	0	0	0	**0**	3	0	0	0	0	**0**	0	0	0	5	0	**5**	3	0	7	0	0	**7**	0	**12**
3:15PM	0	0	1	0	**1**	0	0	0	0	0	**0**	3	0	0	6	0	**6**	0	0	5	0	0	**5**	0	**12**
3:30PM	0	0	0	0	**0**	0	0	0	0	0	**0**	2	0	0	3	0	**3**	0	0	4	0	0	**4**	1	**7**
3:45PM	0	0	0	0	**0**	4	0	0	0	0	**0**	1	0	0	3	0	**3**	2	0	0	1	0	**1**	0	**4**
Hourly Total	0	0	1	0	**1**	7	0	0	0	0	**0**	6	0	0	17	0	**17**	5	0	16	1	0	**17**	1	**35**
4:00PM	0	0	0	0	**0**	0	0	0	0	0	**0**	2	0	0	1	0	**1**	3	0	4	0	0	**4**	1	**5**
4:15PM	0	0	0	0	**0**	0	0	0	0	0	**0**	3	0	0	2	0	**2**	0	0	0	0	0	**0**	3	**2**
4:30PM	0	0	1	0	**1**	0	0	0	0	0	**0**	4	0	0	3	0	**3**	3	0	8	0	0	**8**	4	**12**
4:45PM	0	0	1	0	**1**	0	0	0	0	0	**0**	0	0	0	2	0	**2**	1	0	2	0	0	**2**	0	**5**
Hourly Total	0	0	2	0	**2**	0	0	0	0	0	**0**	9	0	0	8	0	**8**	7	0	14	0	0	**14**	8	**24**
5:00PM	0	0	0	0	**0**	0	0	0	0	0	**0**	3	0	0	1	0	**1**	0	0	4	0	0	**4**	0	**5**
5:15PM	0	0	0	1	**1**	7	0	0	0	0	**0**	6	0	0	0	0	**0**	11	0	2	0	0	**2**	1	**3**
5:30PM	0	0	2	0	**2**	2	0	0	0	0	**0**	4	0	0	5	0	**5**	4	0	10	1	0	**11**	1	**18**
5:45PM	0	0	1	0	**1**	0	0	0	0	0	**0**	1	0	0	3	0	**3**	0	0	1	0	0	**1**	0	**5**
Hourly Total	0	0	3	1	**4**	9	0	0	0	0	**0**	14	0	0	9	0	**9**	15	0	17	1	0	**18**	2	**31**
Total	0	0	38	1	**39**	30	0	0	0	0	**0**	242	0	0	353	0	**353**	103	0	399	15	0	**414**	53	**806**
% Approach	0%	0%	97.4%	2.6%	**-**	-	0%	0%	0%	0%	**-**	-	0%	0%	100%	0%	**-**	-	0%	96.4%	3.6%	0%	**-**	-	-
% Total	0%	0%	4.7%	0.1%	**4.8%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	43.8%	0%	**43.8%**	-	0%	49.5%	1.9%	0%	**51.4%**	-	-
Lights	0	0	38	1	**39**	-	0	0	0	0	**0**	-	0	0	351	0	**351**	-	0	397	15	0	**412**	-	802
% Lights	0%	0%	100%	100%	**100%**	-	0%	0%	0%	0%	**-**	-	0%	0%	99.4%	0%	**99.4%**	-	0%	99.5%	100%	0%	**99.5%**	-	99.5%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**-**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	-
Buses and Single-Unit Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	2	0	**2**	-	0	2	0	0	**2**	-	-

Leg	Parking Lot						Parking Lot						From/To Churnovic Lane						Parking Lot						
Direction	Eastbound						Westbound						Northbound						Southbound						
Time	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	**Int**
% Buses and Single-Unit Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**-**	-	0%	0%	0.6%	0%	**0.6%**	-	0%	0.5%	0%	0%	**0.5%**	-	0.5%
Pedestrians	-	-	-	-	-	30	-	-	-	-	-	241	-	-	-	-	-	102	-	-	-	-	-	53	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	99.6%	-	-	-	-	-	99.0%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0.4%	-	-	-	-	-	1.0%	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Access Road at West Access - TMC

Thu May 15, 2025
AM Peak (7:30 AM - 8:30 AM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296367, Location: 41.579541, -88.134598

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg / Direction	Parking Lot Eastbound						Parking Lot Westbound						From/To Churnovic Lane Northbound						Parking Lot Southbound						
Time	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	**Int**
2025-05-15 7:30AM	0	0	8	0	**8**	0	0	0	0	0	**0**	28	0	0	17	0	**17**	9	0	74	0	0	**74**	3	**99**
7:45AM	0	0	3	0	**3**	1	0	0	0	0	**0**	6	0	0	27	0	**27**	6	0	20	1	0	**21**	0	**51**
8:00AM	0	0	1	0	**1**	1	0	0	0	0	**0**	12	0	0	42	0	**42**	6	0	8	2	0	**10**	1	**53**
8:15AM	0	0	0	0	**0**	0	0	0	0	0	**0**	31	0	0	81	0	**81**	14	0	10	3	0	**13**	0	**94**
Total	0	0	12	0	**12**	2	0	0	0	0	**0**	77	0	0	167	0	**167**	35	0	112	6	0	**118**	4	**297**
% Approach	0%	0%	100%	0%	**-**	-	0%	0%	0%	0%	**-**	-	0%	0%	100%	0%	**-**	-	0%	94.9%	5.1%	0%	**-**	-	-
% Total	0%	0%	4.0%	0%	**4.0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	56.2%	0%	**56.2%**	-	0%	37.7%	2.0%	0%	**39.7%**	-	-
PHF	-	-	0.375	-	**0.375**	-	-	-	-	-	**-**	-	-	-	0.515	-	**0.515**	-	-	0.378	0.500	-	**0.399**	-	0.750
Lights	0	0	12	0	**12**	-	0	0	0	0	**0**	-	0	0	166	0	**166**	-	0	111	6	0	**117**	-	295
% Lights	0%	0%	100%	0%	**100%**	-	0%	0%	0%	0%	**-**	-	0%	0%	99.4%	0%	**99.4%**	-	0%	99.1%	100%	0%	**99.2%**	-	99.3%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**-**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Buses and Single-Unit Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	1	0	**1**	-	0	1	0	0	**1**	-	2
% Buses and Single-Unit Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**-**	-	0%	0%	0.6%	0%	**0.6%**	-	0%	0.9%	0%	0%	**0.8%**	-	0.7%
Pedestrians	-	-	-	-	-	2	-	-	-	-	-	77	-	-	-	-	-	35	-	-	-	-	-	4	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Access Road at West Access - TMC

Thu May 15, 2025
Midday Peak, PM Peak (1 PM - 2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296367, Location: 41.579541, -88.134598

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg / Direction	Parking Lot Eastbound						Parking Lot Westbound						From/To Churnovic Lane Northbound						Parking Lot Southbound						
Time	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	**Int**
2025-05-15 1:00PM	0	0	0	0	**0**	0	0	0	0	0	**0**	4	0	0	4	0	**4**	1	0	5	0	0	**5**	1	**9**
1:15PM	0	0	1	0	**1**	0	0	0	0	0	**0**	16	0	0	4	0	**4**	0	0	18	0	0	**18**	8	**23**
1:30PM	0	0	8	0	**8**	0	0	0	0	0	**0**	34	0	0	11	0	**11**	9	0	90	1	0	**91**	9	**110**
1:45PM	0	0	0	0	**0**	0	0	0	0	0	**0**	5	0	0	21	0	**21**	3	0	12	0	0	**12**	2	**33**
Total	0	0	9	0	**9**	0	0	0	0	0	**0**	59	0	0	40	0	**40**	13	0	125	1	0	**126**	20	**175**
% Approach	0%	0%	100%	0%	**-**	-	0%	0%	0%	0%	**-**	-	0%	0%	100%	0%	**-**	-	0%	99.2%	0.8%	0%	**-**	-	**-**
% Total	0%	0%	5.1%	0%	**5.1%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	22.9%	0%	**22.9%**	-	0%	71.4%	0.6%	0%	**72.0%**	-	**-**
PHF	-	-	0.281	-	**0.281**	-	-	-	-	-	**-**	-	-	-	0.476	-	**0.476**	-	-	0.347	0.250	-	**0.346**	-	0.398
Lights	0	0	9	0	**9**	-	0	0	0	0	**0**	-	0	0	40	0	**40**	-	0	125	1	0	**126**	-	175
% Lights	0%	0%	100%	0%	**100%**	-	0%	0%	0%	0%	**-**	-	0%	0%	100%	0%	**100%**	-	0%	100%	100%	0%	**100%**	-	100%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**-**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Buses and Single-Unit Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Buses and Single-Unit Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**-**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	58	-	-	-	-	-	12	-	-	-	-	-	20	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	98.3%	-	-	-	-	-	92.3%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	1.7%	-	-	-	-	-	7.7%	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Access Road at West Access - TMC

Thu May 15, 2025
Forced Peak (4 PM - 5 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296367, Location: 41.579541, -88.134598

GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg	Parking Lot Eastbound						Parking Lot Westbound						From/To Churnovic Lane Northbound						Parking Lot Southbound						
Direction																									
Time	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	**Int**
2025-05-15 4:00PM	0	0	0	0	**0**	0	0	0	0	0	**0**	2	0	0	1	0	**1**	3	0	4	0	0	**4**	1	**5**
4:15PM	0	0	0	0	**0**	0	0	0	0	0	**0**	3	0	0	2	0	**2**	0	0	0	0	0	**0**	3	**2**
4:30PM	0	0	1	0	**1**	0	0	0	0	0	**0**	4	0	0	3	0	**3**	3	0	8	0	0	**8**	4	**12**
4:45PM	0	0	1	0	**1**	0	0	0	0	0	**0**	0	0	0	2	0	**2**	1	0	2	0	0	**2**	0	**5**
Total	0	0	2	0	**2**	0	0	0	0	0	**0**	9	0	0	8	0	**8**	7	0	14	0	0	**14**	8	**24**
% Approach	0%	0%	100%	0%	**-**	-	0%	0%	0%	0%	**-**	-	0%	0%	100%	0%	**-**	-	0%	100%	0%	0%	**-**	-	**-**
% Total	0%	0%	8.3%	0%	**8.3%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	33.3%	0%	**33.3%**	-	0%	58.3%	0%	0%	**58.3%**	-	**-**
PHF	-	-	0.500	-	**0.500**	-	-	-	-	-	**-**	-	-	-	0.667	-	**0.667**	-	-	0.438	-	-	**0.438**	-	0.500
Lights	0	0	2	0	**2**	-	0	0	0	0	**0**	-	0	0	8	0	**8**	-	0	14	0	0	**14**	-	24
% Lights	0%	0%	100%	0%	**100%**	-	0%	0%	0%	0%	**-**	-	0%	0%	100%	0%	**100%**	-	0%	100%	0%	0%	**100%**	-	100%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**-**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Buses and Single-Unit Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Buses and Single-Unit Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**-**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	9	-	-	-	-	-	7	-	-	-	-	-	8	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Access Road at Middle Access - TMC

Thu May 15, 2025
Full Length (6 AM-9 AM, 11 AM-2 PM, 3 PM-6 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296368, Location: 41.579601, -88.133525

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg / Direction	Parking Lot Eastbound						From/To Enterprise Bl Westbound						Parking Lot Northbound						Parking Lot Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2025-05-15 6:00AM	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	5	0	0	**5**	0	0	1	0	0	**1**	0	**6**
6:15AM	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**
6:30AM	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	3	0	0	**3**	0	0	0	0	0	**0**	0	**3**
6:45AM	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	1	0	0	**1**	0	0	1	0	0	**1**	0	**2**
Hourly Total	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	9	0	0	**9**	0	0	2	0	0	**2**	0	**11**
7:00AM	0	0	0	0	**0**	1	0	0	0	0	**0**	0	0	4	0	0	**4**	0	0	1	0	0	**1**	0	**5**
7:15AM	0	0	0	0	**0**	1	0	0	0	0	**0**	0	0	4	0	0	**4**	0	0	5	0	0	**5**	0	**9**
7:30AM	0	0	0	0	**0**	2	0	0	0	0	**0**	2	0	25	0	0	**25**	0	0	6	0	0	**6**	3	**31**
7:45AM	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	6	0	0	**6**	0	0	9	0	0	**9**	1	**15**
Hourly Total	0	0	0	0	**0**	4	0	0	0	0	**0**	2	0	39	0	0	**39**	0	0	21	0	0	**21**	4	**60**
8:00AM	0	0	0	0	**0**	0	0	0	0	0	**0**	2	0	4	0	0	**4**	0	0	11	0	0	**11**	0	**15**
8:15AM	0	0	0	0	**0**	6	0	0	0	0	**0**	3	0	5	0	0	**5**	1	0	16	1	0	**17**	2	**22**
8:30AM	0	0	0	0	**0**	5	0	0	0	0	**0**	0	0	1	0	0	**1**	0	0	17	0	0	**17**	0	**18**
8:45AM	0	0	0	0	**0**	3	0	0	0	0	**0**	1	0	0	0	0	**0**	1	0	3	0	0	**3**	2	**3**
Hourly Total	0	0	0	0	**0**	14	0	0	0	0	**0**	6	0	10	0	0	**10**	2	0	47	1	0	**48**	4	**58**
11:00AM	0	0	0	0	**0**	1	0	0	0	0	**0**	0	0	4	0	0	**4**	0	0	2	0	0	**2**	3	**6**
11:15AM	0	0	0	0	**0**	1	0	0	0	0	**0**	0	0	3	0	0	**3**	0	0	1	0	0	**1**	1	**4**
11:30AM	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	2	0	0	**2**	0	0	1	0	0	**1**	0	**3**
11:45AM	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	1	0	0	**1**	0	0	1	1	0	**2**	0	**3**
Hourly Total	0	0	0	0	**0**	2	0	0	0	0	**0**	0	0	10	0	0	**10**	0	0	5	1	0	**6**	4	**16**
12:00PM	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	1	0	0	**1**	0	0	2	0	0	**2**	0	**3**
12:15PM	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	1	0	0	**1**	0	0	2	0	0	**2**	0	**3**
12:30PM	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	1	0	0	**1**	0	**1**
12:45PM	0	0	0	0	**0**	1	0	0	0	0	**0**	0	0	2	0	0	**2**	0	0	2	0	0	**2**	0	**4**
Hourly Total	0	0	0	0	**0**	1	0	0	0	0	**0**	0	0	4	0	0	**4**	0	0	7	0	0	**7**	0	**11**
1:00PM	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	2	0	0	**2**	0	0	2	0	0	**2**	0	**4**
1:15PM	1	0	0	0	**1**	0	0	0	0	0	**0**	0	0	7	0	0	**7**	0	0	1	0	0	**1**	0	**9**
1:30PM	1	0	0	0	**1**	1	0	0	0	0	**0**	0	1	23	0	0	**24**	0	0	6	0	0	**6**	1	**31**
1:45PM	1	0	0	0	**1**	0	0	0	0	0	**0**	2	0	3	0	0	**3**	0	0	6	1	0	**7**	0	**11**
Hourly Total	3	0	0	0	**3**	1	0	0	0	0	**0**	2	1	35	0	0	**36**	0	0	15	1	0	**16**	1	**55**
3:00PM	0	0	0	0	**0**	1	0	0	0	0	**0**	0	0	3	0	0	**3**	0	0	1	0	0	**1**	1	**4**
3:15PM	0	0	0	0	**0**	1	0	0	0	0	**0**	0	0	1	0	0	**1**	0	0	1	0	0	**1**	1	**2**
3:30PM	0	0	0	0	**0**	1	0	0	0	0	**0**	0	0	1	0	0	**1**	0	0	1	0	0	**1**	1	**2**
3:45PM	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	1	0	0	**1**	0	**1**
Hourly Total	0	0	0	0	**0**	3	0	0	0	0	**0**	0	0	5	0	0	**5**	0	0	4	0	0	**4**	3	**9**
4:00PM	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**
4:15PM	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**
4:30PM	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	2	0	0	**2**	0	0	2	0	0	**2**	0	**4**
4:45PM	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	1	0	0	**1**	0	0	1	0	0	**1**	0	**2**
Hourly Total	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	3	0	0	**3**	0	0	3	0	0	**3**	0	**6**
5:00PM	0	0	0	0	**0**	1	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	**0**
5:15PM	0	0	0	0	**0**	5	0	0	0	0	**0**	1	0	0	0	0	**0**	0	0	0	0	0	**0**	3	**0**
5:30PM	0	0	0	0	**0**	3	0	0	0	0	**0**	0	0	4	0	0	**4**	0	0	2	0	0	**2**	3	**6**
5:45PM	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	1	0	0	**1**	0	**1**
Hourly Total	0	0	0	0	**0**	9	0	0	0	0	**0**	1	0	4	0	0	**4**	0	0	3	0	0	**3**	6	**7**
Total	3	0	0	0	**3**	34	0	0	0	0	**0**	11	1	119	0	0	**120**	2	0	107	3	0	**110**	22	**233**
% Approach	100%	0%	0%	0%	**-**	-	0%	0%	0%	0%	**-**	-	0.8%	99.2%	0%	0%	**-**	-	0%	97.3%	2.7%	0%	**-**	-	-
% Total	1.3%	0%	0%	0%	**1.3%**	-	0%	0%	0%	0%	**0%**	-	0.4%	51.1%	0%	0%	**51.5%**	-	0%	45.9%	1.3%	0%	**47.2%**	-	-
Lights	3	0	0	0	**3**	-	0	0	0	0	**0**	-	1	118	0	0	**119**	-	0	106	3	0	**109**	-	231
% Lights	100%	0%	0%	0%	**100%**	-	0%	0%	0%	0%	**-**	-	100%	99.2%	0%	0%	**99.2%**	-	0%	99.1%	100%	0%	**99.1%**	-	99.1%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**-**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	-
Buses and Single-Unit Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	1	0	0	**1**	-	0	1	0	0	**1**	-	-

Leg	Parking Lot						From/To Enterprise Bl						Parking Lot						Parking Lot						
Direction	Eastbound						Westbound						Northbound						Southbound						
Time	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	**Int**
% Buses and Single-Unit Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**-**	-	0%	0.8%	0%	0%	**0.8%**	-	0%	0.9%	0%	0%	**0.9%**	-	0.9%
Pedestrians	-	-	-	-	-	34	-	-	-	-	-	11	-	-	-	-	-	2	-	-	-	-	-	22	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Access Road at Middle Access - TMC

Thu May 15, 2025
AM Peak (7:30 AM - 8:30 AM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296368, Location: 41.579601, -88.133525

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg / Direction	Parking Lot Eastbound						From/To Enterprise Bl Westbound						Parking Lot Northbound						Parking Lot Southbound						
Time	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	**Int**
2025-05-15 7:30AM	0	0	0	0	**0**	2	0	0	0	0	**0**	2	0	25	0	0	**25**	0	0	6	0	0	**6**	3	**31**
7:45AM	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	6	0	0	**6**	0	0	9	0	0	**9**	1	**15**
8:00AM	0	0	0	0	**0**	0	0	0	0	0	**0**	2	0	4	0	0	**4**	0	0	11	0	0	**11**	0	**15**
8:15AM	0	0	0	0	**0**	6	0	0	0	0	**0**	3	0	5	0	0	**5**	1	0	16	1	0	**17**	2	**22**
Total	0	0	0	0	**0**	8	0	0	0	0	**0**	7	0	40	0	0	**40**	1	0	42	1	0	**43**	6	**83**
% Approach	0%	0%	0%	0%	**-**	-	0%	0%	0%	0%	**-**	-	0%	100%	0%	0%	**-**	-	0%	97.7%	2.3%	0%	**-**	-	**-**
% Total	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	48.2%	0%	0%	**48.2%**	-	0%	50.6%	1.2%	0%	**51.8%**	-	**-**
PHF	-	-	-	-	**-**	-	-	-	-	-	**-**	-	-	0.400	-	-	**0.400**	-	-	0.656	0.250	-	**0.632**	-	0.669
Lights	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	40	0	0	**40**	-	0	42	1	0	**43**	-	83
% Lights	0%	0%	0%	0%	**-**	-	0%	0%	0%	0%	**-**	-	0%	100%	0%	0%	**100%**	-	0%	100%	100%	0%	**100%**	-	100%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	0%	**-**	-	0%	0%	0%	0%	**-**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Buses and Single-Unit Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Buses and Single-Unit Trucks	0%	0%	0%	0%	**-**	-	0%	0%	0%	0%	**-**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	-	8	-	-	-	-	-	7	-	-	-	-	-	1	-	-	-	-	-	6	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Access Road at Middle Access - TMC

Thu May 15, 2025
Midday Peak, PM Peak (1 PM - 2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296368, Location: 41.579601, -88.133525

GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg / Direction	Parking Lot Eastbound						From/To Enterprise Bl Westbound						Parking Lot Northbound						Parking Lot Southbound						
Time	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	**Int**
2025-05-15 1:00PM	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	2	0	0	**2**	0	0	2	0	0	**2**	0	**4**
1:15PM	1	0	0	0	**1**	0	0	0	0	0	**0**	0	0	7	0	0	**7**	0	0	1	0	0	**1**	0	**9**
1:30PM	1	0	0	0	**1**	1	0	0	0	0	**0**	0	1	23	0	0	**24**	0	0	6	0	0	**6**	1	**31**
1:45PM	1	0	0	0	**1**	0	0	0	0	0	**0**	2	0	3	0	0	**3**	0	0	6	1	0	**7**	0	**11**
Total	3	0	0	0	**3**	1	0	0	0	0	**0**	2	1	35	0	0	**36**	0	0	15	1	0	**16**	1	**55**
% Approach	100%	0%	0%	0%	**-**	-	0%	0%	0%	0%	**-**	-	2.8%	97.2%	0%	0%	**-**	-	0%	93.8%	6.3%	0%	**-**	-	**-**
% Total	5.5%	0%	0%	0%	**5.5%**	-	0%	0%	0%	0%	**0%**	-	1.8%	63.6%	0%	0%	**65.5%**	-	0%	27.3%	1.8%	0%	**29.1%**	-	**-**
PHF	0.750	-	-	-	**0.750**	-	-	-	-	-	**-**	-	0.250	0.380	-	-	**0.375**	-	-	0.625	0.250	-	**0.571**	-	0.444
Lights	3	0	0	0	**3**	-	0	0	0	0	**0**	-	1	35	0	0	**36**	-	0	15	1	0	**16**	-	55
% Lights	100%	0%	0%	0%	**100%**	-	0%	0%	0%	0%	**-**	-	100%	100%	0%	0%	**100%**	-	0%	100%	100%	0%	**100%**	-	100%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**-**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Buses and Single-Unit Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Buses and Single-Unit Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**-**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	1	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Access Road at East Access - TMC

Thu May 15, 2025
Full Length (6 AM-9 AM, 11 AM-2 PM, 3 PM-6 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296369, Location: 41.579578, -88.132122

GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Access Eastbound					From/To Enterprise Bl Westbound					Access Northbound					
Time	T	R	U	**App**	Ped*	L	T	U	**App**	Ped*	L	R	U	**App**	Ped*	**Int**
2025-05-15 6:00AM	0	0	0	**0**	0	4	0	0	**4**	0	0	0	0	**0**	0	**4**
6:15AM	0	0	0	**0**	0	6	0	0	**6**	0	0	0	0	**0**	0	**6**
6:30AM	0	0	0	**0**	0	6	0	0	**6**	0	0	0	0	**0**	0	**6**
6:45AM	0	0	0	**0**	0	4	0	0	**4**	0	0	0	0	**0**	0	**4**
Hourly Total	0	0	0	**0**	0	20	0	0	**20**	0	0	0	0	**0**	0	**20**
7:00AM	0	0	0	**0**	0	6	0	1	**7**	0	0	0	0	**0**	0	**7**
7:15AM	0	0	0	**0**	0	3	0	0	**3**	0	0	0	0	**0**	0	**3**
7:30AM	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	**0**
7:45AM	0	0	0	**0**	0	3	0	0	**3**	0	0	0	0	**0**	0	**3**
Hourly Total	0	0	0	**0**	0	12	0	1	**13**	0	0	0	0	**0**	0	**13**
8:00AM	0	0	0	**0**	0	6	0	0	**6**	0	0	0	0	**0**	0	**6**
8:15AM	0	0	0	**0**	0	4	1	0	**5**	0	0	0	0	**0**	0	**5**
8:30AM	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	**0**
8:45AM	0	0	0	**0**	0	3	0	0	**3**	0	0	0	0	**0**	0	**3**
Hourly Total	0	0	0	**0**	0	13	1	0	**14**	0	0	0	0	**0**	0	**14**
11:00AM	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	**0**
11:15AM	0	0	0	**0**	0	4	0	0	**4**	0	0	0	0	**0**	0	**4**
11:30AM	0	0	0	**0**	0	3	0	0	**3**	0	0	0	0	**0**	0	**3**
11:45AM	0	0	0	**0**	0	3	0	0	**3**	0	0	0	0	**0**	0	**3**
Hourly Total	0	0	0	**0**	0	10	0	0	**10**	0	0	0	0	**0**	0	**10**
12:00PM	0	0	0	**0**	0	2	0	0	**2**	0	0	0	0	**0**	0	**2**
12:15PM	1	1	0	**2**	0	5	0	0	**5**	0	0	0	0	**0**	0	**7**
12:30PM	1	0	0	**1**	0	2	0	0	**2**	0	0	0	0	**0**	0	**3**
12:45PM	0	0	0	**0**	0	5	0	0	**5**	0	0	0	0	**0**	0	**5**
Hourly Total	2	1	0	**3**	0	14	0	0	**14**	0	0	0	0	**0**	0	**17**
1:00PM	0	0	0	**0**	0	5	0	0	**5**	0	0	0	0	**0**	0	**5**
1:15PM	0	0	0	**0**	0	3	0	0	**3**	0	0	0	0	**0**	0	**3**
1:30PM	0	0	0	**0**	0	6	0	0	**6**	0	0	0	0	**0**	0	**6**
1:45PM	0	0	0	**0**	0	2	0	0	**2**	0	0	0	0	**0**	0	**2**
Hourly Total	0	0	0	**0**	0	16	0	0	**16**	0	0	0	0	**0**	0	**16**
3:00PM	0	0	0	**0**	0	3	0	0	**3**	0	0	0	0	**0**	0	**3**
3:15PM	0	0	0	**0**	0	1	0	0	**1**	0	0	0	0	**0**	0	**1**
3:30PM	0	0	0	**0**	0	4	0	0	**4**	0	0	0	0	**0**	0	**4**
3:45PM	0	0	0	**0**	0	3	0	0	**3**	0	0	0	0	**0**	0	**3**
Hourly Total	0	0	0	**0**	0	11	0	0	**11**	0	0	0	0	**0**	0	**11**
4:00PM	0	0	0	**0**	0	4	0	0	**4**	0	0	0	0	**0**	0	**4**
4:15PM	1	0	0	**1**	0	3	0	0	**3**	0	0	0	0	**0**	0	**4**
4:30PM	0	0	0	**0**	0	3	0	0	**3**	0	0	0	0	**0**	0	**3**
4:45PM	0	0	0	**0**	0	2	0	0	**2**	0	0	0	0	**0**	0	**2**
Hourly Total	1	0	0	**1**	0	12	0	0	**12**	0	0	0	0	**0**	0	**13**
5:00PM	0	0	0	**0**	0	4	0	0	**4**	0	0	0	0	**0**	0	**4**
5:15PM	0	0	0	**0**	0	3	0	0	**3**	0	0	0	0	**0**	0	**3**
5:30PM	0	0	0	**0**	0	1	0	0	**1**	0	0	0	0	**0**	0	**1**
5:45PM	2	0	0	**2**	0	0	0	0	**0**	0	0	0	0	**0**	0	**2**
Hourly Total	2	0	0	**2**	0	8	0	0	**8**	0	0	0	0	**0**	0	**10**
Total	5	1	0	**6**	0	116	1	1	**118**	0	0	0	0	**0**	0	**124**
% Approach	83.3%	16.7%	0%	**-**	-	98.3%	0.8%	0.8%	**-**	-	0%	0%	0%	**-**	-	-
% Total	4.0%	0.8%	0%	**4.8%**	-	93.5%	0.8%	0.8%	**95.2%**	-	0%	0%	0%	**0%**	-	-
Lights	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Lights	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**-**	-	0%
Articulated Trucks	5	1	0	**6**	-	49	0	0	**49**	-	0	0	0	**0**	-	55
% Articulated Trucks	100%	100%	0%	**100%**	-	42.2%	0%	0%	**41.5%**	-	0%	0%	0%	**-**	-	4
Buses and Single-Unit Trucks	0	0	0	**0**	-	67	1	1	**69**	-	0	0	0	**0**	-	

Leg	Access					From/To Enterprise Bl					Access					
Direction	Eastbound					Westbound					Northbound					
Time	T	R	U	**App**	Ped*	L	T	U	**App**	Ped*	L	R	U	**App**	Ped*	**Int**
% Buses and Single-Unit Trucks	0%	0%	0%	**0%**	-	57.8%	100%	100%	**58.5%**	-	0%	0%	0%	**-**	-	55.6%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Access Road at East Access - TMC

Thu May 15, 2025
PM Peak (1 PM - 2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296369, Location: 41.579578, -88.132122

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Access Eastbound					From/To Enterprise Bl Westbound					Access Northbound					
Time	T	R	U	**App**	Ped*	L	T	U	**App**	Ped*	L	R	U	**App**	Ped*	**Int**
2025-05-15 1:00PM	0	0	0	**0**	0	5	0	0	**5**	0	0	0	0	**0**	0	**5**
1:15PM	0	0	0	**0**	0	3	0	0	**3**	0	0	0	0	**0**	0	**3**
1:30PM	0	0	0	**0**	0	6	0	0	**6**	0	0	0	0	**0**	0	**6**
1:45PM	0	0	0	**0**	0	2	0	0	**2**	0	0	0	0	**0**	0	**2**
Total	0	0	0	**0**	0	16	0	0	**16**	0	0	0	0	**0**	0	**16**
% Approach	0%	0%	0%	**-**	-	100%	0%	0%	**-**	-	0%	0%	0%	**-**	-	-
% Total	0%	0%	0%	**0%**	-	100%	0%	0%	**100%**	-	0%	0%	0%	**0%**	-	-
PHF	-	-	-	**-**	-	0.667	-	-	**0.667**	-	-	-	-	**-**	-	0.667
Lights	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Lights	0%	0%	0%	**-**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**-**	-	0%
Articulated Trucks	0	0	0	**0**	-	6	0	0	**6**	-	0	0	0	**0**	-	6
% Articulated Trucks	0%	0%	0%	**-**	-	37.5%	0%	0%	**37.5%**	-	0%	0%	0%	**-**	-	37.5%
Buses and Single-Unit Trucks	0	0	0	**0**	-	10	0	0	**10**	-	0	0	0	**0**	-	10
% Buses and Single-Unit Trucks	0%	0%	0%	**-**	-	62.5%	0%	0%	**62.5%**	-	0%	0%	0%	**-**	-	62.5%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Access Road at East Access - TMC

Thu May 15, 2025
Forced Peak (4 PM - 5 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296369, Location: 41.579578, -88.132122

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Access Eastbound					From/To Enterprise Bl Westbound					Access Northbound					
Time	T	R	U	**App**	Ped*	L	T	U	**App**	Ped*	L	R	U	**App**	Ped*	**Int**
2025-05-15 4:00PM	0	0	0	**0**	0	4	0	0	**4**	0	0	0	0	**0**	0	**4**
4:15PM	1	0	0	**1**	0	3	0	0	**3**	0	0	0	0	**0**	0	**4**
4:30PM	0	0	0	**0**	0	3	0	0	**3**	0	0	0	0	**0**	0	**3**
4:45PM	0	0	0	**0**	0	2	0	0	**2**	0	0	0	0	**0**	0	**2**
Total	1	0	0	**1**	0	12	0	0	**12**	0	0	0	0	**0**	0	**13**
% Approach	100%	0%	0%	**-**	-	100%	0%	0%	**-**	-	0%	0%	0%	**-**	-	-
% Total	7.7%	0%	0%	**7.7%**	-	92.3%	0%	0%	**92.3%**	-	0%	0%	0%	**0%**	-	-
PHF	0.250	-	-	**0.250**	-	0.750	-	-	**0.750**	-	-	-	-	**-**	-	0.813
Lights	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Lights	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**-**	-	0%
Articulated Trucks	1	0	0	**1**	-	6	0	0	**6**	-	0	0	0	**0**	-	7
% Articulated Trucks	100%	0%	0%	**100%**	-	50.0%	0%	0%	**50.0%**	-	0%	0%	0%	**-**	-	53.8%
Buses and Single-Unit Trucks	0	0	0	**0**	-	6	0	0	**6**	-	0	0	0	**0**	-	6
% Buses and Single-Unit Trucks	0%	0%	0%	**0%**	-	50.0%	0%	0%	**50.0%**	-	0%	0%	0%	**-**	-	46.2%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Churnovic Lane at Truck Access - TMC

Thu May 15, 2025
Full Length (6 AM-9 AM, 11 AM-2 PM, 3 PM-6 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296370, Location: 41.578965, -88.13522

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Access Westbound					Churnovic Lane Northbound					Churnovic Lane Southbound					
Time	L	R	U	**App**	Ped*	T	R	U	**App**	Ped*	L	T	U	**App**	Ped*	**Int**
2025-05-15 6:00AM	1	0	0	**1**	1	5	0	0	**5**	0	0	11	0	**11**	0	**17**
6:15AM	2	2	0	**4**	1	3	0	0	**3**	0	0	18	0	**18**	0	**25**
6:30AM	5	1	0	**6**	0	4	0	0	**4**	0	0	13	0	**13**	0	**23**
6:45AM	0	2	0	**2**	2	3	1	0	**4**	0	0	27	0	**27**	0	**33**
Hourly Total	8	5	0	**13**	4	15	1	0	**16**	0	0	69	0	**69**	0	**98**
7:00AM	1	2	0	**3**	0	3	0	0	**3**	0	0	20	0	**20**	0	**26**
7:15AM	1	2	0	**3**	0	5	0	0	**5**	0	0	21	0	**21**	0	**29**
7:30AM	1	5	0	**6**	0	7	0	0	**7**	0	0	14	0	**14**	0	**27**
7:45AM	1	5	0	**6**	0	5	0	0	**5**	0	0	26	0	**26**	0	**37**
Hourly Total	4	14	0	**18**	0	20	0	0	**20**	0	0	81	0	**81**	0	**119**
8:00AM	1	3	0	**4**	0	5	0	0	**5**	0	0	13	0	**13**	0	**22**
8:15AM	1	2	0	**3**	0	6	0	0	**6**	0	0	19	0	**19**	0	**28**
8:30AM	2	1	0	**3**	0	3	0	0	**3**	0	0	15	0	**15**	0	**21**
8:45AM	1	1	0	**2**	0	4	0	0	**4**	0	0	26	0	**26**	0	**32**
Hourly Total	5	7	0	**12**	0	18	0	0	**18**	0	0	73	0	**73**	0	**103**
11:00AM	0	3	0	**3**	0	6	0	0	**6**	0	0	6	0	**6**	0	**15**
11:15AM	2	2	0	**4**	0	3	0	0	**3**	0	0	17	0	**17**	0	**24**
11:30AM	3	2	0	**5**	0	5	0	0	**5**	0	0	13	0	**13**	0	**23**
11:45AM	1	1	0	**2**	0	3	0	0	**3**	0	1	10	0	**11**	0	**16**
Hourly Total	6	8	0	**14**	0	17	0	0	**17**	0	1	46	0	**47**	0	**78**
12:00PM	0	1	0	**1**	0	7	0	0	**7**	0	1	0	0	**1**	0	**9**
12:15PM	1	1	0	**2**	0	8	0	0	**8**	0	0	5	0	**5**	0	**15**
12:30PM	0	2	0	**2**	0	5	0	0	**5**	0	0	16	0	**16**	0	**23**
12:45PM	1	3	0	**4**	0	7	0	0	**7**	0	1	16	0	**17**	0	**28**
Hourly Total	2	7	0	**9**	0	27	0	0	**27**	0	2	37	0	**39**	0	**75**
1:00PM	2	0	0	**2**	0	4	1	0	**5**	0	0	14	0	**14**	0	**21**
1:15PM	1	1	0	**2**	0	2	0	0	**2**	0	0	17	0	**17**	0	**21**
1:30PM	4	1	0	**5**	0	2	0	0	**2**	0	0	20	0	**20**	0	**27**
1:45PM	1	1	0	**2**	0	5	0	0	**5**	0	0	17	0	**17**	0	**24**
Hourly Total	8	3	0	**11**	0	13	1	0	**14**	0	0	68	0	**68**	0	**93**
3:00PM	3	1	0	**4**	0	8	0	0	**8**	0	0	14	0	**14**	0	**26**
3:15PM	0	0	0	**0**	0	4	0	0	**4**	0	0	9	0	**9**	0	**13**
3:30PM	2	0	0	**2**	0	9	0	0	**9**	0	0	12	0	**12**	0	**23**
3:45PM	1	1	0	**2**	0	6	0	0	**6**	0	0	15	0	**15**	0	**23**
Hourly Total	6	2	0	**8**	0	27	0	0	**27**	0	0	50	0	**50**	0	**85**
4:00PM	2	0	0	**2**	0	8	0	0	**8**	0	0	27	0	**27**	0	**37**
4:15PM	0	0	0	**0**	0	6	0	0	**6**	0	0	9	0	**9**	0	**15**
4:30PM	1	2	0	**3**	0	10	0	0	**10**	0	0	16	0	**16**	0	**29**
4:45PM	0	1	0	**1**	0	8	0	0	**8**	0	0	13	0	**13**	0	**22**
Hourly Total	3	3	0	**6**	0	32	0	0	**32**	0	0	65	0	**65**	0	**103**
5:00PM	1	2	0	**3**	0	7	0	0	**7**	0	0	17	0	**17**	0	**27**
5:15PM	1	2	0	**3**	0	6	0	0	**6**	0	0	16	0	**16**	0	**25**
5:30PM	0	1	0	**1**	0	5	0	0	**5**	0	0	14	0	**14**	0	**20**
5:45PM	2	2	0	**4**	0	4	0	0	**4**	0	0	23	0	**23**	0	**31**
Hourly Total	4	7	0	**11**	0	22	0	0	**22**	0	0	70	0	**70**	0	**103**
Total	46	56	0	**102**	4	191	2	0	**193**	0	3	559	0	**562**	0	**857**
% Approach	45.1%	54.9%	0%	**-**	-	99.0%	1.0%	0%	**-**	-	0.5%	99.5%	0%	**-**	-	-
% Total	5.4%	6.5%	0%	**11.9%**	-	22.3%	0.2%	0%	**22.5%**	-	0.4%	65.2%	0%	**65.6%**	-	-
Lights	0	3	0	**3**	-	101	1	0	**102**	-	2	229	0	**231**	-	336
% Lights	0%	5.4%	0%	**2.9%**	-	52.9%	50.0%	0%	**52.8%**	-	66.7%	41.0%	0%	**41.1%**	-	39.2%
Articulated Trucks	2	41	0	**43**	-	59	0	0	**59**	-	1	238	0	**239**	-	341
% Articulated Trucks	4.3%	73.2%	0%	**42.2%**	-	30.9%	0%	0%	**30.6%**	-	33.3%	42.6%	0%	**42.5%**	-	3
Buses and Single-Unit Trucks	44	12	0	**56**	-	31	1	0	**32**	-	0	92	0	**92**	-	

Leg	Access					Churnovic Lane					Churnovic Lane					
Direction	Westbound					Northbound					Southbound					
Time	L	R	U	**App**	Ped*	T	R	U	**App**	Ped*	L	T	U	**App**	Ped*	**Int**
% Buses and Single-Unit Trucks	95.7%	21.4%	0%	**54.9%**	-	16.2%	50.0%	0%	**16.6%**	-	0%	16.5%	0%	**16.4%**	-	21.0%
Pedestrians	-	-	-	-	4	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Churnovic Lane at Truck Access - TMC

Thu May 15, 2025
Forced Peak (7:30 AM - 8:30 AM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296370, Location: 41.578965, -88.13522

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Access Westbound					Churnovic Lane Northbound					Churnovic Lane Southbound					
Time	L	R	U	**App**	Ped*	T	R	U	**App**	Ped*	L	T	U	**App**	Ped*	**Int**
2025-05-15 7:30AM	1	5	0	**6**	0	7	0	0	**7**	0	0	14	0	**14**	0	**27**
7:45AM	1	5	0	**6**	0	5	0	0	**5**	0	0	26	0	**26**	0	**37**
8:00AM	1	3	0	**4**	0	5	0	0	**5**	0	0	13	0	**13**	0	**22**
8:15AM	1	2	0	**3**	0	6	0	0	**6**	0	0	19	0	**19**	0	**28**
Total	4	15	0	**19**	0	23	0	0	**23**	0	0	72	0	**72**	0	**114**
% Approach	21.1%	78.9%	0%	**-**	-	100%	0%	0%	**-**	-	0%	100%	0%	**-**	-	**-**
% Total	3.5%	13.2%	0%	**16.7%**	-	20.2%	0%	0%	**20.2%**	-	0%	63.2%	0%	**63.2%**	-	**-**
PHF	1.000	0.750	-	**0.792**	-	0.821	-	-	**0.821**	-	-	0.692	-	**0.692**	-	0.770
Lights	0	1	0	**1**	-	11	0	0	**11**	-	0	43	0	**43**	-	55
% Lights	0%	6.7%	0%	**5.3%**	-	47.8%	0%	0%	**47.8%**	-	0%	59.7%	0%	**59.7%**	-	48.2%
Articulated Trucks	0	11	0	**11**	-	9	0	0	**9**	-	0	23	0	**23**	-	43
% Articulated Trucks	0%	73.3%	0%	**57.9%**	-	39.1%	0%	0%	**39.1%**	-	0%	31.9%	0%	**31.9%**	-	37.7%
Buses and Single-Unit Trucks	4	3	0	**7**	-	3	0	0	**3**	-	0	6	0	**6**	-	16
% Buses and Single-Unit Trucks	100%	20.0%	0%	**36.8%**	-	13.0%	0%	0%	**13.0%**	-	0%	8.3%	0%	**8.3%**	-	14.0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Churnovic Lane at Truck Access - TMC

Thu May 15, 2025
Forced Peak (1 PM - 2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296370, Location: 41.578965, -88.13522

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg / Direction	Access Westbound					Churnovic Lane Northbound					Churnovic Lane Southbound					
Time	L	R	U	**App**	Ped*	T	R	U	**App**	Ped*	L	T	U	**App**	Ped*	**Int**
2025-05-15 1:00PM	2	0	0	**2**	0	4	1	0	**5**	0	0	14	0	**14**	0	**21**
1:15PM	1	1	0	**2**	0	2	0	0	**2**	0	0	17	0	**17**	0	**21**
1:30PM	4	1	0	**5**	0	2	0	0	**2**	0	0	20	0	**20**	0	**27**
1:45PM	1	1	0	**2**	0	5	0	0	**5**	0	0	17	0	**17**	0	**24**
Total	8	3	0	**11**	0	13	1	0	**14**	0	0	68	0	**68**	0	**93**
% Approach	72.7%	27.3%	0%	**-**	-	92.9%	7.1%	0%	**-**	-	0%	100%	0%	**-**	-	**-**
% Total	8.6%	3.2%	0%	**11.8%**	-	14.0%	1.1%	0%	**15.1%**	-	0%	73.1%	0%	**73.1%**	-	**-**
PHF	0.500	0.750	-	**0.550**	-	0.650	0.250	-	**0.700**	-	-	0.850	-	**0.850**	-	0.861
Lights	0	0	0	**0**	-	5	0	0	**5**	-	0	34	0	**34**	-	39
% Lights	0%	0%	0%	**0%**	-	38.5%	0%	0%	**35.7%**	-	0%	50.0%	0%	**50.0%**	-	41.9%
Articulated Trucks	0	3	0	**3**	-	5	0	0	**5**	-	0	21	0	**21**	-	29
% Articulated Trucks	0%	100%	0%	**27.3%**	-	38.5%	0%	0%	**35.7%**	-	0%	30.9%	0%	**30.9%**	-	31.2%
Buses and Single-Unit Trucks	8	0	0	**8**	-	3	1	0	**4**	-	0	13	0	**13**	-	25
% Buses and Single-Unit Trucks	100%	0%	0%	**72.7%**	-	23.1%	100%	0%	**28.6%**	-	0%	19.1%	0%	**19.1%**	-	26.9%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Churnovic Lane at Truck Access - TMC

Thu May 15, 2025
Forced Peak (4 PM - 5 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296370, Location: 41.578965, -88.13522

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Access Westbound					Churnovic Lane Northbound					Churnovic Lane Southbound					
Time	L	R	U	**App**	Ped*	T	R	U	**App**	Ped*	L	T	U	**App**	Ped*	**Int**
2025-05-15 4:00PM	2	0	0	**2**	0	8	0	0	**8**	0	0	27	0	**27**	0	**37**
4:15PM	0	0	0	**0**	0	6	0	0	**6**	0	0	9	0	**9**	0	**15**
4:30PM	1	2	0	**3**	0	10	0	0	**10**	0	0	16	0	**16**	0	**29**
4:45PM	0	1	0	**1**	0	8	0	0	**8**	0	0	13	0	**13**	0	**22**
Total	3	3	0	**6**	0	32	0	0	**32**	0	0	65	0	**65**	0	**103**
% Approach	50.0%	50.0%	0%	**-**	-	100%	0%	0%	**-**	-	0%	100%	0%	**-**	-	**-**
% Total	2.9%	2.9%	0%	**5.8%**	-	31.1%	0%	0%	**31.1%**	-	0%	63.1%	0%	**63.1%**	-	**-**
PHF	0.375	0.375	-	**0.500**	-	0.800	-	-	**0.800**	-	-	0.602	-	**0.602**	-	0.696
Lights	0	0	0	**0**	-	21	0	0	**21**	-	0	20	0	**20**	-	41
% Lights	0%	0%	0%	**0%**	-	65.6%	0%	0%	**65.6%**	-	0%	30.8%	0%	**30.8%**	-	39.8%
Articulated Trucks	1	3	0	**4**	-	6	0	0	**6**	-	0	34	0	**34**	-	44
% Articulated Trucks	33.3%	100%	0%	**66.7%**	-	18.8%	0%	0%	**18.8%**	-	0%	52.3%	0%	**52.3%**	-	42.7%
Buses and Single-Unit Trucks	2	0	0	**2**	-	5	0	0	**5**	-	0	11	0	**11**	-	18
% Buses and Single-Unit Trucks	66.7%	0%	0%	**33.3%**	-	15.6%	0%	0%	**15.6%**	-	0%	16.9%	0%	**16.9%**	-	17.5%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Lidice Parkway at Truck Access - TMC

Thu May 15, 2025
Full Length (6 AM-9 AM, 11 AM-2 PM, 3 PM-6 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296371, Location: 41.576842, -88.132013

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg	Lidice Parkway						Lidice Parkway						Access						Access						
Direction	Eastbound						Westbound						Northbound						Southbound						
Time	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	**Int**
2025-05-15 6:00AM	0	12	0	0	**12**	0	0	1	0	0	**1**	0	0	0	0	0	**0**	0	0	0	2	0	**2**	0	**15**
6:15AM	0	14	0	0	**14**	0	0	2	0	0	**2**	0	0	0	0	0	**0**	0	0	0	3	0	**3**	0	**19**
6:30AM	0	13	0	0	**13**	0	0	1	0	0	**1**	0	0	0	0	0	**0**	0	1	0	3	0	**4**	0	**18**
6:45AM	0	21	0	0	**21**	0	0	1	0	0	**1**	0	0	0	0	0	**0**	0	2	0	5	0	**7**	0	**29**
Hourly Total	0	60	0	0	**60**	0	0	5	0	0	**5**	0	0	0	0	0	**0**	0	3	0	13	0	**16**	0	**81**
7:00AM	0	19	0	0	**19**	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0	4	0	**4**	0	**23**
7:15AM	0	16	1	0	**17**	0	0	5	0	0	**5**	0	0	0	0	0	**0**	0	2	0	4	0	**6**	0	**28**
7:30AM	0	11	1	0	**12**	0	0	3	0	0	**3**	0	0	0	0	0	**0**	0	0	0	2	0	**2**	0	**17**
7:45AM	0	20	0	0	**20**	0	0	3	0	0	**3**	0	1	0	0	0	**1**	0	0	0	3	0	**3**	0	**27**
Hourly Total	0	66	2	0	**68**	0	0	11	0	0	**11**	0	1	0	0	0	**1**	0	2	0	13	0	**15**	0	**95**
8:00AM	0	13	0	0	**13**	0	0	3	1	0	**4**	0	0	0	0	0	**0**	0	2	0	2	0	**4**	0	**21**
8:15AM	0	17	0	0	**17**	0	0	2	0	0	**2**	0	0	0	0	0	**0**	0	1	0	4	0	**5**	0	**24**
8:30AM	0	12	0	0	**12**	0	0	1	0	0	**1**	0	0	0	0	0	**0**	0	1	0	1	0	**2**	0	**15**
8:45AM	0	19	0	0	**19**	0	0	3	0	0	**3**	0	0	0	0	0	**0**	0	1	0	2	0	**3**	0	**25**
Hourly Total	0	61	0	0	**61**	0	0	9	1	0	**10**	0	0	0	0	0	**0**	0	5	0	9	0	**14**	0	**85**
11:00AM	0	3	0	0	**3**	0	0	1	0	0	**1**	0	0	0	0	0	**0**	0	2	0	4	0	**6**	0	**10**
11:15AM	0	16	0	0	**16**	0	0	1	0	0	**1**	0	0	0	0	0	**0**	0	1	0	1	0	**2**	0	**19**
11:30AM	1	9	0	0	**10**	0	0	4	0	0	**4**	0	0	0	0	0	**0**	0	3	0	3	0	**6**	0	**20**
11:45AM	0	13	0	0	**13**	0	0	4	0	0	**4**	0	0	0	0	0	**0**	0	1	0	1	0	**2**	0	**19**
Hourly Total	1	41	0	0	**42**	0	0	10	0	0	**10**	0	0	0	0	0	**0**	0	7	0	9	0	**16**	0	**68**
12:00PM	0	14	1	0	**15**	0	0	3	0	0	**3**	0	0	0	0	0	**0**	0	1	0	1	0	**2**	0	**20**
12:15PM	0	10	0	0	**10**	0	0	2	0	0	**2**	0	1	0	0	0	**1**	0	0	0	5	0	**5**	0	**18**
12:30PM	0	9	0	1	**10**	0	0	3	0	0	**3**	0	0	0	0	0	**0**	0	1	0	3	0	**4**	0	**17**
12:45PM	0	13	0	0	**13**	0	0	2	0	0	**2**	0	0	0	0	0	**0**	0	2	0	3	0	**5**	0	**20**
Hourly Total	0	46	1	1	**48**	0	0	10	0	0	**10**	0	1	0	0	0	**1**	0	4	0	12	0	**16**	0	**75**
1:00PM	0	15	0	0	**15**	0	0	2	0	0	**2**	0	0	0	0	0	**0**	0	1	0	3	0	**4**	0	**21**
1:15PM	0	10	0	0	**10**	0	0	3	0	0	**3**	0	0	0	0	0	**0**	0	3	0	3	0	**6**	0	**19**
1:30PM	0	14	0	0	**14**	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	1	0	1	0	**2**	0	**16**
1:45PM	1	14	0	0	**15**	0	0	3	0	0	**3**	0	0	0	0	0	**0**	0	3	0	4	0	**7**	0	**25**
Hourly Total	1	53	0	0	**54**	0	0	8	0	0	**8**	0	0	0	0	0	**0**	0	8	0	11	0	**19**	0	**81**
3:00PM	0	15	0	0	**15**	0	0	3	0	0	**3**	0	0	0	0	0	**0**	0	2	0	4	0	**6**	0	**24**
3:15PM	0	8	0	0	**8**	0	0	4	0	0	**4**	0	0	0	0	0	**0**	0	2	0	0	0	**2**	0	**14**
3:30PM	1	10	0	0	**11**	0	0	6	0	0	**6**	0	0	0	0	0	**0**	0	0	0	2	0	**2**	0	**19**
3:45PM	0	15	0	0	**15**	0	0	3	0	0	**3**	0	0	0	0	0	**0**	0	1	0	2	0	**3**	0	**21**
Hourly Total	1	48	0	0	**49**	0	0	16	0	0	**16**	0	0	0	0	0	**0**	0	5	0	8	0	**13**	0	**78**
4:00PM	0	25	0	0	**25**	0	0	7	0	0	**7**	0	0	0	0	0	**0**	0	3	0	6	0	**9**	0	**41**
4:15PM	0	9	0	0	**9**	0	0	1	0	0	**1**	0	0	0	0	0	**0**	0	1	0	4	0	**5**	0	**15**
4:30PM	0	14	0	0	**14**	0	0	5	0	0	**5**	0	0	0	0	0	**0**	0	0	0	3	0	**3**	0	**22**
4:45PM	0	13	0	0	**13**	0	0	4	0	0	**4**	0	0	0	0	0	**0**	0	2	0	1	0	**3**	0	**20**
Hourly Total	0	61	0	0	**61**	0	0	17	0	0	**17**	0	0	0	0	0	**0**	0	6	0	14	0	**20**	0	**98**
5:00PM	0	14	0	0	**14**	0	0	4	0	0	**4**	0	0	0	0	0	**0**	0	0	0	2	0	**2**	0	**20**
5:15PM	0	20	1	0	**21**	0	0	2	0	0	**2**	0	0	0	2	0	**2**	0	2	0	3	0	**5**	0	**30**
5:30PM	0	10	0	0	**10**	0	0	3	0	0	**3**	0	0	0	0	0	**0**	0	0	0	1	0	**1**	0	**14**
5:45PM	0	24	0	0	**24**	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	1	0	3	0	**4**	0	**28**
Hourly Total	0	68	1	0	**69**	0	0	9	0	0	**9**	0	0	0	2	0	**2**	0	3	0	9	0	**12**	0	**92**
Total	3	504	4	1	**512**	0	0	95	1	0	**96**	0	2	0	2	0	**4**	0	43	0	98	0	**141**	0	**753**
% Approach	0.6%	98.4%	0.8%	0.2%	**-**	-	0%	99.0%	1.0%	0%	**-**	-	50.0%	0%	50.0%	0%	**-**	-	30.5%	0%	69.5%	0%	**-**	-	-
% Total	0.4%	66.9%	0.5%	0.1%	**68.0%**	-	0%	12.6%	0.1%	0%	**12.7%**	-	0.3%	0%	0.3%	0%	**0.5%**	-	5.7%	0%	13.0%	0%	**18.7%**	-	-
Lights	0	186	3	0	**189**	-	0	56	1	0	**57**	-	2	0	1	0	**3**	-	1	0	1	0	**2**	-	251
% Lights	0%	36.9%	75.0%	0%	**36.9%**	-	0%	58.9%	100%	0%	**59.4%**	-	100%	0%	50.0%	0%	**75.0%**	-	2.3%	0%	1.0%	0%	**1.4%**	-	33.3%
Articulated Trucks	1	208	0	0	**209**	-	0	27	0	0	**27**	-	0	0	0	0	**0**	-	17	0	48	0	**65**	-	301
% Articulated Trucks	33.3%	41.3%	0%	0%	**40.8%**	-	0%	28.4%	0%	0%	**28.1%**	-	0%	0%	0%	0%	**0%**	-	39.5%	0%	49.0%	0%	**46.1%**	-	40.0%
Buses and Single-Unit Trucks	2	110	1	1	**114**	-	0	12	0	0	**12**	-	0	0	1	0	**1**	-	25	0	49	0	**74**	-	-

Leg Direction	Lidice Parkway Eastbound						Lidice Parkway Westbound						Access Northbound						Access Southbound						
Time	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	**Int**
% Buses and Single-Unit Trucks	66.7%	21.8%	25.0%	100%	**22.3%**	-	0%	12.6%	0%	0%	**12.5%**	-	0%	0%	50.0%	0%	**25.0%**	-	58.1%	0%	50.0%	0%	**52.5%**	-	26.7%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Lidice Parkway at Truck Access - TMC

Thu May 15, 2025
Forced Peak (7:30 AM - 8:30 AM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296371, Location: 41.576842, -88.132013

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg / Direction	Lidice Parkway Eastbound						Lidice Parkway Westbound						Access Northbound						Access Southbound						
Time	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	**Int**
2025-05-15 7:30AM	0	11	1	0	**12**	0	0	3	0	0	**3**	0	0	0	0	0	**0**	0	0	0	2	0	**2**	0	**17**
7:45AM	0	20	0	0	**20**	0	0	3	0	0	**3**	0	1	0	0	0	**1**	0	0	0	3	0	**3**	0	**27**
8:00AM	0	13	0	0	**13**	0	0	3	1	0	**4**	0	0	0	0	0	**0**	0	2	0	2	0	**4**	0	**21**
8:15AM	0	17	0	0	**17**	0	0	2	0	0	**2**	0	0	0	0	0	**0**	0	1	0	4	0	**5**	0	**24**
Total	0	61	1	0	**62**	0	0	11	1	0	**12**	0	1	0	0	0	**1**	0	3	0	11	0	**14**	0	**89**
% Approach	0%	98.4%	1.6%	0%	**-**	-	0%	91.7%	8.3%	0%	**-**	-	100%	0%	0%	0%	**-**	-	21.4%	0%	78.6%	0%	**-**	-	**-**
% Total	0%	68.5%	1.1%	0%	**69.7%**	-	0%	12.4%	1.1%	0%	**13.5%**	-	1.1%	0%	0%	0%	**1.1%**	-	3.4%	0%	12.4%	0%	**15.7%**	-	**-**
PHF	-	0.763	0.250	-	**0.775**	-	-	0.917	0.250	-	**0.750**	-	0.250	-	-	-	**0.250**	-	0.375	-	0.688	-	**0.700**	-	0.824
Lights	0	35	1	0	**36**	-	0	6	1	0	**7**	-	1	0	0	0	**1**	-	0	0	0	0	**0**	-	44
% Lights	0%	57.4%	100%	0%	**58.1%**	-	0%	54.5%	100%	0%	**58.3%**	-	100%	0%	0%	0%	**100%**	-	0%	0%	0%	0%	**0%**	-	49.4%
Articulated Trucks	0	16	0	0	**16**	-	0	5	0	0	**5**	-	0	0	0	0	**0**	-	0	0	6	0	**6**	-	27
% Articulated Trucks	0%	26.2%	0%	0%	**25.8%**	-	0%	45.5%	0%	0%	**41.7%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	54.5%	0%	**42.9%**	-	30.3%
Buses and Single-Unit Trucks	0	10	0	0	**10**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	3	0	5	0	**8**	-	18
% Buses and Single-Unit Trucks	0%	16.4%	0%	0%	**16.1%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	100%	0%	45.5%	0%	**57.1%**	-	20.2%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Lidice Parkway at Truck Access - TMC

Thu May 15, 2025
Midday Peak (1 PM - 2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296371, Location: 41.576842, -88.132013

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg / Direction	Lidice Parkway Eastbound						Lidice Parkway Westbound						Access Northbound						Access Southbound						
Time	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	**Int**
2025-05-15 1:00PM	0	15	0	0	**15**	0	0	2	0	0	**2**	0	0	0	0	0	**0**	0	1	0	3	0	**4**	0	**21**
1:15PM	0	10	0	0	**10**	0	0	3	0	0	**3**	0	0	0	0	0	**0**	0	3	0	3	0	**6**	0	**19**
1:30PM	0	14	0	0	**14**	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	1	0	1	0	**2**	0	**16**
1:45PM	1	14	0	0	**15**	0	0	3	0	0	**3**	0	0	0	0	0	**0**	0	3	0	4	0	**7**	0	**25**
Total	1	53	0	0	**54**	0	0	8	0	0	**8**	0	0	0	0	0	**0**	0	8	0	11	0	**19**	0	**81**
% Approach	1.9%	98.1%	0%	0%	**-**	-	0%	100%	0%	0%	**-**	-	0%	0%	0%	0%	**-**	-	42.1%	0%	57.9%	0%	**-**	-	**-**
% Total	1.2%	65.4%	0%	0%	**66.7%**	-	0%	9.9%	0%	0%	**9.9%**	-	0%	0%	0%	0%	**0%**	-	9.9%	0%	13.6%	0%	**23.5%**	-	**-**
PHF	0.250	0.883	-	-	**0.900**	-	-	0.667	-	-	**0.667**	-	-	-	-	-	**-**	-	0.667	-	0.688	-	**0.679**	-	0.810
Lights	0	18	0	0	**18**	-	0	4	0	0	**4**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	22
% Lights	0%	34.0%	0%	0%	**33.3%**	-	0%	50.0%	0%	0%	**50.0%**	-	0%	0%	0%	0%	**-**	-	0%	0%	0%	0%	**0%**	-	27.2%
Articulated Trucks	0	19	0	0	**19**	-	0	1	0	0	**1**	-	0	0	0	0	**0**	-	4	0	6	0	**10**	-	30
% Articulated Trucks	0%	35.8%	0%	0%	**35.2%**	-	0%	12.5%	0%	0%	**12.5%**	-	0%	0%	0%	0%	**-**	-	50.0%	0%	54.5%	0%	**52.6%**	-	37.0%
Buses and Single-Unit Trucks	1	16	0	0	**17**	-	0	3	0	0	**3**	-	0	0	0	0	**0**	-	4	0	5	0	**9**	-	29
% Buses and Single-Unit Trucks	100%	30.2%	0%	0%	**31.5%**	-	0%	37.5%	0%	0%	**37.5%**	-	0%	0%	0%	0%	**-**	-	50.0%	0%	45.5%	0%	**47.4%**	-	35.8%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Lidice Parkway at Truck Access - TMC

Thu May 15, 2025
Forced Peak (4 PM - 5 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1296371, Location: 41.576842, -88.132013

GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg / Direction	Lidice Parkway Eastbound						Lidice Parkway Westbound						Access Northbound						Access Southbound						
Time	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	**Int**
2025-05-15 4:00PM	0	25	0	0	**25**	0	0	7	0	0	**7**	0	0	0	0	0	**0**	0	3	0	6	0	**9**	0	**41**
4:15PM	0	9	0	0	**9**	0	0	1	0	0	**1**	0	0	0	0	0	**0**	0	1	0	4	0	**5**	0	**15**
4:30PM	0	14	0	0	**14**	0	0	5	0	0	**5**	0	0	0	0	0	**0**	0	0	0	3	0	**3**	0	**22**
4:45PM	0	13	0	0	**13**	0	0	4	0	0	**4**	0	0	0	0	0	**0**	0	2	0	1	0	**3**	0	**20**
Total	0	61	0	0	**61**	0	0	17	0	0	**17**	0	0	0	0	0	**0**	0	6	0	14	0	**20**	0	**98**
% Approach	0%	100%	0%	0%	**-**	-	0%	100%	0%	0%	**-**	-	0%	0%	0%	0%	**-**	-	30.0%	0%	70.0%	0%	**-**	-	**-**
% Total	0%	62.2%	0%	0%	**62.2%**	-	0%	17.3%	0%	0%	**17.3%**	-	0%	0%	0%	0%	**0%**	-	6.1%	0%	14.3%	0%	**20.4%**	-	**-**
PHF	-	0.610	-	-	**0.610**	-	-	0.607	-	-	**0.607**	-	-	-	-	-	**-**	-	0.500	-	0.583	-	**0.556**	-	0.598
Lights	0	18	0	0	**18**	-	0	13	0	0	**13**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	31
% Lights	0%	29.5%	0%	0%	**29.5%**	-	0%	76.5%	0%	0%	**76.5%**	-	0%	0%	0%	0%	**-**	-	0%	0%	0%	0%	**0%**	-	31.6%
Articulated Trucks	0	28	0	0	**28**	-	0	4	0	0	**4**	-	0	0	0	0	**0**	-	3	0	6	0	**9**	-	41
% Articulated Trucks	0%	45.9%	0%	0%	**45.9%**	-	0%	23.5%	0%	0%	**23.5%**	-	0%	0%	0%	0%	**-**	-	50.0%	0%	42.9%	0%	**45.0%**	-	41.8%
Buses and Single-Unit Trucks	0	15	0	0	**15**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	3	0	8	0	**11**	-	26
% Buses and Single-Unit Trucks	0%	24.6%	0%	0%	**24.6%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**-**	-	50.0%	0%	57.1%	0%	**55.0%**	-	26.5%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Kimley»Horn

ATTACHMENT 4 – EXISTING (2025) CAPACITY ANALYSIS REPORTS

HCM 7th Signalized Intersection Summary
100: Churnovic Lane/Private Drive & Division Street

Existing (2025) Traffic Volum
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	250	110	140	180	1	80	1	85	1	1	1
Future Volume (veh/h)	1	250	110	140	180	1	80	1	85	1	1	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1796	1737	1781	1938	1870	1678	1870	1752	1870	1870	1870
Adj Flow Rate, veh/h	1	263	116	147	189	1	84	1	89	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	7	11	8	4	2	15	2	10	2	2	2
Cap, veh/h	68	441	194	574	997	5	221	2	218	4	4	4
Arrive On Green	0.37	0.37	0.37	0.08	0.52	0.52	0.14	0.14	0.14	0.01	0.01	0.01
Sat Flow, veh/h	1	1182	520	1697	1926	10	1598	18	1570	579	579	579
Grp Volume(v), veh/h	380	0	0	147	0	190	84	0	90	3	0	0
Grp Sat Flow(s),veh/h/ln	1702	0	0	1697	0	1936	1598	0	1588	1737	0	0
Q Serve(g_s), s	0.0	0.0	0.0	2.6	0.0	2.8	2.6	0.0	2.8	0.1	0.0	0.0
Cycle Q Clear(g_c), s	9.6	0.0	0.0	2.6	0.0	2.8	2.6	0.0	2.8	0.1	0.0	0.0
Prop In Lane	0.00		0.31	1.00		0.01	1.00		0.99	0.33		0.33
Lane Grp Cap(c), veh/h	702	0	0	574	0	1002	221	0	220	11	0	0
V/C Ratio(X)	0.54	0.00	0.00	0.26	0.00	0.19	0.38	0.00	0.41	0.26	0.00	0.00
Avail Cap(c_a), veh/h	1629	0	0	805	0	2321	419	0	416	456	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.5	0.0	0.0	7.6	0.0	6.9	20.9	0.0	21.0	26.4	0.0	0.0
Incr Delay (d2), s/veh	3.0	0.0	0.0	0.2	0.0	0.4	2.3	0.0	2.6	24.6	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.5	0.0	0.0	1.4	0.0	1.7	1.9	0.0	2.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.5	0.0	0.0	7.8	0.0	7.3	23.2	0.0	23.6	51.0	0.0	0.0
LnGrp LOS	B			A		A	C		C	D		
Approach Vol, veh/h		380			337			174			3	
Approach Delay, s/veh		16.5			7.5			23.4			51.0	
Approach LOS		B			A			C			D	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	7.7	25.9		13.4		33.6		6.3				
Change Period (Y+Rc), s	3.5	6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s	11.5	49.0		14.0		64.0		14.0				
Max Q Clear Time (g_c+I1), s	4.6	11.6		4.8		4.8		2.1				
Green Ext Time (p_c), s	0.2	8.3		0.9		4.0		0.0				

Intersection Summary			
HCM 7th Control Delay, s/veh		14.6	
HCM 7th LOS		B	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	250	110	140	180	1	80	1	85	1	1	1
Future Volume (veh/h)	1	250	110	140	180	1	80	1	85	1	1	1
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1796	1737	1781	1938	1870	1678	1870	1752	1870	1870	1870
Adj Flow Rate, veh/h	1	263	116	147	189	1	84	1	89	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	7	11	8	4	2	15	2	10	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	68	441	194	574	997	5	221	2	218	4	4	4
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.37	0.37	0.37	0.08	0.52	0.52	0.14	0.14	0.14	0.01	0.01	0.01
Unsig. Movement Delay												
Ln Grp Delay, s/veh	16.5	0.0	0.0	7.8	0.0	7.3	23.2	0.0	23.6	51.0	0.0	0.0
Ln Grp LOS	B			A		A	C		C	D		
Approach Vol, veh/h		380			337			174			3	
Approach Delay, s/veh		16.5			7.5			23.4			51.0	
Approach LOS		B			A			C			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8	4		6		
Case No	1.2	8.3	12.0	10.0		4.0		
Phs Duration (G+Y+Rc), s	7.7	25.9	6.3	13.4		33.6		
Change Period (Y+Rc), s	3.5	6.0	6.0	6.0		6.0		
Max Green (Gmax), s	11.5	49.0	14.0	14.0		64.0		
Max Allow Headway (MAH), s	3.8	9.2	7.5	6.8		9.1		
Max Q Clear (g_c+I1), s	4.6	11.6	2.1	4.8		4.8		
Green Ext Time (g_e), s	0.2	8.3	0.0	0.9		4.0		
Prob of Phs Call (p_c)	0.89	1.00	0.04	0.92		1.00		
Prob of Max Out (p_x)	0.06	0.05	0.00	0.42		0.00		

Left-Turn Movement Data								
Assigned Mvmt	1	5	3	7				
Mvmt Sat Flow, veh/h	1697	1	579	1598				

Through Movement Data								
Assigned Mvmt		2	8	4		6		
Mvmt Sat Flow, veh/h		1182	579	18		1926		

Right-Turn Movement Data								
Assigned Mvmt		12	18	14		16		
Mvmt Sat Flow, veh/h		520	579	1570		10		

Left Lane Group Data								
Assigned Mvmt	1	5	3	7	0	0	0	0

Lane Assignment	L (Pr/Pm)	L+T+R	L+T+R	L				
Lanes in Grp	1	1	1	1	0	0	0	0
Grp Vol (v), veh/h	147	380	3	84	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1697	1702	1737	1598	0	0	0	0
Q Serve Time (g_s), s	2.6	0.0	0.1	2.6	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	2.6	9.6	0.1	2.6	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	956	1212	0	1598	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	554	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	21.9	19.9	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	10.3	19.9	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.33	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	574	702	11	221	0	0	0	0
V/C Ratio (X)	0.26	0.54	0.26	0.38	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	805	1629	456	419	0	0	0	0
Upstream Filter (I)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	7.6	13.5	26.4	20.9	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.2	3.0	24.6	2.3	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.8	16.5	51.0	23.2	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.7	3.0	0.0	0.9	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.1	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	1.80	1.80	1.80	0.00	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	1.4	6.5	0.2	1.9	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.18	0.07	0.03	0.27	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	4	0	6	0	0
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	14	0	16	0	0
Lane Assignment				T+R		T+R		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	90	0	190	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1588	0	1936	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	2.8	0.0	2.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	2.8	0.0	2.8	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.31	0.33	0.99	0.00	0.01	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	220	0	1002	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.41	0.00	0.19	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	416	0	2321	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	21.0	0.0	6.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.6	0.0	0.4	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	23.6	0.0	7.3	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.0	0.0	0.8	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.80	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	2.0	0.0	1.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.18	0.00	0.05	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	14.6
HCM 7th LOS	B

Intersection	
Int Delay, s/veh	5.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	125	40	1	165	75
Future Vol, veh/h	1	125	40	1	165	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	39	2	2	32
Mvmt Flow	1	132	42	1	174	79

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	469	43	0	0	43	0
Stage 1	43	-	-	-	-	-
Stage 2	426	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	553	1028	-	-	1565	-
Stage 1	980	-	-	-	-	-
Stage 2	659	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	489	1028	-	-	1565	-
Mov Cap-2 Maneuver	518	-	-	-	-	-
Stage 1	980	-	-	-	-	-
Stage 2	582	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.06	0	5.22
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1020	1238	-
HCM Lane V/C Ratio	-	-	0.13	0.111	-
HCM Control Delay (s/veh)	-	-	9.1	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.4	-

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	15	25	0	1	70
Future Vol, veh/h	5	15	25	0	1	70
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	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	73	39	2	2	32
Mvmt Flow	5	16	26	0	1	74

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	102	26	0	0	26	0
Stage 1	26	-	-	-	-	-
Stage 2	76	-	-	-	-	-
Critical Hdwy	6.42	6.93	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.957	-	-	2.218	-
Pot Cap-1 Maneuver	896	877	-	-	1588	-
Stage 1	996	-	-	-	-	-
Stage 2	947	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	896	877	-	-	1588	-
Mov Cap-2 Maneuver	848	-	-	-	-	-
Stage 1	996	-	-	-	-	-
Stage 2	947	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.24	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	870	1588	-
HCM Lane V/C Ratio	-	-	0.024	0.001	-
HCM Control Delay (s/veh)	-	-	9.2	7.3	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	60	1	1	10	1	1	1	1	5	1	10
Future Vol, veh/h	1	60	1	1	10	1	1	1	1	5	1	10
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	26	2	2	46	2	2	2	2	2	2	55
Mvmt Flow	1	63	1	1	11	1	1	1	1	5	1	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	12	0	0	64	0	0	79	79	64	79	79	11
Stage 1	-	-	-	-	-	-	66	66	-	13	13	-
Stage 2	-	-	-	-	-	-	13	14	-	66	66	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.75
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.795
Pot Cap-1 Maneuver	1607	-	-	1538	-	-	910	811	1001	910	811	935
Stage 1	-	-	-	-	-	-	945	840	-	1007	885	-
Stage 2	-	-	-	-	-	-	1007	884	-	945	840	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1607	-	-	1538	-	-	897	810	1001	906	810	935
Mov Cap-2 Maneuver	-	-	-	-	-	-	897	810	-	906	810	-
Stage 1	-	-	-	-	-	-	944	840	-	1006	884	-
Stage 2	-	-	-	-	-	-	994	883	-	942	839	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.12	0.61	9.03	9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	896	29	-	-	147	-	-	917
HCM Lane V/C Ratio	0.004	0.001	-	-	0.001	-	-	0.018
HCM Control Delay (s/veh)	9	7.2	0	-	7.3	0	-	9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	7.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	45	20	5	5	1	5
Future Vol, veh/h	45	20	5	5	1	5
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, %	35	2	2	2	2	71
Mvmt Flow	47	21	5	5	1	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	19	4	6	0	-	0
Stage 1	4	-	-	-	-	-
Stage 2	16	-	-	-	-	-
Critical Hdwy	6.75	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.75	-	-	-	-	-
Critical Hdwy Stg 2	5.75	-	-	-	-	-
Follow-up Hdwy	3.815	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	919	1080	1615	-	-	-
Stage 1	940	-	-	-	-	-
Stage 2	928	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	916	1080	1615	-	-	-
Mov Cap-2 Maneuver	916	-	-	-	-	-
Stage 1	937	-	-	-	-	-
Stage 2	928	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.03	3.62	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	900	-	961	-	-
HCM Lane V/C Ratio	0.003	-	0.071	-	-
HCM Control Delay (s/veh)	7.2	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	360	0	0	315	0	30
Future Vol, veh/h	360	0	0	315	0	30
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	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	8	2	2	6	2	52
Mvmt Flow	379	0	0	332	0	32

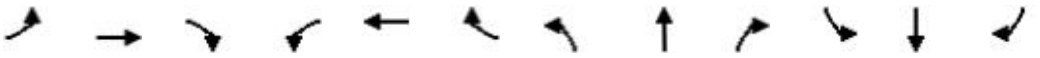
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	379
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.72
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.768
Pot Cap-1 Maneuver	-	0	0	-	0	571
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	571
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	11.68
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	571	-	-
HCM Lane V/C Ratio	0.055	-	-
HCM Control Delay (s/veh)	11.7	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-

HCM 7th Signalized Intersection Summary
100: Churnovic Lane/Private Drive & Division Street

Existing (2025) Traffic Volum
Mid-Day Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	265	55	55	275	1	90	1	70	1	1	1
Future Volume (veh/h)	1	265	55	55	275	1	90	1	70	1	1	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1811	1618	1589	1938	1870	1781	1870	1796	1870	1870	1870
Adj Flow Rate, veh/h	1	279	58	58	289	1	95	1	74	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	6	19	21	4	2	8	2	7	2	2	2
Cap, veh/h	80	479	99	489	854	3	264	3	243	4	4	4
Arrive On Green	0.33	0.33	0.33	0.04	0.44	0.44	0.16	0.16	0.16	0.01	0.01	0.01
Sat Flow, veh/h	1	1454	301	1513	1930	7	1697	21	1567	579	579	579
Grp Volume(v), veh/h	338	0	0	58	0	290	95	0	75	3	0	0
Grp Sat Flow(s),veh/h/ln	1756	0	0	1513	0	1936	1697	0	1588	1737	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.1	0.0	4.5	2.3	0.0	1.9	0.1	0.0	0.0
Cycle Q Clear(g_c), s	7.3	0.0	0.0	1.1	0.0	4.5	2.3	0.0	1.9	0.1	0.0	0.0
Prop In Lane	0.00		0.17	1.00		0.00	1.00		0.99	0.33		0.33
Lane Grp Cap(c), veh/h	658	0	0	489	0	857	264	0	247	11	0	0
V/C Ratio(X)	0.51	0.00	0.00	0.12	0.00	0.34	0.36	0.00	0.30	0.26	0.00	0.00
Avail Cap(c_a), veh/h	1198	0	0	818	0	1873	336	0	314	344	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.7	0.0	0.0	8.2	0.0	8.3	17.2	0.0	17.0	22.5	0.0	0.0
Incr Delay (d2), s/veh	2.8	0.0	0.0	0.1	0.0	1.1	1.8	0.0	1.5	24.5	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.0	0.0	0.0	0.5	0.0	2.9	1.7	0.0	1.3	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.5	0.0	0.0	8.4	0.0	9.4	19.0	0.0	18.5	47.0	0.0	0.0
LnGrp LOS	B			A		A	B		B	D		
Approach Vol, veh/h		338			348			170			3	
Approach Delay, s/veh		15.5			9.2			18.8			47.0	
Approach LOS		B			A			B			D	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	5.1	21.0		13.1		26.1		6.3				
Change Period (Y+Rc), s	3.5	6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s	11.5	29.0		9.0		44.0		9.0				
Max Q Clear Time (g_c+I1), s	3.1	9.3		4.3		6.5		2.1				
Green Ext Time (p_c), s	0.1	5.3		0.5		5.9		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			13.7									
HCM 7th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	265	55	55	275	1	90	1	70	1	1	1
Future Volume (veh/h)	1	265	55	55	275	1	90	1	70	1	1	1
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1811	1618	1589	1938	1870	1781	1870	1796	1870	1870	1870
Adj Flow Rate, veh/h	1	279	58	58	289	1	95	1	74	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	6	19	21	4	2	8	2	7	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	80	479	99	489	854	3	264	3	243	4	4	4
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.33	0.33	0.33	0.04	0.44	0.44	0.16	0.16	0.16	0.01	0.01	0.01
Unsig. Movement Delay												
Ln Grp Delay, s/veh	15.5	0.0	0.0	8.4	0.0	9.4	19.0	0.0	18.5	47.0	0.0	0.0
Ln Grp LOS	B			A		A	B		B	D		
Approach Vol, veh/h		338			348			170			3	
Approach Delay, s/veh		15.5			9.2			18.8			47.0	
Approach LOS		B			A			B			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8	4		6		
Case No	1.2	8.3	12.0	10.0		4.0		
Phs Duration (G+Y+Rc), s	5.1	21.0	6.3	13.1		26.1		
Change Period (Y+Rc), s	3.5	6.0	6.0	6.0		6.0		
Max Green (Gmax), s	11.5	29.0	9.0	9.0		44.0		
Max Allow Headway (MAH), s	3.8	9.2	7.5	6.7		9.1		
Max Q Clear (g_c+I1), s	3.1	9.3	2.1	4.3		6.5		
Green Ext Time (g_e), s	0.1	5.3	0.0	0.5		5.9		
Prob of Phs Call (p_c)	0.52	1.00	0.04	0.88		1.00		
Prob of Max Out (p_x)	0.00	0.26	1.00	1.00		0.01		

Left-Turn Movement Data								
Assigned Mvmt	1	5	3	7				
Mvmt Sat Flow, veh/h	1513	1	579	1697				

Through Movement Data								
Assigned Mvmt		2	8	4		6		
Mvmt Sat Flow, veh/h		1454	579	21		1930		

Right-Turn Movement Data								
Assigned Mvmt		12	18	14		16		
Mvmt Sat Flow, veh/h		301	579	1567		7		

Left Lane Group Data								
Assigned Mvmt	1	5	3	7	0	0	0	0

Lane Assignment	L (Pr/Pm)	L+T+R	L+T+R	L				
Lanes in Grp	1	1	1	1	0	0	0	0
Grp Vol (v), veh/h	58	338	3	95	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1513	1756	1737	1697	0	0	0	0
Q Serve Time (g_s), s	1.1	0.0	0.1	2.3	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	1.1	7.3	0.1	2.3	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	886	1106	0	1697	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	619	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	17.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	7.7	15.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	12.2	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.33	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	489	658	11	264	0	0	0	0
V/C Ratio (X)	0.12	0.51	0.26	0.36	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	818	1198	344	336	0	0	0	0
Upstream Filter (I)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	8.2	12.7	22.5	17.2	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	2.8	24.5	1.8	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	8.4	15.5	47.0	19.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.3	2.2	0.0	0.8	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.1	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	1.80	1.80	1.80	0.00	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.5	5.0	0.2	1.7	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.07	0.05	0.03	0.24	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	4	0	6	0	0
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	14	0	16	0	0
Lane Assignment				T+R		T+R		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	75	0	290	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1588	0	1936	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	1.9	0.0	4.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	1.9	0.0	4.5	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.17	0.33	0.99	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	247	0	857	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.30	0.00	0.34	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	314	0	1873	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	17.0	0.0	8.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.5	0.0	1.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	18.5	0.0	9.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.6	0.0	1.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.80	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	1.3	0.0	2.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.11	0.00	0.08	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	13.7
HCM 7th LOS	B

Intersection	
Int Delay, s/veh	5.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	135	15	1	40	70
Future Vol, veh/h	1	135	15	1	40	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	39	2	2	31
Mvmt Flow	1	142	16	1	42	74

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	174	16	0	0	17	0
Stage 1	16	-	-	-	-	-
Stage 2	158	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	816	1063	-	-	1600	-
Stage 1	1006	-	-	-	-	-
Stage 2	871	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	793	1063	-	-	1600	-
Mov Cap-2 Maneuver	763	-	-	-	-	-
Stage 1	1006	-	-	-	-	-
Stage 2	847	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.93	0	2.66
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1060	655	-
HCM Lane V/C Ratio	-	-	0.135	0.026	-
HCM Control Delay (s/veh)	-	-	8.9	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	5	15	0	1	70
Future Vol, veh/h	10	5	15	0	1	70
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	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	100	39	2	2	31
Mvmt Flow	11	5	16	0	1	74

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	92	16	0	0	16	0
Stage 1	16	-	-	-	-	-
Stage 2	76	-	-	-	-	-
Critical Hdwy	6.42	7.2	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	4.2	-	-	2.218	-
Pot Cap-1 Maneuver	909	838	-	-	1602	-
Stage 1	1007	-	-	-	-	-
Stage 2	947	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	908	838	-	-	1602	-
Mov Cap-2 Maneuver	854	-	-	-	-	-
Stage 1	1007	-	-	-	-	-
Stage 2	947	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.32	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	849	1602	-
HCM Lane V/C Ratio	-	-	0.019	0.001	-
HCM Control Delay (s/veh)	-	-	9.3	7.2	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	55	1	1	10	1	1	1	1	10	1	10
Future Vol, veh/h	1	55	1	1	10	1	1	1	1	10	1	10
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	36	2	2	13	2	2	2	2	2	2	55
Mvmt Flow	1	58	1	1	11	1	1	1	1	11	1	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	12	0	0	59	0	0	74	74	58	74	74	11
Stage 1	-	-	-	-	-	-	61	61	-	13	13	-
Stage 2	-	-	-	-	-	-	13	14	-	61	61	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.75
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.795
Pot Cap-1 Maneuver	1607	-	-	1545	-	-	917	816	1007	917	816	935
Stage 1	-	-	-	-	-	-	951	844	-	1007	885	-
Stage 2	-	-	-	-	-	-	1007	884	-	951	844	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1607	-	-	1545	-	-	904	815	1007	913	815	935
Mov Cap-2 Maneuver	-	-	-	-	-	-	904	815	-	913	815	-
Stage 1	-	-	-	-	-	-	950	844	-	1006	884	-
Stage 2	-	-	-	-	-	-	994	883	-	948	843	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.13	0.61	9	9.02
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	902	31	-	-	147	-	-	918
HCM Lane V/C Ratio	0.004	0.001	-	-	0.001	-	-	0.024
HCM Control Delay (s/veh)	9	7.2	0	-	7.3	0	-	9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	7.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	55	10	5	5	1	5
Future Vol, veh/h	55	10	5	5	1	5
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, %	39	2	2	2	2	50
Mvmt Flow	58	11	5	5	1	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	19	4	6	0	-	0
Stage 1	4	-	-	-	-	-
Stage 2	16	-	-	-	-	-
Critical Hdwy	6.79	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.79	-	-	-	-	-
Critical Hdwy Stg 2	5.79	-	-	-	-	-
Follow-up Hdwy	3.851	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	911	1080	1615	-	-	-
Stage 1	931	-	-	-	-	-
Stage 2	919	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	908	1080	1615	-	-	-
Mov Cap-2 Maneuver	908	-	-	-	-	-
Stage 1	928	-	-	-	-	-
Stage 2	919	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.18	3.62	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	900	-	930	-	-
HCM Lane V/C Ratio	0.003	-	0.074	-	-
HCM Control Delay (s/veh)	7.2	0	9.2	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	355	0	0	335	0	20
Future Vol, veh/h	355	0	0	335	0	20
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	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	6	2	32
Mvmt Flow	374	0	0	353	0	21

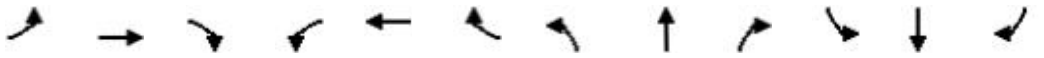
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	374
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.52
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.588
Pot Cap-1 Maneuver	-	0	0	-	0	611
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	611
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	611	-	-
HCM Lane V/C Ratio	0.034	-	-
HCM Control Delay (s/veh)	11.1	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-

HCM 7th Signalized Intersection Summary
100: Churnovic Lane/Private Drive & Division Street

Existing (2025) Traffic Volum
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	335	25	55	490	1	35	1	20	1	1	1
Future Volume (veh/h)	1	335	25	55	490	1	35	1	20	1	1	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1381	1203	1953	1870	1693	1870	1381	1870	1870	1870
Adj Flow Rate, veh/h	1	353	26	58	516	1	37	1	21	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	35	47	3	2	14	2	35	2	2	2
Cap, veh/h	79	674	50	448	988	2	149	7	141	4	4	4
Arrive On Green	0.39	0.39	0.39	0.04	0.51	0.51	0.09	0.09	0.09	0.01	0.01	0.01
Sat Flow, veh/h	1	1720	126	1146	1949	4	1612	73	1524	579	579	579
Grp Volume(v), veh/h	380	0	0	58	0	517	37	0	22	3	0	0
Grp Sat Flow(s),veh/h/ln	1847	0	0	1146	0	1953	1612	0	1596	1737	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.3	0.0	8.1	1.0	0.0	0.6	0.1	0.0	0.0
Cycle Q Clear(g_c), s	7.2	0.0	0.0	1.3	0.0	8.1	1.0	0.0	0.6	0.1	0.0	0.0
Prop In Lane	0.00		0.07	1.00		0.00	1.00		0.95	0.33		0.33
Lane Grp Cap(c), veh/h	803	0	0	448	0	990	149	0	147	11	0	0
V/C Ratio(X)	0.47	0.00	0.00	0.13	0.00	0.52	0.25	0.00	0.15	0.26	0.00	0.00
Avail Cap(c_a), veh/h	1655	0	0	818	0	2523	671	0	664	723	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.6	0.0	0.0	6.7	0.0	7.6	19.2	0.0	19.1	22.6	0.0	0.0
Incr Delay (d2), s/veh	2.0	0.0	0.0	0.1	0.0	2.0	1.8	0.0	1.0	24.5	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.8	0.0	0.0	0.4	0.0	5.0	0.7	0.0	0.4	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	12.6	0.0	0.0	6.8	0.0	9.5	21.1	0.0	20.1	47.0	0.0	0.0
LnGrp LOS	B			A		A	C		C	D		
Approach Vol, veh/h		380			575			59			3	
Approach Delay, s/veh		12.6			9.2			20.7			47.0	
Approach LOS		B			A			C			D	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	5.3	23.9		10.2		29.1		6.3				
Change Period (Y+Rc), s	3.5	6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s	16.5	39.0		19.0		59.0		19.0				
Max Q Clear Time (g_c+I1), s	3.3	9.2		3.0		10.1		2.1				
Green Ext Time (p_c), s	0.1	7.4		0.3		13.0		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			11.3									
HCM 7th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	335	25	55	490	1	35	1	20	1	1	1
Future Volume (veh/h)	1	335	25	55	490	1	35	1	20	1	1	1
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1381	1203	1953	1870	1693	1870	1381	1870	1870	1870
Adj Flow Rate, veh/h	1	353	26	58	516	1	37	1	21	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	35	47	3	2	14	2	35	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	79	674	50	448	988	2	149	7	141	4	4	4
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.39	0.39	0.39	0.04	0.51	0.51	0.09	0.09	0.09	0.01	0.01	0.01
Unsig. Movement Delay												
Ln Grp Delay, s/veh	12.6	0.0	0.0	6.8	0.0	9.5	21.1	0.0	20.1	47.0	0.0	0.0
Ln Grp LOS	B			A		A	C		C	D		
Approach Vol, veh/h		380			575			59			3	
Approach Delay, s/veh		12.6			9.2			20.7			47.0	
Approach LOS		B			A			C			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8	4		6		
Case No	1.2	8.3	12.0	10.0		4.0		
Phs Duration (G+Y+Rc), s	5.3	23.9	6.3	10.2		29.1		
Change Period (Y+Rc), s	3.5	6.0	6.0	6.0		6.0		
Max Green (Gmax), s	16.5	39.0	19.0	19.0		59.0		
Max Allow Headway (MAH), s	3.9	9.1	7.5	6.6		9.1		
Max Q Clear (g_c+I1), s	3.3	9.2	2.1	3.0		10.1		
Green Ext Time (g_e), s	0.1	7.4	0.0	0.3		13.0		
Prob of Phs Call (p_c)	0.52	1.00	0.04	0.53		1.00		
Prob of Max Out (p_x)	0.00	0.10	0.00	0.00		0.05		

Left-Turn Movement Data								
Assigned Mvmt	1	5	3	7				
Mvmt Sat Flow, veh/h	1146	1	579	1612				

Through Movement Data								
Assigned Mvmt		2	8	4		6		
Mvmt Sat Flow, veh/h		1720	579	73		1949		

Right-Turn Movement Data								
Assigned Mvmt		12	18	14		16		
Mvmt Sat Flow, veh/h		126	579	1524		4		

Left Lane Group Data								
Assigned Mvmt	1	5	3	7	0	0	0	0

Lane Assignment	L (Pr/Pm)	L+T+R	L+T+R	L				
Lanes in Grp	1	1	1	1	0	0	0	0
Grp Vol (v), veh/h	58	380	3	37	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1146	1847	1737	1612	0	0	0	0
Q Serve Time (g_s), s	1.3	0.0	0.1	1.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	1.3	7.2	0.1	1.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	646	898	0	1612	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	472	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	19.9	17.9	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	10.7	15.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	14.9	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.33	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	448	803	11	149	0	0	0	0
V/C Ratio (X)	0.13	0.47	0.26	0.25	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	818	1655	723	671	0	0	0	0
Upstream Filter (I)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	6.7	10.6	22.6	19.2	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	2.0	24.5	1.8	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	6.8	12.6	47.0	21.1	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.2	2.2	0.0	0.3	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.1	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	1.80	1.80	1.80	0.00	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.4	4.8	0.2	0.7	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.07	0.05	0.03	0.11	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	4	0	6	0	0
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	14	0	16	0	0
Lane Assignment				T+R		T+R		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	22	0	517	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1596	0	1953	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.6	0.0	8.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.6	0.0	8.1	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.07	0.33	0.95	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	147	0	990	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.15	0.00	0.52	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	664	0	2523	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	19.1	0.0	7.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.0	0.0	2.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	20.1	0.0	9.5	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.2	0.0	2.2	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.80	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.4	0.0	5.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.04	0.00	0.13	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	11.3
HCM 7th LOS	B

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	15	35	1	10	70
Future Vol, veh/h	1	15	35	1	10	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	19	2	2	52
Mvmt Flow	1	16	37	1	11	74

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	132	37	0	0	38	0
Stage 1	37	-	-	-	-	-
Stage 2	95	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	862	1035	-	-	1572	-
Stage 1	985	-	-	-	-	-
Stage 2	929	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	856	1035	-	-	1572	-
Mov Cap-2 Maneuver	821	-	-	-	-	-
Stage 1	985	-	-	-	-	-
Stage 2	923	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.59	0	0.91
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1018	225	-
HCM Lane V/C Ratio	-	-	0.017	0.007	-
HCM Control Delay (s/veh)	-	-	8.6	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	5	30	1	1	65
Future Vol, veh/h	5	5	30	1	1	65
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	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	100	19	2	2	52
Mvmt Flow	5	5	32	1	1	68

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	103	32	0	0	33	0
Stage 1	32	-	-	-	-	-
Stage 2	71	-	-	-	-	-
Critical Hdwy	6.4	7.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	4.2	-	-	2.218	-
Pot Cap-1 Maneuver	900	819	-	-	1579	-
Stage 1	996	-	-	-	-	-
Stage 2	957	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	900	819	-	-	1579	-
Mov Cap-2 Maneuver	854	-	-	-	-	-
Stage 1	996	-	-	-	-	-
Stage 2	957	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.36	0	0.11
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	836	1579	-
HCM Lane V/C Ratio	-	-	0.013	0.001	-
HCM Control Delay (s/veh)	-	-	9.4	7.3	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	60	1	1	15	1	1	1	1	5	1	15
Future Vol, veh/h	1	60	1	1	15	1	1	1	1	5	1	15
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	46	2	2	24	2	2	2	2	2	2	43
Mvmt Flow	1	63	1	1	16	1	1	1	1	5	1	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	17	0	0	64	0	0	84	85	64	84	85	16
Stage 1	-	-	-	-	-	-	66	66	-	18	18	-
Stage 2	-	-	-	-	-	-	18	19	-	66	66	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.63
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.687
Pot Cap-1 Maneuver	1600	-	-	1538	-	-	902	805	1001	902	805	955
Stage 1	-	-	-	-	-	-	945	840	-	1001	880	-
Stage 2	-	-	-	-	-	-	1001	880	-	945	840	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1600	-	-	1538	-	-	885	804	1001	899	804	955
Mov Cap-2 Maneuver	-	-	-	-	-	-	885	804	-	899	804	-
Stage 1	-	-	-	-	-	-	944	840	-	1000	879	-
Stage 2	-	-	-	-	-	-	982	879	-	942	839	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.12	0.43	9.06	8.95
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	890	29	-	-	105	-	-	933
HCM Lane V/C Ratio	0.004	0.001	-	-	0.001	-	-	0.024
HCM Control Delay (s/veh)	9.1	7.3	0	-	7.3	0	-	9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	7.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	45	20	5	5	1	10
Future Vol, veh/h	45	20	5	5	1	10
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, %	70	2	2	2	2	27
Mvmt Flow	47	21	5	5	1	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	22	6	12	0	-	0
Stage 1	6	-	-	-	-	-
Stage 2	16	-	-	-	-	-
Critical Hdwy	7.1	6.22	4.12	-	-	-
Critical Hdwy Stg 1	6.1	-	-	-	-	-
Critical Hdwy Stg 2	6.1	-	-	-	-	-
Follow-up Hdwy	4.13	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	845	1076	1607	-	-	-
Stage 1	866	-	-	-	-	-
Stage 2	856	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	842	1076	1607	-	-	-
Mov Cap-2 Maneuver	842	-	-	-	-	-
Stage 1	863	-	-	-	-	-
Stage 2	856	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.31	3.62	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	900	-	903	-	-
HCM Lane V/C Ratio	0.003	-	0.076	-	-
HCM Control Delay (s/veh)	7.2	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑		↱
Traffic Vol, veh/h	365	0	0	535	0	35
Future Vol, veh/h	365	0	0	535	0	35
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	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	2	2	7	2	46
Mvmt Flow	384	0	0	563	0	37

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	384
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.66
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.714
Pot Cap-1 Maneuver	-	0	0	-	0	577
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	577
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	11.67
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	577	-	-
HCM Lane V/C Ratio	0.064	-	-
HCM Control Delay (s/veh)	11.7	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-

Kimley»Horn

ATTACHMENT 5 – CMAP YEAR 2050 TRAFFIC PROJECTIONS

Chicago Metropolitan Agency for Planning

433 West Van Buren Street, Suite 450
Chicago, IL 60607
cmap.illinois.gov | 312-454-0400

April 17, 2025

Alainie Sawtelle
Kimley-Horn
4210 Winfield Road
Suite 600
Warrenville, IL 60555

Subject: Division Street - Gaylord Road - Weber Road
IDOT

Dear Ms. Sawtelle:

In response to a request made on your behalf and dated April 16, 2025, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Current ADT (2023)	Year 2050 ADT
Division St west of Gaylord Rd	9,950	11,800
Division St from Gaylord Rd to Weber Rd	9,950	11,800
Division St east of Weber Rd	6,500	7,700
Gaylord Rd north of Division St	5,850	6,950
Gaylord Rd south of Division St	4,750	5,650
Weber Rd north of Divsion St	24,500	29,000
Weber Rd south of Divsion St	24,500	29,000

Traffic projections are developed using existing ADT data provided in the request letter and the results from the December 2024 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 or email me at jrodriguez@cmap.illinois.gov

Jose Rodriguez, PTP, AICP
Senior Planner, Research & Analysis

cc: Rios (DOT)
2025_trafficForecasts\CrestHill\wi-19-25\wi-19-25.docx

TRAFFIC FORECAST RECORD

Record Number: wi-19-25
Type of Report: Projection
Year Sought: 2050
Analyst: JAR
Organization Requestion Forecast: Kimley-Horn
Contact: Alainie Sawtelle
Email or Phone: alainie.sawtelle@kimley-horn.com
Sponsor: IDOT
Date request was received: 4/16/2025
Date that response was emailed: 4/17/2025
Facility Location: Division Street - Gaylord Road - Weber Road
Municipality: Crest Hill

Kimley»Horn

ATTACHMENT 6 – DATA FROM ITE *TRIP GENERATION MANUAL*, 11TH EDITION

Land Use: 150
Warehousing

Description

A warehouse is primarily devoted to the storage of materials, but it may also include office and maintenance areas. High-cube transload and short-term storage warehouse (Land Use 154), high-cube fulfillment center warehouse (Land Use 155), high-cube parcel hub warehouse (Land Use 156), and high-cube cold storage warehouse (Land Use 157) are related uses.

Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in California, Connecticut, Minnesota, New Jersey, New York, Ohio, Oregon, Pennsylvania, and Texas.

Source Numbers

184, 331, 406, 411, 443, 579, 583, 596, 598, 611, 619, 642, 752, 869, 875, 876, 914, 940, 1050

Warehousing
(150)

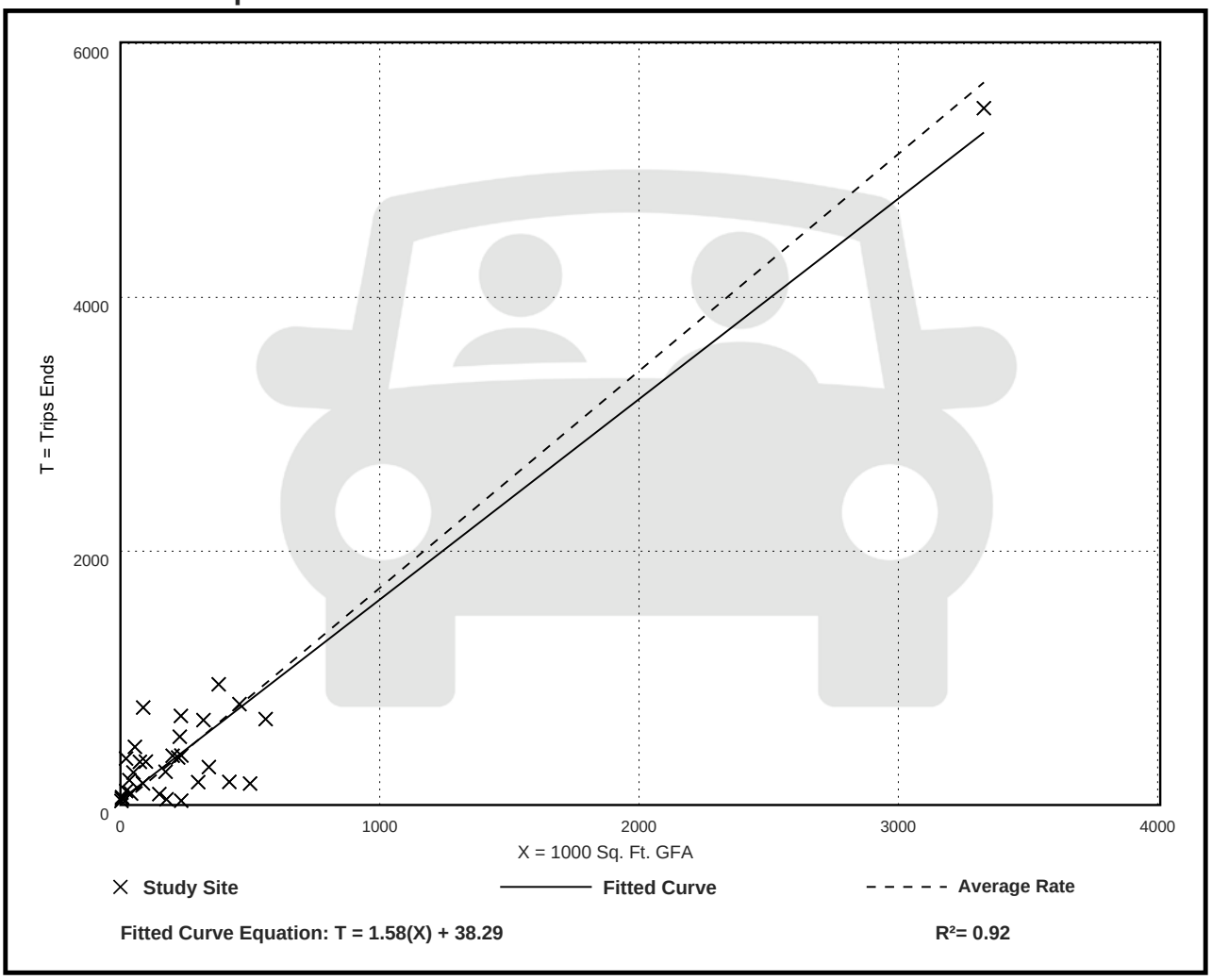
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 31
Avg. 1000 Sq. Ft. GFA: 292
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.71	0.15 - 16.93	1.48

Data Plot and Equation



Fitted Curve Equation: T = 1.58(X) + 38.29

R^2= 0.92

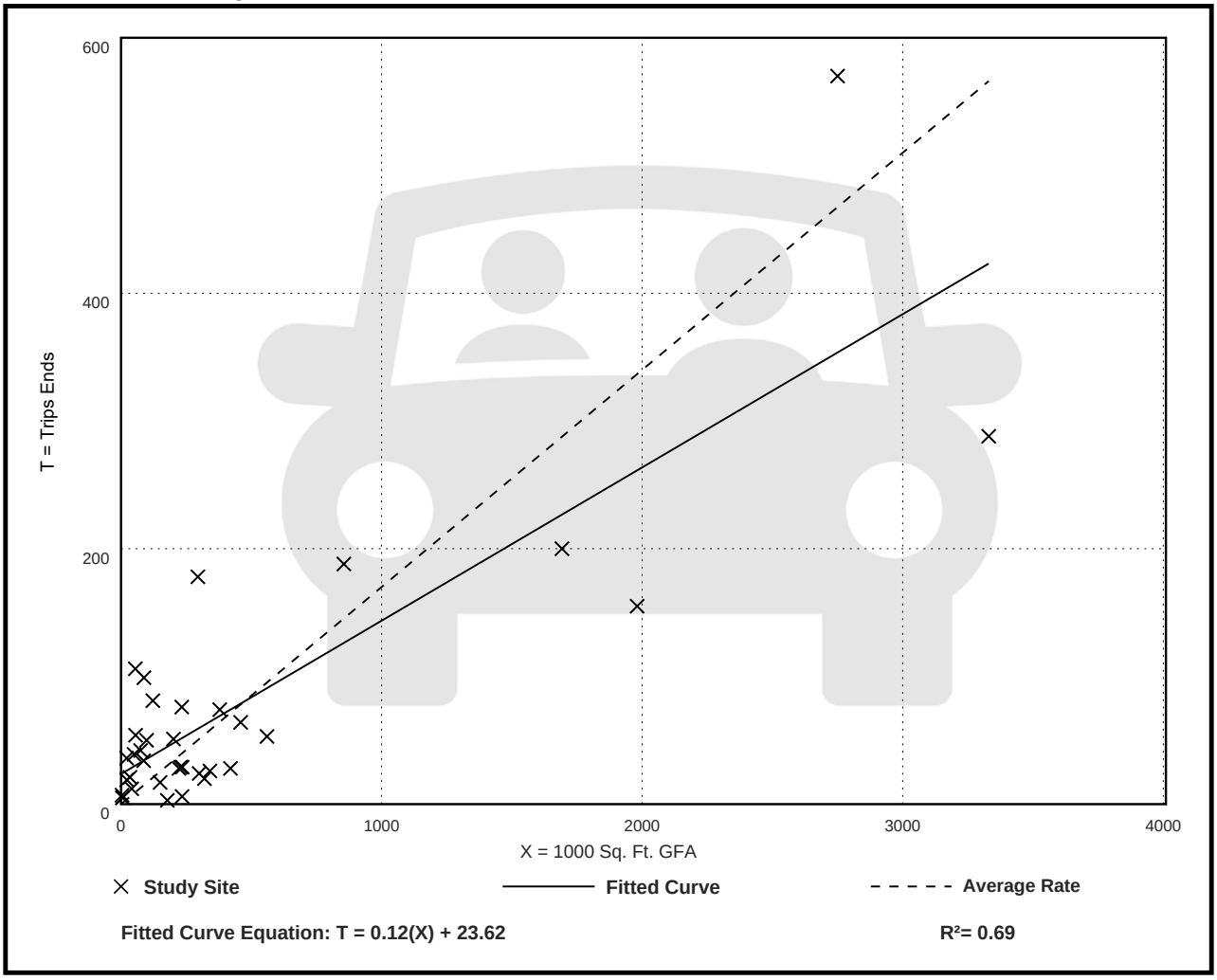
Warehousing
(150)

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: 36
Avg. 1000 Sq. Ft. GFA: 448
Directional Distribution: 77% entering, 23% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.17	0.02 - 1.93	0.19

Data Plot and Equation



Fitted Curve Equation: T = 0.12(X) + 23.62

R^2= 0.69

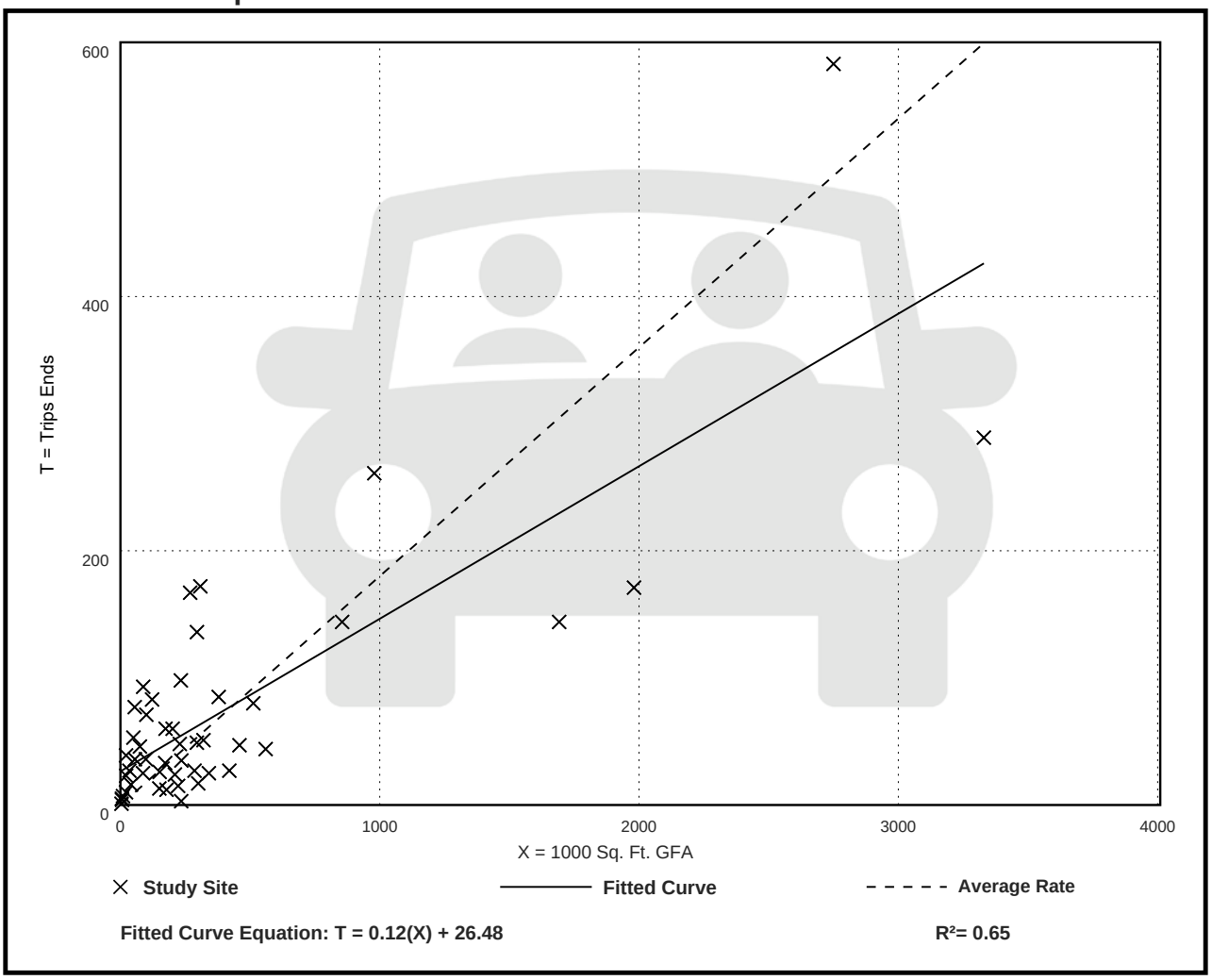
Warehousing
(150)

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: 49
Avg. 1000 Sq. Ft. GFA: 400
Directional Distribution: 28% entering, 72% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.18	0.01 - 1.80	0.18

Data Plot and Equation



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ATTACHMENT 7 – SOUTH BACKGROUND DEVELOPMENT

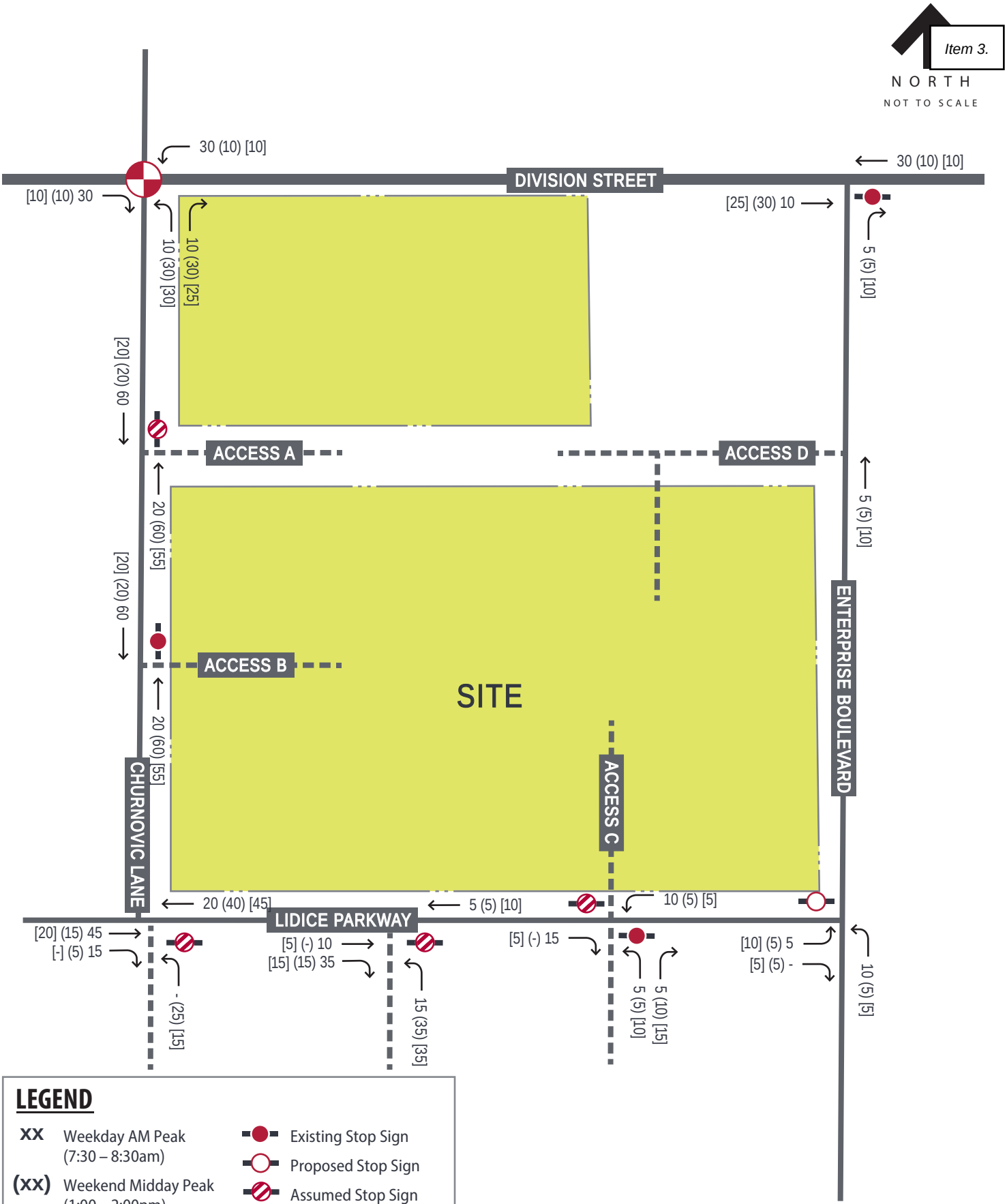
LEGEND

xx	Weekday AM Peak (7:30 – 8:30am)		Existing Stop Sign
(xx)	Weekend Midday Peak (1:00 – 2:00pm)		Assumed Stop Sign
[xx]	Weekday PM Peak (4:00 – 5:00pm)		Existing Signalized Intersection
		—	Less than Five Vehicles

Kimley»Horn

ATTACHMENT 7A

SOUTH BACKGROUND DEVELOPME
TRIP ASSIGNMENT - ALTERNATIVE 1



LEGEND

xx	Weekday AM Peak (7:30 – 8:30am)
(xx)	Weekend Midday Peak (1:00 – 2:00pm)
[xx]	Weekday PM Peak (4:00 – 5:00pm)
	Existing Stop Sign
	Proposed Stop Sign
	Assumed Stop Sign
	Existing Signalized Intersection
—	Less than Five Vehicles

Kimley»Horn

ATTACHMENT 7B

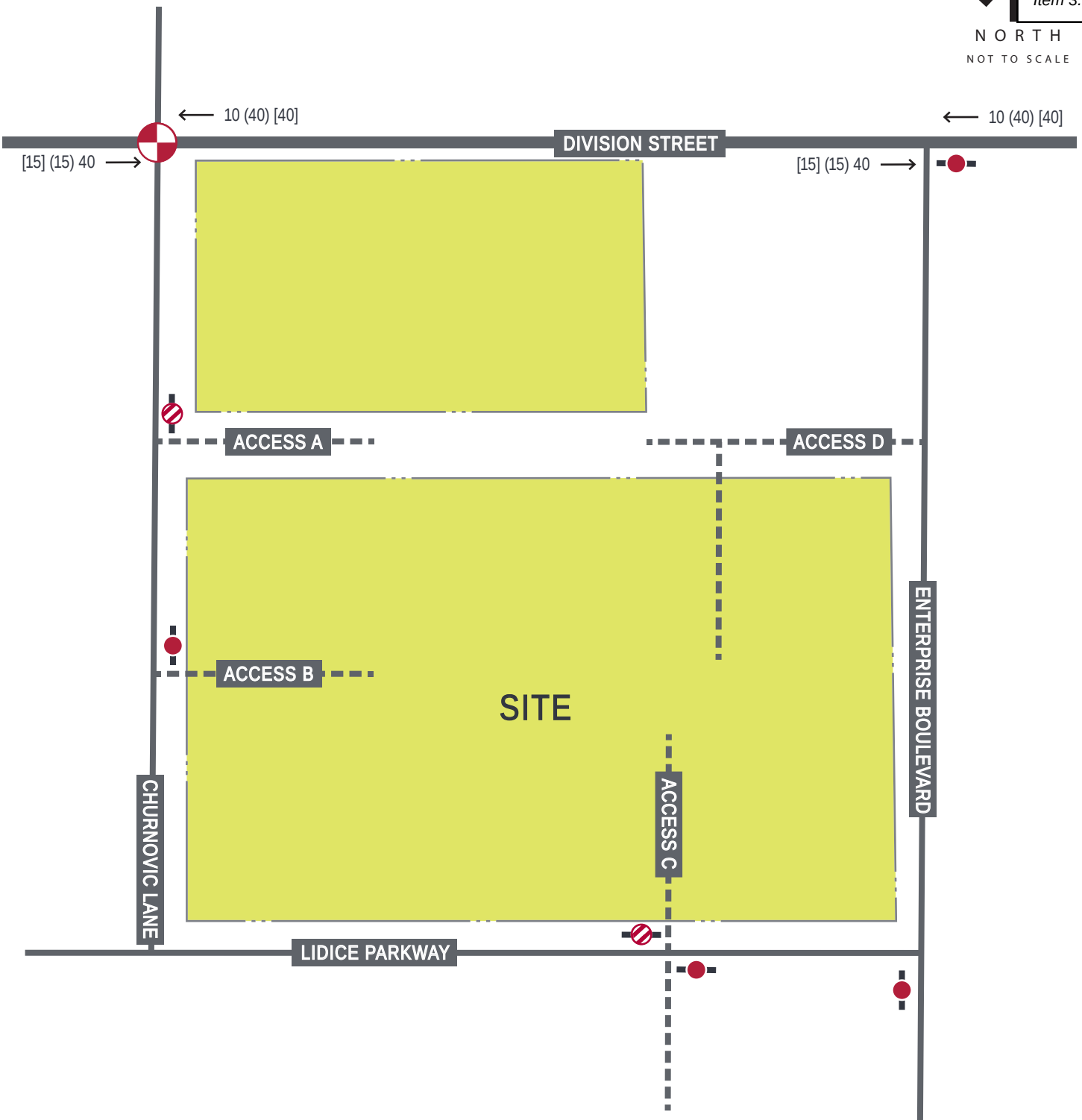
SOUTH BACKGROUND DEVELOPME
TRIP ASSIGNMENT - ALTERNATIVE 2

Kimley»Horn

ATTACHMENT 8 – EAST BACKGROUND DEVELOPMENT

NORTH

NOT TO SCALE



LEGEND

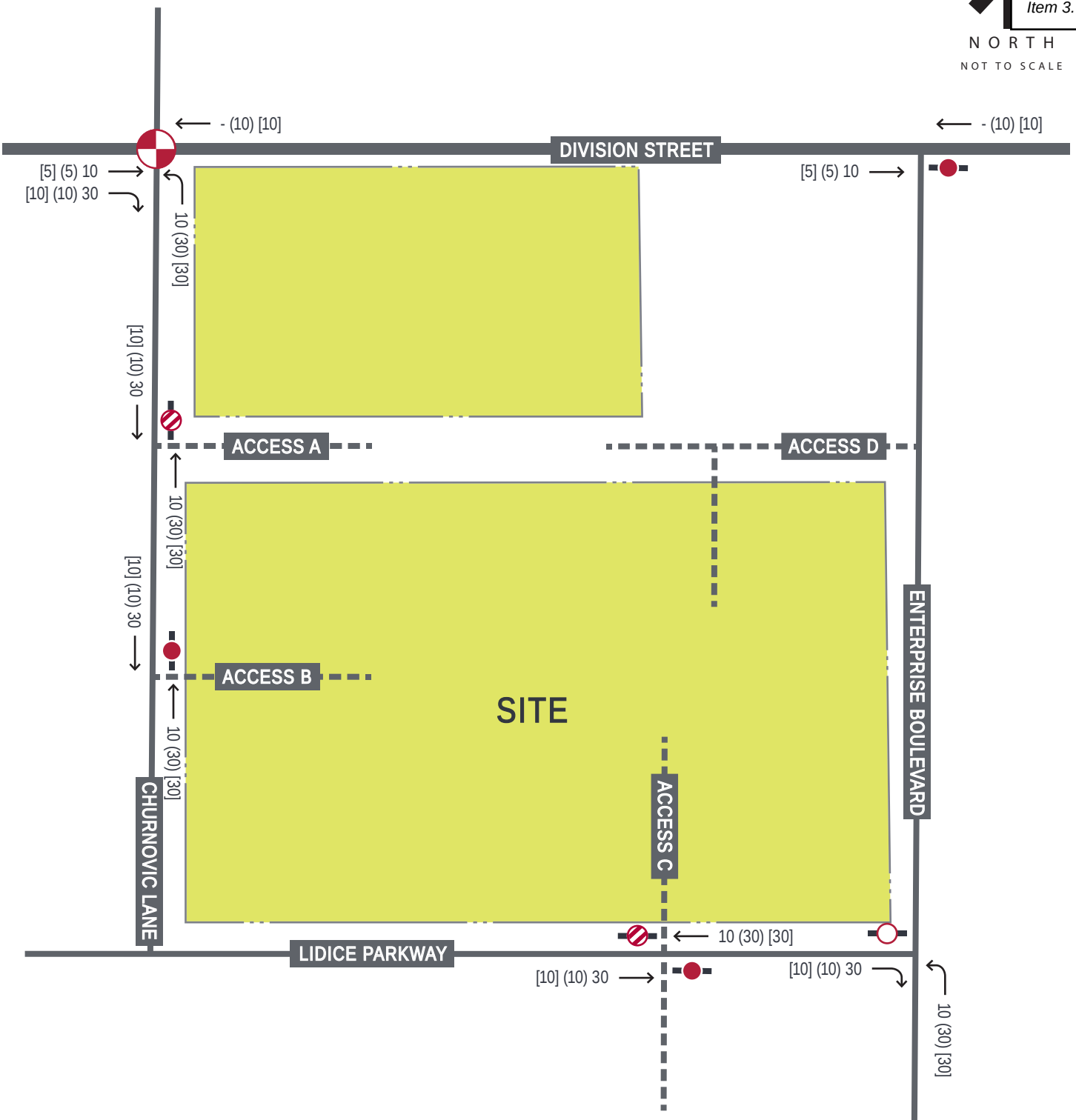
XX	Weekday AM Peak (7:30 – 8:30am)		Existing Stop Sign
(XX)	Weekend Midday Peak (1:00 – 2:00pm)		Assumed Stop Sign
[XX]	Weekday PM Peak (4:00 – 5:00pm)		Existing Signalized Intersection
		—	Less than Five Vehicles

Kimley»Horn

ATTACHMENT 8A

EAST BACKGROUND DEVELOPME

TRIP ASSIGNMENT - ALTERNATIVE 1



LEGEND

xx	Weekday AM Peak (7:30 – 8:30am)
(xx)	Weekend Midday Peak (1:00 – 2:00pm)
[xx]	Weekday PM Peak (4:00 – 5:00pm)
	Existing Stop Sign
	Proposed Stop Sign
	Assumed Stop Sign
	Existing Signalized Intersection
—	Less than Five Vehicles

Kimley»Horn

ATTACHMENT 8B

EAST BACKGROUND DEVELOPME

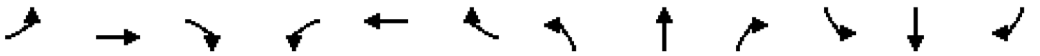
TRIP ASSIGNMENT - ALTERNATIVE 2

Kimley»Horn

ATTACHMENT 9 – FUTURE (2031) CAPACITY ANALYSIS REPORTS – ALTERNATIVE 1

HCM 7th Signalized Intersection Summary
100: Churnovic Lane/Private Drive & Division Street

Alternative 1 (2031) Traffic Volum
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	300	145	185	195	1	95	1	105	1	1	1
Future Volume (veh/h)	1	300	145	185	195	1	95	1	105	1	1	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1796	1737	1781	1938	1870	1678	1870	1752	1870	1870	1870
Adj Flow Rate, veh/h	1	316	153	195	205	1	100	1	111	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	7	11	8	4	2	15	2	10	2	2	2
Cap, veh/h	59	483	233	556	1102	5	203	2	200	4	4	4
Arrive On Green	0.42	0.42	0.42	0.09	0.57	0.57	0.13	0.13	0.13	0.01	0.01	0.01
Sat Flow, veh/h	1	1144	552	1697	1927	9	1598	14	1573	579	579	579
Grp Volume(v), veh/h	470	0	0	195	0	206	100	0	112	3	0	0
Grp Sat Flow(s),veh/h/ln	1697	0	0	1697	0	1936	1598	0	1587	1737	0	0
Q Serve(g_s), s	0.0	0.0	0.0	3.6	0.0	3.1	3.6	0.0	4.1	0.1	0.0	0.0
Cycle Q Clear(g_c), s	13.5	0.0	0.0	3.6	0.0	3.1	3.6	0.0	4.1	0.1	0.0	0.0
Prop In Lane	0.00		0.33	1.00		0.00	1.00		0.99	0.33		0.33
Lane Grp Cap(c), veh/h	776	0	0	556	0	1107	203	0	202	11	0	0
V/C Ratio(X)	0.61	0.00	0.00	0.35	0.00	0.19	0.49	0.00	0.55	0.27	0.00	0.00
Avail Cap(c_a), veh/h	1418	0	0	719	0	2026	366	0	363	398	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.1	0.0	0.0	7.1	0.0	6.3	24.8	0.0	25.1	30.2	0.0	0.0
Incr Delay (d2), s/veh	3.5	0.0	0.0	0.4	0.0	0.4	3.9	0.0	5.0	24.8	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.8	0.0	0.0	1.9	0.0	1.9	2.7	0.0	3.1	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.6	0.0	0.0	7.5	0.0	6.6	28.7	0.0	30.1	55.0	0.0	0.0
LnGrp LOS	B			A		A	C		C	E		
Approach Vol, veh/h		470			401			212			3	
Approach Delay, s/veh		17.6			7.0			29.4			55.0	
Approach LOS		B			A			C			E	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	9.1	31.8		13.8		41.0		6.4				
Change Period (Y+Rc), s	3.5	6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s	11.5	49.0		14.0		64.0		14.0				
Max Q Clear Time (g_c+I1), s	5.6	15.5		6.1		5.1		2.1				
Green Ext Time (p_c), s	0.3	10.3		1.0		4.3		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			16.1									
HCM 7th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	300	145	185	195	1	95	1	105	1	1	1
Future Volume (veh/h)	1	300	145	185	195	1	95	1	105	1	1	1
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1796	1737	1781	1938	1870	1678	1870	1752	1870	1870	1870
Adj Flow Rate, veh/h	1	316	153	195	205	1	100	1	111	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	7	11	8	4	2	15	2	10	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	59	483	233	556	1102	5	203	2	200	4	4	4
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.42	0.42	0.42	0.09	0.57	0.57	0.13	0.13	0.13	0.01	0.01	0.01
Unsig. Movement Delay												
Ln Grp Delay, s/veh	17.6	0.0	0.0	7.5	0.0	6.6	28.7	0.0	30.1	55.0	0.0	0.0
Ln Grp LOS	B			A		A	C		C	E		
Approach Vol, veh/h		470			401			212			3	
Approach Delay, s/veh		17.6			7.0			29.4			55.0	
Approach LOS		B			A			C			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8	4		6		
Case No	1.2	8.3	12.0	10.0		4.0		
Phs Duration (G+Y+Rc), s	9.1	31.8	6.4	13.8		41.0		
Change Period (Y+Rc), s	3.5	6.0	6.0	6.0		6.0		
Max Green (Gmax), s	11.5	49.0	14.0	14.0		64.0		
Max Allow Headway (MAH), s	3.8	9.2	7.5	6.9		9.1		
Max Q Clear (g_c+I1), s	5.6	15.5	2.1	6.1		5.1		
Green Ext Time (g_e), s	0.3	10.3	0.0	1.0		4.3		
Prob of Phs Call (p_c)	0.96	1.00	0.05	0.97		1.00		
Prob of Max Out (p_x)	0.19	0.14	0.00	0.71		0.00		

Left-Turn Movement Data								
Assigned Mvmt	1	5	3	7				
Mvmt Sat Flow, veh/h	1697	1	579	1598				

Through Movement Data								
Assigned Mvmt		2	8	4		6		
Mvmt Sat Flow, veh/h		1144	579	14		1927		

Right-Turn Movement Data								
Assigned Mvmt		12	18	14		16		
Mvmt Sat Flow, veh/h		552	579	1573		9		

Left Lane Group Data								
Assigned Mvmt	1	5	3	7	0	0	0	0

Lane Assignment	L (Pr/Pm)	L+T+R	L+T+R	L				
Lanes in Grp	1	1	1	1	0	0	0	0
Grp Vol (v), veh/h	195	470	3	100	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1697	1697	1737	1598	0	0	0	0
Q Serve Time (g_s), s	3.6	0.0	0.1	3.6	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	3.6	13.5	0.1	3.6	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	880	1195	0	1598	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	414	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	27.8	25.8	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	12.3	25.8	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	22.2	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	13.5	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.33	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	556	776	11	203	0	0	0	0
V/C Ratio (X)	0.35	0.61	0.27	0.49	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	719	1418	398	366	0	0	0	0
Upstream Filter (I)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	7.1	14.1	30.2	24.8	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	3.5	24.8	3.9	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.5	17.6	55.0	28.7	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	1.0	4.4	0.0	1.3	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.8	0.1	0.2	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	1.73	1.80	1.80	0.00	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	1.9	8.8	0.2	2.7	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.25	0.10	0.03	0.40	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	4	0	6	0	0
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	14	0	16	0	0
Lane Assignment				T+R		T+R		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	112	0	206	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1587	0	1936	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	4.1	0.0	3.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	4.1	0.0	3.1	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.33	0.33	0.99	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	202	0	1107	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.55	0.00	0.19	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	363	0	2026	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	25.1	0.0	6.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	5.0	0.0	0.4	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	30.1	0.0	6.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.5	0.0	1.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.3	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.80	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	3.1	0.0	1.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.27	0.00	0.05	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	16.1
HCM 7th LOS	B

Intersection	
Int Delay, s/veh	4.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	125	65	1	165	150
Future Vol, veh/h	1	125	65	1	165	150
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	39	2	2	32
Mvmt Flow	1	132	68	1	174	158

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	574	69	0	0	69	0
Stage 1	69	-	-	-	-	-
Stage 2	505	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	480	994	-	-	1531	-
Stage 1	954	-	-	-	-	-
Stage 2	606	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	421	994	-	-	1531	-
Mov Cap-2 Maneuver	467	-	-	-	-	-
Stage 1	954	-	-	-	-	-
Stage 2	531	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.22	0	4.01
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	985	943	-
HCM Lane V/C Ratio	-	-	0.135	0.113	-
HCM Control Delay (s/veh)	-	-	9.2	7.7	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.4	-

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	30	35	1	1	145
Future Vol, veh/h	5	30	35	1	1	145
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	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	73	39	2	2	32
Mvmt Flow	5	32	37	1	1	153

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	192	37	0	0	38	0
Stage 1	37	-	-	-	-	-
Stage 2	155	-	-	-	-	-
Critical Hdwy	6.42	6.93	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.957	-	-	2.218	-
Pot Cap-1 Maneuver	797	864	-	-	1572	-
Stage 1	985	-	-	-	-	-
Stage 2	873	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	796	864	-	-	1572	-
Mov Cap-2 Maneuver	777	-	-	-	-	-
Stage 1	985	-	-	-	-	-
Stage 2	873	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.42	0	0.05
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	850	1572	-
HCM Lane V/C Ratio	-	-	0.043	0.001	-
HCM Control Delay (s/veh)	-	-	9.4	7.3	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	60	20	1	10	0	5	0	5	0	0	0
Future Vol, veh/h	0	60	20	1	10	0	5	0	5	0	0	0
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	26	2	33	46	2	2	2	2	2	2	55
Mvmt Flow	0	63	21	1	11	0	5	0	5	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	84	0	0	86	86	74	76	97	11
Stage 1	-	-	-	-	-	-	74	74	-	13	13	-
Stage 2	-	-	-	-	-	-	13	13	-	63	84	-
Critical Hdwy	-	-	-	4.43	-	-	7.12	6.52	6.22	7.12	6.52	6.75
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	-	-	-	2.497	-	-	3.518	4.018	3.318	3.518	4.018	3.795
Pot Cap-1 Maneuver	0	-	-	1338	-	0	900	804	988	914	793	935
Stage 1	0	-	-	-	-	0	936	834	-	1008	885	-
Stage 2	0	-	-	-	-	0	1008	885	-	948	825	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1338	-	-	899	803	988	908	793	935
Mov Cap-2 Maneuver	-	-	-	-	-	-	899	803	-	908	793	-
Stage 1	-	-	-	-	-	-	936	834	-	1007	884	-
Stage 2	-	-	-	-	-	-	1007	884	-	943	825	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0.7	8.87	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	941	-	-	164	-	-
HCM Lane V/C Ratio	0.011	-	-	0.001	-	-
HCM Control Delay (s/veh)	8.9	-	-	7.7	0	0
HCM Lane LOS	A	-	-	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-

Intersection	
Int Delay, s/veh	7.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	45	20	5	5	1	5
Future Vol, veh/h	45	20	5	5	1	5
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, %	35	2	2	2	2	71
Mvmt Flow	47	21	5	5	1	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	19	4	6	0	-	0
Stage 1	4	-	-	-	-	-
Stage 2	16	-	-	-	-	-
Critical Hdwy	6.75	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.75	-	-	-	-	-
Critical Hdwy Stg 2	5.75	-	-	-	-	-
Follow-up Hdwy	3.815	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	919	1080	1615	-	-	-
Stage 1	940	-	-	-	-	-
Stage 2	928	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	916	1080	1615	-	-	-
Mov Cap-2 Maneuver	916	-	-	-	-	-
Stage 1	937	-	-	-	-	-
Stage 2	928	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.03	3.62	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	900	-	961	-	-
HCM Lane V/C Ratio	0.003	-	0.071	-	-
HCM Control Delay (s/veh)	7.2	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑		↱
Traffic Vol, veh/h	430	0	0	375	0	30
Future Vol, veh/h	430	0	0	375	0	30
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	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	8	2	2	6	2	52
Mvmt Flow	453	0	0	395	0	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	453
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.72
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.768
Pot Cap-1 Maneuver	-	0	0	-	0	515
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	515
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	12.44
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	515	-	-
HCM Lane V/C Ratio	0.061	-	-
HCM Control Delay (s/veh)	12.4	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-

HCM 7th Signalized Intersection Summary
100: Churnovic Lane/Private Drive & Division Street

Alternative 1 (2031) Traffic Volum
Mid-Day Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	290	65	70	325	1	125	1	120	1	1	1
Future Volume (veh/h)	1	290	65	70	325	1	125	1	120	1	1	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1811	1618	1589	1938	1870	1781	1870	1796	1870	1870	1870
Adj Flow Rate, veh/h	1	305	68	74	342	1	132	1	126	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	6	19	21	4	2	8	2	7	2	2	2
Cap, veh/h	75	487	108	476	885	3	273	2	254	4	4	4
Arrive On Green	0.34	0.34	0.34	0.05	0.46	0.46	0.16	0.16	0.16	0.01	0.01	0.01
Sat Flow, veh/h	1	1433	319	1513	1931	6	1697	12	1574	579	579	579
Grp Volume(v), veh/h	374	0	0	74	0	343	132	0	127	3	0	0
Grp Sat Flow(s),veh/h/ln	1753	0	0	1513	0	1937	1697	0	1587	1737	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.4	0.0	5.6	3.4	0.0	3.5	0.1	0.0	0.0
Cycle Q Clear(g_c), s	8.6	0.0	0.0	1.4	0.0	5.6	3.4	0.0	3.5	0.1	0.0	0.0
Prop In Lane	0.00		0.18	1.00		0.00	1.00		0.99	0.33		0.33
Lane Grp Cap(c), veh/h	671	0	0	476	0	887	273	0	256	11	0	0
V/C Ratio(X)	0.56	0.00	0.00	0.16	0.00	0.39	0.48	0.00	0.50	0.26	0.00	0.00
Avail Cap(c_a), veh/h	1131	0	0	769	0	1771	317	0	297	325	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.3	0.0	0.0	8.3	0.0	8.6	18.4	0.0	18.4	23.8	0.0	0.0
Incr Delay (d2), s/veh	3.3	0.0	0.0	0.2	0.0	1.3	2.8	0.0	3.2	24.5	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.0	0.0	0.0	0.7	0.0	3.7	2.6	0.0	2.5	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.7	0.0	0.0	8.5	0.0	9.9	21.2	0.0	21.6	48.3	0.0	0.0
LnGrp LOS	B			A		A	C		C	D		
Approach Vol, veh/h		374			417			259			3	
Approach Delay, s/veh		16.7			9.6			21.4			48.3	
Approach LOS		B			A			C			D	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	5.7	22.3		13.7		28.0		6.3				
Change Period (Y+Rc), s	3.5	6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s	11.5	29.0		9.0		44.0		9.0				
Max Q Clear Time (g_c+I1), s	3.4	10.6		5.5		7.6		2.1				
Green Ext Time (p_c), s	0.1	5.7		0.7		7.1		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			15.1									
HCM 7th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	290	65	70	325	1	125	1	120	1	1	1
Future Volume (veh/h)	1	290	65	70	325	1	125	1	120	1	1	1
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1811	1618	1589	1938	1870	1781	1870	1796	1870	1870	1870
Adj Flow Rate, veh/h	1	305	68	74	342	1	132	1	126	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	6	19	21	4	2	8	2	7	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	75	487	108	476	885	3	273	2	254	4	4	4
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.34	0.34	0.34	0.05	0.46	0.46	0.16	0.16	0.16	0.01	0.01	0.01
Unsig. Movement Delay												
Ln Grp Delay, s/veh	16.7	0.0	0.0	8.5	0.0	9.9	21.2	0.0	21.6	48.3	0.0	0.0
Ln Grp LOS	B			A		A	C		C	D		
Approach Vol, veh/h		374			417			259			3	
Approach Delay, s/veh		16.7			9.6			21.4			48.3	
Approach LOS		B			A			C			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8	4		6		
Case No	1.2	8.3	12.0	10.0		4.0		
Phs Duration (G+Y+Rc), s	5.7	22.3	6.3	13.7		28.0		
Change Period (Y+Rc), s	3.5	6.0	6.0	6.0		6.0		
Max Green (Gmax), s	11.5	29.0	9.0	9.0		44.0		
Max Allow Headway (MAH), s	3.8	9.2	7.5	6.8		9.1		
Max Q Clear (g_c+I1), s	3.4	10.6	2.1	5.5		7.6		
Green Ext Time (g_e), s	0.1	5.7	0.0	0.7		7.1		
Prob of Phs Call (p_c)	0.63	1.00	0.04	0.97		1.00		
Prob of Max Out (p_x)	0.01	0.36	1.00	1.00		0.03		

Left-Turn Movement Data								
Assigned Mvmt	1	5	3	7				
Mvmt Sat Flow, veh/h	1513	1	579	1697				

Through Movement Data								
Assigned Mvmt		2	8	4		6		
Mvmt Sat Flow, veh/h		1433	579	12		1931		

Right-Turn Movement Data								
Assigned Mvmt		12	18	14		16		
Mvmt Sat Flow, veh/h		319	579	1574		6		

Left Lane Group Data								
Assigned Mvmt	1	5	3	7	0	0	0	0

Lane Assignment	L (Pr/Pm)	L+T+R	L+T+R	L				
Lanes in Grp	1	1	1	1	0	0	0	0
Grp Vol (v), veh/h	74	374	3	132	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1513	1753	1737	1697	0	0	0	0
Q Serve Time (g_s), s	1.4	0.0	0.1	3.4	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	1.4	8.6	0.1	3.4	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	857	1054	0	1697	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	541	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	18.3	16.3	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	7.7	16.3	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	13.4	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	8.6	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.33	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	476	671	11	273	0	0	0	0
V/C Ratio (X)	0.16	0.56	0.26	0.48	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	769	1131	325	317	0	0	0	0
Upstream Filter (I)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	8.3	13.3	23.8	18.4	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.2	3.3	24.5	2.8	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	8.5	16.7	48.3	21.2	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.4	2.7	0.0	1.2	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.1	0.2	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	1.80	1.80	1.80	0.00	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.7	6.0	0.2	2.6	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.10	0.06	0.03	0.36	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	4	0	6	0	0
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	14	0	16	0	0
Lane Assignment				T+R		T+R		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	127	0	343	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1587	0	1937	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	3.5	0.0	5.6	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	3.5	0.0	5.6	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.18	0.33	0.99	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	256	0	887	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.50	0.00	0.39	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	297	0	1771	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	18.4	0.0	8.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	3.2	0.0	1.3	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	21.6	0.0	9.9	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.2	0.0	1.7	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.80	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	2.5	0.0	3.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.22	0.00	0.10	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	15.1
HCM 7th LOS	B

Intersection	
Int Delay, s/veh	4.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	135	90	1	40	100
Future Vol, veh/h	1	135	90	1	40	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	39	2	2	31
Mvmt Flow	1	142	95	1	42	105

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	285	95	0	0	96	0
Stage 1	95	-	-	-	-	-
Stage 2	189	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	706	961	-	-	1498	-
Stage 1	928	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	684	961	-	-	1498	-
Mov Cap-2 Maneuver	703	-	-	-	-	-
Stage 1	928	-	-	-	-	-
Stage 2	818	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.41	0	2.14
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	959	514	-
HCM Lane V/C Ratio	-	-	0.149	0.028	-
HCM Control Delay (s/veh)	-	-	9.4	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	25	70	1	1	100
Future Vol, veh/h	10	25	70	1	1	100
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	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	100	39	2	2	31
Mvmt Flow	11	26	74	1	1	105

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	182	74	0	0	75	0
Stage 1	74	-	-	-	-	-
Stage 2	107	-	-	-	-	-
Critical Hdwy	6.42	7.2	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	4.2	-	-	2.218	-
Pot Cap-1 Maneuver	808	771	-	-	1525	-
Stage 1	949	-	-	-	-	-
Stage 2	917	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	807	771	-	-	1525	-
Mov Cap-2 Maneuver	793	-	-	-	-	-
Stage 1	949	-	-	-	-	-
Stage 2	916	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.86	0	0.07
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	777	1525	-
HCM Lane V/C Ratio	-	-	0.047	0.001	-
HCM Control Delay (s/veh)	-	-	9.9	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	55	5	1	10	0	5	0	5	0	0	0
Future Vol, veh/h	0	55	5	1	10	0	5	0	5	0	0	0
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	36	2	2	13	2	2	2	2	2	2	55
Mvmt Flow	0	58	5	1	11	0	5	0	5	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	63	0	0	73	73	61	71	76	11
Stage 1	-	-	-	-	-	-	61	61	-	13	13	-
Stage 2	-	-	-	-	-	-	13	13	-	58	63	-
Critical Hdwy	-	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.75
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.795
Pot Cap-1 Maneuver	0	-	-	1539	-	0	917	817	1005	921	815	935
Stage 1	0	-	-	-	-	0	951	844	-	1008	885	-
Stage 2	0	-	-	-	-	0	1008	885	-	954	842	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1539	-	-	917	817	1005	916	814	935
Mov Cap-2 Maneuver	-	-	-	-	-	-	917	817	-	916	814	-
Stage 1	-	-	-	-	-	-	951	844	-	1007	884	-
Stage 2	-	-	-	-	-	-	1007	884	-	949	842	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0.67	8.8	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	959	-	-	164	-	-
HCM Lane V/C Ratio	0.011	-	-	0.001	-	-
HCM Control Delay (s/veh)	8.8	-	-	7.3	0	0
HCM Lane LOS	A	-	-	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-

Intersection	
Int Delay, s/veh	7.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	10	5	5	1	5
Future Vol, veh/h	50	10	5	5	1	5
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, %	39	2	2	2	2	50
Mvmt Flow	53	11	5	5	1	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	19	4	6	0	-	0
Stage 1	4	-	-	-	-	-
Stage 2	16	-	-	-	-	-
Critical Hdwy	6.79	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.79	-	-	-	-	-
Critical Hdwy Stg 2	5.79	-	-	-	-	-
Follow-up Hdwy	3.851	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	911	1080	1615	-	-	-
Stage 1	931	-	-	-	-	-
Stage 2	919	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	908	1080	1615	-	-	-
Mov Cap-2 Maneuver	908	-	-	-	-	-
Stage 1	928	-	-	-	-	-
Stage 2	919	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.14	3.62	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	900	-	932	-	-
HCM Lane V/C Ratio	0.003	-	0.068	-	-
HCM Control Delay (s/veh)	7.2	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑		↱
Traffic Vol, veh/h	430	0	0	405	0	15
Future Vol, veh/h	430	0	0	405	0	15
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	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	6	2	32
Mvmt Flow	453	0	0	426	0	16

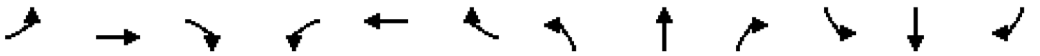
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	453
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.52
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.588
Pot Cap-1 Maneuver	-	0	0	-	0	549
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	549
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	11.75
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	549	-	-
HCM Lane V/C Ratio	0.029	-	-
HCM Control Delay (s/veh)	11.7	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-

HCM 7th Signalized Intersection Summary
100: Churnovic Lane/Private Drive & Division Street

Alternative 1 (2031) Traffic Volum
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	365	35	70	550	1	65	1	55	1	1	1
Future Volume (veh/h)	1	365	35	70	550	1	65	1	55	1	1	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1381	1203	1953	1870	1693	1870	1381	1870	1870	1870
Adj Flow Rate, veh/h	1	384	37	74	579	1	68	1	58	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	35	47	3	2	14	2	35	2	2	2
Cap, veh/h	69	685	66	420	1021	2	207	3	200	4	4	4
Arrive On Green	0.41	0.41	0.41	0.05	0.52	0.52	0.13	0.13	0.13	0.01	0.01	0.01
Sat Flow, veh/h	1	1678	161	1146	1949	3	1612	27	1562	579	579	579
Grp Volume(v), veh/h	422	0	0	74	0	580	68	0	59	3	0	0
Grp Sat Flow(s),veh/h/ln	1840	0	0	1146	0	1953	1612	0	1589	1737	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.8	0.0	10.6	2.0	0.0	1.8	0.1	0.0	0.0
Cycle Q Clear(g_c), s	9.3	0.0	0.0	1.8	0.0	10.6	2.0	0.0	1.8	0.1	0.0	0.0
Prop In Lane	0.00		0.09	1.00		0.00	1.00		0.98	0.33		0.33
Lane Grp Cap(c), veh/h	819	0	0	420	0	1023	207	0	204	11	0	0
V/C Ratio(X)	0.52	0.00	0.00	0.18	0.00	0.57	0.33	0.00	0.29	0.26	0.00	0.00
Avail Cap(c_a), veh/h	1428	0	0	722	0	2185	581	0	573	626	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.0	0.0	0.0	7.2	0.0	8.5	20.9	0.0	20.8	26.1	0.0	0.0
Incr Delay (d2), s/veh	2.3	0.0	0.0	0.2	0.0	2.3	2.0	0.0	1.7	24.6	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.4	0.0	0.0	0.6	0.0	6.9	1.5	0.0	1.3	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.3	0.0	0.0	7.4	0.0	10.8	22.9	0.0	22.5	50.7	0.0	0.0
LnGrp LOS	B			A		B	C		C	D		
Approach Vol, veh/h		422			654			127			3	
Approach Delay, s/veh		14.3			10.4			22.7			50.7	
Approach LOS		B			B			C			D	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	6.1	27.5		12.8		33.6		6.3				
Change Period (Y+Rc), s	3.5	6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s	16.5	39.0		19.0		59.0		19.0				
Max Q Clear Time (g_c+I1), s	3.8	11.3		4.0		12.6		2.1				
Green Ext Time (p_c), s	0.1	8.2		0.8		15.0		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			13.2									
HCM 7th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	365	35	70	550	1	65	1	55	1	1	1
Future Volume (veh/h)	1	365	35	70	550	1	65	1	55	1	1	1
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1381	1203	1953	1870	1693	1870	1381	1870	1870	1870
Adj Flow Rate, veh/h	1	384	37	74	579	1	68	1	58	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	35	47	3	2	14	2	35	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	69	685	66	420	1021	2	207	3	200	4	4	4
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.41	0.41	0.41	0.05	0.52	0.52	0.13	0.13	0.13	0.01	0.01	0.01
Unsig. Movement Delay												
Ln Grp Delay, s/veh	14.3	0.0	0.0	7.4	0.0	10.8	22.9	0.0	22.5	50.7	0.0	0.0
Ln Grp LOS	B			A		B	C		C	D		
Approach Vol, veh/h		422			654			127			3	
Approach Delay, s/veh		14.3			10.4			22.7			50.7	
Approach LOS		B			B			C			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8	4		6		
Case No	1.2	8.3	12.0	10.0		4.0		
Phs Duration (G+Y+Rc), s	6.1	27.5	6.3	12.8		33.6		
Change Period (Y+Rc), s	3.5	6.0	6.0	6.0		6.0		
Max Green (Gmax), s	16.5	39.0	19.0	19.0		59.0		
Max Allow Headway (MAH), s	3.9	9.1	7.5	6.7		9.1		
Max Q Clear (g_c+I1), s	3.8	11.3	2.1	4.0		12.6		
Green Ext Time (g_e), s	0.1	8.2	0.0	0.8		15.0		
Prob of Phs Call (p_c)	0.66	1.00	0.04	0.84		1.00		
Prob of Max Out (p_x)	0.00	0.16	0.00	0.03		0.10		

Left-Turn Movement Data								
Assigned Mvmt	1	5	3	7				
Mvmt Sat Flow, veh/h	1146	1	579	1612				

Through Movement Data								
Assigned Mvmt		2	8	4		6		
Mvmt Sat Flow, veh/h		1678	579	27		1949		

Right-Turn Movement Data								
Assigned Mvmt		12	18	14		16		
Mvmt Sat Flow, veh/h		161	579	1562		3		

Left Lane Group Data								
Assigned Mvmt	1	5	3	7	0	0	0	0

Lane Assignment	L (Pr/Pm)	L+T+R	L+T+R	L				
Lanes in Grp	1	1	1	1	0	0	0	0
Grp Vol (v), veh/h	74	422	3	68	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1146	1840	1737	1612	0	0	0	0
Q Serve Time (g_s), s	1.8	0.0	0.1	2.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	1.8	9.3	0.1	2.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	621	847	0	1612	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	385	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	23.5	21.5	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	12.2	17.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	18.2	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	9.3	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.33	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	420	819	11	207	0	0	0	0
V/C Ratio (X)	0.18	0.52	0.26	0.33	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	722	1428	626	581	0	0	0	0
Upstream Filter (I)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	7.2	12.0	26.1	20.9	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.2	2.3	24.6	2.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.4	14.3	50.7	22.9	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.3	3.0	0.0	0.7	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.1	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	1.80	1.80	1.80	0.00	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.6	6.4	0.2	1.5	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.11	0.07	0.03	0.22	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	4	0	6	0	0
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	14	0	16	0	0
Lane Assignment				T+R		T+R		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	59	0	580	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1589	0	1953	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	1.8	0.0	10.6	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	1.8	0.0	10.6	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.09	0.33	0.98	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	204	0	1023	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.29	0.00	0.57	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	573	0	2185	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	20.8	0.0	8.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.7	0.0	2.3	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	22.5	0.0	10.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.6	0.0	3.2	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.6	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.80	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	1.3	0.0	6.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.11	0.00	0.18	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	13.2
HCM 7th LOS	B

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	15	100	1	10	100
Future Vol, veh/h	1	15	100	1	10	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	19	2	2	52
Mvmt Flow	1	16	105	1	11	105

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	232	106	0	0	106	0
Stage 1	106	-	-	-	-	-
Stage 2	126	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	756	949	-	-	1485	-
Stage 1	919	-	-	-	-	-
Stage 2	899	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	750	949	-	-	1485	-
Mov Cap-2 Maneuver	755	-	-	-	-	-
Stage 1	919	-	-	-	-	-
Stage 2	893	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.93	0	0.68
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	934	164	-
HCM Lane V/C Ratio	-	-	0.018	0.007	-
HCM Control Delay (s/veh)	-	-	8.9	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	25	75	1	1	95
Future Vol, veh/h	5	25	75	1	1	95
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	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	100	19	2	2	52
Mvmt Flow	5	26	79	1	1	100

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	182	79	0	0	80	0
Stage 1	79	-	-	-	-	-
Stage 2	102	-	-	-	-	-
Critical Hdwy	6.4	7.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	4.2	-	-	2.218	-
Pot Cap-1 Maneuver	812	766	-	-	1518	-
Stage 1	949	-	-	-	-	-
Stage 2	927	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	812	766	-	-	1518	-
Mov Cap-2 Maneuver	798	-	-	-	-	-
Stage 1	949	-	-	-	-	-
Stage 2	926	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.87	0	0.08
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	771	1518	-
HCM Lane V/C Ratio	-	-	0.041	0.001	-
HCM Control Delay (s/veh)	-	-	9.9	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	60	10	1	15	0	10	0	10	0	0	0
Future Vol, veh/h	0	60	10	1	15	0	10	0	10	0	0	0
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	46	2	2	24	2	2	2	2	2	2	43
Mvmt Flow	0	63	11	1	16	0	11	0	11	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	74	0	0	86	86	68	81	92	16
Stage 1	-	-	-	-	-	-	68	68	-	18	18	-
Stage 2	-	-	-	-	-	-	18	18	-	63	74	-
Critical Hdwy	-	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.63
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.687
Pot Cap-1 Maneuver	0	-	-	1526	-	0	900	804	995	907	798	956
Stage 1	0	-	-	-	-	0	942	838	-	1001	880	-
Stage 2	0	-	-	-	-	0	1001	880	-	948	834	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1526	-	-	899	803	995	897	798	956
Mov Cap-2 Maneuver	-	-	-	-	-	-	899	803	-	897	798	-
Stage 1	-	-	-	-	-	-	942	838	-	1001	880	-
Stage 2	-	-	-	-	-	-	1001	880	-	938	834	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0.46	8.9	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	944	-	-	112	-	-
HCM Lane V/C Ratio	0.022	-	-	0.001	-	-
HCM Control Delay (s/veh)	8.9	-	-	7.4	0	0
HCM Lane LOS	A	-	-	A	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-	-

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	20	5	5	1	10
Future Vol, veh/h	50	20	5	5	1	10
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, %	70	2	2	2	2	27
Mvmt Flow	53	21	5	5	1	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	22	6	12	0	-	0
Stage 1	6	-	-	-	-	-
Stage 2	16	-	-	-	-	-
Critical Hdwy	7.1	6.22	4.12	-	-	-
Critical Hdwy Stg 1	6.1	-	-	-	-	-
Critical Hdwy Stg 2	6.1	-	-	-	-	-
Follow-up Hdwy	4.13	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	845	1076	1607	-	-	-
Stage 1	866	-	-	-	-	-
Stage 2	856	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	842	1076	1607	-	-	-
Mov Cap-2 Maneuver	842	-	-	-	-	-
Stage 1	863	-	-	-	-	-
Stage 2	856	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.37	3.62	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	900	-	898	-	-
HCM Lane V/C Ratio	0.003	-	0.082	-	-
HCM Control Delay (s/veh)	7.2	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑		↱
Traffic Vol, veh/h	430	0	0	610	0	40
Future Vol, veh/h	430	0	0	610	0	40
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	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	2	2	7	2	46
Mvmt Flow	453	0	0	642	0	42

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	453
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.66
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.714
Pot Cap-1 Maneuver	-	0	0	-	0	525
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	525
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	12.45
HCM LOS			B

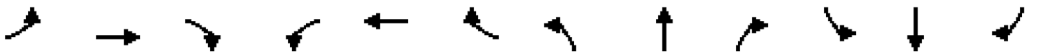
Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	525	-	-
HCM Lane V/C Ratio	0.08	-	-
HCM Control Delay (s/veh)	12.5	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.3	-	-

Kimley»Horn

ATTACHMENT 10 – FUTURE (2031) CAPACITY ANALYSIS REPORTS – ALTERNATIVE 2

HCM 7th Signalized Intersection Summary
100: Churnovic Lane/Private Drive & Division Street

Alternative 2 (2031) Traffic Volum
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	270	175	145	185	1	105	1	80	1	1	1
Future Volume (veh/h)	1	270	175	145	185	1	105	1	80	1	1	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1796	1737	1781	1938	1870	1678	1870	1752	1870	1870	1870
Adj Flow Rate, veh/h	1	284	184	153	195	1	111	1	84	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	7	11	8	4	2	15	2	10	2	2	2
Cap, veh/h	61	437	282	540	1085	6	206	2	202	4	4	4
Arrive On Green	0.43	0.43	0.43	0.08	0.56	0.56	0.13	0.13	0.13	0.01	0.01	0.01
Sat Flow, veh/h	1	1019	658	1697	1926	10	1598	19	1569	579	579	579
Grp Volume(v), veh/h	469	0	0	153	0	196	111	0	85	3	0	0
Grp Sat Flow(s),veh/h/ln	1678	0	0	1697	0	1936	1598	0	1588	1737	0	0
Q Serve(g_s), s	0.0	0.0	0.0	2.7	0.0	2.9	3.9	0.0	2.9	0.1	0.0	0.0
Cycle Q Clear(g_c), s	13.2	0.0	0.0	2.7	0.0	2.9	3.9	0.0	2.9	0.1	0.0	0.0
Prop In Lane	0.00		0.39	1.00		0.01	1.00		0.99	0.33		0.33
Lane Grp Cap(c), veh/h	779	0	0	540	0	1090	206	0	204	11	0	0
V/C Ratio(X)	0.60	0.00	0.00	0.28	0.00	0.18	0.54	0.00	0.42	0.27	0.00	0.00
Avail Cap(c_a), veh/h	1436	0	0	737	0	2075	375	0	372	407	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.5	0.0	0.0	7.0	0.0	6.3	24.4	0.0	23.9	29.5	0.0	0.0
Incr Delay (d2), s/veh	3.4	0.0	0.0	0.3	0.0	0.4	4.6	0.0	2.9	24.8	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.5	0.0	0.0	1.4	0.0	1.8	3.0	0.0	2.2	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.0	0.0	0.0	7.3	0.0	6.7	29.0	0.0	26.8	54.3	0.0	0.0
LnGrp LOS	B			A		A	C		C	D		
Approach Vol, veh/h		469			349			196			3	
Approach Delay, s/veh		17.0			7.0			28.0			54.3	
Approach LOS		B			A			C			D	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	8.0	31.6		13.7		39.6		6.4				
Change Period (Y+Rc), s	3.5	6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s	11.5	49.0		14.0		64.0		14.0				
Max Q Clear Time (g_c+I1), s	4.7	15.2		5.9		4.9		2.1				
Green Ext Time (p_c), s	0.2	10.4		0.9		4.1		0.0				

Intersection Summary			
HCM 7th Control Delay, s/veh		15.8	
HCM 7th LOS		B	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	270	175	145	185	1	105	1	80	1	1	1
Future Volume (veh/h)	1	270	175	145	185	1	105	1	80	1	1	1
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1796	1737	1781	1938	1870	1678	1870	1752	1870	1870	1870
Adj Flow Rate, veh/h	1	284	184	153	195	1	111	1	84	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	7	11	8	4	2	15	2	10	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	61	437	282	540	1085	6	206	2	202	4	4	4
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.43	0.43	0.43	0.08	0.56	0.56	0.13	0.13	0.13	0.01	0.01	0.01
Unsig. Movement Delay												
Ln Grp Delay, s/veh	17.0	0.0	0.0	7.3	0.0	6.7	29.0	0.0	26.8	54.3	0.0	0.0
Ln Grp LOS	B			A		A	C		C	D		
Approach Vol, veh/h		469			349			196			3	
Approach Delay, s/veh		17.0			7.0			28.0			54.3	
Approach LOS		B			A			C			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8	4		6		
Case No	1.2	8.3	12.0	10.0		4.0		
Phs Duration (G+Y+Rc), s	8.0	31.6	6.4	13.7		39.6		
Change Period (Y+Rc), s	3.5	6.0	6.0	6.0		6.0		
Max Green (Gmax), s	11.5	49.0	14.0	14.0		64.0		
Max Allow Headway (MAH), s	3.8	9.3	7.5	6.7		9.1		
Max Q Clear (g_c+I1), s	4.7	15.2	2.1	5.9		4.9		
Green Ext Time (g_e), s	0.2	10.4	0.0	0.9		4.1		
Prob of Phs Call (p_c)	0.92	1.00	0.05	0.96		1.00		
Prob of Max Out (p_x)	0.07	0.13	0.00	0.61		0.00		

Left-Turn Movement Data								
Assigned Mvmt	1	5	3	7				
Mvmt Sat Flow, veh/h	1697	1	579	1598				

Through Movement Data								
Assigned Mvmt		2	8	4		6		
Mvmt Sat Flow, veh/h		1019	579	19		1926		

Right-Turn Movement Data								
Assigned Mvmt		12	18	14		16		
Mvmt Sat Flow, veh/h		658	579	1569		10		

Left Lane Group Data								
Assigned Mvmt	1	5	3	7	0	0	0	0

Lane Assignment	L (Pr/Pm)	L+T+R	L+T+R	L				
Lanes in Grp	1	1	1	1	0	0	0	0
Grp Vol (v), veh/h	153	469	3	111	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1697	1678	1737	1598	0	0	0	0
Q Serve Time (g_s), s	2.7	0.0	0.1	3.9	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	2.7	13.2	0.1	3.9	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	881	1206	0	1598	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	422	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	27.6	25.6	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	12.4	25.6	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	13.2	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.33	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	540	779	11	206	0	0	0	0
V/C Ratio (X)	0.28	0.60	0.27	0.54	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	737	1436	407	375	0	0	0	0
Upstream Filter (I)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	7.0	13.5	29.5	24.4	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.3	3.4	24.8	4.6	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.3	17.0	54.3	29.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.8	4.2	0.0	1.4	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.1	0.3	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	1.74	1.80	1.80	0.00	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	1.4	8.5	0.2	3.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.19	0.09	0.03	0.44	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	4	0	6	0	0
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	14	0	16	0	0
Lane Assignment				T+R		T+R		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	85	0	196	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1588	0	1936	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	2.9	0.0	2.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	2.9	0.0	2.9	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.39	0.33	0.99	0.00	0.01	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	204	0	1090	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.42	0.00	0.18	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	372	0	2075	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	23.9	0.0	6.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.9	0.0	0.4	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	26.8	0.0	6.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.1	0.0	0.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.80	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	2.2	0.0	1.8	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.19	0.00	0.05	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	15.8
HCM 7th LOS	B

Intersection	
Int Delay, s/veh	5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	120	45	5	170	145
Future Vol, veh/h	5	120	45	5	170	145
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	39	2	2	32
Mvmt Flow	5	126	47	5	179	153

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	561	50	0	0	53	0
Stage 1	50	-	-	-	-	-
Stage 2	511	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	489	1018	-	-	1553	-
Stage 1	972	-	-	-	-	-
Stage 2	603	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	428	1018	-	-	1553	-
Mov Cap-2 Maneuver	467	-	-	-	-	-
Stage 1	972	-	-	-	-	-
Stage 2	527	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.28	0	4.11
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	972	971	-
HCM Lane V/C Ratio	-	-	0.135	0.115	-
HCM Control Delay (s/veh)	-	-	9.3	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.4	-

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	25	35	1	1	145
Future Vol, veh/h	10	25	35	1	1	145
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	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	73	39	2	2	32
Mvmt Flow	11	26	37	1	1	153

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	192	37	0	0	38	0
Stage 1	37	-	-	-	-	-
Stage 2	155	-	-	-	-	-
Critical Hdwy	6.42	6.93	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.957	-	-	2.218	-
Pot Cap-1 Maneuver	797	864	-	-	1572	-
Stage 1	985	-	-	-	-	-
Stage 2	873	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	796	864	-	-	1572	-
Mov Cap-2 Maneuver	777	-	-	-	-	-
Stage 1	985	-	-	-	-	-
Stage 2	873	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.5	0	0.05
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	837	1572	-
HCM Lane V/C Ratio	-	-	0.044	0.001	-
HCM Control Delay (s/veh)	-	-	9.5	7.3	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

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	0	115	10	10	50	0	5	0	5	0	0	0
Future Vol, veh/h	0	115	10	10	50	0	5	0	5	0	0	0
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	26	2	33	46	2	2	2	2	2	2	55
Mvmt Flow	0	121	11	11	53	0	5	0	5	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	132	0	0	200	200	126	195	205	53
Stage 1	-	-	-	-	-	-	126	126	-	74	74	-
Stage 2	-	-	-	-	-	-	74	74	-	121	132	-
Critical Hdwy	-	-	-	4.43	-	-	7.12	6.52	6.22	7.12	6.52	6.75
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	-	-	-	2.497	-	-	3.518	4.018	3.318	3.518	4.018	3.795
Pot Cap-1 Maneuver	0	-	-	1283	-	0	759	696	924	765	691	884
Stage 1	0	-	-	-	-	0	878	791	-	936	834	-
Stage 2	0	-	-	-	-	0	936	834	-	883	787	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1283	-	-	752	690	924	754	685	884
Mov Cap-2 Maneuver	-	-	-	-	-	-	752	690	-	754	685	-
Stage 1	-	-	-	-	-	-	878	791	-	928	827	-
Stage 2	-	-	-	-	-	-	928	827	-	878	787	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	1.3	9.4	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	829	-	-	300	-	-
HCM Lane V/C Ratio	0.013	-	-	0.008	-	-
HCM Control Delay (s/veh)	9.4	-	-	7.8	0	0
HCM Lane LOS	A	-	-	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	43	78	45	5	5	5
Future Vol, veh/h	43	78	45	5	5	5
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	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	35	2	2	2	2	71
Mvmt Flow	45	82	47	5	5	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	53	0	-	0	223	50
Stage 1	-	-	-	-	50	-
Stage 2	-	-	-	-	173	-
Critical Hdwy	4.45	-	-	-	6.42	6.91
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.515	-	-	-	3.518	3.939
Pot Cap-1 Maneuver	1366	-	-	-	766	853
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	858	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1366	-	-	-	739	853
Mov Cap-2 Maneuver	-	-	-	-	739	-
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	858	-

Approach	EB	WB	SB
HCM Control Delay, s/v	2.75	0	9.61
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	640	-	-	-	792
HCM Lane V/C Ratio	0.033	-	-	-	0.013
HCM Control Delay (s/veh)	7.7	0	-	-	9.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	375	0	0	325	0	25
Future Vol, veh/h	375	0	0	325	0	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	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	8	2	2	6	2	52
Mvmt Flow	395	0	0	342	0	26

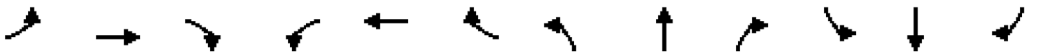
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	395
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.72
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.768
Pot Cap-1 Maneuver	-	0	0	-	0	558
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	558
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	11.77
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	558	-	-
HCM Lane V/C Ratio	0.047	-	-
HCM Control Delay (s/veh)	11.8	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-

HCM 7th Signalized Intersection Summary
100: Churnovic Lane/Private Drive & Division Street

Alternative 2 (2031) Traffic Volum
Mid-Day Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	280	75	55	295	1	155	1	90	1	1	1
Future Volume (veh/h)	1	280	75	55	295	1	155	1	90	1	1	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1811	1618	1589	1938	1870	1781	1870	1796	1870	1870	1870
Adj Flow Rate, veh/h	1	295	79	58	311	1	163	1	95	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	6	19	21	4	2	8	2	7	2	2	2
Cap, veh/h	76	472	126	466	873	3	276	3	256	4	4	4
Arrive On Green	0.34	0.34	0.34	0.04	0.45	0.45	0.16	0.16	0.16	0.01	0.01	0.01
Sat Flow, veh/h	1	1376	367	1513	1930	6	1697	17	1571	579	579	579
Grp Volume(v), veh/h	375	0	0	58	0	312	163	0	96	3	0	0
Grp Sat Flow(s),veh/h/ln	1744	0	0	1513	0	1936	1697	0	1588	1737	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.1	0.0	5.0	4.2	0.0	2.6	0.1	0.0	0.0
Cycle Q Clear(g_c), s	8.6	0.0	0.0	1.1	0.0	5.0	4.2	0.0	2.6	0.1	0.0	0.0
Prop In Lane	0.00		0.21	1.00		0.00	1.00		0.99	0.33		0.33
Lane Grp Cap(c), veh/h	674	0	0	466	0	876	276	0	258	11	0	0
V/C Ratio(X)	0.56	0.00	0.00	0.12	0.00	0.36	0.59	0.00	0.37	0.26	0.00	0.00
Avail Cap(c_a), veh/h	1139	0	0	778	0	1792	321	0	300	329	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.1	0.0	0.0	8.3	0.0	8.5	18.4	0.0	17.7	23.5	0.0	0.0
Incr Delay (d2), s/veh	3.3	0.0	0.0	0.1	0.0	1.1	4.3	0.0	1.9	24.5	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.9	0.0	0.0	0.5	0.0	3.3	3.3	0.0	1.8	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.4	0.0	0.0	8.4	0.0	9.6	22.8	0.0	19.6	48.0	0.0	0.0
LnGrp LOS	B			A		A	C		B	D		
Approach Vol, veh/h		375			370			259			3	
Approach Delay, s/veh		16.4			9.4			21.6			48.0	
Approach LOS		B			A			C			D	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	5.2	22.3		13.7		27.5		6.3				
Change Period (Y+Rc), s	3.5	6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s	11.5	29.0		9.0		44.0		9.0				
Max Q Clear Time (g_c+I1), s	3.1	10.6		6.2		7.0		2.1				
Green Ext Time (p_c), s	0.1	5.8		0.5		6.4		0.0				

Intersection Summary			
HCM 7th Control Delay, s/veh		15.3	
HCM 7th LOS		B	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	280	75	55	295	1	155	1	90	1	1	1
Future Volume (veh/h)	1	280	75	55	295	1	155	1	90	1	1	1
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1811	1618	1589	1938	1870	1781	1870	1796	1870	1870	1870
Adj Flow Rate, veh/h	1	295	79	58	311	1	163	1	95	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	6	19	21	4	2	8	2	7	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	76	472	126	466	873	3	276	3	256	4	4	4
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.34	0.34	0.34	0.04	0.45	0.45	0.16	0.16	0.16	0.01	0.01	0.01
Unsig. Movement Delay												
Ln Grp Delay, s/veh	16.4	0.0	0.0	8.4	0.0	9.6	22.8	0.0	19.6	48.0	0.0	0.0
Ln Grp LOS	B			A		A	C		B	D		
Approach Vol, veh/h		375			370			259			3	
Approach Delay, s/veh		16.4			9.4			21.6			48.0	
Approach LOS		B			A			C			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8	4		6		
Case No	1.2	8.3	12.0	10.0		4.0		
Phs Duration (G+Y+Rc), s	5.2	22.3	6.3	13.7		27.5		
Change Period (Y+Rc), s	3.5	6.0	6.0	6.0		6.0		
Max Green (Gmax), s	11.5	29.0	9.0	9.0		44.0		
Max Allow Headway (MAH), s	3.8	9.2	7.5	6.6		9.1		
Max Q Clear (g_c+I1), s	3.1	10.6	2.1	6.2		7.0		
Green Ext Time (g_e), s	0.1	5.8	0.0	0.5		6.4		
Prob of Phs Call (p_c)	0.54	1.00	0.04	0.97		1.00		
Prob of Max Out (p_x)	0.00	0.36	1.00	1.00		0.02		

Left-Turn Movement Data								
Assigned Mvmt	1	5	3	7				
Mvmt Sat Flow, veh/h	1513	1	579	1697				

Through Movement Data								
Assigned Mvmt		2	8	4		6		
Mvmt Sat Flow, veh/h		1376	579	17		1930		

Right-Turn Movement Data								
Assigned Mvmt		12	18	14		16		
Mvmt Sat Flow, veh/h		367	579	1571		6		

Left Lane Group Data								
Assigned Mvmt	1	5	3	7	0	0	0	0

Lane Assignment	L (Pr/Pm)	L+T+R	L+T+R	L				
Lanes in Grp	1	1	1	1	0	0	0	0
Grp Vol (v), veh/h	58	375	3	163	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1513	1744	1737	1697	0	0	0	0
Q Serve Time (g_s), s	1.1	0.0	0.1	4.2	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	1.1	8.6	0.1	4.2	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	857	1084	0	1697	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	543	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	18.3	16.3	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	7.8	16.3	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	13.4	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	8.6	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.33	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	466	674	11	276	0	0	0	0
V/C Ratio (X)	0.12	0.56	0.26	0.59	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	778	1139	329	321	0	0	0	0
Upstream Filter (I)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	8.3	13.1	23.5	18.4	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	3.3	24.5	4.3	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	8.4	16.4	48.0	22.8	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.3	2.7	0.0	1.5	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.1	0.3	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	1.80	1.80	1.80	0.00	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.5	5.9	0.2	3.3	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.08	0.06	0.03	0.47	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	4	0	6	0	0
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	14	0	16	0	0
Lane Assignment				T+R		T+R		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	96	0	312	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1588	0	1936	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	2.6	0.0	5.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	2.6	0.0	5.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.21	0.33	0.99	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	258	0	876	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.37	0.00	0.36	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	300	0	1792	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	17.7	0.0	8.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.9	0.0	1.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	19.6	0.0	9.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.9	0.0	1.5	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.80	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	1.8	0.0	3.3	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.16	0.00	0.09	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	15.3
HCM 7th LOS	B

Intersection	
Int Delay, s/veh	4.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	130	85	5	45	100
Future Vol, veh/h	5	130	85	5	45	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	39	2	2	31
Mvmt Flow	5	137	89	5	47	105

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	292	92	0	0	95	0
Stage 1	92	-	-	-	-	-
Stage 2	200	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	699	965	-	-	1499	-
Stage 1	931	-	-	-	-	-
Stage 2	834	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	675	965	-	-	1499	-
Mov Cap-2 Maneuver	695	-	-	-	-	-
Stage 1	931	-	-	-	-	-
Stage 2	806	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.45	0	2.32
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	952	559	-
HCM Lane V/C Ratio	-	-	0.149	0.032	-
HCM Control Delay (s/veh)	-	-	9.4	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	15	90	1	1	105
Future Vol, veh/h	20	15	90	1	1	105
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	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	100	39	2	2	31
Mvmt Flow	21	16	95	1	1	111

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	208	95	0	0	96	0
Stage 1	95	-	-	-	-	-
Stage 2	113	-	-	-	-	-
Critical Hdwy	6.42	7.2	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	4.2	-	-	2.218	-
Pot Cap-1 Maneuver	780	749	-	-	1498	-
Stage 1	928	-	-	-	-	-
Stage 2	912	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	780	749	-	-	1498	-
Mov Cap-2 Maneuver	776	-	-	-	-	-
Stage 1	928	-	-	-	-	-
Stage 2	911	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.95	0	0.07
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	764	1498	-
HCM Lane V/C Ratio	-	-	0.048	0.001	-
HCM Control Delay (s/veh)	-	-	10	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

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	0	90	1	5	50	0	5	0	10	0	0	0
Future Vol, veh/h	0	90	1	5	50	0	5	0	10	0	0	0
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	36	2	2	13	2	2	2	2	2	2	55
Mvmt Flow	0	95	1	5	53	0	5	0	11	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	96	0	0	158	158	95	158	159	53
Stage 1	-	-	-	-	-	-	95	95	-	63	63	-
Stage 2	-	-	-	-	-	-	63	63	-	95	96	-
Critical Hdwy	-	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.75
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.795
Pot Cap-1 Maneuver	0	-	-	1498	-	0	807	734	961	808	733	884
Stage 1	0	-	-	-	-	0	911	816	-	948	842	-
Stage 2	0	-	-	-	-	0	948	842	-	912	816	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1498	-	-	805	731	961	796	731	884
Mov Cap-2 Maneuver	-	-	-	-	-	-	805	731	-	796	731	-
Stage 1	-	-	-	-	-	-	911	816	-	944	839	-
Stage 2	-	-	-	-	-	-	944	839	-	902	816	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0.67	9.06	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	903	-	-	164	-	-
HCM Lane V/C Ratio	0.017	-	-	0.004	-	-
HCM Control Delay (s/veh)	9.1	-	-	7.4	0	0
HCM Lane LOS	A	-	-	A	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	45	50	45	5	1	5
Future Vol, veh/h	45	50	45	5	1	5
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	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	39	2	2	2	2	50
Mvmt Flow	47	53	47	5	1	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	53	0	-	0	197	50
Stage 1	-	-	-	-	50	-
Stage 2	-	-	-	-	147	-
Critical Hdwy	4.49	-	-	-	6.42	6.7
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.551	-	-	-	3.518	3.75
Pot Cap-1 Maneuver	1346	-	-	-	791	898
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	880	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1346	-	-	-	763	898
Mov Cap-2 Maneuver	-	-	-	-	763	-
Stage 1	-	-	-	-	937	-
Stage 2	-	-	-	-	880	-

Approach	EB	WB	SB
HCM Control Delay, s/v	3.68	0	9.16
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	853	-	-	-	872
HCM Lane V/C Ratio	0.035	-	-	-	0.007
HCM Control Delay (s/veh)	7.8	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	390	0	0	360	0	10
Future Vol, veh/h	390	0	0	360	0	10
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	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	6	2	32
Mvmt Flow	411	0	0	379	0	11

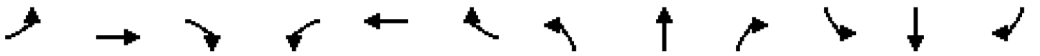
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	411
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.52
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.588
Pot Cap-1 Maneuver	-	0	0	-	0	581
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	581
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	11.31
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	581	-	-
HCM Lane V/C Ratio	0.018	-	-
HCM Control Delay (s/veh)	11.3	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-

HCM 7th Signalized Intersection Summary
100: Churnovic Lane/Private Drive & Division Street

Alternative 2 (2031) Traffic Volum
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	355	45	55	520	1	95	1	40	1	1	1
Future Volume (veh/h)	1	355	45	55	520	1	95	1	40	1	1	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1381	1203	1953	1870	1693	1870	1381	1870	1870	1870
Adj Flow Rate, veh/h	1	374	47	58	547	1	100	1	42	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	35	47	3	2	14	2	35	2	2	2
Cap, veh/h	71	648	81	406	985	2	219	5	211	4	4	4
Arrive On Green	0.40	0.40	0.40	0.04	0.51	0.51	0.14	0.14	0.14	0.01	0.01	0.01
Sat Flow, veh/h	1	1628	204	1146	1949	4	1612	37	1554	579	579	579
Grp Volume(v), veh/h	422	0	0	58	0	548	100	0	43	3	0	0
Grp Sat Flow(s),veh/h/ln	1833	0	0	1146	0	1953	1612	0	1591	1737	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.4	0.0	9.9	2.9	0.0	1.2	0.1	0.0	0.0
Cycle Q Clear(g_c), s	9.2	0.0	0.0	1.4	0.0	9.9	2.9	0.0	1.2	0.1	0.0	0.0
Prop In Lane	0.00		0.11	1.00		0.00	1.00		0.98	0.33		0.33
Lane Grp Cap(c), veh/h	800	0	0	406	0	987	219	0	216	11	0	0
V/C Ratio(X)	0.53	0.00	0.00	0.14	0.00	0.56	0.46	0.00	0.20	0.26	0.00	0.00
Avail Cap(c_a), veh/h	1468	0	0	732	0	2254	599	0	591	646	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.0	0.0	0.0	7.4	0.0	8.7	20.3	0.0	19.6	25.3	0.0	0.0
Incr Delay (d2), s/veh	2.5	0.0	0.0	0.2	0.0	2.3	3.1	0.0	1.0	24.6	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.4	0.0	0.0	0.5	0.0	6.5	2.2	0.0	0.9	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.5	0.0	0.0	7.6	0.0	10.9	23.5	0.0	20.6	49.9	0.0	0.0
LnGrp LOS	B			A		B	C		C	D		
Approach Vol, veh/h		422			606			143			3	
Approach Delay, s/veh		14.5			10.6			22.6			49.9	
Approach LOS		B			B			C			D	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	5.5	26.4		12.9		31.8		6.3				
Change Period (Y+Rc), s	3.5	6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s	16.5	39.0		19.0		59.0		19.0				
Max Q Clear Time (g_c+I1), s	3.4	11.2		4.9		11.9		2.1				
Green Ext Time (p_c), s	0.1	8.2		0.8		14.0		0.0				

Intersection Summary			
HCM 7th Control Delay, s/veh		13.6	
HCM 7th LOS		B	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	355	45	55	520	1	95	1	40	1	1	1
Future Volume (veh/h)	1	355	45	55	520	1	95	1	40	1	1	1
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1381	1203	1953	1870	1693	1870	1381	1870	1870	1870
Adj Flow Rate, veh/h	1	374	47	58	547	1	100	1	42	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	35	47	3	2	14	2	35	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	71	648	81	406	985	2	219	5	211	4	4	4
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.04	0.51	0.51	0.14	0.14	0.14	0.01	0.01	0.01
Unsig. Movement Delay												
Ln Grp Delay, s/veh	14.5	0.0	0.0	7.6	0.0	10.9	23.5	0.0	20.6	49.9	0.0	0.0
Ln Grp LOS	B			A		B	C		C	D		
Approach Vol, veh/h		422			606			143			3	
Approach Delay, s/veh		14.5			10.6			22.6			49.9	
Approach LOS		B			B			C			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8	4		6		
Case No	1.2	8.3	12.0	10.0		4.0		
Phs Duration (G+Y+Rc), s	5.5	26.4	6.3	12.9		31.8		
Change Period (Y+Rc), s	3.5	6.0	6.0	6.0		6.0		
Max Green (Gmax), s	16.5	39.0	19.0	19.0		59.0		
Max Allow Headway (MAH), s	3.9	9.2	7.5	6.4		9.1		
Max Q Clear (g_c+I1), s	3.4	11.2	2.1	4.9		11.9		
Green Ext Time (g_e), s	0.1	8.2	0.0	0.8		14.0		
Prob of Phs Call (p_c)	0.56	1.00	0.04	0.87		1.00		
Prob of Max Out (p_x)	0.00	0.16	0.00	0.03		0.08		

Left-Turn Movement Data								
Assigned Mvmt	1	5	3	7				
Mvmt Sat Flow, veh/h	1146	1	579	1612				

Through Movement Data								
Assigned Mvmt		2	8	4		6		
Mvmt Sat Flow, veh/h		1628	579	37		1949		

Right-Turn Movement Data								
Assigned Mvmt		12	18	14		16		
Mvmt Sat Flow, veh/h		204	579	1554		4		

Left Lane Group Data								
Assigned Mvmt	1	5	3	7	0	0	0	0

Lane Assignment	L (Pr/Pm)	L+T+R	L+T+R	L				
Lanes in Grp	1	1	1	1	0	0	0	0
Grp Vol (v), veh/h	58	422	3	100	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1146	1833	1737	1612	0	0	0	0
Q Serve Time (g_s), s	1.4	0.0	0.1	2.9	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	1.4	9.2	0.1	2.9	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	621	873	0	1612	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	388	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	22.4	20.4	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	11.2	16.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	17.2	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.33	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	406	800	11	219	0	0	0	0
V/C Ratio (X)	0.14	0.53	0.26	0.46	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	732	1468	646	599	0	0	0	0
Upstream Filter (I)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	7.4	12.0	25.3	20.3	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.2	2.5	24.6	3.1	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.6	14.5	49.9	23.5	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.3	3.0	0.0	1.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.1	0.2	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	1.80	1.80	1.80	0.00	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.5	6.4	0.2	2.2	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.09	0.07	0.03	0.32	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	4	0	6	0	0
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	14	0	16	0	0
Lane Assignment				T+R		T+R		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	43	0	548	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1591	0	1953	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	1.2	0.0	9.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	1.2	0.0	9.9	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.11	0.33	0.98	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	216	0	987	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.20	0.00	0.56	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	591	0	2254	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	19.6	0.0	8.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.0	0.0	2.3	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	20.6	0.0	10.9	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.4	0.0	3.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.6	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.80	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.9	0.0	6.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.08	0.00	0.17	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	13.6
HCM 7th LOS	B

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	15	115	1	10	95
Future Vol, veh/h	1	15	115	1	10	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	19	2	2	52
Mvmt Flow	1	16	121	1	11	100

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	243	122	0	0	122	0
Stage 1	122	-	-	-	-	-
Stage 2	121	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	746	930	-	-	1465	-
Stage 1	904	-	-	-	-	-
Stage 2	904	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	740	930	-	-	1465	-
Mov Cap-2 Maneuver	749	-	-	-	-	-
Stage 1	904	-	-	-	-	-
Stage 2	897	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9	0	0.71
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	916	171	-
HCM Lane V/C Ratio	-	-	0.018	0.007	-
HCM Control Delay (s/veh)	-	-	9	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	20	110	1	1	90
Future Vol, veh/h	10	20	110	1	1	90
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	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	100	19	2	2	52
Mvmt Flow	11	21	116	1	1	95

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	213	116	0	0	117	0
Stage 1	116	-	-	-	-	-
Stage 2	97	-	-	-	-	-
Critical Hdwy	6.4	7.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	4.2	-	-	2.218	-
Pot Cap-1 Maneuver	780	726	-	-	1472	-
Stage 1	914	-	-	-	-	-
Stage 2	932	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	779	726	-	-	1472	-
Mov Cap-2 Maneuver	776	-	-	-	-	-
Stage 1	914	-	-	-	-	-
Stage 2	931	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	10.07	0	0.08
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	742	1472	-
HCM Lane V/C Ratio	-	-	0.043	0.001	-
HCM Control Delay (s/veh)	-	-	10.1	7.4	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	80	5	5	55	0	10	0	15	0	0	0
Future Vol, veh/h	0	80	5	5	55	0	10	0	15	0	0	0
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	46	2	2	24	2	2	2	2	2	2	43
Mvmt Flow	0	84	5	5	58	0	11	0	16	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	89	0	0	155	155	87	153	158	58
Stage 1	-	-	-	-	-	-	87	87	-	68	68	-
Stage 2	-	-	-	-	-	-	68	68	-	84	89	-
Critical Hdwy	-	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.63
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.687
Pot Cap-1 Maneuver	0	-	-	1506	-	0	811	737	972	815	734	904
Stage 1	0	-	-	-	-	0	921	823	-	942	838	-
Stage 2	0	-	-	-	-	0	942	838	-	924	821	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1506	-	-	808	734	972	798	732	904
Mov Cap-2 Maneuver	-	-	-	-	-	-	808	734	-	798	732	-
Stage 1	-	-	-	-	-	-	921	823	-	938	835	-
Stage 2	-	-	-	-	-	-	938	835	-	909	821	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0.62	9.13	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	899	-	-	150	-	-
HCM Lane V/C Ratio	0.029	-	-	0.003	-	-
HCM Control Delay (s/veh)	9.1	-	-	7.4	0	0
HCM Lane LOS	A	-	-	A	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	48	43	45	5	5	10
Future Vol, veh/h	48	43	45	5	5	10
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	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	70	2	2	2	2	27
Mvmt Flow	51	45	47	5	5	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	53	0	-	0	196	50
Stage 1	-	-	-	-	50	-
Stage 2	-	-	-	-	146	-
Critical Hdwy	4.8	-	-	-	6.42	6.47
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.83	-	-	-	3.518	3.543
Pot Cap-1 Maneuver	1211	-	-	-	792	952
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	881	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1211	-	-	-	758	952
Mov Cap-2 Maneuver	-	-	-	-	758	-
Stage 1	-	-	-	-	931	-
Stage 2	-	-	-	-	881	-

Approach	EB	WB	SB
HCM Control Delay, s/v	4.27	0	9.18
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	949	-	-	-	877
HCM Lane V/C Ratio	0.042	-	-	-	0.018
HCM Control Delay (s/veh)	8.1	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑		↱
Traffic Vol, veh/h	405	0	0	565	0	35
Future Vol, veh/h	405	0	0	565	0	35
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	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	2	2	7	2	46
Mvmt Flow	426	0	0	595	0	37

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	426
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.66
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.714
Pot Cap-1 Maneuver	-	0	0	-	0	544
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	544
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	12.09
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	544	-	-
HCM Lane V/C Ratio	0.068	-	-
HCM Control Delay (s/veh)	12.1	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-