#PLN-2021-133
95 E. Crystal Lake Ave – Preliminary PUD
Project Review for Planning and Zoning Commission

Meeting Date:	December 15, 2021
Request:	Preliminary planned unit development review for a 99-unit multi-family residential development.
Location:	95 E. Crystal Lake Ave
Acreage:	Approximately 4.8 acres
Zoning:	B-4 – Mixed-Use Business
Surrounding Properties:	North: B-4 – Mixed-Use Business South: R-3B PUD – Multi-Family Residential PUD East: M – Manufacturing West: M-L & R-3A – Manufacturing Limited & Two-Family Residential
Staff Contact:	Kathryn Cowlin (815.356.3798)

Background:

- The site is the former Hines Lumber property.
- The site was previously approved for the Hummel project, a 6-story mixed-use development including 170 condominium units and 14,248 square feet of commercial space.
- A number of conceptual PUD reviews have been conducted by the Planning & Zoning Commission and City Council for this property. Most recently, the petitioners presented a conceptual plan illustrating a multi-family residential development for the subject property. The conceptual received favorable feedback.

Development Analysis:

LAND USE/ZONING

- The site is currently zoned B-4 Mixed-Use Business. Residential developments are permitted in this zoning district with a Planned Unit Development approval.
- The petitioner is requesting variations from the rear yard setback, height restriction, interior parking lot landscaping requirements, signage allowance and growth management requirement in conjunction with the Planned Unit Development.

GENERAL

- The project proposal includes two residential housing types. A 48-unit apartment building and 51 townhome rental units.
- The apartment building would include studio, one and two-bedroom units. There is 1,200 square feet of amenity space included within the building for the residents. The amenity space would be located on the first floor of the building at the corner of the intersection to mimic first floor commercial retail space.
- The townhome units would be a mix of two and three-bedroom units and include a two-car garage for each unit.
- There are a total of ten buildings, one apartment style building and nine townhome style buildings.
- The proposed apartment building is four stories and 49.5 feet in height. The allowable height for the B-4 Mixed-Use zoning district is three stories and 36 feet in height.
- The proposed site plan complies with the B-4 Mixed-Use zoning district dimensional standards except for the 20-foot rear yard setback, which is proposed at 16 feet.

SITE LAYOUT

- The proposed apartment building would be located along Crystal Lake Avenue and Main Street with a reduced setback in order to continue the Downtown Crystal Lake standard. The townhome buildings would be located at the south end of the property and fronting Main Street.
- A full access driveway would be allowed on Crystal Lake Avenue and a right-in/right-out entrance would be allowed on Main Street.
- The petitioner is proposing a mix of residential building types to meet market demands and address the parking requirements.

TRAFFIC IMPACT STUDY

- A traffic impact study was conducted by CivilTech for the proposed project.
- The development traffic was incorporated into the intersection design and built to accommodate development at the subject property.
- Based on the proposed development plans, the following conclusions and recommendations were provided by the consultant:
    - The roadway system surrounding the proposed site, and the intersection of Crystal Lake Avenue and Main Street, have sufficient reserve capacity in the Total traffic conditions and can accommodate the development of the site.

- At the north site access driveway, a "Do Not Block Driveway" sign is recommended for eastbound traffic along Crystal Lake Avenue to reduce the chances that access to and from the site will be hindered by eastbound queues on Crystal Lake Avenue.
- The right-in/right-out access drive on Main Street will operate satisfactorily.

PARKING

- Surface parking would be utilized for the apartment building.
- Two-car garages are proposed for the townhome units and surface parking would be provided for guests.
- Based on the current proposal, 144 parking spaces would be required for the residential units and 183 spaces are provided.

LANDSCAPE PLAN/PLACEMAKING

- The proposed landscape plan includes foundation landscaping, perimeter parking lot landscaping and overall site landscaping.
- Landscaping is provided along the boundaries of the property. In order to further enhance the plan, staff has recommended adding curved beds and landscaping along Main Street.
- The proposed project includes private green spaces for the residents to gather, an outdoor seating area to buffer the parking lot from the street and indoor amenities. The green space is accessible to all residents with the placement of sidewalks throughout the site.
- Near the corner of Crystal Lake Avenue and Main Street, a Downtown Crystal Lake Directory/kiosk is proposed. This feature will help tie the property into downtown.

ELEVATIONS

- Architectural details are carried over between the two building styles for a unified development.
- The building materials include brick and fiber cement siding, which are materials found in other Downtown developments.
- Flat projecting canopies are proposed for the apartment building similar to existing buildings along Main Street to the south of the subject property.
- The following accents are provided throughout the development:
  - Covered entries,
  - Canopies,
  - Projecting eaves,
  - Thick window trim,

- Gable brackets,
- Varying window sizes, and
- A mix of horizontal and board and batten siding.

- The elevations meet the UDO design standards for multifamily residential design.

SIGNAGE

- Two wall signs are proposed on the apartment building. The square footage complies with the UDO standard of being four square feet.
- Two freestanding signs are proposed on the site. The height and sign area comply with the UDO standards of four feet and 16 square feet, respectively.

Findings of Fact:

PRELIMINARY PLANNED UNIT DEVELOPMENT

The petitioner is requesting approval of a Preliminary Planned Unit Development for a 99-unit multi-family residential development. 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 Residential PUDs.

a. Location: A residential PUD can be located anywhere in the City, including any land proposed for annexation.
   ☐ *Meets* ☐ *Does not meet*

b. Permissible uses: A mix of different residential dwelling types in proximity to each other is encouraged. Neighborhood commercial uses serving the development may be approved as part of a residential PUD where appropriate.
   ☐ *Meets* ☐ *Does not meet*

c. Nonresidential uses: Any nonresidential use permitted in a residential PUD shall be compatible with the residential nature of the development. Parking areas which are intended to serve nonresidential uses shall be separated from those designed to serve residential areas. Unless commercial and residential uses are combined within a single structure, commercial uses shall be separated from dwelling units by a heavily landscaped buffer zone that meets the requirements of Section 4-400, Landscaping and screening standards.
   ☐ *Meets* ☐ *Does not meet*

d. Pedestrian paths: Pedestrian paths shall connect residential uses and nonresidential uses within a residential PUD.
   ☐ *Meets* ☐ *Does not meet*

e. Growth management: A growth management schedule shall be provided to and approved by the City Council, which indicates the number and type of residential units to be constructed in each calendar year. The maximum number of units to be constructed shall be 25 residential units or 15% of the total number of residential units (including all phases of the proposal), whichever is greater, in any calendar year. The City Council with recommendations from the

Planning and Zoning Commission, at final PUD approval can approve, deny or adjust the percentage of an increase in the number of units that can be built in one calendar year. The City Council and the Planning and Zoning Commission shall consider the following criteria in approving an increase in the number of units that can be built annually:

i. Advance dedication of school and park sites and advance payment of school, park and other impact fees;
☐ *Meets* ☐ *Does not meet*

ii. Payment for installation of road impact improvements or fees applicable by law;
☐ *Meets* ☐ *Does not meet*

iii. Smaller subdivisions which encourage in-filling within an established part of the community;
☐ *Meets* ☐ *Does not meet*

iv. Completion of major and collector road networks and critical linkages in the street systems;
☐ *Meets* ☐ *Does not meet*

v. Fulfill a need for various unit types and income levels such as low and moderate-income housing;
☐ *Meets* ☐ *Does not meet*

vi. Provisions which satisfy needed public facilities;
☐ *Meets* ☐ *Does not meet*

vii. Innovative architectural design, quality of exterior materials and creative use of landscaping;
☐ *Meets* ☐ *Does not meet*

viii. Other criteria or extraordinary amenities, not listed above, which may meet the development goals of the City.
☐ *Meets* ☐ *Does not meet*

PRELIMINARY PLANNED UNIT DEVELOPMENT – Planned Unit Development Variation

The petitioner is requesting approval of a Preliminary Planned Unit Development to allow variations for front yard setbacks, yard abutting residential and additional signage. 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 Amendment proposed by the Petitioner includes the following variations from the UDO:

1. Article 3-200(B)(4) Rear yard setback of 20 feet to allow a 16-foot setback for townhomes.

2. Article 3-200(B)(4) Principal Structure height of 36 feet and three stories to allow an overall height of 49.5 feet for the apartment building and four stories.

3. Article 4-500(D)(1)(e) Growth management requirement of 25 residential units or 15% of the total number of residential units in a calendar year to allow construction of the full site.

4. Article 4-400(F)(1)(a) Interior landscape for parking lots to allow for the parallel parking spaces and apartment building parking lot to not have landscape islands.

5. Article 4-1000(D)(2) Signs:

    a. To allow two freestanding signs and
    b. Two four square-foot wall signs.

The proposed development is an infill development in Downtown Crystal Lake. Due to the location and unique property shape, a reduced rear yard setback allows for more usable green space between the townhome units.

The proposed height of the apartment building is reduced from previously approved projects and would complement the character of the Downtown District.

The City has the ability to grant an increase in the annual percentage of total development of a project if factors are met. The following review criteria apply to the proposed project:

- Advance dedication of school and park sites and advance payment of school, park and other impact fees. *(The apartment building is 48-units and greater than the allowed growth management requirement, fees would be paid at time of permit.)*

- Smaller subdivisions which encourage in-fill development within an established part of the community. *(The proposed development is a Planned Unit Development which is classified as a subdivision per the UDO, this project is a smaller property and is an in-fill development.)*

The reduction in landscape islands allows for additional parking spaces to accommodate guest parking for the residential development.

Comprehensive Land Use Plan 2030 Vision Summary Review:

The Comprehensive Plan designates the subject property as Urban Residential, which allows for existing and future single-family residential uses. The following goal is applicable to this request:

Land Use - Residential

Goal: Encourage a diversity of high quality housing in appropriate locations throughout the city that supports a variety of lifestyles and invigorates community character.

This can be accomplished with the following supporting action:

Supporting Action: Preserve and enhance the character and livability of existing residential area with architectural and development guidelines. Promote safe, clean and well-maintained housing by encouraging regular repair and maintenance of housing.

Recommended Conditions:

If a motion to recommend approval of the petitioner's request is made, the following conditions are recommended:

1. Approved plans, reflecting staff and advisory board recommendations, as approved by the City Council:
   A. Application (Hamilton Partners, dated 04/13/2021, received 04/20/2021)
   B. Plat of Survey (Terra Technology Land Surveying, Inc., dated 07/15/2021)
   C. Preliminary Site Plan (BSB Design, dated 12/08/2021)
   D. Preliminary Engineering Plan (RWG Engineering LLC, dated 11/18/2021)
   E. Sight Line Exhibit (BSB Design, dated 12/06/2021)
   F. Preliminary Stormwater Management Report (RWG Engineering LLC, dated 09/21/2021)
   G. Preliminary Sign Plan (BSB Design, dated 11/19/2021)
   H. Preliminary Landscape Plan (Dickson Design Studio, dated 12/06/2021)
   I. Colored Renderings (BSB Design, dated 11/19/2021)
   J. Preliminary Elevations & Floor Plans (BSB Design, dated 12/08/2021)
   K. Traffic Study (CivilTech, dated 09/30/2021)

2. Site Plan/Landscape Plan:
   A. Add a stamped concrete or pavers to the internal drive intersection to complement the downtown character.
   B. An acceptable alternative to the fountain in the courtyard is a larger landscape planter.

C. Work with staff to add accents to the courtyards between Buildings F and G Buildings and E and D similar to the courtyard between H and I. The courtyards should have a larger seasonal planter and a plaza element. This will be dependent on the stormwater requirements.

D. Add curved bedlines along the apartment building foundation and additional plantings along Main Street to provide privacy to the residents and help accent the development.

E. Add bicycle parking near the apartment building.

3. Architecture:
   A. Utilize the enhanced side elevation for Building B.

   B. Increase the depth of the townhome front porches one additional foot as agreed in the Memo to Staff dated 12/06/2021.

   C. Add brick to the base of the porch columns for the townhomes facing Main Street as agreed in the Memo to Staff dated 12/06/2021.

   D. Add brackets under the eaves at the corners of the apartment building as agreed in the Memo to Staff dated 12/06/2021.

   E. Add a parapet to the eastern elevation of the apartment building as agreed in the Memo to Staff dated 12/06/2021.

4. Engineering Plan:
   A. Work with staff to finalize easement locations for municipal utilities and resolve any conflicts between easements and landscaping.

   B. Work with staff on final water and sanitary sewer utility locations.

   C. Address the comments of the Stormwater Consultant to verify the basin at the southeast corner of Crystal Lake Avenue and Main Street and storm sewer system can accommodate the proposed development.

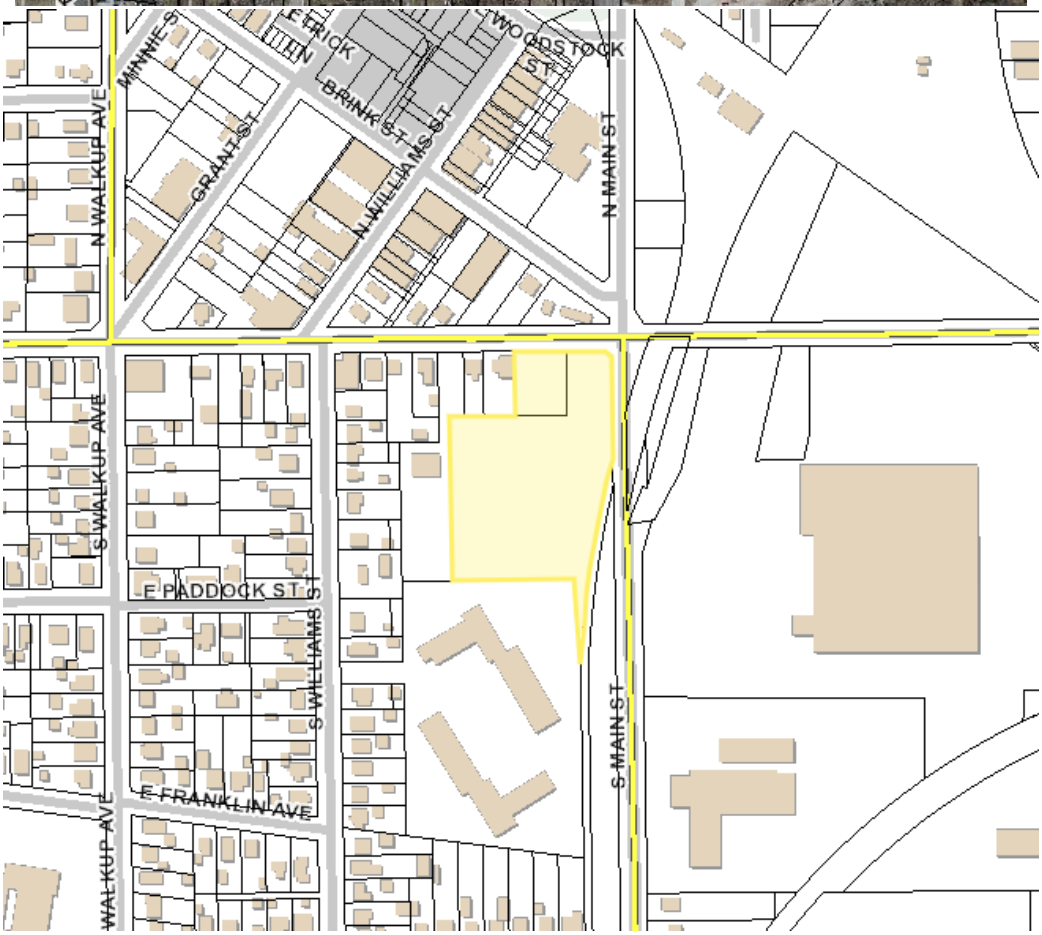
   D. At the north site access driveway, a "Do Not Block Driveway" sign is recommended for eastbound traffic along Crystal Lake Avenue to reduce the chances that access to and from the site will be hindered by eastbound queues on Crystal Lake Avenue.

5. Provide a photometric and lighting plan for Final Planned Unit Development that complies with the lighting requirements of the UDO.

6. The petitioner shall address all of the review comments and requirements of the Community Development, Public Works, and Fire Rescue Departments, as well as the City's Stormwater Consultant, Christopher B. Burke Engineering and Planning Consultant, Teska Associates.

PIQ MAP – 95 E. CRYSTAL LAKE AVE – PRELIMINARY PUD





City of Crystal Lake Development Ap

Office Use Only
File # _____

Project Title: 95 E. Crystal Lake Avenue - Crystal Lake, IL 60014

Action Requested

- ___ **Annexation**
- ___ **Comprehensive Plan Amendment**
- ___ **Conceptual PUD Review**
- ___ **Final PUD**
- ___ **Final PUD Amendment**
- ___ **Final Plat of Subdivision**
- ✓ **Preliminary PUD**
- ___ **Preliminary Plat of Subdivision**
- ___ **Rezoning**
- ___ **Special Use Permit**
- ___ **Variation**
- ___ **Other**

Petitioner Information

Name: Timothy G. Beechick / Hamilton Partners

Address: 1130 Lake Cook Road - #190

Buffalo Grove, IL 60089

Phone: 847-459-9225

Fax: 847-459-8918

E-mail: tbeechick@hpre.com

Owner Information (if different)

Name: First Midwest Bank - Amanda Panozzo

Address: 8750 W. Bryn Mawr - Suite #1300

Chicago, IL 60631

Phone: 708-576-7148

Fax: 708-398-3577

E-mail: amanda.panozzo@firstmidwest.com

Property Information

Project Description: The property is 4.608 acres of vacant land located at the SW corner of Crystal Lake Avenue and Main Street, formerly housing the business of Hines Lumber Yard. The proposed use would be for multi-family use with the development of a rental community containing a 4-story apartment building with 48 units along with 51 townhomes for a total of 99 rental units.

Project Address/Location: 95 Crystal Lake Avenue - Crystal Lake, IL 60014

Located at the Southwest corner of Crystal Lake Avenue and Main Street in Crystal Lake

PIN Number(s): 19-05-228-051 / 19-05-228-062

Development Team

Please include address, phone, fax and e-mail

Developer: Hamilton Partners and Harlem Irving Companies

Architect: BSB Design Inc 220 N. Smith - St. #210-Palatine, IL 60067 / Joe Safin - jsafin@bsbdesign.com 847-776-3293

Attorney: Zanck Coen Wright and Saladin PC -40 Brink St.,Crystal Lake,IL 60014 / Mark Saladin-msaladin@zcwlaw.com 815-459-8800

Engineer: RWG Engineering, Ltd. -975 E 22nd St, Wheaton, IL 60189/Bob Gudmundson-rwg@rwg-engineering.com 630-774-9301

Landscape Architect: Dickson Design Studio 526 Skyline Dr, Algonquin,IL 60102 / Sharon Dickson-sdickson@dicksondesignstudio.com - 847-878-4019

Planner: BSB Design Inc. 220 N. Smith, #210,Palatine, IL 60067-Joe Safin-jsafin@bsbdesign.com 847-776-3293

Surveyor: Terra Technology Land Surveying Inc. 24198 Rose Ave,Lake Zurich, IL 60047/TTLS.1@sbcglobal.net 847-540-8606

Other:

Signatures

Hamilton Partners / Timothy G. Beechick 11/19/2021

PETITIONER: Print and Sign name (*if different from owner*) **Date**

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

Amanda L. Panozzo, VP, First Midwest Bank DocuSigned by: Amanda L. Panozzo 0C7690922B084B0... 11/19/2021

OWNER: Print and Sign name **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.

Northwest Herald

NORTHWEST HERALD

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Notice Content

PUBLIC NOTICE BEFORE THE PLANNING AND ZONING COMMISSION OF THE CITY OF CRYSTAL LAKE, MCHENRY COUNTY, ILLINOIS IN THE MATTER OF THE PETITION OF HAMILTON PARTNERS & HARLEM IRVING 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 Hamilton Partners & Harlem Irving, for a Preliminary Planned Unit Development, located at 95 E. Crystal Lake Avenue, Crystal Lake, Illinois 60014. PIN:19-05-228-061 & 19-05-228-062. This application is filed for the purpose of seeking a Preliminary Planned Unit Development Approval allowing a 99-unit apartment and rental townhome development with variations to allow for a 16-foot rear yard setback, a variation of four feet; 49.6-foot maximum building height and four stories, a variation of 13.6 feet and one story; variation from the interior parking lot landscape island requirement; variation for freestanding and wall signage; and construction of greater than 15-units per calendar year, a variation to the growth management allowance for residential PUDs and any other variations as necessary to approve the plans as presented, pursuant to Article 3, Article 4, 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 December 15, 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 on November 25, 2021)1939460

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Illinois Department of
Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
http://dnr.state.il.us

JB Pritzker, Governor
Colleen Callahan, Director

June 30, 2021

Melissa Rekasius
Hamilton Partners, Inc.
1130 W. Lake Cook Road
Buffalo Grove, IL 60089

RE: Crystal Lake Residential
Project Number(s): 2115196 [630]
County: McHenry

Dear Applicant:

This letter is in reference to the project you recently submitted for consultation. The natural resource review provided by EcoCAT identified protected resources that may be in the vicinity of the proposed action. The Department has evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 is terminated.

This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, you must comply with the applicable statutes and regulations. Also, note that termination does not imply IDNR's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this review.

Adam Rawe

Adam Rawe
Division of Ecosystems and Environment
217-785-5500

ILLINOIS
DEPARTMENT OF NATURAL RESOURCES

Illinois Department of **Natural Resources**

JB Pritzker, Governor
Colleen Callahan, Director

www.dnr.illinois.gov

Mailing address: State Historic Preservation Office, 1 Old State Capitol Plaza, Springfield, IL 62701

McHenry County
Crystal Lake
SW of Crystal Lake Ave. & Main St.
IEPA, RWG-630-005-21
*New construction, mixed-use residential development

PLEASE REFER TO: SHPO LOG #006062921

July 21, 2021

Melissa Rekasius
RWG Engineering, LLC
975 East 22nd Street, Suite 400
Wheaton, IL 60189

Dear Ms. Rekasius:

The Illinois State Historic Preservation Office is required by the Illinois State Agency Historic Resources Preservation Act (20 ILCS 3420, as amended, 17 IAC 4180) to review all state funded, permitted or licensed undertakings for their effect on cultural resources. Pursuant to this, we have received information regarding the referenced project for our comment.

Our staff has reviewed the specifications under the state law and assessed the impact of the project as submitted by your office. We have determined, based on the available information, that no significant historic, architectural or archaeological resources are located within the proposed project area.

According to the information you have provided concerning your proposed project, apparently there is no federal involvement in your project. However, please note that the state law is less restrictive than the federal cultural resource laws concerning archaeology. If your project will use federal loans or grants, need federal agency permits, use federal property, or involve assistance from a federal agency, then your project must be reviewed under the National Historic Preservation Act of 1966, as amended. Please notify us immediately if such is the case.

This clearance remains in effect for two (2) years from date of issuance. It does not pertain to any discovery during construction, nor is it a clearance for purposes of the IL Human Skeletal Remains Protection Act (20 ILCS 3440).

Please retain this letter in your files as evidence of compliance with the Illinois State Agency Historic Resources Preservation Act.

If further assistance is needed please contact Jeff Kruchten, Chief Archaeologist at 217/785-1279 or Jeffery.kruchten@illinois.gov.

Sincerely,

Carey L. Mayer

Carey L. Mayer
Deputy State Historic
Preservation Officer

DATE: September 21, 2021
PROJECT NUMBER: 630-005-21

Detention Sizing for Crystal Lake Residential

The detention for the Crystal Lake Residential project will be provided in an existing basin on the east side of Main Street. Typically, the County nomograph could be used to determine the volume required. However, the nomograph has not been updated to incorporate the updated Bulletin 75 rainfall data. As such, a hypothetical basin was modeled to determine how much detention is necessary using current rainfall data and a dual restrictor maintaining the allowable 2-year release rate at 0.04 cfs/ac and the allowable 100-year release rate at 0.15 cfs/ac. The results are in the attached report and show a required 100-year volume of 97,093 CF (2.23 ac-ft) at the allowable release rate of 0.69 cfs for the 100-year storm event. For comparison, when we used the old nomograph with the out-of-date Bulletin 70 rainfall as a barometer, we came up with 1.75 ac-ft required. The increase in detention volume requirement of 0.48 ac-ft (ie 2.23 ac-ft minus 1.75 ac-ft), which is a 27% increase, is basically in line with the rainfall data modification between the old Bulletin 70 and the new Bulletin 75.

CIVILTECH

Civiltech Engineering, Inc.
www.civiltechinc.com

Two Pierce Place, Suite 1400
Itasca, IL 60143
Phone: 630.773.3900
Fax: 630.773.3975

30 N LaSalle Street, Suite 3220
Chicago, IL 60602
Phone: 312.726.5910
Fax: 312.726.5911

Transportation Design

Traffic Engineering

Civil Engineering

Construction Engineering

Environmental Studies

Water Resources

Structural Design

Right of Way

Urban Design

Transportation Planning

Program Management

Technical Memorandum

Date: September 30, 2021

To: Ms. Abigail Wilgreen, P.E.
City Engineer
City of Crystal Lake

From: Anmol Shrivastava, P.E., PTOE
James R. Woods, P.E., PTOE
Civiltech Engineering, Inc.

Re: 95 E. Crystal Lake Avenue TIS
Southwest Quadrant of Crystal Lake Avenue and Main Street

Civiltech Engineering, Inc. is retained by the City of Crystal Lake to perform a traffic impact study (TIS) for the redevelopment of a 4.6-acre property located on the southwest quadrant of the intersection of Main Street and Crystal Lake Avenue, in the City of Crystal Lake. Previously, Hines Lumber Company owned the site, however, their buildings were closed and demolished sometime between 1999 and 2002, and the property has remained vacant since that time.

Exhibit 1 is a map showing the location of the proposed site in relation to the area roadway system. **Exhibit 2** is an aerial photograph showing the existing conditions at and adjacent to the proposed site. See **Exhibit 3** for a proposed site plan.

The purpose of this study is to examine existing traffic conditions adjacent to the proposed site, assess any impacts that the proposed development will have on traffic conditions, and determine if any roadway improvements are necessary to accommodate traffic generated by the proposed redevelopment. This memorandum contains the following:

- A description of the study area and proposed development
- A trip generation, distribution and assignment analysis
- A determination of existing traffic conditions
- An analysis of traffic conditions on the adjacent roadway network with site-generated traffic
- An analysis of the proposed site access intersections
- Conclusions and recommendations

I. EXISTING CONDITIONS

The proposed site consists of a mix of residential uses on the site, with 51 townhome units and 42 rental apartment units. The townhome units are proposed as nine three-story row-style buildings with five to six units per building.

The apartment units are proposed to be constructed within a single four-story building located on the northeast portion of the site. Primary access to the site is proposed via a full access driveway located approximately 165 feet west of Main Street along Crystal Lake Avenue. Secondary access would be provided via a proposed right-in/right-out driveway located on Main Street approximately 240 feet south of the Crystal Lake Avenue intersection.

The land uses in the immediate area of the site are primarily retail/commercial, and residential. Existing land development near the site includes:

- Willow Creek Community Church to the southeast of the Crystal Lake Avenue/Main Street intersection
- Northwest Suburban Real Estate and Residential area to the southwest of the intersection
- Mobil Gas Station and Metro Bowl in the northwest quadrant of the intersection
- Crystal Lake Bank and Crystal Lake Metra Station to the northeast of the intersection

A. Existing Roadway System Characteristics

Crystal Lake Avenue is generally a two-lane minor arterial that has an east/west orientation. The roadway is under the jurisdiction of the City of Crystal Lake. At its intersection with Main Street, Crystal Lake Avenue provides one exclusive left-turn lane, a through lane, and one exclusive right-turn lane on the west approach and provides one exclusive left-turn lane and one shared through/right-turn lane on the east approach. Crystal Lake Avenue has a posted speed limit of 30 mph. It carries an average daily traffic (ADT) volume of about 7,100 to 9,500 veh/day within the project area. Crystal Lake Avenue has an at-grade crossing of an abandoned rail line approximately 120 feet east of Main Street.

Main Street is a two-lane north/south-oriented minor arterial south of Crystal Lake Avenue and a major collector north of Crystal Lake Avenue under the jurisdiction of the City of Crystal Lake. At its intersection with Crystal Lake Avenue, there is one exclusive left-turn lane, two through lanes, and one exclusive right-turn lane on the south approach and one exclusive left-turn lane, a through lane, and one shared through/right-turn lane on the north approach. Main Street has a posted speed limit of 40 mph on the south approach and 30 mph on the north approach, and carries an average daily traffic (ADT) volume of 11,200 to 16,300 veh/day. The McHenry County Conservation District's Prairie Trail runs north-south along the west side of Main Street in the project area. It currently crosses the west and north legs of the Main Street/Crystal Lake Avenue intersection.

The existing roadway network configurations and traffic control in the vicinity of the proposed site are shown on **Exhibit 4**.

B. Existing Traffic Conditions

In order to quantify current traffic conditions in the vicinity of the site, 24-hour traffic counts were conducted using Miovision Video Collection Units (VCUs) at the intersection of Crystal Lake Avenue and Main Street.

The traffic counts were conducted over the entire day (midnight to midnight) on Thursday, September 9, 2021 and Saturday, September 11, 2021. The results of the traffic counts showed that the weekday morning peak hour of traffic occurs from 7:15 A.M. to 8:15 A.M., the weekday evening peak hour of traffic occurs from 4:45 P.M. to 5:45 P.M., and the Saturday midday peak hour occurs from 11:15 A.M. to 12:15 P.M. The existing peak hour traffic volumes are summarized on **Exhibit 5**. The raw traffic count data for the Crystal Lake Avenue and Main Street intersection are contained in **Appendix B**. Existing traffic signal timings for the intersection were obtained from the City of Crystal Lake, which showed that the traffic signal at this intersection functions as an uncoordinated signal. This essentially means that the traffic determines the cycle lengths during the A.M. peak hour, P.M. peak hour, and the Saturday midday peak hour.

II. TRAFFIC CHARACTERISTICS OF THE PROPOSED DEVELOPMENT

In order to evaluate future traffic conditions in the surrounding area, it was necessary to determine the traffic characteristics of the proposed development, including estimating the directional distribution and volumes of traffic that it will generate.

A. Proposed Development Plan

See **Exhibit 3** for the proposed site plan, dated April 26, 2021. The proposed site consists of a mix of residential uses on the site, with 51 townhome units and 42 rental apartment units. The townhome units are proposed as nine three-story row-style buildings with five to six units per building. The apartment units are proposed to be constructed within a single four-story building located on the northeast portion of the site. Access to the site is proposed to be provided via the following:

- One access drive located on Crystal Lake Avenue approximately 165 feet west of Main Street. This driveway is proposed to be full access.
- A second access roadway located along Main Street located approximately 240 feet north of Crystal Lake Avenue. This intersection with Main Street would be provided via a proposed right-in/right-out driveway.

B. Estimate of Site-Generated Trip Distribution

The distribution of development-generated trips on the roadway system is a function of several variables. While the location of the development relative to residential development and other retail and business uses is primary in determining a driver's ultimate direction of travel, the operational characteristics of the surrounding roadway system and the ease with which drivers can enter and exit the site and travel over various sections of the roadway system without encountering congestion is more important in determining how trips will enter and exit the site. For this study, we have assumed that trips generated by the proposed site will generally follow the same magnitudes and patterns as existing traffic. There are no known additional new developments either under construction or proposed in the area that would result in a significant change in the existing traffic patterns. **Exhibit 6** shows the estimated trip distribution percentages for vehicles destined to and from the site.

C. Estimated Site Traffic Generation

A Traffic Impact Study projects future traffic conditions and recommends methods to offset the impacts of the anticipated increase in traffic volumes due to land development. The volume of traffic generated by a development is based on the type of land use and the size of the development. These trip generation estimates are typically completed with the aid of the publication *Trip Generation, 10th Edition,* published by the Institute of Transportation Engineers (ITE). *Trip Generation* provides average trip generation rates representing weighted averages of traffic counts and studies collected from various land uses throughout the United States and Canada since the 1980's. **Table 1** summarizes the peak hour traffic estimated to be generated by the development based on the rates contained in the ITE *Trip Generation* Manual. The following land uses were considered for the proposed residential development:

- Single-Family Detached Housing
- Multifamily Housing (Mid-Rise)

Copies of the relevant *Trip Generation* pages are provided for reference in **Appendix C**. For this study, the peak hour of the land use (adjacent street traffic) was used to determine the number of trips generated by the proposed development for the weekday morning and evening peak hours and the peak hour of the land use (generator) was used to for Saturday midday peak hour.

Table 1: Projected Site-Generated Traffic Volumes

ITE Land Use Code	Land Use	Dwelling Units	Weekday Total		Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
			In	Out	In	Out	In	Out	In	Out
			Total		Total		Total		Total	
210	Single-Family Detached Housing	51	280	280	10	30	35	20	35	30
			560		40		55		65	
221	Multifamily Housing (Mid-Rise)	42	115	115	5	10	10	10	10	15
			230		15		20		25	
Total Trips Generated			**395**	**395**	**15**	**40**	**45**	**30**	**45**	**45**
TOTAL			**790**		**55**		**75**		**90**	

As shown in the above table, the development is predicted to add between 55 and 90 new trips to the roadway network during the three peak hours analyzed. On average, this is only one new vehicle every 40 seconds to one minute during the peaks analyzed.

The additional trips anticipated to be generated by the proposed development as shown in **Table 1** were distributed on the roadway network based on the percentages shown on **Exhibit 6**. **Exhibit 7** shows the site-generated trips.

D. Adjustment for Pass-By Trips

Since Pass-by Trips only generally apply to commercial/retail developments, these were not analyzed for this study.

E. Total Traffic

The site-generated trips shown **Exhibit 7** were then added to the existing traffic shown in **Exhibit 5**. The resulting existing plus site-generated (i.e., total) traffic volumes are shown in **Exhibit 8**. The total traffic volumes were then used in the traffic analyses for the proposed development.

II. TRAFFIC ANALYSIS

A. Auxiliary Turn Lane Evaluation

The proposed Right-In/Right-Out (RIRO) access to the development from Main Street was evaluated for the need to install an exclusive southbound right-turn lane from Main Street. The evaluation was based on the guidelines contained in Chapter 34, Section 3 of the Illinois Department of Transportation (IDOT) *Bureau of Local Roads and Streets (BLRS) Manual*, which also references the IDOT *Bureau of Design (BDE) Manual*. The full access intersection to the development along Crystal Lake Avenue was also evaluated for the need to install exclusive westbound left and eastbound right turn lanes based on the same guidelines. A summary of the geometric needs for these two driveway locations based on these guidelines is provided in **Table 2**.

Table 2. Auxiliary Turn Lane Evaluation Summary (Sections 36-3.01 to 36-3.04 of IDOT *BDE Manual*)

Intersection	Left Turn Lane Criteria (Fig. 36.3-G)				Right Turn Lane Criteria (Fig. 36-3.A)		
	Peak Turning Traffic Volumes (veh/hr)			Turn Lane Needed?	Peak Turning Traffic Volumes (veh/hr)		Turn Lane Needed?
	Left Turn	Advancing	Opposing		Right Turn	Total Appr.	
Main Street and RIRO Access	Left Turns Into the Site Not Permitted at This Location				15 (SB)	735 (SB)	No
Crystal Lake Avenue and Full Access	20 (WB)	445 (WB)	475 (EB)	No*	10 (EB)	475 (EB)	No

*Left-Turn treatment close to threshold of being warranted

Based on the findings shown in **Table 2**, a southbound right turn-lane is not needed at the RIRO access along Main Street. For the full access at Crystal Lake Avenue intersection, an eastbound right turn-lane is not needed. Additionally, there is no left turn lane required for westbound Crystal Lake Avenue as shown in **Table 2**. However, it should be noted that according to Figure 36.3-G, the left-turn lane treatment is predicted to be on the threshold of being warranted. If a left turn lane was installed, the standard design for a westbound left turn-lane would be 125 feet long and have a 155-foot taper to allow for deceleration from the 35 mph design speed along Crystal Lake Avenue. This would not be feasible given the proximity to the Main Street intersection, without significant widening of Crystal Lake Avenue which was just reconstructed.

B. Intersection Capacity Analyses

Traffic analyses were performed for the Crystal Lake Avenue/Main Street signalized intersection to evaluate exiting traffic operations at the intersection and to help evaluate the extent of the impacts of the proposed site development on existing traffic operations. Analyses were also performed for the two unsignalized site access intersections to evaluate the ease with which motorists will be able to enter and exit the site during peak hours of adjacent street traffic. Analyses were performed for the 2021 Existing and the Total traffic volumes during peak traffic hours. For the 2021 existing traffic analyses, the existing signal timings described previously were used to analyze the intersection operations. The current signal timings were assumed for Total traffic conditions analyses.

Traffic analyses in this study were performed using the methodologies in the Transportation Research Board's (TRB) *Highway Capacity Manual* (HCM) as implemented in the Highway Capacity Software (HCS 7) capacity analysis software package. This is the industry-standard method for evaluating the capacity of intersections at isolated locations.

Level-of-Service (LOS) is the most commonly used measure to describe the ability of an intersection to accommodate traffic flow and is characterized by the amount of control delay that the average motorist experiences for each traffic movement. Control delay is that portion of the total delay attributed to the traffic signal or stop sign control operation, and includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. LOS is assigned a letter grade from A to F based on the average control delay experienced by vehicles passing through the intersection. LOS A is the highest grade (best traffic flow and least delay), LOS E represents saturated or at-capacity conditions, and LOS F is the lowest grade (oversaturated conditions, extensive delays). The Highway Capacity Manual definitions for Levels-of-Service and the corresponding control delay for both unsignalized and signalized intersections are shown in **Table 3.** Level of Service "D" is typically the minimum LOS accepted by agencies in the Chicago region at signalized intersections. Levels of service below LOS D are not uncommon at unsignalized intersections or driveways during peak hours along urban and suburban arterials, and are sometimes unavoidable given the need to balance access to land with mobility on the major street network in urban and suburban areas.

Table 3: Level-of-Service Criteria

Unsignalized Intersections		
Level of Service	Average Control Delay (seconds per vehicle)	
A	0 - 10	
B	> 10 – 15	
C	> 15 – 25	
D	> 25 – 35	
E	> 35 – 50	
F	> 50 **or** volume to capacity (v/c) ratio ≥ 1.0	
Signalized Intersections		
Level of Service	Description	Avg. Control
A	Very good progression. Most vehicles arrive on green and proceed without stopping.	≤ 10
B	Good progression. Increased number of vehicles stopping.	> 10 – 20
C	At times, one or more vehicles may have to wait more than one signal cycle (cycle failure). Significant number of vehicles stopping, although many still pass through without stopping.	> 20 – 35
D	Volumes approaching capacity and either progression is not effective or cycle length is too long. Many vehicles stop and cycle failures are noticeable.	> 35 – 55
E	Poor Progression. High v/c ratio and long cycle length. Frequent cycle failures.	> 55 – 80
F	Very poor progression. Very high v/c ratio and long cycle lengths. Most signal cycles fail to clear vehicle queues.	≥ 80 **or** v/c ≥ 1.0

Source: Adapted from 2010 *Highway Capacity Manual*.

The capacity analyses results are summarized in **Table 4** for 2021 Existing traffic conditions and **Table 5** for Total traffic conditions. Summary reports from the HCS analyses are provided in **Appendix D**.

Table 4: Capacity Analysis Results – 2021 Existing Traffic Conditions

Intersection	Weekday AM Peak		Weekday PM Peak		Saturday Midday	
	LOS	Delay	LOS	Delay	LOS	Delay
Crystal Lake Avenue and Main Street						
Overall	B	18.6	C	25.3	C	23.9
Eastbound Approach	C	20.1	C	29.4	C	26.3
Westbound Approach	B	19.5	C	31.0	C	29.2
Northbound Approach	B	17.7	C	21.3	C	20.7
Southbound Approach	B	17.1	C	23.8	C	23.0

LOS = Level-of-Service. Delay reported in seconds per vehicle.

No approach or movement has a LOS of E or F except Southbound left movement which is LOS E.

Table 5: Capacity Analysis Results – Total Traffic Conditions

Intersection	Weekday AM Peak		Weekday PM Peak		Saturday Midday	
	LOS	Delay	LOS	Delay	LOS	Delay
Crystal Lake Avenue and Main Street						
Overall	B	18.8	C	26.3	C	25.1
Eastbound Approach	C	20.3	C	30.2	C	27.2
Westbound Approach	C	20.1	C	31.5	C	30.2
Northbound Approach	B	17.8	C	22.8	C	22.4
Southbound Approach	B	17.2	C	24.8	C	24.0
Crystal Lake Avenue and North Site Access						
Northbound Approach	B	11.4	C	16.0	B	13.0
Westbound Left Turn	A	8.1	A	8.6	A	8.3
Main Street and East Site Access						
Eastbound Approach	A	9.9	B	10.5	B	10.7

LOS = Level-of-Service. Delay reported in seconds per vehicle.

No approach or movement has a LOS of E or F except Southbound left movement at Crystal Lake Avenue and Main Street which is LOS E.

C. Queue Analysis

The queuing results are summarized in **Table 6** for 2021 Existing traffic conditions and **Table 7** for total traffic conditions. Summary reports from the HCS analyses are provided in **Appendix D**.

Table 6: Queuing Results – 2021 Existing Traffic Conditions

Intersection	Existing Storage Bay	95th Percentile Queue		
		Weekday AM Peak	Weekday PM Peak	Saturday Midday
Crystal Lake Avenue and Main Street				
Eastbound Left	165	5	15	25
Eastbound Right	165	90	175	190
Westbound Left	395	20	70	65
Northbound Left	290	60	225	200
Northbound Right	130	5	50	35
Southbound Left	130	35	55	45

Storage Bay Lengths and Queues reported in feet.

Results in red indicate that the queue exceeds the storage provided.

Table 7: Queuing Results – Total Traffic Conditions

Intersection	Existing Storage Bay	95th Percentile Queue		
		Weekday AM Peak	Weekday PM Peak	Saturday Midday
Crystal Lake Avenue and Main Street				
Eastbound Left	165	10	20	35
Eastbound Right	165	90	180	190
Westbound Left	395	20	85	75
Northbound Left	290	60	250	225
Northbound Right	130	5	55	35
Southbound Left	130	35	60	45
Crystal Lake Avenue and North Site Access				
Northbound Left/Right	50*	5	5	5
Westbound Left	0	0	5	5
Main Street and East Site Access				
Eastbound Right	25*	5	0	5

*Distance estimated from the site plan.

Storage Bay Lengths and Queues reported in feet.

Results in red indicate that the queue exceeds the storage provided.

III. TRAFFIC EVALUATION

The results of the capacity analyses and the queue analysis at the roadway network intersections and site access driveways are discussed below.

A. Crystal Lake Avenue and Main Street

The results of the existing capacity analysis indicate that the signalized intersection of Crystal Lake Avenue and Main Street currently operates at an acceptable Level-of-Service (LOS) B overall during the weekday morning peak hour and LOS C overall during the evening peak hour and Saturday midday peak hour. All intersection approaches operate at LOS C or B. It is noted that the southbound left turn movement currently operates at LOS E under all three peak hours analyzed. Under Total traffic conditions, vehicle delays increase slightly yet the overall intersection LOS remains unchanged, and all approach LOS remains at LOS C or B. The southbound left turn movement remains at LOS E. It should be noted that this movement carries less than one vehicle per signal cycle and is thus a low-volume movement. The volume-to-capacity ratio does not exceed 85%, and queues are minimal. The magnitude of delay increases is fairly minor and does not exceed five seconds per vehicle on average for any specific turning movement, and there are no movements that degrade to an unsatisfactory LOS, and thus no improvements are recommended to improve Levels of Service at the intersection.

The results of the queue analysis indicate that the existing storage bay lengths for the turn lanes are adequate for all turning lanes except the eastbound right turn movement where the 95th percentile queue exceeds the storage length under 2021 Existing traffic and Total traffic conditions during the P.M. peak hour and the Saturday midday peak hour. Under Total traffic conditions, queues increase slightly (less than 50 feet) due to the traffic generated by the site. However, none of the other movements exceeds existing storage bay length for any analyzed peak hour.

Because the eastbound right turn storage needs exceed the available distance under the existing condition, it is not considered attributable to the development. A lengthening of this turn lane can be considered if the west leg of the intersection needs to be improved at some point in the future.

It should be noted that the queue lengths reported are 95th percentile queues, meaning that this condition will not occur regularly during the peak hours. The 95th percentile means that this condition will likely occur or be exceeded no more than 5% of the time. The average queues during peak hours will be considerably less than the 95th percentile queues reported. Furthermore, queues will be significantly shorter during the other 22 to 23 non-peak hours of the day.

Based on the capacity and queuing analysis results no improvements are recommended at the Crystal Lake Avenue and Main Street intersection.

B. Crystal Lake Avenue Full Access

The results of the capacity analysis for Total traffic conditions indicate that the movements at the unsignalized intersection of Crystal Lake Avenue at the north site access roadway operate at a Level-of-Service (LOS) C or better during all analyzed peak hours. The 95th percentile queue is less than one vehicle during all peak hours for the northbound approach. The westbound left turn would operate at a Level-of-Service (LOS) A for all analyzed peak hours. The 95th percentile queue is less than one vehicle during all peak hours for the westbound left turn.

It is noted that the 95th percentile queues for the eastbound (EB) Crystal Lake Avenue right turn to SB Main Street are predicted to extend past the full access driveway on Crystal Lake Avenue during the weekday PM peak hour. During the Saturday peak hour, both the EB right turn and the EB through 95th percentile queues are predicted to extend past the driveway. During these times, it may occasionally be challenging to make turns into and out of the site at this location.

The above capacity analysis at this driveway assumes that the left turns in and out, and the right turn out, are blocked 10% of the time during the AM peak hour, and 20% of the time during the Saturday and weekday PM peak hours.

WB to SB left turns into the site, if gaps are not provided by eastbound motorists on Crystal Lake Avenue, have the potential to occasionally block WB through motorists on Crystal Lake Avenue. It is likely that during these times, residents who be familiar with area traffic patterns, will chose to head southbound to turn right into the site from Main Street to avoid this situation, and the occurrence will be minimized. As an initial mitigation measure, it is recommended that a "Do Not Block Driveway" sign be posted west of the driveway for eastbound motorists on Crystal Lake Avenue. Should conditions worsen in the future, painted cross-hatch markings can be placed on Crystal Lake Avenue at the driveway, however this is not initially recommended.

C. Main Street RIRO Access

The results of the capacity analysis for Total traffic conditions indicate that the movements at the unsignalized intersection of Main Street at the RIRO access driveway operate at a Level-of-Service (LOS) B or better during all analyzed peak hours. The 95th percentile queue is less than one vehicle during all peak hours for the eastbound approach. Therefore, it is concluded that these minor delays will not affect Main Street operation and would not adversely affect site traffic circulation as long as a distance of 25 feet is maintained between the stop bar and the parking lot for the eastbound approach.

IV. CONCLUSIONS AND RECOMMENDATIONS

Based on the proposed development plans and the preceding traffic impact study, the following conclusions and recommendations are presented.

- Generally, the roadway system surrounding the proposed site, and the intersection of Crystal Lake Avenue and Main Street, have sufficient reserve capacity in the Total traffic conditions and can accommodate the development of the site without excessive negative impacts to the operation of the roadways.

- At the north site access driveway, a "Do Not Block Driveway" sign is recommended for eastbound traffic along Crystal Lake Avenue to reduce the chances that access to and from the site will be hindered by EB queues on Crystal Lake Avenue.

- The right-in/right-out access drive on Main Street will operate satisfactorily.

REVISED CONCEPT

SITE INFORMATION:

Total Site Acreage **4.62 acres**

Total Residential Units: 99 Units

Building One 48

6 Studio *12.5%*

26 One Bedroom *54.0%*

16 Two Bedroom *33.5%*

____ sq ft Amenity

Townhomes 51

21 - 2 Bedroom

typ. 20'w x 36'

30 - 3 Bedroom

typ. 21'w x 37'

Parking: 183 Spaces

Building One (1.3 per unit) 64

1.08 spaces per bedroom

Townhome (2.3 per unit) 119

Garage 102

Guest 17

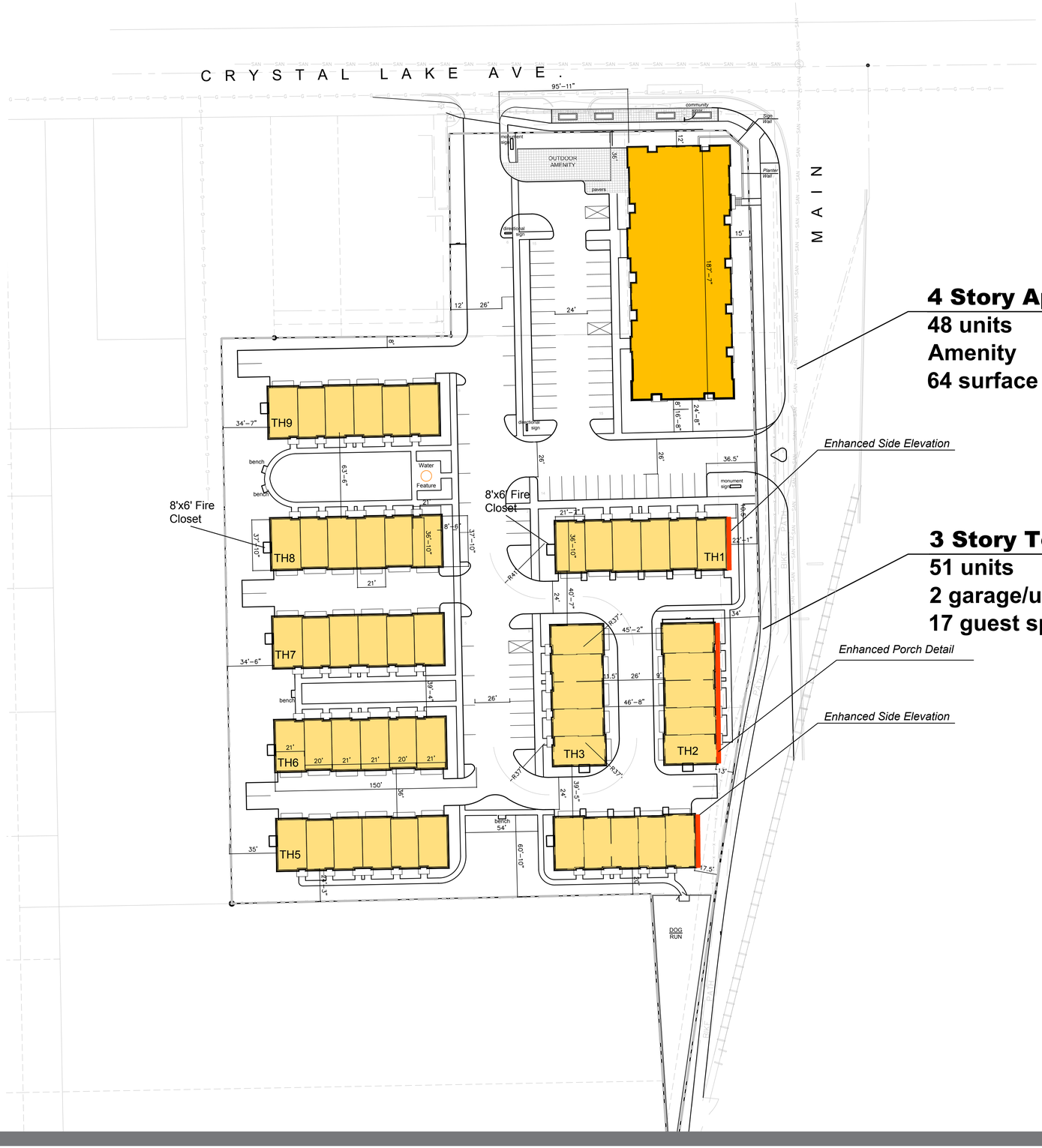
Overall Ratio 1.8:1

North

Scale: 1" = 40'

0 40 80

HAMILTON PARTNERS



Concept Plan
Crystal Lake & Main
Crystal Lake, Illinois

Rev. December 8th, 2021

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Apartment Character Elevation

Crystal Lake & Main

Crystal Lake, Illinois

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December 8, 2021 | MP210365.00



East Elevation
Scale: 1/8" = 1'-0"



North Elevation
Scale: 1/8" = 1'-0"

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APARTMENT ELEVATIONS

Crystal Lake & Main
Crystal Lake, Illinois

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West Elevation
Scale: 1/8" = 1'-0"



South Elevation
Scale: 1/8" = 1'-0"

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APARTMENT ELEVATIONS

Crystal Lake & Main
Crystal Lake, Illinois

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Building Plan: Levels 2-4

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



Building Plan: Level 1

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

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Apartment Building Concept

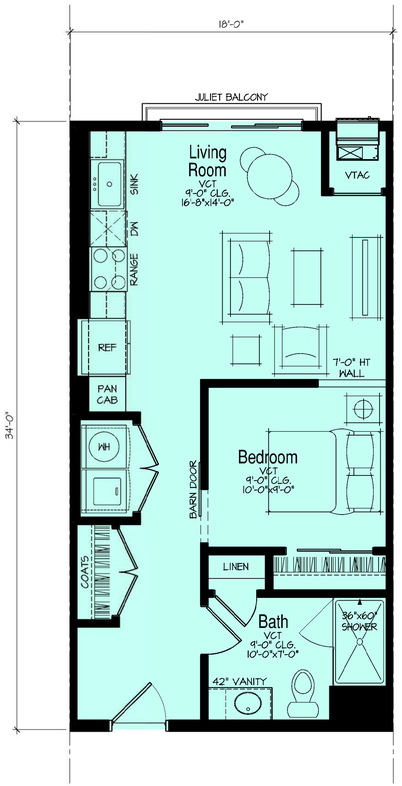
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Crystal Lake, Illinois

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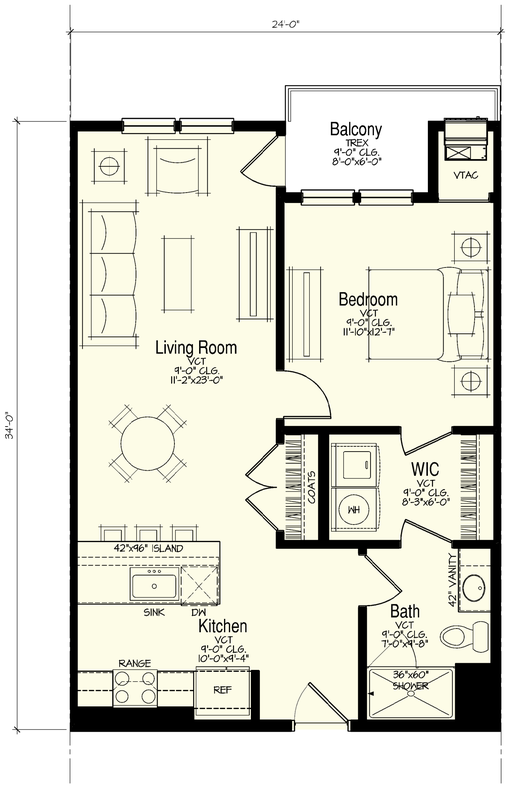
November 19, 2021 | MP210365.00



ANSI Type B: Studio / 1 Bath
NSF: 571 / GSF: 615

Unit - S1 Floor Plan

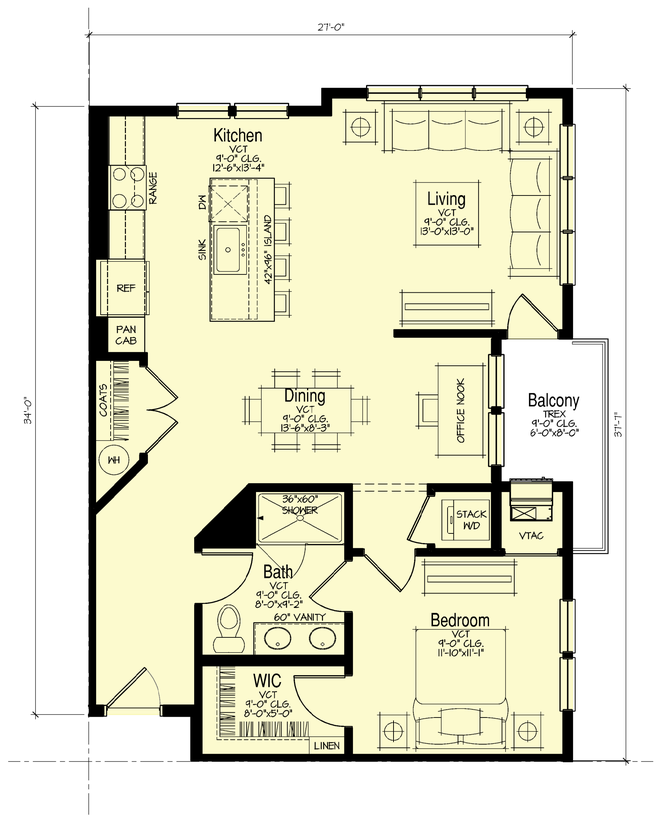
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ANSI Type B: 1 Bedroom / 1 Bath
NSF: 733 / GSF: 787

Unit - A1 Floor Plan

SCALE: 1/4"=1'-0" xfr~A1

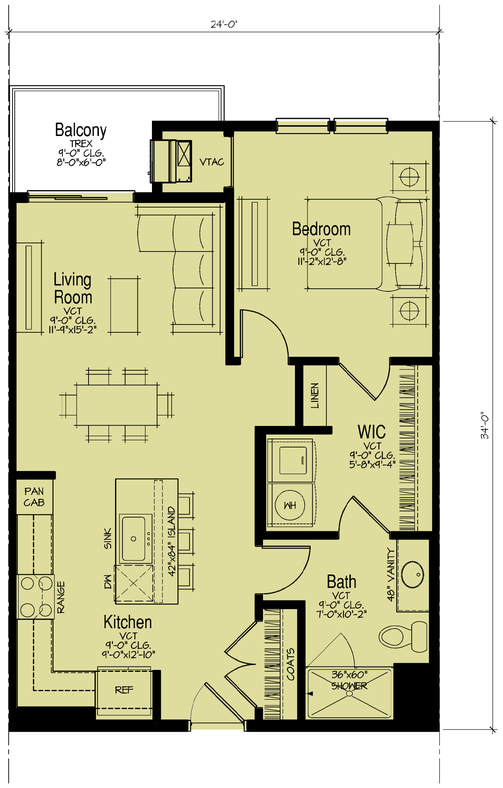


ANSI Type B: 1 Bedroom / 1 Bath
NSF: 895 / GSF: 957

Unit - A2 Floor Plan

SCALE: 1/4"=1'-0" xfr~A2

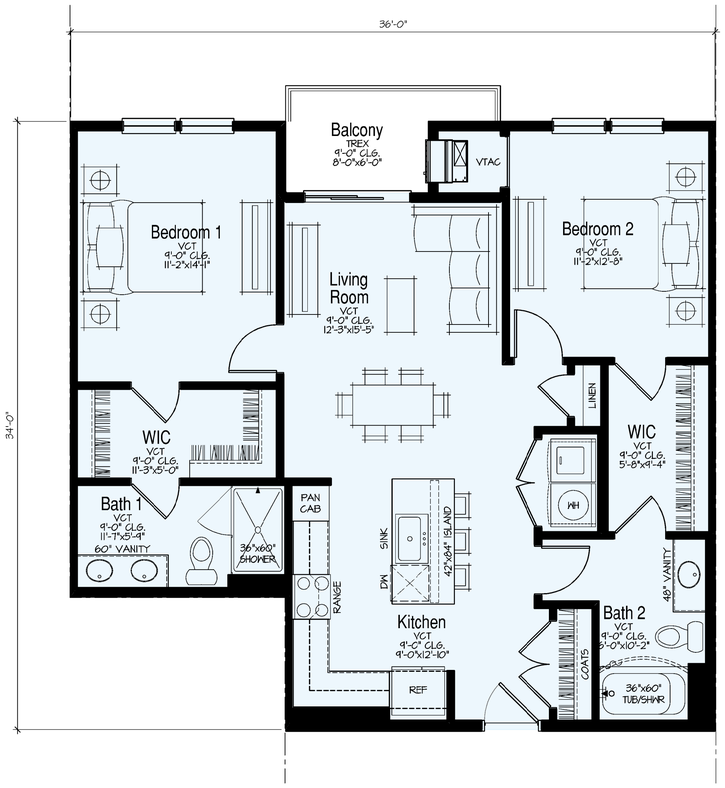
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ANSI Type B: 1 Bedroom / 1 Bath
NSF: 734 / GSF: 787

Unit - A4 Floor Plan

SCALE: 1/4"=1'-0" xfr-A4



ANSI Type B: 2 Bedroom / 2 Bath
NSF: 1039 / GSF: 1105

Unit - B1 Floor Plan

SCALE: 1/4"=1'-0" xfr-B1

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ANSI Type B: 2 Bedroom / 2 Bath
NSF: 1224 / GSF: 1297

Unit - B2 Floor Plan

SCALE: 1/4"=1'-0" xfr-B2



ANSI Type B: 2 Bedroom / 2 Bath
NSF: 1089 / GSF: 1167

Unit - B3 Floor Plan

SCALE: 1/4"=1'-0" xfr-B3

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HAMILTON PARTNERS

Townhome Character Elevation

Crystal Lake & Main

Crystal Lake, Illinois

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November 19, 2021 | MP210365.00

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Typical Front Elevation
Scale: 3/16" = 1'-0"



Front Elevation - Building "B" at Main Street
Scale: 3/16" = 1'-0"

HAMILTON PARTNERS

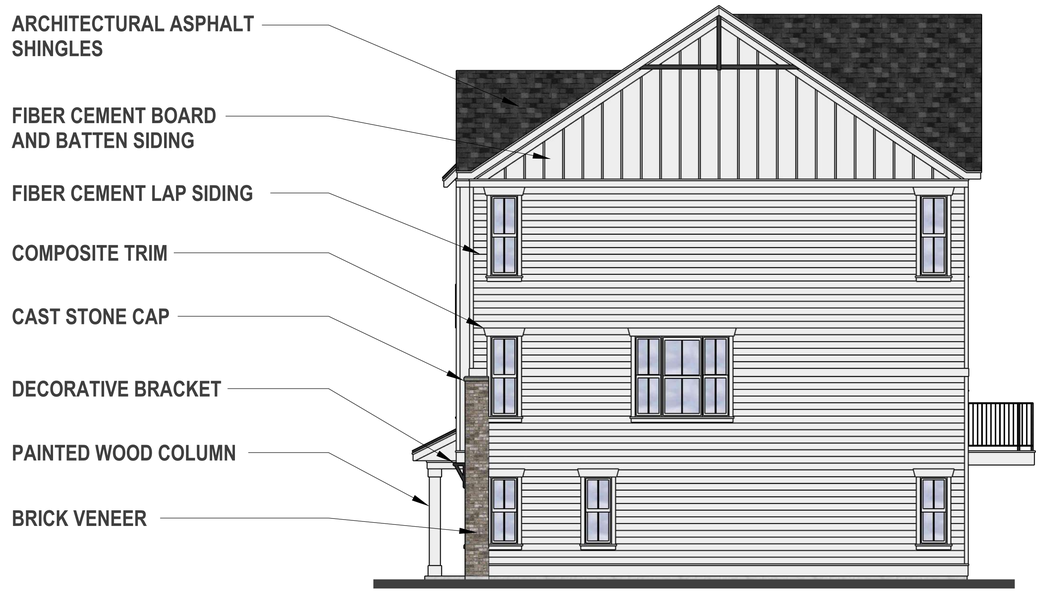
TOWNHOME ELEVATIONS

Crystal Lake & Main
Crystal Lake, Illinois

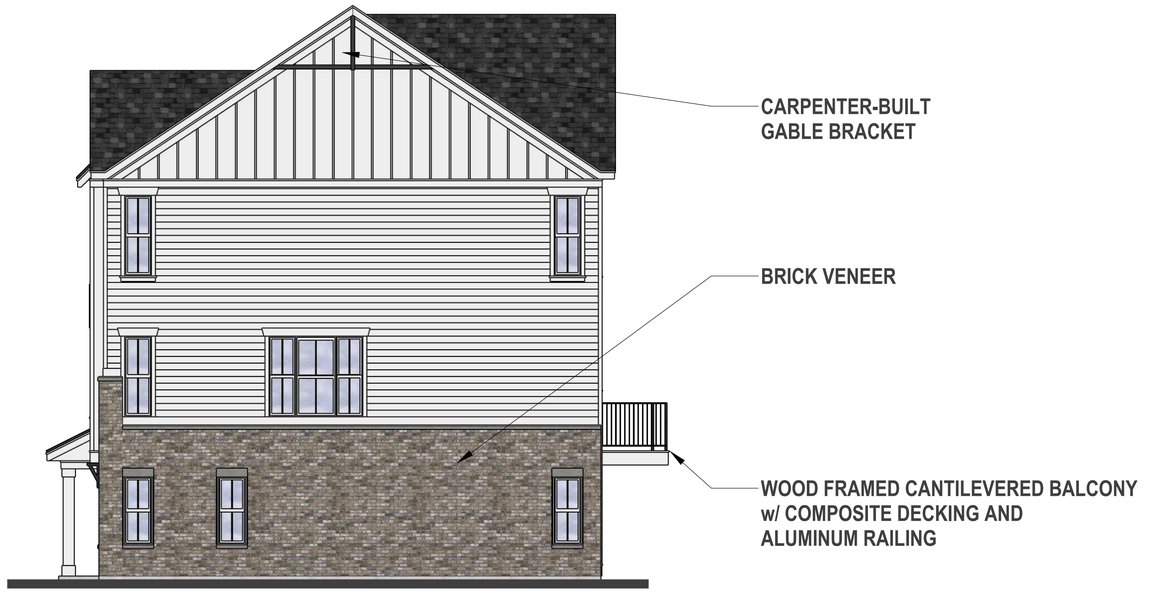
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Typical Side Elevation
Scale: 3/16" = 1'-0"



Enhanced Side Elevation
Scale: 3/16" = 1'-0"



Rear Elevation
Scale: 3/16" = 1'-0"

HAMILTON PARTNERS

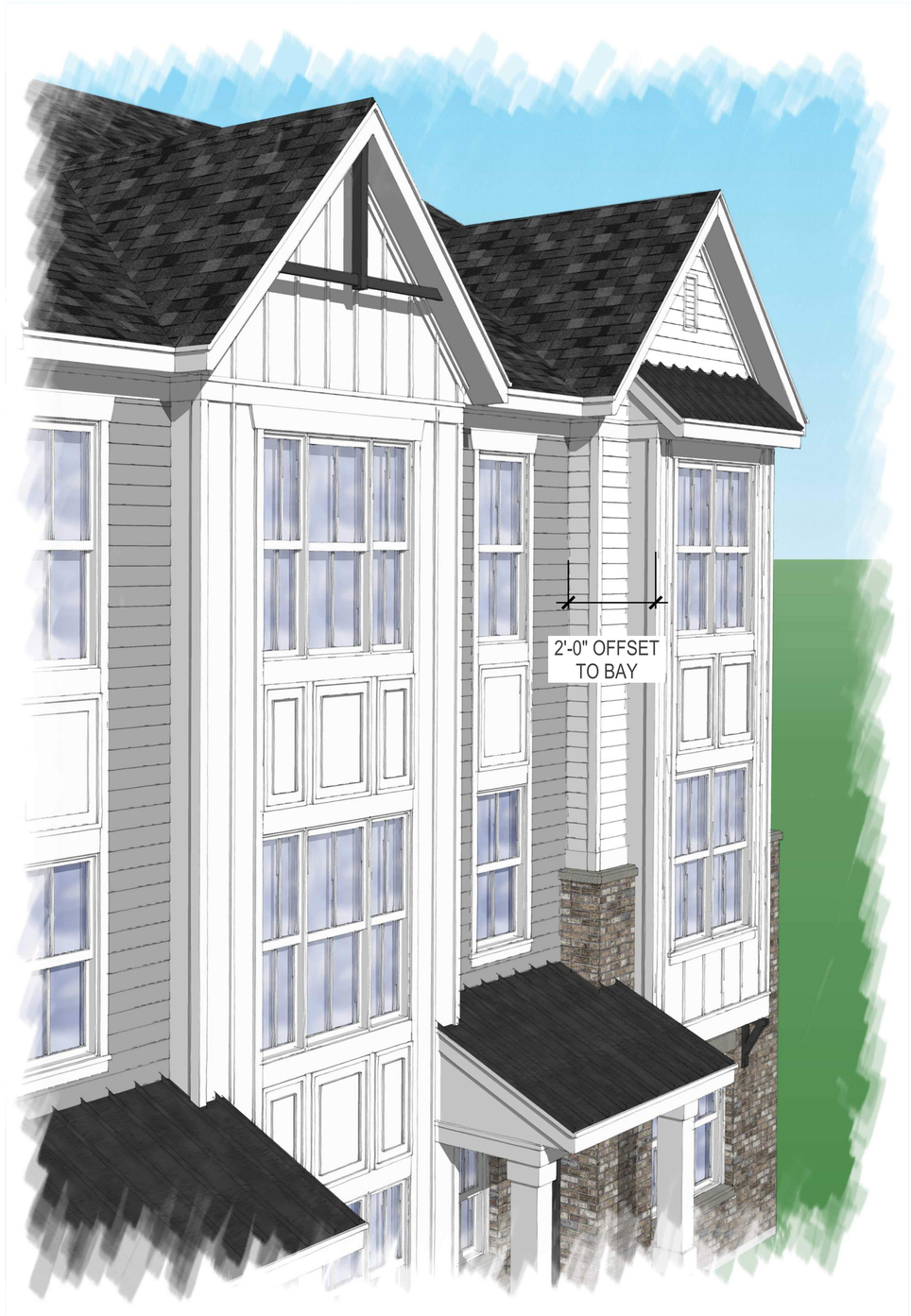
TOWNHOME ELEVATIONS

Crystal Lake & Main
Crystal Lake, Illinois

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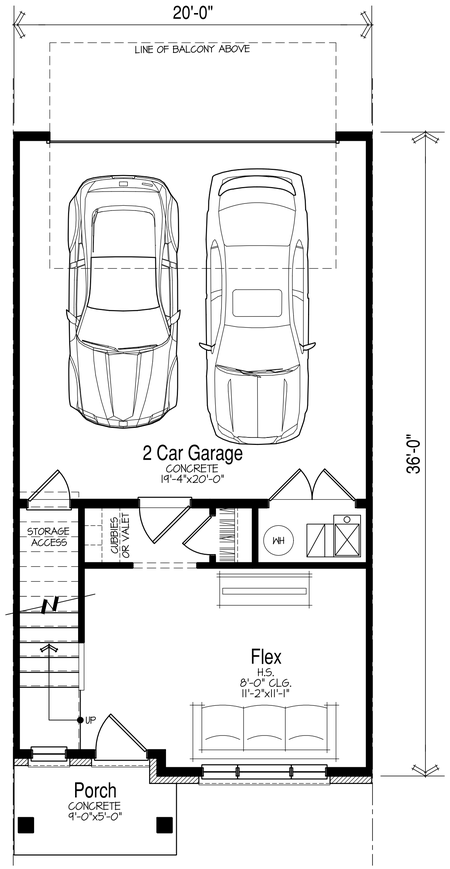
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Front Elevation Projection Exhibit
Scale: NTS

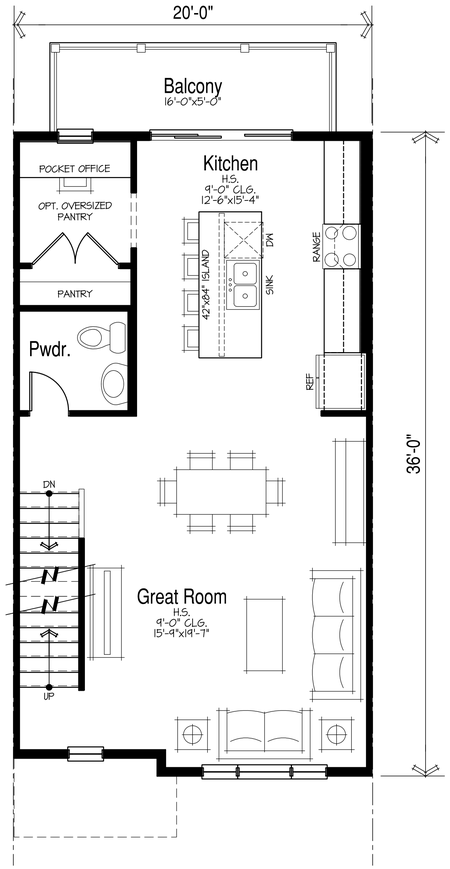
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301 SF

Lower Floor Plan

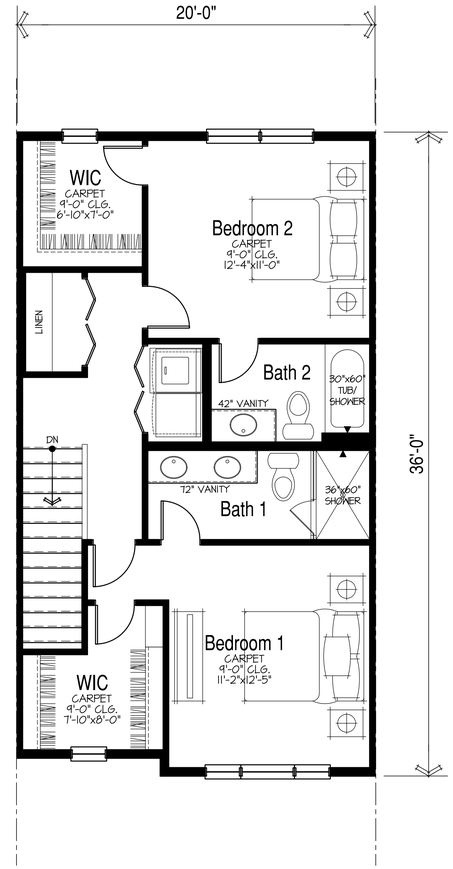
SCALE: 1/4"=1'-0"



712 SF

Main Floor Plan

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



671 SF

Upper Floor Plan

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

HAMILTON PARTNERS

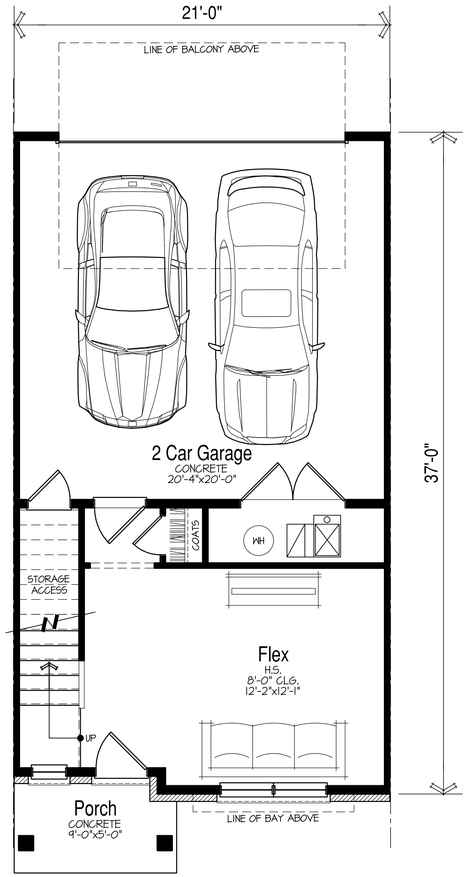
Unit A: 1684 SF
2-BR, 2.5-BA, 2-Car Garage

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Crystal Lake, Illinois

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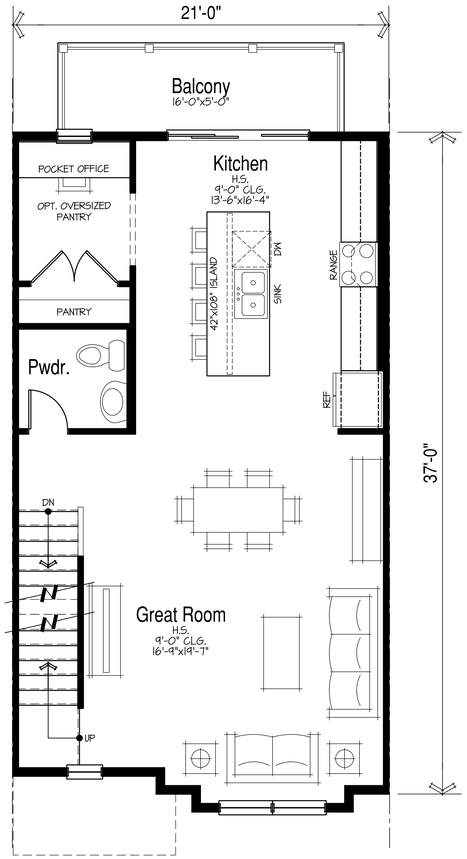
December 8, 2021 | MP210365.00



338 SF

Lower Floor Plan

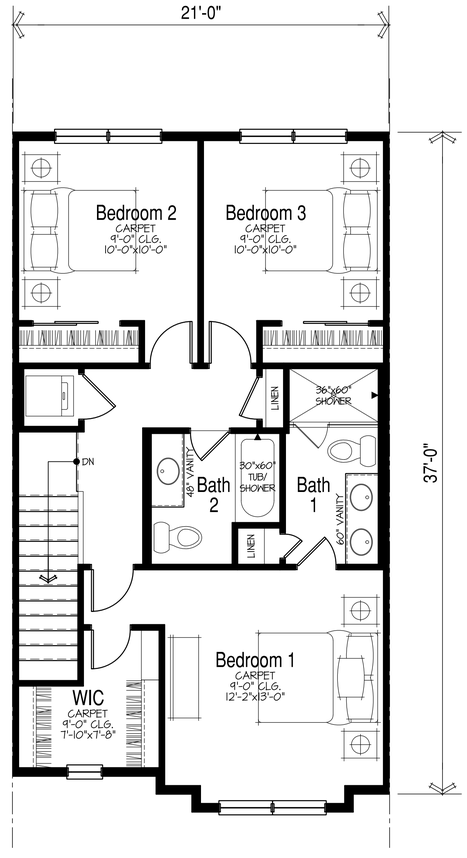
SCALE: 1/4"=1'-0"



778 SF

Main Floor Plan

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



728 SF

Upper Floor Plan

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

HAMILTON PARTNERS

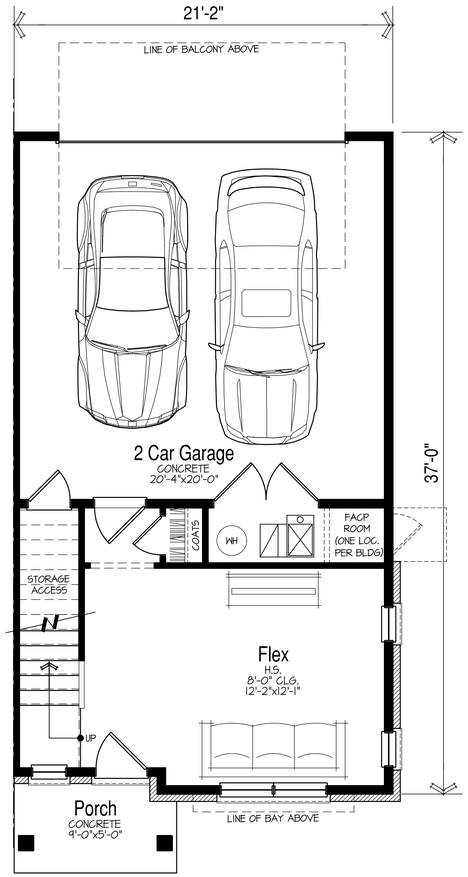
Unit B: 1844 SF (Interior Condition)
3-BR, 2.5-BA, 2-Car Garage

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Crystal Lake, Illinois

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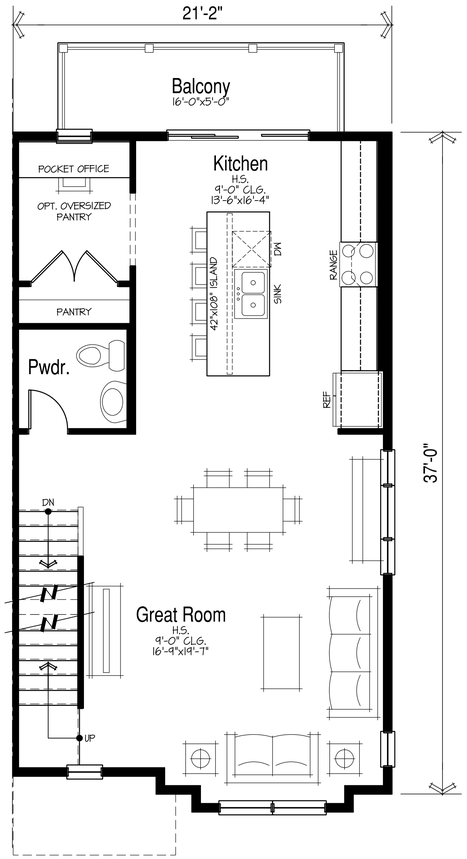
December 8, 2021 | MP210365.00



340 SF

Lower Floor Plan

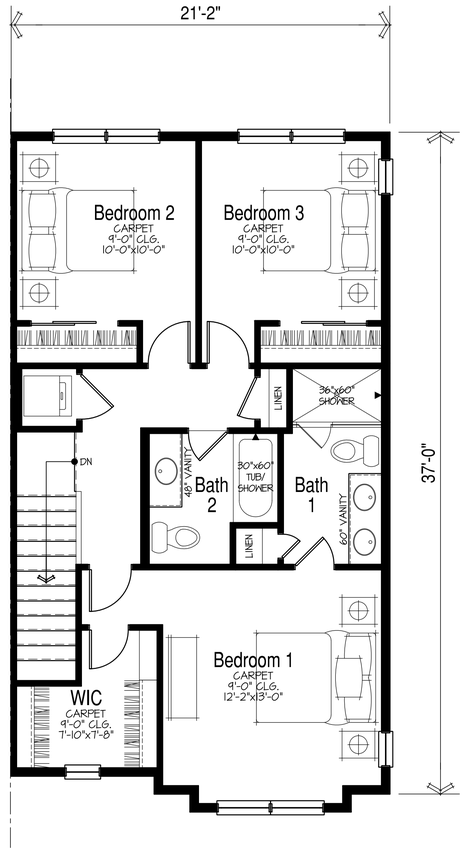
SCALE: 1/4"=1'-0"



784 SF

Main Floor Plan

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



734 SF

Upper Floor Plan

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

HAMILTON PARTNERS

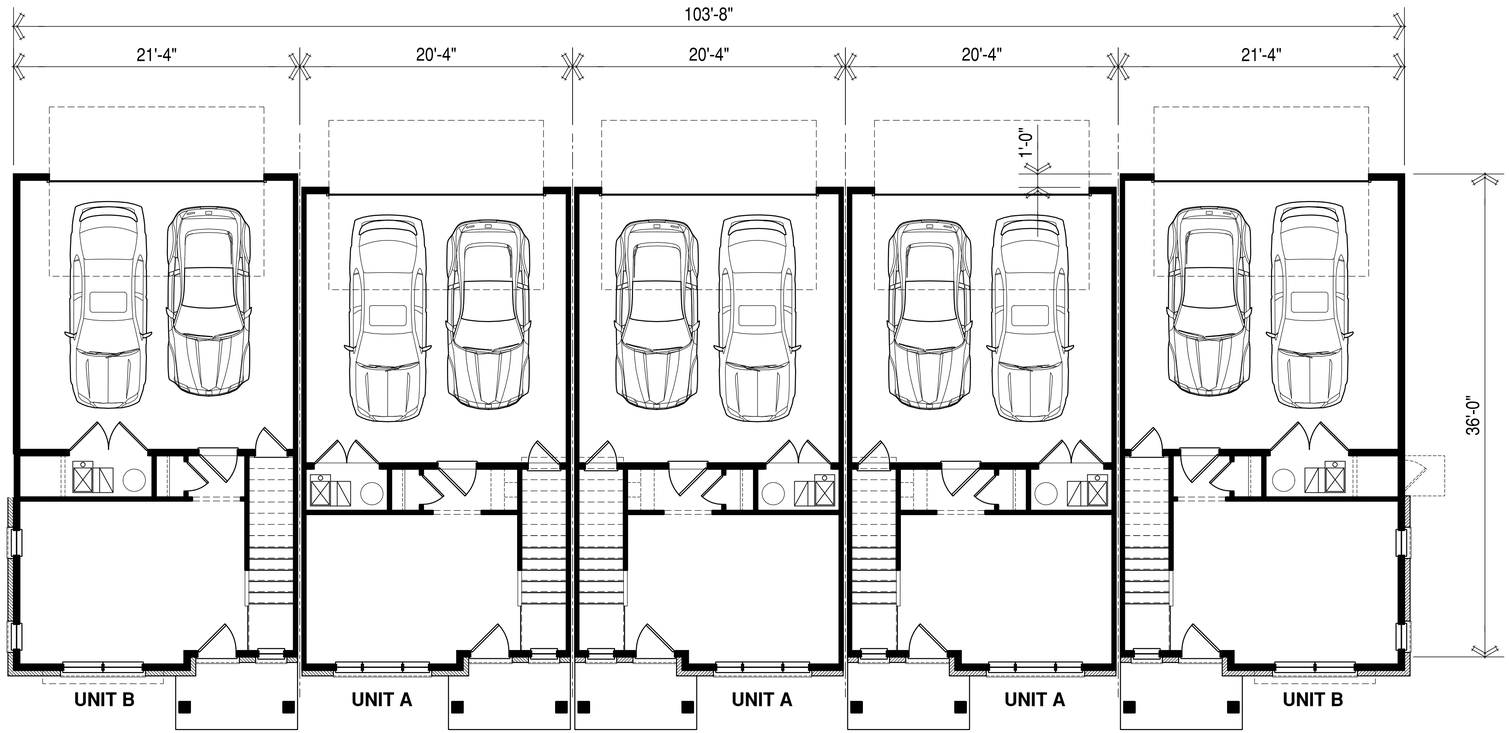
Unit B: 1858 SF (End Condition)
3-BR, 2.5-BA, 2-Car Garage

Crystal Lake & Main
Crystal Lake, Illinois

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Lower Floor Plan

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

HAMILTON PARTNERS

5-Unit Building Assembly

Crystal Lake & Main

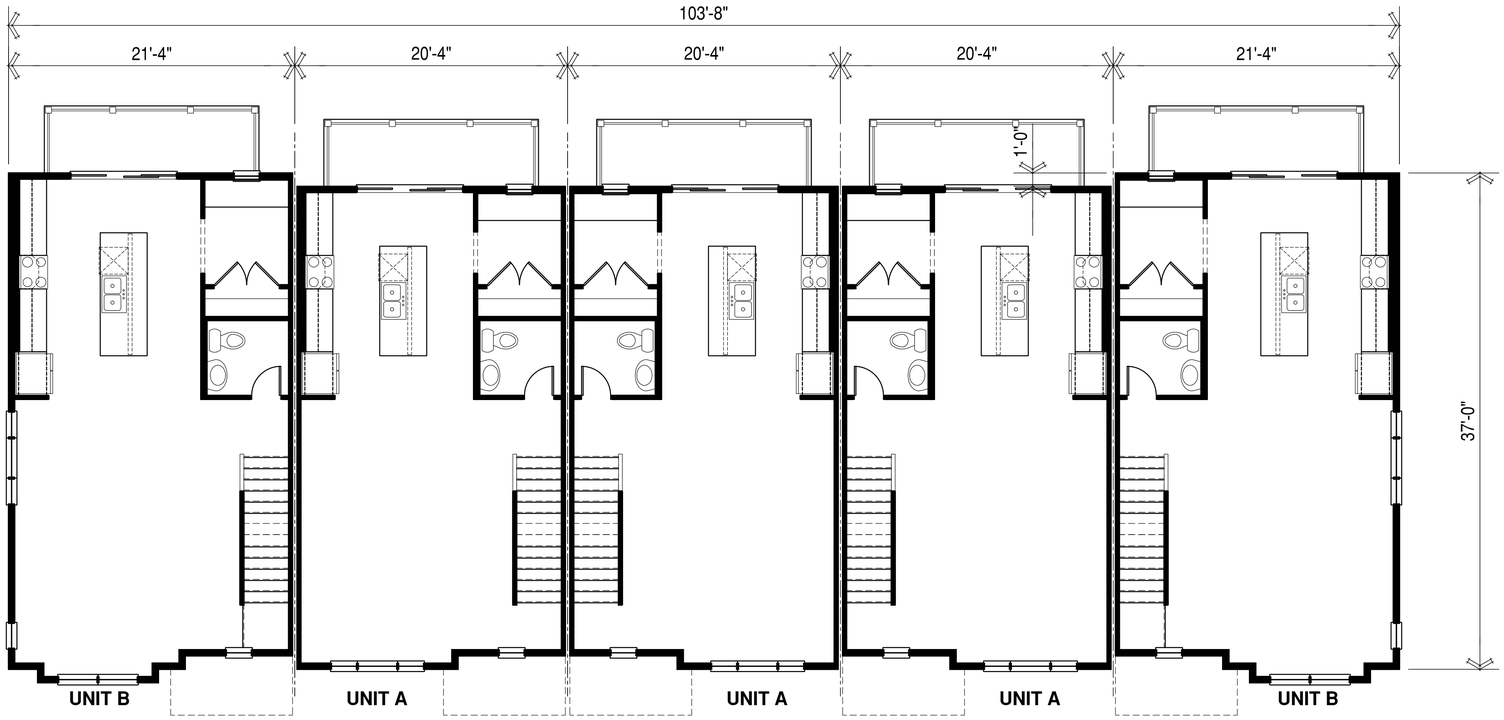
Crystal Lake, Illinois

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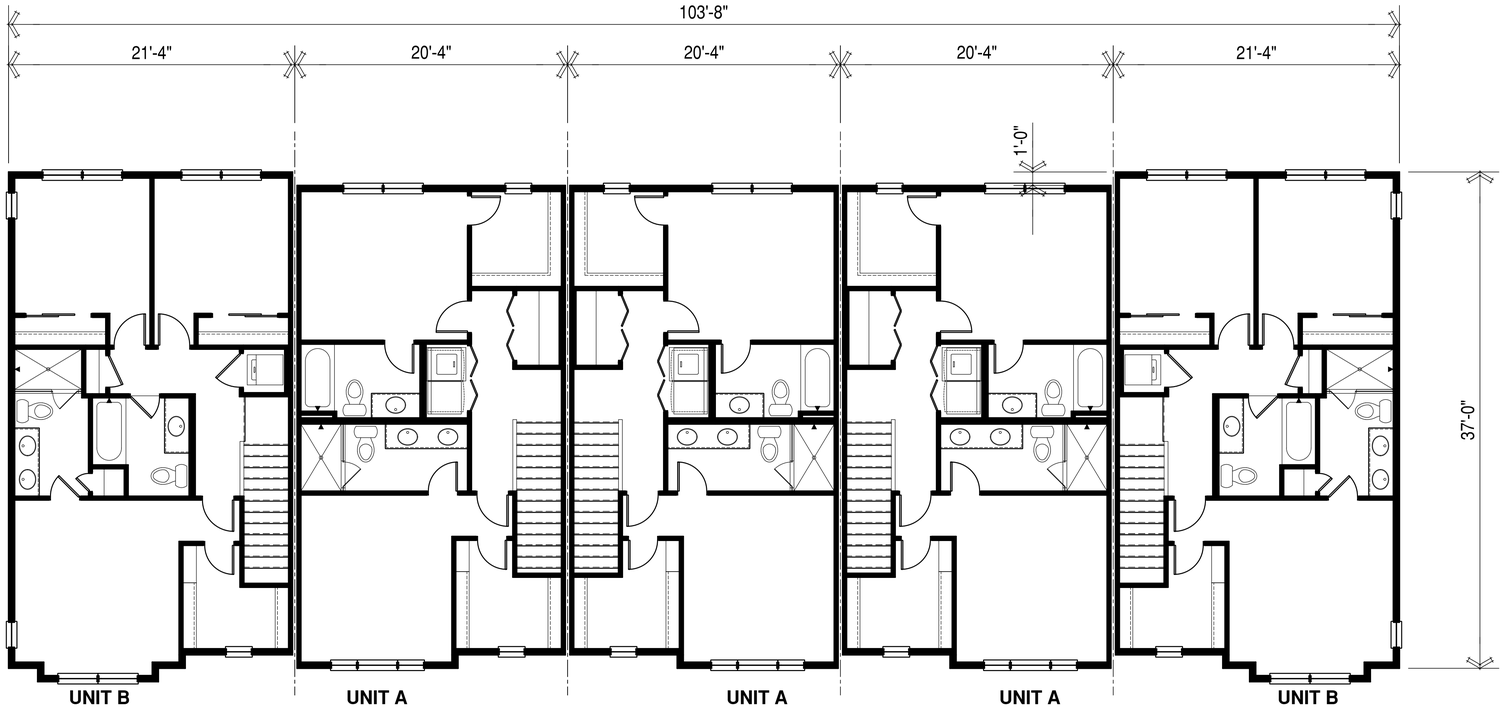
December 8, 2021 | MP210365.00



Main Floor Plan

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

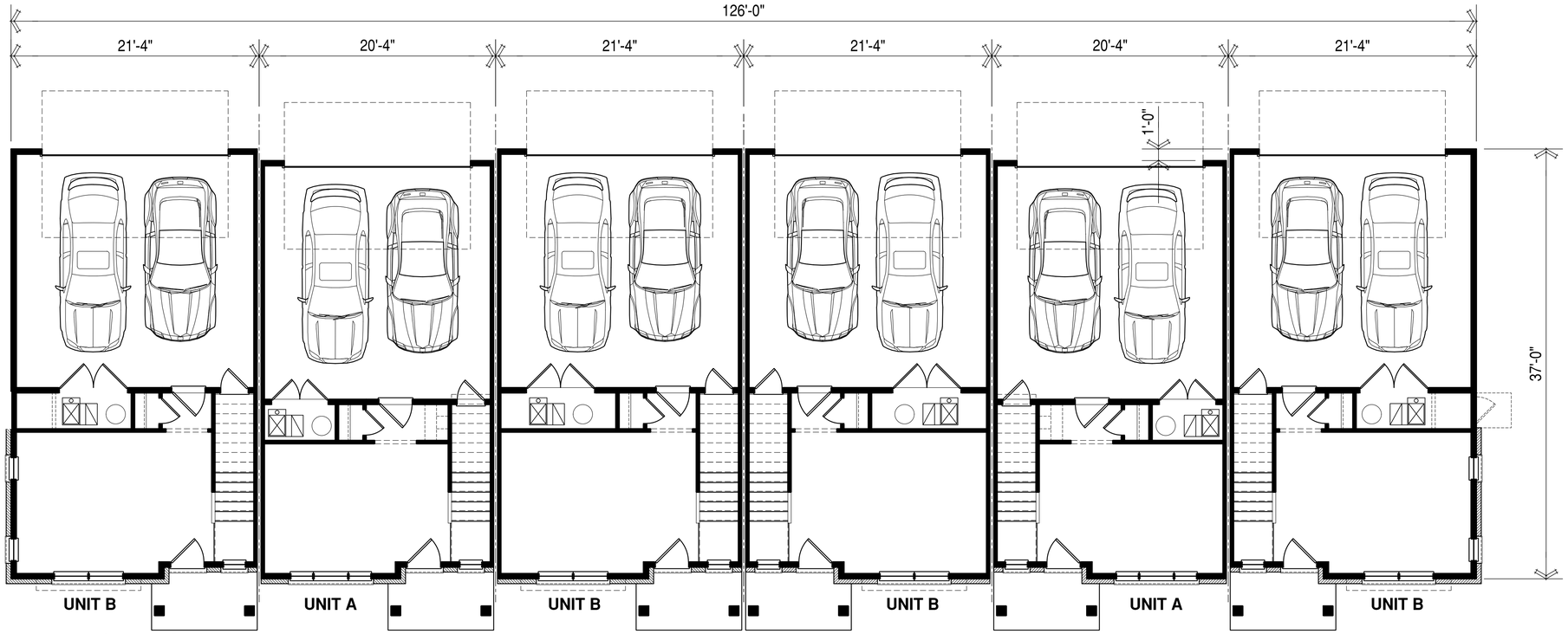
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Upper Floor Plan

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

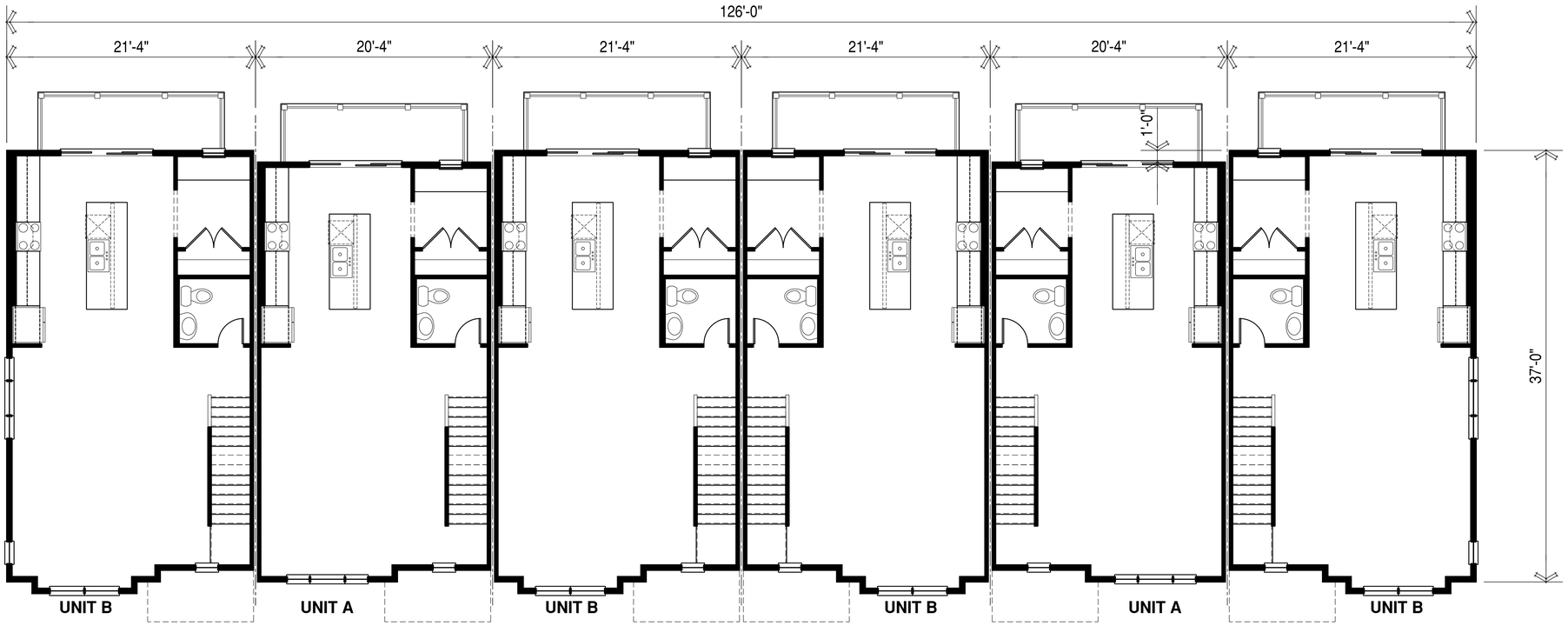
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Lower Floor Plan

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

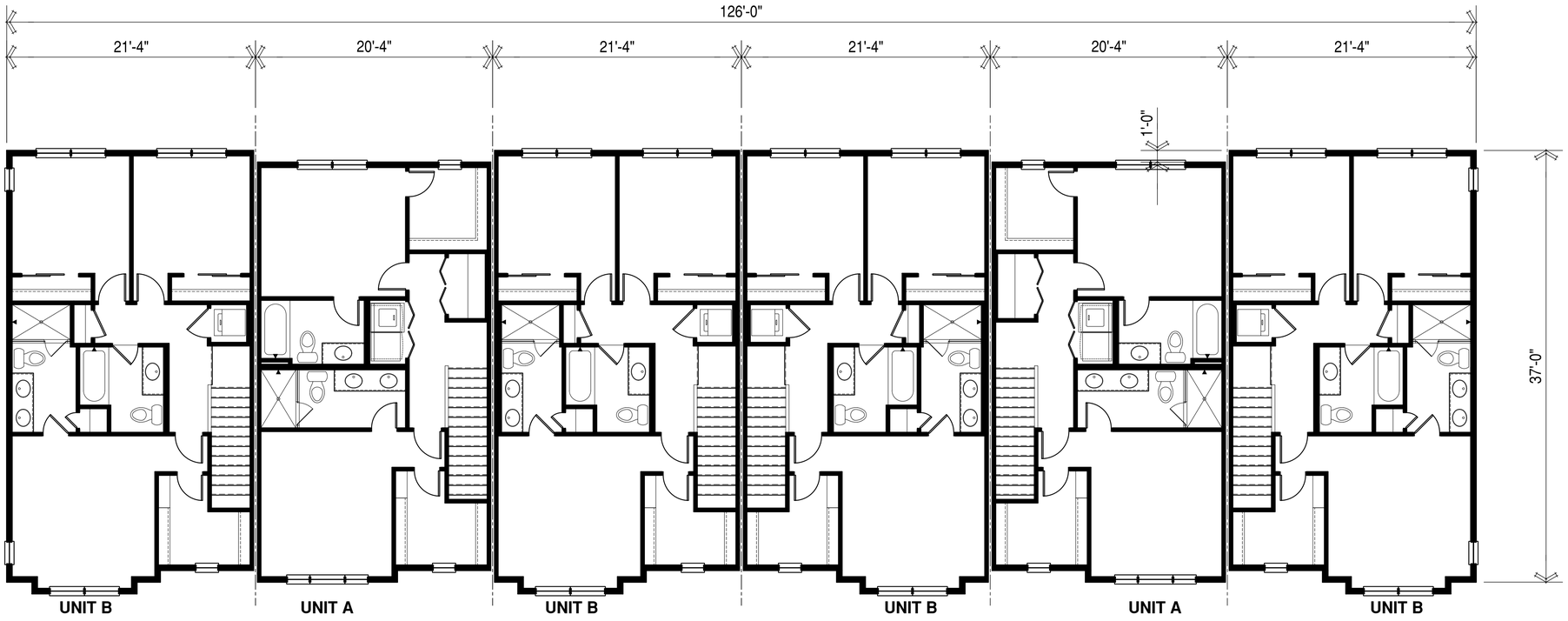
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Main Floor Plan

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

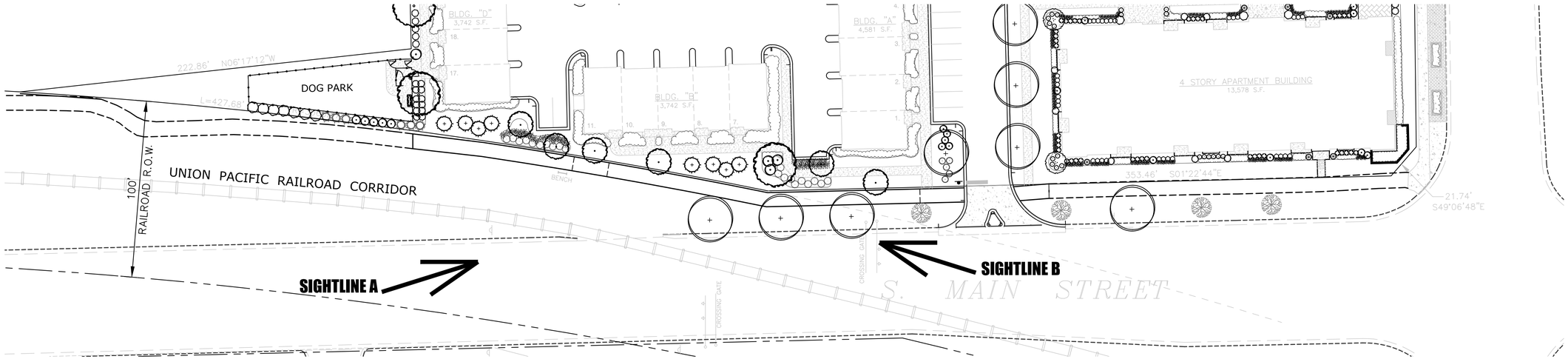
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Upper Floor Plan

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

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SIGHTLINE VIEWS

NOT TO SCALE

0' 30' 60' 90'



SIGHTLINE A

NOT TO SCALE



SIGHTLINE B

NOT TO SCALE

dickson design
STUDIO
526 SKYLINE DRIVE
ALGONQUIN IL 60102
847 878 4019

CLIENT NAME AND ADDRESS

HAMILTON PARTNERS

ITASCA, ILLINOIS

PLAN DATE

DECEMBER 6, 2021

PROJECT NAME AND SHEET TITLE

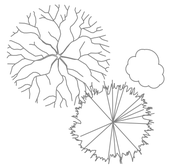
CRYSTAL LAKE ROAD & MAIN STREET

CRYSTAL LAKE, IL

EXHIBIT - SIGHTLINES: PRELIMINARY LANDSCAPE PLAN

PLANT SYMBOLS KEY & PLANT MIX MATRIX

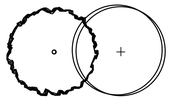
NOTE!
NOT ALL PLANT SYMBOLS & PLANT VARIETIES MAY BE DEPICTED ON PLANS.



EXISTING DECIDUOUS TREE

EXISTING VEGETATION

EXISTING EVERGREEN TREE



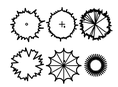
SHADE / CANOPY TREES, 2.5"+ CALIPER:

- *ACER VARIETIES* / MAPLE VAR.
- *FAGUS VARIETIES* / BEECH VAR.
- *CELTIS OCCIDENTALIS* / COMMON HACKBERRY
- *GINGKO BILOBA* / GINKGO
- *GLEDITSIA TRIACANTHOS VAR. INERMIS* / THORNLESS HONEYLOCUST
- *GYMNOCLADUS DIOICA* / KENTUCKY COFFEETREE
- *LIQUIDAMBAR STYRACIFLUA* / AMERICAN SWEETGUM
- *LIRIODENDRON TULIPIFERA* / TULIP TREE
- *METASEQUOIA GLYPTOSTROBOIDES* / DAWN REDWOOD
- *PLATANUS ACERIFOLIA 'MORTON CIRCLE'* / LONDON PLANETREE
- *QUERCUS VAR.* / OAK VARIETIES
- *TILIA TOMENTOSA 'STERLING SILVER'* / STERLING SILVER LINDEN
- *ULMUS CARPINIFOLIA 'ACCOLADE'* / ACCOLADE ELM



ORNAMENTAL TREES, 8'+ TALL:

- *ALNUNS GLUTINOSA* / EUROPEAN BLACK ALDER
- *AMELANCHIER VARIETIES* / SERVICEBERRY VAR.
- *BETULA NIGRA* / RIVER BIRCH
- *CORNUS MAS* / CORNELIAN CHERRY
- *HAMAMELIS VARIETIES* / WITCHHAZEL VAR.
- *MAGNOLIA VARIETIES* / MAGNOLIA VAR.
- *MALUS VARIEITIES* / FLOWERING CRABAPPLE VAR.
- *SYRINGA RETICULATA* / JAPANESE TREE LILAC



EVERGREEN TREES, 6'+ TALL:

- *ABIES CONCOLOR* / WHITE FIR
- *JUNIPERUS CHINENSIS 'FAIRVIEW'* / FAIRVIEW JUNIPER
- *PICEA ABIES* / NORWAY SPRUCE
- *PICEA GLAUCA 'DENSATA'* / BLACK HILLS SPRUCE
- *PINUS STROBUS* / EASTERN WHITE PINE
- *PSEUDOTSUGA MENZIESII* / DOUGLAS FIR
- *TAXUS CUSPIDATA 'CAPITATA'* / CAPITATA YEW
- *THUJA VARIETIES* / ARBORVITAE VAR.



LARGE, DECIDUOUS SHRUBS, 36"+ TALL:

- *ARONIA VARIETIES* / CHOKEBERRY VAR.
- *CORNUS VARIETIES* / DOGWOOD VAR.
- *FORSYTHIA 'MEADOWLARK'* / *IMEADOWLARK FORSYTHIA*
- *FOTHERGILLA GARDENII* / DWARF FOTHERGILLA
- *HYDRANGEA VARIETIES* / HYDRANGEA VAR.
- *SYRINGA VARIETIES* / LILAC VAR.
- *VIBURNUM VARIETIES* / VIBURNUM VAR.



SMALL, DECIDUOUS SHRUBS, 18"+ TALL:

- *ARONIA VARIETIES* / CHOKEBERRY VAR.
- *BERBERIS VARIETIES* / BARBERRY VAR.
- *COTONEASTER APICULATUS* / CRANBERRY COTONEASTER
- *DEUTIZIA GRACILIS 'NIKKO'* / NIKKO SLENDER DEUTZIA
- *HYPERICUM KALMIANUM* / ST. JOHNSWORT
- *RHUS AROMATICA 'GRO-LOW'* / GRO LOW SUMAC
- *ROSA VARIETIES* / SHRUB ROSE VAR.
- *SPIRAEA VARIETIES* / SPIREA VAR.
- *STEPHANANDRA INCISA 'CRISPA'* / CUTLEAF STEPHANANDRA
- *WEIGELA FLORIDA 'MIDNIGHT WINE'* / WEIGELA



SMALL, EVERGREEN SHRUBS, 24"+ TALL / WIDE:

- *BUXUS VARIETIES* / BOXWOOD VAR.
- *JUNIPERUS VARIETIES* / JUNIPER VAR.
- *TAXUS VARIETIES* / YEW VAR.



LARGE, ORNAMENTAL GRASS, 3 GALLON &
SMALL, ORNAMENTAL GRASS, 1 GALLON:

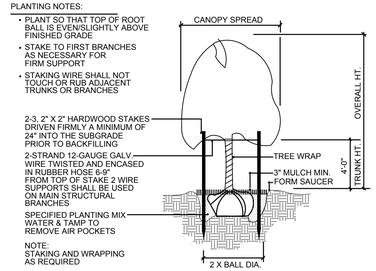
- *CALAMAGROSTIS VARIETIES* / REED GRASS VAR.
- *PANICUM VARIETIES* / SWITCH GRASS VAR.
- *PENNISETUM VARIETIES* / FOUNTAIN GRASS VAR.
- *SESLERIA AUTUMNALIS* / MOOR GRASS
- *SPOROBOLUS HETEROLEPSIS* / PRARIE DROPSEED



PERENNIAL FLOWERS & GROUNDCOVER, 1 GALLON:

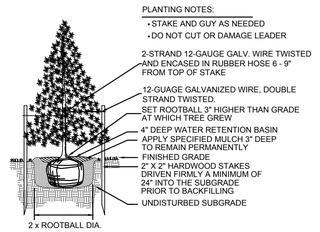
- *ALLIUM* / ORNAMENTAL ONION
- *AJUGA* / BUGLEWEED
- *AMSONIA* / BLUE STAR
- *BAPTISIA* / FALSE OR WILD INDIGO
- *CALAMINTHA* / CALAMINT
- *COREOPSIS* / TICKSEED
- *GERANIUM* / CRANESBILL
- *HEUCHERA* / CORAL BELLS
- *HOSTA* / HOSTA VAR.
- *NEPETA* / CATMINT
- *STACHYS / LAMB'S EAR*
- *VINCA MINOR 'DART'S BLUE'* / DART'S BLUE PERIWINKLE

PLANTING DETAILS



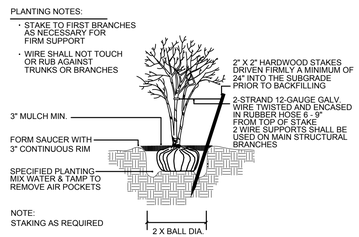
TREE PLANTING & STAKING

NOT TO SCALE



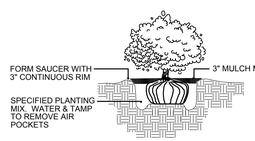
EVERGREEN TREE PLANTING

NOT TO SCALE



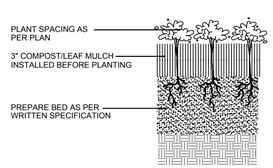
MULTI-TRUNK TREE STAKING

NOT TO SCALE



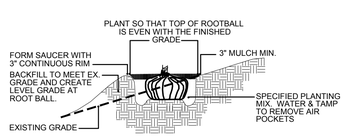
SHRUB PLANTING

NOT TO SCALE



PERENNIAL PLANTING

NOT TO SCALE



HILLSIDE PLANTING

NOT TO SCALE

NOTES - GENERAL LANDSCAPE

1. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED. ALL CONSTRUCTION SHALL CONFORM TO APPLICABLE STANDARDS AND CODES.

2. CALL J.U.L.I.E. UTILITY LOCATING SERVICE (TEL 800.892.0123), 48 HOURS PRIOR TO THE START OF ANY DIGGING.

3. GENERAL PLANT NOTES:
   A. ALL PLANT MATERIAL SHALL CONFORM IN SIZE AND GRADE IN ACCORDANCE WITH AMERICAN STANDARD FOR NURSERY STOCK.
   B. ALL PLANT MATERIAL SHALL BE MAINTAINED ALIVE, HEALTHY, AND FREE FROM DISEASE AND PESTS.
   C. ALL NEW PLANT MATERIAL SHALL BE FROM A LOCAL SOURCE WHENEVER POSSIBLE (LESS THAN 50 MILES).
   D. PLANTS SHALL BE ALLOWED TO GROW IN THEIR NATURAL FORM / HABIT. PLANTS SHALL NOT BE PRUNED/HEDGED UNLESS ABSOLUTELY NECESSARY (DUE TO VISIBILITY OR HAZARD OBSTRUCTION).
   E. ALL LANDSCAPED AREAS SHALL BE FREE OF WEEDS, LITTER, AND SIMILAR SIGNS OF DEFERRED MAINTENANCE.

4. LOCATIONS OF PROPOSED PLANT MATERIAL MAY BE ADJUSTED AT TIME OF INSTALLATION DUE TO FINAL ENGINEERING AND FINAL LOCATION OF SITE UTILITIES.

5. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND SPREADING TOPSOIL (6"-12" DEEP), FINE GRADING, AND PREPARATION OF ALL LAWN AND LANDSCAPE AREAS. ALL SOILS SHALL BE FREE OF CONSTRUCTION DEBRIS, PRIOR TO INSTALLING ANY PLANT MATERIAL.

6. PRIOR TO SPREADING TOPSOIL, THE LANDSCAPE CONTRACTOR SHALL INSPECT AND ACCEPT ALL BASE GRADES. ANY DEVIATION FROM GRADES INDICATED ON THE GRADING PLAN SHALL BE CORRECTED BEFORE PLACING ANY TOPSOIL.

7. ALL SHRUB, GROUNDCOVER, PERENNIAL, AND ANNUAL PLANTING BEDS SHALL BE PREPARED WITH A SOIL AMENDMENT MIX - 1/3 TOPSOIL, 1/3 MUSHROOM COMPOST, AND 1/3 TORPEDO SAND. MATERIAL SHALL BE ROTO-TILLED JUST PRIOR TO THE INSTALLATION OF PLANT MATERIAL.

8. ALL PLANTING ISLANDS SHALL BE MOUNDED TO PROVIDE POSITIVE DRAINAGE.

9. ALL PLANTING BEDS ADJACENT TO LAWN AREAS SHALL HAVE A SPADED EDGE BORDER, UNLESS METAL OR OTHER BORDER IS SPECIFIED.

10. ALL PLANTING BED AREAS SHALL MAINTAIN A MAX. 3" DEEP LAYER OF SHREDDED HARDWOOD MULCH (COLOR: NON-DYED, BROWN).

11. LANDSCAPE CONTRACTOR SHALL COORDINATE PLANTING SCHEDULE WITH LANDSCAPE MAINTENANCE CONTRACTOR, TO ENSURE PROPER WATERING OF PLANTED AND SODDED AREAS AFTER INITIAL INSTALLATION.

12. LANDSCAPE CONTRACTOR SHALL COORDINATE WORK WITH OTHER CONTRACTORS ON SITE TO MINIMIZE ANY REDO OF COMPLETED LANDSCAPE WORK AND DAMAGE TO PLANT MATERIAL.

13. CONTRACTOR SHALL BE RESPONSIBLE FOR HIS/HER OWN LAYOUT WORK. UPON REQUEST, LANDSCAPE ARCHITECT SHALL BE AVAILABLE TO ASSIST/APPROVE CONTRACTOR LAYOUT.

14. EVERY ATTEMPT HAS BEEN MADE TO DEPICT ALL EXISTING UTILITY LINES. CONTRACTOR SHALL USE PRECAUTION WHEN DIGGING. CONTRACTOR SHALL MAKE THEMSELVES THOROUGHLY FAMILIAR WITH ALL UNDERGROUND UTILITY LOCATIONS PRIOR TO ANY DIGGING, VERIFYING LOCATIONS AND DEPTHS OF ALL UTILITIES.

15. IT IS THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE PRIOR TO BID SUBMITTAL, TO BECOME FAMILIAR WITH EXISTING CONDITIONS AT THE SITE.

16. PLANT LIST QUANTITIES PROVIDED AT TIME OF FINAL PLANS ARE APPROXIMATIONS. CONTRACTORS ARE RESPONSIBLE FOR COMPLETING THEIR OWN QUANTITY TAKE-OFFS. IF A DISCREPANCY IS FOUND BETWEEN THE PLAN AND THE PLANT LIST, THEN THE PLAN SHALL PREVAIL.

17. PLANT SUBSTITUTIONS ARE ALLOWED DUE TO PLANT AVAILABILITY OR PLANTING TIME OF YEAR, ONLY WITH THE PRIOR CONSENT OF THE LANDSCAPE ARCHITECT. IF SUBSTITUTIONS ARE MADE WITHOUT PRIOR CONSENT, THE LANDSCAPE ARCHITECT MAINTAINS THE RIGHT TO REJECT MATERIAL IN THE FIELD, AT THE COST TO THE CONTRACTOR.

18. CONTRACTOR TO PROVIDE TEST OF EXISTING AND IMPORTED SOILS PER SPECIFICATIONS. PLANTING SOIL SHALL BE AMENDED PER SPECIFICATIONS.

19. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IF AREAS OF POOR DRAINAGE OR OTHER UNUSUAL SUBSURFACE CONDITIONS ARE ENCOUNTERED DURING EXCAVATION FOR PLANTING PITS.

20. ALL TURF SHALL SHALL BE KENTUCKY BLUEGRASS BLEND SOD (MINERAL, NOT PEAT), PER VILLAGE, SEED IS NOT ALLOWED.

21. CONTRACTOR SHALL RESTORE LAWN AREAS THAT HAVE REMAINED PARTIALLY INTACT, TOP DRESSING WITH SOIL, SCARIFYING, AND SEEDING TO FORM A SMOOTH, FULL, EVEN LAWN, FREE OF BARE SPOTS, INDENTATIONS, AND WEEDS.

22. LANDSCAPE DETAILS SHOWN ARE FOR DESIGN INTENT ONLY. LANDSCAPE ARCHITECT ASSUMES NO LIABILITY. CONTRACTOR IS RESPONSIBLE FOR ERECTING AND INSTALLING PROPERLY BUILT AMENITIES PER CODE, PER SITE CONDITIONS (FINAL GRADING & UTILITY LOCATIONS), AND PER AREA CLIMATE CONDITIONS. ALL LANDSCAPE SITE DETAILS FOR STRUCTURES AND FOOTINGS SHALL BE REVIEWED & APPROVED BY A STRUCTURAL ENGINEER.

23. CONTRACTOR INSTALLATION BIDS SHALL INCLUDE A ONE-YEAR WARRANTY ON ALL PLANT MATERIAL, IN PERPETUITY.

24. (IF APPLICABLE) CONTRACTOR INSTALLATION BIDS SHALL INCLUDE A THREE-YEAR MONITORING AND MAINTENANCE PROGRAM ON ALL NATURALIZED DETENTION AREAS.

PROJECT TEAM

DEVELOPERS:
HAMILTON PARTNERS
300 PARK BOULEVARD, SUITE 201
ITASCA, IL 60143

KINZIE BUILDERS
930 WOODLANDS PARKWAY
VERNON HILLS, IL 60061

BUIDING ARCHITECT / PLANNER:
BSB DESIGN
220 N. SMITH STREET, SUITE 210
PALATINE, IL 60067
TEL (847) 705-2200

CONTACT: NATALIE VISCUSO / JOE MASCHEK

CIVIL ENGINEER:
RWG ENGINEERING, LLC
975 E. 22ND STREET, SUITE 400
WHEATON, IL 60189
TEL (847) 480-7889

CONTACT: ROBERT W. GUDMUNDSON

LANDSCAPE ARCHITECT:
DICKSON DESIGN STUDIO, INC.
526 SKYLINE DRIVE
ALGONQUIN, IL 60102
TEL (847) 878-4019 / (847) 804-8708

CONTACT: SHARON DICKSON / JEFF TORRENS

EXCAVATOR / LANDSCAPE CONTRACTOR:
LANDSCAPE CONSTRUCTION CORP.
8713 N. NORTH SOLON ROAD
RICHMOND IL 60071
TEL (815) 675-0090

CONTACT: PETER DEVORE

SHEET KEY

L0.1 PROJECT TEAM
GENERAL LANDSCAPE NOTES
PLANTING DETAILS
PLANT SYMBOLS KEY

L1.0 OVERALL LANDSCAPE PLAN

L1.1 PLAN DETAIL: DOG PARK
PLAN DETAIL: WATER FEATURE
PLAN DETAIL: APARTMENT FOUNDATION LANDSCAPE
PLAN DETAIL: TYPICAL FOUNDATION LANDSCAPE

L1.2 SPECIFICATIONS & DETAILS: OVERALL SITE

L1.3 SPECIFICATIONS & DETAILS: DOG PARK

dickson design STUDIO
526 SKYLINE DRIVE
ALGONQUIN IL 60102
847 878 4019

CLIENT NAME AND ADDRESS

HAMILTON PARTNERS

ITASCA, ILLINOIS

PLAN DATE

SEPTEMBER 7, 2021

REVISIONS

1.	PER EXHIBIT 9/13/21
2.	ADDED PLANT MIX 9/13/21
3.	REVISED SITE PLAN 11/19/21
4.	PER CITY COMMENTS 12/6/21
5.	
6.	
7.	
8.	
9.	
10.	

PROJECT NAME AND SHEET TITLE

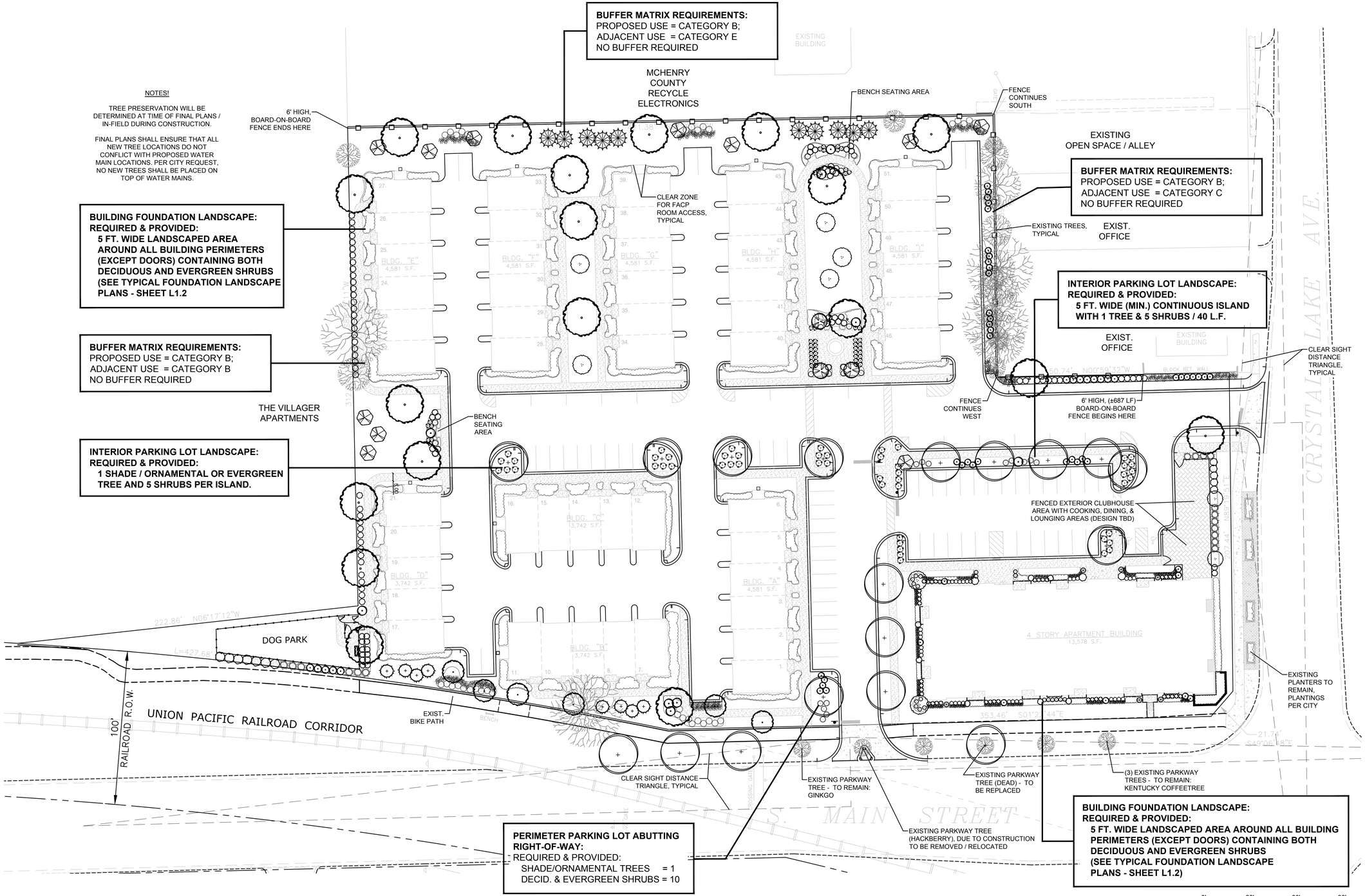
CRYSTAL LAKE ROAD & MAIN STREET

CRYSTAL LAKE, IL

PRELIMINARY LANDSCAPE PLAN - COVER SHEET

SHEET NUMBER

L0.1



OVERALL LANDSCAPE PLAN

SCALE: 1" = 30'-0"

dickson design STUDIO
526 SKYLINE DRIVE
ALGONQUIN IL 60102
847 878 4019

CLIENT NAME AND ADDRESS

HAMILTON PARTNERS

ITASCA, ILLINOIS

PLAN DATE

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PROJECT NAME AND SHEET TITLE

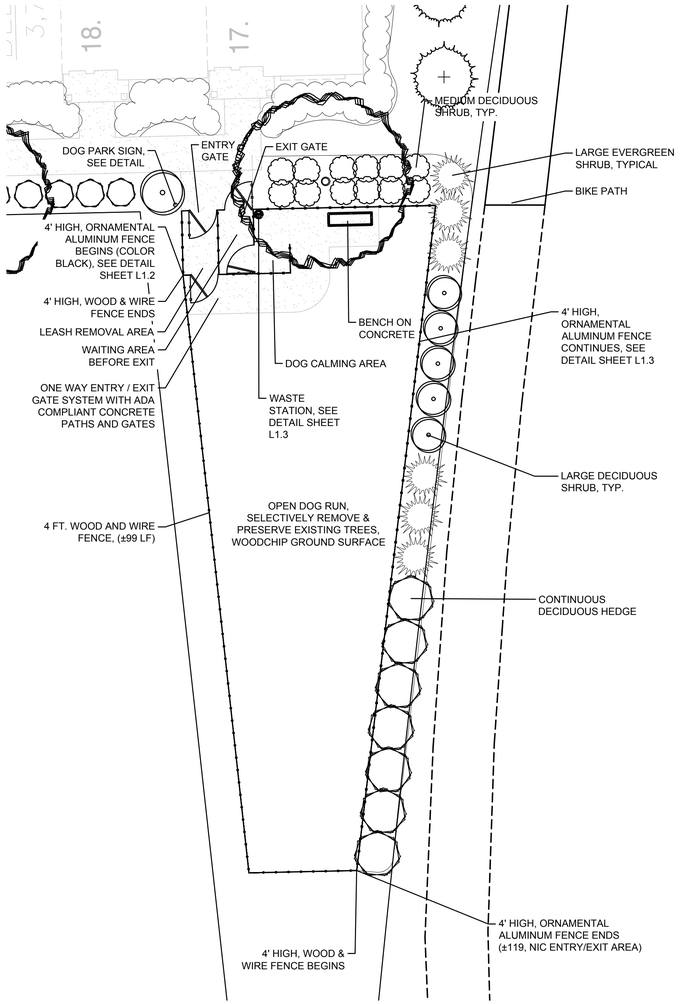
CRYSTAL LAKE ROAD & MAIN STREET

CRYSTAL LAKE, IL

PRELIMINARY LANDSCAPE PLAN - OVERALL

SHEET NUMBER

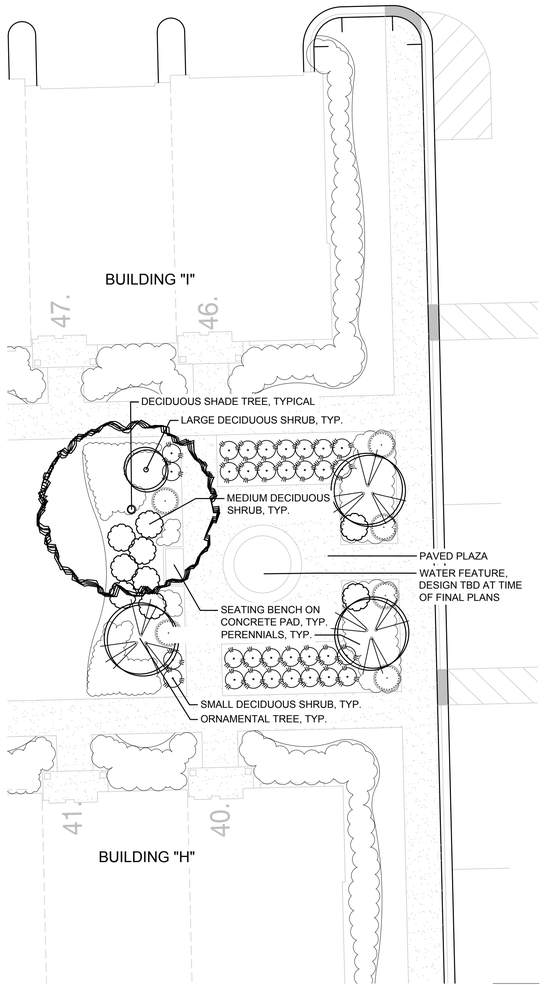
L1.0



NORTH

PLAN DETAIL: DOG PARK

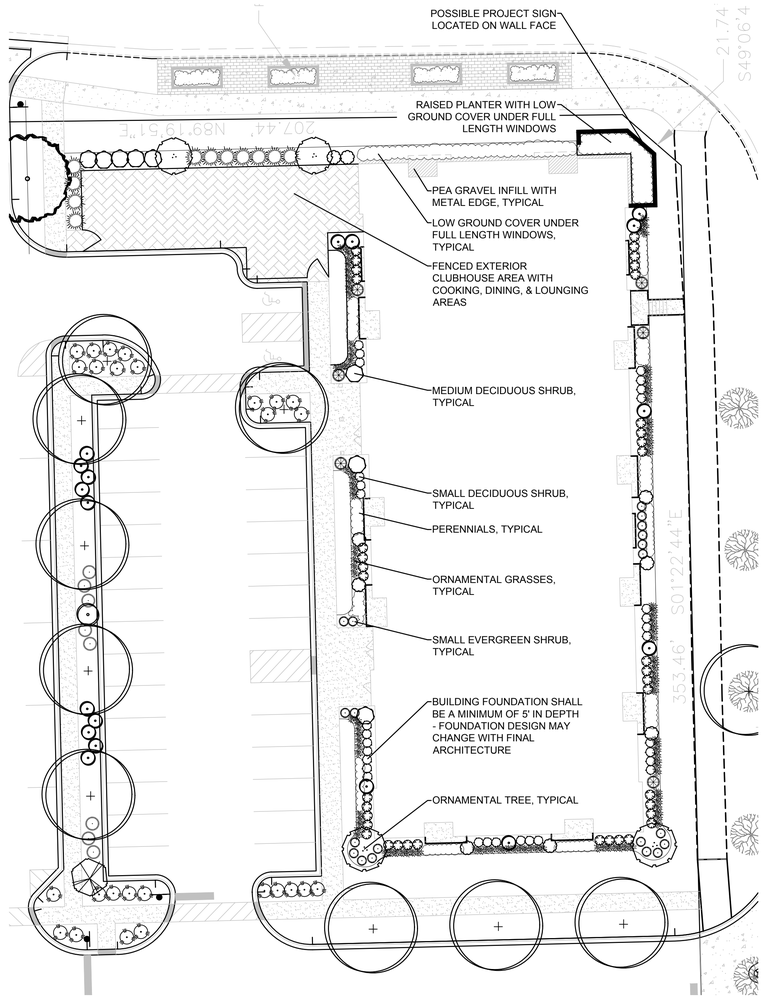
SCALE: 1" = 10'-0"



NORTH

PLAN DETAIL: WATER FEATURE

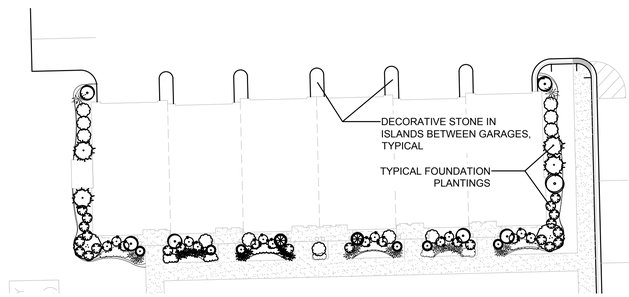
SCALE: 1" = 10'-0"



NORTH

PLAN DETAIL: APARTMENT FOUNDATION LANDSCAPE

SCALE: 1" = 20'-0"



PLAN DETAIL: TYPICAL TOWNHOME FOUNDATION LANDSCAPE

SCALE: 1" = 20'-0"

dickson design
STUDIO
526 SKYLINE DRIVE
ALGONQUIN IL 60102
847 878 4019

CLIENT NAME AND ADDRESS

HAMILTON PARTNERS

ITASCA, ILLINOIS

PLAN DATE

SEPTEMBER 7, 2021

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PROJECT NAME AND SHEET TITLE

CRYSTAL LAKE ROAD & MAIN STREET

CRYSTAL LAKE, IL

PRELIMINARY LANDSCAPE PLAN - FEATURES AND FOUNDATIONS

SHEET NUMBER

L1.1

SPECIFICATIONS & DETAILS: OVERALL SITE

1 SPECIFICATION - SEATING AREAS, BENCH

SHALL BE:

- QUANTITY: 3
- NAME: DuMOR
- MODEL: 57-601 (SURFACE-MOUNT)
- MATERIAL: CAST IRON BENCH WITH
  RECYCLED PLASTIC WOOD SLATS
- MEASURES: 6' LONG
- COLOR, FRAME: BLACK

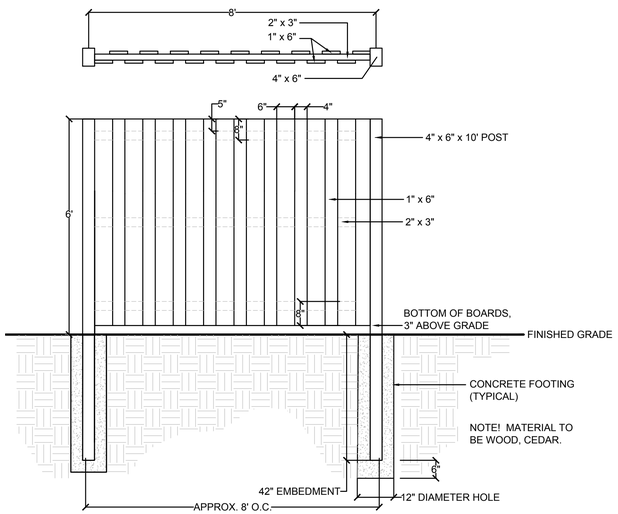
- INSTALL: PER MANUFACTURER'S SPECIFICATIONS

- AVAILABLE THRU (OR APPROVED EQUAL):
  NUTOYS LEISURE PRODUCTS
  LAGRANGE, IL
  CONTACT: JENNIFER RIVERA @ TEL (708) 579-9055



2 DETAIL - FENCE, BOARD-ON-BOARD

NOT TO SCALE



dickson design
STUDIO
526 SKYLINE DRIVE
ALGONQUIN IL 60102
847 878 4019

CLIENT NAME AND ADDRESS

HAMILTON PARTNERS

ITASCA, ILLINOIS

PLAN DATE

SEPTEMBER 7, 2021

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PROJECT NAME AND SHEET TITLE

CRYSTAL LAKE ROAD & MAIN STREET

CRYSTAL LAKE, IL

PRELIMINARY LANDSCAPE PLAN - SPECIFICATIONS & DETAILS

SHEET NUMBER

L1.2

SPECIFICATIONS & DETAILS: DOG PARK

1 SPECIFICATION - SEATING BENCH

SHALL BE:

- QUANTITY: 1
- NAME: DuMOR, BENCH 37
- MODEL: 37-601 (S-1 EMBEDMENT)
- MATERIAL: STEEL BASE WITH RECYCLED PLASTIC WOOD SEAT
- MEASURES: 6'L x 17"H
- SEAT HEIGHT: 17"
- COLOR, FRAME: TEXTURED BLACK

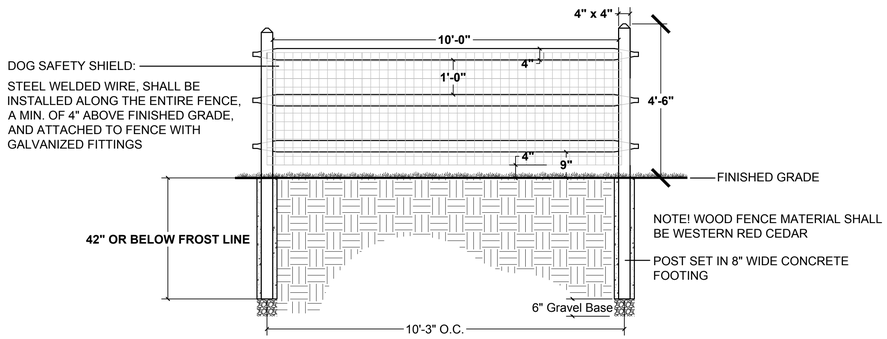
- INSTALL: PER MANUFACTURER'S SPECIFICATIONS

- AVAILABLE THRU (OR APPROVED EQUAL):
  NUTOYS LEISURE PRODUCTS
  LAGRANGE, IL
  CONTACT: JENNIFER RIVERA @ TEL (708) 579-9055



2 DETAIL - FENCE, WOOD & WIRE

NOT TO SCALE



3 SPECIFICATIONS - PARK SIGNAGE & WASTE STATION

SHALL BE:

- QUANTITY: 1
- MODEL: SENTRY DOG WASTE STATION W/ SINGLE PULL BAGS
- MATERIAL: GALVANIZED SQUARE POST W/ 10 GALLON RECEPTACLE
- MEASURES: 77"H X 12"W
- INCLUDES SIGN, BAG DISPENSER, & HARDWARE
- INCLUDES 400 DOG WASTE BAGS
- INCLUDES 50 WASTE CAN LINERS
- PRODUCT IS SHIPPED UNASSEMBLED
- COLOR: GREEN

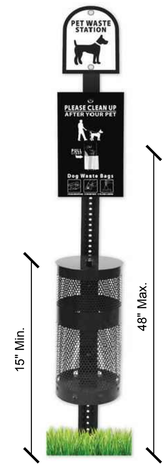
SHALL BE:

- QUANTITY: 1
- MODEL: DOG PARK EXERCISE AREA SIGN
- MATERIAL: ALUMINUM
- COLOR: GREEN

- INSTALL: PER MANUFACTURER'S SPECIFICATIONS

- AVAILABLE THRU (OR APPROVED EQUAL):
  TERRA BOUND SOLUTIONS
  SPRING, TX - TEL (877) 857-2915

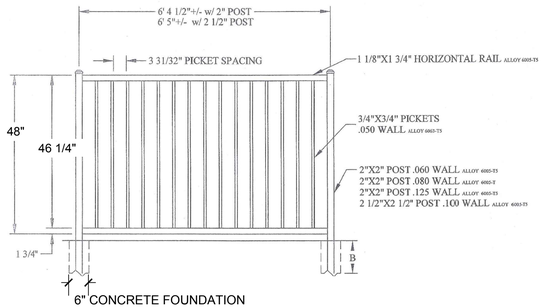




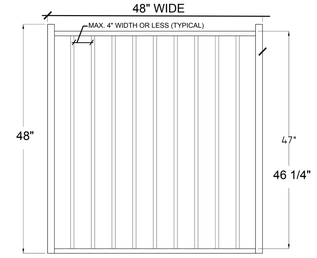
4 SPECIFICATIONS & DETAILS - FENCE, ORNAMENTAL ALUMINUM

NOT TO SCALE

FENCE



GATE



SPECIFICATION - ORNAMENTAL FENCE

SHALL BE:

- NAME: ELITE
- MODEL: LIFEGARD, 4' HIGH, WITH (4) 4' WIDE GATES
- MATERIAL: ALUMINUM, POWER-COATED
- COLOR: BLACK

- SHALL BE INSTALLED WITH 42"-48" DEEP CONCRETE FOOTINGS, (1) FOOTING PER BURIED POST

- ENTRY & EXIT FENCE GATES SHALL BE SELF-CLOSING & SELF-LATCHING WITH COLOR MATCHED HINGES
- INTERIOR FENCE GATES SHALL BE SELF-CLOSING & SELF-LATCHING WITH COLOR-MATCHED HINGES

dickson design STUDIO
526 SKYLINE DRIVE
ALGONQUIN IL 60102
847 878 4019

CLIENT NAME AND ADDRESS

HAMILTON PARTNERS

ITASCA, ILLINOIS

PLAN DATE

SEPTEMBER 7, 2021

REVISIONS

1.	PER EXHIBIT 9/13/21
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PROJECT NAME AND SHEET TITLE

CRYSTAL LAKE ROAD & MAIN STREET

CRYSTAL LAKE, IL

PRELIMINARY LANDSCAPE PLAN - SPECIFICATIONS & DETAILS

SHEET NUMBER

L1.3



A - FREE STANDING
Backlit
Wall Mounted
Monument Signage

B - WALL Address
Wall Mounted

C - WAYFINDING
Addresses/Leasing Directional

D - DOWNTOWN DIRECTIONAL
Streetscape Coordination

North

0 40 80

HAMILTON PARTNERS

SIGNAGE PLAN

Concept Plan
Crystal Lake & Main
Crystal Lake, Illinois

BSB DESIGN
BSBDESIGN.COM

Rev. November 19th, 2021

The drawings presented are illustrative of character and design intent only, and are subject to change based upon final design considerations (i.e. applicable codes, structural, and MEP design requirements, unit plan / floor plan changes, etc.) © 2021 BSB Design, Inc.

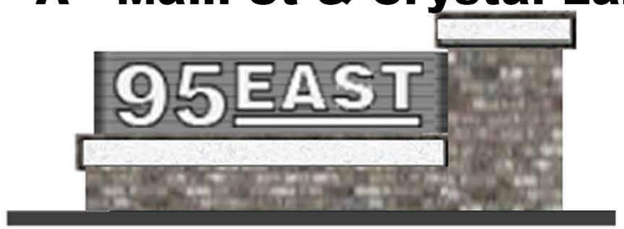
A - Corner Identity Sign



North Elevation
Scale: 1/8" = 1'-0"

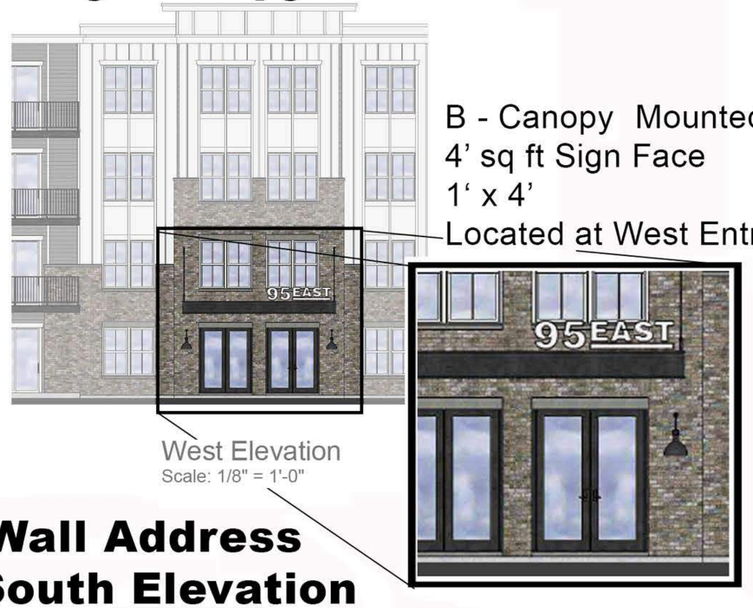
A - Free Standing Sign
1 Sided
16 sq ft Sign Face
Retaining Wall Mount
Backlit Letters
Located at Corner

A - Main St & Crystal Lake Ave.



A - Free Standing Sign
2 Sided
16 sq ft Sign Face
Materials to Match Building
Backlit Letters
4' h x 8.5'
Located at Entrance Drives

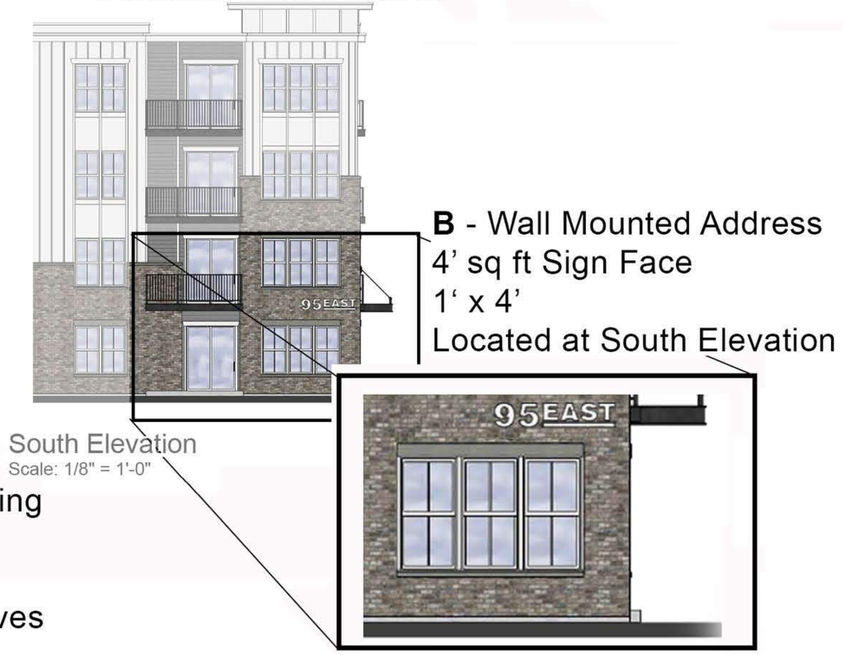
B - Entry Canopy Address



B - Canopy Mounted
4' sq ft Sign Face
1' x 4'
Located at West Entry

West Elevation
Scale: 1/8" = 1'-0"

B - Wall Address
South Elevation



B - Wall Mounted Address
4' sq ft Sign Face
1' x 4'
Located at South Elevation

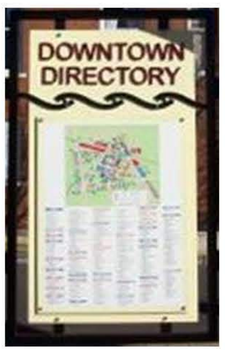
South Elevation
Scale: 1/8" = 1'-0"

C - Wayfinding



C - Free Standing
Address/Leasing
4' sq ft Sign Face
3'h x 2'w
Two Sided

D - Kiosk



D - Community ID
Downtown Streetscape

HAMILTON PARTNERS

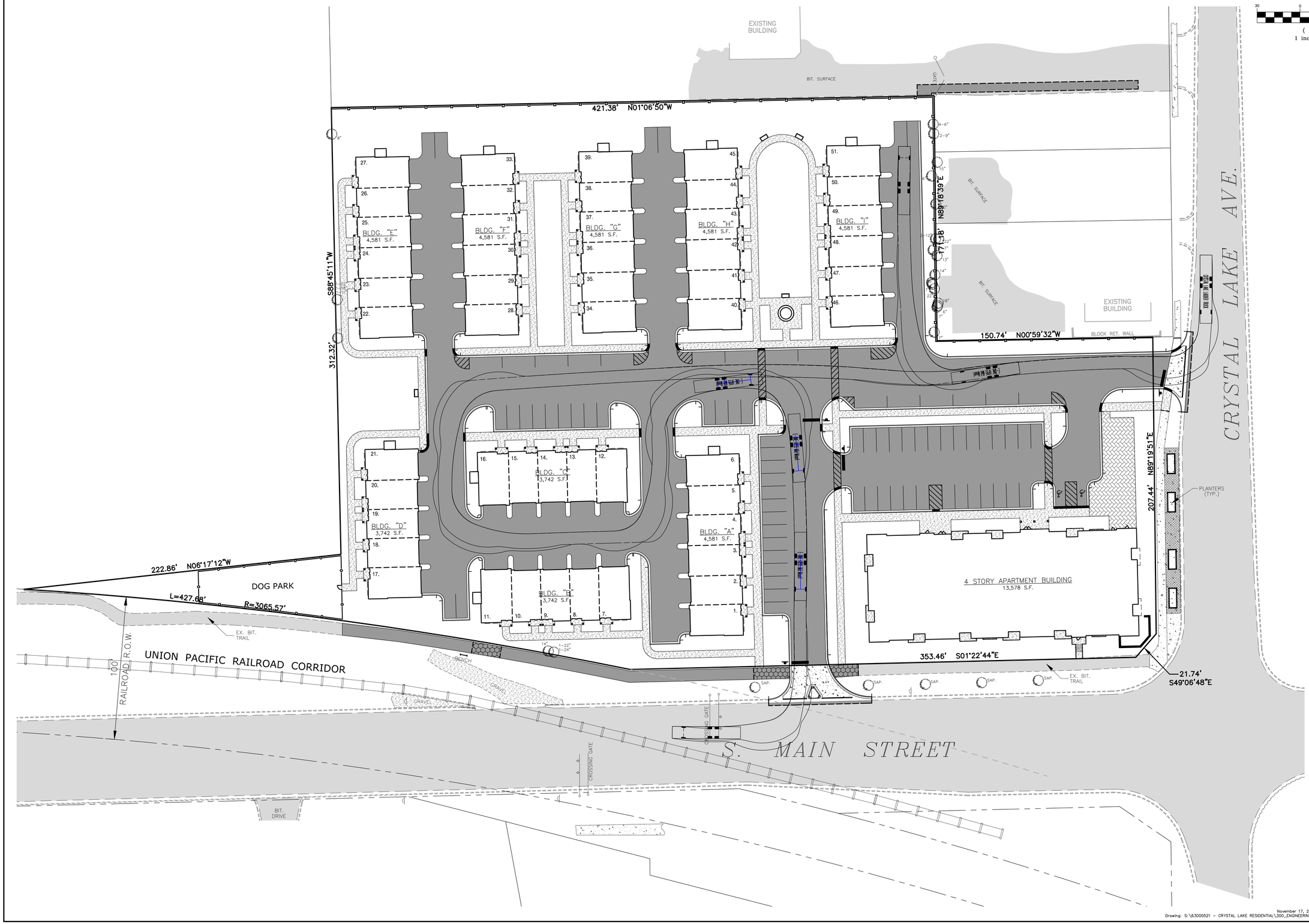
SIGNAGE PLAN

Crystal Lake & Main
Crystal Lake, Illinois

BSB DESIGN
BSBDesign.com

The drawings presented are illustrative of character and design intent only, and are subject to change based upon final design considerations (i.e. applicable codes, structural, and MEP design requirements, unit plan / floor plan changes, etc.) © 2021 BSB Design, Inc.

November 19, 2021 | MP210365.00



© COPYRIGHT 2021

DATE	REVISIONS	DRAWN BY
1 11/18/21	NEW BUILDING FOOTPRINTS, UPDATED SITE LAYOUT	AXS

CRYSTAL LAKE RESIDENTIAL

CRYSTAL LAKE, ILLINOIS

FIRE TRUCK MANEUVERING PLAN

RWG Engineering, LLC
Civil Engineering ◆ Real Estate Consulting ◆ Project Management
975 E. 22nd St. Suite 400
Wheaton, IL 60189
630.480.7889
www.rwg-engineering.com

PROJECT NO. 63000521
DATE 09/13/21
SCALE 1"=30'
PROJ. MGR. RWG
PROJ. ASSOC. MKR
DRAWN BY TLM

SHEET 1 OF 1

November 17, 2021 3:18:33 p.m. AcadVer:22.0s (LMS Tech)
Drawing: S:\63000521 – CRYSTAL LAKE RESIDENTIAL\300_ENGINEERING\310_CADD\PRELIM\630_BASE_PRELIM.DWG

RWG ENGINEERING, LLC
CIVIL ENGINEERING – REAL ESTATE CONSULTING – PROJECT MANAGEMENT
ILLINOIS PROFESSIONAL DESIGN FIRM #184–006370

LIMITATION OF WARRANTY OF ENGINEER'S INSTRUMENTS OF SERVICE

THE ENGINEER AND HIS CONSULTANTS DO NOT WARRANT OR GUARANTEE THE ACCURACY AND COMPLETENESS OF THE DELIVERABLES HEREIN BEYOND A REASONABLE DILIGENCE. IF ANY MISTAKES, OMISSIONS, OR DISCREPANCIES ARE FOUND TO EXIST WITHIN THE DELIVERABLES, THE ENGINEER SHALL BE PROMPTLY NOTIFIED SO THAT HE MAY HAVE THE OPPORTUNITY TO TAKE WHATEVER STEPS NECESSARY TO RESOLVE THEM. FAILURE TO PROMPTLY NOTIFY THE ENGINEER OF SUCH CONDITIONS SHALL ABSOLVE THE ENGINEER FROM ANY RESPONSIBILITY FOR THE CONSEQUENCES OF SUCH FAILURE. ACTIONS TAKEN WITHOUT THE KNOWLEDGE AND CONSENT TO THE ENGINEER, OR IN CONTRADICTION TO THE ENGINEER'S DELIVERABLES OR RECOMMENDATIONS, SHALL BECOME THE RESPONSIBILITY NOT OF THE ENGINEER BUT OF THE PARTIES RESPONSIBLE FOR TAKING SUCH ACTION.

LEGEND

	EXISTING	PROPOSED
SANITARY MANHOLE	◎	◉
STORM MANHOLE	◎	◉
CATCH BASIN	○	●
INLET	□	■
PRECAST FLARED END SECTION	▷	▶
CONCRETE HEADWALL	⊃	⊃
VALVE VAULT	⊗	⊗
VALVE BOX	⊞	⊞
FIRE HYDRANT	⊃	⊃
BUFFALO BOX	⊙	•
CLEANOUT	⊡	⊡
SANITARY SEWER	——◁——	——◀——
FORCE MAIN	——◁——	——◀——
STORM SEWER	——◁——	——◀——
WATER MAIN	——··——	——··——
CONSTRUCT WATER MAIN UNDER SEWER		
GRANULAR TRENCH BACKFILL		
STREET LIGHT	——☼——	——☼——
ELECTRICAL CABLE	——E——	——E——
2" CONDUIT ENCASEMENT		
ELECTRICAL TRANSFORMER OR PEDESTAL	E	
POWER POLE	——○——	——●——
STREET SIGN	——▷——	——▶——
GAS MAIN	——G——	——G——
TELEPHONE LINE	——T——	——T——
CONTOUR	749	749
SPOT ELEVATION	×(750.00)	×750.00
WETLANDS		
FLOODWAY		
FLOODPLAIN		
HIGH WATER LEVEL (HWL)		
NORMAL WATER LEVEL (NWL)		
DIRECTION OF SURFACE FLOW		
DITCH OR SWALE		
OVERFLOW RELIEF ROUTING		
SLOPE BANK		
TREE WITH TRUNK SIZE	6" 6"	
SOIL BORING	B-8 B-9	B-1 B-11
TOPSOIL PROBE		
FENCE LINE, WIRE OR SILT	——×——	——×——
FENCE LINE, CHAIN LINK OR IRON	——○——	——○——
FENCE LINE, WOOD OR PLASTIC	——□——	——□——
CONCRETE SIDEWALK		
CURB AND GUTTER		
DEPRESSED CURB		
REVERSE PITCH CURB & GUTTER		
EASEMENT LINE	— — — —	— — — —

ABBREVIATIONS

BL	BASE LINE	NWL	NORMAL WATER LEVEL
C	LONG CHORD OF CURVE	PC	POINT OF CURVATURE
C & G	CURB AND GUTTER	PT	POINT OF TANGENCY
CB	CATCH BASIN	PVI	POINT OF VERTICAL INTERSECTION
CL	CENTERLINE	R	RADIUS
D	DEGREE OF CURVE	ROW	RIGHT-OF-WAY
EP	EDGE OF PAVEMENT	SAN	SANITARY SEWER
FF	FINISHED FLOOR	ST	STORM SEWER
FG	FINISHED GRADE	T	TANGENCY OF CURVE
FL	FLOW LINE	TB	TOP OF BANK
FP	FLOODPLAIN	TC	TOP OF CURB
FR	FRAME	TF	TOP OF FOUNDATION
FW	FLOODWAY	TP	TOP OF PIPE
HWL	HIGH WATER LEVEL	TS	TOP OF SIDEWALK
INV	INVERT	TW	TOP OF WALK
L	LENGTH OF CURVE	WM	WATER MAIN
MH	MANHOLE	Δ	INTERSECTION ANGLE

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

Formerly JULIE 1–800–892–0123

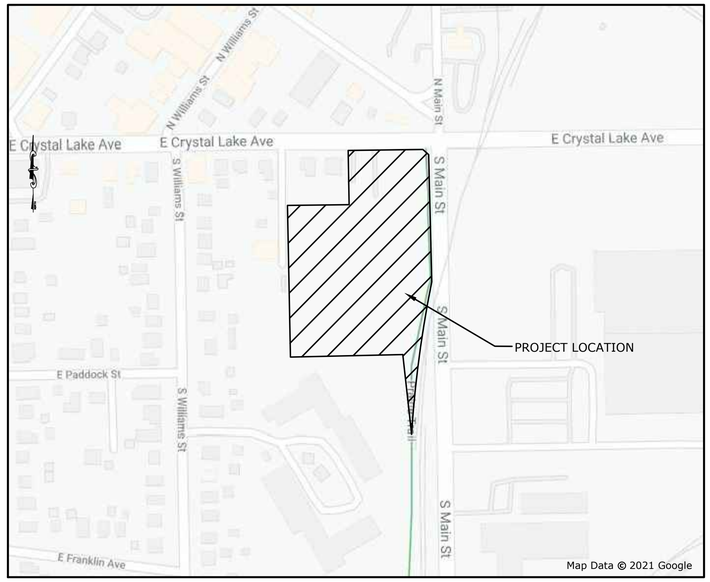
PRELIMINARY ENGINEERING PLANS

FOR

CRYSTAL LAKE RESIDENTIAL

SW CORNER OF CRYSTAL LAKE AVE AND MAIN STREET
CRYSTAL LAKE, ILLINOIS

LOCATION MAP



PLANS PREPARED FOR

HAMILTON PARTNERS, INC.
AND
HARLEM-IRVING PROPERTIES, INC.

1130 W. LAKE COOK ROAD
BUFFALO GROVE, ILLINOIS
847-459-5560

INDEX OF SHEETS

1. TITLE SHEET
2. EXISTING CONDITIONS PLAN
3. DEMOLITION PLAN
4. SITE GEOMETRIC AND PAVING PLAN
~~5. SOIL EROSION AND SEDIMENT CONTROL (SESC) PLAN~~
~~6. SESC DETAILS AND SCHEDULES~~
7. GRADING PLAN
8. UTILITY PLAN
~~9. UTILITY PROFILES~~
~~10. PROJECT NOTES AND SPECIFICATIONS~~
~~11. CONSTRUCTION STANDARDS AND DETAILS~~
~~12. CONSTRUCTION STANDARDS AND DETAILS~~
~~13. CONSTRUCTION STANDARDS AND DETAILS~~

(PLAN SHEETS LINED OUT ARE NOT INCLUDED AT THIS TIME, BUT WILL BE A PART OF FUTURE FINAL ENGINEERING PERMIT DOCUMENTATION)

GENERAL NOTES

1. The contractor shall notify the following governmental agencies at least two working days prior to commencement of construction:
   - City of Crystal Lake Public Works Department (815–356–3614)
2. The contractor shall notify all utility companies and arrange for their facilities to be located prior to work in any easement, right–of–way, or suspected utility location. Repair of any damage to existing facilities shall be the responsibility of the contractor. Utility locations shown herein are for graphic illustration only and are not to be relied upon.
3. Prior to commencement of any offsite construction, the contractor shall secure written authorization that all offsite easements have been secured, and that permission has been granted to enter onto private property.
4. Elevations shown herein reflect NAVD 1988 datum.
5. The boundary and topographic survey data for this project is based on a field survey prepared by Terra Technology Land Surveying, Inc, dated JULY 15, 2021. The contractor shall verify existing conditions prior to commencing construction and shall immediately notify the engineer in writing of any differing conditions.
6. RWG Engineering, LLC, it's employees and agents are not responsible for the safety of any party at or on the construction site. Safety is the sole responsibility of the contractor, and any other entity performing work at the site. Neither the owner nor the engineer assumes any responsibility for job site safety or for the means, methods or sequences of construction.
7. Except where modified by the contract documents, all work proposed hereon shall be in accordance with the following specifications, which are hereby made a part hereof:
   A. "Standard Specifications for Road and Bridge Construction in Illinois," as prepared by I.D.O.T. latest edition.
   B. "Standard Specifications for Water and Sewer Main Construction in Illinois," latest edition.
   C. "Illinois Recommended Standards for Sewage Works," as published by the I.E.P.A., latest edition.
   D. The subdivision and development codes and standards of the City of Crystal Lake, as published by the Municipality.
   E. "Illinois Accessibility Code" as published by the State of Illinois Capital Development Board, effective October 23, 2018.
   F. The National Electric Code.
   G. "Illinois Urban Manual" as prepared by the U.S. Dept. of Agriculture latest edition.
8. The City of Crystal Lake Development Ordinance shall take precedence if a conflict in project specifications occurs.

BENCHMARKS

BENCHMARK NO.1:

CUT SQUARE IN CONCRETE ON THE SOUTHWESTERLY CORNER OF ELECTRIC HANSHOLE LOCATED JUST BEHIND THE CURB RETURN AT THE SOUTHWEST CORNER OF CRYSTAL LAKE AVENUE AND MAIN STREET (IE NEAR THE NORTHEAST CORNER OF THE PROPERTY).

ELEVATION = 910.37 (NAVD 88 DATUM)

ROBERT W. GUDMUNDSON
38423
REGISTERED PROFESSIONAL ENGINEER
OF
ILLINOIS

EXP 02/28/22

DRAWN BY	REVISIONS	DATE
AXS	1 NEW BUILDING FOOTPRINTS, UPDATED SITE LAYOUT	11/18/21

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TITLE SHEET

RWG Engineering, LLC
Civil Engineering ◆ Real Estate Consulting ◆ Project Management
975 E. 22nd St. Suite 400
Wheaton, IL 60189
630.480.7889
www.rwg-engineering.com

PROJECT NO. 63000521
DATE 10/25/21
SCALE NONE
PROJ. MGR. RWG
PROJ. ASSOC. MKR
DRAWN BY TLM

SHEET
1 OF 13

NORTH

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 inch = 30 ft.

EXISTING BUILDING

2" INLET
RIM=916.00
INV=914.05

SAN MH
RIM=917.54
INV=913.34

6" PVC

2" INLET
RIM=916.11
INV=914.27

EX. 6" WM TO REMAIN ACTIVE

EXISTING 20' UTILITY EASEMENT RECORED IN 2019 AS DOCUMENT No. 2019R0006635

EX. 8" VALVE VAULT

EX 8" WM

EX 6" WM

EX. 8"x6" REDUCER

EX 10" SAN

BIT. SURFACE

CHAINLINK FENCE

421.38' N01°06'50"W

BLOCK STR.
RIM=913.96
INV=909.21
BOTTOM=900.61

2" INLET
RIM=913.75
INV=910.18

10" PVC

N89°18'39"E 17.18'

2" INLET
RIM=911.65
INV=908.70

10" RCP

BLOCK STR.
RIM=912.42
INV=907.37
WATER=903.62
BOTTOM=901.62

EXISTING BUILDING
T/F=915.8

150.74' N00°59'32"W

BLOCK RET. WALL

S88°45'11"W 312.32'

STORM MH
RIM=911.47
INV(NE)=906.22

STORM MH
RIM=910.42
INV(NE)=907.73
INV(SW)=906.98

4" DIP SAN

STORM MH
RIM=910.65
INV(NE)=906.41

8" DIP

STORM MH
RIM=911.50
INV(NE)=905.9

CONC.

10" PVC

8" PVC

STORM MH
RIM=909.77
INV(E&W)=907.12
INV(SW)=907.30

12" RCP

2" INLET
RIM=909.57
INV=907.45

STORM MH
RIM=911.73
INV(W)=906.45
INV(12"RCP N)=906.45
INV(E)=906.21

PLANTER (TYP.)

EX 8" SAN

EX 12" WM

222.86' N06°17'12"W

L=427.68'
R=3065.57'

CONC. RET. WALL

CONCRETE

CONCRETE

REMNANT OF CONCRETE FOUNDATION

SITE BENCHMARK:
SQUARE CUT AT SW'LY CORNER OF HANDHOLE
ELEV.=910.37 NAVD88

207.44' N89°19'51"E

EX. BIT. TRAIL

UNION PACIFIC RAILROAD CORRIDOR

100' RAILROAD R.O.W.

EASEMENT OF WAY PER DOC.1995R0011061

BRANCH

GRAVEL

CRAINLINK FENCE

STORM CB
RIM=913.89
INV(E)=908.78

STORM CB
RIM=914.15
INV(NE)=910.67

12" RCP

STORM STR
RIM=913.77

STORM STR
RIM=913.90

STORM STR
RIM=913.88

CROSSING GATE

353.46' S01°22'44"E

S.A.P.

24" RCP

STORM CB
RIM=912.73
INV(E)=906.79

STORM STR
RIM=912.29

EX. BIT. TRAIL

EXCEPTION

21.74' S49°06'48"E

EX 15" SAN

EX 24" STM

EX 12" SAN

SAN MH
RIM=911.22

S. MAIN STREET

STORM STR.
RIM=914.20

STORM STR.
RIM=914.01

OHW

BIT. DRIVE

10" DIP

VALVE VAULT
RIM=915.62
TOP 10" DIP=910.42

STORM CB
RIM=913.73
INV(12"RCP S)=910.7+/-

STORM CB
RIM=913.91
INV(12"RCP N&W)=908.78

INV24" RCP FES=906.43

STORM STR.
RIM=911.63
INV=907 +/-
POSSIBLY ABBANDONED

6" DIP

VALVE VAULT
RIM=914.16
TOP 6"+/- DIP=907.61

EX 10" WM

SURVEY NOTE

THE EXISTING CONDITIONS PLAN IS BASED ON A SURVEY DONE BY TERRA TECHNOLOGY LAND SURVEYING, INC, AND DATED JULY 15, 2021

November 17, 2021 2:47:56 p.m. AcadVer:22.0s (LMS Tech)
Drawing: S:\63000521 – CRYSTAL LAKE RESIDENTIAL\300_ENGINEERING\310_CADD\PRELIM\630_BASE_PRELIM.DWG

DATE	REVISIONS	DRAWN BY
1 11/18/21	NEW BUILDING FOOTPRINTS, UPDATED SITE LAYOUT	AJS

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EXISTING CONDITIONS PLAN

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www.rwg-engineering.com

PROJECT NO. 63000521
DATE 10/25/21
SCALE 1"=30'
PROJ. MGR. RWG
PROJ. ASSOC. MKR
DRAWN BY TLM

SHEET
2 OF 13

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DEMOLITION LEGEND

- REMOVE EXISTING PAVEMENT/SIDEWALK/STRUCTURE/C&G (INCL SAWCUT)
- TREE/BUSH/STRUCTURE REMOVAL
- TREE PROTECTION FENCE
- REMOVE EXISTING UTILITY LINE
- REMOVE EXISTING CURB AND GUTTER

DEMOLITION NOTES:

1. SWPPP/EROSION CONTROL INSTALLATION SHALL BE DONE PRIOR TO COMMENCEMENT OF ANY DEMOLITION ACTIVITY.
2. EXISTING ELECTRICAL AND PHONE CABLES MAY BE LOCATED WITHIN THE PROPOSED IMPROVEMENT AREA. APPROXIMATE KNOWN LOCATIONS ARE SHOWN HEREON. THE CONTRACTOR SHALL ARRANGE FOR PRECISE LOCATION OF EXISTING CABLE SERVICES AND EXERCISE EXTREME CARE WHEN WORKING AROUND THE SAME.
3. ALL STRUCTURAL PAVEMENT MATERIALS (ASPHALT, CONCRETE SIDEWALK, CURB/GUTTER) THAT CANNOT BE CRUSHED TO AN APPROVED IDOT SPECIFICATION FOR USE AS STRUCTURAL FILL SHALL BE DISPOSED OF BY THE CONTRACTOR AT AN OFFSITE LOCATION. RE-USE OF MILLED ASPHALT AND PROPERLY CRUSHED CONCRETE AS STRUCTURAL FILL IS ACCEPTABLE AND ENCOURAGED.
4. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO EXISTING AMENITIES SCHEDULED TO REMAIN. PROPER SAWCUTTING SHALL BE ACCOMPLISHED AT ALL POINTS OF CONNECTION OR INTERFACE BETWEEN EXISTING AND PROPOSED IMPROVEMENTS.
5. CONTRACTOR SHALL BE RESPONSIBLE TO HAVE ALL UNDERGROUND UTILITIES (EVEN IF NOT SHOWN ON THESE PLANS) LOCATED PRIOR TO DEMOLITION WORK. SANITARY SERVICE, WATERMAIN SERVICE, GAS, ELECTRIC, ETC SHALL BE CUT-OFF. CONTRACTOR TO COORDINATE WITH RESPECTIVE MUNICIPAL AGENCY TO ARRANGE FOR DISCONNECT.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DONE TO EXISTING UTILITIES, STREET LIGHTS, SIGNS, ETC. THAT ARE NOT INTENDED TO BE PERMANENTLY REMOVED.
7. CONTRACTOR SHALL NOTIFY THE CRYSTAL LAKE PUBLIC WORKS DEPARTMENT, ALL UTILITY COMPANIES, AND THE FIRE DEPARTMENT PRIOR TO START UP.
8. ONSITE DISTURBED AREAS TO REMAIN AS GREENSPACE SHALL BE RESTORED WITH TOPSOIL AND SOD/SEED (SEE LANDSCAPE PLANS).
9. ALL EXISTING DRIVEWAY APRONS NOT SCHEDULED FOR RE-USE SHALL BE SAWCUT ALONG WITH REMOVAL OF ANY EXISTING DEPRESSED CURB AND GUTTER, AND NEW BARRIER CURB AND GUTTER (SIZED TO MEET EXISTING ADJACENT CONDITIONS) SHALL BE INSTALLED AND DOWELED INTO THE EXISTING ADJOINING CURB AND GUTTER.
10. PARKWAYS SHALL BE RESTORED WITH MINIMUM 4" TOPSOIL AND SOD
11. UTILITY LINES SCHEDULED FOR REMOVAL SHALL BE PROPERLY DISCONNECTED FROM FACILITIES THAT ARE TO REMAIN, SECURELY PLUGGED AT ALL CONNECTION POINTS, AND EITHER REMOVED OR FILLED WITH FLOWABLE FILL (LEAN CONCRETE MIXTURE) AND ABANDONED IN PLACE (REMOVE IF LOCATED UNDER NEW BUILDING PAD AREAS). IN THE CASE OF STRUCTURE ABANDONMENT, CASTINGS AND TOP SLABS AND CONE SECTIONS SHALL BE REMOVED PRIOR TO FILLING THE STRUCTURE (UNLESS THE STRUCTURE IS EASIER TO COMPLETELY REMOVE).

NORTH

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 inch = 30 ft.

SAN MH RIM=917.54 INV=913.34
2" INLET RIM=916.00 INV=914.05
6" PVC
EX 6" WM
BIT. SURFACE
EXISTING BUILDING
2" INLET RIM=916.11 INV=914.27
EX. 6" WM TO REMAIN ACTIVE
EXISTING 20' UTILITY EASEMENT RECORED IN 2019 AS DOCUMENT No. 2019R0006635
EX. 8" VALVE VAULT
EX 8" WM
EX. 8"x6" REDUCER
EX 10" SAN
EX 8" WM
REMOVE EXISTING CHAIN-LINK FENCE
421.38' N01°06'50"W
CHAINLINK FENCE
BLOCK STR. RIM=913.96 INV=909.21 BOTTOM=900.61
2" INLET RIM=913.75 INV=910.18
10" PVC
BIT. SURFACE
N88°38'39"E 227.44'
2" INLET RIM=911.65 INV=908.70
10" RCP
BLOCK STR. RIM=912.42 INV=907.37 WATER=903.62 BOTTOM=901.62
EXISTING BUILDING T/F=915.8
150.74' N00°59'32"W
BLOCK RET. WALL
EXCEPTION
CRYSTAL LAKE AVE.
EX 12" WM
S88°45'11"W 312.32'
THE NORTH-SOUTH PORTION OF THIS EXISTING 15" SANITARY SEWER SHALL BE JETTED CLEAN BY THE CONTRACTOR, THEN TELEVISED TO VERIFY SEWER INTEGRITY, AND INTERNALLY EPOXY LINED AS MAY BE REQUIRED TO ELIMINATE ANY INFILTRATION. THIS IS A LIVE SEWER AND FLOW MUST BE MAINTAINED AT ALL TIMES.
STORM MH RIM=911.47 INV(NE)=906.22
STORM MH RIM=910.42 INV(NE)=907.73 INV(SW)=906.98
STORM MH RIM=910.65 INV(NE)=906.41
CONC.
REMOVE EXISTING RAILROAD SPUR
STORM MH RIM=911.50 INV(NE)=905.9
REMOVE EXISTING CONCRETE RETAINING WALL
STORM MH RIM=909.77 INV(E&NW)=907.12 INV(SW)=907.30
8" PVC
222.86' N06°17'12"W
L=427.68'
R=3065.57'
INSTALL TEMPORARY PATHWAY BARRIER - SEE DETAIL
EX. BIT. TRAIL
100' RAILROAD R.O.W.
UNION PACIFIC RAILROAD CORRIDOR
CHAINLINK FENCE
FENCE
GRAVEL
EASEMENT OF WAY PER DOC.1995R0011061
STORM CB RIM=913.89 INV(E)=908.78
STORM CB RIM=914.15 INV(NE)=910.67
12" RCP
STORM STR RIM=913.77
STORM STR RIM=913.90
STORM STR RIM=913.88
CROSSING GATE
INSTALL TEMPORARY PATHWAY BARRIER - SEE DETAIL
353.46' S01°22'44"E
21.74' S49°06'48"E
24" RCP
EX 15" SAN
EX. BIT. TRAIL
STORM CB RIM=912.73 INV(E)=906.79
STORM STR RIM=912.29
EXCEPTION
EX 24" STM
S. MAIN STREET
EX 12" SAN
SAN MH RIM=911.22
STORM STR. RIM=914.20
STORM STR. RIM=914.01
OHW
BIT. DRIVE
10" DIP
VALVE VAULT RIM=915.62 TOP 10" DIP=910.42
STORM CB RIM=913.73 INV(12"RCP S)=910.7+/-
STORM CB RIM=913.91 INV(12"RCP N&W)=908.78
INV24" RCP FES=906.43
STORM STR. RIM=911.63 INV=907 +/- POSSIBLY ABBANDONED
VALVE VAULT RIM=914.16 TOP 6"+/- DIP=907.61
6"± DIP
STORM MH RIM=911.73 INV(W)=906.45 INV(12"RCP N)=906.45 INV(E)=906.21
PLANTERS (TYP.)
EX 8" SAN
EX 12" WM
EX 10" WM

DATE	REVISIONS	DRAWN BY
1 11/18/21	NEW BUILDING FOOTPRINTS, UPDATED SITE LAYOUT	AYS

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DEMOLITION PLAN

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630.480.7889
www.rwg-engineering.com

PROJECT NO. 63000521
DATE 10/25/21
SCALE 1"=30'
PROJ. MGR. RWG
PROJ. ASSOC. MKR
DRAWN BY TLM

SHEET
3 OF 13

November 17, 2021 2:50:06 p.m. AcadVer:22.0s (LMS Tech)
Drawing: S:\63000521 - CRYSTAL LAKE RESIDENTIAL\300_ENGINEERING\310_CADD\PRELIM\630_BASE_PRELIM.DWG

SITE DATA:

TOTAL SITE SIZE = 200,744 S.F. (4.608 AC)

COUNTY: McHENRY
P.I.N.: 19-05-226-061
19-05-226-062

EXISTING SITE CONDITIONS(*):
EXISTING BUILDING FOOTPRINT = 0 S.F. (0.00%)
EXISTING PAVT./SIDEWALK = 38,314 S.F. (19.09%)
EXISTING GREENSPACE = 162,430 S.F. (80.91%)

EXISTING CONDITIONS IMPERVIOUS AREA = 38,314 S.F. (0.88 AC)

PROPOSED SITE CONDITIONS:
PROPOSED BUILDING FOOTPRINTS = 52,671 S.F. (26.24%)
PROPOSED ASPHALT/CONC PAVT., WALK = 89,285 S.F. (44.48%)
PROPOSED GREENSPACE = 58,788 S.F. (29.28%)

PROPOSED CONDITIONS IMPERVIOUS AREA = 141,956 S.F. (3.26 AC)

RESIDENTIAL UNIT SUMMARY:
PROPOSED TOWNHOMES = 51 UNITS
PROPOSED APARTMENTS:
STUDIO UNITS = 4 UNITS
ONE BEDROOM UNITS = 29 UNITS
TWO BEDROOM UNITS = 13 UNITS
TOTAL= 46 UNITS

PROPOSED PARKING SUMMARY:
TOWNHOME GARAGE PARKING = 102 (2 PER UNIT)
ALL OTHER SURFACE STALLS = 81
TOTAL PARKING = 183

SURFACE IMPROVEMENT LEGEND:

EXISTING ASPHALT PAVEMENT AND/OR PATHWAYS

ASPHALT PAVEMENT – PRIVATE (Sn = 2.73)
1 1/2" BITUMINOUS SURFACE COURSE, HOT-MIX ASPHALT, MIX "C", N50
2 1/2" BITUMINOUS BINDER COURSE, HOT-MIX ASPHALT, IL-19, N50
BITUMINOUS PRIME COAT MC-30 (0.30 GAL/SY)
10" AGGREGATE BASE COURSE CA-6, GRADE 9

BITUMINOUS TRAIL REPLACEMENT/RESTORATION
1 1/2" BITUMINOUS SURFACE COURSE, HMA, MIX "C", N50
1 1/2" BITUMINOUS BINDER COURSE, HMA, IL-19, N50
BITUMINOUS PRIME COAT MC-30 (0.30 GAL./SY)
4" AGGREGATE BASE COURSE CA-6, GRADE 9

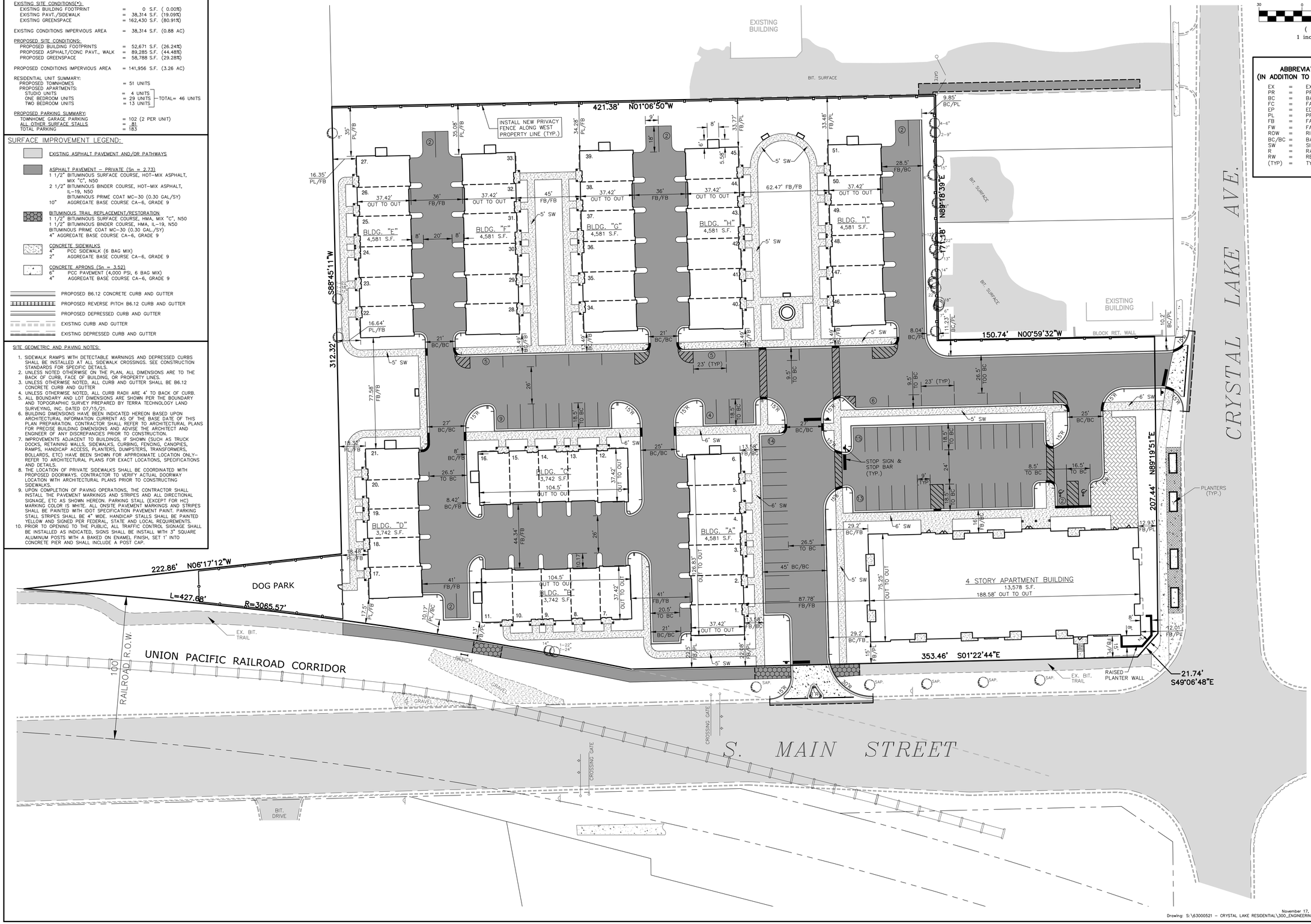
CONCRETE SIDEWALKS
4" PCC SIDEWALK (6 BAG MIX)
2" AGGREGATE BASE COURSE CA-6, GRADE 9

CONCRETE APRONS (Sn = 3.52)
6" PCC PAVEMENT (4,000 PSI, 6 BAG MIX)
4" AGGREGATE BASE COURSE CA-6, GRADE 9

PROPOSED B6.12 CONCRETE CURB AND GUTTER
PROPOSED REVERSE PITCH B6.12 CURB AND GUTTER
PROPOSED DEPRESSED CURB AND GUTTER
EXISTING CURB AND GUTTER
EXISTING DEPRESSED CURB AND GUTTER

SITE GEOMETRIC AND PAVING NOTES:

1. SIDEWALK RAMPS WITH DETECTABLE WARNINGS AND DEPRESSED CURBS SHALL BE INSTALLED AT ALL SIDEWALK CROSSINGS. SEE CONSTRUCTION STANDARDS FOR SPECIFIC DETAILS.
2. UNLESS NOTED OTHERWISE ON THE PLAN, ALL DIMENSIONS ARE TO THE BACK OF CURB, FACE OF BUILDING, OR PROPERTY LINES.
3. UNLESS OTHERWISE NOTED, ALL CURB AND GUTTER SHALL BE B6.12 CONCRETE CURB AND GUTTER.
4. UNLESS OTHERWISE NOTED, ALL CURB RADII ARE 4' TO BACK OF CURB.
5. ALL BOUNDARY AND LOT DIMENSIONS ARE SHOWN PER THE BOUNDARY AND TOPOGRAPHIC SURVEY PREPARED BY TERRA TECHNOLOGY LAND SURVEYING, INC. DATED 07/15/21.
6. BUILDING DIMENSIONS HAVE BEEN INDICATED HEREON BASED UPON ARCHITECTURAL INFORMATION CURRENT AS OF THE BASE DATE OF THIS PLAN PREPARATION. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR PRECISE BUILDING DIMENSIONS AND ADVISE THE ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
7. IMPROVEMENTS ADJACENT TO BUILDINGS, IF SHOWN (SUCH AS TRUCK DOCKS, RETAINING WALLS, SIDEWALKS, CURBING, FENCING, CANOPIES, RAMPS, HANDICAP ACCESS, PLANTERS, DUMPSTERS, TRANSFORMERS, BOLLARDS, ETC) HAVE BEEN SHOWN FOR APPROXIMATE LOCATION ONLY– REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS, SPECIFICATIONS AND DETAILS.
8. THE LOCATION OF PRIVATE SIDEWALKS SHALL BE COORDINATED WITH PROPOSED DOORWAYS. CONTRACTOR TO VERIFY ACTUAL DOORWAY LOCATION WITH ARCHITECTURAL PLANS PRIOR TO CONSTRUCTING SIDEWALKS.
9. UPON COMPLETION OF PAVING OPERATIONS, THE CONTRACTOR SHALL INSTALL THE PAVEMENT MARKINGS AND STRIPES AND ALL DIRECTIONAL SIGNAGE, ETC AS SHOWN HEREON. PARKING STALL (EXCEPT FOR HC) MARKING COLOR IS WHITE. ALL ONSITE PAVEMENT MARKINGS AND STRIPES SHALL BE PAINTED WITH IDOT SPECIFICATION PAVEMENT PAINT. PARKING STALL STRIPES SHALL BE 4" WIDE. HANDICAP STALLS SHALL BE PAINTED YELLOW AND SIGNED PER FEDERAL, STATE AND LOCAL REQUIREMENTS.
10. PRIOR TO OPENING TO THE PUBLIC, ALL TRAFFIC CONTROL SIGNAGE SHALL BE INSTALLED AS INDICATED, SIGNS SHALL BE INSTALL WITH 3" SQUARE ALUMINUM POSTS WITH A BAKED ON ENAMEL FINISH, SET 1' INTO CONCRETE PIER AND SHALL INCLUDE A POST CAP.



NORTH

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 inch = 30 ft.

ABBREVIATIONS LEGEND
(IN ADDITION TO TITLE SHEET LEGEND)

EX	=	EXISTING
PR	=	PROPOSED
BC	=	BACK OF CURB
FC	=	FACE OF CURB
EP	=	EDGE OF PAVEMENT
PL	=	PROPERTY LINE
FB	=	FACE OF BUILDING
FW	=	FACE OF WALK (SIDEWALK)
ROW	=	RIGHT OF WAY
BC/BC	=	BACK OF CURB TO BACK OF CURB
SW	=	SIDEWALK
R	=	RADIUS
RW	=	RETAINING WALL
(TYP.)	=	TYPICAL

DRAWN BY	REVISIONS	DATE
AXS	NEW BUILDING FOOTPRINTS, UPDATED SITE LAYOUT	11/18/21

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SITE GEOMETRIC AND PAVING PLAN

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PROJECT NO. 63000521
DATE 10/25/21
SCALE 1"=30'
PROJ. MGR. RWG
PROJ. ASSOC. MKR
DRAWN BY TLM

SHEET
4 OF 13

November 17, 2021 2:51:1 p.m. AcadVer:22.0s (LMS Tech)
Drawing: S:\63000521 – CRYSTAL LAKE RESIDENTIAL\300_ENGINEERING\310_CADD\PRELIM\630_BASE_PRELIM.DWG

GRADING NOTES:

1. PAVEMENT SLOPES WITHIN HANDICAP ACCESSIBLE PARKING AREAS SHALL NOT EXCEED 2.00% IN ANY DIRECTION.
2. HANDICAP RAMPS SHALL BE CONSTRUCTED WITH A CROSS SLOPE NOT TO EXCEED 2.00%
3. UNLESS SPECIFICALLY INDICATED OTHERWISE, EXISTING GRADES ARE TO BE MET AT PROJECT PERIMETER PROPERTY LINES.
4. THE CONTRACTOR SHALL REFER TO THE SOIL EROSION AND SEDIMENT CONTROL PLANS AND DETAILS (AND SWPPP DOCUMENTS IF APPLICABLE) FOR THE INSTALLATION OF EROSION CONTROL MEASURES PRIOR TO BEGINNING GRADING OPERATIONS.
5. UNLESS OTHERWISE NOTED, SPOT ELEVATIONS AND PROPOSED CONTOURS REFLECT THE FINISHED PAVEMENT SURFACE GRADE, TOP OF CURB GRADE, OR FINISHED GROUND ELEVATION AS APPLICABLE.
6. RIM GRADES FOR DRAINAGE STRUCTURES REFLECT THE FLOW LINE ELEVATION OF THE GUTTER, PAVEMENT OR DRAINAGE SWALE (AS APPLICABLE).
7. WHEREVER THE DESIGN FOR SURFACE FLOW OF DRAINAGE IS DIRECTED AWAY FROM A CURB, THE CONTRACTOR SHALL INSTALL REVERSE GUTTER PITCH.
8. CONTRACTOR TO REFER TO THE LANDSCAPE PLANS TO DETERMINE TOPSOIL REPLACEMENT DEPTH IN ALL DISTURBED GREENSPACE AREAS.
9. DEPRESSED CURB ADJACENT TO CURB RAMP FOR ADA ACCESS SHALL HAVE THE TOP OF DEPRESSED CURB 1/2" ABOVE CURB FLOWLINE.

PLAN ABBREVIATION LEGEND
(IN ADDITION TO TITLE SHEET)

P = PAVEMENT
R = RIM (OR RADIUS)
TC = TOP OF CURB
SW = WALK (OR TOP OF WALK)
FF = FINISHED FLOOR
EP = EDGE OF PAVEMENT
FL = FLOW LINE
TW = TOP OF WALL ELEV
BW = BOTTOM OF WALL (GRADE) ELEV
TDC = TOP OF DEPRESSED CURB

GRADING LEGEND

	EXISTING	PROPOSED
CONCRETE HEADWALL	⊃	⊃
PRECAST FLARED END SECTION	▷	▶
STORM DRAINAGE STRUCTURE	○	●
RETAINING WALL		
CONTOUR	749	749
5' CONTOUR	750	750
SPOT ELEVATION	×(750.00)	×750.00
DIRECTION OF SURFACE FLOW		
DITCH OR SWALE		
OVERFLOW RELIEF ROUTING		
SLOPE BANK		

NORTH

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 inch = 30 ft.

EXISTING BUILDING
BIT. SURFACE
BLDG. "A" 4,581 S.F. FIN. FLR. EL.=915.00
BLDG. "B" 3,742 S.F. FIN. FLR. EL.=915.50
BLDG. "C" 3,742 S.F. FIN. FLR. EL.=915.50
BLDG. "D" 3,742 S.F. FIN. FLR. EL.=915.50
BLDG. "E" 4,581 S.F. FIN. FLR. EL.=916.50
BLDG. "F" 4,581 S.F. FIN. FLR. EL.=916.50
BLDG. "G" 4,581 S.F. FIN. FLR. EL.=916.50
BLDG. "H" 4,581 S.F. FIN. FLR. EL.=916.50
BLDG. "I" 4,581 S.F. FIN. FLR. EL.=916.00
4 STORY APARTMENT BUILDING 13,578 S.F. FIN. FLR. EL.=914.50
RAMP ASPHALT AND GUTTER FLAG UP IN STRIPED AREA TO MEET SIDEWALK GRADE
EXISTING BUILDING T/F=915.8
BLOCK RET. WALL
PLANTERS (TYP.)
SITE BENCHMARK: SQUARE CUT AT SW'ly CORNER OF HANDHOLE. ELEV=910.37 (NAVD88)
DOG PARK
EX. BIT. TRAIL
UNION PACIFIC RAILROAD CORRIDOR
RAILROAD R.O.W. 100'
BENCH
GRAVEL
CROSSING GATE
BIT. DRIVE
OHW
CRYSTAL LAKE AVE.
S. MAIN STREET

November 17, 2021 2:51:32 p.m. AcadVer:22.0s (LMS Tech)
Drawing: S:\63000521 – CRYSTAL LAKE RESIDENTIAL\300_ENGINEERING\310_CADD\PRELIM\630_BASE_PRELIM.DWG

DATE	REVISIONS	DRAWN BY
1 11/18/21	NEW BUILDING FOOTPRINTS, UPDATED SITE LAYOUT	AYS

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CRYSTAL LAKE RESIDENTIAL
CRYSTAL LAKE, ILLINOIS
GRADING PLAN

RWG Engineering, LLC
Civil Engineering ♦ Real Estate Consulting ♦ Project Management
975 E. 22nd St. Suite 400
Wheaton, IL 60189
630.480.7889
www.rwg-engineering.com

PROJECT NO. 63000521
DATE 10/25/21
SCALE 1"=30'
PROJ. MGR. RWG
PROJ. ASSOC. MKR
DRAWN BY TLM

SHEET
7 OF 13

PRELIMINARY PLAN NOTES:

1. THESE PLANS ARE PRELIMINARY, FOR REVIEW ONLY, AND NOT FOR CONSTRUCTION.
2. SOIL EROSION CONTROL MEASURES AND BEST MANAGEMENT PRACTICES SHALL BE PROVIDED PER LOCAL ORDINANCE AND PER THE "ILLINOIS URBAN MANUAL" AT TIME OF FINAL ENGINEERING DESIGN.
3. PRELIMINARY STORM WATER DETENTION VOLUME WILL BE CALCULATED IN ACCORDANCE WITH VILLAGE CODE.
4. SANITARY SEWER SYSTEM SHALL BE 8 INCHES IN DIAMETER AND MATERIAL SHALL BE PVC SDR 26. SANITARY SEWER SERVICES SHALL BE 6 INCHES IN DIAMETER.
5. STORM SEWER 10" IN DIAMETER OR LESS SHALL BE PVC SDR 26 OR DIP CLASS 52. STORM SEWER 12 INCHES IN DIAMETER OR LARGER SHALL BE RCP CLASS III, ASTM C-76. STORM INLET LOCATIONS MAY BE ADJUSTED DURING FINAL ENGINEERING DESIGN.
6. WATER MAIN SHALL BE 8 INCHES IN DIAMETER DIP CLASS 52 UNLESS OTHERWISE NOTED.
7. EASEMENTS SHALL BE PROVIDED FOR PUBLIC UTILITIES WHICH ARE OUTSIDE DEDICATED PUBLIC RIGHT-OF-WAYS. FINAL LOCATION SHALL BE SHOWN ON FINAL PLAT AND PLANS.
8. UTILITY SIZES AND LOCATIONS SHOWN HEREIN ARE PRELIMINARY IN NATURE AND SUBJECT TO CHANGE UPON FINAL ENGINEERING DESIGN

NORTH

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 inch = 30 ft.

SAN MH
RIM=917.54
INV=913.34

2" INLET
RIM=916.00
INV=914.05

RCP

EXISTING BUILDING

RCP

2" INLET
RIM=916.11
INV=914.27

EX. 6" WM TO REMAIN ACTIVE

EXISTING 20' UTILITY EASEMENT RECORED IN 2019 AS DOCUMENT No. 2019R0006635

EX. 8" VALVE VAULT

EX 8" WM

6" PVC

BIT. SURFACE

EX 6" WM

INSTALL NEW 8"x8" TEE WITH 8"x6" REDUCER TO SOUTH AND CONNECT EXISTING 6" WATERMAIN TO REDUCER

EXISTING 6" WATERMAIN TO BE REPLACED WITH NEW 8" MAIN

EX. 8"x6" REDUCER
REMOVE REDUCER AND EXTEND NEW 8" WATERMAIN SOUTHWARD

BLOCK STR.
RIM=913.96
INV=909.21
BOTTOM=900.61

EX 10" SAN

2" INLET
RIM=913.75
INV=910.18

10" PVC

BIT. SURFACE

2" INLET
RIM=911.65
INV=908.70

10" RCP

BIT. SURFACE

BLOCK STR.
RIM=912.42
INV=907.37
WATER=903.62
BOTTOM=901.62

EXISTING BUILDING

BLOCK RET. WALL

EX 12" WM

CRYSTAL LAKE AVE.

BLDG. "F"
4,581 S.F.

BLDG. "E"
4,581 S.F.

BLDG. "G"
4,581 S.F.

BLDG. "H"
4,581 S.F.

BLDG. "I"
4,581 S.F.

BLDG. "C"
3,742 S.F.

BLDG. "D"
3,742 S.F.

BLDG. "A"
4,581 S.F.

BLDG. "B"
3,742 S.F.

8" WM

(SEE NOTE ON SHEET 3)

4 STORY APARTMENT BUILDING
13,578 S.F.

STORM MH
RIM=911.73
INV(W)=906.45
INV(12"RCP N)=906.45
INV(E)=906.21

PLANTERS (TYP.)

EX 8" SAN

EX 12" WM

SITE BENCHMARK:
SQUARE CUT AT SW'ly CORNER OF HANDHOLE.
ELEV=910.37 NAVD88

DOG PARK

EX. BIT. TRAIL

UNION PACIFIC RAILROAD CORRIDOR

100' RAILROAD R.O.W.

EASEMENT OF WAY PER DOC.1995R0011061

FENCE

GRAVEL

STORM CB
RIM=914.15
INV(NE)=910.67

12" RCP

STORM STR
RIM=913.77

CROSSING GATE

24" RCP

STORM CB
RIM=912.73
INV(E)=906.79

STORM STR
RIM=912.29

EX 15" SAN

EX. BIT. TRAIL

EX 12" SAN

SAN MH
RIM=911.22

WATERMAIN LOOP CONNECTION
AUGER 120 FEET OF 8" DIWM IN A 16"x3/8" STEEL CASING PIPE UNDER MAIN STREET AND THE RAILROAD TO CONNECT TO EXISTING 10" WATERMAIN ON THE EAST SIDE OF MAIN STREET VIA AN 8"x10" CUT-IN TEE WITH AN 8" VALVE IN A 60" VAULT.

STORM STR
RIM=913.90

STORM STR
RIM=913.88

S. MAIN STREET

STORM STR.
RIM=914.20

STORM STR.
RIM=914.01

OHW

BIT. DRIVE

10" DIP

VALVE VAULT
RIM=915.62
TOP 10" DIP=910.42

STORM CB
RIM=913.73
INV(12"RCP S)=910.7+/-

STORM CB
RIM=913.91
INV(12"RCP N&W)=908.78

INV24" RCP FES=906.43

STORM STR.
RIM=911.63
INV=907 +/-
POSSIBLY ABBANDONED

VALVE VAULT
RIM=914.16
TOP 6"+/- DIP=907.61

6" DIP

EX 24" STM

EX 10" WM

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1 11/18/21	NEW BUILDING FOOTPRINTS, UPDATED SITE LAYOUT

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SHEET
8 OF 13

PLAT OF SURVEY

THAT PART OF LOTS 8 AND 9 IN BLOCK 1 OF PADDOCK'S ADDITION TO CRYSTAL LAKE, BEING A PART OF LOT 1 OF THE ASSESOR'S PLAT OF THE NORTHEAST QUARTER OF SECTION 5, TOWNSHIP 43 NORT, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED JUNE 29, 1874 IN BOOK 55 OF DEEDS, PAGE 277, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID LOT 8; THENCE NORTHERLY ALONG THE WEST LINE OF SAID LOT 8, A DISTANCE OF 138.00 FEET; THENCE EASTERLY PARALLEL WITH THE SOUTH LINE OF SAID LOT 8, A DISTANCE OF 158.18 FEET TO THE PLACE OF BEGINNING; THENCE CONTINUING EASTERLY ALONG SAID PARALLEL LINE, A DISTANCE OF 312.24 FEET; THENCE SOUTHEASTERLY ALONG A LINE THAT FORMS AN ANGLE OF 84 DEGREES 58 MINUTES 17 SECONDS TO THE RIGHT WITH THE PROLONGATION OF THE LAST DESCRIBED COURSE, A DISTANCE OF 222.87 FEET TO THE WESTERLY RIGHT OF WAY LINE OF THE CHICAGO AND NORTHWESTERN RAILWAY; THENCE NORTHEASTERLY ALONG SAID WESTERLY RIGHT OF WAY LINE, A DISTANCE OF 516.57 FEET TO THE WEST LINE OF A PUBLIC HIGHWAY (STATE AID ROUTE 8A); THENCE NORTHERLY ALONG SAID WEST LINE, A DISTANCE OF 295.50 FEET TO THE SOUTH LINE OF CRYSTAL LAKE AVENUE; THENCE WESTERLY ALONG SAID SOUTH LINE, A DISTANCE OF 243.75 FEET; THENCE SOUTHERLY PARALLEL WITH THE WEST LINE OF LOT 8 AS AFORESAID, A DISTAMCE OF 165.0 FEET; THENCE WESTERLY PARALLEL WITH THE SOUTH LINE OF CRYSTAL LAKE AVENUE, A DISTANCE OF 171.18 FEET; THENCE SOUTHERLY PARALLEL WITH THE WEST LINE OF SAID LOT 8, A DISTANCE OF 421.25 FEET TO THE PLACE OF BECINNING, IN MCHENRY COUNTY, ILLINOIS.

EXCEPT THAT REAL EASTATE CONVEYED BY SPECIAL WARANTY DEED, RECORDED 07/03/2019 AS DOCUMENT NO. 2019R0020113, DESCRIBED AS FOLLOWS:

THAT PART OF THE NORTHEAST QUARTER OF SECTION 5, TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, MCHENRY COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS, USING BEARING AND DISTANCES REFERENCED TO THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT):

COMMENCING AT A MAG NAIL SET AT THE NORTHEAST CORNER OF SAID NORTHEAST QUARTER PER MONUMENT RECORD 91R044510; THENCE SOUTH 00 DEGREES 35 MINUTES 20 SECONDS EAST, 99.70 FEET ALONG THE EAST LINE OF SAID NORTHEAST QUARTER TO THE NORTHWESTERLY RIGHT-OF-WAY LINE OF THE UNION PACIFIC RAILROAD CORPORATION; THENCE SOUTHWESTERLY 238.64 FEET ALONG SAID NORTHWESTERLY RIGHT-OF-WAY LINE ON A CURVE TO THE LEFT HAVING A RADIUS OF 3065.57 FEET; THE CHORD OF SAID CURVE BEARS SOUTH 15 DEGREES 20 MINUTES 38 SECONDS WEST, 238.58 FEET TO THE WEST RIGHT-OF-WAY LINE OF MAIN STREET FOR THE POINT OF BEGINNING; THENCE NORTH 01 DEGREES 30 MINUTES 32 SECONDS WEST, 295.54 FEET ALONG SAID WEST RIGHT-OF-WAY TO THE SOUTH RIGHT-OF-WAY LINE OF CRYSTAL LAKE AVENUE; THENCE SOUTH 89 DEGREES 15 MINUTES 09 SECONDS WEST, 243.83 FEET ALONG SAID SOUTH RIGHT-OF-WAY TO THE NORTHEAST CORNER OF LOT 2 IN CHINLUND'S RESUB, RECORDED FEBRUARY 8, 1985 AS DOCUMENT NUMBER 900614; THENCE SOUTH 01 DEGREES 04 MINUTES 42 SECONDS EAST, 14.16 FEET ALONG THE EAST LINE OF SAID LOT 2: THENCE NORTH 89 DEGREES 19 MINUTES 51 SECONDS EAST 207.44 FEET; THENCE SOUTH 49 DEGREES 06 MINUTES 48 SECONDS EAST, 21.74 FEET; THENCE SOUTH 01 DEGREES 22 MINUTES 44 SECONDS EAST, 353.46 FEET TO THE NORTHWESTERLY RIGHT-OF-WAY LINE LAND CONVEYED TO THE MCHENRY COUNTY CONSERVATION DISTRICT BY DEED RECORDED DECEMBER 27, 1991 AS DOCUMENT NUMBER 91R050211; THENCE NORTHEASTERLY 89.11 FEET ALONG SAID NORTHWESTERLY RIGHT-OF-WAY LINE ON A CURVE TO THE RIGHT HAVING A RADIUS OF 3065.57 FEET, THE CHORD OF SAID CURVE BEARS NORTH 12 DEGREES 16 MINUTES 52 SECONDS EAST, 89.11 FEET TO THE POINT OF BEGINNING.

CONTAINING 4.608 ACRES +/-

CRYSTAL LAKE AVE.

S. MAIN STREET

SITE BENCHMARK:
SQUARE CUT AT SW'ly CORNER OF HANDHOLE.
ELEV.=910.37 NAVD88

SAN MH
RIM=911.22

EXCEPTION

PLANTERS (TYP.)

243.81' MEAS. S89°15'09"W

14.16' MEAS. S00°59'32"E

FOUND IR @ CORNER

207.44' MEAS. N89°19'51"E

STORM MH
RIM=911.73
INV(W)=906.45
INV(12"RCP N)=906.45
INV(E)=906.21

21.74' MEAS. S49°06'48"E

EXISTING BUILDING
T/F=915.8

BLOCK RET. WALL

CHINLUND'S RESUB.
DOC. 900614

LOT 1

LOT 2

BLOCK STR.
RIM=912.42
INV=907.37
WATER=903.62
BOTTOM=901.62

150.74' MEAS. N00°59'32"W

BIT. SURFACE

2' INLET
RIM=909.57
INV=907.45

REMNANTS OF CONCRETE FOUNDATION

CONCRETE

BIT. TRAIL

EXCEPTION

SAP.

295.54' MEAS.

STORM STR
RIM=912.29

STORM CB
RIM=912.73
INV(E)=906.79

N01°30'32"W

353.46' MEAS. S01°22'44"E

2' INLET
RIM=913.75
INV=910.18

10" PVC

BLOCK STR.
RIM=913.96
INV=909.21
BOTTOM=900.61

2' INLET
RIM=911.65
INV=908.70

12" RCP

171.18' REC.
171.18' MEAS. N89°18'39"E

FOUND IR ON LINE

GATE

CHAINLINK FENCE

FOUND IR @ CORNER

FOUND NAIL
0.53' N.
0.53' W.

FOUND IR ON LINE

4" DIP

SAN MH
RIM=914.27
INV=898.29

2' INLET
RIM=916.11
INV=914.27

10" RCP

RAILROAD TRACKS

SAN MH
RIM=911.20
INV=898.07
INV(NE)=907.68

STORM MH
RIM=909.77
INV(E&NW)=907.12
INV(SW)=907.30

12" RCP

12" DIP

STORM MH
RIM=914.31
INV(W)=906.81
INV(S)=906.81
INV(N)=906.81

8" PVC

EXISTING BUILDING

CHAINLINK FENCE

2' INLET
RIM=916.00
INV=914.05

421.38' MEAS. N01°06'50"W
421.25' REC.

6" PVC

SAN MH
RIM=917.54
INV=913.34

STORM MH
RIM=910.42
INV(NE)=907.73
INV(SW)=906.98

10" PVC

STORM MH
RIM=911.47
INV(NE)=906.22

STORM CB
RIM=913.89
INV(E)=908.78

12" RCP

STORM STR
RIM=913.79

STORM STR
RIM=913.77

STORM STR.
RIM=914.01

INV24" RCP FES=906.43

CROSSING GATE

914.48

CROSSING GATE

EASEMENT OF WAY
PER DOC.1995R0011061

STORM CB
RIM=914.15
INV(NE)=910.67

1-22"
1-24"
14"

CHAINLINK FENCE

GRAVEL

BENCH

STORM STR.
RIM=911.63
INV=907 +/-
POSSIBLY ABBANDONED

914.49

TC 914.48
FL 914.08

6"+/- DIP

6"+/- DIP

VALVE VAULT
RIM=914.16
TOP 6"+/- DIP=907.61

914.59

TC 914.93
FL 914.43

TC 914.50
FL 914.04

AUX. VALVE

SAN MH
RIM=913.94
INV=897.89

CONC.

STORM MH
RIM=911.50
INV(NE)=905.9

8" DIP

STORM MH
RIM=910.65
INV(NE)=906.41

CONC. RET. WALL

914.70

STORM STR
RIM=913.90

STORM STR
RIM=913.88

STORM CB
RIM=913.73
INV(12"RCP S)=910.7+/-

STORM CB
RIM=913.91
INV(12"RCP N&W)=908.78

STORM STR.
RIM=914.20

VALVE VAULT
RIM=915.62
TOP 10" DIP=910.42

914.63

10" DIP

CHAINLINK FENCE

8"

312.32' MEAS.
312.24' REC.
S88°45'11"W

FOUND IR @ CORNER

FOUND RR SPIKE @ CORNER

222.86' MEAS. N06°17'12"W
222.87' REC.

L=427.68' MEAS. R=3065.57'

L=89.11' M R=3065.57'

TC 914.64
FL 914.17

TC 914.65
FL 914.20

914.91

BIT. DRIVE

BIT. TRAIL

BIT. TRAIL

BIT. TRAIL

FOUND IR @ CORNER

SCALE: 1" = 30'

SYMBOL LEGEND

- ◁▷ – TRAFFIC SIGNAL
- ⧄ – HANDHOLE
- Ⓤ – UTILITY CANISTER
- WV – WATER VALVE VAULT
- ⧓ – FIRE HYDRANT
- Ⓓ – STORM STRUCTURE
- ▬ – STORM STRUCTURE (CURB LINE)
- Ⓢ – SANITARY MANHOLE
- ⊸ – SIGN
- ⌓ – UTILITY POLE
- OHW – OVERHEAD WIRES

STATE OF ILLINOIS
COUNTY OF LAKE SS.

I, Vydas Z. Rekasius, an Illinois Professional Land Surveyor, do hereby certify that I have surveyed the property described above and that the plat shown hereon is a correct representation of said survey.

DATED THIS 15th DAY OF JULY, A.D. 2021.

BY:_____

Illinois Professional Land Surveyor No. 3210
License Renewal Date : 11/30/2022
DESIGN FIRM NO. 184-004538 RENEWAL DATE: 4/30/2023

STATE OF ILLINOIS
VYDAS Z.
REKASIUS
035-003210
LAKE ZURICH
ILLINOIS
PROFESSIONAL LAND SURVEYOR

NOTE:

1. Please check Legal Description with Deed and report any discrepancy Immediately.
2. Compare all points before building by same and report any discrepancies at once.
3. Building lines, if any, shown hereon are building lines shown on the recorded subdivision plat or called out in the title report.
4. Consult local authorities for building lines established by local ordinances.
5. This professional service conforms to the current Illinois minimum standards for a boundary survey.

TERRA TECHNOLOGY
LAND SURVEYING, INC.
24198 ROSE AVE. LAKE ZURICH, ILLINOIS 60047
PHONE: (847) 540-8606 E-MAIL: TTLS.1@SBCGLOBAL.NET

JOB NO.: 21-0038 SURVEY DATE: 6/15/2021
DRAWING FILE: DATA/21/0038/SITE.DWG