#2021-192
275 S. Main Street – Rezoning upon Annexation to M PUD, Preliminary/Final Planned Unit Development, Preliminary/Final Plat of Subdivision
Project Review for Planning and Zoning Commission

Meeting Date: December 1, 2021

Requests:
1. Rezoning upon Annexation to M PUD Manufacturing
2. Preliminary and Final Planned Unit Development to allow a new warehouse
3. Preliminary and Final Plat of Subdivision to create a two lot subdivision.

Location: 275 South Main Street

Acreage: Approximately 63 acres

Existing Zoning: M Manufacturing and I-1 Light Industrial McHenry County

Surrounding Properties:
North: M Manufacturing and E Estate, City Owned brush dump
South: B-2 PUD General Commercial and M PUD Manufacturing
East: M Manufacturing
West: M Manufacturing

Staff Contact: Elizabeth Maxwell (815.356.3615)

Background:

- The site is currently vacant with a portion in the City and a portion under McHenry County's jurisdiction. The entire site would be developed in the City.
- The site is north of the Crystal Lake Business Center business park and ties into Exchange Drive adjacent to several other industrial properties.

Land Use Analysis:

ZONING

- The western portion of the site is currently zoned M Manufacturing and connects to Main Street. The eastern portion of the site has not been annexed and is zoned I-1 Light Industrial by McHenry County and connects to Exchange Drive. The proposed zoning district would be M-PUD Manufacturing Planned Unit Development, which is the most appropriate zoning for this use.
- The Comprehensive Land Use Plan designates this area as Industry. The proposed warehouse and distribution center use fits in the Industry land use designation.

SITE PLAN

- Access into and through the site is provided via Exchange Drive, which is being extended to Main Street.
- The total site is approximately 63 acres. The majority of the site will be utilized as a parking area for employee vehicles and work vehicles used during the day.
- The building and activity areas are setback from property lines to reduce noise and impacts on the surrounding properties.
- Exchange Drive will be constructed as a City street.
- The site meets all setbacks and impervious coverage requirements. The parking lots are setback at least 100 feet from property lines and the building is over 250 feet from the nearest property line.

TRAFFIC STUDY

- A traffic study was completed by Sam Schwartz. This traffic study analyzed the existing traffic and was adjusted to accommodate the Metra traffic pre-COVID.
- It projected future no build and build options and based on those options created recommendations for improvements to the City's roadway network.
- Recommendations include:
    - Installation of a northbound right turn lane into the site from Main Street.
    - Dedication of right-of-way on Main Street.
    - Construction of Exchange Drive to City street standards including a sidewalk on both sides of the road.
    - Various upgrades to minor legs/side streets and the Commonwealth Drive intersection.
    - The proposed use will increase the average volume of traffic at the Exchange Drive and Congress Parkway intersection by 12.5%. Similar to other projects in the City, it is recommended that the petitioner contribute 12.5% of the cost of the scheduled intersection improvement (roundabout installation).

STORMWATER

- Stormwater is accommodated through two basins, which are connected.
- Pond 1 is adjacent to Main Street and will retain the majority of water from the site.
- Pond 2, located in the southeast corner, collects the remaining portion of the site. This pond is connected to Pond 1 via a storm sewer line.
- Both ponds are planted with native plantings that can survive water retention in the bottom of the basin with trees and shrubs on the top of the slopes.

PARKING

- The UDO requires parking for the employees and the vehicles used during business hours.
- The site provides 1,434 spaces which exceeds the UDO requirements.

ELEVATIONS

- The building is constructed of tilt up concrete paneling.
- Decorative scoring, faux windows and blue banding around the canopy and the top of the building has been added to help break up the facade.
- The employee entrance doors are articulated with a projecting entry feature painted the same blue as the top banding.
- Staff has reviewed the elevations based on the criteria listed in the Design Standards. Industrial properties are required to meet 3 of the 6 optional standards. The project meets 3 of the 6 criteria. The elevations meet:
    - Building Materials
    - Building Colors
    - Entrance Design

LANDSCAPE PLAN

- There are some existing trees on the property, primarily around the perimeter of the site. 274.4 inches of trees would be removed, which equates to 110 new 2.5" trees to be planted.
- The extension of Exchange Drive will have street trees planted on both sides. These street trees will create a pleasurable drive through the development and help provide screening from outside the site.
- The perimeter of the site and throughout the parking area will be a combination of trees, shrubs, flowers, and grasses.

SIGNAGE

- The building is permitted 150 square feet of wall signage.
- The illustrated wall signage equals 88.8 square feet.
- There are several monument signs proposed. The monument signs are also used for way-finding signage. The sign is 5 feet high and 25 square feet in sign area. A variation has been requested as part of the PUD for the multiple monument signs.

Findings of fact:

REZONING

- The property is currently zoned M Manufacturing and I-1 Light Industrial in McHenry County.
- Upon Annexation the property would be rezoned to M PUD Manufacturing Planned Unit Development. The Manufacturing zoning criteria are:
    - ✓ General: This district is the primary heavy industrial district, serving uses that are visually obtrusive, generate nuisances such as noise and odors, or have excessive exterior operations or storage of equipment and materials.

- ✓ Character: This district is characterized by large-scale buildings, exterior storage of materials, and/or exposed equipment. Landscape buffers, architectural and design controls are required to mitigate impacts on the City's visual character.
- ✓ Uses: This district is intended to provide for heavy industrial uses with high nuisance potential.

Criteria for Rezoning:

(a) The existing uses and zoning of nearby property.
☐ *Meets* ☐ *Does not meet*

(b) The extent to which property values are diminished by a particular zoning classification or restriction.
☐ *Meets* ☐ *Does not meet*

(c) The extent to which the destruction of property value of a petitioner property owner promotes the health, safety, morals or general welfare of the public.
☐ *Meets* ☐ *Does not meet*

(d) The relative gain to the public as opposed to the hardship imposed on a petitioning property owner.
☐ *Meets* ☐ *Does not meet*

(e) The suitability of the subject property for its zoned purposes.
☐ *Meets* ☐ *Does not meet*

(f) The length of time the property has been vacant as zoned, considered in the context of land development in the area.
☐ *Meets* ☐ *Does not meet*

(g) The Comprehensive Plan designation and the current applicability of that designation.
☐ *Meets* ☐ *Does not meet*

(h) The evidence or lack of evidence, of community need for the use proposed.
☐ *Meets* ☐ *Does not meet*

PRELIMINARY/FINAL PLANNED UNIT DEVELOPMENT

The petitioner is requesting approval of a Preliminary/Final Planned Unit Development to allow the construction of a warehouse and distribution center with a variation for the number of monument signs. A Planned Unit Development is a Special Use and Special Uses require separate review because of their potential to impact surrounding properties and the orderly development of the City.

Section 2-400 B General Standards for all special uses in the Unified Ordinance establishes standards for all special uses in Crystal Lake. Briefly, the criteria are as follows:

1. The use is necessary or desirable, at the proposed location, to provide a service or facility which will further the public convenience and general welfare.

☐ *Meets* ☐ *Does not meet*

2. The use will not be detrimental to area property values.
   ☐ *Meets* ☐ *Does not meet*

3. The use will comply with the zoning districts regulations.
   ☐ *Meets* ☐ *Does not meet*

4. The use will not negatively impact traffic circulation.
   ☐ *Meets* ☐ *Does not meet*

5. The use will not negatively impact public utilities or municipal service delivery systems. If required, the use will contribute financially to the upgrading of public utilities and municipal service delivery systems.
   ☐ *Meets* ☐ *Does not meet*

6. The use will not negatively impact the environment or be unsightly.
   ☐ *Meets* ☐ *Does not meet*

7. The use, where possible will preserve existing mature vegetation, and provide landscaping and architecture, which is aesthetically pleasing, compatible or complementary to surrounding properties and acceptable by community standards.
   ☐ *Meets* ☐ *Does not meet*

8. The use will meet requirements of all regulating governmental agencies.
   ☐ *Meets* ☐ *Does not meet*

9. The use will conform to any conditions approved as part of the issued Special Use Permit.
   ☐ *Meets* ☐ *Does not meet*

10. The use will conform to the regulations established for specific special uses, where applicable.
    ☐ *Meets* ☐ *Does not meet*

In addition PUDs must also meet the standards in Section 4-500 C. Development Standards and 4-500 D. 1 Additional standards for Planned Unit Developments Commercial PUDs.

1. Implements the vision and land use policies of the Comprehensive Plan.
   ☐ Meets ☐ Does not meet

2. Shall not result in substantial adverse effect on adjacent property, natural resources, infrastructure, public sites or other matter of public health, safety and welfare.
   ☐ Meets ☐ Does not meet

3. PUDs must provide transitional uses to blend with adjacent development.
   ☐ Meets ☐ Does not meet

4. PUD phases must be logically sequenced.
   ☐ Meets ☐ Does not meet

5. The density and intensity of a PUD shall be in accordance with the Comprehensive Plan.
   ☐ Meets ☐ Does not meet

6. All dimensional standards shall be listed within the PUD plan if they do not meet the Ordinance minimum standards.
   ☐ Meets ☐ Does not meet

7. The responsible parties for all on-site and other required public improvements shall be established and a utility plan indicating all proposed easements shall be provided.
   ☐ Meets ☐ Does not meet

8. Any private infrastructure shall comply with the city standards.
   ☐ Meets ☐ Does not meet

9. The PUD plan shall establish the responsibility of the applicant/developer.
   ☐ Meets ☐ Does not meet

10. A bond or letter of credit shall be posted to cover required fees or public improvements.
    ☐ Meets ☐ Does not meet

PLANNED UNIT DEVELOPMENT VARIATIONS

The purpose of Planned Unit Developments is to encourage and allow more creative and imaginative design of land developments than is possible under district zoning regulations. Planned Unit Developments are, therefore, intended to allow substantial flexibility in planning and designing a proposal. This flexibility is often in the form of relief from compliance with conventional zoning ordinance site and design requirements which may otherwise require individual requests and applications for zoning variations.

Ideally, this flexibility results in a development that is better planned, contains more amenities, and is ultimately more desirable than one that would have been produced through compliance with typical zoning ordinance and subdivision controls.

Therefore more lenient site requirements may be granted where the Planned Unit Development contains features not normally required of traditional developments. Although a formal variation request is not required to be made in conjunction with a Planned Unit Development, Staff identifies those aspects of the Planned Unit Development which effectively result in variations from UDO requirements. If the evidence is not found to justify these variations from the UDO that fact shall be reported to the City Council with a recommendation that the variations from the UDO which are proposed as part of the Planned Development be lessened or denied.

The Planned Unit Development proposed by the Petitioner includes the following variations from the UDO:

1) Article 4-1000 Signs. Industrial properties are permitted one monument sign. Due to the scale of the site and the fact that the sign is also used as way-finding sign, several signs are proposed. The total number cannot exceed four monument signs at 5 feet high and 25 square feet.

FINAL PLAT OF SUBDIVISION

The petitioner is requesting Final Plat of Subdivision approval for a subdivision with two outlots and right-of-way dedication for Exchange Drive and Main Street. Final Plats are required to meet the following requirements:

a) Promote the health, safety, morals, convenience, order, prosperity and welfare of the present and future inhabitants of the City by providing for the orderly growth and development of the City;
☐ *Meets* ☐ *Does not meet*

b) Coordinating streets and roads within proposed subdivisions with the City's planned street system, and with other public facilities;
☐ *Meets* ☐ *Does not meet*

c) Providing right-of-way easements for streets and utilities;
☐ *Meets* ☐ *Does not meet*

d) Avoiding congestion and overcrowding, and encouraging the proper arrangement of streets in relation to existing or planned streets;
☐ *Meets* ☐ *Does not meet*

e) Ensuring there is adequate open space and recreation facilities to serve development;
☐ *Meets* ☐ *Does not meet*

f) Ensuring there is proper recordation of landownership records;
☐ *Meets* ☐ *Does not meet*

g) Installation of any public improvements including water, sewer, storm sewer or detention, parkway trees, and sidewalks;
☐ *Meets* ☐ *Does not meet*

h) Burial of overhead utility lines and all new lines and services in appropriate easements; and
☐ *Meets* ☐ *Does not meet*

i) Ensuring the provision of such other matters as the City Council may deem necessary in order to protect the general health, safety, and welfare of the City
☐ *Meets* ☐ *Does not meet*

Comprehensive Land Use Plan 2030 Summary Review:

The Comprehensive Plan designates the subject property as Industry, which allows for existing and future industrial business uses. The following goal is applicable to this request:

Land Use – Industry

Goal: Support manufacturing uses within the community which contribute to the regional and local economy and Crystal Lake's live, work, play philosophy.

This can be accomplished with the following supporting actions:

Supporting Action: Expand and attract manufacturing users which provide jobs, services, and products strengthening the City's economy.

Success Indicator: The number of new manufacturing company occupancies.
Success Indicator: The number of properties zoned manufacturing as reviewed annually.

Economic Development – Increase the Number of Jobs

Goal: Reduce barriers and create incentives for the development of projects which will increase the number of construction related jobs.

This can be accomplished with the following supporting actions:

Supporting Action: Focus economic development efforts on growth sectors including green-collar, bio-tech and health sciences, retail and food production, and distribution.

Success Indicator: The number of new occupancies for "green" technology, bio-technology, health sciences, and food production and distribution businesses.

Recommended Conditions:

If a motion to recommend approval of the petitioner's request is made it should be with the following conditions:

1. Approved plans, reflecting staff and advisory board recommendations, as approved by the City Council:
   A. Application (GW Properties, received 05/18/21)
   B. Site Plan (Kimley Horn, dated 10/13/21, received 10/20/21)
   C. Landscape Plan (Kimley Horn, dated 10/13/21, received 10/20/21)
   D. Elevations and Signage (Progressive ae, dated 10/15/21, received 10/20/21)
   E. Plat of Subdivision (Compass Surveying LTD, dated 09/30/21, received 10/20/21)
   F. Plat of Survey (Compass Surveying LTD, dated 08/25/21, received 10/20/21)
   G. Plat of Annexation (Compass Surveying LTD, dated 08/25/21, received 10/20/21)
   H. Preliminary Drainage Report (Kimley-Horn, dated October 15, 2021, received 10/20/21)
   I. Traffic Impact Study (Sam Schwartz, dated November 19, 2021, received 11/19/21)

2. Final Plat of Subdivision
   A. All municipal utilities are required to be in a Municipal Utility Easement (MUE). Work with staff to provide a plat of easement.

3. Landscape Plan
   A. As part of the building permit submittal, provide a final landscape plan indicating the species and size of all plantings.
   B. Provide additional tree plantings at the northeast corner of the property to help screen the building from the residential properties across the railroad tracks.

4. Provide a lighting plan that complies with the UDO exterior lighting standards.

5. Traffic Study: Based on the assumptions and analyses detailed in the report, the following recommendations should be implemented as part of the proposed development project:

   A. The extension of Exchange Drive through the site should provide a single travel lane in each direction. A 30 MPH speed limit should be posted in the east- and westbound directions, particularly near the new intersection with Main Street.

   B. On Commonwealth Drive between Exchange Drive and Congress Parkway, 30 MPH signage should be posted to reinforce City code.

   C. The petitioner must contribute their proportionate fair share of the construction costs for the improvements to Congress Parkway and Exchange Drive traffic circle (12.5% estimated at $80,000) based on the projected traffic volume increase for the proposed development as determined by the traffic impact study dated November 19, 2021 by Sam Schwartz.

   D. The petitioner shall provide a Letter of Credit, Bond or Escrow payment for its share of the above mentioned improvements. Cost participation for off-site improvements will be calculated once final cost estimates have been provided based on the recommendation of the City's traffic engineering consultant as approved by the City's Director of Public Works. In the event that the final cost sharing amount is not determined prior to the time the petitioner is issued a building permit for the site, the petitioner shall provide a Letter of Credit, Bond or Escrow payment in an amount reasonably estimated by the Director of Public Works, by the issuance of a certificate of occupancy for any building on the site. Notwithstanding the foregoing, in the event that the petitioner executes an agreement (which shall be in a form reasonably satisfactory to the Director of Public Works and the City Attorney) to be recorded against the site that ensures the payment of the final cost-sharing amount by the petitioner or petitioner's successor in ownership, the requirement for a Letter of Credit, Bond or Escrow payment shall be waived.

   E. Sidewalks must be constructed on both sides of the extension of Exchange Drive between its current western terminus and the new intersection with Commonwealth Drive. The existing sidewalk on the east side of Commonwealth Drive north of Congress Parkway should be extended to meet Exchange Drive, including a striped crosswalk across the east leg of the Exchange Drive/Commonwealth Drive intersection. Because the sidewalk along the north side of Exchange Drive east of the site is not currently complete, the developer should also coordinate with the City to

identify an appropriate location for a striped crosswalk across Exchange Drive at Access 2 or Access 3 (near the Associates parking lot and building entrances) to connect building employees to the complete sidewalk on the south side of the street.

F. Dedication of 34.92 feet of right-of-way along Main Street.

G. At Main Street/Exchange Drive:
   a. Provide a dedicated northbound right-turn lane with channelization.
   b. Provide a single westbound lane for left- and right-turn maneuvers.
   c. Post minor-leg stop control for westbound traffic.
   d. Post No Left Turn (R3-2) signage for southbound traffic in accordance with MUTCD standards.

H. At Exchange Drive/Commonwealth Drive:

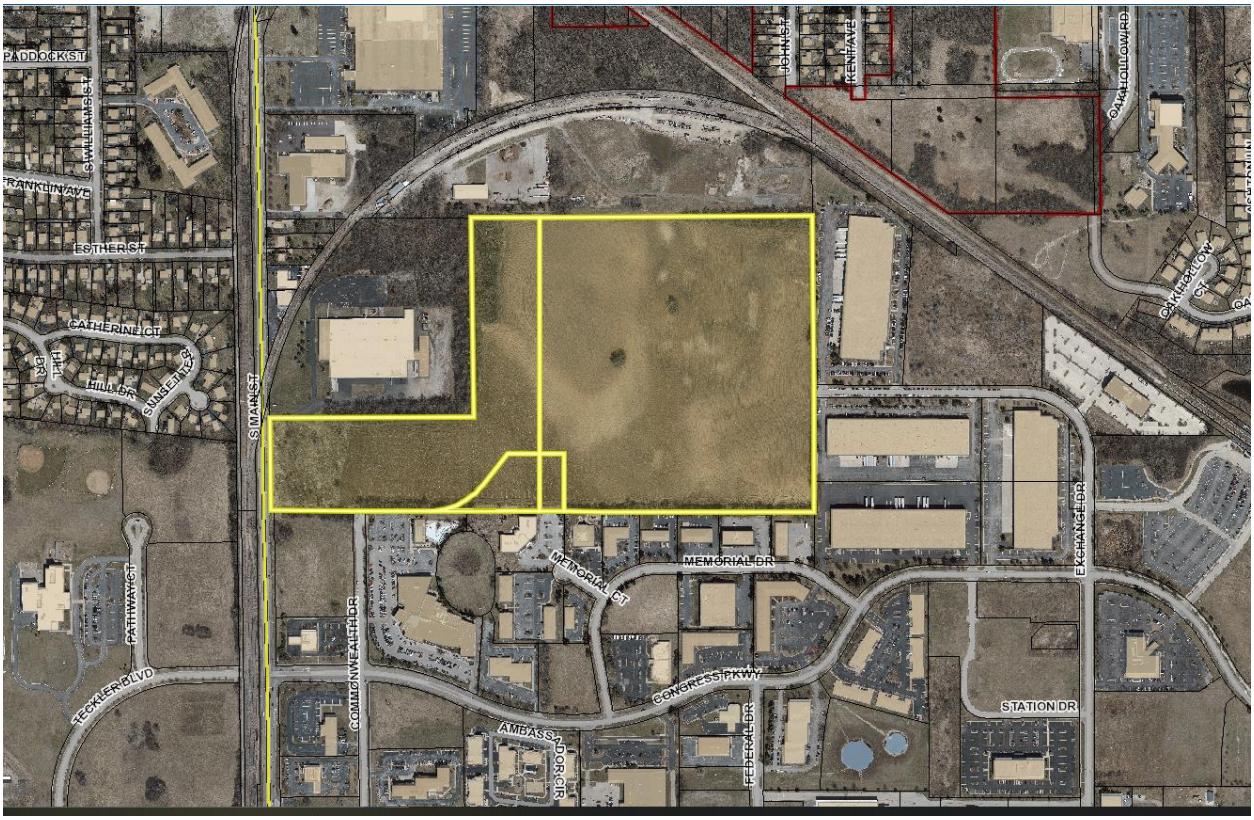
   a. Provide separate left- and right-turn lanes on the northbound approach.
   b. Post minor-leg stop control for northbound Commonwealth Drive.

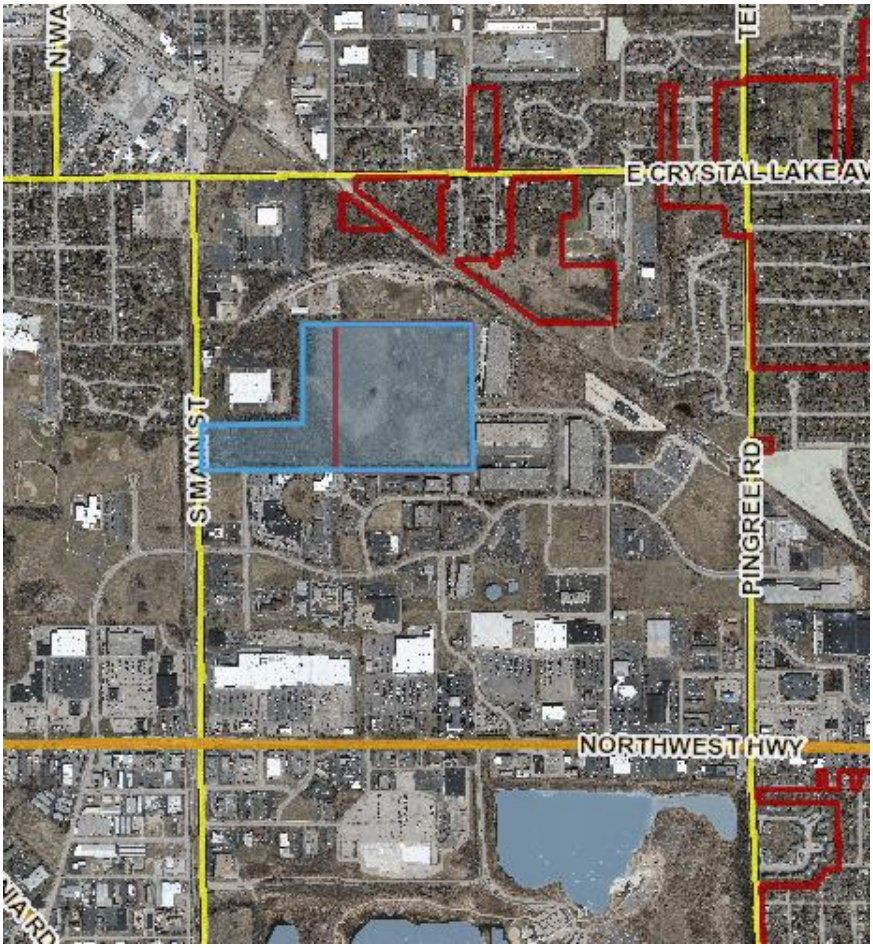
I. Post minor-leg stop control at all site access driveways to Exchange Drive.

6. Provide final detailed engineering plans for review.

7. The petitioner shall address all of the review comments and requirements of the Community Development, Fire Rescue, and Public Works Departments, as well as the City's Stormwater Consultant and the final approved Traffic Study.

PIQ Map
275 South Main Street





City of Crystal Lake
Development Application

Office Use Only
File # _____

Project Title: Project Cooper

Action Requested

- [X] **Annexation** 19-04-152-003 and 19-04-176-003 only
- [ ] **Comprehensive Plan Amendment**
- [ ] **Conceptual PUD Review**
- [X] **Final PUD**
- [ ] **Final PUD Amendment**
- [X] **Final Plat of Subdivision**
- [X] **Preliminary PUD**
- [X] **Preliminary Plat of Subdivision**
- [X] **Rezoning** to M1 PUD
- [ ] **Special Use Permit**
- [ ] **Variation**
- [ ] **Other**

Petitioner Information

Name: Seefried Industrial Properties, Inc.

Address: 8745 W. Higgins Rd., Chicago IL ~~60632~~ 60631

Attn: David Riefe, Sr. VP.

Phone: (847) 298-1122

Fax: _____

E-mail: daveriefe@seefriedproperties.com

Owner Information (if different)

Name: Please see the attached Exhibit A

Address: _____

Phone: _____

Fax: _____

E-mail: _____

Property Information

Project Description: Proposed warehousing and distribution center with outdoor loading and parking of commerical vehicles.

Project Address/Location: Approximately 62 acres generally located northeast of South Main Street and Congress Parkway, Crystal Lake, Illinois 60012

PIN Number(s): 19-04-152-003; 19-04-152-004; 19-04-176-003; and 19-04-176-004

Development Team

Please include address, phone, fax and e-mail

Developer: Seefried Industrial Properties Inc., David D. Riefe, Sr VP-Midwest 845 W Higgins, Chicago IL 60631; 847-298-1122; daveriefe@seefriedproperties com

Architect: Kevin Jacot, Progressive AE, 1811 4 Mile Rd., NE, Grand Rapids, MI 49525 616-361-2604; jacotk@progressiveAE.com

Attorney: Peter C. Bazos, Esq., 1250 Larkin Ave., Suite 100, Elgin, IL 60123, (847) 841-2024, pbazos@bazosfreeman.com

Engineer: Jared Kenyon, Kimley-Horn; 4201 Winfield Rd., #600, Warrenville IL 60555 630-487-5550; jared.kenyon@kimley-horn.com

Landscape Architect: Same as Engineer

Planner: Same as Architect

Surveyor: Helen Belgio, Compass Surveying; 2631 Gingerwoods Pkwy #100 Aurora IL 60502 630-820-9100; hbelgio@clsurveying.com

Other:

Seefried Industrial Properties, Inc.

By: _____ October 18, 2021

PETITIONER: David D. Riefe, Sr. VP - Midwest **Date**

As owner of the property in question, I hereby authorize the seeking of the above requested action.

By: _____ October 18, 2021

OWNER: Print and Sign name Michael J. Curran, President Curran Group, Inc. **Date**

NOTE: If the property is held in trust, the trust officer must sign this petition as owner. In addition, the trust officer must provide a letter that names all beneficiaries of the trust.

SEEFRIED PROPERTIES EXHIBIT A

OWNERSHIP INFORMATION

Parcels 19-04-152-003 and 19-04-176-003 are owned by:

Main Street Crossing Development, LLC, an Illinois limited liability company
Attn: Robert C. Boncosky
24 Grant Street
Crystal Lake, Illinois 60014
rcboncosky@gmail.com

Parcels 19-04-152-004 and 19-04-176-004 are owned by:

The Curran Group, Inc., a Delaware Corporation
Attn: Greg Preves
286 Memorial Court
Crystal Lake, Illinois 60014
Gpreves@currangroup.com

Development Team — Please include address, phone, fax and e-mail

Developer: Seefried Industrial Properties Inc., David D. Riefe, Sr VP-Midwest
845 W Higgins, Chicago IL 60631; 847-298-1122; daveriefe@seefriedproperties.com

Architect: Kevin Jacot, Progressive AE, 1811 4 Mile Rd., NE, Grand Rapids, MI 49525
616-361-2664; jacotk@progressiveAE.com

Attorney: Peter C. Bazos, Esq., 1250 Larkin Ave., Suite 100, Elgin, IL 60123, (847) 841-2024, pbazos@bazosfreeman.com

Engineer: Jared Kenyon, Kimley-Horn; 4201 Winfield Rd., #600, Warrenville IL 60555
630-487-5550; jared.kenyon@kimley-horn.com

Landscape Architect: Same as Engineer

Planner: Same as Architect

Surveyor: Helen Belgio, Compass Surveying; 2631 Gingerwoods Pkwy #100 Aurora IL 60502
630-820-9100; hbelgio@clsurveying.com

Other:

Seefried Industrial Properties, Inc.

By: _____ October 18, 2021

PETITIONER: David D. Riefe, Sr. VP - Midwest — **Date**

Main Street Crossing Development, LLC
As owner of the property in question, I hereby authorize the seeking of the above requested action.

By: Robert C Boncosky

OWNER: Print and Sign name Robert C. Boncosky, Manager of Boncross Management, LLC, its Manager — **Date** 10/18/21

NOTE: If the property is held in trust, the trust officer must sign this petition as owner. In addition, the trust officer must provide a letter that names all beneficiaries of the trust.

SEEFRIED PROPERTIES EXHIBIT A

OWNERSHIP INFORMATION

Parcels 19-04-152-003 and 19-04-176-003 are owned by:

Main Street Crossing Development, LLC, an Illinois limited liability company
Attn: Robert C. Boncosky
24 Grant Street
Crystal Lake, Illinois 60014
rcboncosky@gmail.com

Parcels 19-04-152-004 and 19-04-176-004 are owned by:

The Curran Group, Inc., a Delaware Corporation
Attn: Greg Preves
286 Memorial Court
Crystal Lake, Illinois 60014
Gpreves@currangroup.com

SHAW MEDIA
EST. 1851
PO BOX 250
CRYSTAL LAKE IL 60039-0250
(815)459-4040

ORDER CONFIRMATION

Salesperson: BARBARA BEHRENS Printed at 10/26/21 12:52 by bbehr-sm

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Acct #: 134661 Ad #: 1931292 Status: New

BAZOS, FREEMAN, KRAMER, SCHUSTER, VANE
1250 LARKIN #100
ELGIN IL 60123

Start: 11/02/2021 Stop: 11/02/2021
Times Ord: 1 Times Run: ***
CLEG 1.00 X 72.00 Words: 262
Total CLEG 72.00
Class: C8100 PUBLIC NOTICES
Rate: LEGAL Cost: 111.98
Affidavits: 1

Bill Desc: REZONING -SEEFRIED
Contact: HEATHER A/P
Phone: (847)742-8800
Fax#: (847)742-9777
Email:
Agency:

Descr Cont: 1931292
Ad Descrpt: INTENT TO SELL
Given by: AILEEN WILCON-YOUNG
P.O. #:
Created: bbehr 10/26/21 12:43
Last Changed: bbehr 10/26/21 12:51

URL: _____

Source: _____ Section: _____ Page: __
Camera Ready: N Group: LEGALS AdType: _____
Misc: _____
Color: _____
Proof: __ _____ Pickup Date: _____ Ad#: _____
Delivery Instr: _____ Pickup Src: _____
Changes: None __ Copy __ _____ Art __ Size __ Copy Chg Every Run __
Coupon: __ Gang Ad #: _____
Ad Copy Method: _____
Special Instr: _____

COMMENTS:
COPIED from AD 1907009

PUB	ZONE	EDT	TP	RUN DATES
NW	CL	97	S	11/02
WEB	CL	99	S	11/02
APNW	CL	97	S	11/02

(CONTINUED ON NEXT PAGE)

SHAW MEDIA
EST. 1851
PO BOX 250
CRYSTAL LAKE IL 60039-0250
(815)459-4040

ORDER CONFIRMATION (CONTINUED)

Salesperson: BARBARA BEHRENS Printed at 10/26/21 12:52 by bbehr-sm

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Acct #: 134661 Ad #: 1931292 Status: New

PUBLIC NOTICE

BEFORE THE PLANNING AND ZONING COMMISSION OF THE CITY OF CRYSTAL LAKE, MCHENRY COUNTY, ILLINOIS

IN THE MATTER OF THE PETITION OF
Seefried Industrial Properties, Inc.

LEGAL NOTICE

Notice is hereby given in compliance with the Unified Development Ordinance of the City of Crystal Lake, Illinois that a public hearing will be held before the Planning and Zoning Commission upon the application by Seefried Industrial Properties, Inc., on behalf of The Curran Group, Inc and Main Street Crossing Development, LLC ("Owners") for Rezoning to M-PUD, a Preliminary and Final Plat of Subdivision, and a Preliminary and Final Planned Unit Development, relating to the property at 275 Main Street in Crystal Lake, Illinois 60014.

PIN: 19-04-152-003, 19-04-152-004, 19-04-176-004, 19-04-176-003.

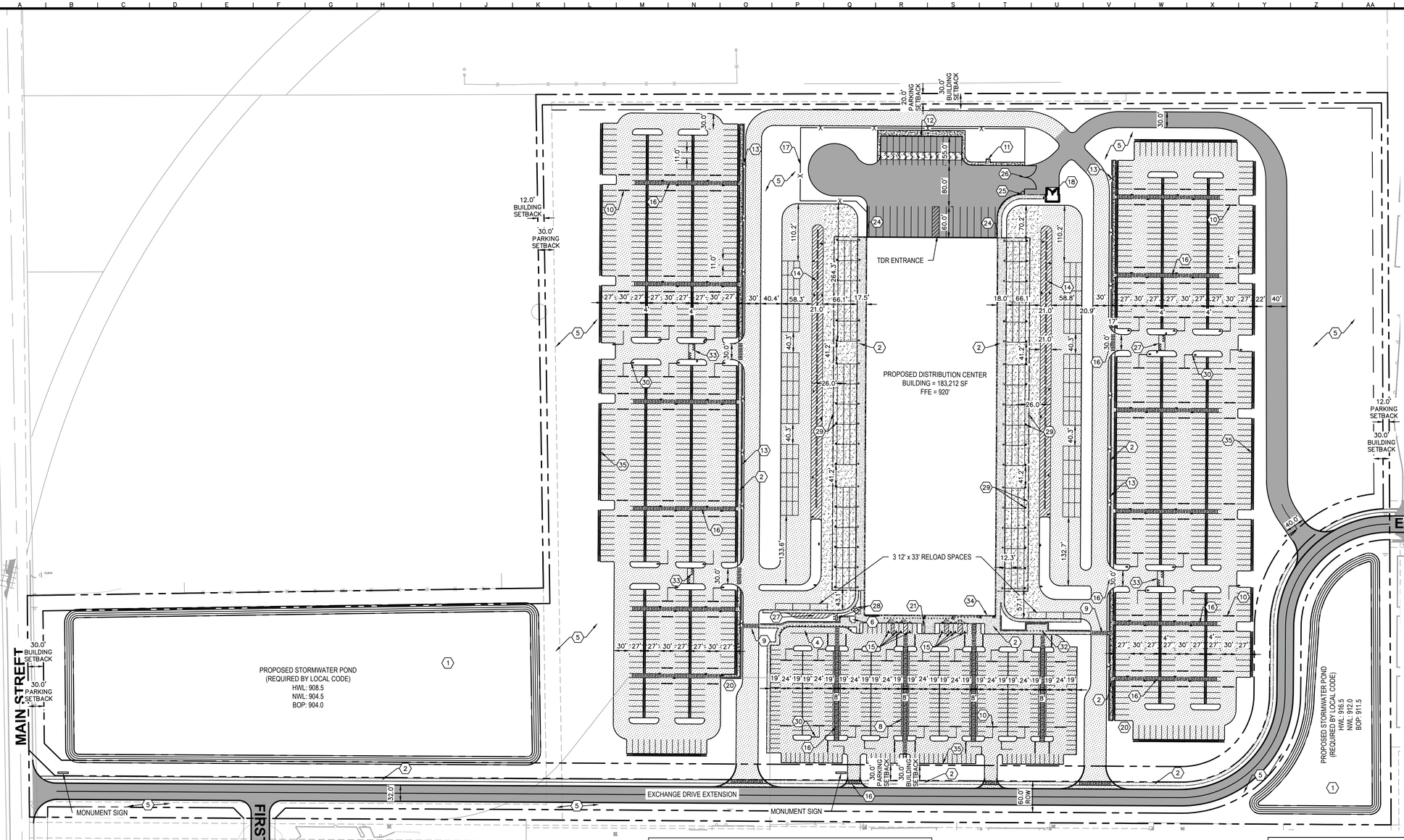
This application is filed for the purpose of seeking a Rezoning upon annexation to M PUD Manufacturing, with a Preliminary and Final Plat of Subdivision and Preliminary and Final Planned Unit Development to allow a new warehouse use, and any other changes as presented at the hearing, pursuant to Article 2, Article 4, Article 5 and Article 9. Plans for this project can be viewed at the Crystal Lake Community Development Department at City Hall.

A public hearing before the Planning and Zoning Commission for this request will be held at 7:00 p.m. on Wednesday November 17, 2021, at the Crystal Lake City Hall, 100 West Woodstock Street, at which time and place any person determining to be heard may be present.

Jeff Greenman, Chairperson
Planning and Zoning Commission
City of Crystal Lake

(Published in the Northwest Herald, November 2, 2021)
1931292

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.



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.

PARKING SUMMARY

PARKING CODE REQUIREMENTS	1 PER 1,000 SF NFA (UP TO 10,000 SF) + 1 PER 2,000 SF NFA ABOVE 10,000 SF + AS REQUIRED FOR OFFICE USE +1 PER VEHICLE USED IN THE CONDUCT OF BUSINESS
PARKING SPACES REQUIRED	186 SPACES
PARKING SPACES PROVIDED (9'X19')	397 SPACES
ACCESSIBLE PARKING SPACES REQUIRED	8 SPACES
ACCESSIBLE PARKING SPACES PROVIDED	8 SPACES
PARKING SPACES PROVIDED (11'X27')	1,021 SPACES

ZONING INFORMATION

	REQUIRED	PROVIDED
ZONE	(M) MANUFACTURING	(M) MANUFACTURING
PERMITTED/CONDITIONAL USE	INDUSTRY, COMMERCE	INDUSTRY, COMMERCE
FRONT SETBACK (SOUTH)	30FT MIN	32.7FT
SIDE SETBACK (WEST, EAST)	12FT MIN	106FT
REAR SETBACK (NORTH)	20FT MIN	30FT
YARD ABUTTING STREET SETBACK	30FT MIN	30FT
IMPERVIOUS SURFACE COVERAGE	65% MAX	59%
BUILDING HEIGHT/STORIES	45FT/3 STORIES MAX	30FT/ 1 STORY
FLOOR AREA RATIO	0.75 MAX	0.07
SETBACK REQUIREMENTS	NORTH: 20FT PARKING, 30FT BUILDING EAST: 12FT PARKING, 30FT BUILDING WEST: 12FT PARKING, 30FT BUILDING SOUTH: 30FT PARKING, 30FT BUILDING	NORTH: 30FT PARKING, 277FT BUILDING EAST: 106FT PARKING, 753.8FT BUILDING WEST: 106FT PARKING, 619.7FT BUILDING SOUTH: 32.7FT PARKING, 319.3FT BUILDING
SURROUNDING ZONES	NORTH: (E) ESTATE EAST: (M-L) MANUFACTURING LIMITED WEST: (M-L) SOUTH: (B-2 PUD) GENERAL COMMERCIAL PLANNED UNIT DEVELOPMENT	

PAVING AND CURB LEGEND

- STANDARD DUTY ASPHALT PAVEMENT — 2" SURFACE, 2.5" BINDER, 8" STONE
- HEAVY DUTY ASPHALT PAVEMENT — 2" SURFACE, 5" BINDER, 10" STONE
- CONCRETE SIDEWALK — 5" PCC CONCRETE, 4" STONE
- STANDARD DUTY CONCRETE PAVEMENT — 6" PCC CONCRETE, 6" STONE
- HEAVY DUTY CONCRETE PAVEMENT — 8" PCC REINFORCED WITH #3 BAR @ 16" C-C EACH WAY, 6" STONE
- STANDARD PITCH CONCRETE CURB AND GUTTER
- REVERSE PITCH CONCRETE CURB AND GUTTER
- CONCRETE DEPRESSED CURB AND GUTTER

**GEOTECHNICAL ENGINEER TO DETERMINE FINAL PAVEMENT SECTIONS AS PART OF GEOTECHNICAL INVESTIGATION REPORT.

KEYNOTES

1. STORMWATER MANAGEMENT AS REQUIRED BY CODE
2. CONCRETE SIDEWALK
3. ACCESSIBLE CURB RAMP
4. RIDE SHARE DROP-OFF
5. LANDSCAPE
6. SMOKING SHELTER
7. RIDE-SHARE SHELTER
8. CONCRETE WHEEL STOP
9. SPEED TABLE / PEDESTRIAN WALKWAY
10. SPEED BUMP
11. 4'x6' TRUCK YARD SPILL KIT SHED (BY TENANT) ON 6'x8' CONCRETE PAD
12. 12" WIDE CURB
13. PEDESTRIAN BARRIER FENCE PER SITE DETAILS
14. STRIPED TRAFFIC SEPARATION WITH JERSEY BARRIERS (OR EQUAL)
15. ACCESSIBLE PARKING STALL
16. STRIPED PEDESTRIAN ACCESS
17. YARD PERIMETER SECURITY FENCE
18. TRASH ENCLOSURE PER ARCHITECTURAL PLANS
19. BOLLARDS PER SITE PLAN ENLARGEMENTS AND SITE DETAILS
20. EMPLOYEE MUSTER AREA SIGNAGE PER SIGNAGE AND STRIPING PLAN
21. BIKE RACKS
22. 8' WIDE CONCRETE SIDEWALK (5% MAX SLOPE) WITH GUARDRAILS AND LANDINGS AS REQUIRED
23. TRASH CAN (BY TENANT) ON CONCRETE PAD
24. RETAINING WALL AS REQUIRED
25. 5' WIDE MAN GATE WITH LOCKING HARDWARE
26. PAIR OF 22'-6"W x 8'-0"H GALVANIZED MANUAL SWING GATES WITH DROP ROD AND LOCKING HARDWARE. IS REQUIRED, PROVIDE GATE WITH RUBBER ROLLERS OR TIRED. IN-GROUND TRACK SYSTEMS ARE NOT ALLOWED
27. EMERGENCY MOBILE GENERATOR PARKING
28. ELECTRICAL EQUIPMENT WITH BOLLARD PROTECTION PER ELECTRICAL PLANS
29. BUILDING CANOPY AND COLUMNS PER ARCHITECTURAL SHEET A8.10
30. SIGNAGE PER SIGNAGE AND STRIPING PLAN
31. BENCH
32. ASSOCIATE OUTDOOR AREA
33. SPEED HUMP

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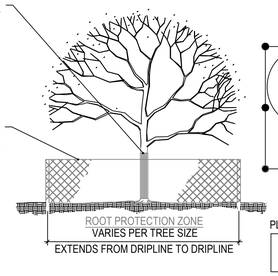
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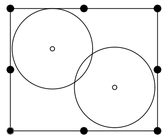
PERMIT SITE PLAN

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SHEET NUMBER
EX:A

TRUNK PROTECTION
REQUIRED IF WHEELED CONSTRUCTION EQUIPMENT INVOLVED WITHIN 20' OR LESS. 1" BOARDS NOT LESS THAN 5' LONG OR TO REACH FIRST SCAFFOLD BRANCH. WIRE TO HOLD BOARDS IN PLACE. NO NAILS PERMITTED. INCLUDE WRAPPING OF BURLAP UNDER BOARDS.

BRANCH PROTECTION
PROTECT LOWER BRANCHES OF TREE CANOPY. PROVIDE CONSTRUCTION FENCING OR EQUAL AT DRIPLINE (MIN.)





PLACE SIGNS:

KEEP OUT
TREE PROTECTION
AREA

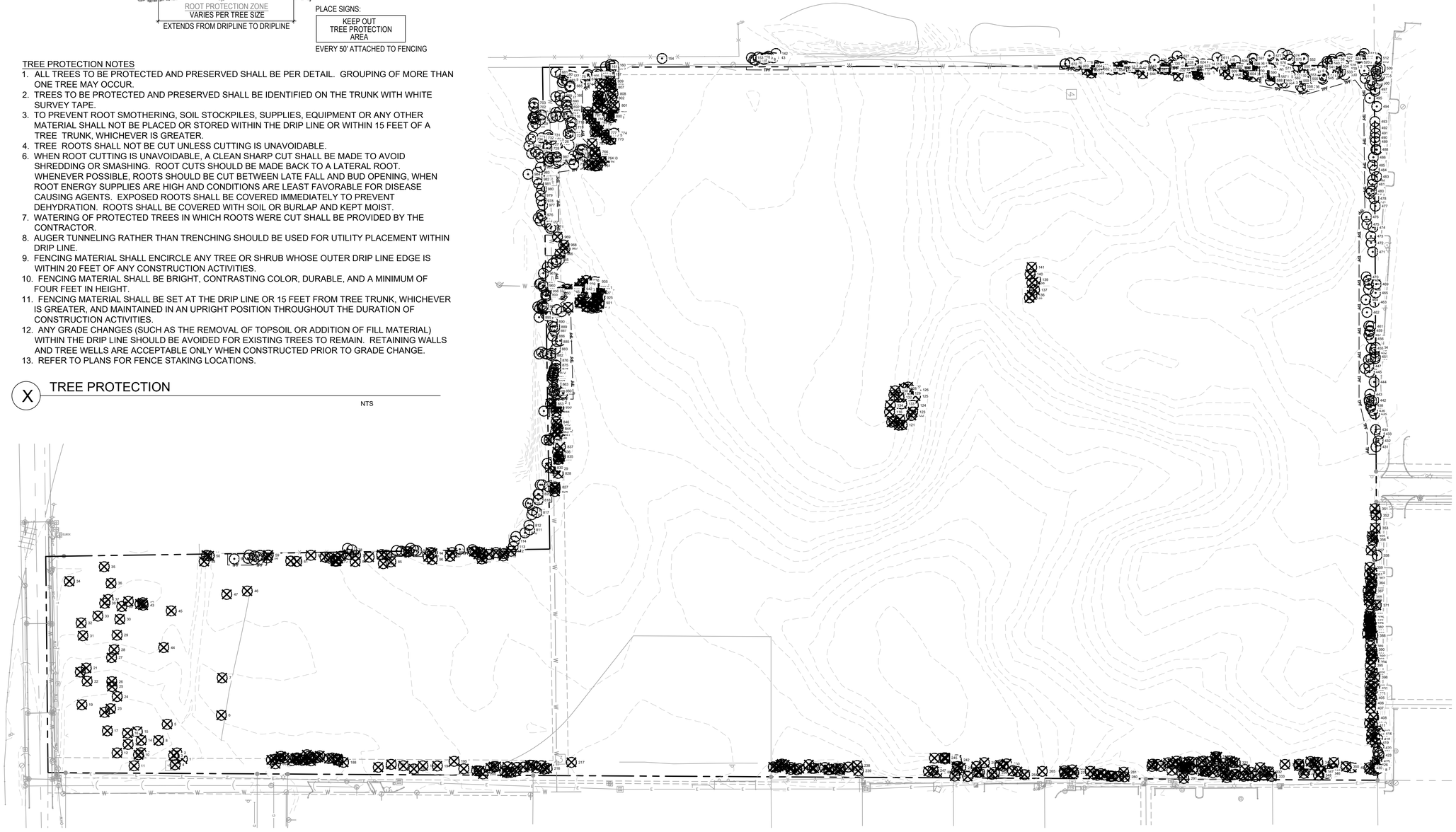
EVERY 50' ATTACHED TO FENCING

TREE PROTECTION NOTES

1. ALL TREES TO BE PROTECTED AND PRESERVED SHALL BE PER DETAIL. GROUPING OF MORE THAN ONE TREE MAY OCCUR.
2. TREES TO BE PROTECTED AND PRESERVED SHALL BE IDENTIFIED ON THE TRUNK WITH WHITE SURVEY TAPE.
3. TO PREVENT ROOT SMOTHERING, SOIL STOCKPILES, SUPPLIES, EQUIPMENT OR ANY OTHER MATERIAL SHALL NOT BE PLACED OR STORED WITHIN THE DRIP LINE OR WITHIN 15 FEET OF A TREE TRUNK, WHICHEVER IS GREATER.
4. TREE ROOTS SHALL NOT BE CUT UNLESS CUTTING IS UNAVOIDABLE.
6. WHEN ROOT CUTTING IS UNAVOIDABLE, A CLEAN SHARP CUT SHALL BE MADE TO AVOID SHREDDING OR SMASHING. ROOT CUTS SHOULD BE MADE BACK TO A LATERAL ROOT. WHENEVER POSSIBLE, ROOTS SHOULD BE CUT BETWEEN LATE FALL AND BUD OPENING, WHEN ROOT ENERGY SUPPLIES ARE HIGH AND CONDITIONS ARE LEAST FAVORABLE FOR DISEASE CAUSING AGENTS. EXPOSED ROOTS SHALL BE COVERED IMMEDIATELY TO PREVENT DEHYDRATION. ROOTS SHALL BE COVERED WITH SOIL OR BURLAP AND KEPT MOIST.
7. WATERING OF PROTECTED TREES IN WHICH ROOTS WERE CUT SHALL BE PROVIDED BY THE CONTRACTOR.
8. AUGER TUNNELING RATHER THAN TRENCHING SHOULD BE USED FOR UTILITY PLACEMENT WITHIN DRIP LINE.
9. FENCING MATERIAL SHALL ENCIRCLE ANY TREE OR SHRUB WHOSE OUTER DRIP LINE EDGE IS WITHIN 20 FEET OF ANY CONSTRUCTION ACTIVITIES.
10. FENCING MATERIAL SHALL BE BRIGHT, CONTRASTING COLOR, DURABLE, AND A MINIMUM OF FOUR FEET IN HEIGHT.
11. FENCING MATERIAL SHALL BE SET AT THE DRIP LINE OR 15 FEET FROM TREE TRUNK, WHICHEVER IS GREATER, AND MAINTAINED IN AN UPRIGHT POSITION THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES.
12. ANY GRADE CHANGES (SUCH AS THE REMOVAL OF TOPSOIL OR ADDITION OF FILL MATERIAL) WITHIN THE DRIP LINE SHOULD BE AVOIDED FOR EXISTING TREES TO REMAIN. RETAINING WALLS AND TREE WELLS ARE ACCEPTABLE ONLY WHEN CONSTRUCTED PRIOR TO GRADE CHANGE.
13. REFER TO PLANS FOR FENCE STAKING LOCATIONS.

X TREE PROTECTION

NTS



NORTH

GRAPHIC SCALE IN FEET
0 50 100 200

LEGEND

	QTY
# TREE LOCATION WITH ID	987 TOTAL
TREE TO BE PRESERVED	435
TREE TO BE REMOVED	552
TREE PROTECTION FENCE	

ARBORIST CONDITION AND FORM RATING

CONDITION / FORM 1 = EXCELLENT
CONDITION / FORM 2 = GOOD
CONDITION / FORM 3 = AVERAGE
CONDITION / FORM 4 = POOR
(RECOMMENDED FOR REMOVAL)
CONDITION / FORM 5 = VERY POOR
(RECOMMENDED FOR REMOVAL)

TREE REPLACEMENT REQUIREMENTS

TOTAL TREES REMOVED = 552
(SEE EXCEL FOR TREE REPLACEMENT BREAKDOWN)

TOTAL REPLACEMENT VALUE = 274.4 CALIPER INCHES
REMOVED TREES SHALL BE REPLACED WITH A 2.5 CALIPER INCH TREE

110 REPLACEMENT TREES (2.5 CALIPER INCHES) REQUIRED

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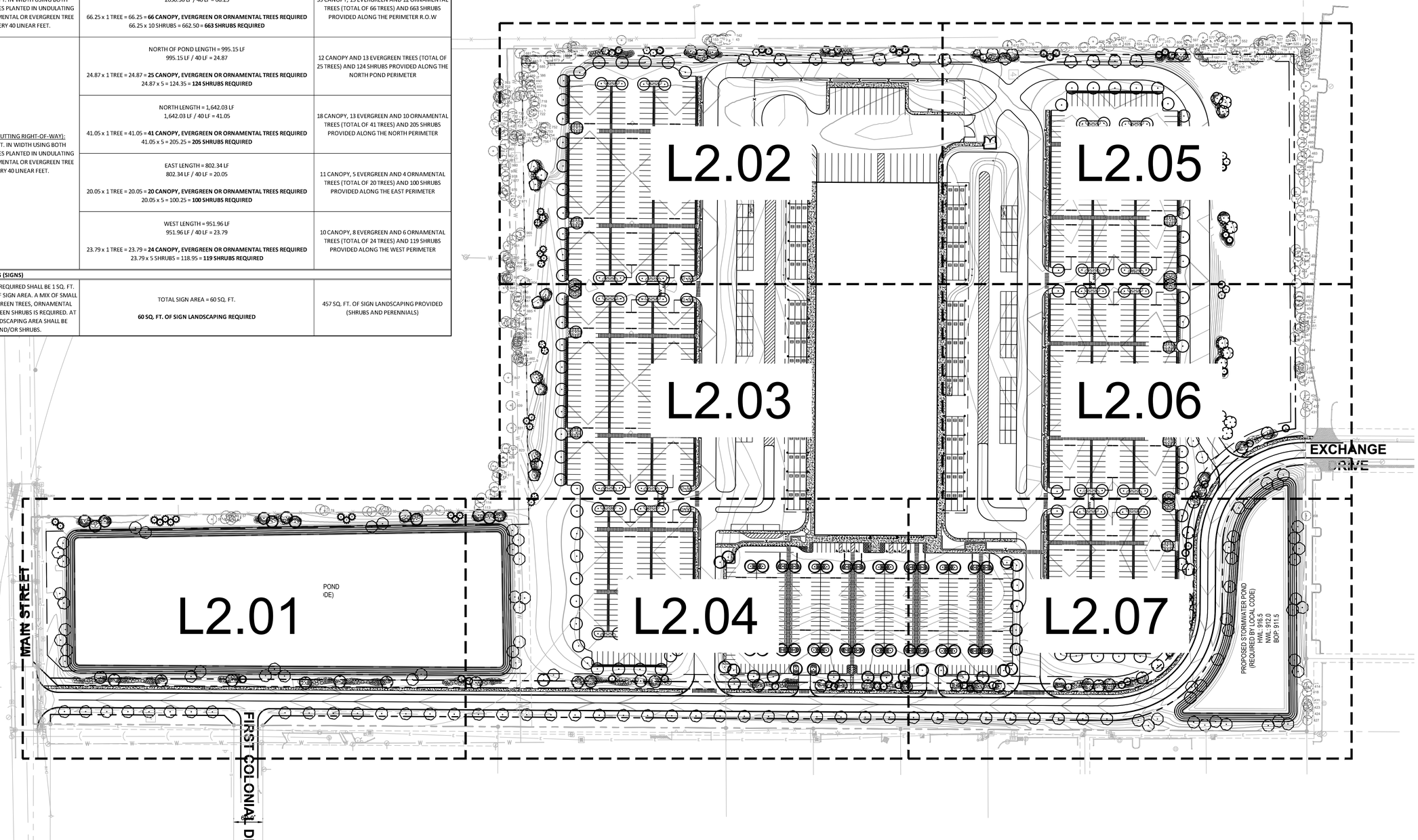
TREE PRESERVATION PLAN

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CRYSTAL LAKE, IL LANDSCAPE CODE REQUIREMENTS		
ZONING ORDINANCE	**REQUIRED**	**PROPOSED**
SECTION 4-400 F-2 - SITE LANDSCAPING (PARKING LOTS OVER 200 SPACES)		
INTERIOR LANDSCAPE: 660 SQ. FT. ISLANDS, CONTAINING 6 CANOPY, ORNAMENTAL OR EVERGREEN TREES AND 30 SHRUBS, EVERY INCREMENT OF 40 PARKING SPACES AND AT THE ENDS OF EVERY PARKING ROW.	TOTAL NUMBER OF REGULAR PARKING SPACES = 397 SPACES 397 SPACES / 40 SPACES = 9.93 9.93 x 6 TREES = 59.58 = **60 CANOPY, ORNAMENTAL OR EVERGREEN TREES REQUIRED** 9.93 x 30 SHRUBS = 297.9 = **298 SHRUBS REQUIRED**	60 CANOPY TREES AND 298 SHRUBS PROVIDED THROUGHOUT THE INTERIOR OF THE PARKING LOT (WITH REGULAR SPACES)
	TOTAL NUMBER OF VAN PARKING SPACES = 1,021 SPACES 1,021 SPACES / 40 SPACES = 25.53 25.53 x 6 TREES = 153.18 = **153 CANOPY, ORNAMENTAL OR EVERGREEN TREES REQUIRED** 25.53 x 30 SHRUBS = 765.90 = **766 SHRUBS REQUIRED**	153 CANOPY TREES AND 774 SHRUBS PROVIDED THROUGHOUT THE INTERIOR OF THE PARKING LOT (WITH VAN SPACES)
PERIMETER LANDSCAPE (ABUTTING RIGHT-OF-WAY): CONTINUOUS VISUAL SCREEN 15 FT. IN WIDTH USING BOTH DECIDUOUS AND EVERGREEN SPECIES PLANTED IN UNDULATING BEDS REQUIRING 1 CANOPY, ORNAMENTAL OR EVERGREEN TREE AND 10 SHRUBS ALONG EVERY 40 LINEAR FEET.	TOTAL PERIMETER ALONG R.O.W = 2650.36 LF 2650.36 LF / 40 LF = 66.25 66.25 x 1 TREE = 66.25 = **66 CANOPY, EVERGREEN OR ORNAMENTAL TREES REQUIRED** 66.25 x 10 SHRUBS = 662.50 = **663 SHRUBS REQUIRED**	39 CANOPY, 15 EVERGREEN AND 12 ORNAMENTAL TREES (TOTAL OF 66 TREES) AND 663 SHRUBS PROVIDED ALONG THE PERIMETER R.O.W
PERIMETER LANDSCAPE (NOT ABUTTING RIGHT-OF-WAY): CONTINUOUS VISUAL SCREEN 8 FT. IN WIDTH USING BOTH DECIDUOUS AND EVERGREEN SPECIES PLANTED IN UNDULATING BEDS REQUIRING 1 CANOPY, ORNAMENTAL OR EVERGREEN TREE AND 5 SHRUBS ALONG EVERY 40 LINEAR FEET.	NORTH OF POND LENGTH = 995.15 LF 995.15 LF / 40 LF = 24.87 24.87 x 1 TREE = 24.87 = **25 CANOPY, EVERGREEN OR ORNAMENTAL TREES REQUIRED** 24.87 x 5 = 124.35 = **124 SHRUBS REQUIRED**	12 CANOPY AND 13 EVERGREEN TREES (TOTAL OF 25 TREES) AND 124 SHRUBS PROVIDED ALONG THE NORTH POND PERIMETER
	NORTH LENGTH = 1,642.03 LF 1,642.03 LF / 40 LF = 41.05 41.05 x 1 TREE = 41.05 = **41 CANOPY, EVERGREEN OR ORNAMENTAL TREES REQUIRED** 41.05 x 5 = 205.25 = **205 SHRUBS REQUIRED**	18 CANOPY, 13 EVERGREEN AND 10 ORNAMENTAL TREES (TOTAL OF 41 TREES) AND 205 SHRUBS PROVIDED ALONG THE NORTH PERIMETER
	EAST LENGTH = 802.34 LF 802.34 LF / 40 LF = 20.05 20.05 x 1 TREE = 20.05 = **20 CANOPY, EVERGREEN OR ORNAMENTAL TREES REQUIRED** 20.05 x 5 = 100.25 = **100 SHRUBS REQUIRED**	11 CANOPY, 5 EVERGREEN AND 4 ORNAMENTAL TREES (TOTAL OF 20 TREES) AND 100 SHRUBS PROVIDED ALONG THE EAST PERIMETER
	WEST LENGTH = 951.96 LF 951.96 LF / 40 LF = 23.79 23.79 x 1 TREE = 23.79 = **24 CANOPY, EVERGREEN OR ORNAMENTAL TREES REQUIRED** 23.79 x 5 SHRUBS = 118.95 = **119 SHRUBS REQUIRED**	10 CANOPY, 8 EVERGREEN AND 6 ORNAMENTAL TREES (TOTAL OF 24 TREES) AND 119 SHRUBS PROVIDED ALONG THE WEST PERIMETER
SECTION 4-400 F-6 SITE LANDSCAPING (SIGNS)		
THE AMOUNT OF LANDSCAPE AREA REQUIRED SHALL BE 1 SQ. FT. OF LANDSCAPE AREA PER 1 SQ. FT. OF SIGN AREA. A MIX OF SMALL DECIDUOUS TREES, MEDIUM EVERGREEN TREES, ORNAMENTAL TREES AND DECIDUOUS AND EVERGREEN SHRUBS IS REQUIRED. AT LEAST 50% OF THE REQUIRED LANDSCAPING AREA SHALL BE PLANTED WITH TREES AND/OR SHRUBS.	TOTAL SIGN AREA = 60 SQ. FT. **60 SQ. FT. OF SIGN LANDSCAPING REQUIRED**	457 SQ. FT. OF SIGN LANDSCAPING PROVIDED (SHRUBS AND PERENNIALS)



NORTH

GRAPHIC SCALE IN FEET
0 50 100 200

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OVERALL LANDSCAPE PLAN

PROJECT COOPER

SOUTH MAIN ST AND CONGRESS PKWY
CRYSTAL LAKE, IL 60014

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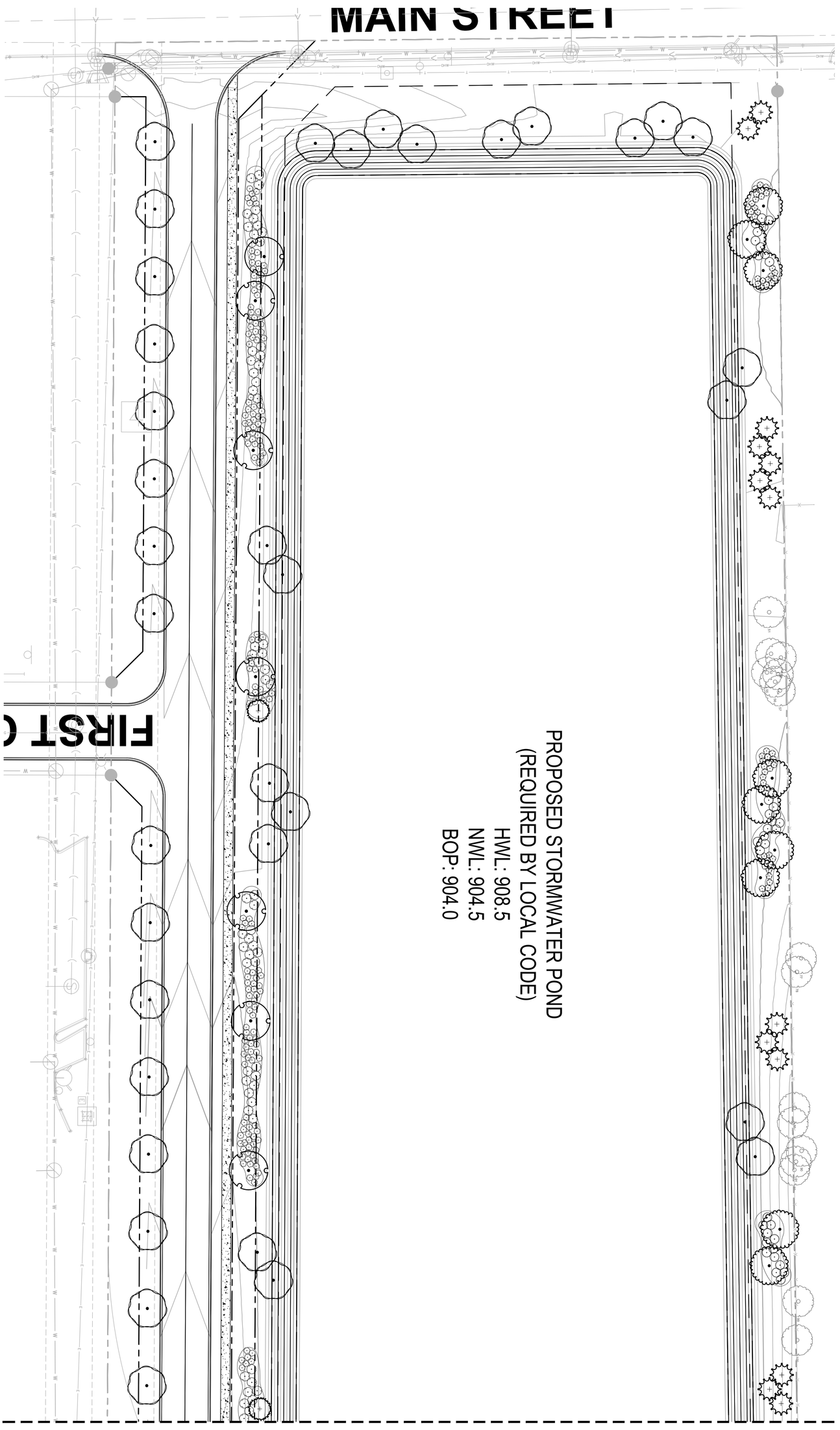
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MATCHLINE - SEE SHEET L2.04

L2.01
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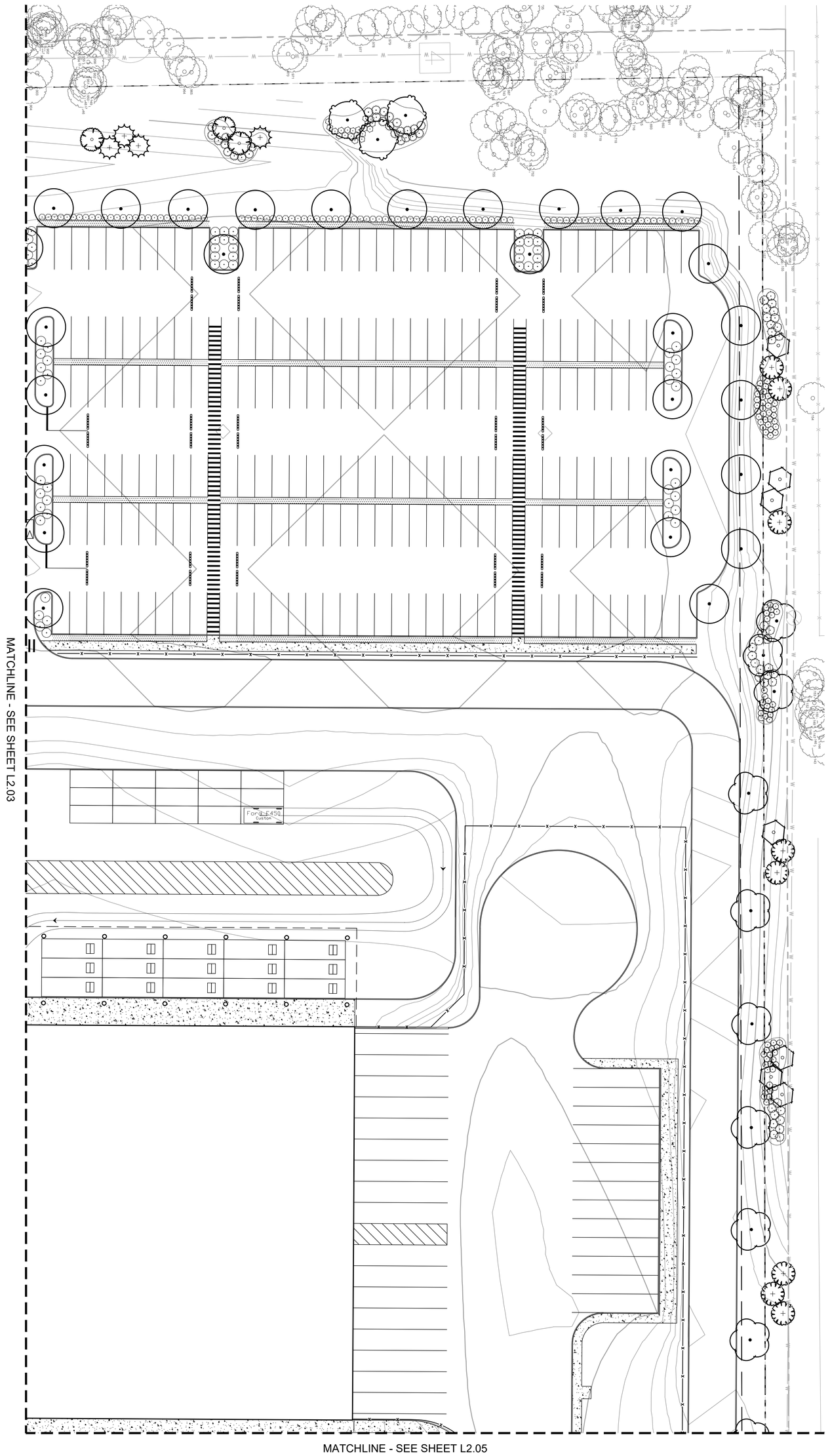
DETAILED LANDSCAPE PLAN

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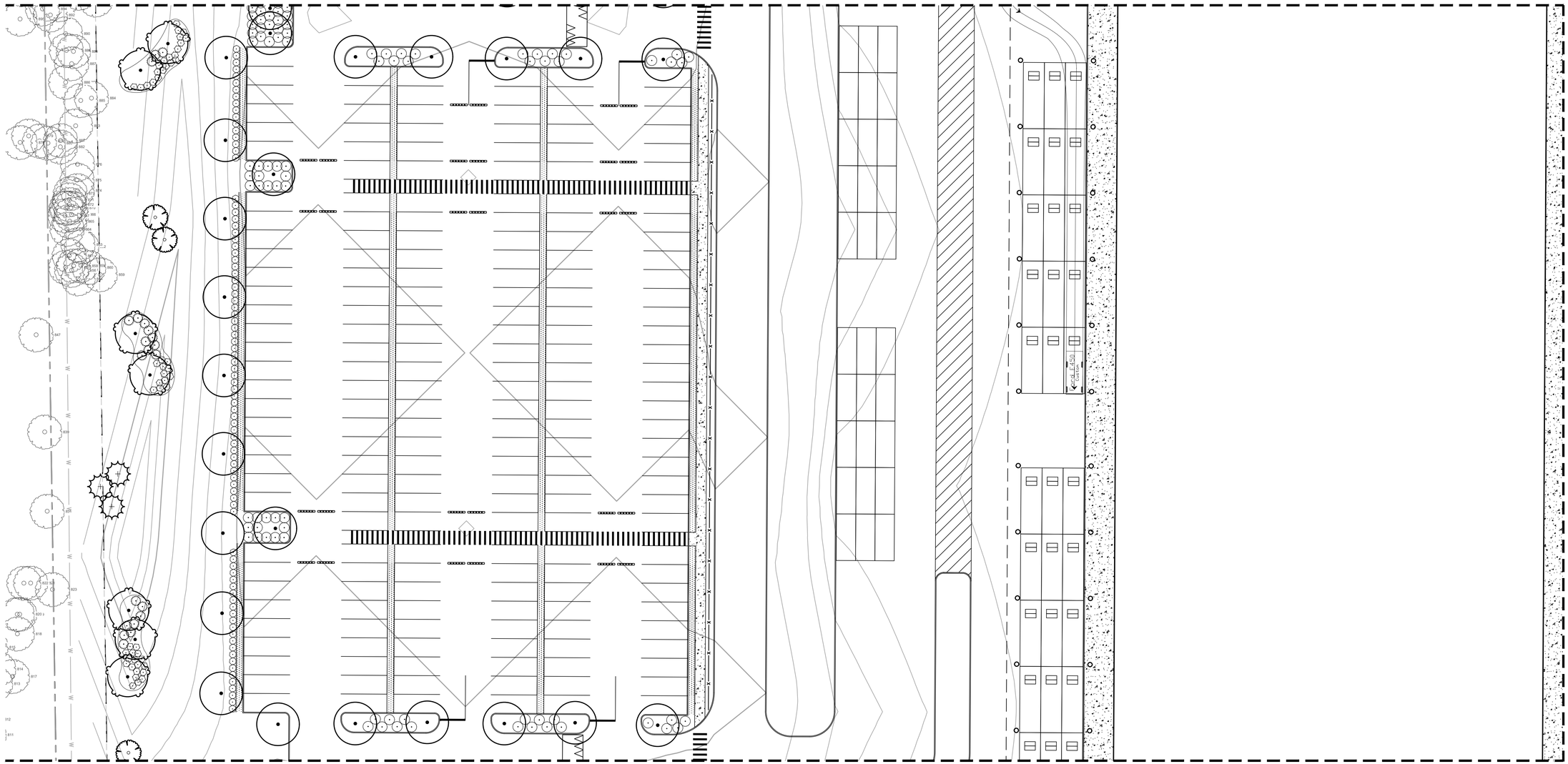
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MATCHLINE - SEE SHEET L2.06

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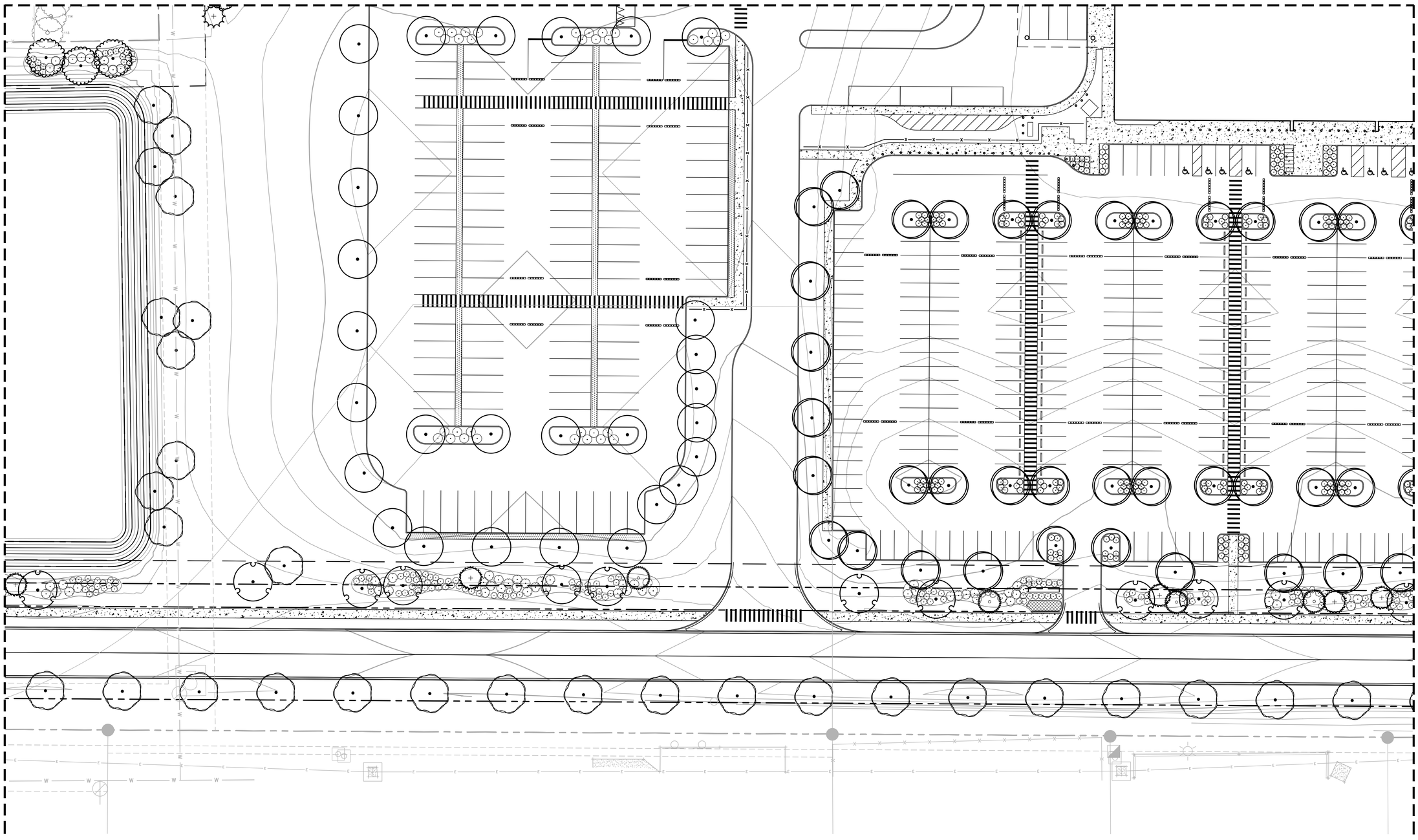
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MATCHLINE - SEE SHEET L2.02

MATCHLINE - SEE SHEET L2.07

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MATCHLINE - SEE SHEET L2.01

MATCHLINE - SEE SHEET L2.06

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NORTH

GRAPHIC SCALE IN FEET
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MATCHLINE - SEE SHEET L2.05

MATCHLINE - SEE SHEET L2.03

MATCHLINE - SEE SHEET L2.07

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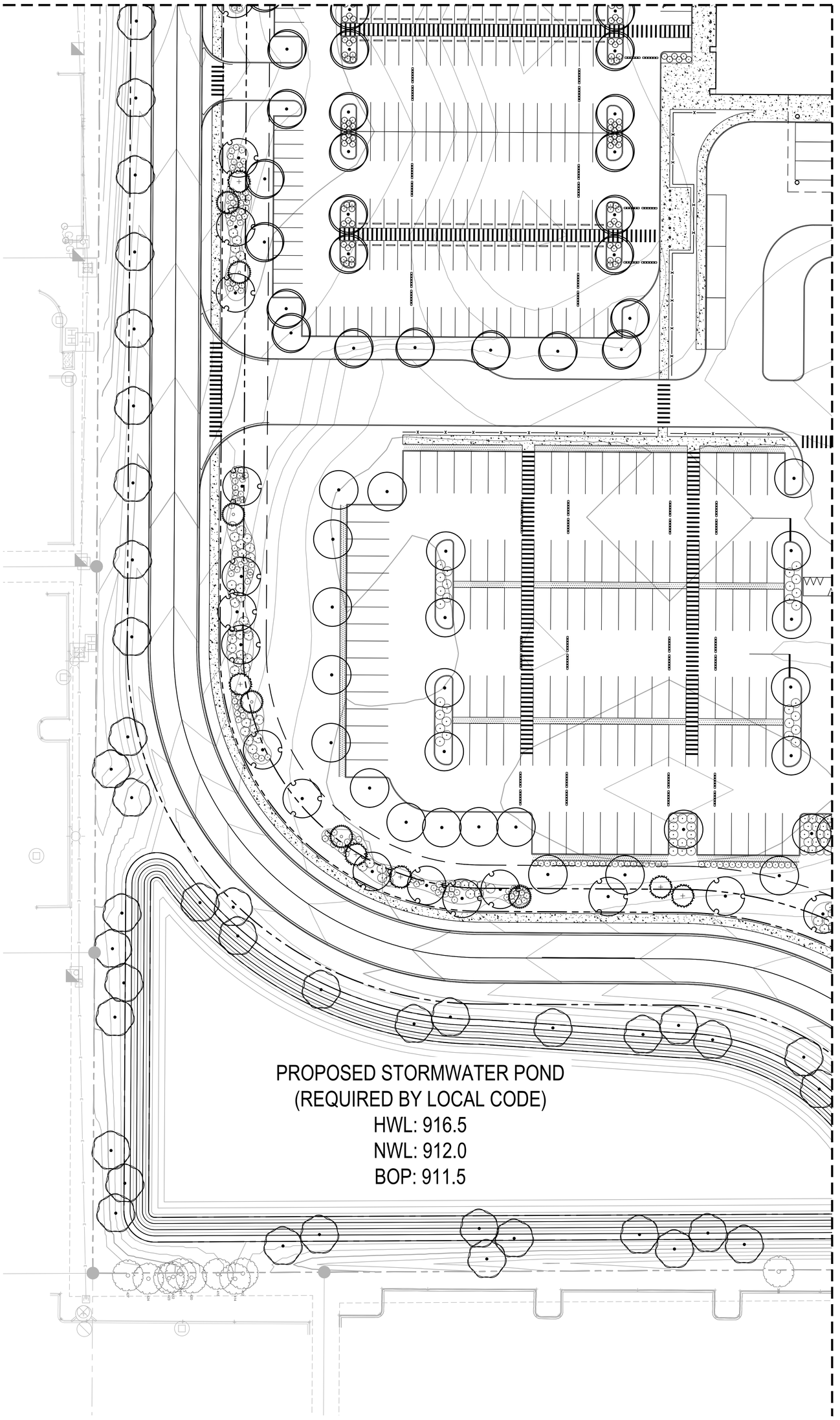
DETAILED LANDSCAPE PLAN

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MATCHLINE - SEE SHEET L2.04



MATCHLINE - SEE SHEET L2.06

NORTH

GRAPHIC SCALE IN FEET
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L2.07
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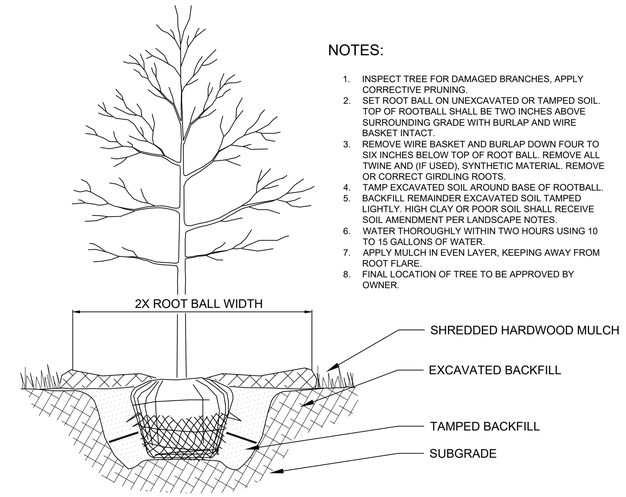
No.	REVISIONS	DATE	BY

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CONCEPT PLANT SCHEDULE

CANOPY TREE (PARKING LOT)	-	60
CANOPY TREE (VAN PARKING)	-	153
CANOPY TREE (R.O.W PERIMETER)	-	39
EVERGREEN TREE (R.O.W PERIMETER)	-	15
ORNAMENTAL TREE (R.O.W PERIMETER)	-	12
CANOPY TREE (NORTH OF POND PERIMETER)	-	12
EVERGREEN TREE (NORTH OF POND PERIMETER)	-	13
CANOPY TREE (NORTH PERIMTER)	-	18
EVERGREEN TREE (NORTH PERIMTER)	-	13
ORNAMENTAL TREE (NORTH PERIMTER)	-	10
CANOPY TREE (EAST PERIMETER)	-	11
EVERGREEN TREE (EAST PERIMETER)	-	5
ORNAMENTAL TREE (EAST PERIMETER)	-	4
CANOPY TREE (WEST PERIMETER)	-	10
EVERGREEN TREE (WEST PERIMETER)	-	8
ORNAMENTAL TREE (WEST PERIMETER)	-	6
REPLACEMENT TREE	-	110
SHRUB (PARKING LOT)	-	298
SHRUB (VAN PARKING)	-	383
SHRUB 2 (VAN PARKING)	-	391
SHRUB (R.O.W PERIMETER)	-	471
SHRUB 2 (R.O.W PERIMETER)	-	192
SHRUB (NORTH OF POND PERIMETER)	-	75
SHRUB 2 (NORTH OF POND PERIMETER)	-	49
SHRUB (NORTH PERIMETER)	-	137
SHRUB 2 (NORTH PERIMETER)	-	68
SHRUB (EAST PERIMETER)	-	67
SHRUB 2 (EAST PERIMETER)	-	33
SHRUB (WEST PERIMETER)	-	71
SHRUB 2 (WEST PERIMETER)	-	48
SHRUB (SIGN)	-	15
PERENNIALS	-	138 SF

NOTE: ALL DISTURBED AREAS SHALL BE TREATED WITH TURF SEED, TURF SOD OR ALTERNATE PLANT MIX

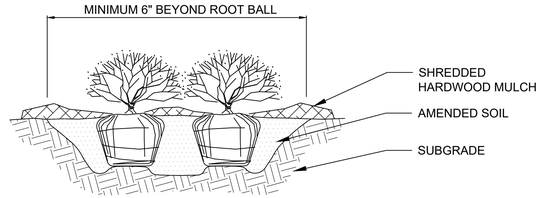


NOTES:

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 FOUR TO SIX INCHES BELOW TOP OF ROOT BALL. 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.

1 TREE PLANTING

NTS



NOTES:

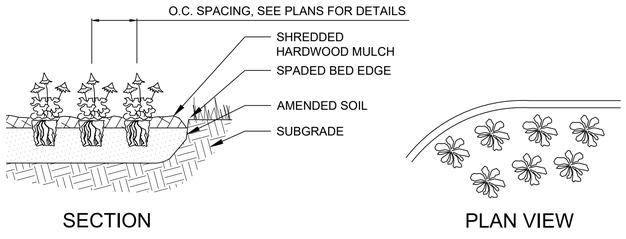
1. APPLY CORRECTIVE PRUNING.
2. SET ROOT BALL OR CONTAINER ON UNEXCAVATED OR TAMPED SOIL. TOP OF ROOTBALL (CONTAINER) SHALL BE ONE INCH ABOVE SURROUNDING GRADE. FOR LARGER SHRUBS WITHIN PLANTING BED DIG A DEEPER PIT ONLY FOR THOSE SHRUBS.
3. REMOVE BURLAP FROM TOP HALF THE LENGTH OF ROOTBALL. TWINE AND (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.

2 SHRUB PLANTING

NTS

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. PERENNIALS SHALL BE PLACED WITH THEIR CENTER 24" FROM EDGE OF BED.



3 PERENNIAL PLANTING

NTS

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 AMENDED WITH 25% SPHAGNUM PEATMOSS, 5% HUMUS AND 70% PULVERIZED SOIL FOR ALL NON TURF SEED MIX AREAS, SHRUB, ORNAMENTAL GRASS, PERENNIAL AND ANNUAL BEDS.
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.

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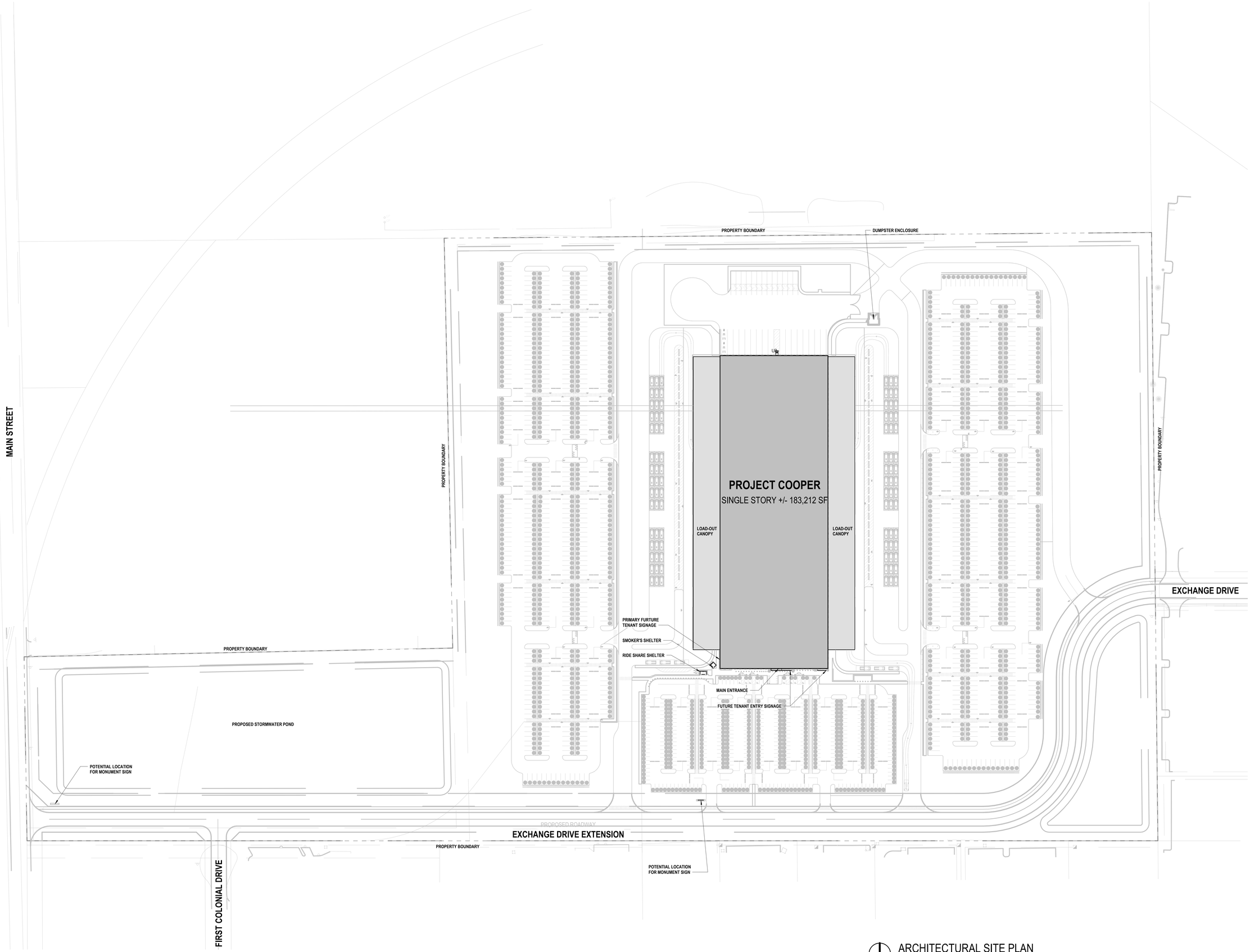
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SCALE: AS NOTED
DESIGNED BY: ARD
DRAWN BY: ARD
CHECKED BY: JJK

LANDSCAPE NOTES AND DETAILS

PROJECT COOPER
SOUTH MAIN ST AND CONGRESS PKWY
CRYSTAL LAKE, IL 60014

ORIGINAL ISSUE: 10/13/2021
KHA PROJECT NO. 168880006
SHEET NUMBER
L2.08



ARCHITECTURAL SITE PLAN

1" = 80'-0"

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PROJECT COOPER

SOUTH MAIN STREET AND CONGRESS PARKWAY
CRYSTAL LAKE, IL 60012

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ISSUANCE

ZONING AND ANNEXATION APPLICATION

10/15/2021

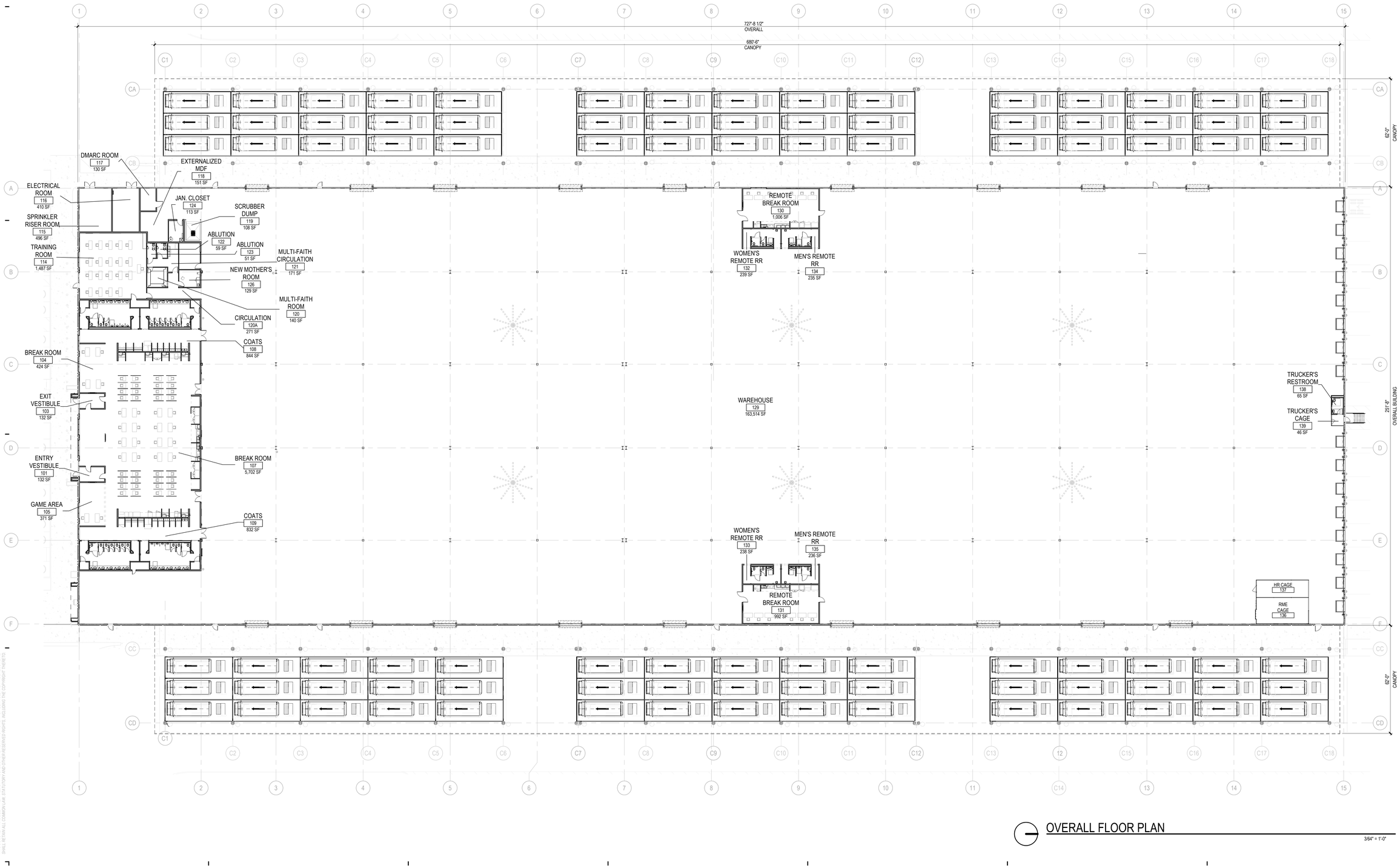
REVISIONS

NO.	DATE	DESCRIPTION

FILE NUMBER	83460132
PROJECT MANAGER	DMH
PROFESSIONAL	SDW
DRAWN BY	MEO
CHECKED BY	DMH/KSJ

ARCHITECTURAL SITE PLAN

AS1.0



OVERALL FLOOR PLAN

3/64" = 1'-0"

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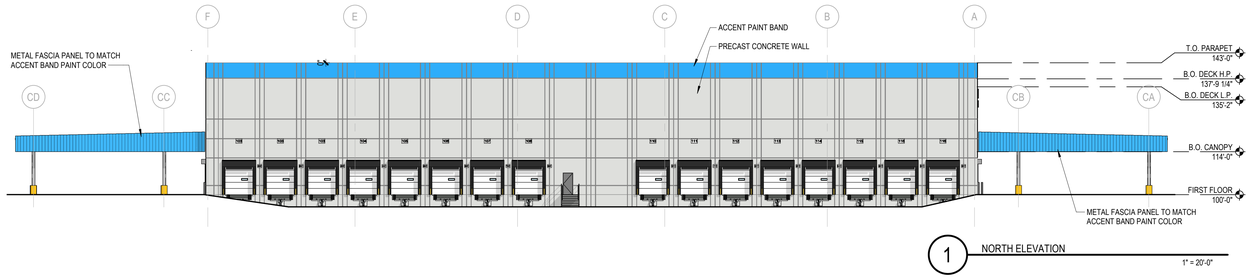
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DRAWN BY	JJP
CHECKED BY	DMH/KSJ

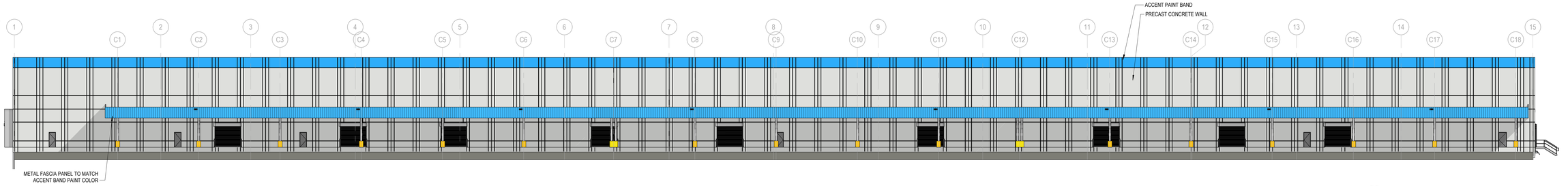
OVERALL FLOOR PLAN

A1.0



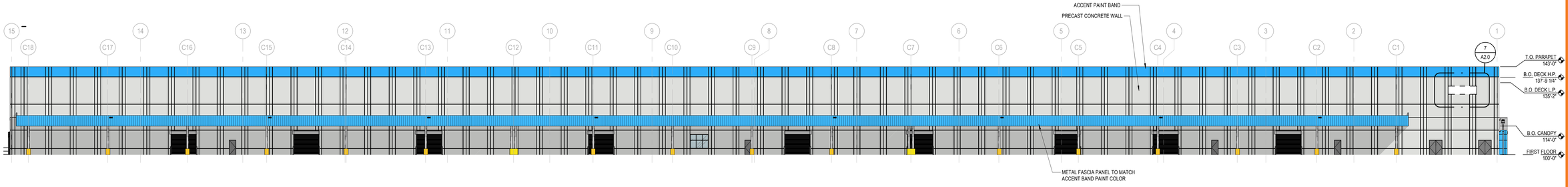
1 NORTH ELEVATION

1" = 20'-0"



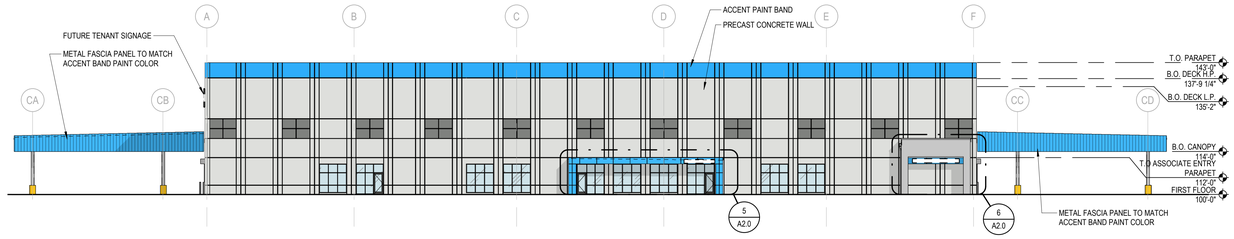
2 EAST ELEVATION

1" = 20'-0"



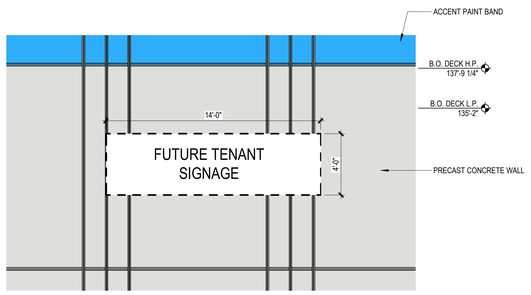
3 WEST ELEVATION

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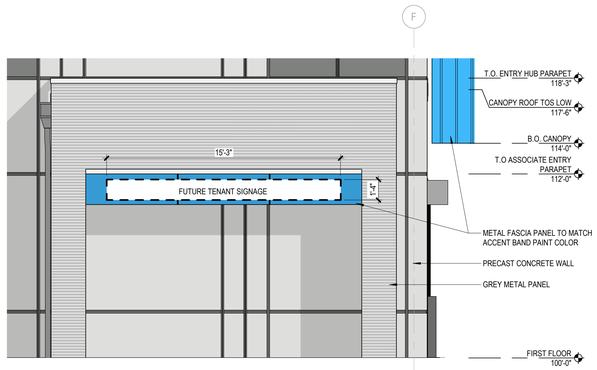
4 SOUTH ELEVATION

A2.01 1" = 20'-0"



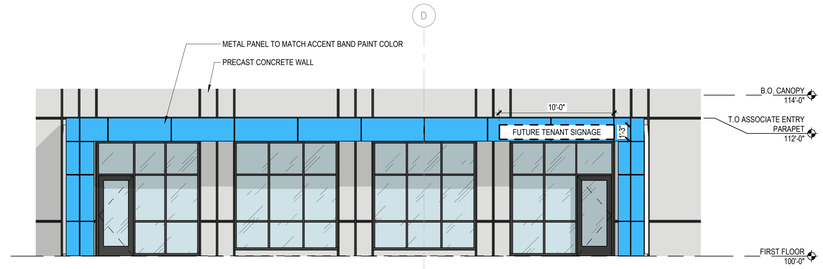
7 ENLARGED BUILDING SIGNAGE ELEVATION

A2.0 1/4" = 1'-0"



6 ENLARGED OFFICE SE CANOPY ELEVATION

A2.0 1/4" = 1'-0"



5 ENLARGED ASSOCIATE ENTRY ELEVATION

A2.0 3/16" = 1'-0"

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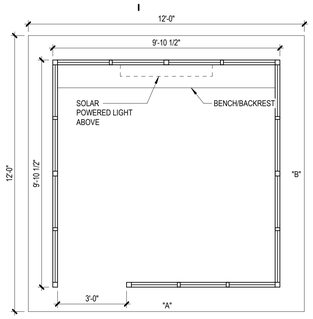
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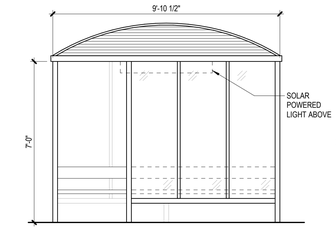
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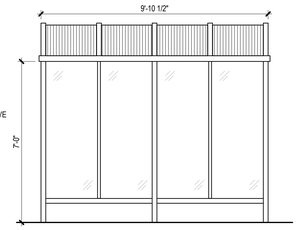
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BUILDING ELEVATIONS

A2.0



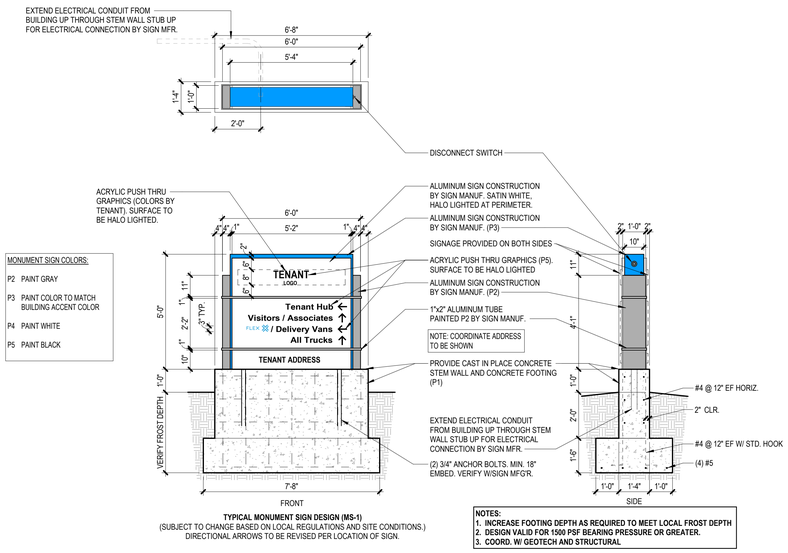




BASIS OF DESIGN
- HANDI HUT, MODEL #SR4-4, 6063-T52
- 10' x 10' ON A 12' x 12' x 6" THICK CONCRETE PAD.
- SHELTER TO HAVE BARREL ROOF, CLEAR ANODIZED, 1/4" TEMPERED GLASS AND 1/4" WHITE TWIN WALL POLYCARBONATE ROOF PANELS AND EXTRUDED ALUMINUM INTEGRATED INTERIOR BENCH/BACKREST.
- LOCATE PRE-FABRICATED SMOKING SHELTER AS SHOWN ON THE SITE PLAN.

ACCEPTABLE ALTERNATE MANUFACTURERS:
- SHELTERS DIRECT
- AUSTIN MOHAWK
- PORTAFAB CORPORATION

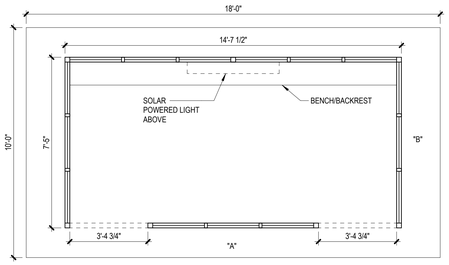
5 SMOKER'S SHELTER
3/8" = 1'-0"

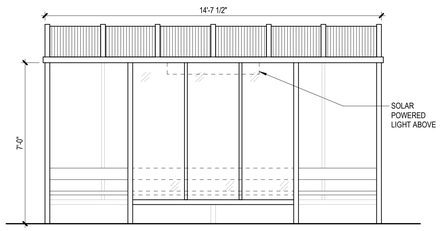


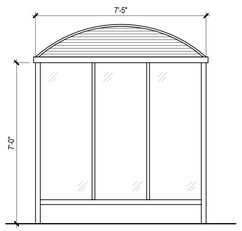
TYPICAL MONUMENT SIGN DESIGN (MS-1)
(SUBJECT TO CHANGE BASED ON LOCAL REGULATIONS AND SITE CONDITIONS.)
DIRECTIONAL ARROWS TO BE REVISED PER LOCATION OF SIGN.

NOTES:
1. **INCREASE FOOTING DEPTH AS REQUIRED TO MEET LOCAL FROST DEPTH**
2. **DESIGN VALID FOR 1500 PSF BEARING PRESSURE OR GREATER.**
3. **COORD. W/ GEOTECH AND STRUCTURAL**

1 MONUMENT SIGN
3/8" = 1'-0"



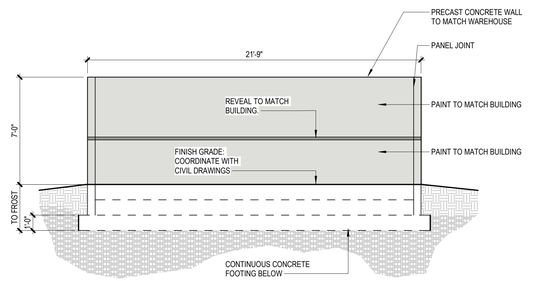




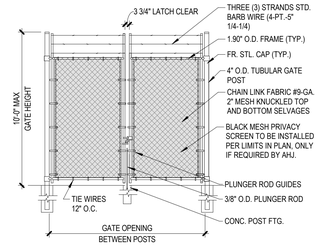
BASIS OF DESIGN
- HANDI HUT, MODEL #6-3WSB, 6063-T52.
- 8' x 18' ON A 10' x 18' x 6" THICK CONCRETE PAD.
- SHELTER TO HAVE BARREL ROOF, CLEAR ANODIZED, 1/4" TEMPERED GLASS AND 1/4" WHITE TWIN WALL POLYCARBONATE ROOF PANELS AND EXTRUDED ALUMINUM INTEGRATED INTERIOR BENCH/BACKREST.
- LOCATE PRE-FABRICATED RIDE SHARE SHELTER AS SHOWN ON THE SITE PLAN.

ACCEPTABLE ALTERNATE MANUFACTURERS:
- SHELTERS DIRECT
- AUSTIN MOHAWK
- PORTAFAB CORPORATION

6 RIDESHARE SHELTER
3/8" = 1'-0"

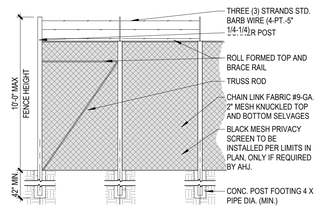


7 DUMPSTER ELEVATION
1/4" = 1'-0"



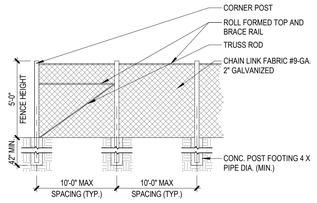
CHAIN LINK FENCE WITH BARBED WIRE DOUBLE SWINGING GATE DETAIL

INSTALL GALVANIZED CHAIN LINK FENCE AND GATES. COORDINATE LOCATION, DIMENSIONS AND REQUIREMENTS WITH SITE PLAN AND AHJ.



CHAIN LINK FENCE WITH BARBED WIRE CORNER AND LINE SECTIONS DETAIL

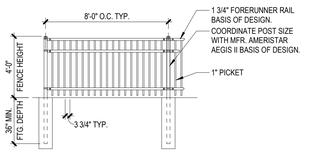
2 CHAIN LINK FENCE AND GATE TYP. DETAIL
1/4" = 1'-0"



CHAIN LINK FENCE CORNER AND LINE SECTIONS DETAIL

INSTALL BLACK VINYL COATED CHAIN LINK FENCE. PVC COATED ONLY WHEN REQUIRED BY AHJ. COORDINATE LOCATION, DIMENSIONS AND REQUIREMENTS WITH SITE PLAN AND AHJ.

3 PEDESTRIAN CHAIN LINK FENCE AND GATE TYP. DETAIL
1/4" = 1'-0"



ORNAMENTAL FENCE TYPICAL DETAIL

POST SIZE DEPENDS ON FENCE HEIGHT AND WIND LOADS.
BASIS OF DESIGN: AMERISTAR AEGIS II FENCE, GALVANIZED STEEL WITH A TWO-COAT POWDER COAT SYSTEM, BLACK IN COLOR.
COORDINATE LOCATION, DIMENSIONS AND REQUIREMENTS WITH SITE PLAN AND AHJ.

4 ORNAMENTAL FENCE TYP. DETAIL
1/4" = 1'-0"

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progressive ae
1811 4 Mile Rd NE · Grand Rapids, MI 49525 · 616.361.1493 · www.progressiveae.com

PROJECT COOPER

SOUTH MAIN STREET AND CONGRESS PARKWAY
CRYSTAL LAKE, IL 60012

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ISSUANCE
ZONING AND ANNEXATION APPLICATION

10/15/2021

REVISIONS
NO. DATE DESCRIPTION

FILE NUMBER	8346013 2
PROJECT MANAGER	DMH
PROFESSIONAL	SDW
DRAWN BY	MEO
CHECKED BY	DMH/KSJ

SITE SIGNS, SHELTERS AND DETAILS

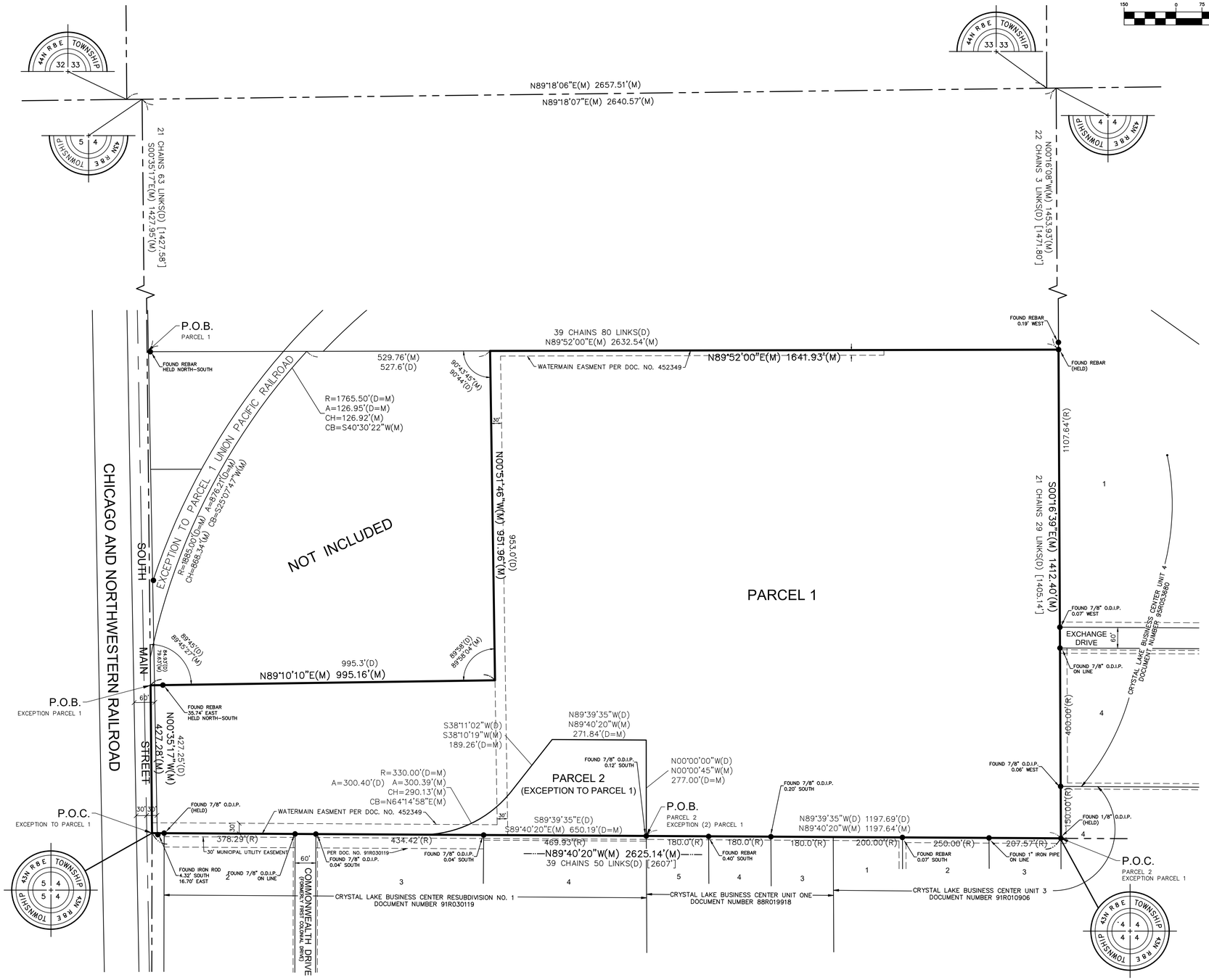
A3.0

PLAT OF SUBDIVISION
FIRST ADDITION TO CRYSTAL LAKE BUSINESS CENTER

PART OF THE NORTHWEST 1/4 OF SECTION 4,
TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD
PRINCIPAL MERIDIAN, MCHENRY COUNTY, ILLINOIS.

P.I.N. 19-04-176-003
P.I.N. 19-04-176-004
P.I.N. 19-04-152-003
P.I.N. 19-04-152-004

GRAPHIC SCALE
150 0 75 150 300 600
(IN FEET)
1 inch = 150 ft.



LEGEND

- ● SET 7/8" O.D.I.P. UNLESS OTHERWISE NOTED
- ■ SET CONCRETE MONUMENT UNLESS OTHERWISE NOTED
- \+ SET CROSS IN CONCRETE UNLESS OTHERWISE NOTED

ABBREVIATIONS

O.D.I.P. = OUTSIDE DIAMETER IRON PIPE
N = NORTH
S = SOUTH
E = EAST
W = WEST
(R) = RECORD BEARING OR DISTANCE
(M) = MEASURED BEARING OR DISTANCE
(C) = CALCULATED BEARING OR DISTANCE
(D) = DEED BEARING OR DISTANCE
B.S.L. = BUILDING SETBACK LINE
U.E. = UTILITY EASEMENT
D.E. = DRAINAGE EASEMENT
P.U.E. = PUBLIC UTILITY EASEMENT
P.O.C. = POINT OF COMMENCEMENT
P.O.B. = POINT OF BEGINNING
P.U. & D.E. = PUBLIC UTILITY AND DRAINAGE EASEMENT

LINE LEGEND

- SUBDIVISION BOUNDARY LINE
- ADJACENT LAND PARCEL LINE
- LOT LINE
- EASEMENT LINE
- CENTERLINE
- BUILDING SETBACK LINE
- SECTION LINE

NO.	REVISIONS	DATE	BY

DATE: 9/30/21 | PC N/A | DRAWN BY MRA | CHECKED BY SK | BOOK N/A PG N/A

CLIENT: Kimley»Horn
© 2020 KIMLEY-HORN AND ASSOCIATES, INC.
4201 WINFIELD ROAD, SUITE 600,
WARRENVILLE, IL 60555
PHONE: 630-487-2550
WWW.KIMLEY-HORN.COM

PROJECT: DHC9 - Crystal Lake
S. Main St & Congress Pkwy

COMPASS SURVEYING LTD
ALTA SURVEYS ● TOPOGRAPHY ● CONSTRUCTION STAKING
2631 GINGER WOODS PARKWAY, STE. 100
AURORA, IL 60502
PHONE: (630) 820-9100 FAX: (630) 820-9181 EMAIL: ADMIN@CLSURVEYING.COM

SCALE: 1" = 150'

1 OF 3

PROJ. NO.: 21.0205-01

J:\PSDATA\2021 PROJECTS\21.0205\21.0205-02 SUBDIVISION\21.0205-02 POSUBD.DWG

J:\Psdata\2021 Projects\21.0205\21.0205-02 Subdivision\21.0205-02 POSubd.dwg, 10/1/2021 12:09:06 PM

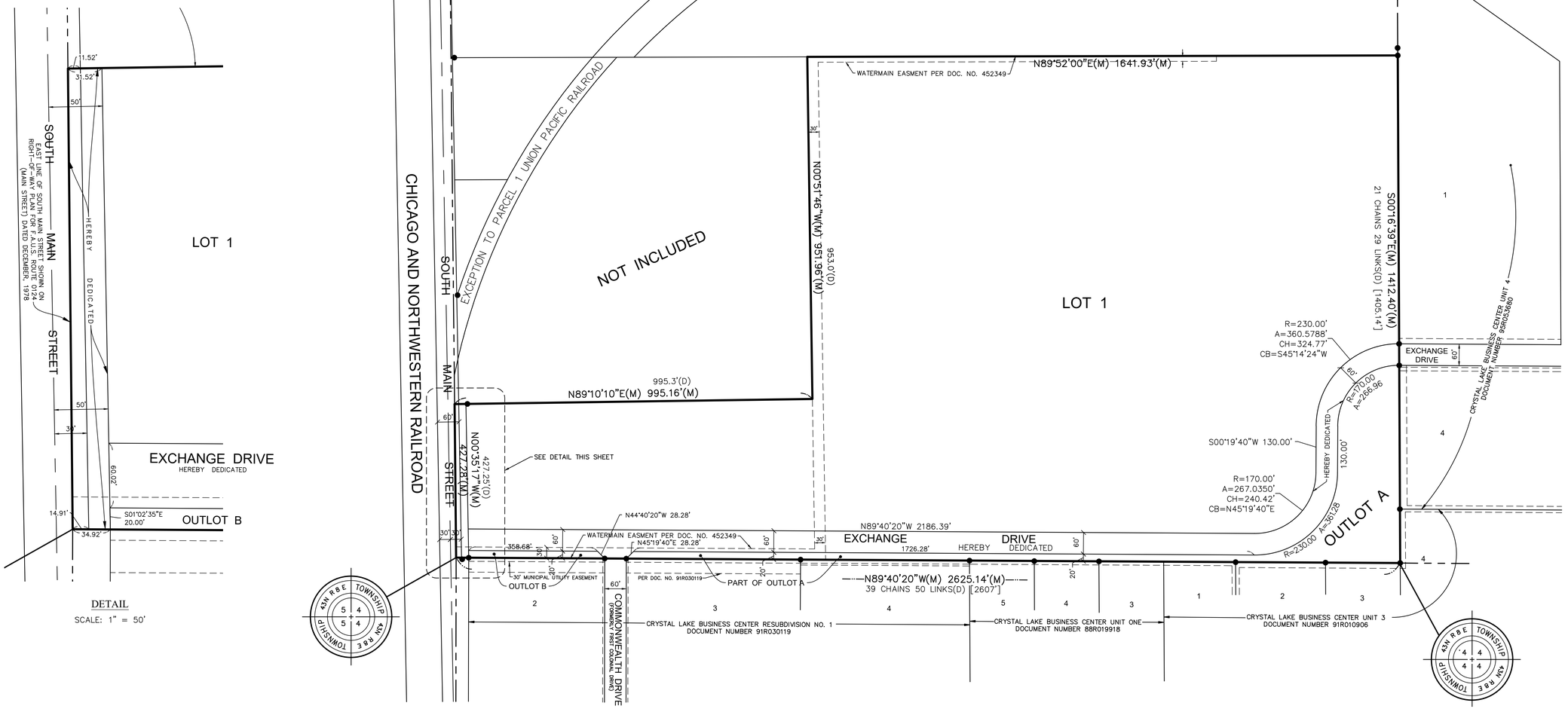
PLAT OF SUBDIVISION
FIRST ADDITION TO CRYSTAL LAKE BUSINESS CENTER

PART OF THE NORTHWEST 1/4 OF SECTION 4,
TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD
PRINCIPAL MERIDIAN, MCHENRY COUNTY, ILLINOIS.

P.I.N. 19-04-176-003
P.I.N. 19-04-176-004
P.I.N. 19-04-152-003
P.I.N. 19-04-152-004

GRAPHIC SCALE

150 0 75 150 300 600
(IN FEET)
1 inch = 150 ft.



LEGEND

- ● SET 7/8" O.D.I.P. UNLESS OTHERWISE NOTED
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- SUBDIVISION BOUNDARY LINE
- ADJACENT LAND PARCEL LINE
- LOT LINE
- EASEMENT LINE
- CENTERLINE
- BUILDING SETBACK LINE
- SECTION LINE

AREA SUMMARY

TOTAL	2,733,904 SQUARE FEET	OR	62.761 ACRES
LOT 1	2,394,580 SQUARE FEET	OR	54.972 ACRES
OUTLOT A	139,535 SQUARE FEET	OR	3.203 ACRES
OUTLOT B	7,369 SQUARE FEET	OR	0.169 ACRES
EXCHANGE DR. DEDICATION	178,216 SQUARE FEET	OR	4.091 ACRES
HEREBY DEDICATED	14,204 SQUARE FEET	OR	0.326 ACRES
NET AREA	2,541,484 SQUARE FEET	OR	58.344 ACRES

(TO HEAVY LINES)
(BASED ON MEASURED VALUES)

NO.	DATE: 9/30/21	PC N/A	DRAWN BY MRA	CHECKED BY SK	BOOK N/A PG N/A
	REVISIONS				DATE / BY

CLIENT: Kimley»Horn
© 2020 KIMLEY-HORN AND ASSOCIATES, INC.
4201 WINFIELD ROAD, SUITE 600,
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PHONE: (630) 487-9550
WWW.KIMLEY-HORN.COM

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PHONE: (630) 820-9100 FAX: (630) 820-9030 EMAIL: ADMIN@CLSURVEYING.COM

SCALE: 1" = 150'

2 OF 3

PROJ. NO.: 21.0205-02

J:\PSDATA\2021 PROJECTS\21.0205\21.0205-02 SUBDIVISION\21.0205-02 POSUBD.DWG

PLAT OF SUBDIVISION
FIRST ADDITION TO CRYSTAL LAKE BUSINESS CENTER

PART OF THE NORTHWEST 1/4 OF SECTION 4,
TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD
PRINCIPAL MERIDIAN, MCHENRY COUNTY, ILLINOIS.

P.I.N. 19-04-176-003
P.I.N. 19-04-176-004
P.I.N. 19-04-152-003
P.I.N. 19-04-152-004

OWNER'S CERTIFICATE

STATE OF _____)
) SS
COUNTY OF _____)

THIS IS TO CERTIFY THAT _____, LLC, A _____ LIMITED LIABILITY COMPANY, IS THE OWNER OF THE PROPERTY DESCRIBED AND SHOWN HEREON AND AS SUCH OWNER, HAS CAUSED THE PROPERTY TO BE SURVEYED AND SUBDIVIDED AS SHOWN HEREON, FOR THE USES AND PURPOSES THEREIN SET FORTH AND AS ALLOWED AND PROVIDED BY STATUTES, AND SAID LIMITED LIABILITY COMPANY DOES HEREBY ACKNOWLEDGE AND ADOPT THE SAME UNDER THE STYLE AND TITLE AFORESAID.

ALSO, THIS IS TO CERTIFY THAT THE PROPERTY BEING SUBDIVIDED AFORESAID AND, TO THE BEST OF OWNER'S KNOWLEDGE AND BELIEF, SAID SUBDIVISION LIES ENTIRELY WITHIN THE LIMITS OF SCHOOL DISTRICT _____.

DATED AT _____, _____, THIS _____ DAY OF _____,
A.D., 20 ____.

OWNER NAME: _____ ADDRESS: _____

BY: _____
SIGNATURE
TITLE: _____
PRINT TITLE

NOTARY'S CERTIFICATE

STATE OF _____)
) SS
COUNTY OF _____)

I, _____ , A NOTARY PUBLIC IN AND FOR THE SAID COUNTY IN THE STATE AFORESAID, DO HEREBY CERTIFY THAT _____(PRINT NAME), _____ (TITLE) OF SAID LIMITED LIABILITY COMPANY, WHO ARE PERSONALLY KNOWN TO ME TO BE THE SAME PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT AS SUCH _____ APPEARED BEFORE ME THIS DAY IN PERSON AND ACKNOWLEDGED THAT THEY SIGNED AND DELIVERED THE SAID INSTRUMENT AS THEIR OWN FREE AND VOLUNTARY ACT AND AS THE FREE AND VOLUNTARY ACT OF SAID LIMITED LIABILITY COMPANY, FOR THE USES AND PURPOSES THEREIN SET FORTH.

GIVEN UNDER MY HAND AND NOTARIAL SEAL THIS _____ DAY OF _____ A.D., 20____

_____
NOTARY PUBLIC SIGNATURE

_____
(PRINT NAME)

MORTGAGEE'S CERTIFICATE

STATE OF _____)
)SS
COUNTY OF _____)

_____ , AS MORTGAGEE UNDER

PROVISIONS OF A CERTAIN MORTGAGE DATED _____

AND RECORDED IN THE RECORDER'S OFFICE OF _____ COUNTY,

ILLINOIS, AS DOCUMENT NUMBER _____ , HEREBY CONSENTS TO RECORDING OF THE PLAT HEREIN SHOWN.

DATED AT _____ , THIS _____ DAY

OF _____ , A.D., 20 _____ .

BY: _____ BY: _____

TITLE: _____ TITLE: _____

NOTARY'S CERTIFICATE

STATE OF _____)
)SS
COUNTY OF _____)

I, _____ , A NOTARY PUBLIC IN THE COUNTY AND STATE AFORESAID, DO HEREBY CERTIFY THAT

_____ (TITLE) AND _____

(TITLE) OF _____ (COMPANY), WHO ARE PERSONALLY KNOWN TO ME TO BE THE SAME PERSONS WHO ARE SUBSCRIBED TO THE FOREGOING MORTGAGEE'S CERTIFICATE APPEARED BEFORE ME THIS DAY IN PERSON AND ACKNOWLEDGED THE EXECUTION OF THIS INSTRUMENT IN THEIR CAPACITY FOR THE FOR THE USES AND PURPOSES THEREIN SET FORTH AS THE FREE AND VOLUNTARY ACT AN DEED OF SAID CORPORATION.

GIVEN UNDER MY HAND AND NOTARIAL SEAL THIS _____ DAY

OF _____ A.D., 20_____ .

BY: _____
NOTARY PUBLIC

DRAINAGE CERTIFICATE

STATE OF ILLINOIS)
) SS
COUNTY OF McHENRY)

I, _____ , OWNER(S) AND I, _____ , PROFESSIONAL ENGINEER OF THE STATE OF ILLINOIS, DO HEREBY CERTIFY THAT TO THE BEST OF OUR KNOWLEDGE AND BELIEF THAT THE DRAINAGE OF SURFACE WATERS WILL NOT BE CHANGED BY THE CONSTRUCTION OF THIS SUBDIVISION OF ANY PART THEREOF,OR, IF SUCH CHANGES OCCUR, ADEQUATE PROVISIONS HAVE BEEN MADE GOT THE COLLECTION AND DIVERSION OF SUCH SURFACE WATERS INTO PUBLIC AREAS OR DRAINS WHICH THE SUBDIVIDER HAS A RIGHT TO USE, AND THAT SUCH SURFACE WATERS WILL NOT BE DEPOSITED ON ADJOINING LAND OWNERS IN SUCH CONCENTRATION AS MAY CAUSE DAMAGE TO THE ADJOINING PROPERTY BECAUSE OF THE CONSTRUCTION OF THIS SUBDIVISION.

_____
OWNER(S)

_____
REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

PLANNING AND ZONING COMMISSION CERTIFICATE

STATE OF ILLINOIS)
) SS
COUNTY OF McHENRY)

I, _____, CHAIRMAN OF THE CRYSTAL LAKE PLANNING AND ZONING COMMISSION, DO HEREBY CERTIFY THAT ON THIS _____ DAY OF_____, 20_____, THIS PLAT OF SUBDIVISION WAS DULY APPROVED BY THE PLANNING AND ZONING COMMISSION OF THE CITY OF CRYSTAL LAKE.

_____
CHAIRMAN

CITY COUNCIL CERTIFICATE

STATE OF ILLINOIS)
) SS
COUNTY OF McHENRY)

APPROVED BY THE CITY COUNCIL OF CRYSTAL LAKE, ILLINOIS THIS _____ DAY OF _____, 20____, A.D.

_____
MAYOR

_____
ATTEST: CITY CLERK

COUNTY CLERK'S CERTIFICATE

STATE OF ILLINOIS)
) SS
COUNTY OF McHENRY)

I, _____ , COUNTY CLERK IN MCHENRY COUNTY, ILLINOIS DO HEREBY CERTIFY THAT THERE ARE NO DELINQUENT GENERAL TAXES, NO UNPAID CURRENT GENERAL TAXES, NO UNPAID FORFEITED TAXES, AND NO REDEEMABLE TAX AGAINST ANY OF THE LAND INCLUDED IN THE ATTACHED PLAT. I FURTHER CERTIFY THAT I HAVE RECEIVED ALL STATUTORY FEES IN CONNECTION WITH THE PLAT.

GIVEN UNDER MY HAND AND SEAL OF THE COUNTY AT WOODSTOCK, ILLINOIS,

THIS _____ DAY OF _____, 20____ , A.D.

_____
MCHENRY COUNTY CLERK

RECORDER'S CERTIFICATE

STATE OF ILLINOIS)
) SS
COUNTY OF MCHENRY)

THIS INSTRUMENT FILED FOR RECORD IN THE RECORDER'S OFFICE OF MCHENRY COUNTY, ILLINOIS ON

THIS _____ DAY OF _____ , 20____, A.D. AT _____O'CLOCK ___M.

AND RECORDED AS DOCUMENT NUMBER _____.

_____
MCHENRY COUNTY RECORDER

SURVEYOR'S AUTHORIZATION TO RECORD

STATE OF ILLINOIS)
) SS
COUNTY OF KANE)

I HEREBY DESIGNATE _____, AND/OR REPRESENTATIVES THEREOF, TO RECORD THIS PLAT, A TRUE COPY OF WHICH HAS BEEN RETAINED BY ME TO ASSURE NO CHANGES HAVE BEEN MADE TO SAID PLAT.

DATED THIS _____ DAY OF_____, 20_____, AT AURORA, KANE COUNTY, ILLINOIS.

COMPASS SURVEYING LTD
PROFESSIONAL DESIGN FIRM
LAND SURVEYOR CORPORATION NO. 184-002778
LICENSE EXPIRES 4/30/2023

BY: _____
SCOTT C. KREBS
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3509

EXPIRES 11/30/2022

SURVEYOR'S CERTIFICATE

STATE OF ILLINOIS)
)SS
COUNTY OF KANE)

I, SCOTT C. KREBS, ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3509, HAVE SURVEYED AND SUBDIVIDED THE FOLLOWING PROPERTY:

PARCEL 1:

PART OF THE NORTHWEST 1/4 OF SECTION 4, TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT 21 CHAINS AND 63 LINKS SOUTH OF THE NORTHWEST CORNER OF THE SAID NORTHWEST 1/4 FOR A PLACE OF BEGINNING; THENCE EAST 39 CHAINS AND 80 LINKS TO A POINT ON THE EAST LINE OF SAID NORTHWEST 1/4, 22 CHAINS AND 3 LINKS SOUTH OF THE NORTHEAST CORNER THEREOF; THENCE SOUTH ALONG SAID EAST LINE, 21 CHAINS AND 29 LINKS, MORE OR LESS, TO THE SOUTHEAST CORNER OF SAID NORTHWEST 1/4; THENCE WEST ALONG THE SOUTH LINE OF SAID NORTHWEST 1/4, 39 CHAINS AND 50 LINKS TO THE SOUTHWEST CORNER THEREOF; THENCE NORTH ALONG THE WEST LINE OF SAID NORTHWEST 1/4 TO THE PLACE OF BEGINNING (EXCEPTING THEREFROM ALL THAT PORTION THEREOF WHICH WAS CONVEYED BY CLEM C. CRAIN AND WIFE TO THE CHICAGO AND NORTHWESTERN RAILROAD COMPANY BY DEED RECORDED IN BOOK 180, PAGE 11, ALSO EXCEPTING THEREFROM ALL THAT PORTION THEREOF LYING NORTHWESTERLY OF THE PIECE SO CONVEYED; ALSO EXCEPTING THAT PART OF THE NORTHEAST 1/4 OF SECTION 4, TOWNSHIP 43 NORTH, RANGE 8, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED BY COMMENCING AT THE SOUTHWEST CORNER OF SAID NORTHWEST 1/4 OF SECTION 4 AND RUNNING THENCE NORTH ALONG THE WEST LINE THEREOF, 427.25 FEET FOR A PLACE OF BEGINNING; THENCE EAST ALONG A LINE THAT FORMS AN ANGLE OF 89 DEGREES, 45 MINUTES WITH THE PROLONGATION OF THE LAST DESCRIBED COURSE, 995.3 FEET; THENCE NORTH ALONG A LINE THAT FORMS AN ANGLE OF 89 DEGREES, 58 MINUTES WITH THE LAST DESCRIBED COURSE AS MEASURED FROM WEST TO NORTH, 953.0 FEET; THENCE WEST ALONG A LINE THAT FORMS AN ANGLE OF 90 DEGREES, 44 MINUTES WITH THE LAST DESCRIBED COURSE, AS MEASURED FROM SOUTH TO WEST, 527.6 FEET TO THE SOUTHEASTERLY. RIGHT OF WAY LINE OF THE CHICAGO NORTHWESTERN RAILROAD; THENCE SOUTHWESTERLY ALONG SAID RIGHT OF WAY LINE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 1765.5 FEET, A DISTANCE OF 126.95 FEET; THENCE CONTINUING SOUTHWESTERLY ALONG SAID RIGHT OF WAY LINE ON A CURVE TO THE LEFT HAVING A RADIUS OF 1885 FEET, A DISTANCE OF 876.21 FEET TO A POINT IN THE WEST LINE OF THE NORTHWEST 1/4 OF SECTION 4; THENCE SOUTH ALONG SAID WEST LINE, 84.93 FEET TO THE PLACE OF BEGINNING, ALSO, EXCEPTING THEREFROM THAT PART BEING DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF THE NORTHWEST QUARTER OF SAID SECTION 4; THENCE NORTH 89 DEGREES 39 MINUTES 35 SECONDS WEST ALONG THE SOUTH LINE OF SAID NORTHWEST QUARTER, A DISTANCE OF 1197.69 FEET TO THE POINT OF BEGINNING; THENCE NORTH 00 DEGREES 00 MINUTES 00 SECONDS WEST, 277.00 FEET; THENCE NORTH 89 DEGREES 39 MINUTES 35 SECONDS WEST, 271.84 FEET TO THE SOUTHEAST RIGHT OF WAY LINE OF THE FUTURE EXCHANGE DRIVE; THENCE SOUTH 38 DEGREES 11 MINUTES 02 SECONDS WEST, ALONG SAID SOUTHEAST RIGHT OF WAY LINE, A DISTANCE OF 189.26 FEET TO A POINT OF CURVATURE; THENCE ALONG AN ARC OF A CIRCLE, BEING CONCAVE NORTHWESTERLY, HAVING A RADIUS OF 330.00 FEET, AN ARC DISTANCE OF 300.40 FEET TO A POINT OF CUSP; THENCE LEAVING THE ARC OF A CIRCLE, SOUTH 89 DEGREES 39 MINUTES 35 SECONDS EAST ALONG THE SOUTH LINE OF SAID NORTHWEST QUARTER OF SECTION 4, A DISTANCE OF 650.19 TO THE PLACE OF BEGINNING), IN MCHENRY COUNTY, ILLINOIS.

PARCEL 2:

THAT PART OF THE NORTHWEST QUARTER OF SECTION 4, TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF THE NORTHWEST QUARTER OF SAID SECTION 4; THENCE NORTH 89 DEGREES 39 MINUTES 35 SECONDS WEST ALONG THE SOUTH LINE OF SAID NORTHWEST QUARTER, A DISTANCE OF 1197.69 FEET TO THE POINT OF BEGINNING; THENCE NORTH 00 DEGREES 00 MINUTES 00 SECONDS WEST, 277.00 FEET; THENCE NORTH 89 DEGREES 39 MINUTES 35 SECONDS WEST, 271.84 FEET TO THE SOUTHEAST RIGHT OF WAY LINE OF THE FUTURE EXCHANGE DRIVE; THENCE SOUTH 38 DEGREES 11 MINUTES 02 SECONDS WEST, ALONG SAID SOUTHEAST RIGHT OF WAY LINE, A DISTANCE OF 189.26 FEET TO A POINT OF CURVATURE; THENCE ALONG AN ARC OF A CIRCLE, BEING CONCAVE NORTHWESTERLY, HAVING A RADIUS OF 330.00 FEET, AN ARC DISTANCE OF 300.40 FEET TO A POINT OF CUSP; THENCE LEAVING THE ARC OF A CIRCLE, SOUTH 89 DEGREES 39 MINUTES 35 SECONDS EAST ALONG THE SOUTH LINE OF SAID NORTHWEST QUARTER OF SECTION 4, A DISTANCE OF 650.19 TO THE POINT OF BEGINNING, IN THE COUNTY OF MCHENRY, STATE OF ILLINOIS.

AS SHOWN BY THE ANNEXED PLAT WHICH IS A CORRECT REPRESENTATION OF SAID SURVEY AND SUBDIVISION. ALL DISTANCES ARE SHOWN IN FEET AND DECIMALS THEREOF. THIS SUBDIVISION IS WITHIN THE CITY OF CRYSTAL LAKE WHICH HAS ADOPTED AN OFFICIAL COMPREHENSIVE PLAN AND IS EXERCISING THE SPECIAL POWERS AUTHORIZED BY THE STATE OF ILLINOIS ACCORDING TO 65 ILCS 5/11-12-6 AS HERETOFORE AND HEREAFTER AMENDED, AND THIS SITE FALLS WITHIN "OTHER AREAS ZONE X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS DEFINED BY THE FLOOD INSURANCE RATE MAP, MAP NUMBERS 17111C0335J AND 17111C0327J, HAVING A REVISED DATE OF NOVEMBER 16, 2008.

GIVEN UNDER MY HAND AND SEAL AT AURORA , ILLINOIS THIS_____ DAY OF _____, 20_____.

COMPASS SURVEYING LTD
PROFESSIONAL DESIGN FIRM
LAND SURVEYOR CORPORATION NO. 184-002778
LICENSE EXPIRES 4/30/2023

BY: _____
SCOTT C. KREBS
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3509
LICENSE EXPIRES 11/30/2022

DATE: 9/30/21	PC N/A	DRAWN BY MRA	CHECKED BY SK	BOOK N/A PG N/A
NO.	REVISIONS		DATE	BY

CLIENT: Kimley»Horn
© 2020 KIMLEY-HORN AND ASSOCIATES, INC.
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PHONE: (630) 487-6500
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SCALE: 1" = 150'

3 OF 3

PROJ. NO.: 21.0205-02

J:\PSDATA\2021 PROJECTS\21.0205\21.0205-02 SUBDIVISION\21.0205-02 POSUBD.DWG

ALTA/NSPS LAND TITLE
AND TOPOGRAPHIC SURVEY



VICINITY MAP
NO SCALE

LEGAL DESCRIPTION – PARCEL 1

PART OF THE NORTHWEST 1/4 OF SECTION 4, TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT 21 CHAINS AND 63 LINKS SOUTH OF THE NORTHWEST CORNER OF THE SAID NORTHWEST 1/4 FOR A PLACE OF BEGINNING; THENCE EAST 39 CHAINS AND 80 LINKS TO A POINT ON THE EAST LINE OF SAID NORTHWEST 1/4, 22 CHAINS AND 3 LINKS SOUTH OF THE NORTHEAST CORNER THEREOF; THENCE SOUTH ALONG SAID EAST LINE, 21 CHAINS AND 29 LINKS, MORE OR LESS, TO THE SOUTHEAST CORNER OF SAID NORTHWEST 1/4; THENCE WEST ALONG THE SOUTH LINE OF SAID NORTHWEST 1/4, 39 CHAINS AND 50 LINKS TO THE SOUTHWEST CORNER THEREOF; THENCE NORTH ALONG THE WEST LINE OF SAID NORTHWEST 1/4 TO THE PLACE OF BEGINNING (EXCEPTING THEREFROM ALL THAT PORTION THEREOF WHICH WAS CONVEYED BY CLEM C. CRAIN AND WIFE TO THE CHICAGO AND NORTHWESTERN RAILROAD COMPANY BY DEED RECORDED IN BOOK 180, PAGE 11, ALSO EXCEPTING THEREFROM ALL THAT PORTION THEREOF LYING NORTHWESTERLY OF THE PIECE SO CONVEYED; ALSO EXCEPTING THAT PART OF THE NORTHWEST 1/4 OF SECTION 4, TOWNSHIP 43 NORTH, RANGE 8, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED BY COMMENCING AT THE SOUTHWEST CORNER OF SAID NORTHWEST 1/4 OF SECTION 4 AND RUNNING THENCE NORTH ALONG THE WEST LINE THEREOF, 427.25 FEET FOR A PLACE OF BEGINNING; THENCE EAST ALONG A LINE THAT FORMS AN ANGLE OF 89 DEGREES, 45 MINUTES WITH THE PROLONGATION OF THE LAST DESCRIBED COURSE, 995.3 FEET; THENCE NORTH ALONG A LINE THAT FORMS AN ANGLE OF 89 DEGREES, 58 MINUTES WITH THE LAST DESCRIBED COURSE AS MEASURED FROM WEST TO NORTH, 953.0 FEET; THENCE WEST ALONG A LINE THAT FORMS AN ANGLE OF 90 DEGREES, 44 MINUTES WITH THE LAST DESCRIBED COURSE, AS MEASURED FROM SOUTH TO WEST, 527.6 FEET TO THE SOUTHEASTERLY RIGHT OF WAY LINE OF THE CHICAGO NORTHWESTERN RAILROAD; THENCE SOUTHWESTERLY ALONG SAID RIGHT OF WAY LINE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 1785.5 FEET, A DISTANCE OF 126.95 FEET; THENCE CONTINUING SOUTHWESTERLY ALONG SAID RIGHT OF WAY LINE ON A CURVE TO THE LEFT HAVING A RADIUS OF 1885 FEET, A DISTANCE OF 876.21 FEET TO A POINT IN THE WEST LINE OF THE NORTHWEST 1/4 OF SECTION 4; THENCE SOUTH ALONG SAID WEST LINE, 84.93 FEET TO THE PLACE OF BEGINNING, ALSO, EXCEPTING THEREFROM THAT PART BEING DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF THE NORTHWEST QUARTER OF SAID SECTION 4; THENCE NORTH 89 DEGREES 39 MINUTES 35 SECONDS WEST ALONG THE SOUTH LINE OF SAID NORTHWEST QUARTER, A DISTANCE OF 1197.69 FEET TO THE POINT OF BEGINNING; THENCE NORTH 00 DEGREES 00 MINUTES 00 SECONDS WEST, 277.00 FEET; THENCE NORTH 89 DEGREES 39 MINUTES 35 SECONDS WEST, 271.84 FEET TO THE SOUTHEAST RIGHT OF WAY LINE OF THE FUTURE EXCHANGE DRIVE; THENCE SOUTH 38 DEGREES 11 MINUTES 02 SECONDS WEST, ALONG SAID SOUTHEAST RIGHT OF WAY LINE, A DISTANCE OF 189.26 FEET TO A POINT OF CURVATURE; THENCE ALONG AN ARC OF A CIRCLE, BEING CONCAVE NORTHWESTERLY, HAVING A RADIUS OF 330.00 FEET, AN ARC DISTANCE OF 300.40 FEET TO A POINT OF CUSP; THENCE LEAVING THE ARC OF A CIRCLE, SOUTH 89 DEGREES 39 MINUTES 35 SECONDS EAST ALONG THE SOUTH LINE OF SAID NORTHWEST QUARTER OF SECTION 4, A DISTANCE OF 650.19 TO THE PLACE OF BEGINNING), IN MCHENRY COUNTY, ILLINOIS.

LEGAL DESCRIPTION – PARCEL 2

THAT PART OF THE NORTHWEST QUARTER OF SECTION 4, TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF THE NORTHWEST QUARTER OF SAID SECTION 4; THENCE NORTH 89 DEGREES 39 MINUTES 35 SECONDS WEST ALONG THE SOUTH LINE OF SAID NORTHWEST QUARTER, A DISTANCE OF 1197.69 FEET TO THE POINT OF BEGINNING; THENCE NORTH 00 DEGREES 00 MINUTES 00 SECONDS WEST, 277.00 FEET; THENCE NORTH 89 DEGREES 39 MINUTES 35 SECONDS WEST, 271.84 FEET TO THE SOUTHEAST RIGHT OF WAY LINE OF THE FUTURE EXCHANGE DRIVE; THENCE SOUTH 38 DEGREES 11 MINUTES 02 SECONDS WEST, ALONG SAID SOUTHEAST RIGHT OF WAY LINE, A DISTANCE OF 189.26 FEET TO A POINT OF CURVATURE; THENCE ALONG AN ARC OF A CIRCLE, BEING CONCAVE NORTHWESTERLY, HAVING A RADIUS OF 330.00 FEET, AN ARC DISTANCE OF 300.40 FEET TO A POINT OF CUSP; THENCE LEAVING THE ARC OF A CIRCLE, SOUTH 89 DEGREES 39 MINUTES 35 SECONDS EAST ALONG THE SOUTH LINE OF SAID NORTHWEST QUARTER OF SECTION 4, A DISTANCE OF 650.19 TO THE POINT OF BEGINNING, IN THE COUNTY OF MCHENRY, STATE OF ILLINOIS.

SCHEDULE B EXCEPTIONS – PARCEL1

SHOWN OR NOTED HEREON

3 PERMIT IN FAVOR OF PUBLIC SERVICE COMPANY OF NORTHERN ILLINOIS, ITS SUCCESSORS AND ASSIGNS, RECORDED SEPTEMBER 11, 1912 IN BOOK 1 MISC. RECORDS, PAGE 380, AND THE TERMS AND PROVISIONS THEREOF.

4 GRANT OF EASEMENT FOR WATER MAINS BY AND BETWEEN NAPCO INDUSTRIES, INC. AND THE CITY OF CRYSTAL LAKE, ILLINOIS, ITS SUCCESSORS AND ASSIGNS, RECORDED DECEMBER 8, 1965 AS DOCUMENT 452349, AND THE TERMS AND PROVISIONS THEREOF.

5 RIGHTS OF THE PUBLIC, THE MUNICIPALITY AND THE STATE OF ILLINOIS, IN AND TO THAT PART OF THE LAND, IF ANY, TAKEN OR USED FOR ROAD PURPOSES.

6 RIGHTS OF WAY FOR DRAINAGE TILES, DITCHES, FEEDERS AND LATERALS, IF ANY.

SCHEDULE B EXCEPTIONS 1, 2 AND 7 ARE NOT SURVEY RELATED AND THEREFORE NOT SHOWN

SCHEDULE B EXCEPTIONS – PARCEL 2

SHOWN OR NOTED HEREON

3 GRANT OF EASEMENT FOR WATER MAINS BY AND BETWEEN NAPCO INDUSTRIES, INC. AND THE CITY OF CRYSTAL LAKE, ILLINOIS, ITS SUCCESSORS AND ASSIGNS, RECORDED DECEMBER 8, 1965 AS DOCUMENT 452349, AND THE TERMS AND PROVISIONS THEREOF.

4 RIGHTS OF WAY FOR DRAINAGE TILES, DITCHES, FEEDERS AND LATERALS, IF ANY.

SCHEDULE B EXCEPTIONS 1, 2, 5 AND ARE NOT SURVEY RELATED AND THEREFORE NOT SHOWN

ABBREVIATIONS

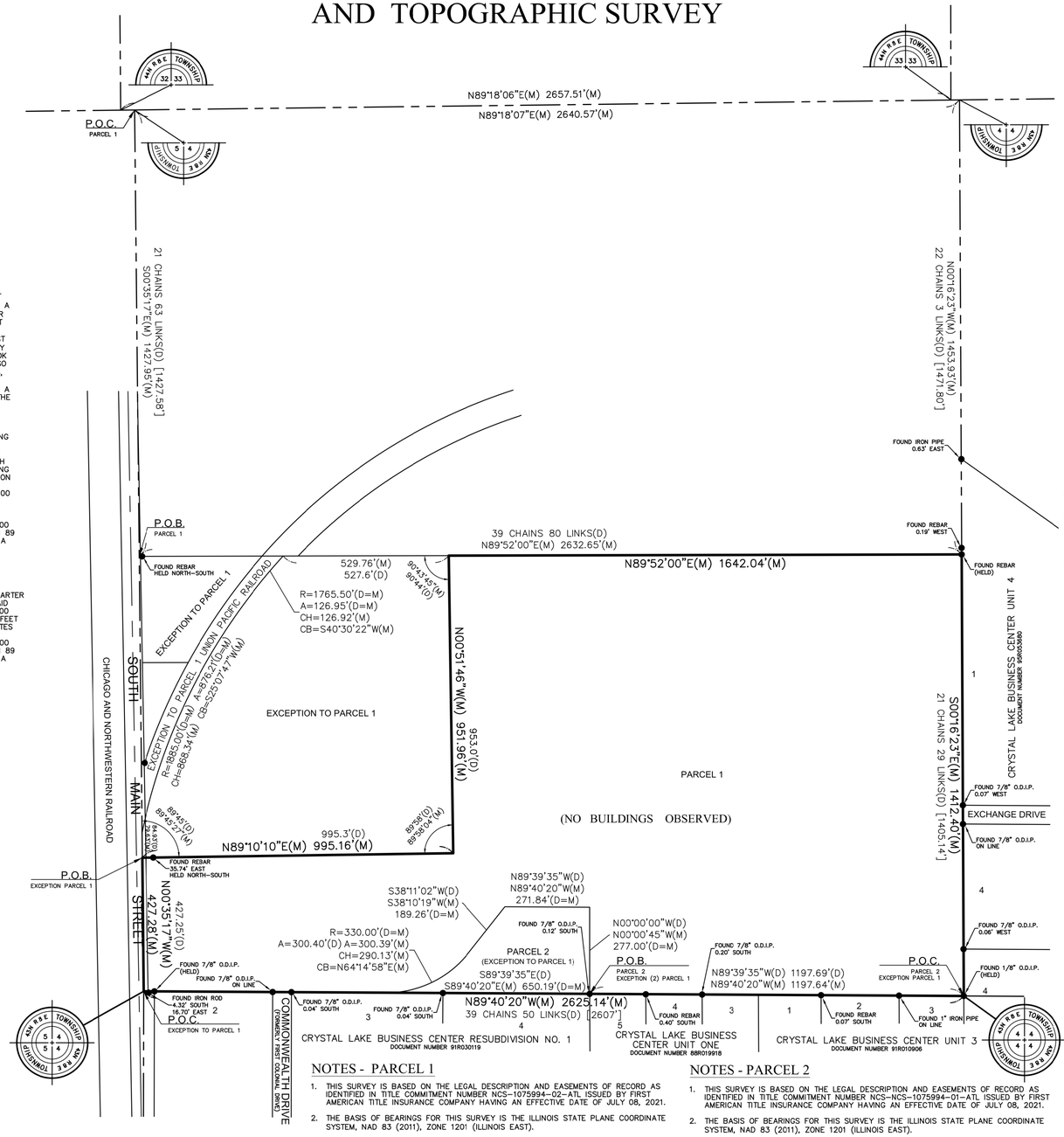
O.D.I.P. = OUTSIDE DIAMETER IRON PIPE
TF = TOP OF FOUNDATION
FF = FINISHED FLOOR
FES = FLARED END SECTION
VCP = VITRIFIED CLAY PIPE
DIP = DUCTILE IRON PIPE
PVC = POLYVINYL CHLORIDE
RCP = REINFORCED CONCRETE PIPE
CMP = CORRUGATED METAL PIPE
(R) = RECORD BEARING OR DISTANCE
(M) = MEASURED BEARING OR DISTANCE
(C) = CALCULATED BEARING OR DISTANCE
(D) = DEED BEARING OR DISTANCE
N = NORTH
S = SOUTH
E = EAST
W = WEST
A = ARC LENGTH
R = RADIUS
CH = CHORD
CB = CHORD BEARING
B.S.L. = BUILDING SETBACK LINE
U.E. = UTILITY EASEMENT
D.E. = DRAINAGE EASEMENT
P.U.E. = PUBLIC UTILITY EASEMENT
P.O.C. = POINT OF COMMENCEMENT
P.O.B. = POINT OF BEGINNING
P.U. & D.E. = PUBLIC UTILITY AND DRAINAGE EASEMENT
BC = BACK OF CURB
BDC = BACK OF DEPRESSED
FL = FLOW LINE
C = CONCRETE
P = PAVEMENT
G = GRAVEL
EW = EDGE OF WALK
TW = TOP OF WALL
TP = TOP OF PIPE
IE = INVERT ELEVATION
PL = PROPERTY LINE
DS = DOWN SPOUT
S.F. = SQUARE FEET
SL = SHORE LINE
TSF = TRANSFORMER
B = PAVERS

LINE LEGEND

- LIMITS OF LAND PER LEGAL DESCRIPTION
- ADJACENT LAND PARCEL LINE
- EASEMENT LINE
- CENTERLINE
- BUILDING SETBACK LINE
- SECTION LINE
- EXISTING CONTOUR

LEGEND

- FOUND 7/8" O.D.I.P. UNLESS OTHERWISE NOTED (HELD LOCATION)
- CONCRETE MONUMENT
- CROSS IN CONCRETE
- MANHOLE
- STORM STRUCTURE
- SANITARY MANHOLE
- CLEANOUT
- FLARED END SECTION
- TRANSFORMER PAD
- ELECTRIC MANHOLE
- ELECTRIC BOX
- ELECTRIC PEDESTAL
- ELECTRIC MARKER
- ELECTRIC METER
- UTILITY POLE
- UTILITY POLE W/LIGHT
- UTILITY POLE W/TSF
- GUY POLE
- OVERHEAD TRAFFIC SIGNAL
- TRAFFIC SIGNAL MANHOLE
- LIGHT
- LIGHT POLE
- HAND HOLE
- VALVE VAULT
- FIRE HYDRANT
- IRRIGATION CONTROL VALVE
- POST INDICATOR VALVE
- SIAMESE WATER CONNECTION
- WATER MARKER
- WATER METER
- VALVE BOX
- B/BOX
- SPRINKLER CONTROL VALVE
- TELEPHONE MANHOLE
- TELEPHONE NETWORK INTERFACE
- TELEPHONE MARKER
- TELEPHONE PEDESTAL
- CABLE TELEVISION PEDESTAL
- CONTROL BOX
- WETLAND FLAG
- GAS METER
- GAS VALVE
- GAS MARKER
- DOWN SPOUT
- BORING HOLE
- MONITORING WELL
- GATE POST
- BOLLARD POST
- SIGN
- FLAG POLE
- MAILBOX
- SANITARY SEWER
- STORM SEWER
- WATER MAIN
- GAS MAIN
- ELECTRIC LINE
- OVERHEAD WIRES
- TELEPHONE LINE
- CONIFEROUS TREE W/APPROX. DIAMETER
- DECIDUOUS TREE W/APPROX. DIAMETER MS=MULTI-STEM (DRIP LINE SHOWN IS APPROXIMATE)
- TREE LINE
- + ELEVATION
- BITUMINOUS PAVEMENT
- CONCRETE SURFACE
- DEPRESSED CURB
- GRAVEL SURFACE
- LANDSCAPE AREA
- STONE SURFACE
- DETECTABLE TACTILE WARNING SURFACE
- BRICK PAVERS
- WOOD FENCE
- CHAIN LINK FENCE
- METAL FENCE
- METAL GUARDRAIL
- OVERHEAD TRAFFIC ARM



NOTES - PARCEL 1

1. THIS SURVEY IS BASED ON THE LEGAL DESCRIPTION AND EASEMENTS OF RECORD AS IDENTIFIED IN TITLE COMMITMENT NUMBER NCS–1075994–02–ATL ISSUED BY FIRST AMERICAN TITLE INSURANCE COMPANY HAVING AN EFFECTIVE DATE OF JULY 08, 2021.
2. THE BASIS OF BEARINGS FOR THIS SURVEY IS THE ILLINOIS STATE PLANE COORDINATE SYSTEM, NAD 83 (2011), ZONE 1201 (ILLINOIS EAST).
3. THIS SITE FALLS WITHIN "OTHER AREAS ZONE X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS DEFINED BY THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 170732 0335 J, MAP NUMBER 17111C0335J AND MAP 17111C0327J, BOTH HAVING AN EFFECTIVE DATE OF NOVEMBER 16, 2068.
4. THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR TOPOGRAPHIC SURVEYS, AND IS BASED ON FIELD WORK PERFORMED ON 08/05/2021.
5. THE SURVEYOR CONTACTED J.U.L.I.E. FOR A DESIGN STAGE REQUEST FOR THIS SITE WHICH WAS ASSIGNED A DIG NUMBER OF 194 2351. INQUIRIES WERE SENT OUT TO THE VARIOUS UTILITY COMPANIES REQUESTING MAPS AND/OR ATLASES OF THEIR RESPECTIVE FACILITIES. THE INFORMATION RECEIVED TO DATE IS SHOWN HEREON.
6. IN ACCORDANCE WITH TABLE A ITEMS 6(A) AND 6(B), A ZONING REPORT OR LETTER WAS NOT PROVIDED TO THE SURVEYOR FOR REVIEW.
7. IN ACCORDANCE WITH TABLE A ITEM 17, NO PROPOSED CHANGES IN STREET RIGHT OF WAY LINES BASED ON INFORMATION RECEIVED FROM THE CONTROLLING JURISDICTION AT THE TIME OF THE SURVEY. NO OBSERVED EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS.
8. THERE WERE NO DRAINAGE TILE MARKINGS OBSERVED. DITCHES ARE BASED ON OBSERVATIONS AT THE TIME OF THE SURVEY. THERE WERE NO RECORDED EASEMENTS IDENTIFIED IN THE TITLE COMMITMENT REGARDING THESE ITEMS. NOT PLOTTABLE.

NOTES - PARCEL 2

1. THIS SURVEY IS BASED ON THE LEGAL DESCRIPTION AND EASEMENTS OF RECORD AS IDENTIFIED IN TITLE COMMITMENT NUMBER NCS–NCS–1075994–01–ATL ISSUED BY FIRST AMERICAN TITLE INSURANCE COMPANY HAVING AN EFFECTIVE DATE OF JULY 08, 2021.
2. THE BASIS OF BEARINGS FOR THIS SURVEY IS THE ILLINOIS STATE PLANE COORDINATE SYSTEM, NAD 83 (2011), ZONE 1201 (ILLINOIS EAST).
3. THIS SITE FALLS WITHIN "OTHER AREAS ZONE X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS DEFINED BY THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 170732 0335 J, MAP NUMBER 17111C0335J AND MAP 17111C0327J, BOTH HAVING AN EFFECTIVE DATE OF NOVEMBER 16, 2068.
4. THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR TOPOGRAPHIC SURVEYS, AND IS BASED ON FIELD WORK PERFORMED ON 08/05/2021.
5. THE SURVEYOR CONTACTED J.U.L.I.E. FOR A DESIGN STAGE REQUEST FOR THIS SITE WHICH WAS ASSIGNED A DIG NUMBER OF 194 2351. INQUIRIES WERE SENT OUT TO THE VARIOUS UTILITY COMPANIES REQUESTING MAPS AND/OR ATLASES OF THEIR RESPECTIVE FACILITIES. THE INFORMATION RECEIVED TO DATE IS SHOWN HEREON.
6. IN ACCORDANCE WITH TABLE A ITEMS 6(A) AND 6(B), A ZONING REPORT OR LETTER WAS NOT PROVIDED TO THE SURVEYOR FOR REVIEW.
7. IN ACCORDANCE WITH TABLE A ITEM 17, NO PROPOSED CHANGES IN STREET RIGHT OF WAY LINES BASED ON INFORMATION RECEIVED FROM THE CONTROLLING JURISDICTION AT THE TIME OF THE SURVEY. NO OBSERVED EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS.
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GRAPHIC SCALE
200 0 100 200 400 800
(IN FEET)
1 inch = 200 ft.

AREA SUMMARY
(TO HEAVY LINES)
2,733,980 SQUARE FEET
OR
62.763 ACRES
(BASED ON MEASURED VALUES)

GRID NORTH

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

UTILITY STATEMENT
THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. NO EXCAVATION IS REQUIRED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM AVAILABLE INFORMATION. THE SURVEYOR HAS PHYSICALLY LOCATED VISIBLE STRUCTURES. HOWEVER, HE HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

NO.	REVISIONS	DATE	BY
1.	PER IN HOUSE REVIEW	09-15-21	RHM

DATE: 08-25-21 | PC: CS | DRAWN BY: RHM | CHECKED BY: SK | BOOK | PG: 25

CLIENT: Kimley»Horn
© 2020 KIMLEY-HORN AND ASSOCIATES, INC.
4201 WINFIELD ROAD, SUITE 600,
WARRENVILLE, IL 60555
PHONE: (630) 562-2600
WWW.KIMLEY-HORN.COM

PROJECT: DHC9 - Crystal Lake
S. Main St & Congress Pkwy

COMPASS SURVEYING LTD
ALTA SURVEYS • TOPOGRAPHY • CONSTRUCTION STAKING
2631 GINGER WOODS PARKWAY, STE. 100
AURORA, IL 60502
PHONE: (630) 820-9100 FAX: (630) 820-9030 EMAIL: ADMIN@CLSURVEYING.COM

SCALE: 1" = 200'

1 OF 7

PROJ. NO.: 21.0205

SURVEYOR'S CERTIFICATION

TO: AMAZON.COM, INC. AND THEIR RESPECTIVE AFFILIATES, SUCCESSORS AND ASSIGNS AND FIRST AMERICAN TITLE INSURANCE COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 6(A), 6(B), 8, 9, 11(A), 13, 14, 16, 17, 18 AND 19 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON 08/12/2021.

COMPASS SURVEYING LTD
PROFESSIONAL DESIGN FIRM
LAND SURVEYOR CORPORATION NO. 184–002778
LICENSE EXPIRES 4/30/2023

DATE OF PLAT OR MAP: 08/27/2021

BY: _____
SCOTT C. KREBS
IL PROFESSIONAL LAND SURVEYOR NO. 3509
LICENSE EXPIRES 11/30/22

SCOTT C. KREBS 35-3509 AURORA, ILLINOIS PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS

J:\PSDATA\2021 PROJECTS\21.0205\21.0205 LTS TOPO.DWG

ALTA/NSPS LAND TITLE
AND TOPOGRAPHIC SURVEY

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

LINE LEGEND
- LIMITS OF LAND PER LEGAL DESCRIPTION
- ADJACENT LAND PARCEL LINE
- EASEMENT LINE
- CENTERLINE
- BUILDING SETBACK LINE
- SECTION LINE
- EXISTING CONTOUR

ABBREVIATIONS
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- DETECTABLE TACTILE WARNING SURFACE
- BRICK PAVERS
- WOOD FENCE
- CHAIN LINK FENCE
- METAL FENCE
- METAL GUARDRAIL
- OVERHEAD TRAFFIC ARM

CHICAGO AND NORTHWESTERN RAILROAD

EXCEPTION TO PARCEL 1

EXCEPTION TO PARCEL 1

PIN: 19-04-152-001
OWNER: FARR CO

PIN: 19-04-128-001
OWNER: CITY OF CRYSTAL LAKE

WATERMAIN EASMENT PER DOC. NO. 452349

N89°52'00"E(M) 1642.04'(M)

N00°51'46"W(M) 951.96'(M)

953.0'(D)

(NO BUILDINGS OBSERVED)

PARCEL 1

1107.64'(R)

S00°16'23"E(M) 1412.40'(M)

1 PIN: 19-04-251-021
OWNER: COLFIN COBALT III OWNER LLC

CRYSTAL LAKE BUSINESS CENTER UNIT 4
DOCUMENT NUMBER 91R053680

SOUTH MAIN STREET

30' 30'

N89°10'10"E(M) 995.16'(M)

N00°35'17"W(M)
427.28'(M)

EXCHANGE DRIVE 60'

400.00'(R)

4
PIN: 19-04-252-001
OWNER: COLFIN COBALT III OWNER LLC

PARCEL 2
(EXCEPTION TO PARCEL 1)

WATERMAIN EASMENT PER DOC. NO. 452349

150.00'(R)

4
PIN: 19-04-401-004
OWNER: COLFIN COBALT III OWNER LLC

N89°40'20"W(M) 2625.14'(M)
469.93'(R)

378.29'(R)	434.42'(R)	180.0'(R)	180.0'(R)	180.0'(R)	200.00'(R)	250.00'(R)	207.52'(R)
30' MUNICIPAL UTILITY	EASEMENT PER DOC. NO. 91R030119						
2 PIN: 19-04-304-001 OWNER: NIMED CORP	3 PIN: 19-04-301-018 OWNER: NORTHERN IL MED CNTER FND	4 PIN: 19-04-301-011 OWNER: CURRAN GRP INC	5 PIN: 19-04-301-004 OWNER: JAMES ANNIE LLC	4 PIN: 19-04-301-020 OWNER: HOME ST BK NA TR 4311	3 PIN: 19-04-301-022 OWNER: HOME ST BK NA TR 4830	1 PIN: 19-04-301-013 OWNER: MONTERRA CAPITAL LLC	2 PIN: 09-04-301-014 OWNER: 360 MEMORIAL LLC	3 PIN: 19-04-301-015 OWNER: KENNETH P GRUBB LIV TR GRUBB

COMMONWEALTH DRIVE
(FORMERLY FIRST COLONIAL DRIVE)
60'

CRYSTAL LAKE BUSINESS CENTER RESUBDIVISION NO. 1
DOCUMENT NUMBER 91R030119

CRYSTAL LAKE BUSINESS CENTER UNIT ONE
DOCUMENT NUMBER 88R019918

CRYSTAL LAKE BUSINESS CENTER UNIT 3
DOCUMENT NUMBER 91R010906

J: \PSDATA\2021 PROJECTS\21.0205\21.0205 LTS TOPO.DWG

Know what's below. Call before you dig.

UTILITY STATEMENT
THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS AND/OR RECORDS SUPPLIED TO SURVEYOR. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHER, THE SURVEYOR DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM AVAILABLE INFORMATION. THE SURVEYOR HAS PHYSICALLY LOCATED VISIBLE STRUCTURES. HOWEVER, HE HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

NO.	REVISIONS	DATE	BY
1.	PER IN HOUSE REVIEW	09-15-21	RHM

DATE: 08-25-21 | PC CS | DRAWN BY RHM | CHECKED BY SK | BOOK | PG 25

CLIENT: Kimley»Horn
© 2020 KIMLEY-HORN AND ASSOCIATES, INC.
4201 WINFIELD ROAD, SUITE 600,
WARRENVILLE, IL 60555
PHONE: (630) 487-6550
WWW.KIMLEY-HORN.COM

PROJECT: DHC9 - Crystal Lake
S. Main St & Congress Pkwy

COMPASS SURVEYING LTD
ALTA SURVEYS • TOPOGRAPHY • CONSTRUCTION STAKING
2631 GINGER WOODS PARKWAY, STE. 100
AURORA, IL 60502
PHONE: (630) 820-9100 FAX: (630) 820-9030 EMAIL: ADMIN@CLSURVEYING.COM

SCALE: 1" = 100'

2 OF 7

PROJ. NO.: 21.0205

ALTA/NSPS LAND TITLE
AND TOPOGRAPHIC SURVEY

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

GRID NORTH

WATER MANHOLE CLOSED
4' DIA. CONCRETE
RIM=921.53
TP=915.27(E-W-N)12"DIP

WATER MANHOLE CLOSED
4' DIA. CONCRETE
RIM=914.52
TP=908.27(E-W)8"DIP

WATER VALVE
RIM=912.44

4

LINE LEGEND

- LIMITS OF LAND PER LEGAL DESCRIPTION
- ADJACENT LAND PARCEL LINE
- EASEMENT LINE
- CENTERLINE
- BUILDING SETBACK LINE
- SECTION LINE
- EXISTING CONTOUR

ABBREVIATIONS

O.D.I.P. = OUTSIDE DIAMETER IRON PIPE
TF = TOP OF FOUNDATION
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G = GRAVEL
EW = EDGE OF WALK
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S.F. = SQUARE FEET
SL = SHORE LINE
TSF = TRANSFORMER
B = PAVERS

LEGEND

- FOUND 7/8" O.D.I.P. UNLESS OTHERWISE NOTED (HELD LOCATION)
- CONCRETE MONUMENT
- CROSS IN CONCRETE
- MANHOLE
- STORM STRUCTURE
- SANITARY MANHOLE
- CLEANOUT
- FLARED END SECTION
- TRANSFORMER PAD
- ELECTRIC MANHOLE
- ELECTRIC BOX
- ELECTRIC PEDESTAL
- ELECTRIC MARKER
- ELECTRIC METER
- UTILITY POLE
- UTILITY POLE W/LIGHT
- UTILITY POLE W/TSF
- GUY POLE
- OVERHEAD TRAFFIC SIGNAL
- TRAFFIC SIGNAL MANHOLE
- LIGHT
- LIGHT POLE
- HAND HOLE
- VALVE VAULT
- FIRE HYDRANT
- IRRIGATION CONTROL VALVE
- POST INDICATOR VALVE
- SIAMESE WATER CONNECTION
- WATER MARKER
- WATER METER
- VALVE BOX
- B/BOX
- SPRINKLER CONTROL VALVE
- TELEPHONE MANHOLE
- TELEPHONE NETWORK INTERFACE
- TELEPHONE MARKER
- TELEPHONE PEDESTAL
- CABLE TELEVISION PEDESTAL
- CONTROL BOX
- WETLAND FLAG
- GAS METER
- GAS VALVE
- GAS MARKER
- DOWN SPOUT
- BORING HOLE
- MONITORING WELL
- GATE POST
- BOLLARD POLE
- SIGN
- FLAG POLE
- MAILBOX
- SANITARY SEWER
- STORM SEWER
- WATER MAIN
- GAS MAIN
- ELECTRIC LINE
- OVERHEAD WIRES
- TELEPHONE LINE
- CONIFEROUS TREE W/APPROX. DIAMETER
- DECIDUOUS TREE W/APPROX. DIAMETER MS=MULTI-STEM (DRIP LINE SHOWN IS APPROXIMATE)
- TREE LINE
- + ELEVATION
- BITUMINOUS PAVEMENT
- CONCRETE SURFACE
- DEPRESSED CURB
- GRAVEL SURFACE
- LANDSCAPE AREA
- STONE SURFACE
- DETECTABLE TACTILE WARNING SURFACE
- BRICK PAVERS
- WOOD FENCE
- CHAIN LINK FENCE
- METAL FENCE
- METAL GUARDRAIL
- OVERHEAD TRAFFIC ARM

J:\PSDATA\2021 PROJECTS\21.0205\21.0205 LTS TOPO.DWG

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

UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHER, THE SURVEYOR DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM AVAILABLE INFORMATION. THE SURVEYOR HAS PHYSICALLY LOCATED VISIBLE STRUCTURES. HOWEVER, HE HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

DATE: 08-25-21	PC CS	DRAWN BY RHM	CHECKED BY SK	BOOK	PG 25

NO.	REVISIONS	DATE	BY
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PROJECT

DHC9 - Crystal Lake
S. Main St & Congress Pkwy

COMPASS SURVEYING LTD
ALTA SURVEYS • TOPOGRAPHY • CONSTRUCTION STAKING
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SCALE: 1" = 40'

3 OF 7

PROJ. NO.: 21.0205

ALTA/NSPS LAND TITLE
AND TOPOGRAPHIC SURVEY

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

GRID NORTH

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- BRICK PAVERS
- WOOD FENCE
- CHAIN LINK FENCE
- METAL FENCE
- METAL GUARDRAIL
- OVERHEAD TRAFFIC ARM

WATER MANHOLE
CLOSED
4" DIA. CONCRETE
RIM=924.58
(E-W)
WITH DEBRIS FILLED

WATER MANHOLE
RIM=927.31

SITE BENCHMARK #5

J:\PSDATA\2021 PROJECTS\21.0205\21.0205 LTS TOPO.DWG

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DATE: 08-25-21 | PC CS | DRAWN BY RHM | CHECKED BY SK | BOOK | PG 25

CLIENT
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PROJECT
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SCALE: 1" = 40'

4 OF 7

PROJ. NO.: 21.0205

ALTA/NSPS LAND TITLE
AND TOPOGRAPHIC SURVEY

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- METAL FENCE
- METAL GUARDRAIL
- OVERHEAD TRAFFIC ARM

WATER MANHOLE CLOSED 4" DIA. CONCRETE RIM=922.81 TP=916.78(E-W)12" DIP

STORM STRUCTURE RIM=919.74

STORM STRUCTURE RIM=919.08

WATER VALVE RIM=922.03

WATER MANHOLE RIM=921.27

WATER MANHOLE RIM=920.66

STORM STRUCTURE RIM=919.12

SITE BENCHMARK #4

STORM STRUCTURE RIM=911.71

SITE BENCHMARK #3

WATER MANHOLE RIM=912.48

WATER VALVE RIM=913.01

REMAINS OF WIRE FENCE 2.19' NORTH

REMAINS OF WIRE FENCE 0.19' SOUTH

STORM STRUCTURE RIM=909.22

STORM STRUCTURE RIM=910.51

STORM STRUCTURE RIM=914.42

STORM STRUCTURE RIM=913.95

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CLIENT

Kimley»Horn

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PROJECT

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SCALE: 1" = 40'

5 OF 7

PROJ. NO.: 21.0205

J: \PSDATA\2021 PROJECTS\21.0205\21.0205 LTS TOPO.DWG

ALTA/NSPS LAND TITLE
AND TOPOGRAPHIC SURVEY

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40 0 20 40 80 160

(IN FEET)
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FENCE 0.64' NORTH

WATER MANHOLE CLOSED 4' DIA. CONCRETE RIM=910.85 TP=902.15(N-S)8"DIP

FIELD EDGE

FENCE 6.65' SOUTH

FENCE 1.21SOUTH

WATER MANHOLE CLOSED 4' DIA. CONCRETE RIM=911.62 (N-S)DIP FILLED WITH DEBRIS

STORM STRUCTURE RIM=909.22

J:\PSDATA\2021 PROJECTS\21.0205\21.0205 LTS TOPO.DWG

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THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD OBSERVATION AND/OR UTILITY COMPANY RECORDS. WHERE NO RECORDS SUPPLIED TO SURVEYOR, THE SURVEYOR MAKES NO GUARANTEE THAT UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHER, THE SURVEYOR DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM AVAILABLE INFORMATION. THE SURVEYOR HAS PHYSICALLY LOCATED THE STRUCTURES. HOWEVER, HE HAS NOT PHYSICALLY LOCATED THE UNDERGROUND LINES.

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AND TOPOGRAPHIC SURVEY

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RCP = REINFORCED CONCRETE PIPE
CMP = CORRUGATED METAL PIPE
(R) = RECORD BEARING OR DISTANCE
(M) = MEASURED BEARING OR DISTANCE
(C) = CALCULATED BEARING OR DISTANCE
(D) = DEED BEARING OR DISTANCE
N = NORTH
S = SOUTH
E = EAST
W = WEST
A = ARC LENGTH
R = RADIUS
CH = CHORD
CB = CHORD BEARING
B.S.L. = BUILDING SETBACK LINE
U.E. = UTILITY EASEMENT
D.E. = DRAINAGE EASEMENT
P.U.E. = PUBLIC UTILITY EASEMENT
P.O.C. = POINT OF COMMENCEMENT
P.O.B. = POINT OF BEGINNING
P.U. & D.E. = PUBLIC UTILITY AND DRAINAGE EASEMENT
BC = BACK OF CURB
BDC = BACK OF DEPRESSED
FL = FLOW LINE
C = CONCRETE
P = PAVEMENT
G = GRAVEL
EW = EDGE OF WALK
TW = TOP OF WALL
TP = TOP OF PIPE
IE = INVERT ELEVATION
PL = PROPERTY LINE
DS = DOWN SPOUT
S.F. = SQUARE FEET
SL = SHORE LINE
TSF = TRANSFORMER
B = PAVERS

LEGEND

- FOUND 7/8" O.D.I.P. UNLESS OTHERWISE NOTED (HELD LOCATION)
- CONCRETE MONUMENT
- CROSS IN CONCRETE
- MANHOLE
- STORM STRUCTURE
- SANITARY MANHOLE
- CLEANOUT
- FLARED END SECTION
- TRANSFORMER PAD
- ELECTRIC MANHOLE
- ELECTRIC BOX
- ELECTRIC PEDESTAL
- ELECTRIC MARKER
- ELECTRIC METER
- UTILITY POLE
- UTILITY POLE W/LIGHT
- UTILITY POLE W/TSF
- GUY POLE
- OVERHEAD TRAFFIC SIGNAL
- TRAFFIC SIGNAL MANHOLE
- LIGHT
- LIGHT POLE
- HAND HOLE
- VALVE VAULT
- FIRE HYDRANT
- IRRIGATION CONTROL VALVE
- POST INDICATOR VALVE
- SIAMESE WATER CONNECTION
- WATER MARKER
- WATER METER
- VALVE BOX
- B/BOX
- SPRINKLER CONTROL VALVE
- TELEPHONE MANHOLE
- TELEPHONE NETWORK INTERFACE
- TELEPHONE MARKER
- TELEPHONE PEDESTAL
- CABLE TELEVISION PEDESTAL
- CONTROL BOX
- WETLAND FLAG
- GAS METER
- GAS VALVE
- GAS MARKER
- DOWN SPOUT
- BORING HOLE
- MONITORING WELL
- GATE POST
- BOLLARD POLE
- SIGN
- FLAG POLE
- MAILBOX
- SANITARY SEWER
- STORM SEWER
- WATER MAIN
- GAS MAIN
- ELECTRIC LINE
- OVERHEAD WIRES
- TELEPHONE LINE
- CONIFEROUS TREE W/APPROX. DIAMETER
- DECIDUOUS TREE W/APPROX. DIAMETER MS=MULTI-STEM (DRIP LINE SHOWN IS APPROXIMATE)
- TREE LINE
- + ELEVATION
- BITUMINOUS PAVEMENT
- CONCRETE SURFACE
- DEPRESSED CURB
- GRAVEL SURFACE
- LANDSCAPE AREA
- STONE SURFACE
- DETECTABLE TACTILE WARNING SURFACE
- BRICK PAVERS
- WOOD FENCE
- CHAIN LINK FENCE
- METAL FENCE
- METAL GUARDRAIL
- OVERHEAD TRAFFIC ARM

STORM STRUCTURE CURB GRATE 4' DIA. CONCRETE RIM=911.36 IE=906.86(E-N)15"RCP
STORM STRUCTURE CURB GRATE 4' DIA. CONCRETE RIM=910.93 IE=906.28(E-W)15"RCP
STORM STRUCTURE CLOSED 4' DIA. CONCRETE RIM=911.00 IE=905.98(W-N-S)15"RCP
CURB 4.43' NORTH
FENCE 0.79' NORTH
FENCE 0.64' NORTH
SITE BENCHMARK #1
SANITARY MANHOLE CLOSED 4' DIA. CONCRETE RIM=911.18 IE=898.73(S-NW)10"VCP
WATER VALVE RIM=910.53
STORM STRUCTURE CURB GRATE 2' DIA. CONCRETE RIM=909.34 IE=904.84(E-W)12"RCP
STORM STRUCTURE CLOSED 4' DIA. CONCRETE RIM=909.87 IE=904.62(W)12"RCP IE=904.52(N-S)18"RCP
STORM STRUCTURE CURB GRATE 2' DIA. CONCRETE RIM=909.78 IE=906.06(E)12"RCP
STORM STRUCTURE CURB GRATE 2' DIA. CONCRETE RIM=908.43 IE=904.43(E-W)12"RCP
STORM STRUCTURE CURB GRATE 2' DIA. CONCRETE RIM=908.32 IE=905.40(E)12"RCP
SITE BENCHMARK #2
STORM STRUCTURE CLOSED 4' DIA. CONCRETE RIM=909.01 IE=904.01(W)12"RCP IE=903.96(N-S)18"RCP
WATER MANHOLE CLOSED 4' DIA. CONCRETE RIM=908.72 TP=902.47(N-SE)10"DIP
WATER MANHOLE CLOSED 4' DIA. CONCRETE RIM=906.94 TP=900.19(NW-SE)10"DIP
STORM STRUCTURE CLOSED 4' DIA. CONCRETE RIM=908.65 IE=903.50(E-W)12"RCP IE=903.40(N-S)18"RCP
WATER MANHOLE CLOSED 4' DIA. CONCRETE RIM=907.38 TP=901.71(E-W)10"DIP
STORM STRUCTURE CURB GRATE 4' DIA. CONCRETE RIM=908.04 IE=904.55(E-W)12"RCP
12" FES IE=905.17
12" FES IE=905.02
SANITARY MANHOLE CLOSED 4' DIA. CONCRETE RIM=907.43 IE=899.88(E-N)10"VCP
WATER MANHOLE CLOSED 4' DIA. CONCRETE RIM=907.18 TP=902.12(N-S)12"DIP
WATER MANHOLE CLOSED 4' DIA. CONCRETE RIM=907.34 TP=902.30(E-W)12"DIP
STORM STRUCTURE CURB GRATE 2' DIA. CONCRETE RIM=908.02 IE=903.69(E-W)12"RCP
SANITARY MANHOLE CLOSED 4' DIA. CONCRETE RIM=907.09 IE=900.14 W)10" IE=900.36(S)8" IE=901.69(E)10"PVC
FIELD EDGE
GAS LINE MARKER POST
STORM STRUCTURE CURB GRATE 2' DIA. CONCRETE RIM=909.43 IE=906.93(E-W)12"RCP
SANITARY MANHOLE CLOSED 4' DIA. CONCRETE RIM=908.35 IE=902.78(W)10"PVC IE=902.75(E)8"PVC
STORM STRUCTURE RIM=907.89
WATER MANHOLE CLOSED 4' DIA. CONCRETE RIM=907.99 TP=902.59(E-W-S)12"DIP
WATER MANHOLE CLOSED 4' DIA. CONCRETE RIM=908.30 TP=902.35(E-W)8"DIP
SANITARY MANHOLE CLOSED 4' DIA. CONCRETE RIM=907.91 IE=903.58(E-W-S)8"PVC
WATER MANHOLE CLOSED 4' DIA. CONCRETE RIM=909.57 TP=902.64(N-S)6"DIP
WATER MANHOLE CLOSED 4' DIA. CONCRETE RIM=911.18 TP=903.46(E-W-S)10"DIP
WATER MANHOLE CLOSED 4' DIA. CONCRETE RIM=911.62 FILLED WITH DEBRIS
WATER MANHOLE CLOSED 4' DIA. CONCRETE RIM=910.85 TP=902.15(N-S)8"DIP
GRID NORTH

UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM VISIBLE SURFACE EVIDENCE AND/OR MARKINGS PROVIDED BY OTHERS. RECORDS SUPPLIED TO SURVEYOR, THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHER, THE SURVEYOR DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM AVAILABLE INFORMATION. THE SURVEYOR HAS PHYSICALLY LOCATED VISIBLE STRUCTURES. HOWEVER, HE HAS NOT PHYSICALLY LOCATED THE UNDERGROUND LINES.

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

DATE:	PC	DRAWN BY	CHECKED BY	BOOK	PG 25
08-25-21	CS	RHM	SK		

NO.	REVISIONS	DATE	BY
1.	PER IN HOUSE REVIEW	09-15-21	RHM

CLIENT

Kimley»Horn

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PHONE: 630-487-9550
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PROJECT

DHC9 - Crystal Lake
S. Main St & Congress Pkwy

COMPASS SURVEYING LTD

ALTA SURVEYS • TOPOGRAPHY • CONSTRUCTION STAKING

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AURORA, IL 60502
PHONE: (630) 820-9100 FAX: (630) 820-9030 EMAIL: ADMIN@CLSURVEYING.COM

SCALE: 1" = 40'

7 OF 7

PROJ. NO.: 21.0205

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PLAT OF ANNEXATION TO CITY OF CRYSTAL LAKE

P.I.N. 19-04-176-003
P.I.N. 19-04-176-004

GRAPHIC SCALE

200 0 100 200 400 800

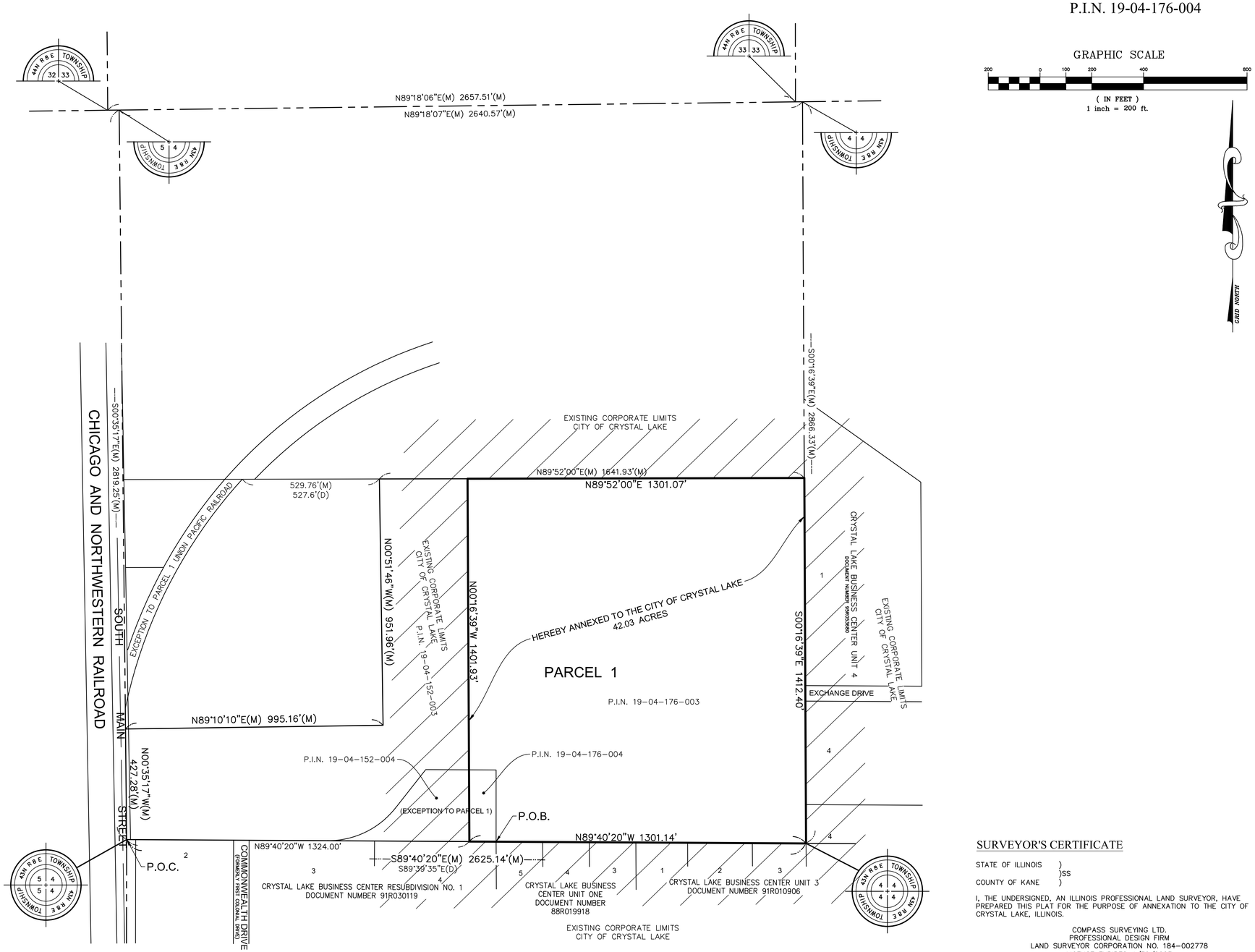
(IN FEET)
1 inch = 200 ft.

LEGAL DESCRIPTION OF LAND HEREBY ANNEXED TO THE CITY OF CRYSTAL LAKE

PARCEL 1:

PART OF THE NORTHWEST 1/4 OF SECTION 4, TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF SAID NORTHWEST QUARTER; THENCE SOUTH 89 DEGREES 40 MINUTES 20 SECONDS EAST ALONG THE SOUTH LINE OF SAID NORTHWEST QUARTER, 1324.0 FEET; THENCE NORTH 00 DEGREES 16 MINUTES 39 SECONDS WEST PARALLEL WITH THE EAST LINE OF SAID NORTHWEST QUARTER, 1401.93 FEET; THENCE NORTH 89 DEGREES 52 MINUTES 00 SECONDS EAST, 1301.07 FEET TO THE EAST LINE OF SAID NORTHWEST QUARTER; THENCE SOUTH 00 DEGREES 16 MINUTES 39 SECONDS EAST ALONG SAID EAST LINE, 1412.40 FEET TO THE SOUTHWEST CORNER OF SAID NORTHWEST QUARTER; THENCE NORTH 89 DEGREES 40 MINUTES 20 SECONDS WEST ALONG THE SOUTH LINE OF SAID NORTHWEST QUARTER, 1301.14 FEET TO THE POINT OF BEGINNING, IN MCHENRY COUNTY, ILLINOIS.



ABBREVIATIONS

(R) = RECORD BEARING OR DISTANCE
(M) = MEASURED BEARING OR DISTANCE
(D) = DEED BEARING OR DISTANCE
N = NORTH
S = SOUTH
E = EAST
W = WEST
A = ARC LENGTH
R = RADIUS
CH = CHORD
CB = CHORD BEARING

LINE LEGEND

LIMITS OF LAND PER LEGAL DESCRIPTION
ADJACENT LAND PARCEL LINE

= CORPORATE LIMITS OF THE CITY OF CRYSTAL LAKE

SURVEYOR'S CERTIFICATE

STATE OF ILLINOIS)
)SS
COUNTY OF KANE)

I, THE UNDERSIGNED, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, HAVE PREPARED THIS PLAT FOR THE PURPOSE OF ANNEXATION TO THE CITY OF CRYSTAL LAKE, ILLINOIS.

COMPASS SURVEYING LTD.
PROFESSIONAL DESIGN FIRM
LAND SURVEYOR CORPORATION NO. 184-002778
LICENSE EXPIRES 4/30/2023

GIVEN UNDER MY HAND AND SEAL THIS ___ DAY OF _____, A.D., 2021

_____
SCOTT C. KREBS
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3509
LICENSE EXPIRES 11/20/22

DATE:	NO.	REVISIONS	DRAWN BY	CHECKED BY	BOOK	PG 25
08-25-21			RHM	SK		

PC CS DATE BY

CLIENT: Kimley»Horn
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PROJECT: DHC9 - Crystal Lake
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SCALE: 1" = 200'

1 OF 1

PROJ. NO.: 21.0205-01

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PRELIMINARY DRAINAGE REPORT – PROJECT COOPER

South Main Street and Congress Parkway

Crystal Lake (McHenry County), IL

Prepared by:
Kimley-Horn and Associates, Inc.
4201 Winfield Road, Suite 600
Warrenville, IL 60555
Contact: Jared J. Kenyon, P.E.

Prepared on: October 15, 2021

Kimley»Horn

1. PROJECT DESCRIPTION

Kimley-Horn is the civil engineering consultant for Seefried Industrial Properties, Inc. intends to develop an approximate 63+/- acre property into a 181,500 SF industrial building with associated parking, loading areas, Exchange Drive extension and stormwater improvements. The existing facility is located at the northeast corner of S Main St and Congress Pkwy.

This report evaluates the previously designed and post-development runoff characteristics of the development and addresses the stormwater requirements of McHenry County. The analysis and design of the existing and proposed storm sewer system was completed with the assistance of HydraFlow Storm Sewer Extensions, Version 10 and HydraFlow Express Extension. The analysis of the stormwater detention basin was completed with the assistance of HydroCAD Version 9.10.

1.1. Pre-Development Conditions

The existing site is divided into four drainage areas. Existing drainage Area's "A" and "C" drain to low areas before overtopping and discharging offsite. Existing drainage Area "B" drains to a low area and remains on site. Drainage Area "D" drains to the west and discharges to the South Main Street ROW. (Refer to **Exhibit A** for the Pre-Development Drainage Plan.) The existing low areas provide **16.57 ac-ft** of depressional storage. (Refer to **Exhibit F** for the analysis of the Pre-Development conditions with depressional storage.)

The FEMA FIRM Map numbers 17111C0335J and 17111C0327J, effective date 11/16/06, show the site within Zone X (Refer to **Exhibit B**).

According to the U.S. Fish and Wildlife Service, there are not wetlands within or adjacent to the proposed limits of improvements. In addition, a wetlands investigation has been completed that shows no wetlands are located on site. (Refer to **Exhibit C** for the NWI Map and Negative Wetland Findings Report).

The soils within the site boundaries have a hydrologic rating of 'B' according to the USDA Natural Resources Conservation Service (Refer to **Exhibit D**).

A field tile investigation was conducted that shows no field tiles are located on site. (Refer to **Exhibit E** for the Existing Agricultural Drain Tile Investigation Plan).

1.2. Post Development Conditions

The proposed improvements will consist of a warehouse with associated parking, utilities, and Exchange Drive extension. The proposed runoff will be conveyed via storm sewer and swales to two stormwater basins. Pond 1 collects a majority of the site and discharges to the storm sewer in South Main Street. Pond 2 collects the remainder of the site and discharges to Pond 1 via storm sewer in the proposed Exchange Drive extension storm sewer. The proposed ponds will be natively planted with the normal water level 6-inches above the bottom to promote infiltration and water quality.

Runoff volume reduction and water quality protection will be maximized to the greatest extent possible to meet the Runoff Volume Reduction Hierarchy and Water Quality Protection requirements set forth in Sections 17.04.060.B.6 – Runoff Rate Reduction and 17.04.060.B.7 of the McHenry County Stormwater Management Ordinance. (Refer to **Exhibit G** for the Post-Development Drainage Plan.)

2. DETENTION POND DESIGN SUMMARY

2.1. McHenry County Requirements

Stormwater detention requirements are determined from the McHenry County Stormwater Ordinance. In order to determine the amount of stormwater runoff for the development, a stormwater model was created using HydroCAD 10.00. Per the McHenry County Stormwater Ordinance, the event hydrograph method SCS TR-20 was used to create the model. The following assumptions were made:

1. Antecedent moisture condition = 2
2. Huff 3rd Quartile rainfall distribution

The rainfall data was obtained from the Illinois State Water Survey Bulletin 75 northeast sectional rainfall statistics.

The emergency overflow weir is designed to handle 1 cubic foot per second of flow per acre will be constructed at the southwest corner of Pond 1 and Pond 2. Since Pond 2 outfalls into Pond 1, the emergency overflow weir for Pond has been sized for the entire development.

2.2. Detention Summary

Table 1: Detention Summary

	Pond 1	*Pond 2*
Drainage Area (ac)	50.31	12.45
2-Year Allowable Release Rate (cfs)	2.01	0.50
2-Year Actual Release Rate (cfs)	1.98	0.48
2-Year HWL	905.52	913.31
2-Year Detention Volume Required (af)	5.75	1.38
2-Year Detention Volume Provided (af)	5.75	1.43
Depressional Storage Required (af)	16.57	0.00
Depressional Storage Provided (af)	16.57	0.00
100-Year Allowable Release Rate (cfs)	7.55	1.87
100-Year Actual Release Rate (cfs)	4.83	1.86
100-Year HWL	908.40	916.18
100-Year Detention Volume Required (af)	23.10	5.07
100-Year Detention Volume Provided (af)	23.77	5.54

(Refer to **Exhibit H** for the analysis of the Post-Development Conditions.)

3. STORM SEWER DESIGN SUMMARY

3.1. Storm Sewer Design

The stormwater runoff for the proposed site will be conveyed through the storm sewer system for the 0 – 10 year events and overland through the parking lot for the rainfall events larger than the 10-year event. Storm pipes sized to convey the 100-year event are provided for areas where the 100-year event cannot pass overland. Landscaped drainage swales will also be used to convey runoff to the storm sewer system and post construction best management practices (PCBMP).

The proposed storm sewer conveyance system was designed to meet the McHenry County requirements using HydraFlow Storm Sewer Extensions, Version 10 and HydraFlow Express Extension. A weighted runoff coefficient for each drainage area was calculated and a minimum time of concentration of 10 minutes was assumed for each drainage area. The HydraFlow analysis is provided in Final Drainage Report.



TRAFFIC IMPACT STUDY

Project Cooper – Crystal Lake, Illinois

November 19, 2021

Prepared for the City of Crystal Lake
on behalf of Seefried Industrial Properties

City of Crystal Lake
100 W. Woodstock St.
Crystal Lake, Illinois 60014

Sam Schwartz

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Executive Summary

A traffic impact study was conducted for a proposed industrial development on an undeveloped 63-acre parcel located on the east side of Main Street north of Congress Parkway in Crystal Lake, Illinois. The proposed development would contain a 183,212 square-foot distribution center building, a total of 1,418 parking spaces, and an additional 210 spaces for loading and staging operations. As part of this project, Exchange Drive would be extended beyond its current terminus through the subject property to Main Street. Additionally, the existing Commonwealth Drive would be extended approximately 125 feet north of its existing terminus north of Congress Parkway to meet the Exchange Drive extension.

With construction of the proposed development project, several improvement measures were identified to accommodate site traffic. These recommendations were identified in accordance with jurisdictional standards, where applicable, and to promote safe and efficient traffic operation within the study area. Based on the assumptions and analyses detailed in this report, the following recommendations should be implemented as part of the proposed development project:

- The extension of Exchange Drive through the site should provide a single travel lane in each direction. A 30 MPH speed limit should be posted in the east- and westbound directions, particularly near the new intersection with Main Street.
- On Commonwealth Drive between Exchange Drive and Congress Parkway, 30 MPH signage should be posted to reinforce City code.
- Sidewalks should be constructed on both sides of the extension of Exchange Drive between its current western terminus and the new intersection with Commonwealth Drive. The existing sidewalk on the east side of Commonwealth Drive north of Congress Parkway should be extended to meet Exchange Drive, including a striped crosswalk across the east leg of the Exchange Drive/Commonwealth Drive intersection. Because the sidewalk along the north side of Exchange Drive east of the site is not currently complete, the developer should also coordinate with the City to identify an appropriate location for a striped crosswalk across Exchange Drive at Access 2 or Access 3 (near the Associates parking lot and building entrances) to connect building employees to the complete sidewalk on the south side of the street.
- At Main Street/Exchange Drive:
    - Provide a dedicated northbound right-turn lane with channelization.
    - Provide a single westbound lane for left- and right-turn maneuvers.
    - Post minor-leg stop control for westbound traffic.
    - Post No Left Turn (R3-2) signage for southbound traffic in accordance with MUTCD standards.
- At Exchange Drive/Commonwealth Drive:
    - Provide separate left- and right-turn lanes on the northbound approach.
    - Post minor-leg stop control for northbound Commonwealth Drive.
- Post minor-leg stop control at all site access driveways to Exchange Drive.

With implementation of the above recommendations, it is anticipated that area traffic operation would be generally acceptable after completion of the subject development and that the impact of site-related traffic would be mitigated. Sam Schwartz also reviewed the site plan and found internal traffic circulation to be acceptable.

Sam Schwartz has identified the relative increase in traffic attributable to the proposed industrial development as compared to existing volumes at the intersection of Congress Parkway and Exchange Drive shown in ***Table 1*** below. Similar comparison tables were previously completed for other developments in Crystal Lake to facilitate discussions between the City and area developers regarding future area improvements that would provide benefits to existing and future users.

Table 1. Projected Traffic Volume Increase due to Proposed Development – Exchange/Congress Intersection

Peak Hour	Total Intersection Traffic Volume (Vehicles per Hour)		Percent Increase
	Existing	Existing + Industrial Development	
Weekday Morning Peak Hour of Street Traffic (8:00-9:00AM)	521	521	0.0%
Weekday Morning Peak Hour of Site Traffic (9:30-10:30AM)	618	758	22.7%
Weekday Evening Peak Hour of Street Traffic (4:30-5:30PM)	1,030	1,060	2.9%
Weekday Evening Peak Hour of Site Traffic (7:30-8:30PM)	449	609	35.6%
Average	**655**	**737**	**12.5%**

01. Introduction

Sam Schwartz Consulting (Sam Schwartz) was retained through an existing on-call contract with the City of Crystal Lake to conduct a traffic impact study for an industrial development proposed by Seefried Industrial Properties. The subject site is a 63-acre undeveloped parcel within city limits located on the east side of Main Street north of Congress Parkway. As part of this project, Exchange Drive would be extended beyond its current terminus through the subject property to Main Street. Additionally, the existing Commonwealth Drive would be extended approximately 125 feet north of its existing terminus north of Congress Parkway to meet the Exchange Drive extension. The development is proposed to contain a 183,212 square-foot distribution center building and a total of 1,418 parking spaces, plus 210 spaces for loading and staging operations. A conceptual site plan showing the proposed development can be found in the Appendix. An aerial view of the existing study area can be seen on ***Figure 1***.

The following report documents Sam Schwartz's methodology regarding data collection, traffic forecasting, and analyses for this study. Recommended improvements are documented to mitigate anticipated traffic-related impacts resulting from the proposed development and to promote safe and functional operation of the local transportation system.



Sam Schwartz

Figure 1
Site Location Map

02. Existing Conditions

Sam Schwartz conducted field visits to collect relevant information pertaining to the site, the surrounding street network, traffic volumes, traffic controls, lane geometry, and infrastructure at the study intersections. Based on these characteristics, existing intersection capacity was evaluated to establish baseline operational conditions for the study area. This section of the report provides a description of these existing characteristics.

2.1. Area Land Uses & Connectivity

Located approximately one quarter mile north of Congress Parkway between Main Street and the existing western terminus of Exchange Drive, the subject parcel is currently undeveloped. South of the site along Congress Parkway, land uses are generally mixed in nature and include a fitness center, an apartment complex, a retirement community, several medical offices, and a post office, as well as a collection of commercial, office, and industrial uses that are branded as part of the Crystal Lake Business Center on signage at the nearby Main Street/Congress Parkway intersection. Further to the south, along Northwest Highway east of its intersection with Main Street, there are several large commercial developments containing big box retail tenants and associated outlots; two car dealerships are also located along this section of Northwest Highway. Directly north of the site, there are industrial uses and a large church. To the west, the land uses are primarily residential in nature. Two industrial buildings located directly east of the site contain recreational complexes occupied by Sky High Volleyball and Urban Air Trampoline and Adventure Park.

Northwest Highway (US 14), located approximately one half mile south of the subject site, is designated as a Strategic Regional Arterial (SRA) Route by the Chicago Metropolitan Agency for Planning (CMAP) and provides northwest-southeast connectivity through the northwestern portion of the Chicagoland area. US 14 provides additional regional connectivity via a full-access interchange with Illinois Route 31 (IL 31) one and a half miles southwest of the site. IL 31 connects to Interstate 90 (I-90) approximately 11 miles south of the subject site.

Transit service is present within the study area via Metra commuter rail and Pace Suburban Bus. The Pingree Road Metra station (Union Pacific Northwest line) is located approximately one-half mile east of the site and can be accessed from both Congress Parkway and Exchange Drive. Pace Bus Route 550 (Elgin Transportation Center) runs north-south along Main Street with nearside stops provided in both directions at Congress Parkway and US 14. With weekday service from approximately 6:15AM to 8:00PM, Route 550 connects to Metra stations at Big Timber Station (Milwaukee District West line), Crystal Lake (Union Pacific Northwest line), and Elgin station (Milwaukee District West line), as well as the Randall Road Park & Ride that is also served by Pace Bus Route 605 (I-90/Randall Road Station – Rosemont Express) and Pace Bus Route 607 (I-90/Randall Road Station – Schaumburg Express).

2.2. Existing Street Characteristics

Field data collection was performed along the primary study roadways of Main Street, Congress Parkway, Rickert Road, US 14, Pingree Road, Crystal Lake Avenue, Exchange Drive, and Commonwealth Drive. Descriptions of these roadways are provided as follows:

Main Street is a north-south minor arterial roadway that provides two lanes in each direction through the study area. At its signalized intersection with Crystal Lake Avenue, the northbound approach of Main Street provides one exclusive left-turn lane, two through lanes, and one dedicated right-turn lane. The southbound approach provides one exclusive left-turn lane, a through lane, and a shared through/right-turn lane. At its signalized intersection with Congress Parkway, the northbound approach of Main Street provides two through lanes and one dedicated right-turn lane. The southbound approach provides a dedicated left-turn lane and two through lanes. At its signalized intersection with US 14, the northbound and southbound approaches of Main Street each provide dual left-turn lanes, a through lane, and a shared through/right-turn lane. Main Street has a posted speed limit of 40 MPH between its intersections with Crystal Lake Avenue and US 14. A 30 MPH speed limit is posted North of Crystal Lake Avenue, while 35 MPH is posted south of US 14. This roadway is under the jurisdiction of the City of Crystal Lake, and its 2017 Annual Average Daily Traffic (AADT) is 17,200 vehicles.

Congress Parkway is an east-west major collector roadway that provides a three-lane cross-section through most of the study area. Beginning approximately 600 feet east of its intersection with Commonwealth Drive and extending west to its terminus at Main Street, Congress Parkway provides two lanes in each direction. At its signalized T-intersection with Main Street, the westbound approach of Congress Parkway provides one exclusive left-turn lane and one dedicated right-turn lane, along with a wide landscaped median. At its intersection with Commonwealth Drive, the eastbound approach provides one exclusive left-turn lane, two through lanes, and one dedicated right-turn lane. The westbound approach at this intersection provides one dedicated left-turn lane, a through lane, and a shared through/right-turn lane. At its signalized intersection with Pingree Road and Rickert Road, the eastbound approach of Congress Parkway provides one shared left-turn/through lane and one dedicated right-turn lane. Congress Parkway has a posted speed limit of 30 MPH, and it is under the jurisdiction of the City of Crystal Lake. Congress Parkway carries approximately 8,850 vehicles per day west of its intersection with Federal Drive and 7,150 vehicles per day east of this intersection.

Rickert Road is an east-west local roadway that aligns with Congress Parkway at its signalized intersection with Pingree Road and ends at a cul-de-sac approximately 650 feet east of this location. The westbound approach of Rickert Road at its signalized intersection with Pingree Road and Congress Parkway provides one exclusive left-turn lane and a shared through/right-turn lane. Rickert Road is under the jurisdiction of the City of Crystal Lake.

Northwest Highway (US 14) is an arterial roadway that runs east-west through the study area, providing two lanes in each direction. Outside of the study area, US 14 is primarily oriented northwest-southeast throughout the region. US 14 is designated as an SRA Route by CMAP. The SRA system is designed to promote throughput on regionally significant corridors with the use of such strategies as access management and limited signalization. At its signalized intersection with Main Street, the eastbound approach of US 14 provides dual left-turn lanes, a through lane, and a shared through/right-turn lane. On the westbound approach, dual left-turn lanes, two through lanes, and a dedicated right-turn lane are provided. US 14 has a posted speed limit of 35 MPH. It is under the jurisdiction of the Illinois Department of Transportation (IDOT) and has a 2019 AADT of 27,800 vehicles.

Pingree Road is a north-south major collector roadway that provides two lanes in each direction south of its intersection with Congress Parkway and one lane in each direction north of this intersection. At its signalized intersection with Congress Parkway and Rickert Road, the northbound approach of Pingree Road provides dual left-turn lanes, a through lane, and a shared through/right-turn lane. The southbound approach provides one exclusive left-turn lane, a through lane, and one dedicated right-turn lane. Pingree

Road has a posted speed limit of 35 MPH, and there is signage north of its intersection with Congress Parkway indicating a weight limit of 12 tons. This roadway is under the jurisdiction of the City of Crystal Lake, and its 2017 AADT is 11,800 vehicles.

Crystal Lake Avenue is an east-west minor arterial roadway that provides one lane in each direction through the study area. At its signalized intersection with Main Street, the eastbound approach of Crystal Lake Avenue provides one exclusive left-turn lane, a through lane, and one dedicated right-turn lane. On the westbound approach, a dedicated left-turn lane and a shared through/right-turn lane are provided. Crystal Lake Avenue has a posted speed limit of 30 MPH as well as signage indicating a weight limit of 12 tons. It is under the jurisdiction of the City of Crystal Lake and has a 2017 AADT of 10,100 vehicles.

Exchange Drive is a local roadway that runs north-south from its T-intersection with US 14 to approximately 700 feet north of its intersection with Congress Parkway, where it turns to the west and then runs east-west to its existing terminus. Exchange Drive is approximately 34 feet wide and is striped with one lane in each direction through the majority of the study area. On-street parking is prohibited along this roadway. At its minor-leg stop-controlled intersection with Congress Parkway, the northbound and southbound approaches of Exchange Drive each provide a dedicated left-turn lane and a shared through/right-turn lane. At its existing western terminus, Exchange Drive intersects with two private driveways: one to Sky High Volleyball and one to Urban Air Trampoline and Adventure Park. The westbound approach of Exchange Drive at this location provides a single shared left-turn/right-turn lane. Exchange Drive has a posted speed limit of 30 MPH and is under the jurisdiction of the City of Crystal Lake.

Commonwealth Drive is a north-south local roadway that is approximately 34 feet wide, striped as a three-lane cross-section south of its intersection with Congress Parkway and generally absent striping north of Congress Parkway. Commonwealth Drive ends in a cul-de-sac approximately 700 feet north of this intersection. At its minor-leg stop-controlled intersection with Congress Parkway, the northbound and southbound approaches of Commonwealth Drive each provide a dedicated left-turn lane and a shared through/right-turn lane. Commonwealth Drive is under the jurisdiction of the City of Crystal Lake and has no posted speed limit; for analysis purposes it was assumed to have a 30 MPH speed limit per the City of Crystal Lake's Code Section 496-42.

2.3. Baseline Traffic Volumes

Intersection turning movement counts (TMCs) were conducted in September 2021 in order to identify existing traffic volumes within the study area. The intersections that were counted for this study are listed below:

- Main Street at Congress Parkway
- Main Street at Northwest Highway (US 14)
- Congress Parkway at Commonwealth Drive
- Congress Parkway at Exchange Drive
- Congress Parkway at Pingree Road

TMCs were also collected at the intersection of Exchange Drive with the westernmost access driveways serving the Sky High Volleyball and Urban Air Trampoline buildings for use in estimating future traffic redistribution after completion of the Exchange Drive extension. At the request of the Client, all counts

were performed for a 24-hour period on a weekday. Additionally, the Client provided a 24-hour turning movement count at the intersection of Main Street at Crystal Lake Avenue, which was also conducted on a weekday in September 2021. Based on the resulting data, the observed weekday peak hours of the existing roadway network occurred from 8:00-9:00AM during the weekday morning and from 4:30-5:30PM during the weekday evening; for the purposes of this report, these are referred to as the "peak hours of adjacent street traffic." In addition to the two peak hours of adjacent street traffic, the projected morning and evening peak hours of site traffic were also analyzed. According to trip generation data obtained from the proposed site's end-user (detailed later in this report), these peak hours are projected to occur from 9:30-10:30AM and from 7:30-8:30PM.

In a review of existing traffic volumes, it can be noted that turning movements from Congress Parkway onto both Main Street and Pingree Road are particularly heavy in the weekday evening peak hour of street traffic. Additionally, at the intersection of Main Street and US 14, it can be noted that eastbound volumes are heavier during the morning peak hour of street traffic, whereas westbound volumes are heavier during the evening peak hour of street traffic. These travel patterns align with an inbound commute into the Crystal Lake Business Center and toward the Pingree Road Metra station in the morning and an outbound commute in the evening. On the other study roadways, peak hour volumes are distributed relatively evenly in both directions.

Given that the current COVID-19 pandemic has resulted in increased work-from-home arrangements and significant changes to daily commuting behaviors, it is found in some parts of the region that traffic volumes are still below pre-pandemic levels. Traffic counts during the pandemic therefore may not provide a reliable basis for traffic analyses without adjustments. In addition to the general decrease in traffic throughout the area, traffic volumes at the study intersection of Congress Parkway at Pingree Road are expected to have been impacted even further due to its location immediately adjacent to the Pingree Road Metra commuter rail station. Therefore, the field counts obtained for this study were reviewed for potential adjustments to bring these volumes to pre-pandemic conditions.

Historical Average Daily Traffic (ADT) data was obtained for several of the study roadways from the IDOT database for the most recent reporting years (2017 and 2019). Sam Schwartz sorted the historical data by hour and selected the peak bidirectional traffic volumes during the four peak periods. These volumes were compared to the peak hour volumes collected in September 2021 at the study intersections and are summarized in **Table A** in the Appendix.

As shown in Table A, field-collected traffic data from September 2021 was higher than the pre-pandemic ADT counts on US 14 during both weekday morning peak periods and during the weekday evening peak hour of adjacent street traffic. Field counts were also higher than the pre-pandemic counts on Pingree Road during the weekday morning and weekday evening peak hours of adjacent street traffic. As such, volumes along these two roadways during the listed peak hours were not adjusted. All other study roadways were adjusted according to the calculated factors shown in the Appendix, and the volume network was balanced where applicable (namely, along Congress Parkway between Main Street and Commonwealth Drive) throughout the study area.

In evaluating the COVID-related adjustment applied to area study roadways, Sam Schwartz also considered whether the historical count data on Congress Parkway could be used to account for reduced use of the Pingree Road Metra station. The hourly counts in the IDOT database for this roadway did not show highly peaked traffic volumes during the morning and evening peak periods, as would typically be expected near a commuter rail station; furthermore, the relative volume of traffic from hour to hour in the

IDOT counts are similar to a roadway segment count performed by the City of Crystal Lake at a location west of the Metra station access. As such, it was assumed for the purposes of this study that a separate adjustment must be applied to account for reduced activity at the Metra station.

During field data collection, Sam Schwartz performed a spot count of cars parked in the Metra parking lots on a weekday afternoon in September 2021. This count was compared to three historical aerial images, each taken on weekdays in 2018 and 2019 prior to the onset of the COVID-19 pandemic. A summary of this comparison can be found in **Table B** in the Appendix. Since traffic entering and exiting these lots is generally expected to occur within the typical weekday rush periods (roughly 7:00-9:00AM and 4:00-6:00PM), this comparison was used to adjust volumes during the weekday morning and evening peak hours of adjacent street traffic only. Furthermore, because the Crystal Lake Metra station is located approximately 1.25 miles northwest of the Pingree Road station on Main Street, it was assumed most commuters coming from areas west of this location would utilize the Crystal Lake station instead. Therefore, Congress Parkway and Pingree Road was the only study intersection where volumes were adjusted. For the morning peak hour of adjacent street traffic, northbound left-turn and southbound right-turn volumes at this intersection were adjusted to account for this decrease in the Metra parking lot usage. During the evening peak hour of adjacent street traffic, the eastbound left-turn and right-turn volumes at this location were adjusted. It should be noted that these adjustments may be considered conservative, since commuting behaviors may not be fully restored to pre-pandemic conditions due to changes in the prevalence of remote work and the resulting decrease in transit ridership. As a result, the projected vehicular delay at the intersection of Pingree Road and Congress Parkway may be overestimated for existing and future analysis scenarios detailed later in this study.

With adjustment factors applied as detailed in this section, the resulting peak hour traffic volumes for a baseline Year 2021 are illustrated on ***Figure 2***. Summaries of the raw TMC counts and historical IDOT ADT are contained in the Appendix.

Not to Scale

xx = Weekday AM Peak Hour of Street (8:00 - 9:00 AM)
[xx] = Weekday AM Peak Hour of Site (9:30 - 10:30 AM)
(xx) = Weekday PM Peak Hour of Street (4:30 - 5:30 PM)
{xx} = Weekday PM Peak Hour of Site (7:30 - 8:30 PM)
= Existing Stop Sign
= Existing Traffic Signal
- = Less than Five Vehicles

Crystal Lake Avenue

15 [10] (35) {40}
340 [340] (435) {260}
10 [25] (45) {45}
30 [40] (55) {50}
245 [160] (265) {120}
50 [90] (120) {40}
{30} (30) [15] 20
{130} (340) [130] 220
{165} (270) [240] 230
{135} (250) [175] 75
{390} (565) [325] 215
{100} (125) [65] 55

Congress Parkway

445 [405] (610) {325}
215 [225] (210) {60}
90 [135] (310) {145}
95 [195] (275) {125}
20 [50] (45) {45}
– [5] (5) {–}
10 [15] (10) {10}
10 [10] (15) {5}
155 [265] (515) {220}
15 [25] (25) {5}
5 [5] (15) {5}
5 [–] (20) {15}
– [–] (10) {20}
15 [5] (5) {10}
220 [240] (305) {90}
50 [50] (85) {40}
380 [240] (275) {85}
230 [185] (360) {160}
25 [5] (15) {5}
20 [5] (55) {10}
5 [5] (10) {5}
15 [10] (60) {15}

Commonwealth Drive

{35} (45) [75] 55
{110} (370) [330] 330
{5} (25) [15] 20
{400} (650) [420] 330
{90} (230) [195] 190
{5} (25) [15] 10
{–} (–) [5] –
{15} (20) [35] 20

Exchange Drive

{–} (10) [5] 5
{165} (370) [190] 145
{10} (30) [35] 10
{15} (40) [20] 20
{–} (5) [5] 5
{75} (135) [60] 40
{165} (555) [170] 100
{–} (5) [–] 10
{115} (310) [120] 90
{50} (115) [100] 180
{280} (390) [165] 180
{–} (15) [5] 30

Rickert Road

Pingree Road

75 [125] (200) {105}
255 [260] (390) {220}
100 [115] (125) {90}
65 [110] (130) {70}
560 [670] (1,260) {710}
65 [125] (220) {210}
{–} (5) [–] –
{75} (160) [130] 90
{505} (940) [735] 835
{50} (60) [70] 55
{70} (140) [110] 35
{205} (440) [345] 300
{120} (180) [145] 115

Main Street

Northwest Highway (US 14)

Sam Schwartz

Figure 2
Baseline (Year 2021) Traffic Volumes

2.4. Existing Intersection Operations

The operational effectiveness of transportation facilities is measured in terms of Level of Service (LOS). LOS ranges from LOS A to LOS F, with LOS A being the best level of operation for an intersection and LOS F being the worst. LOS A represents free-flow conditions where motorists experience a high level of comfort and convenience. LOS E represents saturated or at-capacity conditions, and LOS F represents oversaturated conditions. During peak periods, it is not uncommon for some movements at busy suburban intersections to operate at LOS E or LOS F due to a combination of heavy demand and physical constraints.

LOS at a signalized intersection is defined in terms of average control delay (measured in seconds per vehicle), which is the portion of total delay experienced by a motorist that is attributable to the traffic signal. LOS A describes operations with minimal delays (up to 10 seconds per vehicle on average), while LOS F describes operations with delays in excess of 80 seconds per vehicle. At intersections with long cycle lengths, the quantity of red time that is allocated to an approach or movement may near or exceed that 80-second threshold, increasing the likelihood of poor LOS. The LOS criteria for signalized intersections, as defined in the Highway Capacity Manual, Sixth Edition (HCM), are provided in **Table 2**.

Table 2. LOS Criteria for Signalized Intersections

Level of Service (LOS)	Average Delay	Volume-to-Capacity (v/c) Ratio
A	≤ 10.0 seconds	< 1.0
B	> 10.0 and ≤ 20.0 seconds	< 1.0
C	> 20.0 and ≤ 35.0 seconds	< 1.0
D	> 35.0 and ≤ 55.0 seconds	< 1.0
E	> 55.0 and ≤ 80.0 seconds	< 1.0
F	> 80.0 seconds	≥ 1.0

Transportation Research Board. Highway Capacity Manual, Sixth Edition.

For unsignalized intersections, total delay (measured in seconds per vehicle) is defined as the total elapsed time from the moment a vehicle stops at the back of the queue until the vehicle departs from the stop bar on the stop-sign controlled approach. This includes the time required for the vehicle to travel from the last-in-queue to the first-in-queue position. The LOS criteria for unsignalized intersections, as defined in the HCM, are summarized in **Table 3**.

Table 3. LOS Criteria for Unsignalized Intersections

Level of Service (LOS)	Average Delay	Volume-to-Capacity (v/c) Ratio
A	≤ 10.0 seconds	< 1.0
B	> 10.0 and ≤ 15.0 seconds	< 1.0
C	> 15.0 and ≤ 25.0 seconds	< 1.0
D	> 25.0 and ≤ 35.0 seconds	< 1.0
E	> 35.0 and ≤ 50.0 seconds	< 1.0
F	> 50.0 seconds	≥ 1.0

Transportation Research Board. Highway Capacity Manual, Sixth Edition.

Capacity analysis was performed to analyze the study intersections for the weekday peak hours using Synchro capacity analysis software. For the signalized intersections, Synchro's *Lanes, Volumes, and Timings* reports was utilized. The HCM 6th Edition report was referenced for unsignalized study intersections. The results for each study intersection under existing conditions are summarized in **Table 4**.

Table 4. Baseline (Year 2021) Levels of Service

Intersection	Weekday Morning				Weekday Evening			
	Peak Hour of Street Traffic (8:00-9:00AM)		Peak Hour of Site Traffic (9:30-10:30AM)		Peak Hour of Street Traffic (4:30-5:30PM)		Peak Hour of Site Traffic (7:30-8:30PM)	
	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
Main Street / Crystal Lake Avenue[1]								
Eastbound	25.1	C	21.8	C	41.6	D	22.3	C
Westbound	42.3	D	35.6	D	42.7	D	39.7	D
Northbound	11.3	B	10.9	B	19.2	B	13.2	B
Southbound	19.6	B	17.4	B	28.8	C	17.4	B
Intersection	*24.3*	*C*	*19.4*	*B*	*30.9*	*C*	*19.8*	*B*
Main Street / Congress Parkway[1]								
Westbound	37.1	D	39.8	D	45.8	D	34.0	C
Northbound	2.0	A	2.2	A	6.0	A	2.4	A
Southbound	4.1	A	5.7	A	9.2	A	3.7	A
Intersection	*7.8*	*A*	*11.4*	*B*	*17.4*	*B*	*10.3*	*B*

[1]Signalized Intersection
[2]Unsignalized Intersection

Table 4. Baseline (Year 2021) Levels of Service (continued)

Intersection	Weekday Morning				Weekday Evening			
	Peak Hour of Street Traffic (8:00-9:00AM)		Peak Hour of Site Traffic (9:30-10:30AM)		Peak Hour of Street Traffic (4:30-5:30PM)		Peak Hour of Site Traffic (7:30-8:30PM)	
	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
Main Street / US 14[1]								
Eastbound	29.9	C	29.8	C	37.7	D	26.4	C
Westbound	25.5	C	26.2	C	41.2	D	28.8	C
Northbound	52.1	D	57.5	E	59.6	E	54.8	D
Southbound	39.7	D	39.1	D	44.0	D	37.5	D
Intersection	*34.3*	*C*	*35.9*	*D*	*44.0*	*D*	*33.9*	*C*
Congress Parkway / Commonwealth Drive[2]								
Eastbound Left Turn	7.7	A	8.1	A	8.7	A	7.8	A
Westbound Left Turn	8.2	A	8.2	A	8.2	A	7.5	A
Northbound	12.4	B	13.6	B	16.9	C	9.8	A
Southbound	11.5	B	12.4	B	13.8	B	10.0	B
Congress Parkway / Exchange Drive[2]								
Eastbound Left Turn	7.8	A	8.7	A	8.0	A	7.4	A
Westbound Left Turn	7.7	A	7.8	A	8.5	A	7.7	A
Northbound	11.8	B	11.8	B	16.9	C	10.2	B
Southbound	13.5	B	12.3	B	21.2	C	12.3	B
Congress Parkway / Pingree Road[1]								
Eastbound	27.0	C	26.2	C	89.1	F	28.5	C
Westbound	34.7	C	42.7	D	40.3	D	38.8	D
Northbound	30.0	C	25.2	C	32.1	C	17.7	B
Southbound	10.5	B	9.7	A	21.5	C	13.0	B
Intersection	*19.9*	*B*	*19.3*	*B*	*52.3*	*D*	*20.5*	*C*

[1]Signalized Intersection
[2]Unsignalized Intersection

As shown above, baseline traffic operations are shown to be acceptable at LOS D or better for most approaches. However, the eastbound approach of Congress Parkway at Pingree Road is projected at LOS F under baseline volumes during the weekday evening peak hour. As detailed in Section 2.3, the traffic volumes on the eastbound approach during this 4:30-5:30 PM peak hour were increased to account

for the decreased usage of the Metra station's parking lots during the COVID-19 pandemic, reflecting the conservative assumption that Metra usage would eventually return to pre-pandemic levels. This assumption may not come to fruition, however, given the remaining possibility that many workplaces may allow employees to permanently work from home either on a partial or full-time basis. The projected LOS F on the eastbound approach was discussed with City staff, and they noted that the eastbound approach of this intersection was constructed with the idea that it may provide dual left-turn lanes in the future, with a wide striped median and two receiving lanes on the north leg. While some additional physical adjustments may be needed to provide dual eastbound left-turn lanes at this location in alignment with IDOT standards (including a barrier median alongside the dual left-turn lanes and a minimum receiving width of 35 feet), it should be noted that the signal phasing at Pingree Road/Congress Parkway already provides the east-west split phasing that would be required as part of that future lane geometry. It is therefore recommended that the traffic volumes and operations at this intersection be monitored by the City to determine if future improvements are needed to accommodate the return of Metra commuters.

Elsewhere in the study area, the northbound approach of Main Street at US 14 currently operates at LOS E during the weekday morning peak hour of site traffic and the weekday evening peak hour of adjacent street traffic. It can be noted that, according to the Synchro results, these delays are both entirely attributable to control delay, and therefore are likely due to the long cycle lengths in place at this intersection: 130 seconds during the morning peak hour of site traffic and 145 seconds during the evening peak hour of street traffic. Because Main Street is the minor corridor at this location and a large portion of the cycle length is allocated to green time for the major street, the resulting long periods of red time result in higher delay for the northbound approach.

03. Future Conditions

In order to evaluate future intersection operations, traffic volumes were forecasted for a "build plus five" design year, per IDOT standards. With the expectation that the proposed development would be completed in Year 2022, a Year 2027 design year was utilized. Future traffic forecasting was based on three main factors: background traffic growth, redistribution of area traffic to utilize the new roadway connections constructed as part of this project, and trips generated by the subject development. Based on the resulting projections, capacity analyses were prepared to evaluate operational conditions before and after completion of the proposed development. The findings and resulting recommendations are discussed in this section of the report.

3.1. Area Improvement Plans

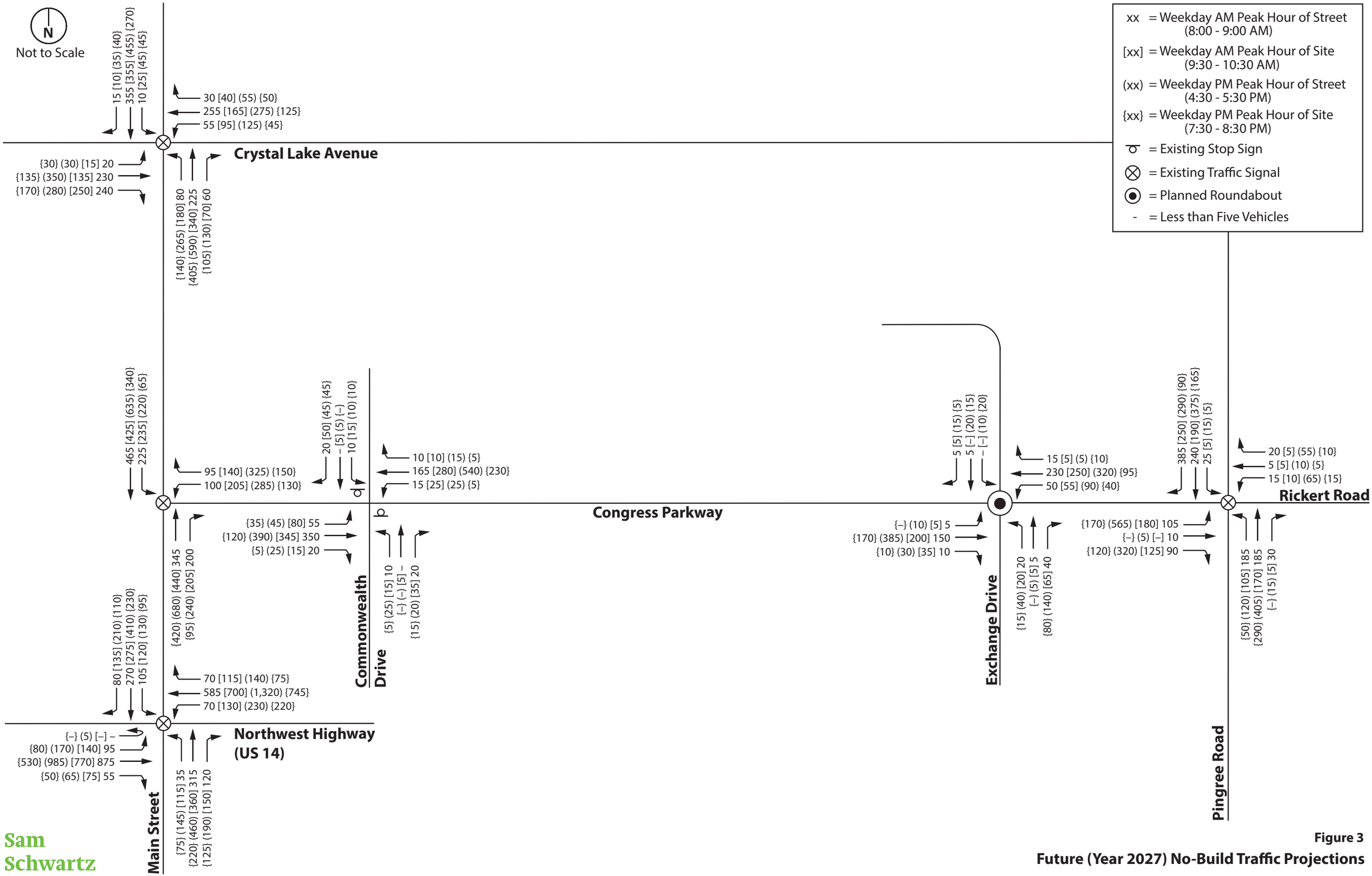
The City of Crystal Lake indicated that there are plans to construct a roundabout at the intersection of Congress Parkway and Exchange Drive before the Year 2027 design horizon. As such, this intersection was evaluated using the proposed geometry, provided by the City, for all Year 2027 scenarios. A preliminary geometric plan for this intersection reconstruction can be found in the Appendix.

3.2. Background Traffic Growth

In order to estimate future background traffic for the Year 2027 design horizon, Year 2050 ADT projections were obtained from the Chicago Metropolitan Agency for Planning (CMAP) for the roadways within the study area. Based on the projections provided, compounded annual growth rates were derived for each roadway, as summarized below:

- Northwest Highway (US 14): 0.79%
- Main Street: 0.73%
- Crystal Lake Avenue: 0.60%
- Pingree Road: 0.61%
- Congress Parkway: 0.74%

The above growth rates were applied to baseline (Year 2021) traffic volumes on each respective roadway. The growth rate projected for Congress Parkway was also applied to volumes on Commonwealth Drive and Exchange Drive. The resulting volumes were then balanced across the study area, with the exception of Congress Parkway between Commonwealth Drive and Exchange Drive. This roadway segment was left unbalanced, since several vacant parcels remain along this corridor and the background growth projected for this roadway is assumed to be attributable to development along the roadway itself. These volumes were then added to the baseline Year 2021 volumes to yield Year 2027 Future No-Build traffic projections, illustrated on ***Figure 3***.



Sam Schwartz

Figure 3

Future (Year 2027) No-Build Traffic Projections

3.3. Site Development Plan

As proposed, the 63-acre site would contain a 183,212 square-foot distribution center, 1,418 parking spaces, and 210 spaces for loading and staging operations. As part of this project, Exchange Drive would be extended through the site to meet Main Street approximately 900 feet north of Congress Parkway. Additionally, the existing Commonwealth Drive would be extended approximately 125 feet north of its existing terminus north of Congress Parkway to meet the Exchange Drive extension. On the site plan, five full-access intersections are proposed to connect the site to the new segment of Exchange Drive, as detailed below:

- Access 1: Located approximately 900 feet east of Commonwealth Drive. Access 1 would connect to the western loading docks and the western parking lot, which would be used for parking Delivery Service Provider (DSP) vans (described in more detail in *Section 3.5*) as well as DSP drivers' personal vehicles.
- Access 2: Located approximately 205 feet east of Access 1. Access 2 would connect to the southern parking lot, which would be used by associates and for DSP drivers' personal vehicles.
- Access 3: Located approximately 280 feet east of Access 2. Access 3 would connect to the southern parking lot, which, as mentioned above, would be used for parking associates' and DSP drivers' personal vehicles.
- Access 4: Located approximately 210 feet east of Access 3. Access 4 would connect to the eastern loading docks and the eastern parking lot, which would be used for parking DSP vans and DSP drivers' personal vehicles.
- Access 5: Located approximately 580 feet northeast of Access 4. Access 5 would connect to the truck loading docks and the eastern parking lot. Access 5 would be the only access used by heavy truck traffic entering and exiting the site.

3.4. Area Traffic Redistribution

As shown on the concept site plan in the Appendix and noted above in *Section 3.3*, Exchange Drive would be extended from its current western terminus to meet Main Street as part of the proposed development. Additionally, Commonwealth Drive north of Congress Parkway would be extended to meet the new section of Exchange Drive at a T intersection. Future background traffic volumes were therefore reviewed to determine how much traffic may utilize these new roadway connections.

At the intersection of Congress Parkway and Exchange Drive, the eastbound left-turn and southbound right-turn movements were reviewed to determine which trips may use the new segment of Exchange Drive to route to and from the west. During each of the four peak hours, the COVID-adjusted volume for these two movements are 15 vehicles or less. Furthermore, the volume of traffic recorded at the Exchange Drive access driveways serving Sky High Volleyball and Urban Air Trampoline Park (both located at the current terminus of Exchange Drive) was no more than five vehicles per movement during any of the peak hours studied. Based on these considerations, it is estimated that the volume of traffic that may redistribute to the new segment of Exchange Drive from Congress Parkway is negligible.

Similarly, movements to and from the north leg of Commonwealth Drive at Congress Parkway were reviewed for potential redistribution to the new Exchange Drive/Commonwealth Drive intersection. Based on the planned alignment of Exchange Drive east of Commonwealth Drive, it is not anticipated that drivers currently traveling to/from the east along Congress Parkway would find a more convenient

connection by rerouting to Exchange Drive. For drivers traveling to and from the west (ultimately to and from Main Street), it is anticipated that the quantity of trips that would reroute to Exchange Drive via Commonwealth Drive is negligible, since the majority of density and associated parking along this segment of Commonwealth Drive is in closer proximity to Congress Parkway. As will be further discussed later in this report, it is also anticipated that the new Exchange Drive intersection at Main Street would not provide full access, further influencing the expectation of negligible potential traffic redistribution from Commonwealth Drive.

3.5. Trip Generation

Traffic impact studies commonly calculate site-generated trip projections using data in the Institute of Transportation Engineers (ITE) manual Trip Generation, 11th Edition, based on the proposed land use code. For the proposed distribution center, however, a specific end-user has been identified and plans to operate a delivery station, which "operate[s] 24/7 to support delivery of packages to… customer locations between 11:00AM and 9:00PM." Because a delivery station does not align with the land use codes in ITE's Trip Generation, and due to the unique operational characteristics of the proposed facility, the end-user of the proposed distribution center provided site-generated traffic information for the development, sorted by vehicle type. Use of this tenant-specific data was approved by City staff. The vehicle types that are included in this summary are as follows:

- *Associates*: Personal vehicles driven by employees that work inside the delivery station building.
- *Delivery Service Provider (DSP) Vans*: Branded light-goods vans that carry products from the delivery station to customers.
- *DSP Drivers*: Personal vehicles driven by employees who drive DSP vans. These employees drive to the site, leave their vehicle in the parking lot, and use an on-site DSP van for deliveries. The DSP van is then returned to the site at the end of the shift, and the employee departs in his/her personal vehicle.
- *Flex Drivers*: Employees who deliver goods using their personal vehicles. These vehicles enter the property, travel straight to the delivery loading area, and depart to complete their delivery route. It is understood that flex drivers do not park on site.
- *Trucks*: Tractor-trailer vehicles that deliver products to the delivery station in large quantities for processing.

A complete summary of these projected site trips as provided by the development team is included in the Appendix, detailing inbound and outbound movements throughout the entire day on a half-hourly basis.

Based on the projections provided by the end-user, shifts for Associates, DSP drivers, and flex drivers occur at different times of day, presumably to distribute the traffic impact associated with the proposed facility. Additionally, it can be noted that shift times are generally set to take place outside of the typical rush periods of 7:00-9:00AM and 4:00-6:00PM on weekdays. In order to evaluate the impact of the proposed development when it is most active, this study also considered the periods when site traffic is highest (referred to previously as the "peak hours of site traffic" in this report). Site-generated traffic projections for the peak hours are presented in **Table 5**.

Table 5. Site-Generated Trips for Delivery Station[1]

Vehicle Type	Daily	AM Peak Hour of Street Traffic (8:00-9:00AM)			AM Peak Hour of Site Traffic (9:30-10:30AM)			PM Peak Hour of Street Traffic (4:30-5:30PM)			PM Peak Hour of Site Traffic (7:30-8:30PM)		
		IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL
Associates	454	–	–	–	–	–	–	–	–	–	–	–	–
Trucks	50	1	1	2	1	2	3	1	1	2	1	2	3
DSP Drivers	536	–	–	–	228	–	228	–	–	–	–	194	194
DSP Vans	536	–	–	–	–	120	120	–	–	–	194	–	194
Flex Drivers	140	–	–	–	–	–	–	–	70	70	–	–	–
Total	*1,716*	*1*	*1*	*2*	*229*	*122*	*351*	*1*	*71*	*72*	*195*	*196*	*391*
Total (rounded to nearest multiple of five)		**–**	**–**	**–**	**230**	**120**	**350**	**–**	**70**	**70**	**195**	**195**	**390**

[1]Based on site-generated traffic projections provided by the end-user, included in the Appendix.

The site-generated trip projections provided by the end-user were compared to trip rates for High-Cube Fulfillment Center, Sort (Land Use Code 155) in ITE's Trip Generation, which is the ITE land use that most closely corresponds to the proposed facility. The end-user's trip projections were found to be generally higher for a typical weekday than Trip Generation would suggest for a fulfillment center of this size. During the typical rush periods of 7:00-9:00AM and 4:00-6:00PM, the proposed development is projected to generate less traffic than ITE data would suggest due to the offset shift schedule reflected in the end-user's trip generation projections. These weekday peak hours of adjacent street traffic are the typical basis for traffic studies and intersection design since they relate to the period of highest total traffic on the area roadway network; within the subject study area, however, it should be noted that several area roadways (particularly Congress Parkway) carry a higher volume of traffic during the AM Peak Hour of Site Traffic (9:30-10:30AM) than during the AM Peak Hour of Street Traffic (8:00-9:00AM).

While ITE does not provide trip generation data for this Land Use Code during the weekday peak hours of generator, a comparison between the end-user's anticipated peak hours of site traffic and ITE projections for the weekday peak hours of adjacent street traffic indicate that the proposed development's traffic volumes are the higher of the two.

3.6. Directional Distribution

The projected future site trips shown in Table 5 were assigned to the study intersections based on an estimated directional distribution. The directional distribution of site-generated traffic is a function of several variables, including existing travel patterns, characteristics of the area street network and traffic control, and peak hour congestion within the study area. The resulting percentages are a best estimate using engineering judgment, familiarity with the area, and logical travel paths to likely origins and destinations for site users. The trip distribution percentages identified for this project also consider the different points of access that would be utilized by vehicle type, which is detailed in the *Trip Generation* section of this report.

Another consideration for developing these trip distribution percentages was the origins and destinations of different vehicle types. It was assumed that Associates, DSP Drivers, and Inbound Flex Drivers would be traveling to and from their homes, whereas DSP Vans and Outbound Flex Drivers would be traveling to and from destinations within a defined service radius for the subject area. Trucks were assumed to be

traveling to and from the site from further away, primarily utilizing the roadways providing the most regional connectivity near the subject site and avoiding the use of area roadways with posted weight restrictions (namely, Crystal Lake Avenue and Pingree Road north of Congress Parkway). Given these considerations, projected trip distribution percentages are shown in **Table 6** by vehicle type.

Table 6. Estimated Trip Distribution Percentages

Travel to/from:	Vehicle Type		
	Associates / DSP Drivers / Inbound Flex Drivers	DSP Vans / Outbound Flex Drivers	Trucks
North via Main Street	5%	5%	–
North via Pingree Road	20%	15%	–
South via Main Street	40%	30%	–
South via Exchange Drive	15%	15%	65%
South via Pingree Road	5%	10%	10%
West via Crystal Lake Avenue	10%	15%	–
West via US 14	5%	10%	25%
Total	**100%**	**100%**	**100%**

The trip distribution percentages shown above are also illustrated on ***Figure 4*** (for Associates / DSP Drivers / Inbound Flex Drivers), ***Figure 5*** (for DSP Vans / Outbound Flex Drivers), and ***Figure 6*** (for Trucks).

3.7. Site Trip Assignment

Trips generated by the proposed development were assigned to the street network based on the total trip generation estimates (Table 5) and the estimated trip distribution (Table 6). The resulting trip assignments are shown on ***Figure 7***. As shown, this site trip assignment assumes a right-in/right-out configuration at Main Street/Exchange Drive as a baseline; a discussion of assumed routing modifications that may occur if right-in/right-out/left-out maneuvers were allowed at this location is included in *Section 3.8*.

3.8. Future Traffic Projections

Site-generated trip projections (Figure 7) were added to the Future No-Build (Year 2027) volumes to obtain Future Build (Year 2027) traffic projections, illustrated on ***Figure 8***. As shown, it is assumed as a baseline analysis scenario for the future transportation network that Exchange Drive at Main Street would be limited to right-in/right-out movements. Based on discussions with City staff, an alternate configuration allowing westbound left-turn movements (right-in/right-out/left-out) was also considered, with the assumption that all site trips that would otherwise make a left turn from Congress Parkway onto Main Street would instead utilize Exchange Drive to connect to Main Street. The resulting future traffic projections for this alternate scenario are presented on ***Figure 9***.

N
Not to Scale

xx% = Percent Distribution
= Existing Stop Sign
= Proposed Stop Sign
= Existing Traffic Signal
= Planned Roundabout
xx' = Approximate Centerline Distance

5%
10%
20%
5%
15%
5%
40%
5%

Crystal Lake Avenue
Congress Parkway
Rickert Road
Commonwealth Drive
Exchange Drive
Pingree Road
Main Street
Northwest Highway (US 14)
Exchange Drive

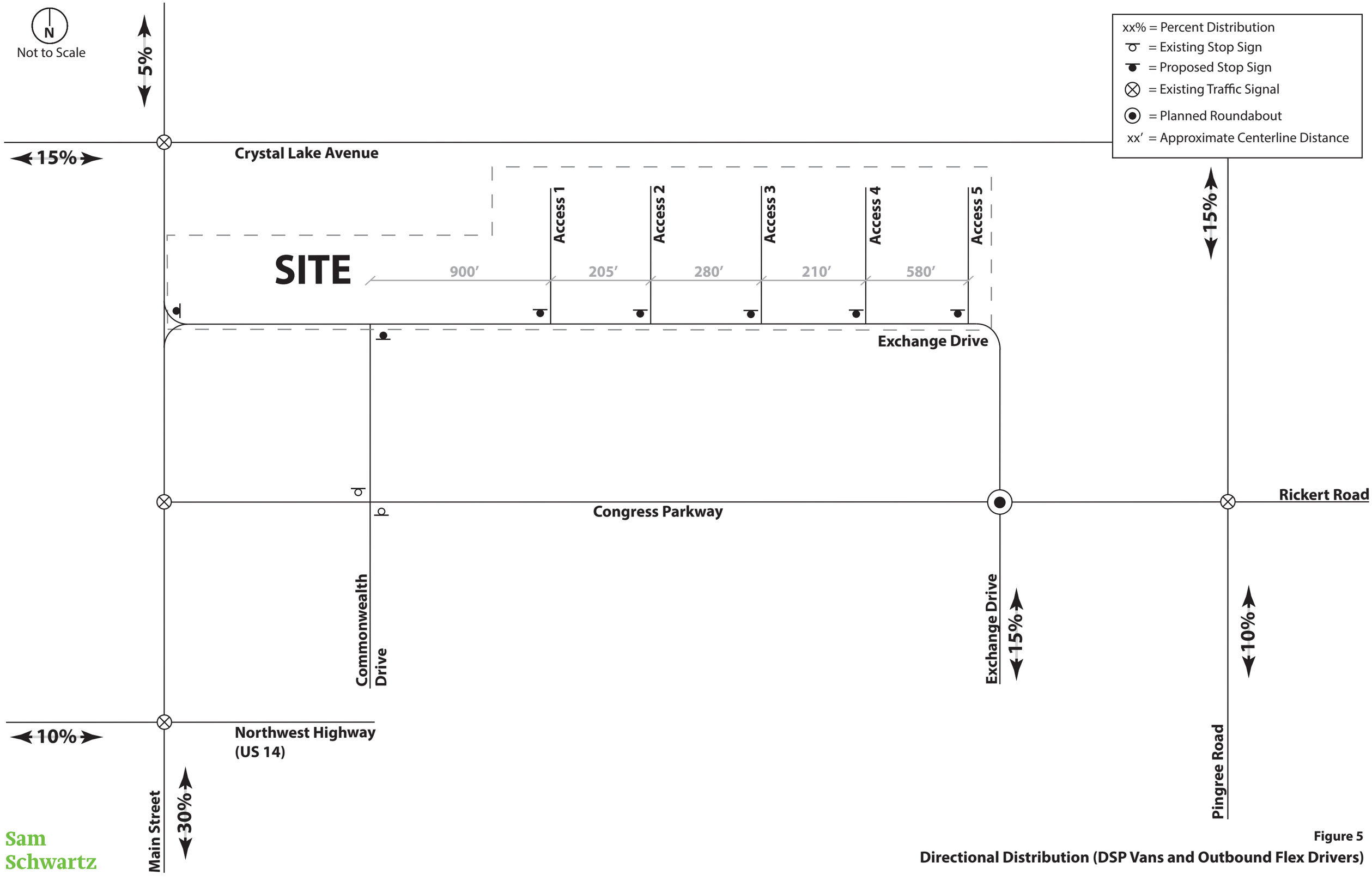
SITE

Access 1
Access 2
Access 3
Access 4
Access 5

900'
205'
280'
210'
580'

Sam Schwartz

Figure 4
Directional Distribution (Associates, DSP Drivers, and Inbound Flex Drivers)



Sam Schwartz

Figure 5

Directional Distribution (DSP Vans and Outbound Flex Drivers)

N
Not to Scale

xx% = Percent Distribution
= Existing Stop Sign
= Proposed Stop Sign
= Existing Traffic Signal
= Planned Roundabout
xx' = Approximate Centerline Distance

Crystal Lake Avenue

SITE

Access 1
Access 2
Access 3
Access 4
Access 5

900'
205'
280'
210'
580'

Exchange Drive

Congress Parkway

Rickert Road

Commonwealth Drive

Exchange Drive

65%

10%

25%

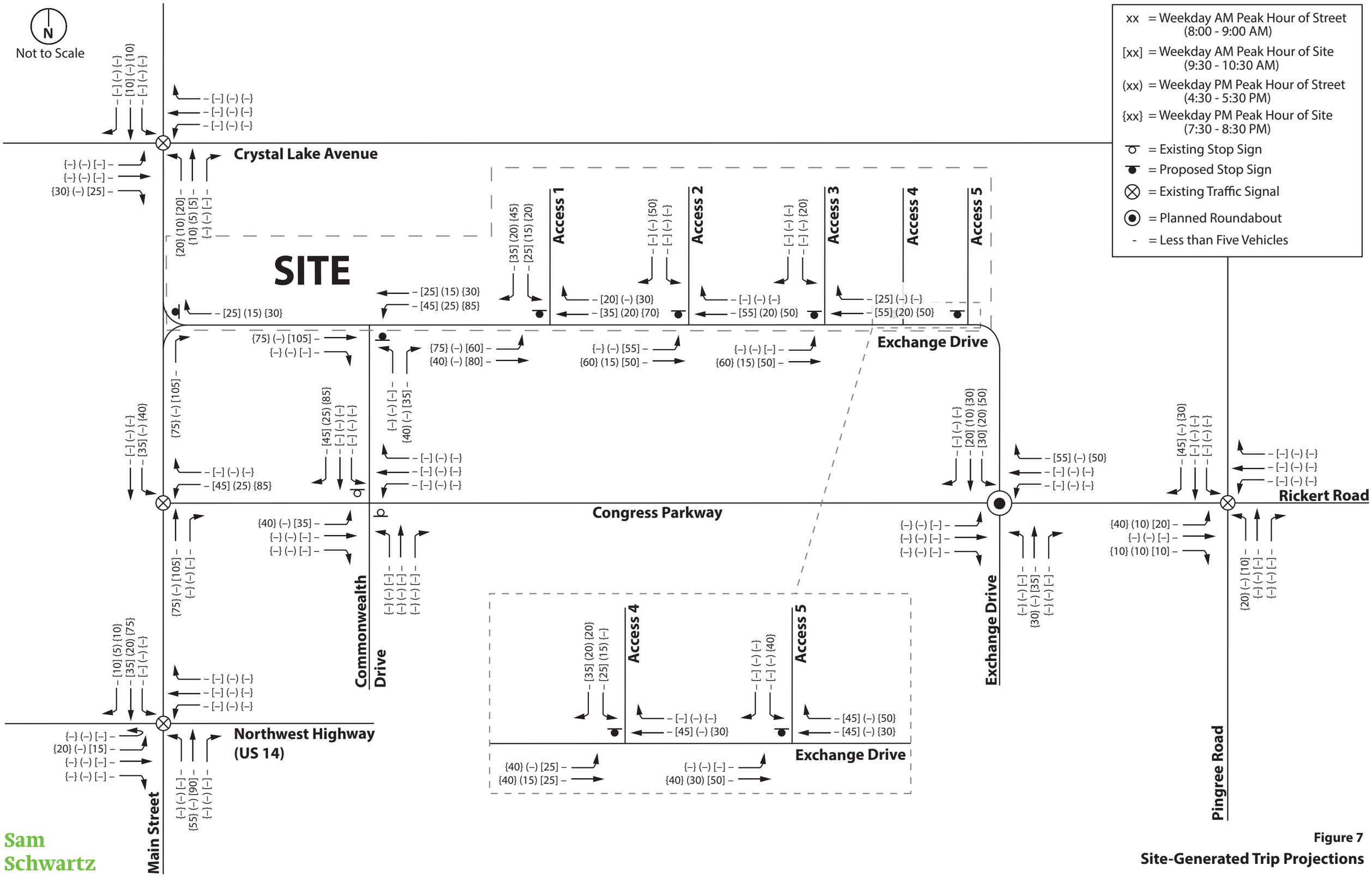
Northwest Highway
(US 14)

Main Street

Pingree Road

Sam Schwartz

Figure 6
Directional Distribution (Trucks)



Sam Schwartz

Figure 7

Site-Generated Trip Projections

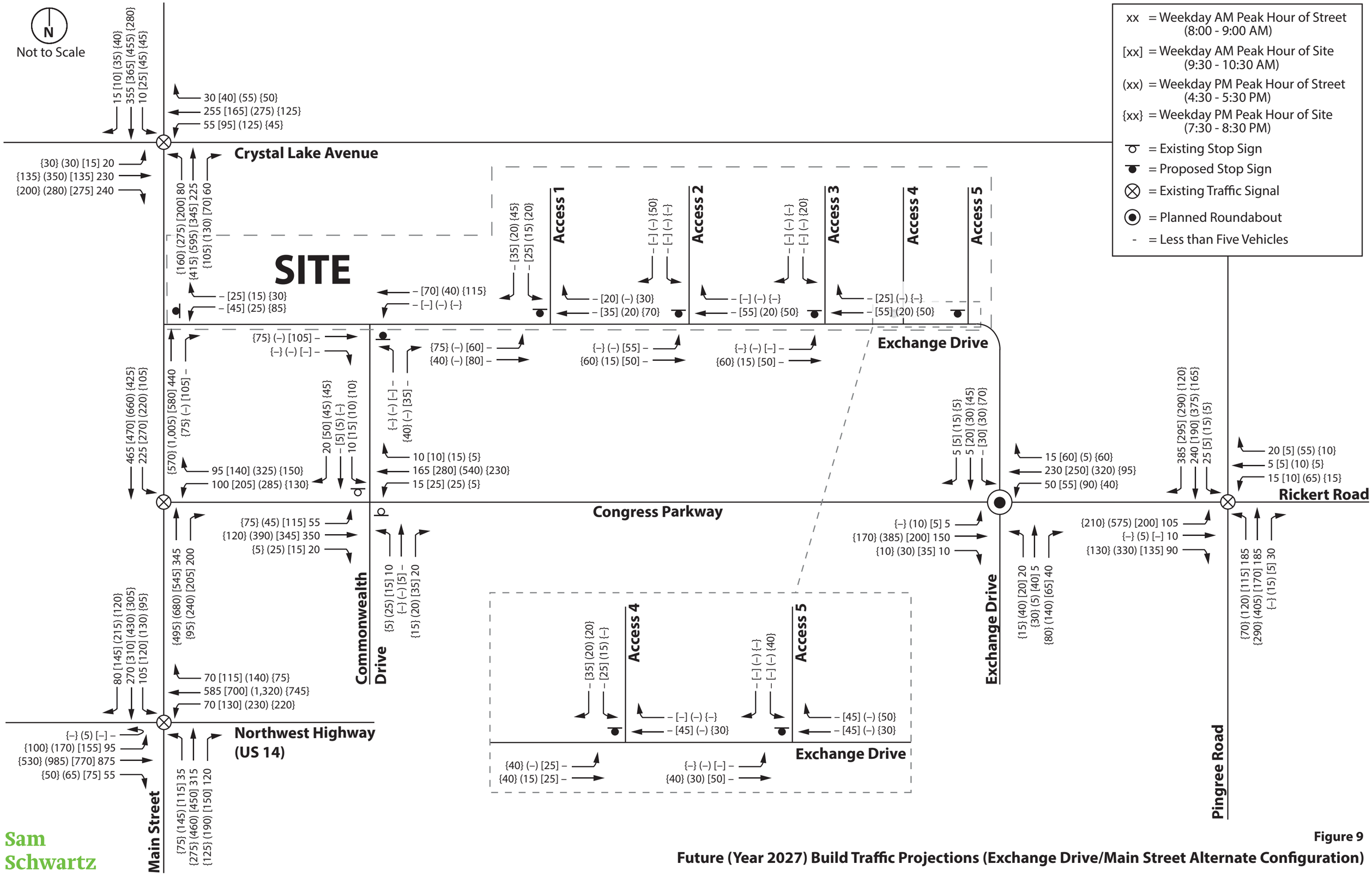
N
Not to Scale

xx = Weekday AM Peak Hour of Street (8:00 - 9:00 AM)
[xx] = Weekday AM Peak Hour of Site (9:30 - 10:30 AM)
(xx) = Weekday PM Peak Hour of Street (4:30 - 5:30 PM)
{xx} = Weekday PM Peak Hour of Site (7:30 - 8:30 PM)
= Existing Stop Sign
= Proposed Stop Sign
= Existing Traffic Signal
= Planned Roundabout
- = Less than Five Vehicles

Crystal Lake Avenue
SITE
Access 1
Access 2
Access 3
Access 4
Access 5
Exchange Drive
Congress Parkway
Commonwealth Drive
Northwest Highway (US 14)
Main Street
Rickert Road
Pingree Road
Exchange Drive

Figure 8
Future (Year 2027) Build Traffic Projections

Sam Schwartz



Sam Schwartz

Figure 9

Future (Year 2027) Build Traffic Projections (Exchange Drive/Main Street Alternate Configuration)

3.9. Future Intersection Operations

Capacity analyses were conducted to assess future traffic operation both with and without the proposed development. For signalized and stop-controlled study intersections, these analyses were conducted using Synchro software. The planned roundabout at Congress Parkway and Exchange Drive was analyzed using SIDRA Intersection software. The results of these analyses for Future No-Build and Future Build conditions are detailed in the following sections.

Future No-Build (Year 2027) Conditions

As noted previously in *Section 3.1*, the City of Crystal Lake plans to construct a roundabout at the intersection of Congress Parkway and Exchange Drive. This intersection was therefore analyzed as such using the geometry illustrated on a preliminary concept plan provided by the City (included in the Appendix). Based on these assumptions, **Table 7** shows the intersection capacity analysis results for the study area under Future No-Build (Year 2027) conditions.

Table 7. Future No-Build (Year 2027) Levels of Service

Intersection	Weekday Morning				Weekday Evening			
	Peak Hour of Street Traffic (8:00-9:00AM)		Peak Hour of Site Traffic (9:30-10:30AM)		Peak Hour of Street Traffic (4:30-5:30PM)		Peak Hour of Site Traffic (7:30-8:30PM)	
	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
Main Street / Crystal Lake Avenue[1]								
Eastbound	25.3	C	22.0	C	43.6	D	22.6	C
Westbound	42.0	D	35.8	D	43.7	D	39.9	D
Northbound	11.8	B	11.1	B	19.8	B	13.4	B
Southbound	20.5	C	17.9	B	29.9	C	17.8	B
Intersection	*24.6*	*C*	*19.7*	*B*	*32.0*	*C*	*20.1*	*C*
Main Street / Congress Parkway[1]								
Westbound	36.4	D	39.8	D	46.5	D	34.1	C
Northbound	2.1	A	2.2	A	6.5	A	2.5	A
Southbound	4.3	A	6.0	A	9.8	A	3.8	A
Intersection	*7.9*	*A*	*11.6*	*B*	*17.9*	*B*	*10.3*	*B*

[1]Signalized Intersection
[2]Stop-Controlled Intersection
[3]Roundabout Intersection

Table 7. Future No-Build (Year 2027) Levels of Service (continued)

Intersection	Weekday Morning				Weekday Evening			
	Peak Hour of Street Traffic (8:00-9:00AM)		Peak Hour of Site Traffic (9:30-10:30AM)		Peak Hour of Street Traffic (4:30-5:30PM)		Peak Hour of Site Traffic (7:30-8:30PM)	
	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
Main Street / US 14[1]								
Eastbound	32.2	C	30.7	C	38.9	D	27.1	C
Westbound	26.2	C	26.7	C	43.9	D	29.7	C
Northbound	52.4	D	58.3	E	60.2	E	54.9	D
Southbound	39.8	D	39.6	D	45.4	D	39.2	D
Intersection	*35.4*	*D*	*36.6*	*D*	*45.7*	*D*	*34.8*	*C*
Congress Parkway / Commonwealth Drive[2]								
Eastbound Left Turn	7.8	A	8.1	A	8.8	A	7.9	A
Westbound Left Turn	8.3	A	8.3	A	8.3	A	7.5	A
Northbound	12.7	B	14.0	B	17.6	C	9.9	A
Southbound	11.6	B	12.8	B	14.2	B	10.1	B
Congress Parkway / Exchange Drive[3]								
Eastbound	5.0	A	4.9	A	5.4	A	4.9	A
Westbound	5.5	A	5.6	A	5.9	A	5.9	A
Northbound	6.7	A	6.5	A	7.7	A	5.9	A
Southbound	6.2	A	6.1	A	7.0	A	6.9	A
Intersection	*5.5*	*A*	*5.5*	*A*	*6.1*	*A*	*5.6*	*A*
Congress Parkway / Pingree Road[1]								
Eastbound	27.2	C	26.4	C	94.6	F	28.3	C
Westbound	34.8	C	43.3	D	41.1	D	39.1	D
Northbound	30.2	C	25.9	C	32.5	C	17.9	B
Southbound	10.9	B	10.0	A	22.0	C	13.1	B
Intersection	*20.2*	*C*	*19.6*	*B*	*54.5*	*D*	*20.5*	*C*

[1]Signalized Intersection
[2]Stop-Controlled Intersection
[3]Roundabout Intersection

As shown in the preceding table, most intersection approaches are projected to continue to operate at LOS D or better during the morning and evening peak hours. As was the case under existing conditions, two study approaches operate at LOS E or LOS F during certain peak hours. The eastbound approach of Congress Parkway at Pingree Road continues to operate at LOS F during the evening peak hour of adjacent street traffic, a condition that the City of Crystal Lake will be monitoring for in the event that a significant increase in background traffic and Metra commuter traffic return to this approach as pandemic recovery continues. Furthermore, the northbound approach of Main Street at US 14 is projected to continue operating at LOS E during the morning peak hour of site traffic and the evening peak hour of adjacent street traffic, which is largely the result of the long cycle length at this intersection and the allocation of a large portion of green time to US 14 as the major street.

Future Build (Year 2027) Conditions

With construction of the proposed development project, several improvement measures were identified to accommodate site traffic. These recommendations were identified in accordance with jurisdictional standards, where applicable, and to promote safe and efficient traffic operation within the study area.

As noted previously in *Section 3.8*, two potential access configurations were considered for the proposed extension of Exchange Drive at Main Street based on discussions with City staff: right-in/right-out only and right-in/right-out/left-out. In other words, consideration was given to permitting westbound left-turn maneuvers at this new intersection. The projected capacity results with and without westbound left-turn maneuvers at this intersection (assuming a single westbound approach lane for both scenarios) are compared later in this section in order to recommend an appropriate configuration. Due to the lack of a median for a dedicated left-turn lane on Main Street and the proximity to an at-grade railroad crossing, consideration was not given to permitting southbound left-turn maneuvers onto Exchange Drive, per discussions with City staff. As such, No Left Turn signage should be posted in accordance with standards in the Manual on Uniform Traffic Control Devices for Sign R3-2 (No Left Turn). For northbound right-turn maneuvers from Main Street onto Exchange Drive, reference was made to turn lane warrant criteria in the IDOT Bureau of Design and Environment (BDE) Manual. This criteria, however, does not specifically cover a four-lane roadway with a design speed limit below 50 MPH (Main Street has a posted speed of 40 MPH, which typically coincides with a design speed of 45 MPH). Absent a specific jurisdictional standard for the provision of a dedicated right-turn lane on this corridor, Sam Schwartz considered the high volume of northbound right-turning movements anticipated during the peak hours of site traffic and recommends that a dedicated northbound right-turn lane be provided. To further reinforce the prohibition against southbound left-turn movements and provide a visible location for No Left Turn signage to be mounted, it is recommended that this right-turn lane be constructed with channelization. Per BDE standards, a 185-foot storage bay and 200-foot taper should be provided for this dedicated turn lane.

Along the site frontage, it is assumed based on discussions with City staff that Exchange Drive would be constructed with a width similar to its existing segment immediately east of the subject property and would be striped with one lane in each direction. Based on a review of projected inbound left- and right-turning movements at the site access intersections, it is not anticipated that dedicated turn lanes would be warranted at those locations. For consistency with existing posted signage on Exchange Drive and City code, a 30 MPH speed limit is assumed for this roadway. Signage indicating this speed limit should be posted for both eastbound and westbound traffic, especially in proximity to the new intersection with Main Street. Commonwealth Drive should also be posted with 30 MPH speed limit signage north of Congress Parkway, since this roadway would become a through street as part of the proposed project.

At the new intersection of Exchange Drive and Commonwealth Drive, it is assumed that Exchange Drive would provide a single approach lane with shared turn movements on its east- and westbound approaches. Based on its current width and striping at other area intersections, it is recommended that Commonwealth Drive be striped with separate northbound left- and right-turn lanes at Exchange Drive. Minor-leg stop control is recommended for Commonwealth Drive based on projected traffic volumes and the T intersection configuration planned at this location.

To facilitate pedestrian access to and from the site and within the larger study area, it is recommended that sidewalks be constructed on both sides of Exchange Drive between its current western terminus and the new intersection with Commonwealth Drive. The existing sidewalk on the east side of Commonwealth Drive north of Congress Parkway should be extended to meet Exchange Drive, including a striped crosswalk across the east leg of the Exchange Drive/Commonwealth Drive intersection. These new sidewalks would provide a continuous connection through the park (meeting a complete and contiguous sidewalk on the south side of Exchange Drive east of the site) while also supporting employees of the subject development with a sidewalk connection along the immediate site frontage. This infrastructure would support connections between the proposed development and the Pingree Road Metra station, as well as the Pace Bus Route 550 stop at Main Street/Congress Parkway. Because the sidewalk along the north side of Exchange Drive east of the site is not currently complete, the developer should also coordinate with the City to identify an appropriate location for a striped crosswalk across Exchange Drive at Access 2 or Access 3 (near the Associates parking lot and building entrances) to connect building employees to the complete sidewalk on the south side of the street.

At the site access intersections, it is recommended that minor-leg stop control be posted for outbound traffic. For the purposes of analysis, it was assumed that Access 1 and Access 4 would provide separate left- and right-turn lanes for outbound traffic, while Access 2, Access 3, and Access 5 would provide a single outbound lane, as shown on the concept site plan in the Appendix. Sam Schwartz also reviewed internal traffic circulation on the concept site plan and found it to be acceptable.

Based on these recommended improvements and assumptions, capacity analysis results for Future Build traffic conditions are presented in **Table 8**. The results shown in this table reflect a right-in/right-out configuration at Main Street/Exchange Drive.

Table 8. Future Build (Year 2027) Levels of Service

Intersection	Weekday Morning				Weekday Evening			
	Peak Hour of Street Traffic (8:00-9:00AM)		Peak Hour of Site Traffic (9:30-10:30AM)		Peak Hour of Street Traffic (4:30-5:30PM)		Peak Hour of Site Traffic (7:30-8:30PM)	
	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
Main Street / Crystal Lake Avenue[1]								
Eastbound	25.3	C	21.2	C	44.0	D	21.4	C
Westbound	42.0	D	36.3	D	44.1	D	40.4	D
Northbound	11.8	B	11.2	B	19.9	B	13.5	B
Southbound	20.5	C	18.5	B	30.2	C	18.5	B
Intersection	*24.6*	*C*	*19.7*	*B*	*32.1*	*C*	*20.0*	*B*
Main Street / Congress Parkway[1]								
Westbound	36.4	D	41.2	D	45.9	D	39.8	D
Northbound	2.1	A	3.0	A	7.0	A	3.2	A
Southbound	4.3	A	7.7	A	10.7	B	5.8	A
Intersection	*7.9*	*A*	*12.9*	*B*	*18.6*	*B*	*13.5*	*B*
Main Street / US 14[1]								
Eastbound	32.2	C	31.7	C	38.9	D	28.8	C
Westbound	26.2	C	27.5	C	43.9	D	31.3	C
Northbound	52.4	D	63.1	E	60.2	E	54.7	D
Southbound	39.8	D	40.9	D	47.0	D	39.5	D
Intersection	*35.4*	*D*	*39.1*	*D*	*45.9*	*D*	*36.3*	*D*
Congress Parkway / Commonwealth Drive[2]								
Eastbound Left Turn	7.8	A	8.2	A	8.8	A	8.0	A
Westbound Left Turn	8.3	A	8.3	A	8.3	A	7.5	A
Northbound	12.7	B	15.6	C	18.1	C	10.7	B
Southbound	11.6	B	12.4	B	13.5	B	10.4	B

[1]Signalized Intersection
[2]Stop-Controlled Intersection
[3]Roundabout Intersection

Table 8. Future Build (Year 2027) Levels of Service (continued)

Intersection	Weekday Morning				Weekday Evening			
	Peak Hour of Street Traffic (8:00-9:00AM)		Peak Hour of Site Traffic (9:30-10:30AM)		Peak Hour of Street Traffic (4:30-5:30PM)		Peak Hour of Site Traffic (7:30-8:30PM)	
	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
Congress Parkway / Exchange Drive[3]								
Eastbound	5.0	A	5.2	A	5.6	A	5.3	A
Westbound	5.5	A	5.7	A	5.9	A	5.7	A
Northbound	6.7	A	6.5	A	7.8	A	6.1	A
Southbound	6.5	A	8.1	A	8.1	A	7.4	A
Intersection	*5.5*	*A*	*5.8*	*A*	*6.3*	*A*	*6.0*	*A*
Congress Parkway / Pingree Road[1]								
Eastbound	27.2	C	27.5	C	99.6	F	29.7	C
Westbound	34.8	C	45.8	D	41.1	D	40.9	D
Northbound	30.2	C	29.2	C	32.5	C	21.1	C
Southbound	10.9	B	10.4	B	22.0	C	13.1	B
Intersection	*20.2*	*C*	*20.9*	*C*	*56.9*	*E*	*22.3*	*C*
Main Street / Exchange Drive[2]								
Westbound (Right Turn Only)	10.0	B	10.3	B	12.7	B	10.4	B
Exchange Drive / Commonwealth Drive[2]								
Westbound Left Turn	7.2	A	7.7	A	7.3	A	7.7	A
Northbound	8.4	A	9.4	A	8.8	A	9.3	A
Exchange Drive / Access 1[2]								
Eastbound Left Turn	7.2	A	7.5	A	7.3	A	7.8	A
Southbound	8.4	A	10.2	B	8.7	A	10.3	B

[1]Signalized Intersection
[2]Stop-Controlled Intersection
[3]Roundabout Intersection

Table 8. Future Build (Year 2027) Levels of Service (continued)

Intersection	Weekday Morning				Weekday Evening			
	Peak Hour of Street Traffic (8:00-9:00AM)		Peak Hour of Site Traffic (9:30-10:30AM)		Peak Hour of Street Traffic (4:30-5:30PM)		Peak Hour of Site Traffic (7:30-8:30PM)	
	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
Exchange Drive / Access 2[2]								
Eastbound Left Turn	7.2	A	7.5	A	7.3	A	7.4	A
Southbound	8.4	A	9.9	A	8.6	A	9.0	A
Exchange Drive / Access 3[2]								
Eastbound Left Turn	7.2	A	7.5	A	7.3	A	7.4	A
Southbound	8.4	A	9.2	A	8.6	A	9.6	A
Exchange Drive / Access 4[2]								
Eastbound Left Turn	7.2	A	7.4	A	7.2	A	7.4	A
Southbound	8.4	A	9.3	A	8.5	A	8.7	A
Exchange Drive / Access 5[2]								
Eastbound Left Turn	7.2	A	7.5	A	7.2	A	7.5	A
Southbound	8.9	A	10.4	B	9.1	A	9.8	A

[1]Signalized Intersection
[2]Stop-Controlled Intersection
[3]Roundabout Intersection

After completion of the proposed development, area traffic operation is expected to be largely similar to Future No-Build (Year 2027) conditions. The intersection LOS grade for Congress Parkway and Pingree Road is projected to change from LOS D under no-build conditions to a LOS E during the evening peak hour of adjacent street traffic due to additional delay on the eastbound approach. As stated earlier in this report, the City should monitor this approach for future congestion as pandemic recovery continues to determine whether a second left-turn lane may be a beneficial improvement at this intersection. No other level of service changes are projected to occur after the addition of site traffic.

At the intersection of Main Street and Congress Parkway, the westbound 95th percentile queue is projected to be 386 feet long during the evening peak hour of adjacent street traffic. With 360 feet of storage on Congress Parkway between Main Street and Commonwealth Drive, a queue of this length would be expected to extend into the intersection of Congress Parkway and Commonwealth Drive by approximately one vehicle length. This projected queue length can be attributed to the fact that all site traffic departing to the south on Main Street must make a left turn from westbound Congress Parkway, since no left turns from Exchange Drive onto Main Street were included in the scenario presented in Table 8. If these westbound left turns from Exchange Drive onto Main Street were permitted and all site-related traffic heading south on Main Street routed via this permitted movement, the westbound 95th percentile queue on Congress Parkway at Main Street would be projected at 360 feet long, fitting within the available spacing between Main Street and Commonwealth Drive. Capacity analysis results at the

intersection of Main Street and Exchange Drive under this right-in/right-out/left-out configuration are shown in **Table 9** below.

**Table 9. Future Build (Year 2027) Levels of Service –
Main Street/Exchange Drive Alternate with Westbound Left Turns Permitted**

Intersection	Weekday Morning				Weekday Evening			
	Peak Hour of Street Traffic (8:00-9:00AM)		Peak Hour of Site Traffic (9:30-10:30AM)		Peak Hour of Street Traffic (4:30-5:30PM)		Peak Hour of Site Traffic (7:30-8:30PM)	
	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
Main Street / Exchange Drive[1]								
Westbound (Left Turns Allowed)	15.0	C	19.1	C	39.9	E	20.6	C
[1]Stop-Controlled Intersection								

As shown above, the westbound approach of Exchange Drive at Main Street is expected to operate at LOS C during most peak hours if westbound left turns are permitted. The one exception is during the evening peak hour of adjacent street traffic, when traffic volumes on Main Street are at their highest volume. During this peak hour, westbound Exchange Drive is projected to operate at LOS E. It can be noted that it is not atypical for minor-leg stop-controlled approaches to experience this level of delay at intersections with arterial roadways, and an evaluation of projected future traffic volumes at the Main Street/Exchange Drive intersection reveal that a new traffic signal is not expected to be warranted. With a projected 95th percentile westbound queue of only 1.2 vehicle lengths during this peak hour, it is expected that traffic operation would be generally satisfactory at the intersection of Main Street and Exchange Drive if westbound left turns were permitted. Based on these results and a high-level review of available sight distance, Sam Schwartz did not identify any reasons to prohibit westbound left turns at this location. As noted previously, a single westbound approach lane was assumed for these analyses and is recommended in order to better reinforce the restriction against southbound left turns, since unnecessary pavement width on Exchange Drive could increase drivers' comfort performing illegal left turns at this location.

Elsewhere in the study area, it can be noted that future traffic operation is expected to be satisfactory, including at the new intersection of Exchange Drive and Commonwealth Drive and all site access intersections.

Based on discussions with City staff, the relative increase in existing traffic volume at the intersection of Congress Parkway and Exchange Drive as a result of the proposed development during each of the peak hours was quantified, as shown in **Table 10** on the following page. Table 10 also shows the average relative increase in traffic volumes across the four study peak hours for use in discussing a fair-share contribution toward the cost of constructing a roundabout at this location.

Table 10. Projected Traffic Volume Increase at Congress Parkway & Exchange Drive due to Proposed Development

Peak Hour	Total Intersection Traffic Volume (Vehicles per Hour)		Percent Increase
	Existing	Existing + Industrial Development	
Weekday Morning Peak Hour of Street Traffic (8:00-9:00AM)	521	521	0.0%
Weekday Morning Peak Hour of Site Traffic (9:30-10:30AM)	618	758	22.7%
Weekday Evening Peak Hour of Street Traffic (4:30-5:30PM)	1,030	1,060	2.9%
Weekday Evening Peak Hour of Site Traffic (7:30-8:30PM)	449	609	35.6%
Average	**655**	**737**	**12.5%**

04. Recommendations and Conclusions

Based on the assumptions and analyses detailed in this report, the following recommendations should be implemented as part of the proposed development project:

- The extension of Exchange Drive through the site should provide a single travel lane in each direction. A 30 MPH speed limit should be posted in the east- and westbound directions, particularly near the new intersection with Main Street.
- On Commonwealth Drive between Exchange Drive and Congress Parkway, 30 MPH signage should be posted to reinforce City code.
- At Main Street/Exchange Drive:
    - Provide a dedicated northbound right-turn lane with channelization.
    - Provide a single westbound lane for left- and right-turn maneuvers.
    - Post minor-leg stop control for westbound traffic.
    - Post No Left Turn (R3-2) signage for southbound traffic in accordance with MUTCD standards.
- At Exchange Drive/Commonwealth Drive:
    - Provide separate left- and right-turn lanes on the northbound approach.
    - Post minor-leg stop control for northbound Commonwealth Drive.
- Post minor-leg stop control at all site access driveways to Exchange Drive.

With implementation of the above recommendations, it is anticipated that area traffic operation would be generally acceptable after completion of the subject development and that the impact of site-related traffic would be mitigated.