



## #2019-88 GW Properties – Rezoning and Preliminary/Final Plat Project Review for Planning and Zoning Commission

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**Meeting Date:** June 26, 2019

**Requests:**

1. Rezoning the entire site to B-2 PUD.
2. Preliminary/Final Plat of Subdivision to resubdivide the property into four lots.
3. Deferral from Section 5-200 from the installation of the sidewalk and the burial of the overhead utility lines.

**Location:** 5417 – 5501 Northwest Highway

**Acreage:** Approximately 3.2 acres

**Existing Zoning:** B-2 and B-2 PUD General Commercial

**Surrounding Properties:**

North:	B-2 PUD General Commercial
South:	M Manufacturing (Three Oaks Recreation Area)
East:	B-2 General Commercial
West:	M-L Manufacturing Limited

**Staff Contact:** Elizabeth Maxwell (815.356.3615)

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### **Background:**

- The property was formerly the Pauly Toyota sales lot. After the relocation to Route 31, Pauly was still using the property to sell used cars. The site is primarily vacant.
- The three lots have been purchased by the petitioner and would be resubdivided into four lots for new development.
- The entire site would be zoned B-2 PUD. Each individual lot would come through the planned unit development zoning process.

### **Land Use Analysis:**

#### ZONING

- The site is currently zoned B-2 and B-2 PUD General Commercial. The entire property would be rezoned B-2 PUD, which is the most appropriate zoning district for restaurant and retail uses.
- The Comprehensive Land Use Plan designates this area as Commerce.

## SUBDIVISION

- The subdivision would resubdivide the property from three lots to four lots. This would allow four new users as part of the site's redevelopment.
- B-2 requires a minimum 100-foot lot width and 10,000 square-foot lot area. Lots 1, 3 and 4 would meet these requirements, Lot 2 is only 89.69 feet wide, but exceeds the lot area requirement. As part of the PUD the lot width variation is requested.
- Properties zoned B-2 along this portion of Northwest Highway require an 80-foot front yard setback for buildings. As part of the PUD the petitioner is requesting the removal of the 80-foot restriction. The standard 30-foot setback would be applicable for this PUD.
- The project would be designed as one large development with easements for cross access, cross-parking, utilities and storm water management.
- Currently access into the site is through a shared driveway with Cassidy Tires, which has a recorded cross-access agreement over it. A cursory site plan has illustrated a second driveway approximately  $\frac{3}{4}$  of the way across the site between lots 3 and 4.
- As part of a subdivision, the developer is required to install sidewalks, street trees and bury overhead utility lines. The developer is requesting a deferral to install the sidewalk and bury the overhead utility lines. **The staff does not support the deferral of the sidewalk installation. If the deferral is approved, a condition should be added that the developer provide a letter of credit for the sidewalk cost.**

## TRAFFIC STUDY

- A traffic study was completed by Gewalt Hamilton and has provided 9 recommendations, all of which are a requirement as part of this approval. It was based on a sample site plan provided by the petitioner.
- A right turn and deceleration lane are required for the main driveway off Route 14. Right-of-way dedication would be required to accommodate this improvement.
- The striped center median on Route 14 would need to be restriped as a bi-directional turn lane.
- The other recommendations concern on-site signage, parking and loading suggestions, and future cross-access.
- The traffic study has been submitted to IDOT for their review, as Route 14 is under their jurisdiction.

## SITE DEVELOPMENT

- Each potential user for the site would be required to come back through the zoning process for the individual preliminary and final planned unit developments.

### **Findings of fact:**

#### REZONING

The petitioner is requesting the rezoning from B-2 to B-2 PUD for the site.

Criteria for Rezoning

- a) The existing uses and zoning of nearby property.  
 *Meets*                       *Does not meet*
- b) The extent to which property values are diminished by a particular zoning classification or restriction.  
 *Meets*                       *Does not meet*
- c) The extent to which the destruction of property value of a petitioner property owner promotes the health, safety, morals or general welfare of the public.  
 *Meets*                       *Does not meet*
- d) The relative gain to the public as opposed to the hardship imposed on a petitioning property owner.  
 *Meets*                       *Does not meet*
- e) The suitability of the subject property for its zoned purposes.  
 *Meets*                       *Does not meet*
- f) The length of time the property has been vacant as zoned, considered in the context of land development in the area.  
 *Meets*                       *Does not meet*
- g) The Comprehensive Plan designation and the current applicability of that designation.  
 *Meets*                       *Does not meet*
- h) The evidence or lack of evidence, of community need for the use proposed.  
 *Meets*                       *Does not meet*

**PRELIMINARY/FINAL PLAT OF SUBDIVISION**

The petitioner is requesting Preliminary/Final Plat approval for 4 lots.

The lot, yard and bulk requirements of the B-2 General Commercial zoning district are provided below.

USE	LOT SIZE		YARDS						BULK			
	Area	Width	Front	Rear	Total Side	Min Side	Side abutting street	Side abutting residential	Lot Cover age	FAR	Height Principal Structure	Height Accessory Structure
	Sq. Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	%	- -	Ft./St.	Ft./St.
B-2	20,000	100	80	20	0	0	30	50	65	1.5	28/2	25/2

**Subdivision Variation**

Section 5-200 from the installation of the sidewalk and the burial of the overhead utility lines.

A deferral from immediate sidewalk construction, as required by these regulations, may be requested if sidewalks do not exist within or adjacent to the proposed administrative subdivision.

The decision to grant the waiver shall be made based on the following criteria:

- (i) Lack of sidewalks in the immediate vicinity;
- (ii) Location on a street which is in need of reconstruction;
- (iii) Unique site conditions, such as uneven topography, vegetation, etc. which make immediate sidewalk construction unfeasible;
- (iv) If granted, the sidewalk installation deferral shall be conditioned upon the owner's recording a covenant, approved by the City Attorney, that states any current or future owners of the property will be required to participate in an area wide program for sidewalk construction, if deemed necessary, by the City in the future.

A deferral from immediate underground placement of public utilities, as required by these regulations, may be requested. The decision to grant the waiver shall be made based on the following criteria:

- (i) The subdivision is an in-fill project within an existing neighborhood where utility service is provided aeriially rather than underground;
- (ii) It would not be practical to serve the new subdivision underground without also serving the neighboring uses.

Final Plats are required to meet the following requirements:

- a) Promote the health, safety, morals, convenience, order, prosperity and welfare of the present and future inhabitants of the City by providing for the orderly growth and development of the City;  
 *Meets*                       *Does not meet*
- b) Coordinating streets and roads within proposed subdivisions with the City's planned street system, and with other public facilities;  
 *Meets*                       *Does not meet*
- c) Providing right-of-way easements for streets and utilities;  
 *Meets*                       *Does not meet*
- d) Avoiding congestion and overcrowding, and encouraging the proper arrangement of streets in relation to existing or planned streets;  
 *Meets*                       *Does not meet*
- e) Ensuring there is adequate open space and recreation facilities to serve development;  
 *Meets*                       *Does not meet*
- f) Ensuring there is proper recordation of landownership records;  
 *Meets*                       *Does not meet*
- g) Installation of any public improvements including water, sewer, storm sewer or detention, parkway trees, and sidewalks;  
 *Meets*                       *Does not meet*

- h) Burial of overhead utility lines and all new lines and services in appropriate easements; and  
 *Meets*                       *Does not meet*
- i) Ensuring the provision of such other matters as the City Council may deem necessary in order to protect the general health, safety, and welfare of the City  
 *Meets*                       *Does not meet*

#### ZONING ORDINANCE VARIATION

The petitioner is requesting a variation from Article 3 Density and Dimensional Standards from the required 100-foot lot width to allow Lot 2 to be 89.69 feet wide

The Unified Development Ordinance lists specific standards for the review and approval of a variation. The granting of a variation rests upon the applicant proving practical difficulty or hardship caused by the Ordinance requirements as they relate to the property. To be considered a zoning hardship, the specific zoning requirements; setbacks, lot width and lot area must create a unique situation on this property. It is the responsibility of the petitioner to prove hardship at the Planning and Zoning Commission public hearing.

#### Standards

When evidence in a specific case shows conclusively that literal enforcement of any provision of this Ordinance would result in a practical difficulty or particular hardship because:

- a. The plight of the property owner is due to unique circumstances, such as, unusual surroundings or conditions of the property involved, or by reason of exceptional narrowness, shallowness or shape of a zoning lot, or because of unique topography, or underground conditions.  
 *Meets*                       *Does not meet*
- b. Also, that the variation, if granted, will not alter the essential character of the locality.  
 *Meets*                       *Does not meet*

For the purposes of supplementing the above standards, the Commission may take into consideration the extent to which the following facts favorable to the application have been established by the evidence presented at the public hearing:

- a. That the conditions upon which the application for variation is based would not be applicable generally to other property within the same zoning classification;  
 *Meets*                       *Does not meet*
- b. That the alleged difficulty or hardship has not been created by any person presently having interest in the property;  
 *Meets*                       *Does not meet*

- c. That the granting of the variation will not be detrimental to the public welfare or injurious to other property or improvements in the neighborhood in which the property is located; or  
 *Meets*                       *Does not meet*
  
- d. That the proposed variation will not impair an adequate supply of light or air to adjacent property, will not unreasonably diminish or impair the property values of adjacent property, will not unreasonably increase congestion in the public streets, substantially increase the danger of fire or otherwise endanger public safety.  
 *Meets*                       *Does not meet*

Where the evidence is not found to justify such conditions, that fact shall be reported to the City Council with a recommendation that the variation be denied.

**Comprehensive Land Use Plan 2030 Vision Summary Review:**

The Comprehensive Plan designation of Commercial allows for existing and future service, commercial and business uses. The following goal is applicable to this request:

**Land Use – Commercial**

**Goal:** Maintain a dynamic and sustainable base of commercial uses that provides a solid tax base, goods, services and jobs to the city as well as the surrounding region through coordination in the Unified Development Ordinance, Comprehensive Land Use Plan and Economic Development Strategic Plan.

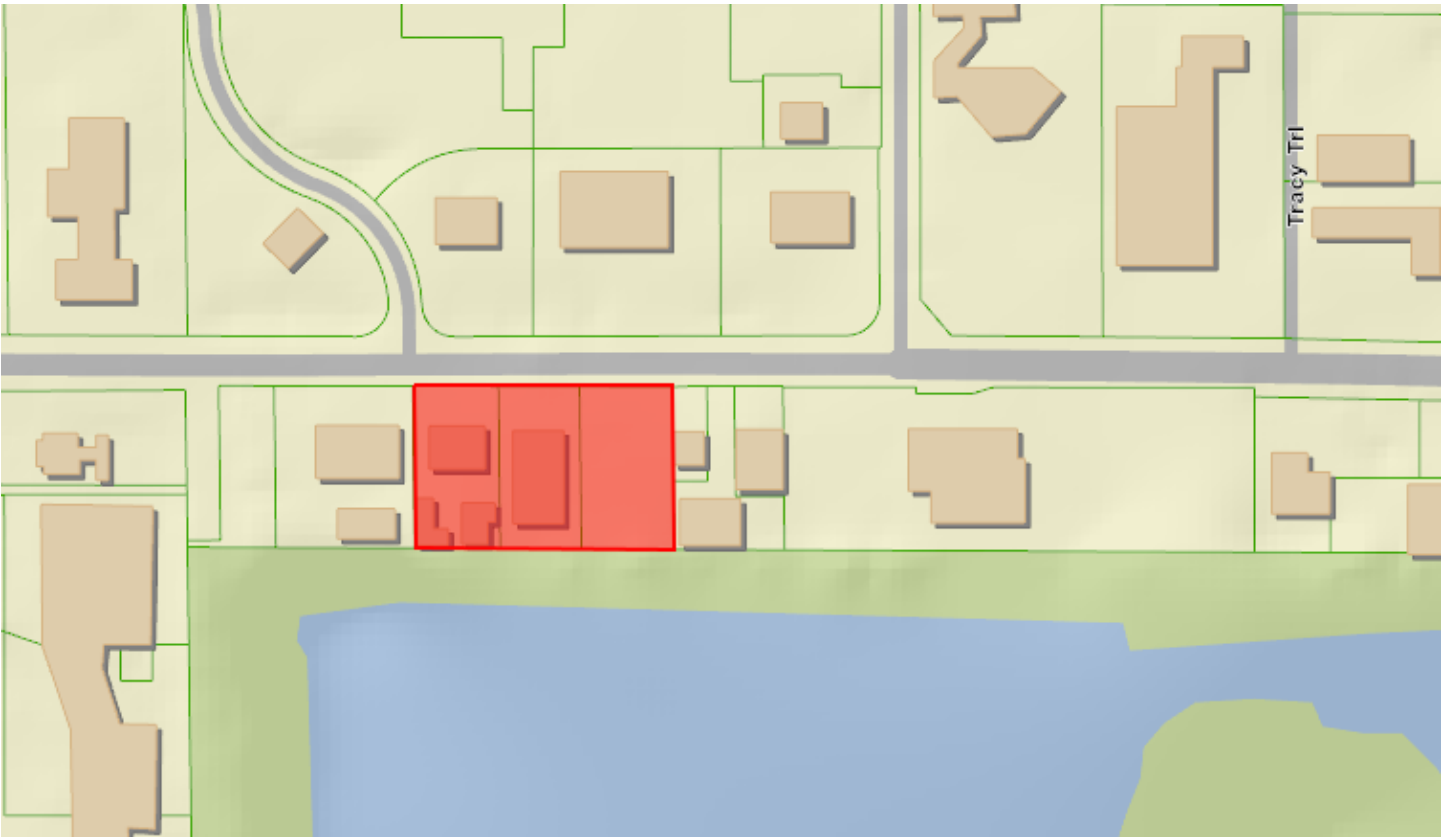
**Recommended Conditions:**

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

1. Approved plans, reflecting staff and advisory board recommendations, as approved by the City Council:
  - A. Application (Silverberg, received 05/17/19))
  - B. Preliminary/Final Plat of Subdivision (United Survey Service, dated 05/17/19, received 06/07/19)
  - C. Plat of Vacation (United Survey Service, LLC, dated 05/30/19, received 06/06/19)
  - D. Draft Traffic Study (Gewalt Hamilton Associates, Inc., dated 05/23/19, received 05/28/19)
  - E. Alta Survey (United Survey Service, LLC, dated 02/11/19, received 05/17/19)
  
2. Final Plat of Subdivision:
  - a. Provide a separate Plat of Easement for Stormwater Management and Municipal Utility Easements as required based on the final approved site plan.
  - b. Work with staff to dedicate the appropriate right-of-way necessary for the right turn lane along Northwest Highway.
  - c. Work with staff to finalize all easements on the plat based on the final site plans.

3. The petitioner shall address all of the review comments and requirements of the Community Development, Fire Rescue, Police, Public Works Departments and the City's Stormwater Consultant.
4. The development must complete all of the recommendations of the final approved Traffic Study.

PLN-2019-00088 GW PROPERTIES – 5417-5501 NORTHWEST HWY.





**RECEIVED**  
MAY 17 2019  
BY: PLN-2019-00088

**Application for Minor Subdivision Approval**

Application Number: _____	<b>FOR OFFICE USE ONLY</b>
Development Name: _____	
Date of Submission: _____	
Date of Resubmission: _____	

**I. Applicant**

Jon Silverberg		GW Crystal Lake LLC
Name	Corporation	
2211 N. Elston Ave. Suite 304		
Street		
Chicago	IL	60614
City	State	Zip Code
Jon Silverberg	Owner Rep	847-903-2024
Contact Person	Relationship to Owner	Telephone Number
	Jon@gwproperties.com	
Fax Number	E-mail address	

**II. Owner of Property**

Mitch Goltz - GW Crystal Lake LLC	
Name	
2211 N. Elston Ave. Suite 304	
Address	Telephone Number

**III. Development Team (if applicable)**

David Tanner	312-463-6236	
Attorney	Telephone Number	Fax Number
150 N. Riverside Plaza, Suite 3000		dtanner@polsinelli.com
Address		E-mail address

Architect	Telephone Number	Fax Number
Jon Silverberg - GW Properties	773-741-1825	
Developer	Telephone Number	Fax Number
Eric Tracy - Kimley Horn	630-487-5560	
Engineer	Telephone Number	Fax Number
United Survey Service	847-299-1010	
Surveyor	Telephone Number	Fax Number

**IV. Project Data**

1. a. Location/Address: 5417-5501 Northwest Highway, Crystal Lake, IL

a. PIN #: 19-09-201-001-0000; 19-09-201-002-0000; 19-09-200-019-0000

2. General description of site conditions (including existing site improvement, i.e., buildings, parking, landscaping, etc.):

There are 4 buildings on the site witch are vacant and delapidated along with a crumbling parking lot to the east. Currently the site is not occupied by tenants

3. Existing Zoning: B2 & B2 PUD

4. Existing Land Use: Automotive Repair Shops & Vacant

a. Is there an existing home on the property?  YES, Go to 4b.  NO

b. Do you plan to demolish the home prior to plat approval?  YES  NO

5. Site acreage: 3.215

6. Are you requesting a waiver from the requirement to:

a. Install sidewalk  YES  NO

b. Burial of Aerial Utilities  YES  NO

7. List any controlling Ordinances and agreements for this property (annexation ordinances, variations, special use, administrative/preliminary/final plats, PUD, etc.):

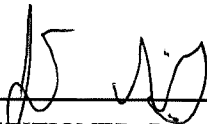
Ordinances 5052, 5053, and 5469

8. Reason for request/Description of proposal (including proposed land use, building addition, type of use, hours of operation, number of parking spaces, as applicable):


Subdivide the property into four lots for future development

Rezone a portion of the existing PUD that is "cut off" by the subdivision

**V. Signatures**

 Jon Silverberg 5/16/2019  
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.

 Mitch Goltz 5/16/2019  
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 (see page 9).

## DISCLOSURE OF BENEFICIARIES

1. Applicant: GW Crystal Lake LLC  
Address: 2211 N Elston Ave ste 304, Chicago IL 60614

2. Nature of Benefit sought: Minor Subdivision

3. Nature of Applicant (Please check one):

a. Natural Person	<input type="checkbox"/>	d. Trust/Trustee	<input type="checkbox"/>
b. Corporation	<input checked="" type="checkbox"/>	e. Partnership	<input type="checkbox"/>
c. Land Trust/ Trustee	<input type="checkbox"/>	f. Joint Venture	<input type="checkbox"/>

4. If applicant is an entity other than described in Section 3, briefly state the nature and characteristics of applicant:  
\_\_\_\_\_

5. If in your answer to Section 3 you checked box b, c, d, e or f, identify by name and address each person or entity which is a 5% shareholder in the case of a corporation, a beneficiary in the case of a trust or land trust, a joint venture in the case of case of a joint venture, or who otherwise has a proprietary interest, interest in profits and losses or right to control such entity:

- a. Mitch Goltz
- b. Shai Wolkowicki
- c. Prashant Reddy
- d. \_\_\_\_\_
- e. \_\_\_\_\_

6. Name, address and capacity of person making this disclosure on behalf of the applicant:  
Jon Silverberg - 2211 N Elston Ave ste 304, Chicago IL 60614

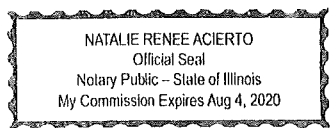
**IMPORTANT NOTE:** In the event your answer to Section 5 identifies entities other than a natural person, additional disclosures are required for each entity.

**VERIFICATION**

I, Jon Silverberg, being first duly sworn under oath, depose and state that I am the person making this disclosure on behalf of the applicant, that I am duly authorized to make this disclosure, that I have read the above and foregoing Disclosure of Beneficiaries, and that the statements contained therein are true in both substance and fact.

Signature: *[Handwritten Signature]*  
Subscribed and Sworn to before me this 16 day of May, 2020

*Natalie Renee Acierro*  
Notary Public



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

**IN THE MATTER OF THE  
PETITION OF GW Properties  
Crystal Lake LLC**

**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 GW Properties Crystal Lake LLC, for a Rezoning and Preliminary and Final Plat of Subdivision, relating to the properties at 5501 and 5417 Northwest Highway in Crystal Lake, Illinois 60014. PINs: 19-09-200-019, 19-09-201-001, 19-09-201-002.

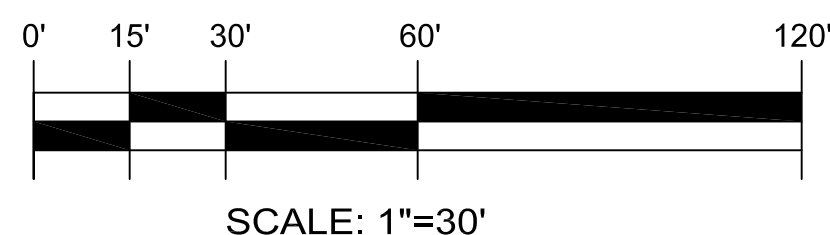
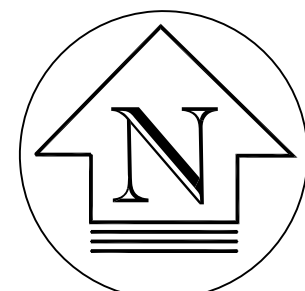
This application is filed for the purpose of seeking Rezoning from B-2 to B-2 PUD for the entire property and a Preliminary and Final Plat of Subdivision to allow 4 new lots with a variations from the 100-foot lot width for Lot 2 and from the 80-foot front yard setback for all lots, pursuant to Article 3, Article 5 and Article 9. Plans for this project can be viewed at the Crystal Lake Community Development Department at City Hall.

A public hearing before the Planning and Zoning Commission for this request will be held at 7:30 p.m. on Wednesday June 26, 2019, at the Crystal Lake City Hall, 100 West Woodstock Street, at which time and place any person determining to be heard may be present.

Tom Hayden, Chairperson  
Planning and Zoning  
Commission  
City of Crystal Lake

(Published in the Northwest  
Herald June 11, 2019)  
1671097





# GW CRYSTAL LAKE SUBDIVISION

OF PART OF THE NORTHEAST QUARTER OF SECTION 9, TOWNSHIP 43 NORTH, RANGE 8 EAST, OF THE THIRD PRINCIPAL MERIDIAN, IN THE CITY OF CRYSTAL LAKE, IN MCHENRY COUNTY, ILLINOIS.

KNOWN AS : 5417-5501 NORTHWEST HIGHWAY, CRYSTAL LAKE, ILLINOIS

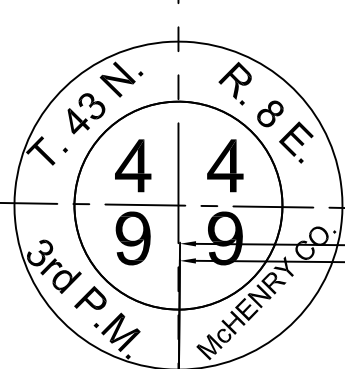
MCHENRY COUNTY PERMANENT IDENTIFICATION NUMBERS:  
19 - 09 - 201 - 001 - 0000  
19 - 09 - 201 - 002 - 0000  
19 - 09 - 200 - 019 - 0000

### AREA TABLE

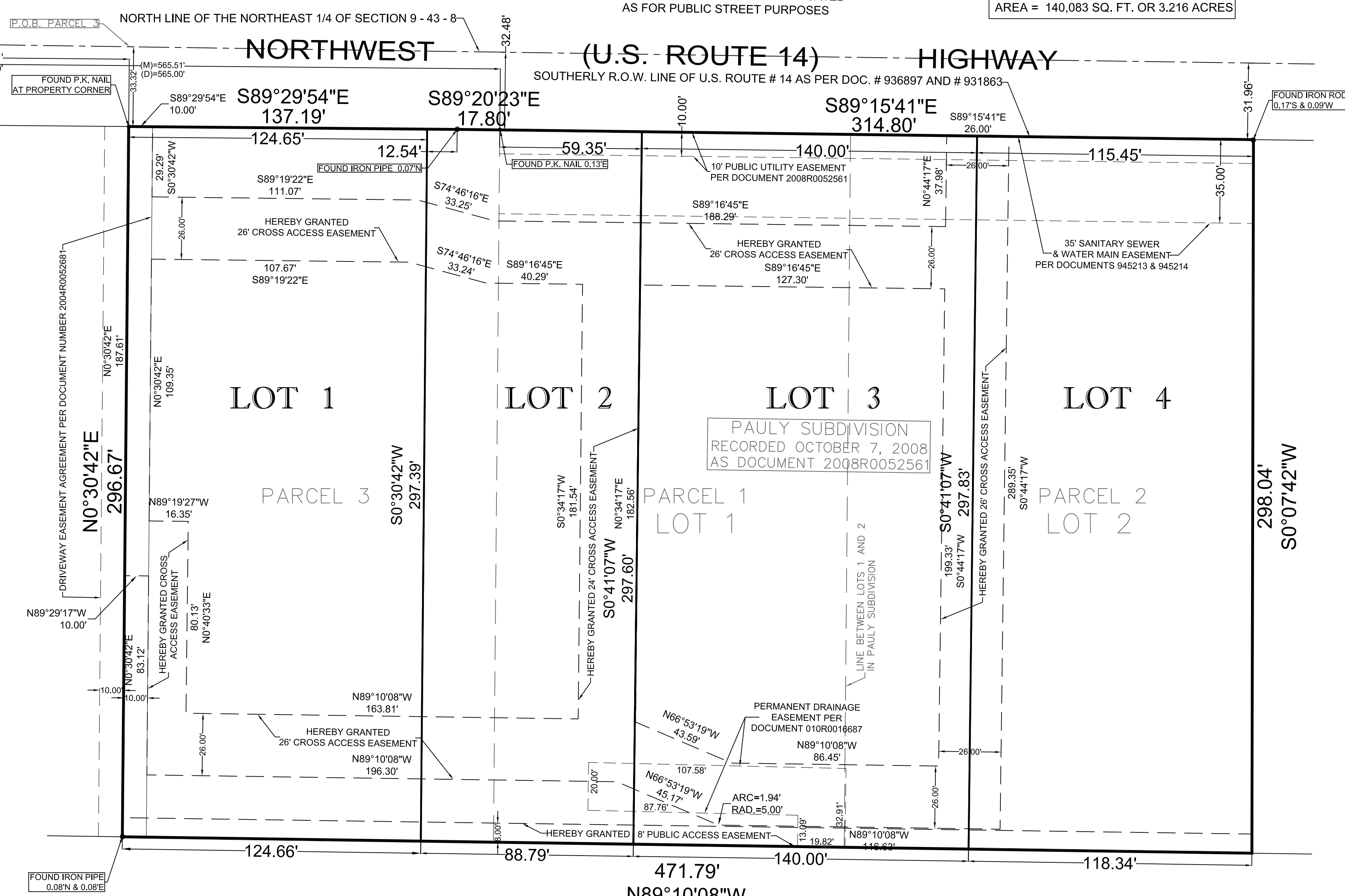
<b>LOT 1</b>
AREA = 37,025 SQ. FT. OR 0.850 ACRE
<b>LOT 2</b>
AREA = 26,552 SQ. FT. OR 0.610 ACRE
<b>LOT 3</b>
AREA = 41,680 SQ. FT. OR 0.957 ACRE
<b>LOT 4</b>
AREA = 34,826 SQ. FT. OR 0.799 ACRE
<b>TOTAL SUBDIVISION</b>
AREA = 140,083 SQ. FT. OR 3.216 ACRES

R.O.W. VARIES HERETOFORE DEDICATED AS FOR PUBLIC STREET PURPOSES

## (U.S. ROUTE 14) HIGHWAY



W. LINE OF THE NORTHEAST 1/4 OF SECTION 9 - 43 - 8



### SURVEYOR'S CERTIFICATE:

STATE OF ILLINOIS )  
COUNTY OF COOK ) S.S.

THIS IS TO CERTIFY THAT, I UNDERSIGNED, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, HAVE SURVEYED AND SUBDIVIDED THE FOLLOWING DESCRIBED PROPERTY:

**PARCEL 1:**  
LOT 1 IN PAULY SUBDIVISION, BEING A SUBDIVISION OF PART OF THE NORTHWEST QUARTER OF SECTION 9, TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED OCTOBER 7, 2008 AS DOCUMENT 2008R0052561, IN THE CITY OF CRYSTAL LAKE, IN MCHENRY COUNTY, ILLINOIS.

**PARCEL 2:**  
LOT 2 IN PAULY SUBDIVISION, BEING A SUBDIVISION OF PART OF THE NORTHEAST QUARTER OF SECTION 9, TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED OCTOBER 7, 2008 AS DOCUMENT 2008R0052561, IN THE CITY OF CRYSTAL LAKE, IN MCHENRY COUNTY, ILLINOIS.

**PARCEL 3:**  
COMMENCING AT THE NORTHWEST CORNER OF THE NORTHEAST 1/4 OF SECTION 9, TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, RUNNING THEN EAST ALONG THE NORTH LINE OF SAID NORTHEAST 1/4, 410 FEET FOR THE PLACE OF BEGINNING; THENCE SOUTH PARALLEL TO THE WEST LINE OF SAID NORTHEAST 1/4, 330 FEET TO A POINT; THENCE EAST PARALLEL TO THE NORTH LINE OF SAID NORTHEAST 1/4, 155 FEET TO A POINT; THENCE NORTH PARALLEL TO THE WEST LINE OF SAID NORTHEAST 1/4, 330 FEET TO A POINT ON THE NORTH LINE OF SAID NORTHEAST 1/4; THENCE WEST ALONG SAID NORTH LINE 155 FEET TO THE PLACE OF BEGINNING (EXCEPTING AND RESERVING THEREFROM THAT PART OF LAND DEDICATED FOR STATE HIGHWAY PURPOSES), IN MCHENRY COUNTY, ILLINOIS ALSO EXCEPTING THEREFROM: THAT PART OF THE NORTHEAST 1/4 OF SECTION 9, TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF THE NORTHEAST 1/4 OF SECTION 9, RUNNING THENCE EAST ALONG THE NORTH LINE OF SAID NORTHEAST 1/4, ON AN ASSUMED BEARING OF SOUTH 89 DEGREES 59 MINUTES 37 SECONDS EAST, 410 FEET, THENCE SOUTH 02 DEGREES 14 MINUTES 06 SECONDS EAST, PARALLEL TO THE WEST LINE OF SAID NORTHEAST 1/4, 30.02 FEET TO THE PLACE OF BEGINNING, THENCE CONTINUING SOUTH 02 DEGREES 14 MINUTES 06 SECONDS EAST, PARALLEL WITH THE SAID WEST LINE OF SAID NORTHEAST 1/4, A DISTANCE OF 3.30 FEET, THENCE NORTH 89 DEGREES 40 MINUTES 36 SECONDS EAST, A DISTANCE OF 137.10 FEET; THENCE NORTH 89 DEGREES 55 MINUTES 36 SECONDS EAST, 17.87 FEET; THENCE NORTH 02 DEGREES 14 MINUTES 06 SECONDS WEST, 2.48 FEET; THENCE NORTH 89 DEGREES 59 MINUTES 37 SECONDS WEST, A DISTANCE OF 155.00 FEET, TO THE PLACE OF BEGINNING, SITUATED IN MCHENRY COUNTY, ILLINOIS.

I, ROY G. LAWNICZAK, A REGISTERED PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT I HAVE SURVEYED AND SUBDIVIDED THE PROPERTY DESCRIBED IN THE ABOVE CAPTION, AND THAT THE PLAT HEREON DRAWN IS A TRUE AND CORRECT PRESENTATION OF THE SURVEY AND STAKING.

I DO HEREBY FURTHER CERTIFY THAT THE LAND INCLUDED IN THIS PLAT IS ENTIRELY SITUATED WITHIN THE CORPORATE LIMITS OF THE VILLAGE OF FOX LAKE, MCHENRY COUNTY, ILLINOIS.

I DO HEREBY CERTIFY THAT ALL DIMENSIONS SHOWN HEREON ARE IN FEET AND DECIMAL PARTS THEREOF AND ARE CORRECTED TO A TEMPERATURE OF 68 DEGREES FAHRENHEIT.

I FURTHER CERTIFY THAT THE SUBJECT PROPERTY IS LOCATED WITHIN AN AREA HAVING A ZONE DESIGNATION "X" - AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN ON FLOOD INSURANCE RATE MAP 17111 C 0335 J, WITH A DATE OF IDENTIFICATION OF NOVEMBER 16, 2006, FOR COMMUNITY NUMBER 170476 0335 J, IN MCHENRY COUNTY, STATE OF ILLINOIS, WHICH IS THE CURRENT FLOOD INSURANCE RATE MAP FOR THE COMMUNITY IN WHICH SAID PROPERTY IS SITUATED.

CITY OF CRYSTAL LAKE ZONED:  
B-2 GENERAL COMMERCIAL DISTRICT  
B-2 PUD GENERAL COMMERCIAL PLANNED UNIT DEVELOPMENT

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

THE BASIS OF BEARINGS IS FINAL PLAT OF PAULY SUBDIVISION RECORDED OCTOBER 7, 2008 AS DOCUMENT 2008R0052561.

THIS PLAT OF RESUBDIVISION IS DRAWN TO THE SCALE OF ONE INCH PER 30 FEET.

GIVEN UNDER MY HAND AND SEAL THIS 6th DAY OF JUNE, 2019 AT RIVER FOREST, ILLINOIS.

LEGEND	
	BOUNDARY LINE OF SUBDIVISION
	RIGHT-OF-WAY LINE (BUILDING LINE)
	SECTION LINE
	PROPOSED LOT LINE
	EXISTING LOT LINE
	EASEMENT LINE
	LOT - PROPOSED LOT NUMBER
	LOT - EXISTING LOT NUMBER

PROJECT No.: 2019-26553-2	PLAT PREPARED FOR & MAIL PLAT TO:	PLAT PREPARED BY:
ISSUE DATE: 5/17/19	<b>GW PROPERTIES</b>	<b>UNITED SURVEY SERVICE, LLC</b>
SCALE: 1"=30'	2211 N. ELSTON AVE,	CONSTRUCTION AND LAND SURVEYORS
SHEET NUMBER 1 OF 2	SUITE 304, CHICAGO, IL 60614	7710 CENTRAL AVENUE, RIVER FOREST, ILLINOIS, 60305
		TEL.: (847) 299 - 1010 FAX : (847) 299 - 5887
		E-MAIL: USURVEY@USANDCS.COM

NO.	REVISIONS	DATE
1	REVISED LOTS 1 & 2	6/5/19
2	REVISED LOTS 2 & 3	6/6/19
3		
4		
5		
6		

Received 6/7/19



BY: ROY G. LAWNICZAK, REGISTERED ILLINOIS LAND SURVEYOR NO. 35-2290  
LICENSE EXPIRES: NOVEMBER 30, 2020  
PROFESSIONAL DESIGN FIRM LICENSE NO.: 184-004576  
LICENSE EXPIRES: APRIL 30, 2021

SEND TAX BILL TO:  
**GW PROPERTIES**  
2211 N. ELSTON AVE,  
SUITE 304, CHICAGO, IL 60614

# GW CRYSTAL LAKE SUBDIVISION

OF PART OF THE NORTHEAST QUARTER OF SECTION 9, TOWNSHIP 43 NORTH, RANGE 8 EAST, OF THE THIRD PRINCIPAL MERIDIAN, IN THE CITY OF CRYSTAL LAKE, IN MCHENRY COUNTY, ILLINOIS.

KNOWN AS : **5417-5501 NORTHWEST HIGHWAY, CRYSTAL LAKE, ILLINOIS**

MCHENRY COUNTY PERMANENT IDENTIFICATION NUMBERS:  
**19 - 09 - 201 - 001 - 0000**  
**19 - 09 - 201 - 002 - 0000**  
**19 - 09 - 200 - 019 - 0000**

MAIL PLAT TO:

**CITY OF CRYSTAL LAKE**  
100 W. WOODSTOCK STREET  
CRYSTAL LAKE, IL 60014

**OWNER'S CERTIFICATE:**

STATE OF ILLINOIS )  
 ) S.S.  
COUNTY OF COOK )

THE **GW CRYSTAL LAKE LLC**, A CORPORATION IN THE STATE OF ILLINOIS, DOES HEREBY CERTIFY THAT IT IS THE LEGAL OWNER OF THE PROPERTY DESCRIBED HEREON AND AS SUCH OWNER HAS CAUSED SAID PROPERTY TO BE SURVEYED AND SUBDIVIDED AS SHOWN HEREON.

ADDITIONALLY, WE HEREBY CERTIFY THAT THE PROPERTY HEREON DESCRIBED IS LOCATED WITHIN THE BOUNDARIES OF:

ELEMENTARY SCHOOL DISTRICT: 2  
HIGH SCHOOL DISTRICT: 157

DATED THIS \_\_\_\_ DAY OF \_\_\_\_\_, A.D. 20\_\_.

BY: \_\_\_\_\_  
OWNER'S SIGNATURE TITLE:

CORPORATION/COMPANY NAME, AND ADDRESS:  
GW CRYSTAL LAKE LLC  
5417-5501 NORTHWEST HIGHWAY,  
CRYSTAL LAKE, ILLINOIS 60014

**NOTARY CERTIFICATE:**

STATE OF ILLINOIS )  
 ) S.S.  
COUNTY OF McHENRY )

I, \_\_\_\_\_, A NOTARY PUBLIC IN AND FOR SAID COUNTY IN THE STATE AFORESAID DO HEREBY CERTIFY THAT \_\_\_\_\_

PERSONALLY KNOWN TO ME TO BE THE SAME PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT AS OWNER OF THE PROPERTY DESCRIBED HEREON, APPEARED BEFORE ME THIS DAY IN PERSON AND ACKNOWLEDGED \_\_\_\_\_ SIGNED THE SAID INSTRUMENT AS OWN FREE AND VOLUNTARY ACT FOR THE USES AND PURPOSES THEREIN SET FORTH.

GIVEN UNDER MY HAND AND NOTARIAL SEAL THIS \_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_.

BY: \_\_\_\_\_  
NOTARY PUBLIC

COMMISSION EXPIRES \_\_\_\_\_

**COUNTY CLERK'S CERTIFICATE:**

STATE OF ILLINOIS )  
 ) S.S.  
COUNTY OF McHENRY )

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

GIVEN UNDER MY HAND AND SEAL OF THE COUNTY OF COOK, STATE OF ILLINOIS, THIS \_\_\_\_ DAY OF \_\_\_\_\_, A.D. 20\_\_.

\_\_\_\_\_  
McHENRY COUNTY CLERK

**SURFACE WATER DRAINAGE CERTIFICATE**

STATE OF ILLINOIS )  
 ) S.S.  
COUNTY OF McHENRY )

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

\_\_\_\_\_  
OWNER

GW CRYSTAL LAKE LLC  
5417-5501 NORTHWEST HIGHWAY,  
CRYSTAL LAKE, ILLINOIS 60014

\_\_\_\_\_  
REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

**PLANNING AND ZONING COMMISSION CERTIFICATE:**

STATE OF ILLINOIS )  
 ) S.S.  
COUNTY OF McHENRY )

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

BY: \_\_\_\_\_  
CHAIRMAN

**CITY COUNCIL CERTIFICATE:**

STATE OF ILLINOIS )  
 ) S.S.  
COUNTY OF McHENRY )

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

\_\_\_\_\_  
MAYOR

\_\_\_\_\_  
ATTEST: CITY CLERK

**RECORDER'S CERTIFICATE:**

STATE OF ILLINOIS )  
 ) S.S.  
COUNTY OF McHENRY )

THIS INSTRUMENT FILED FOR RECORD IN THE RECORDER'S OFFICE OF MCHENRY COUNTY, ILLINOIS ON THIS \_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_, A.D. AT \_\_\_\_ O'CLOCK \_\_\_\_ M. AND RECORDED AS DOCUMENT NUMBER \_\_\_\_\_.

\_\_\_\_\_  
MCHENRY COUNTY RECORDER

THIS PLAT PRESENTED FOR RECORDING BY: \_\_\_\_\_

**CROSS-ACCESS EASEMENT**

AN EASEMENT IS HEREBY GRANTED ACROSS THE HEREON-DESCRIBED LOTS 1 - 4 IN GW CRYSTAL LAKE SUBDIVISION TO THE OWNER OF, THEIR SUCCESSORS AND ASSIGNS, THE PUBLIC, AND THE CITY OF CRYSTAL LAKE FOR PERPETUAL VEHICULAR CROSS-ACCESS AND VEHICULAR INGRESS AND EGRESS.

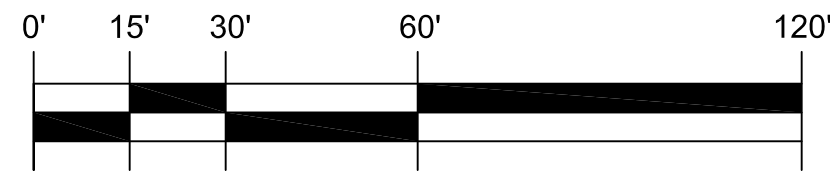
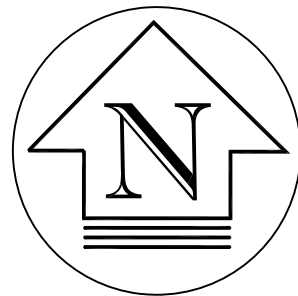
**PUBLIC ACCESS EASEMENT**

AN EASEMENT IS HEREBY GRANTED ACROSS THE HEREON-DESCRIBED LOTS 1 - 4 IN GW CRYSTAL LAKE SUBDIVISION TO THE OWNER OF, THEIR SUCCESSORS AND ASSIGNS, THE PUBLIC, AND THE CITY OF CRYSTAL LAKE FOR SIDEWALKS, PERPETUAL PEDESTRIAN CROSS-ACCESS, AND PEDESTRIAN INGRESS AND EGRESS. THE OBLIGATION OF MAINTAINING THE SIDEWALKS SHALL BE THAT OF THE OWNER, ENTITY OR ITS SUCCESSORS AND ASSIGNS HOLDING TITLE TO SAID LOTS 1 - 4. HOWEVER, THE CITY OF CRYSTAL LAKE SHALL HAVE THE RIGHT PURSUANT TO THIS GRANT OF EASEMENT, BUT NOT THE OBLIGATION, TO ENTER THE PREMISES DESCRIBED HEREON AS LOTS 1 - 4 AT ANY TIME IT DEEMS NECESSARY TO INSPECT, REPAIR OR MAINTAIN SIDEWALKS, WHICH THE OWNER FALLS OR REFUSES TO MAINTAIN, FOLLOWING WRITTEN NOTICE TO DO SO FROM THE CITY. IN THE EVENT OF PERFORMANCE BY THE CITY OR ITS AGENTS OF ANY SUCH REPAIR OR MAINTENANCE WORK, THE COST THEREOF (INCLUDING BOTH DIRECT AND INDIRECT COSTS) SHALL BE PAID BY THE OWNER, AND SHALL CONSTITUTE A LIEN UPON THE HEREON-DESCRIBED LOTS 1 - 4. SUCH LIEN MAY BE ENFORCED BY THE CITY, WHICH MAY ALSO RECOVER ALL REASONABLE COSTS AND ATTORNEY'S FEES IN DOING SO, IN THE MANNER PROVIDED BY LAW, OR ENFORCEMENT AND FORECLOSURE OF LIENS.

PROJECT No.: <b>2019-26553-2</b>	PLAT PREPARED FOR & MAIL PLAT TO: <b>GW PROPERTIES</b> 2211 N. ELSTON AVE, SUITE 304, CHICAGO, IL 60614	PLAT PREPARED BY: <b>UNITED SURVEY SERVICE, LLC</b> CONSTRUCTION AND LAND SURVEYORS 7710 CENTRAL AVENUE, RIVER FOREST, ILLINOIS, 60305 TEL.: (847) 299 - 1010 FAX : (847) 299 - 5887 E-MAIL: USURVEY@USANDCS.COM	NO.	REVISIONS	DATE
ISSUE DATE: 5/17/19			1	REVISED LOTS 1 & 2	6/5/19
SCALE: 1"=30'			2	REVISED LOTS 2 & 3	6/6/19
SHEET NUMBER <b>2 OF 2</b>			3		
			4		
			5		
			6		



# PLAT OF EASEMENT VACATION



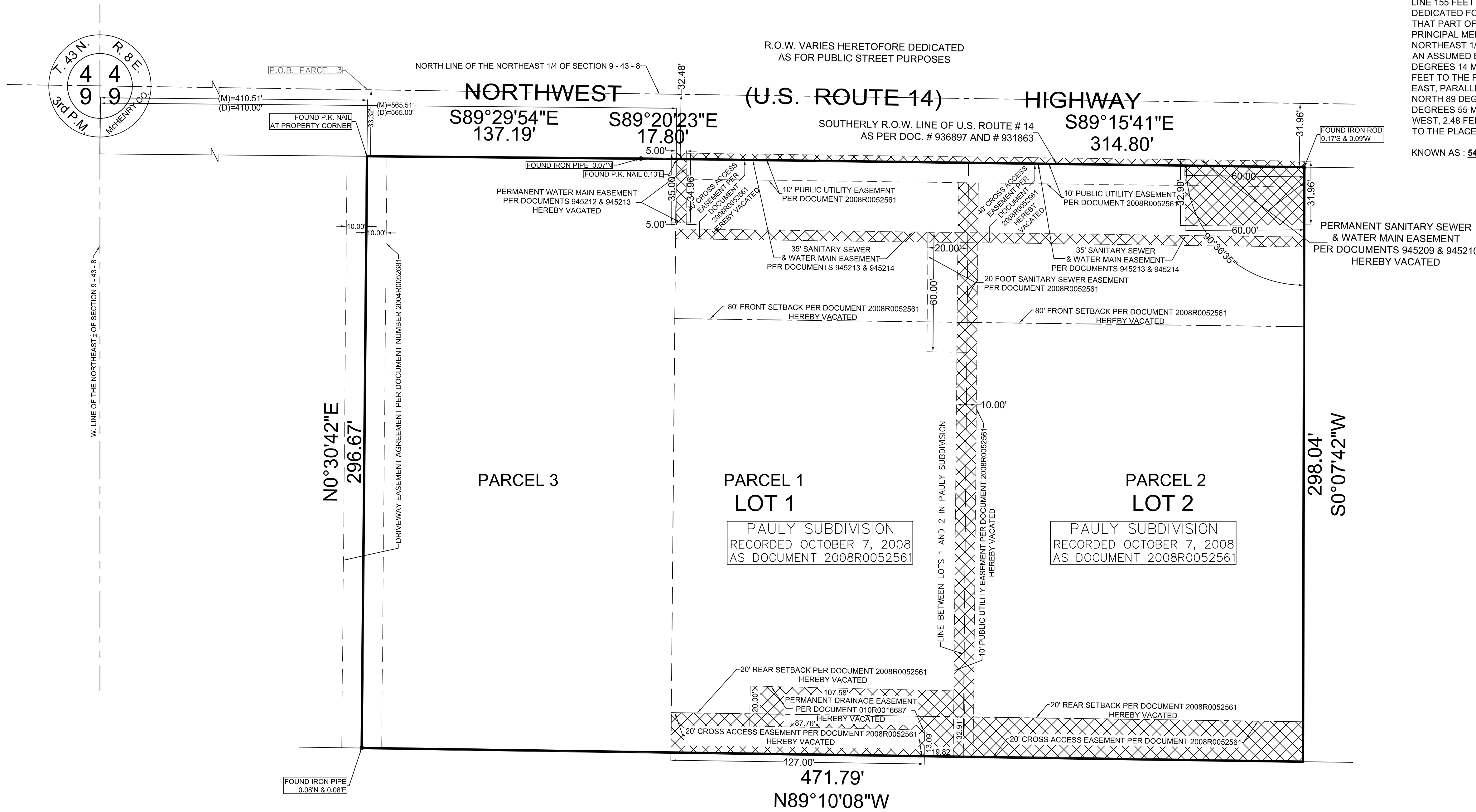
SCALE: 1"=30'

**PARCEL 1:**  
LOT 1 IN PAULY SUBDIVISION, BEING A SUBDIVISION OF PART OF THE NORTHWEST QUARTER OF SECTION 9, TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED OCTOBER 7, 2008 AS DOCUMENT 2008R0052561, IN THE CITY OF CRYSTAL LAKE, IN MCHENRY COUNTY, ILLINOIS.

**PARCEL 2:**  
LOT 2 IN PAULY SUBDIVISION, BEING A SUBDIVISION OF PART OF THE NORTHEAST QUARTER OF SECTION 9, TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED OCTOBER 7, 2008 AS DOCUMENT 2008R0052561, IN THE CITY OF CRYSTAL LAKE, IN MCHENRY COUNTY, ILLINOIS.

**PARCEL 3:**  
COMMENCING AT THE NORTHWEST CORNER OF THE NORTHEAST 1/4 OF SECTION 9, TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, RUNNING THEN EAST ALONG THE NORTH LINE OF SAID NORTHEAST 1/4, 410 FEET FOR THE PLACE OF BEGINNING; THENCE SOUTH PARALLEL TO THE WEST LINE OF SAID NORTHEAST 1/4, 330 FEET TO A POINT; THENCE EAST PARALLEL TO THE NORTH LINE OF SAID NORTHEAST 1/4, 155 FEET TO A POINT; THENCE NORTH PARALLEL TO THE WEST LINE OF SAID NORTHEAST 1/4, 330 FEET TO A POINT ON THE NORTH LINE OF SAID NORTHEAST 1/4; THENCE WEST ALONG SAID NORTH LINE 155 FEET TO THE PLACE OF BEGINNING (EXCEPTING AND RESERVING THEREFROM THAT PART OF LAND DEDICATED FOR STATE HIGHWAY PURPOSES), IN MCHENRY COUNTY, ILLINOIS ALSO EXCEPTING THEREFROM THAT PART OF THE NORTHEAST 1/4 OF SECTION 9, TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF THE NORTHEAST 1/4 OF SECTION 9, RUNNING THENCE EAST ALONG THE NORTH LINE OF SAID NORTHEAST 1/4, ON AN ASSUMED BEARING OF SOUTH 89 DEGREES 59 MINUTES 37 SECONDS EAST, 410 FEET, THENCE SOUTH 02 DEGREES 14 MINUTES 06 SECONDS EAST, PARALLEL TO THE WEST LINE LINE OF SAID NORTHEAST 1/4, 30.02 FEET TO THE PLACE OF BEGINNING, THENCE CONTINUING SOUTH 02 DEGREES 14 MINUTES 06 SECONDS EAST, PARALLEL WITH THE SAID WEST LINE OF SAID NORTHEAST 1/4, A DISTANCE OF 3.30 FEET, THENCE NORTH 89 DEGREES 40 MINUTES 36 SECONDS EAST, A DISTANCE OF 137.10 FEET; THENCE NORTH 89 DEGREES 55 MINUTES 36 SECONDS EAST, 17.87 FEET; THENCE NORTH 02 DEGREES 14 MINUTES 06 SECONDS WEST, 2.48 FEET; THENCE NORTH 89 DEGREES 59 MINUTES 37 SECONDS WEST, A DISTANCE OF 155.00 FEET, TO THE PLACE OF BEGINNING, SITUATED IN MCHENRY COUNTY, ILLINOIS.

KNOWN AS : 5417-5501 NORTHWEST HIGHWAY, CRYSTAL LAKE, ILLINOIS



**LEGEND**

- BOUNDARY LINE
- - - RIGHT-OF-WAY LINE
- - - SECTION LINE
- - - EXISTING LOT LINE
- - - EXISTING EASEMENT

PROJECT No.: 2019-26553-3  
 ISSUE DATE: 5/30/19  
 SCALE: 1"=30'  
 SHEET NUMBER 1 OF 1

PLAT PREPARED FOR & MAIL PLAT TO:  
**GW PROPERTIES**  
 2211 N. ELSTON AVE,  
 SUITE 304, CHICAGO, IL 60614

PLAT PREPARED BY:  
**UNITED SURVEY SERVICE, LLC**  
 CONSTRUCTION AND LAND SURVEYORS  
 7710 CENTRAL AVENUE, RIVER FOREST, ILLINOIS, 60305  
 TEL.: (847) 299 - 1010 FAX : (847) 299 - 5887  
 E-MAIL: USURVEY@USANDCS.COM

NO.	REVISIONS	DATE
1	REVISED PER COMMENTS	6/6/19
2		
3		
4		
5		
6		

STATE OF ILLINOIS )  
 ) S.S.  
 COUNTY OF COOK )

I, ROY G. LAWNICZAK, DO HEREBY CERTIFY THAT I HAVE PREPARED THE PLAT OF VACATION AND EASEMENT GRANT FOR THE PURPOSE SHOWN HEREON.

DIMENSIONS ARE SHOWN IN FEET AND DECIMALS AND ARE CORRECTED TO A TEMPERATURE OF 68° FAHRENHEIT.

RIVER FOREST, ILLINOIS, MAY 30, A.D. 2019

BY:  
 ROY G. LAWNICZAK, REGISTERED ILLINOIS LAND SURVEYOR NO. 35-2290  
 LICENSE EXPIRES: NOVEMBER 30, 2020  
 PROFESSIONAL DESIGN FIRM LICENSE NO.: 184-004576  
 LICENSE EXPIRES: APRIL 30, 2021



Received 06/06/19



# Traffic Impact Study

## 5417-5501 Northwest Hwy Mixed-Use Development Crystal Lake, Illinois

May 23, 2019

*Prepared for:*



*Prepared by:*

*Lynn M. Means, P.E., PTOE*

*Senior Transportation Engineer*

**GHA** GEWALT HAMILTON  
ASSOCIATES, INC.

2019-88  
partial traffic study  
Received 05/28/19

## Part I. Introduction and Project Context

Gewalt Hamilton Associates, Inc. (GHA) has conducted a Traffic Impact Study for the proposed mixed-use development to be located at 5417-5507 Northwest Highway (US Route 14) in Crystal Lake, Illinois. The approximately 3.20-acre site is currently vacant, formerly containing Pauly Toyota. Access to the site is currently provided via three full access driveways on US Route 14, as well as a fourth shared access with the adjacent Cassidy Tire use, aligned opposite Federal Drive.

As currently proposed, the development will consist of razing the existing buildings on the site and the construction of four (4) buildings containing a mix of restaurant/retail and automotive/service uses. Access to the site is proposed via one full access driveway on US Route 14, as well as via the existing shared access with Cassidy Tire; the remaining two access driveways serving the site will be closed. This is an effective access management strategy to improve safety and progression along corridors.

The following summarizes our findings and provides various recommendations for your consideration. *Appendices* referenced are in the Technical Addendum at the end of this document.

## Part II. Background Information

### *Site Location Map and Roadway Inventory*

**Exhibit 1** provides a site location map. The existing traffic operations in the site area are illustrated on **Exhibit 2**. **Appendix A** provides a photo inventory of the site vicinity. Pertinent comments to the adjacent roadways include:

#### Northwest Highway (US Route 14)

- US Route 14 is an east-west, Principal Arterial under the jurisdiction of the Illinois Department of Transportation (IDOT).
- US Route 14 provides a five-lane cross section (two through lanes in each direction, with a center lane for left-turns), with a posted speed limit of 35 miles per hour (mph) in the vicinity of the site.
- A dedicated right-turn lane is provided in the eastbound direction at its unsignalized intersection with Three Oaks Recreation Area Drive and in the westbound direction at its unsignalized intersection with Federal Drive, as well as at its signalized intersection with Exchange Drive.
- US Route 14 is designated as a Strategic Regional Arterial (SRA) route. SRA routes are designed to carry higher traffic volumes at higher travel speeds through access control and traffic signal installation / spacing. It is also designated as a Class II Truck route.
- The Annual Average Daily Traffic (AADT), year 2017, on US Route 14 is 28,200 vehicles with 1,700 trucks (6.0%).

#### Three Oaks Recreation Area Drive

- Three Oaks Recreation Area Drive is a north-south, local roadway, extending southerly from US Route 14 under the jurisdiction of the City of Crystal Lake, serving the Three Oaks Recreation Area, as well as provides a connection to the Crystal Court Shopping Center.
- Three Oaks Recreation Area Drive provides a two-lane cross section (one travel lane in each direction) with a posted speed limit of 20 mph.
- At its unsignalized “T” intersection with US Route 14, Three Oaks Recreation Area Drive is restricted to right-turns only (via channelization), operating under Stop sign control.



**GHA** GEWALT HAMILTON  
ASSOCIATES, INC.  
www.gha-engineers.com







1 inch = 275  
Feet

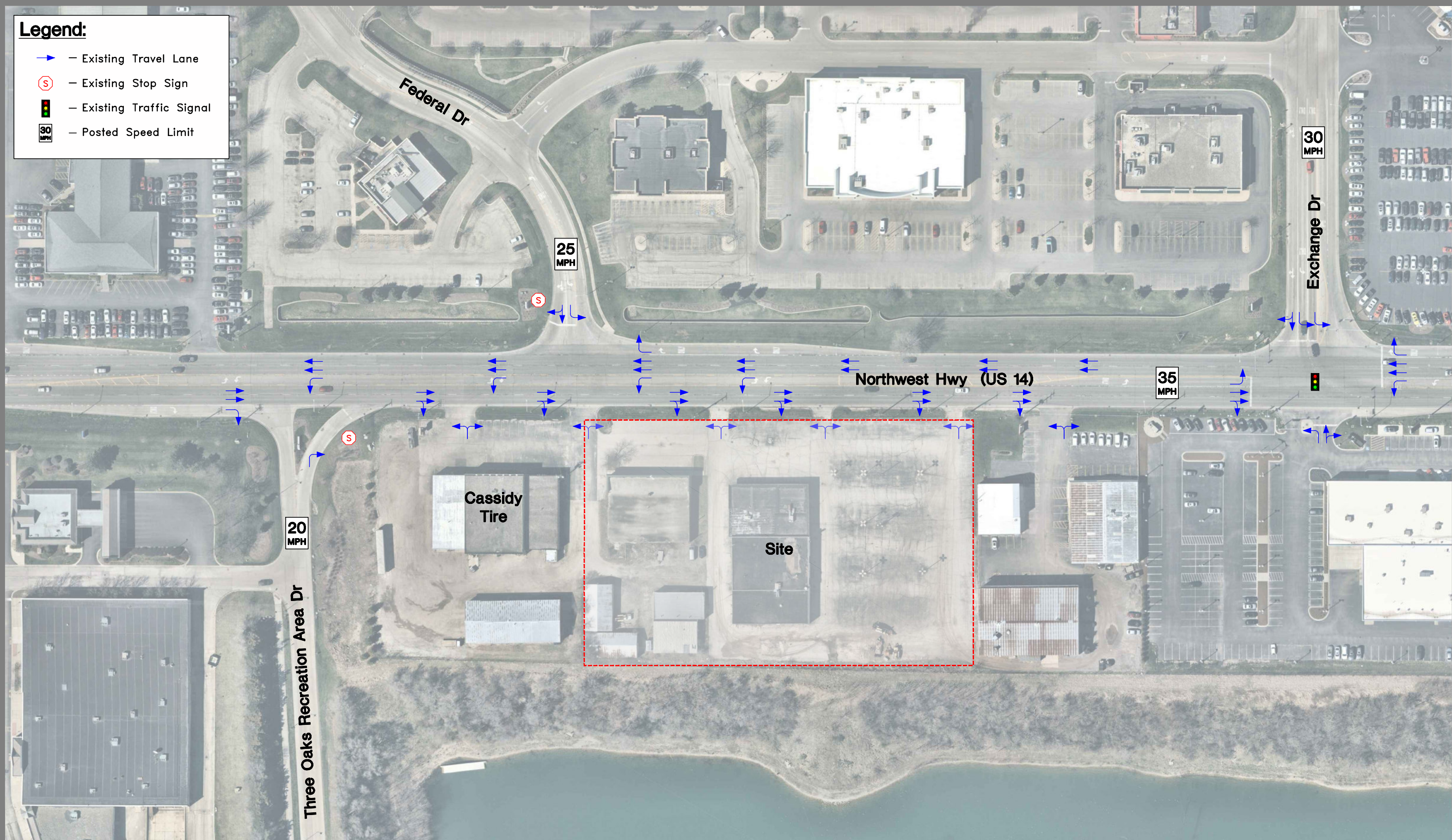
## Exhibit 1 - Location Map

Proposed Development  
Crystal Lake, IL



**Legend:**

-  - Existing Travel Lane
-  - Existing Stop Sign
-  - Existing Traffic Signal
-  - Posted Speed Limit





### Federal Drive

- Federal Drive is a local north-south roadway, extending northerly from US Route 14 and is under the jurisdiction of the City of Crystal Lake.
- In general, Federal Drive provides a three-lane cross-section (one through lane in each direction and a center lane for left-turns), with a posted speed limit of 25 mph.
- A shared access driveway serving Cassidy Tire, as well as the site, is aligned opposite Federal Drive.
- At its unsignalized intersection with US Route 14, Federal Drive provides a left-turn lane and shared through/right-turn lane in the southbound direction, operating under Stop sign control. The northbound driveway provides a signal approach lane, with shared turning movements also under Stop sign control.

### Exchange Drive

- Exchange Drive is a local north-south roadway, extending northerly from US Route 14 and is under the jurisdiction of the City of Crystal Lake.
- In general, Exchange Drive provides a three-lane cross-section (one through lane in each direction and a center lane for left-turns), with a posted speed limit of 30 mph.
- A Volkswagen dealership access driveway is aligned opposite Exchange Drive.
- At its signalized intersection with US Route 14, Exchange Drive provides dual left-turn lanes and shared through/right-turn lane in the southbound direction. The northbound driveway provides a left-turn lane and a shared through/right-turn lane.

### Pedestrian Facilities



- A sidewalk is provided along the west / south side of Three Oaks Recreation Drive from the park access extending south, as well as on the east side of Federal Drive, extending northerly from US Route 14.
- There are no pedestrian/bicycle accommodations, sidewalks, crosswalks or signals, provided along US Route 14 or Exchange Drive within the study area.

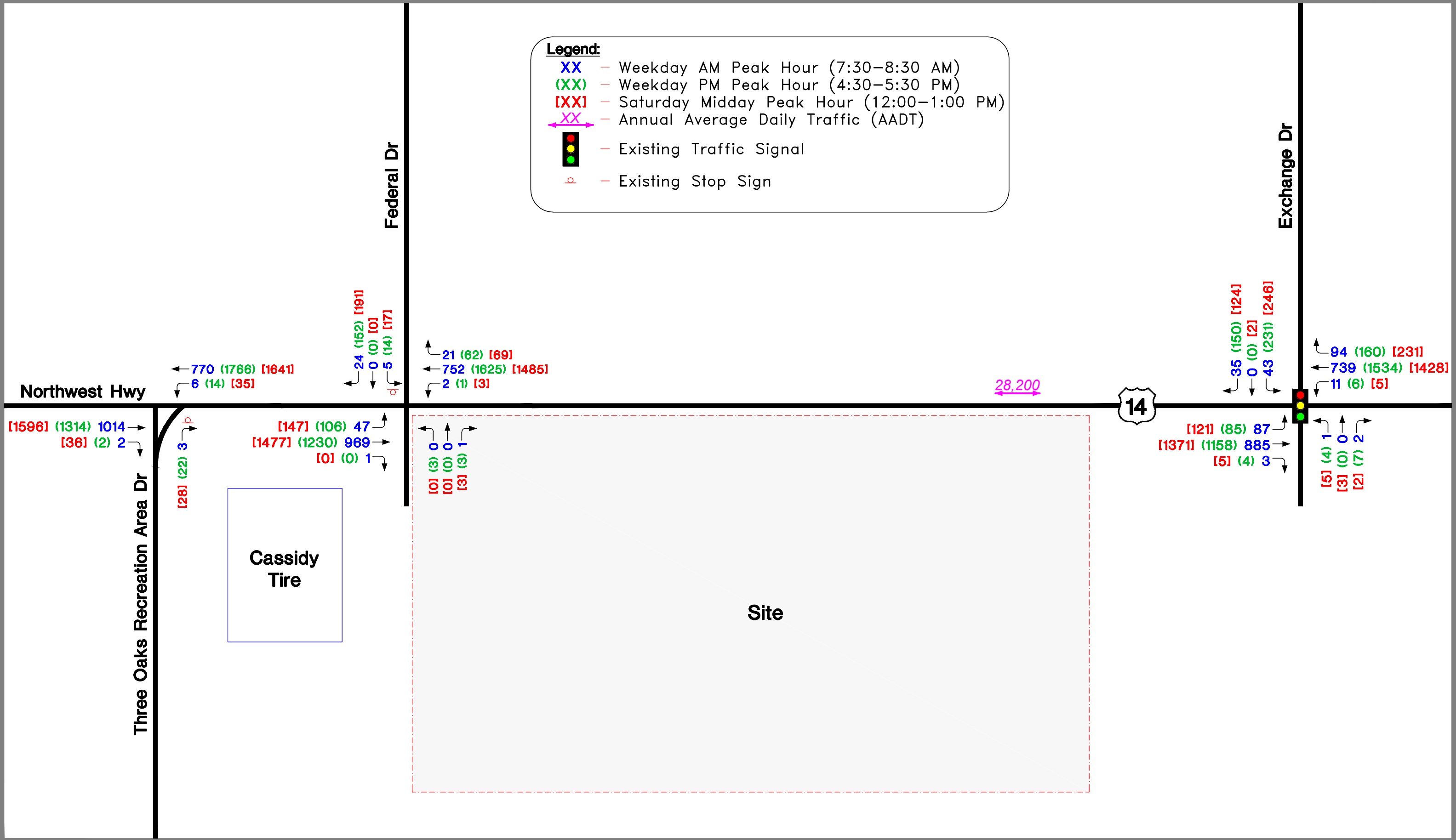
## **Existing Traffic**

**Exhibit 3** summarizes the existing weekday morning, weekday evening and Saturday midday peak hour traffic volumes. Peak period traffic turning movement counts were conducted by GHA on Saturday, May 4, 2019 from 11:00 AM to 2:00 PM, and on Tuesday, May 7, 2019 from 6:00 to 9:00 AM and 3:00 to 6:00 PM. The observed weekday morning, weekday evening and Saturday midday peak hours generally occurred from 7:30 to 8:30 AM, 4:30 to 5:30 PM and 12:00 to 1:00 PM, respectively. However, the peak hour for each individual intersection was used in the analysis to provide a conservative analysis scenario. *Exhibit 3* also provides the AADT (24-hour volume) along US Route 14 from 2017 as published by IDOT on their website: [www.gettingaroundillinois.com](http://www.gettingaroundillinois.com).

No unusual activities (e.g. roadway construction, or inclement weather) were observed during our counts that would be expected to impact traffic volumes or travel patterns in the vicinity. Summaries of the existing traffic counts can be found in **Appendix B**.

**Legend:**

- XX — Weekday AM Peak Hour (7:30–8:30 AM)
- (XX) — Weekday PM Peak Hour (4:30–5:30 PM)
- [XX] — Saturday Midday Peak Hour (12:00–1:00 PM)
- XX — Annual Average Daily Traffic (AADT)
-  — Existing Traffic Signal
-  — Existing Stop Sign



## Crash Analysis

Crash data was obtained from the IDOT Division of Transportation and Safety for the last five calendar years, 2013 through 2017<sup>i</sup>. A summary of the crash data is provided in **Table 1** with the locations mapped on the exhibit contained in **Appendix C**.

**Table 1: Crash Summary (2013 – 2017)**

Location	No. of Crashes	Severity <sup>A</sup>					Crash Type <sup>C</sup>						Percent During Wet/Icy Conditions
		PD	PI <sup>B</sup>			F	CM	RE	HO	FO	Ped	Bike	
			A	B	C								
<b>Intersections</b>													
US 14 & Three Oaks Rec Area Dr	2	2	-	-	-	-	1	1	-	-	-	-	0%
US 14 & Federal Dr	19	16	-	-	3	-	9	10	-	-	-	-	21%
US 14 & Exchange Dr	25	17	2	2	4	-	8	15	1	1	-	-	24%
<b>Segment</b>													
US 14 between Federal Dr and Exchange Dr	13	9	1	-	3	-	5	3	-	5	-	-	8%
<b>Total (2013-17)</b>	<b>59</b>	<b>44</b>	<b>3</b>	<b>2</b>	<b>10</b>	<b>-</b>	<b>23</b>	<b>29</b>	<b>1</b>	<b>6</b>	<b>-</b>	<b>-</b>	<b>19%</b>

<sup>A</sup> PD = property damage only; PI = personal injury; F = fatality.

<sup>B</sup> Type A (incapacitating injury); Type B (non-incapacitating injury); Type C (possible injury).

<sup>C</sup> CM = cross movement/angle; RE = rear end; HO = head on; FO = fixed object; Ped = pedestrian.

As shown in Table 1, the intersection of US Route 14 and Exchange Drive has experienced the highest number of crashes within the study area over the five-year analyses period, with an average of approximately 5 crashes per year. Approximately 68 percent (17 of 25) of the crashes involved property damage only and approximately 60 percent (15 of 25) were rear-end collisions.

The intersection of US 14 and Federal Drive experienced an average of 4 crashes per year. Approximately 84 percent (16 of 19) of the crashes at this intersection involved property damage only and more than half (approximately 53 percent) were rear-end collisions.

There were no collisions that involved a pedestrian or bicyclist.



## No-Build Traffic

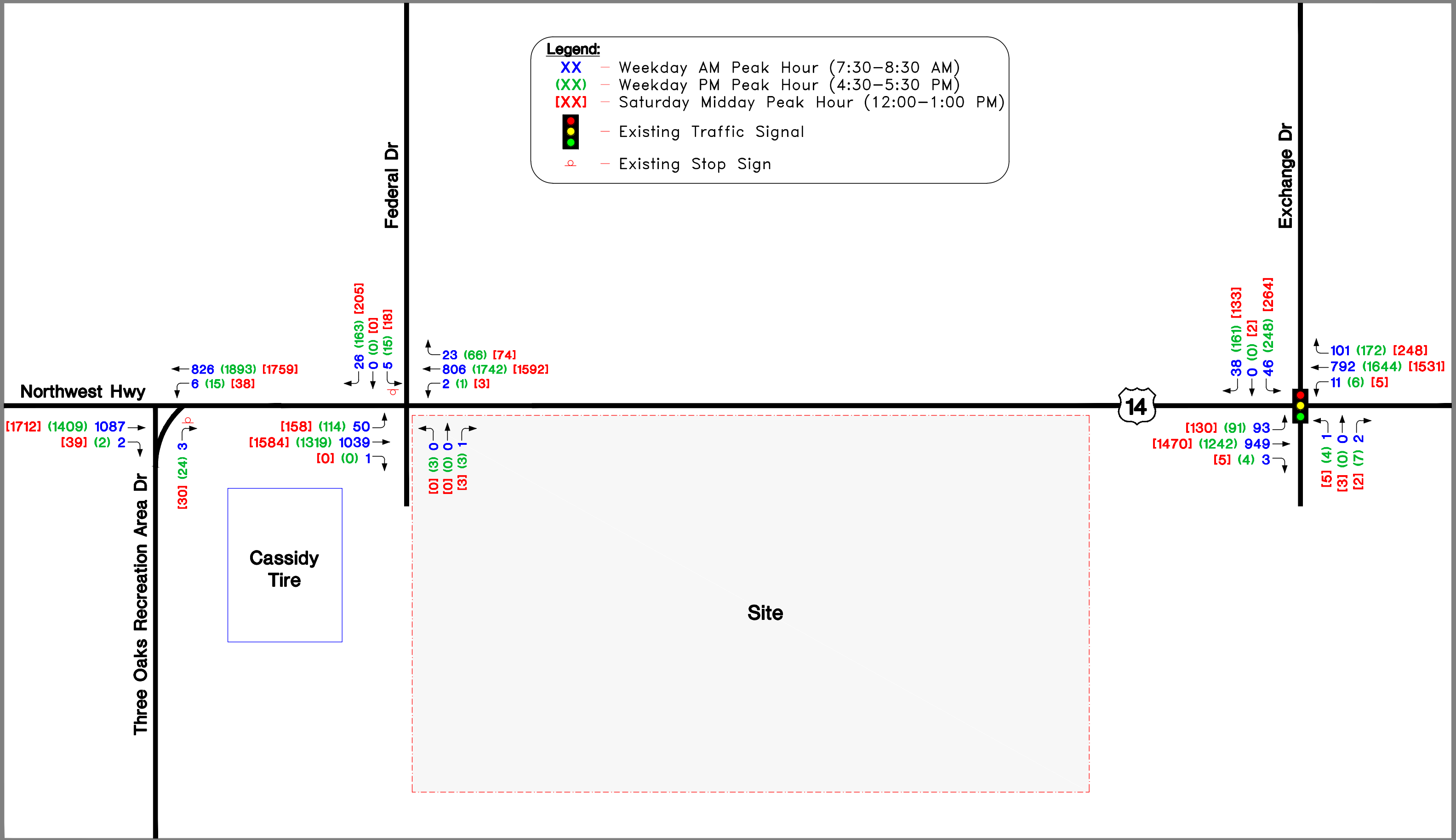
Traffic growth in the area is a function of expected land development in the region. Future traffic volume conditions were developed for the year 2026, build-out year of the development (year 2021) plus five years. Based on a review of historical traffic volumes and the Chicago Metropolitan Agency for Planning (CMAP) 2050 projections (see **Appendix D**), traffic volumes along the roadways surrounding the site are assumed to experience an overall annual, compounded growth rate of approximately 0.85 percent per year. However, to provide a conservative analysis scenario, the 2026 No-Build peak hour traffic volumes were developed by applying a 1.0 percent compounded annual growth rate to the existing traffic.

Accordingly, the 2026 No-Build peak hour traffic volumes (see **Exhibit 4**) was developed by applying a 1.0 percent compounded annual growth rate to the existing traffic.

<sup>i</sup> Complete year 2018 crash data was not available from IDOT at the time of this study.

**Legend:**

- XX — Weekday AM Peak Hour (7:30–8:30 AM)
- (XX) — Weekday PM Peak Hour (4:30–5:30 PM)
- [XX] — Saturday Midday Peak Hour (12:00–1:00 PM)
-  — Existing Traffic Signal
-  — Existing Stop Sign





## Part III. Traffic Evaluation

### *Future Site Characteristics*

#### **Proposed Development Plan**

The proposed site plan prepared by Kimley-Horn is provided in **Appendix E**. As shown, the development consists of the construction of four (4) buildings containing a mix of restaurant/retail and automotive/service uses, including an approximately 8,200 square-foot tire store and a 3,500 square-foot fast-food restaurant with drive-through window. For the remaining two buildings the specific uses have yet to be defined; potential uses for one lot include a 1,600 square-foot quick-lube vehicle shop or a 3,500 square-foot fast casual restaurant and for the second lot include a 6,800 square-foot retail building (split between specialty retail and a fast-casual restaurant or medical-dental office) or a 2,200 square-foot fast-food restaurant with drive-through window.

Access to the site is proposed via one full access driveway on US Route 14, as well as via the existing shared access with Cassidy Tire; the remaining two access driveways serving the site will be closed. This is an effective access management strategy to improve safety and progression along corridors.

#### **Trip Generation**

**Table 2** summarizes the traffic generation calculations for the proposed development. Trip generation rates published by the Institute of Transportation Engineers (ITE) in the 10<sup>th</sup> Edition of the Manual *Trip Generation* were used to determine the anticipated traffic generated by the proposed mix of uses. Note, for the two building uses that are currently undefined, the potential alternative development scenarios were evaluated, and the uses with the higher estimated trip totals were utilized to provide a conservative analysis scenario. See **Appendix F** for excerpts from the ITE manual.

Not all vehicle trips expected to be generated by the proposed project represent new trips on the study area roadway system. Studies have shown that for retail and restaurant developments, a substantial portion of the site-generated vehicle trips are already present in the adjacent passing stream of traffic or are diverted from another route to the proposed site. Based on data presented in the ITE *Trip Generation Handbook, 3<sup>rd</sup> Edition*, the average pass-by trip percentage for the proposed uses is between 26 and 50 percent. However, to provide a conservative analysis, a 20 percent reduction for pass-by traffic was applied to the retail and restaurant components of the development site-generated trips, consistent with IDOT guidelines for the preparation of traffic impact studies on SRA routes. It should be noted that the volume of pass-by traffic does not reduce the total trips generated and those trip volumes will still be realized as turning movements at the site driveways.

In addition, for multi-use developments, or developments with cross-access and shared access driveways, internal trips between the land uses within the development are expected to occur. These are multi-purpose trips from one land use within the development to another land use within the same development (e.g. a customer purchases something from the automotive store and eats at one of the restaurants). However, to provide a conservative analysis scenario, no reduction for internal capture was applied.

**Table 2: Trip Generation Calculations**

Land Use	Size	ITE Code	Weekday Peak Hours						Saturday Midday			Daily		
			Morning			Evening			In	Out	Sum	In	Out	Sum
			In	Out	Sum	In	Out	Sum						
1 Tire Store	8.2 KSF	#848	14	8	22	14	19	33	19	22	41	117	117	234
2 A. Quick Lube Vehicle Shop <sup>1</sup> or B. Fast Casual Restaurant	1.6 KSF 3.5 KSF	#941 #930	7 5	2 2	9 7	6 27	8 22	14 49	18 65	21 54	39 119	56 552	56 552	112 1,104
3 Fast Food Restaurant w/Drive-Thru	3.5 KSF	#934	--	--	--	59	55	114	98	94	192	824	824	1,648
4 A. Specialty Retail <sup>2</sup> Fast Casual Restaurant	3.3 KSF 3.5 KSF	#820 #930	2 5	1 2	3 7	6 27	7 22	13 49	8 65	7 54	15 119	62 552	62 552	124 1,104
Subtotal (Option A)	6.8 KSF	--	7	3	10	33	29	62	73	61	134	614	614	1,228
or B. Fast Food Restaurant w/Drive-Thru	2.2 KSF	#934	45	43	88	37	35	72	62	59	121	518	518	1,036
or C. Specialty Retail <sup>4</sup> Medical-Dental Office <sup>3</sup>	3.3 KSF 3.5 KSF	#820 #720	2 9	1 2	3 11	6 4	7 10	13 14	8 6	7 5	15 11	62 61	62 61	124 122
Subtotal (Option C)	6.8 KSF	--	11	3	14	10	17	27	14	12	26	123	123	246
<b>Subtotal (Total Development) =</b>			<b>64</b>	<b>53</b>	<b>117</b>	<b>137</b>	<b>131</b>	<b>268</b>	<b>244</b>	<b>229</b>	<b>473</b>	<b>2,011</b>	<b>2,011</b>	<b>4,022</b>
less pass-by trips (20%)			-12	-12	-24	-27	-27	-54	-47	-47	-94	-402	-402	-804
<b>Total Development (New) Trips =</b>			<b>52</b>	<b>41</b>	<b>93</b>	<b>110</b>	<b>104</b>	<b>214</b>	<b>197</b>	<b>182</b>	<b>379</b>	<b>1,609</b>	<b>1,609</b>	<b>3,218</b>

Sources: Institute of Transportation Engineers (ITE) Trip Generation Manual; 10th Edition, 2017.

ITE Trip Generation Handbook; 3rd Edition, 2017.

Notes: 1. For ITE LUC 941, Quick Lubriation Vehicle Shop, data for Saturday, Peak Hour of Generator is not available. Therefore, Saturday midday peak hour trips for this use were estimated by interpolation with available data from similar ITE Land Use Code, 943, Auto Parts and Service Center.

2. For ITE LUC 820, Shopping Center, Average Rates were used in the estimates due to the size and anticipated tenant for this use.

3. For LUC 720, Medical-Dental Office, Average Rates were used in the estimates during the Saturday midday & on a daily basis since the equations produced negative and/or unrealistic (lower than expected) results.

**Trip Distribution**

**Table 3** provides the anticipated distribution of *new* site traffic. This was based on existing site travel patterns, proposed access and the operational characteristics of the adjacent street system.

**Table 3: Trip Distribution**




Route & Direction	Percent Route To/From Site
<b>US Route 14</b>	
West of Three Oaks Recreation Area Dr	45%
East of Exchange Dr	40%
<b>Three Oaks Recreation Area Dr</b>	
South of US Route 14	--
<b>Federal Dr</b>	
North of US Route 14	5%
<b>Exchange Dr</b>	
North of US Route 14	10%
<b>Totals =</b>	<b>100%</b>

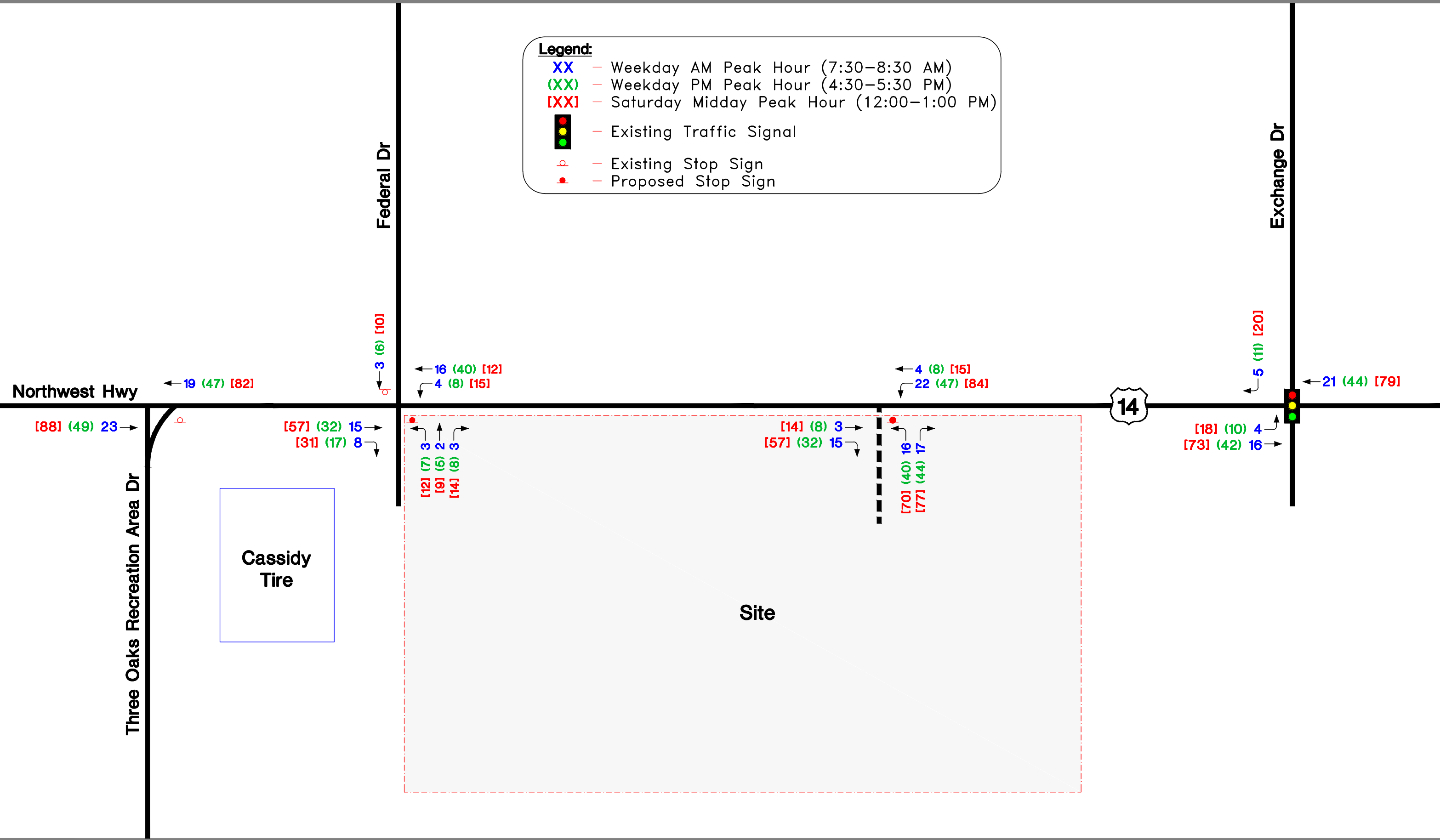
-- Less than 5%

**Site and Total Traffic Assignments**




**Exhibits 5a and 5b** illustrate the site traffic assignment for the development's *new* and *pass-by* trips, respectively, which is based on the traffic characteristics summarized in *Tables 2 and 3* (traffic generation and trip distribution) and assigned to the area roadways. The site traffic (*Exhibits 5a and 5b*) and 2026 No-Build traffic (*Exhibit 4*) were combined to produce the 2026 Total traffic, which is illustrated on **Exhibit 6**.

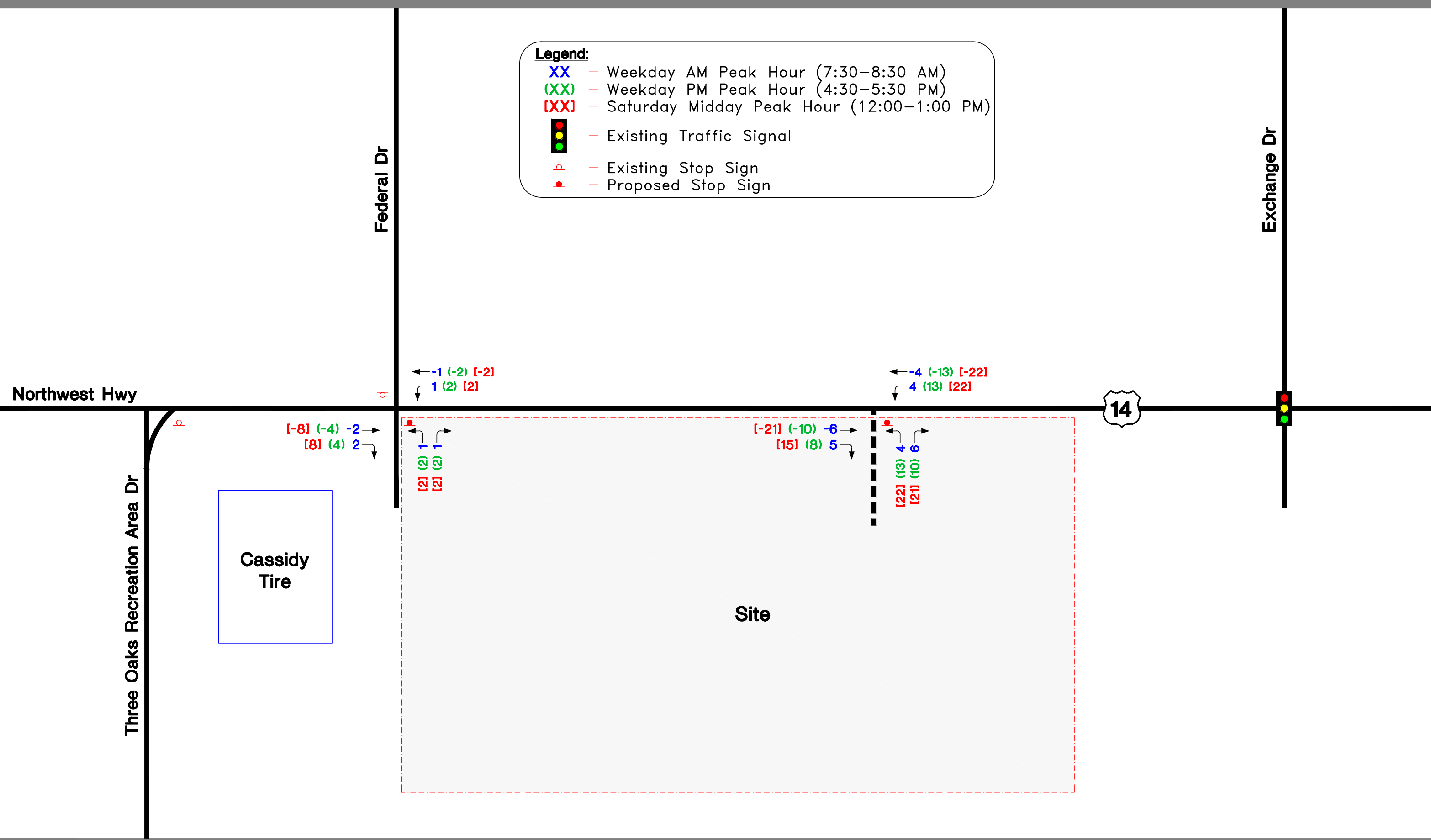
**Legend:**

- XX - Weekday AM Peak Hour (7:30–8:30 AM)
- (XX) - Weekday PM Peak Hour (4:30–5:30 PM)
- [XX] - Saturday Midday Peak Hour (12:00–1:00 PM)
-  - Existing Traffic Signal
-  - Existing Stop Sign
-  - Proposed Stop Sign






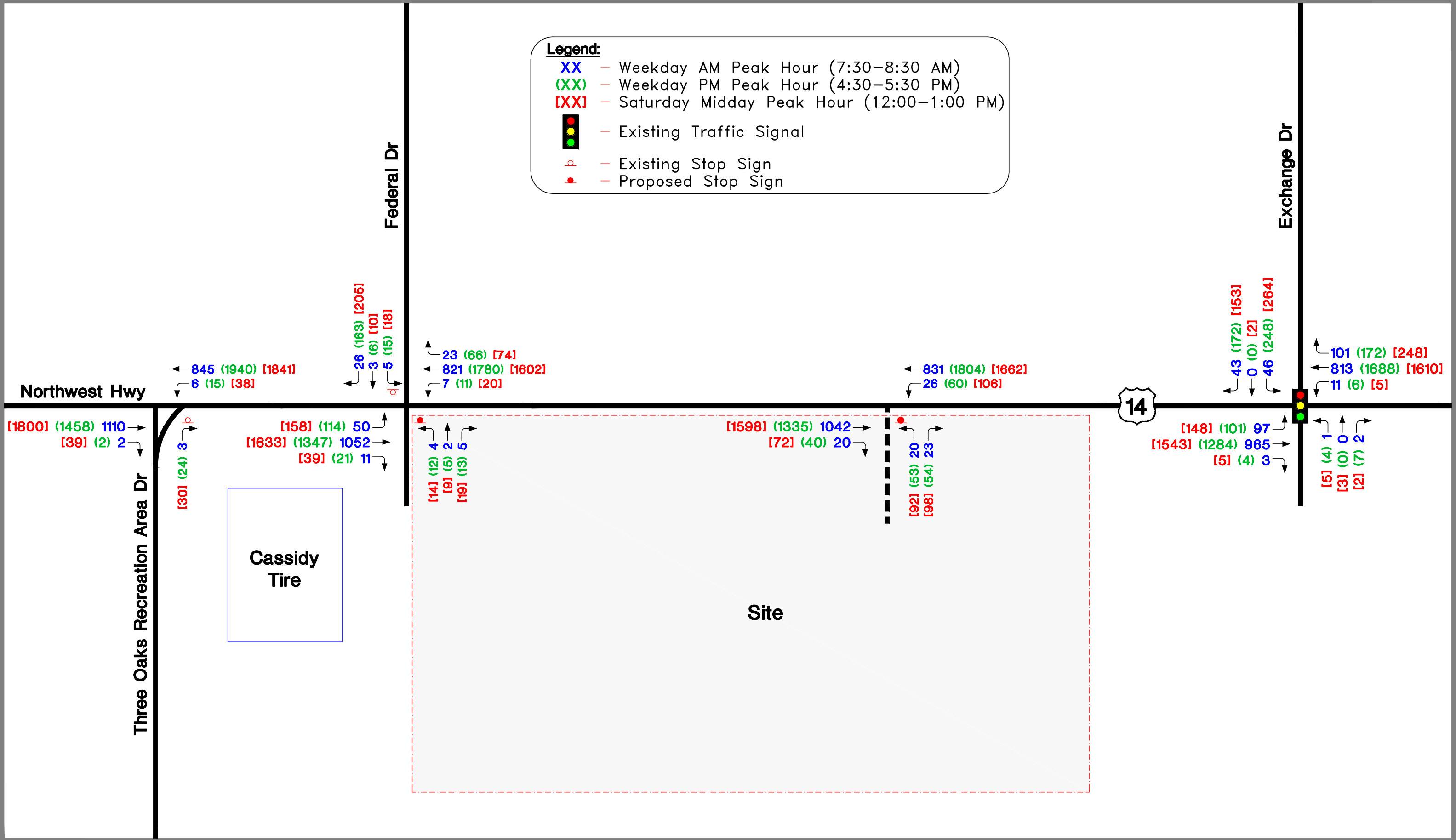
**Legend:**

- XX — Weekday AM Peak Hour (7:30–8:30 AM)
- (XX) — Weekday PM Peak Hour (4:30–5:30 PM)
- [XX] — Saturday Midday Peak Hour (12:00–1:00 PM)
-  — Existing Traffic Signal
-  — Existing Stop Sign
-  — Proposed Stop Sign



**Legend:**

- XX — Weekday AM Peak Hour (7:30–8:30 AM)
- (XX) — Weekday PM Peak Hour (4:30–5:30 PM)
- [XX] — Saturday Midday Peak Hour (12:00–1:00 PM)
-  — Existing Traffic Signal
-  — Existing Stop Sign
-  — Proposed Stop Sign



## Capacity Analysis

Capacity analyses are a standard measurement that identifies how an intersection operates. They are measured in terms of Level of Service (LOS). The concept of LOS is defined as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers. A level-of-service definition provides an index to quality of traffic flow in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety.

Six Levels of Service are defined for each type of facility. They are given letter designations from A to F, with LOS A representing the best operating conditions and LOS F the worst. LOS C is often considered acceptable for design purposes and LOS D is usually considered as providing the lower threshold of acceptable operations. Since the level of service is a function of the traffic flows placed upon it, the facility may operate at a wide range of levels of service, depending on the time of day, day of week or period of year. A description of the operating condition under each level of service, based on the analysis parameters as published in the Transportation Research Board's (TRB) Highway Capacity Manual (HCM), Sixth Edition, is provided in **Table 4**.

**Table 4: Level of Service (LOS) Summary**

LOS	Description	Delay (sec/veh)	
		Traffic Signal	Stop Sign
A	Describes conditions with little to no delay to motorists.	<10	< 10
B	Represents a desirable level with relatively low delay to motorists.	>10 and < 20	>10 and < 15
C	Describes conditions with average delays to motorists.	>20 and < 35	>15 and < 25
D	Describes operations where the influence of congestion becomes more noticeable. Delays are still within an acceptable range.	>35 and < 55	>25 and < 35
E	Represents operating conditions with high delay values. This level is often considered within urban settings or for minor streets intersecting major arterial roadways to be the limit of acceptable delay.	>55 and < 80	>35 and < 50
F	Is unacceptable to most drivers with high delay values that often occur, when arrival flow rates exceed the capacity of the intersection.	>80	>50

Capacity analyses were performed using the methodologies outlined in the HCM, for the following scenarios:

- *Existing Traffic* - Existing traffic (year 2019),
- *No-Build Traffic* – Future (non-site, year 2026) traffic with background growth (assumed at 1.0 percent compounded per year, and
- *Total Traffic* – Future No-Build traffic volumes (year 2026) plus the addition of site generated traffic.

**Table 5** summarizes the intersection capacity and queue analysis results. Capacity analysis summary printouts are provided in **Appendix G**.

**Table 5: Level-of-Service Summary**

Intersection / Timeframe / Scenario	Roadway Conditions	LOS Per Movement By Approach								Intersection / Approach					
		- = Non Critical or not Allowed Movement								Delay (sec / veh)	LOS				
		Eastbound			Westbound			Northbound				Southbound			
LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	NB Approach Delay			
<b>1. US 14 &amp; Three Oaks Rec Area Dr</b>	<b>TWSC - NB Stops</b>	Eastbound			Westbound			Northbound		Southbound		<b>NB Approach Delay</b>			
<b>A. Weekday Morning Peak Hour</b>															
Existing Traffic (See Exhibit 3)	• Current	-	-	-	B	-	-	-	-	B	-	-	-	12.9	B
	• 95th Queue Length (ft)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No-Build Traffic (See Exhibit 4)	• Current	-	-	-	B	-	-	-	-	B	-	-	-	13.4	B
	• 95th Queue Length (ft)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Traffic (See Exhibit 6)	• Current	-	-	-	B	-	-	-	-	B	-	-	-	13.6	B
	• 95th Queue Length (ft)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>B. Weekday Evening Peak Hour</b>															
Existing Traffic (See Exhibit 3)	• Current	-	-	-	B	-	-	-	-	B	-	-	-	14.8	B
	• 95th Queue Length (ft)	-	-	-	3	-	-	-	-	5	-	-	-	-	-
No-Build Traffic (See Exhibit 4)	• Current	-	-	-	B	-	-	-	-	C	-	-	-	15.7	C
	• 95th Queue Length (ft)	-	-	-	3	-	-	-	-	5	-	-	-	-	-
Total Traffic (See Exhibit 6)	• Current	-	-	-	B	-	-	-	-	C	-	-	-	16.1	C
	• 95th Queue Length (ft)	-	-	-	3	-	-	-	-	5	-	-	-	-	-
<b>C. Saturday Midday Peak Hour</b>															
Existing Traffic (See Exhibit 3)	• Current	-	-	-	C	-	-	-	-	C	-	-	-	17.7	C
	• 95th Queue Length (ft)	-	-	-	8	-	-	-	-	8	-	-	-	-	-
No-Build Traffic (See Exhibit 4)	• Current	-	-	-	C	-	-	-	-	C	-	-	-	19.2	C
	• 95th Queue Length (ft)	-	-	-	10	-	-	-	-	10	-	-	-	-	-
Total Traffic (See Exhibit 6)	• Current	-	-	-	C	-	-	-	-	C	-	-	-	20.4	C
	• 95th Queue Length (ft)	-	-	-	10	-	-	-	-	10	-	-	-	-	-
<b>2. US 14 &amp; Federal Dr / Site</b>	<b>TWSC - NB/SB Stops</b>	Eastbound			Westbound			Northbound		Southbound		<b>NB Approach Delay</b>			
<b>A. Weekday Morning Peak Hour</b>															
Existing Traffic (See Exhibit 3)	• Current	B	-	-	B	-	-	>	B	<	C	B	<	12.6	B
	• 95th Queue Length (ft)	5	-	-	-	-	-	-	-	-	3	5	-	-	-
No-Build Traffic (See Exhibit 4)	• Current	B	-	-	B	-	-	>	B	<	D	B	<	14.7	B
	• 95th Queue Length (ft)	8	-	-	-	-	-	-	-	-	3	5	-	-	-
Total Traffic (See Exhibit 6)	• Current	B	-	-	B	-	-	>	E	<	>	F	B	45.3	E
	• 95th Queue Length (ft)	8	-	-	-	-	-	-	10	-	-	13	4	-	-
<b>B. Weekday Evening Peak Hour</b>															
Existing Traffic (See Exhibit 3)	• Current	C	-	-	B	-	-	>	F	<	F	D	<	83.2	F
	• 95th Queue Length (ft)	33	-	-	-	-	-	-	10	-	20	73	-	-	-
No-Build Traffic (See Exhibit 4)	• Current	C	-	-	B	-	-	>	F	<	F	E	<	NC	F
	• 95th Queue Length (ft)	43	-	-	-	-	-	-	-	-	25	95	-	-	-
Total Traffic (See Exhibit 6)	• Current	C	-	-	B	-	-	>	F	<	>	F	E	NC	F
	• 95th Queue Length (ft)	45	-	-	3	-	-	-	-	-	-	-	100	-	-
<b>C. Saturday Midday Peak Hour</b>															
Existing Traffic (See Exhibit 3)	• Current	C	-	-	B	-	-	>	-	<	F	D	<	-	-
	• 95th Queue Length (ft)	45	-	-	-	-	-	-	-	-	25	90	-	-	-
No-Build Traffic (See Exhibit 4)	• Current	C	-	-	B	-	-	>	C	<	F	E	<	16.5	C
	• 95th Queue Length (ft)	58	-	-	-	-	-	-	-	-	35	120	-	-	-
Total Traffic (See Exhibit 6)	• Current	C	-	-	B	-	-	>	F	<	>	F	E	NC	F
	• 95th Queue Length (ft)	60	-	-	5	-	-	-	-	-	-	-	123	-	-
<b>3. US 14 &amp; Exchange Dr</b>	<b>Traffic Signal</b>	Eastbound			Westbound			Northbound		Southbound		<b>Intersection Delay</b>			
<b>A. Weekday Morning Peak Hour</b>															
Existing Traffic (See Exhibit 3)	• Current	A	A	<	E	A	A	E	F	<	E	E	<	4.1	A
	• 95th Queue Length (ft)	26	16	-	21	13	37	3	6	-	39	68	-	-	-
No-Build Traffic (See Exhibit 4)	• Current	A	A	<	E	A	A	E	F	<	E	E	<	4.2	A
	• 95th Queue Length (ft)	29	18	-	21	13	41	3	6	-	42	74	-	-	-
Total Traffic (See Exhibit 6)	• Current	A	A	<	E	A	A	E	F	<	E	E	<	4.3	A
	• 95th Queue Length (ft)	30	19	-	21	16	41	3	6	-	42	85	-	-	-
<b>B. Weekday Evening Peak Hour</b>															
Existing Traffic (See Exhibit 3)	• Current	A	A	<	E	A	A	E	F	<	E	F	<	12.1	B
	• 95th Queue Length (ft)	36	74	-	13	107	82	9	19	-	202	302	-	-	-
No-Build Traffic (See Exhibit 4)	• Current	A	A	<	E	A	A	E	F	<	E	F	<	12.9	B
	• 95th Queue Length (ft)	40	87	-	13	131	91	9	19	-	214	329	-	-	-
Total Traffic (See Exhibit 6)	• Current	A	A	<	E	A	A	E	F	<	E	F	<	13.9	B
	• 95th Queue Length (ft)	44	91	-	13	140	92	9	19	-	214	370	-	-	-



**Table 5: Level-of-Service Summary (cont.)**

Intersection / Timeframe / Scenario	Roadway Conditions	LOS Per Movement By Approach												Intersection / Approach	
		- = Non Critical or not Allowed Movement												Delay (sec / veh)	LOS
		Eastbound			Westbound			Northbound			Southbound				
LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	Intersection Delay			
<b>3. US 14 &amp; Exchange Dr</b>	<b>Traffic Signal</b>	Eastbound			Westbound			Northbound			Southbound			<b>Intersection Delay</b>	
<b>C. Saturday Midday Peak Hour</b> Existing Traffic (See Exhibit 3)	• Current	A	A	<	E	A	A	E	E	<	E	E	<	10.7	B
	• 95th Queue Length (ft)	45	94	-	8	108	114	10	10	-	196	223	-	-	-
No-Build Traffic (See Exhibit 4)	• Current	A	A	<	E	A	A	E	E	<	E	E	<	11.4	B
	• 95th Queue Length (ft)	50	112	-	8	132	128	10	10	-	209	240	-	-	-
Total Traffic (See Exhibit 6)	• Current	B	A	<	E	A	A	E	E	<	E	F	<	12.5	B
	• 95th Queue Length (ft)	60	140	-	8	171	136	10	10	-	204	279	-	-	-
<b>4. US 14 &amp; Site</b>	<b>TWSC - NB Stops</b>	Eastbound			Westbound			Northbound			Southbound			<b>NB Approach Delay</b>	
<b>A. Weekday Morning Peak Hour</b> Total Traffic (See Exhibit 6)	• Current	-	-	-	B	-	-	C	-	B	-	-	-	18.0	C
	• 95th Queue Length (ft)	-	-	-	3	-	-	8	-	5	-	-	-	-	-
<b>B. Weekday Evening Peak Hour</b> Total Traffic (See Exhibit 6)	• Current	-	-	-	B	-	-	F	-	C	-	-	-	41.1	E
	• 95th Queue Length (ft)	-	-	-	13	-	-	58	-	13	-	-	-	-	-
<b>C. Saturday Midday Peak Hour</b> Total Traffic (See Exhibit 6)	• Current	-	-	-	C	-	-	F	-	C	-	-	-	140.6	F
	• 95th Queue Length (ft)	-	-	-	33	-	-	180	-	35	-	-	-	-	-

**Total traffic conditions assumed:**

- A dedicated right-turn lane would be installed on US Route 14 at the proposed full access driveway due to driver expectation and to provide geometric continuity along the corridor.
- The painted median along the eastern site frontage would be restriped as a two-way left-turn lane.
- Federal Drive southbound at US Route 14, opposite the shared site access with Cassidy Tire, should be restriped as a shared left-turn/through lane and a right-turn lane, to align the through movements with the shared site access, along with improving operations.
- A Stop sign would be installed on the shared site access driveway, opposite Federal Drive.
- The proposed full site access driveway on US Route 14 should provide one inbound lane and two outbound lanes (separate left- and right-turn lanes), operating under Stop sign control.
- The development will provide for a future connection to the east, if/when that parcel is redeveloped with a compatible use.

US Route 14 at Three Oaks Recreation Area Drive

Under both existing and future (No-Build and Total) conditions, all movements at this unsignalized intersection operate at acceptable Levels of Service (at LOS “C” or better) during all three peak hours studied. The proposed site traffic has minimal impact on the intersection’s operations.

US Route 14 at Federal Drive

Under both existing and future conditions, all movements at this unsignalized intersection operate at acceptable Levels of Service (at LOS “D” or better) during all three peak hours studied except for turning maneuvers from the minor approaches (Federal Drive and the share site access with Cassidy Tire). These movements are anticipated to operate at LOS “E/F”. However, the delay experienced by these movements is typical for a minor street intersection with a major street with heavy through volumes, such as US Route 14. As previously noted, future conditions assumed the Federal Drive southbound approach would be restriped as a shared left-turn/through lane and a right-turn lane, to better align the through movements with the shared access, as well as to facilitate the heavy southbound right-turn movements.

#### US Route 14 at Exchange Drive

Under both existing and future conditions, the signalized intersection of US Route 14 at Exchange Drive operates at acceptable Levels of Service (at LOS “B” or better) during the weekday AM, weekday PM and Saturday midday peak hours. Several movements, mainly westbound left-turns from US Route 14 and the northbound and southbound maneuvers from the minor street (Exchange Drive and Volkswagen dealership access) operate at LOS “E/F”. However, it is not uncommon and is acceptable for local roadways and turns from major roadways to operate at these levels, since the majority of the green time is allocated to the mainline (US Route 14) to provide progression. This intersection experiences minimal increases in delay, as a result of the proposed development. No changes to the existing signal timing and phasing are required to accommodate the development traffic.

#### US Route 14 at Proposed Site Access Drive

Under future conditions, all movements at this unsignalized intersection operate at acceptable Levels of Service (at LOS “D” or better) during all three peak hours studied except for left turning maneuvers from the site access during the weekday PM and Saturday midday peak hours. These movements are anticipated to operate at LOS “F”. Again, the delay experienced by these movements is typical for a minor street intersection with a major street with heavy through volumes, such as US Route 14. As previously noted, future conditions assumed the existing two-way left-turn lane would be extended easterly along the site frontage, by restriping the existing painted median.

### ***Drive-Through Queueing (Stacking) Analysis***

A drive-through queueing analysis was conducted to determine whether the proposed stacking length is adequate to accommodate the drive-through vehicles for the proposed restaurant. Based on the Kimley Horn Site Plan (see **Appendix E**), vehicle storage space for the restaurant with drive-through windows is 23 vehicles within the dual drive-through lanes. This satisfies the City Code requirements of 14 stacking spaces for a restaurant with dual order boards (4 spaces is required between the pick-up window and the order board and 5 spaces is required after the order board).

Based upon recent surveys conducted by at similar fast-food restaurants with drive-through facilities (see **Appendix H**), the maximum stacking did not exceed 15 vehicles, with typical peak hour queues ranging between 8 to 9 vehicles. The sites surveyed were generally located on principal arterial roads with similar, and/or higher, Annual Average Daily Traffic (AADT) volumes as US Route 14.

Accordingly, the drive-through storage, as proposed, is adequate to accommodate the anticipated vehicle queue length for the proposed restaurant with drive-through window facility.

## Part IV. Recommendations and Conclusions

Analyses have been conducted under existing and future conditions to determine the impact from the proposed mixed-use development on the study area intersections. The capacity analysis results indicate that the increase in project site-generated traffic has little effect upon the operations of the area roadway network with the recommendations contained herein:

- A dedicated right-turn lane would be installed on US Route 14 at the proposed full access driveway.
- The painted median along the eastern site frontage would be restriped as a two-way left-turn lane.
- Federal Drive southbound at US Route 14, opposite the shared site access with Cassidy Tire, should be restriped as a shared left-turn/through lane and a right-turn lane, to align the through movements with the shared site access, along with improve operations.
- A Stop sign would be installed on the shared site access driveway, opposite Federal Drive.
- The proposed full site access driveway on US Route 14 should provide one inbound lane and two outbound lanes (separate left- and right-turn lane), operating under Stop sign control.
- The development should provide for a future connection to the parcel to the east, if/when it is redeveloped with a compatible use.
- To the extent feasible, deliveries should occur during off-peak hours.
- Employees should be encouraged to park in remote spaces (furthest from the site entrance) to provide convenient parking for customers.
- Appropriate wayfinding signing should be provided on site to direct traffic to the drive-through.

## Part V. Technical Addendum

The following Appendices were previously referenced. They provide technical support for our observations, findings and recommendations discussed in the text.

### Appendices

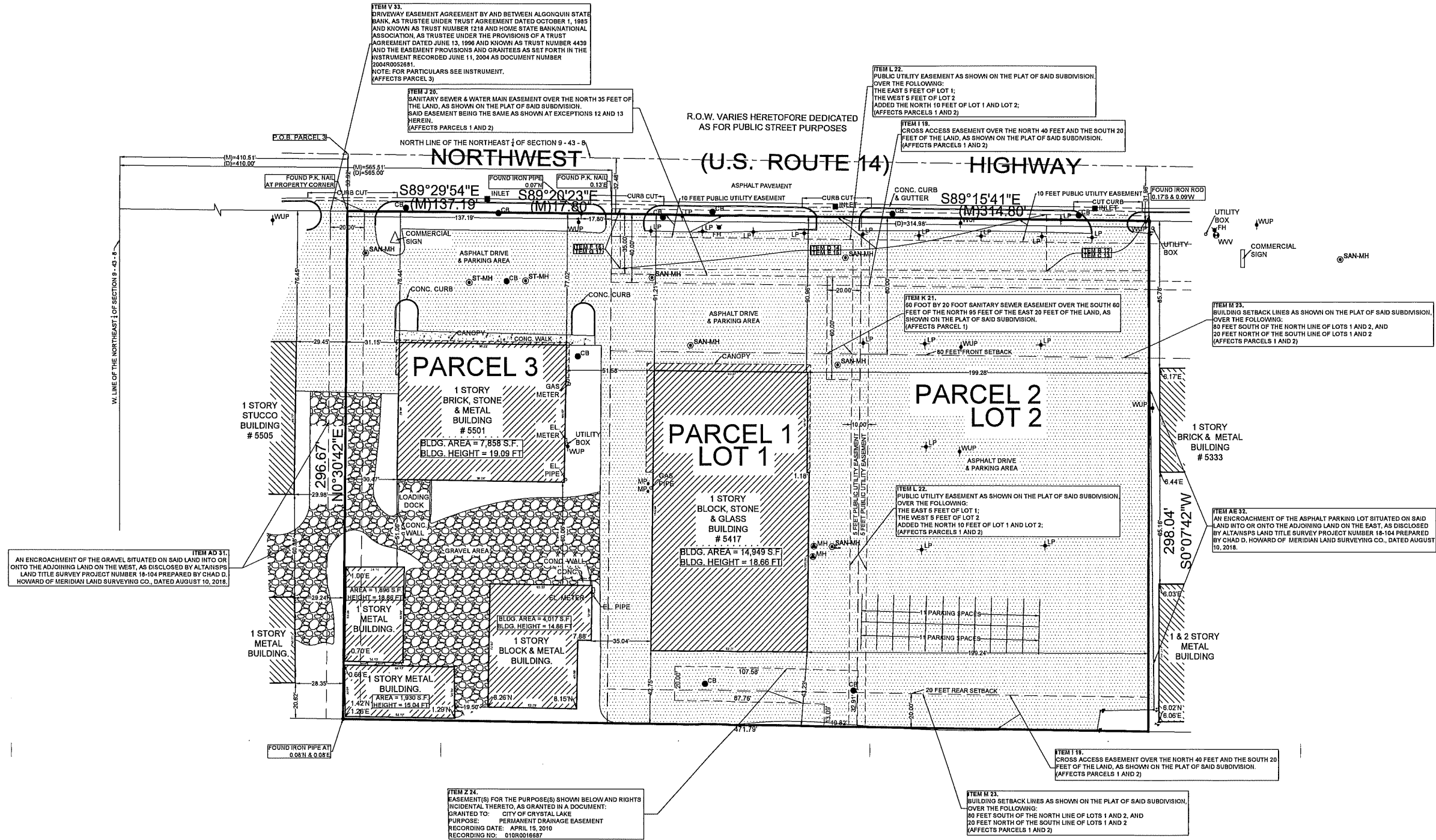
- A. Photo Inventory
- B. Traffic Count Summaries
- C. Crash Summary Map
- D. CMAP Traffic Projections
- E. Site Plan
- F. ITE Trip Generation Excerpts
- G. Capacity Analysis Worksheets
- H. Traffic Characteristics Similar Facility

5423.902\_Mixed-Use NW Hwy Crystal Lake\_TIS\_05.23.19.docx



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**ALTA / NSPS**  
**LAND TITLE SURVEY**



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LEGEND	ABBREVIATIONS
⊙	SAN-MH SANITARY MANHOLE
⊙	ST-MH STORM MANHOLE
⊙	CB CATCH BASIN
⊙	INLET
⊙	WVV WATER VALVE VAULT
⊙	FH FIRE HYDRANT
⊙	LP LIGHT POLE
⊙	WUP WOOD UTILITY POLE
⊙	TREE
⊙	MH MANHOLE
⊙	SIGN SIGN
⊙	POST METAL GUARD POST
(D)	DEED DATA
(M)	MEASURED DATA

ORDERED BY: GW PROPERTIES		
SCALE : 1" = 30'		
DATE : FEBRUARY 11, 2019		
FILE No.:	04/15/19	REVISED
2019 - 26553	DATE	REVISION

