

**Plan Commission Meeting – November 10, 2021**  
**Agenda Item 3**

**First Midwest Bank Site – 241 E. Deerpath**  
**Southwest Corner – Deerpath and Bank Lane**  
*Request of Special Use Permit for Redevelopment of the Site*

Vicinity Map  
Staff Report and Recommendation  
Zoning Map  
Air Photo

*Materials Submitted by the Petitioner*

Application  
Statement of Intent  
Site Context Plan  
Survey – Existing Site Conditions  
Overall Proposed Site Plan  
Landscape Plan  
Floor Plans  
Sightline Studies of Rooftop Terraces  
Grading Plan (Existing and Proposed Grades noted)  
Traffic Study

*Design Related Background Information*

Conceptual Renderings  
Streetscape Images – Deerpath and Bank Lane  
Building Elevations  
Overlay – Existing and Proposed Building  
Historic Resource Evaluation

*Correspondence Received*



## STAFF REPORT AND RECOMMENDATION

TO:	Chairman Dixon and members of the Plan Commission
DATE:	November 10, 2021
FROM:	Catherine J. Czerniak, Director of Community Development
SUBJECT:	241 E. Deerpath – Redevelopment of the First Midwest Bank Site

<u>Property Owner</u>	<u>Property Location</u>	<u>Zoning District</u>
First Midwest Bank 8750 W. Bryn Mawr, Suite 1300 Chicago, IL 60631	Southwest Corner – Deerpath and Bank Lane	Preservation Business District B-4

Applicant and Contract Purchaser: 241 Deerpath LLC (Developer)  
1000 N. Western Avenue  
Lake Forest, IL 60045

Representatives: Kenneth J. Kadleck, Senior Vice President, First Midwest Bank  
Peter Witmer, architect

### Summary of the Request and Review of the Proposed Plan

This is a request for a recommendation in support of approval of a Special Use Permit for a Central Business District (CBD) Planned Development. As authorized in Section 159.114 of the Zoning Code, a CBD Planned Development may be requested to allow a floor area ratio of up to 2.0. Approval of a bank ATM drive through is also requested as part of the Special Use Permit. This type of request must be evaluated by the Commission based on the standard Special Use Permit criteria as well as additional criteria specific to floor area ratio and a drive through. All of the applicable criteria are addressed later in this staff report.

The petitioners propose to redevelop the First Midwest Bank site which is prominently located in the CBD, on the south side of Deerpath and on the west side of Bank Lane. The site totals just over half an acre at 26,136 square feet. The petitioners are the contract purchasers of the property and this petition has been submitted with the consent of the property owner, First Midwest Bank. The redevelopment concept proposes to demolish the existing building and the drive through lanes and construct a new building which may incorporate an historic element remaining from the original building. The design aspects of the site and building, and the proposed hardscape and landscape plans, require review and approval by the Historic Preservation Commission as does the proposed demolition of the existing building.

A building of approximately 52,000 square feet is proposed. First Midwest Bank will retain a prominent location in the building, on the first floor, in about 3,000 square feet of space sited at the corner of Deerpath and Bank Lane. A second tenant is anticipated for a large part of the first floor but overall, the entire first floor will be available for retail, restaurant or service businesses to support the residents in the building, offer amenities to the larger community as well as to guests at the Deer Path Inn, and to add vitality to the CBD. The second and third floors are proposed as residential condominiums, approximately 16 units at about 2,000 square feet each, depending on market demand.

The overall plan sites the building slightly further back from the north property line along Deerpath than the existing building and in compliance with the required five foot setback at the closest point of the building. Some portions of the building are set back from the north property a greater distance. Along Bank Lane, the building is setback an increased distance to accommodate diagonal parking spaces along the west side of Bank Lane, a pedestrian sidewalk along the street, an internal walkway under an elevated arcade along the building, and landscaping. A public easement will need to be granted by the property owner/developer along the east edge of the subject property to accommodate the diagonal parking and the public sidewalk. The increased setbacks provide for expanded pedestrian space at the corner of Deerpath and Bank Lane as envisioned in the recent community discussions about improvements to the Deerpath streetscape. The southwest corner of Deerpath and Bank Lane was specifically discussed during the community discussions with a goal of mirroring to some extent the small gathering space on the opposite corner, outside of Sweets. Streetscape plantings are proposed along the building foundation on Deerpath and along the street.

### **Overview of Existing Conditions**

The site is currently developed with a building, a surface parking lot and a drive through banking facility. The existing building and site exceeds the amount of space, the number of parking and the drive through banking lanes currently required by First Midwest Bank. The banking industry has changed considerably in the past decade and banks in many locations are downsizing to adjust to their customers habits and needs. In recent years the City has seen some banks reduce their footprints and it is likely that more adaptive reuse of these types of sites will be desired by banks in the future.

Presently, almost the entire site is impervious surface with no significant landscaping along the streetscapes. As noted above, the proposed building steps back from the property lines along the Deerpath and Bank Lane and meets or exceeds the required setbacks and by doing so, provides the opportunity for some additional, though limited, pervious surface on the site. Today, a surface parking lot is located at the prominent Deerpath and Bank Lane corner creating somewhat of a gap in the Deerpath streetscape. The other three corners at this intersection are anchored by substantial historic buildings.

The existing building on the site is in the City's historic district. Demolition of the building will require review and action by the City's Historic Preservation Commission. The history of the existing building, information about the original architect and prior occupants of the building, and a review of modifications made to the building over the decades is included in the Commission's packet as background information. This information will be presented to the Historic Preservation Commission to assist in its deliberations on the request for approval of demolition of the building.

### **Staff Review**

#### **❖ Comprehensive Plan**

The Comprehensive Plan includes three primary goals for the Central Business District:

1. To preserve and strengthen the Central Business District (CBD) as the primary commercial area, a transportation center, a hospitality center and a residential area for the City.
2. To promote the vitality and convenience of the CBD by encouraging a wide range and healthy mix of quality specialty retail and service businesses.
3. To preserve the character of historic Market Square. Market Square serves as a City center that establishes a strong positive identity and a sense of place for the City. All new development in the CBD should be compatible with its historic character.

Several recommendations in the Comprehensive Plan relate to the proposed development. Those recommendations are provided in part below.

*Comprehensive Plan: The City, Chamber of Commerce, merchants and property owners should continue their partnership efforts to maximize the district's assets and to overcome development constraints.*

*Comprehensive Plan: In the event that the existing under developed and vacant parcels are considered for development, the redevelopment intent should be to strengthen the mixed use, pedestrian oriented, and historical character of the CBD.*

*Comprehensive Plan: Streetscape improvement programs should be initiated to make the area outside of Market Square more pedestrian friendly. Bank Lane should be improved with landscaping and pedestrian amenities, especially in the sections south of Deerpath, to Vine Avenue. This would improve the linkage between the north and south sections of the CBD and also encourage redevelopment of adjacent, underutilized properties*

*Comprehensive Plan: The Plan encourages additional residential development in the CBD on the second floor, above retail/office uses.*

The First Midwest Bank parcel is presently an underutilized site as evidenced by the bank's interest in seeking to redevelop the property. From a more practical perspective, the existing surface parking lot is often nearly empty, an indication of the underutilization of the site.

The proposed development will return residential units which have been lost over the last 30 years to the Central Business District while preserving first floor space for commercial uses. The proposed plan incorporates pedestrian walkways, increased setbacks, hardscape variation and landscaping. Improving the pedestrian nature of Bank Lane offers the opportunity to draw guests at the Deer Path Inn down an improved pedestrian corridor into Market Square, to local businesses and to restaurants, including Le Colonial which is scheduled to open in April, 2022.

Interestingly, the Comprehensive Plan speaks to overcoming development constraints which seems to encourage an open mindedness toward appropriate adaptive reuse of underutilized sites.

### ❖ **Zoning**

The First Midwest Bank site is located in the B-4, Preservation Business District. The purpose of the B-4, Preservation Business District as stated in the Zoning Code Section, 159.113, is in part as follows:

*The B-4 Preservation Business District is designed to preserve the unique attributes of the historic retail, residential and office core of the City.*

*These regulations are designed to preserve the community's quality of life and the "village" character of the core area. In particular, these regulations are intended to preserve the historic buildings and the variety of building sizes, heights and architectural styles and detailing. In addition, the district is intended to ensure the continued commercial viability of the district by maintaining the use of quality building materials, encouraging pedestrian traffic, providing generous green space and preserving and enhancing the social gathering spaces in the district.*

*The B-4 District is designed to accommodate a variety of uses in a mutually advantageous setting. Multiple family residential uses are encouraged above the first floor.*

The B-4 District recognizes that buildings within the district are in the Local Historic and the National Register Districts and emphasizes the importance of retaining the unique character of the CBD as change occurs. The B-4 District along with the CBD Planned Development provisions, encourage multi-family residential units above the first floor by offering increased building square footage when residential units are incorporated into a development and certain criteria are met.

*Setbacks.* In the R-4 district, a setback of five feet from the property line is required along the streetscapes, in this case along Deerpath and Bank Lane. There are no other setback requirements in this district. The proposed building complies with the required setbacks.

The closest portion of the building, along the Deerpath streetscape, is setback five feet from the property line. Portions of the building are setback an additional four feet.

Along Bank Lane, the projecting building element at the northeast is setback 13 feet from the property line along Bank Lane. The main mass of the building is setback 19 feet from the property line.

#### ❖ **CBD Planned Development**

The purpose of the CBD Planned Development section of the Code, Section 159.114, is to allow some flexibility with respect to the provisions of the business zoning districts in order to achieve the goals of 1) maintaining a vital business district, 2) preserving the historic character and significance of the district, and 3) ensuring that development is consistent with available infrastructure. This section provides a process by which the Plan Commission and City Council can consider development incentives that vary from the specific standards in each of the business zoning districts. A CBD Planned Development must be considered and granted through the Special Use Permit process.

In the R-4 zoning district, the CBD Planned Development provisions allow for an increase in the floor area ratio to a maximum of 2.0. Floor area ratio (FAR), rather than the City's Residential Building Scale provisions governs the size of buildings in the B-2, B-3 and B-4 zoning districts and commercial and multi-family buildings. FAR is the ratio of a building's square footage in relation to the size of the property on which it is located. In this case, the property, as noted above, totals 26,136 square feet. A recent survey of the property confirming this square footage is included in the Commission's packet. The land area allows a building square footage of 52,272 square feet based on a FAR of 2.0. The CBD Planned Development provisions allow for a reduction of the required number of parking space through payment in lieu of on site parking.

In addition to the standard criteria for a Special Use Permit which are addressed later in this staff report, there are additional criteria that must be considered for CBD Planned Developments. The criteria that apply to CBD Planned Developments in the R-4 zoning district are reviewed below.

1. Residential uses must be included in the development above the first floor unless the developer demonstrates that such uses will not further the overall purpose of the zoning district.

This criteria is met. Residential units are proposed above the first floor, on the second and third floors.

2. If a drive through is proposed, it must be located off site, within a building or constructed to avoid additional curb cuts.

This criteria is met. The drive through is incorporated into the below grade parking garage, under the building. No separate curb cuts on to public streets are needed for the drive through.

3. The building and landscape concepts have received conceptual approval from the Historic Preservation Commission.

This criteria is not yet satisfied. The petition has not yet been presented to the Historic Preservation Commission for conceptual or final approval. If the Plan Commission chooses to take action on the petition, the action can be conditional upon the Historic Preservation Commission's approval.

The north half of the subject site is in the Historic District. The south half of the site, including the existing drive through facility, is not in the Historic District. However, the City's practice has been for a single design review body to have purview over a single development therefore, it is appropriate for the entire project to be presented to the Historic Preservation Commission for consideration and action.

In addition to the above criteria, *one or more* of the following criteria must be satisfied.

4. At least 50% of the required parking spaces are located underground or all of the parking spaces are located in a parking deck one level of which is constructed below grade.

This criteria is met. More than 50% of the parking spaces for the development are located underground, in two levels of parking. One level is intended to generally serve the commercial uses on the first floor and the lower level is intended for residents in the condominium building. No surface parking lot is proposed on the site.

5. At least 25% of the site is retained as open space.

This criteria is not met. Although the building is setback a greater distance than the zoning setbacks require providing additional space for landscaping and pedestrian walkways, most of the site is impervious. There is more pervious surface proposed on the site than exists today. Landscaping is proposed on portions of the roof to mitigate, to a limited extent, the impervious roof top.

6. An increased setback of at least five feet is provided along the streetscape side of the building or a "pocket park" is created with a visual character and pedestrian link to the public street.

This criteria is met. The majority of the building is setback a considerably greater distance than the required five foot setback from the property lines along the street. Pedestrian walkway links are provided from the internal walkway, under the arcade, to the public sidewalk along Bank Lane. A small open space is provided at the corner of Deerpath and Bank Lane as a result of the increased setback of the building from Bank Lane. As noted previously in this report, the small open space mirrors to some extent the well used corner near Sweets.

#### ❖ **Parking**

The B-4 District Code section acknowledges that little or no on-site parking is available in the core of the CBD. This site is unusual in that currently, the First Midwest Bank surface parking lot at the

corner of Deerpath and Bank Lane has 28 parking spaces. The proposed redevelopment presents the opportunity to incorporate underground parking to serve the businesses and residential units that will occupy the new building. There is a slight grade change over the property and the ramp to the underground garage is located at the low point of the site at the southeast corner of the building.

Final parking calculations will need to be completed once the floor plans are finalized however, based on available information, the required number of parking spaces are as follows.

First floor commercial, bank and office uses estimated at 16,000 square feet require four parking spaces per 1,000 square feet resulting in a total of 64 required parking spaces.

For multi-family residential units, 1.83 parking spaces per unit are required for one and two bedroom units. For three or more bedroom units, 2.33 parking spaces are required per unit. The Code notes that the parking requirements for residential units include visitor parking. The final number of residential units will be determined based on market demand but the number of units could range from about eight to fourteen units. The floor plans included in the Commission's packet reflect a total of 13 units of varying sizes. For the purpose of estimating the required number of parking spaces, staff assume that four units will have three or more bedrooms and the remaining nine units will have one or two bedrooms. Under this scenario 26 parking spaces are required for the residential units.

Using the above calculations, 90 parking spaces are required in total for the development. The plan as currently configured provides 69 parking spaces, on two levels, below grade, on the site. A shortfall of 21 spaces based on the Code requirements and based on the assumptions made by City staff.

The conversion of Bank Lane, south of Deerpath, to a southbound one way street provides the opportunity to add diagonal parking spaces to the west side of Bank Lane. Currently, there are five parallel public parking spaces on the west side of Bank Lane. It is anticipated that as many of 10 diagonal parking spaces could be installed along the west side of Bank Lane with a one way street. As noted above, a portion of the diagonal spaces will encroach on to the subject site, private property. An easement would need to be granted to the City to allow the on street public spaces to be configured as reflected. A limited number of parallel public parking spaces may also be possible on the east side of Bank Lane depending on decisions made about the future configuration of Bank Lane and the lane width determined to be necessary. Although on street spaces cannot be calculated into the required number of on site parking spaces, as public parking spaces, they will be available for use by customers of businesses in the building as well as customers of other businesses in the CBD.

The Code provides that any required parking spaces that are not provided on site may be, as part of a CBD Planned Development, covered by a payment in lieu of providing on site parking. In this case, it would be reasonable to consider some credit for the public easement along Bank Lane, on the subject property, if one is granted to allow on street parking to be increased in the area.

Thinking more broadly about parking, many municipalities have amended Codes to reduce the required on site parking in an effort to encourage pedestrian activity and the use of mass transit or other alternate modes of transportation. Bicycle racks are proposed on the site under the northeast corner of the building.

### ❖ **Private Outdoor Spaces for Residential Units**

Private, outdoor spaces are highly desirable for units in multi-family buildings. Different types of private outdoor spaces are commonly found on condominium buildings and apartment buildings throughout Lake Forest, at grade patios, balconies and more recently, roof top terraces. Importantly, these private spaces are not available for use by all of the residents in the building and are not open to the public but instead, they are part of and restricted to use by the owners of each individual unit on the top floor.

Roof top terraces are planned as part of the units on the top floor of the proposed building. Questions have been raised about whether roof top terraces constitute an additional floor. A review of the National Building Codes confirmed that a floor or story is defined as that portion of a building between the upper surface of a floor and the upper surface of the floor or roof above. The definition specifies that for the topmost floor, a story extends from the top of the floor finish to the top of the ceiling joists or, where there is not a ceiling, to the top of the roof rafters. Roof top terraces or “occupied roofs” are considered a part of the unit immediately below. Egress requirements from roof top spaces are consistent with the egress requirements for the unit of which it is a part, a protected hallway or stair must be within a specified number of feet similar to calculations that apply to other rooms in a unit.

The roof top terraces as proposed in this petition are located away from the perimeter of the building. At the request of City staff, the developer provided a sight line study of views toward the roof top from various points. The active areas of the roof are not visible from off of the site. These spaces provide private, limited outdoor space for the owners of only the individual units on the top floor.

### ❖ **Building Height**

A height variance is requested to allow the building to exceed the 35 foot height limit in the CBD. The height variance is under the purview of the Historic Preservation Commission however, the height limitation of 35 feet is also referenced in the B-4 District section of the Code.

Along Deerpath, the tallest portion of the main structure is proposed at 41’6”. The stair enclosure on the roof rises to 46’6” and is set back from the edge of the building. As noted previously in this report, there is a grade change across the site, the lowest point on the site is at the south end of the building. As a result, the building measures about four feet taller at the south end.

### ❖ **Drive Through**

As noted above, the petitioner is requesting approval of a drive through for First Midwest Bank. Although use of drive through ATM’s has decreased, for now, the bank still requires one for customer convenience. An ATM drive through lane is proposed on the first level of the underground garage. In the future, if the ATM lane is no longer needed, it can be converted to parking spaces.

The Code requires that a drive through be authorized through a Special Use Permit. As proposed, the Special Use Permit will authorize a drive through for use by First Midwest Bank. The drive through cannot be converted to another type of drive through use without an amendment to the Special Use Permit. The ATM drive through will be available to customers 24 hours a day.

The following **findings** are offered in support of the drive through ATM in the first level of the below grade parking garage.

1. The drive through, given its location in a privately owned below grade garage does not require any direct ingress or egress from a public street or across a pedestrian walkway. The drive through is located in a manner that minimizes safety hazards for pedestrians and vehicles. The ATM lane is located at the end of the parking garage and a bypass lane is provided to allow vehicles to circulate even if vehicles are staged at the ATM.
2. Pedestrian walkways are separated from the drive-thru and are clearly identified.
3. The drive through facility is underground and therefore does not impact the visual character of the streetscape.
4. The drive through as proposed does not interfere with on street traffic.

❖ ***Special Use Permit***

As noted above, a CBD Planned Development and a drive through can be through a Special Use Permit. In addition to the criteria specific to a CBD Planned Development and a drive through as detailed above, the following **findings** are also offered in support of the Special Use Permit.

1. The proposed use will not be detrimental to or endanger public health, safety, morals, comfort or general welfare. The proposed uses, a first floor bank, retail and office space and residential units on the second and third floor, are permitted uses in the B-4 District and will not generate excessive traffic, noise, odors, light or after hours activities. Residential units generate fewer vehicle trips than office uses. A single ingress and egress point is located at the southeast corner of the building, on Bank Lane to provide access to the below grade parking garage. No access points are proposed on Deerpath. One access point on to Deerpath and one curb cut on Bank Lane will be eliminated.
2. The proposed use will not be injurious to the use and enjoyment of property in the immediate vicinity or substantially diminish property values. The site is currently underutilized. The property is located at a prominent location in the Central Business District, on the Bank Lane corridor. The planned enhancements to the streetscape including landscaping, expanded hardscape at the corner of Deerpath and Bank Lane, and additional on street public parking, will benefit surrounding properties and will add to the vitality of the CBD by improving the connection between the Deer Path Inn and Market Square.
3. The use will not impede the normal and orderly development and improvement of the surrounding properties. The majority of properties in the area are developed. Overtime, additional redevelopment can be expected in this general area. Establishing a pattern of increased building setbacks, enhanced pedestrian walkways and landscaped streetscapes meets the goals of the Comprehensive Plan and the intent of the B-4 District. The proposed redevelopment limits access points to the public street and provides a substantial number of underground parking spaces to support the users of the building. The addition of residents in the CBD will help to support businesses and encourage investment in properties and businesses.
4. The exterior architectural appearance of the building, the landscaping, hardscape, signage and overall site will be subject to review and approval by the Historic Preservation Commission.

5. Adequate utilities and roadways exist to support the proposed development. This site is currently developed and served by utilities and roadways. The redevelopment of the site provides the opportunity to consider reconfiguration of Bank Lane as a one way southbound street to help reduce congestion on Deerpath.

### **Public Comment**

Public notice of this public hearing was provided by the petitioner in accordance with applicable requirements, a notice was sent by Certified Mail to surrounding property owners and residents. Notice of the public hearing was also mailed by the Community Development Department to surrounding addresses and a notice of the public hearing was published in the local newspaper. The agenda for this meeting was posted at various public locations and on the City's website.

Correspondence received on this petition is included in the Commission's packet and will also be provided to the Historic Preservation Commission because it addresses the history of the existing building. Any additional correspondence that is received prior to the Plan Commission meeting will be forwarded to the Commission.

### **Staff Recommendation**

Recommend approval of a Special Use Permit to allow a CBD Planned Development with a floor area ratio not to exceed 2.0, a bank drive through located in the below grade parking garage and payment in lieu of on site parking for a limited number of parking spaces that cannot be accommodated on site. The recommendation is based on the findings detailed throughout this report in response to the various criteria that must be evaluated for this type of request.

1. The proposed demolition, the requested height variance and the design aspects of the overall development will be subject to review and approval by the Historic Preservation Commission.
2. An easement shall be recorded granting public access along the east property line to allow a portion of diagonal public parking spaces and a public sidewalk to encroach on to the private property that is the subject of this petition.
3. The drive thru is approved for use by First Midwest Bank consistent with standard bank operations. Any other use must be considered through an amendment to the Special Use Permit.







Area of Request  
241 E. Deerpath



**Application for Plan Commission Review  
Special Use Permit - Central Business District – New Use**

**PROPERTY ADDRESS** 241 E. Deerpath Road **ZONING DISTRICT** B4

**EXISTING USE** BANK, OFFICE, MULTI-FAMILY RESIDENTIAL

**PROPOSED USE** BANK, OFFICE, MULTI-FAMILY RESIDENTIAL

**EXPANSION OF EXISTING USE** YES NO

**VARIANCE REQUESTED** YES NO

If yes, detail variance(s) requested in Statement of Intent.

**APPLICANT** **PROPERTY OWNER** (if different from applicant)

Name 241 Deerpath LLC Name First Midwest Bank (Ken Kadleck)

Address 1000 N Western Avenue Address 8750 W Bryn Mawr, Suite 1300

Lake Forest, Illinois 60045 Chicago, Illinois 60631

Phone 847.234.5240 Phone 708.831.7549

Relationship to Property Contract Purchaser  
(Owner/Tenant/Contract Purchaser/Attorney)

**BENEFICIAL INTERESTS** Corporation  (see exhibit A)  
Partnership  (see exhibit B)  
Trust, land or other  (see exhibit C)

I have read the complete application packet and understand the Special Use Permit process and criteria. I understand that this matter will be scheduled for a public hearing when a determination has been made that my application is complete.

**SIGNATURES**

Kenneth J. Kadleck  
Owner First Midwest Bank, SVP

October 27, 2021  
Date

[Signature]  
Applicant

10/27/21  
Date

[Type here]

## APPLICANT'S REPRESENTATIVES

**ARCHITECT** Peter Witmer

**FIRM** Witmer and Associates

**ADDRESS** 1000 N Western Avenue  
Lake Forest, Illinois 60045

**PHONE** 847.234.5240

**ATTORNEY** Alan J. Wolf

**FIRM** Robbins, Salomon & Patt, Ltd.

**ADDRESS** 180 N LaSalle Street, Suite 3300  
Chicago, Illinois 60601

**PHONE** 312.882.9000

**ENGINEER** Mike Bleck

**FIRM** Bleck Engineering Company, Inc.

**ADDRESS** 1375 N Western Avenue  
Lake Forest, Illinois 60045

**PHONE** 847.295.5200

**BUILDER** Todd Altounian

**FIRM** Altounian Construction, Inc.

**ADDRESS** 13110 Rock Land Road, Suite One  
Lake Bluff, Illinois 60044

**PHONE** 847.234.8600

**SURVEYOR** Mike Bleck

**FIRM** Bleck Engineering Company, Inc.

**ADDRESS** 1375 N Western Avenue  
Lake Forest, Illinois 60045

**PHONE** 847.295.5200

**LANDSCAPE ARCH.** Colleen Barkley

**FIRM** Mariani Landscape

**ADDRESS** 300 Rockland Road  
Lake Bluff, Illinois 60044

**PHONE** 847.234.2172

**ARBORIST** \_\_\_\_\_

**FIRM** \_\_\_\_\_

**ADDRESS** \_\_\_\_\_

**PHONE** \_\_\_\_\_

**OTHER** Luay Aboona (Traffic)

**FIRM** Kenig, Lindgren, O'Hara, Aboona, Inc.

**ADDRESS** 9575 W Higgins Road, Suite 400  
Rosemont, IL 60018

**PHONE** 847.518.9990

**EXHIBIT "A"**

**CORPORATE OWNERSHIP**

Please list the names and addresses of all officers and directors of the Corporation and all shareholders who own individually or beneficially 5% or more of the outstanding stock of the corporation. In addition, this application must be accompanied by a resolution of the Corporation authorizing the execution and submittal of this application.

<b>NAME</b> <u>Peter Witmer</u>	<b>NAME</b> <u>Todd Altounian</u>
<b>ADDRESS</b> <u>1000 N Western Avenue</u>	<b>ADDRESS</b> <u>13110 Rock Land Road, Suite One</u>
<u>Lake Forest, IL 60045</u>	<u>Lake Bluff, Illinois 60044</u>
<b>OWNERSHIP PERCENTAGE</b> <u>50%</u>	<b>OWNERSHIP PERCENTAGE</b> <u>50%</u>
<b>NAME</b> _____	<b>NAME</b> _____
<b>ADDRESS</b> _____	<b>ADDRESS</b> _____
_____	_____
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**EXHIBIT "B"**

**PARTNERSHIP OWNERSHIP**

Please list all partners, general and/or limited, with an individual or beneficial interest of 5% or greater.

**NAME** \_\_\_\_\_

**ADDRESS** \_\_\_\_\_  
\_\_\_\_\_

**OWNERSHIP PERCENTAGE** \_\_\_\_\_ %

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**OWNERSHIP PERCENTAGE** \_\_\_\_\_ %



**WITMER AND ASSOCIATES  
ARCHITECTURE AND INTERIOR DESIGN**

October 26, 2021

City of Lake Forest  
800 North Field Drive  
Lake Forest, Illinois 60045

Re: Statement of Intent  
Special Use Permit  
241 Deerpath Road  
Lake Forest, Illinois 60045

The project is located at the southwest corner of Deerpath Road and Bank Lane. The current First Midwest Bank occupies the site with its existing building, surface parking and drive thru service.

The intent of this project is to demolish the existing First Midwest Bank building on the site and construct a new three-story multi-use building. This project will create no change in the use of this property and will have little effect on the traffic flow to and from the site. The hours of operation will be consistent with that of the existing building.

**Property History**

Buildings on the site date back to 1900. The first building was the John E. Plumbing and Heating building which was on the corner and west was the A and P grocer with apartments above with the final building being a telephone exchange building which bordered the west property line. The telephone building was converted into offices and then demolished in 1974 when First Midwest Bank renovated and modified the A and P building to the current state the property is in. The corner building was removed around 1969. The basement of the existing First Midwest confirmed the additions to the original A and P building to the west after the demolished telephone building was removed and space was made to create the drive thru drive and a building addition. The A and P building was reworked with a new skin around the original porches of the apartments on the second floor and an addition to the south to house the drive thru office and canopy Offices were added to the second floor in the addition to the west.

**Proposed Building**

The proposed building will house the First Midwest Bank on the first floor in 3,000 sq ft that faces the corner of Deerpath Road and Bank Lane. The rest of the first floor footprint of approximately 12,000 sq ft will be an office sharing concept with a prospective 400 sq ft coffee/fast casual food area. The second and third floors will consist of 16 condominium units of approximately 2,000 sq ft each. The second floor units will have terraces and balconies, and the third floor units will have outside space on roof terraces. The total square footage will have a floor area ratio (FAR) of 2.0 which meets the allowable increase for FAR per City of Lake Forest Code Section 159.114(D)(1).

**Site**

The site circulation for autos will only have access to the underground parking and drive thru at the southeast corner of the site. The parking required is 79 spaces for the site, and the underground provided is 44 which is over the required 50% below grade for the requirement of City of Lake Forest Code Section 159.114(E)(2)(a). A 12' setback will be provided at the north and southeastern corners and 19' in the body of the building which satisfies the criteria of City of Lake Forest Code Section 159.114(E)(2)(c). These two items meet two of the required Development Criteria set in the requirements for the bonus 2.0 FAR. The additional space on the east allows for angle parking in lieu of the current parallel and will provide a sidewalk and a covered pedestrian walkway separated with a landscaping. This landscape area will be increased if the city determines that Bank Lane be converted to a south only one-way street. Parallel parking will be on the northside with the elimination of the existing curb cut that accessed existing drive thru.

**Special Use Criteria**

The following information addresses the criteria for a special use permit:

**1. The establishment, maintenance, or operation of the special use will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare.**

The bank, office/business, and residential uses of the proposed building are unchanged from the previous uses on the site, and will pose no danger to the health, safety, and general welfare to the public.

**2. The special use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood.**

Since the existing uses of the site will be maintained, the special use will not be injurious to the use and enjoyment of the properties in the vicinity and the proposed building will not diminish property values within the neighborhood.

**3. The establishment of the special use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.**

The proposed building will not impede the development and improvement of the surrounding property for uses permitted in the district.

**4. The exterior architectural appearance and functional plan of any proposed structure will not be incompatible with either the exterior architectural appearance and functional plan of structures already constructed or in the course of construction in the immediate neighborhood or the character of the applicable district so as to cause a substantial depreciation in the property values within the neighborhood.**

The exterior materials consisting of brick, stone, stucco, and the glazing systems will be compatible with the appearance of surrounding structures and fit within the character of the neighborhood. The plan and exterior appearance of the proposed building will have no negative impact on the property values within the neighborhood.

**5. Adequate utilities, access roads, drainage and/or necessary facilities have been or are being provided.**

The proposed building will utilize existing access roads, facilities, and utilities. Adequate drainage will be provided.

**6. Adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.**

The proposed building will have no effect on traffic congestion in the public streets.

**7. The special use shall conform to the applicable regulations of the district in which it is located, except as such regulations may, in each instance, be modified by the City Council.**

The special use shall conform the applicable regulations of the district.

**Additional Information**

A historic evaluation was completed and submitted by Susan Benjamin of Benjamin Historic Certifications, and a traffic study has been performed by Luay Aboona of KLOA (attached). Financing is being provided by First Midwest Bank.

**Historic Photos**

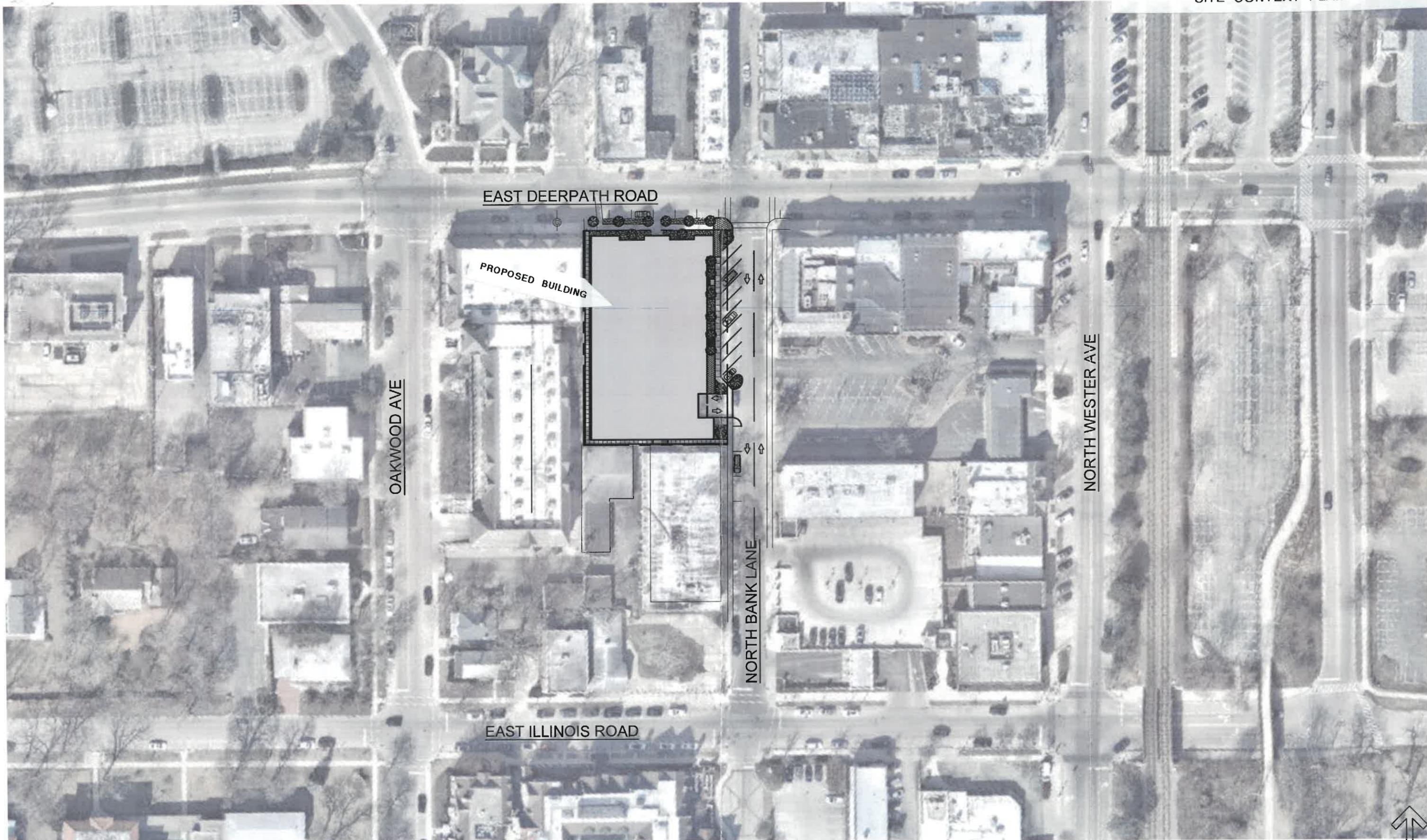


• AUG • 57

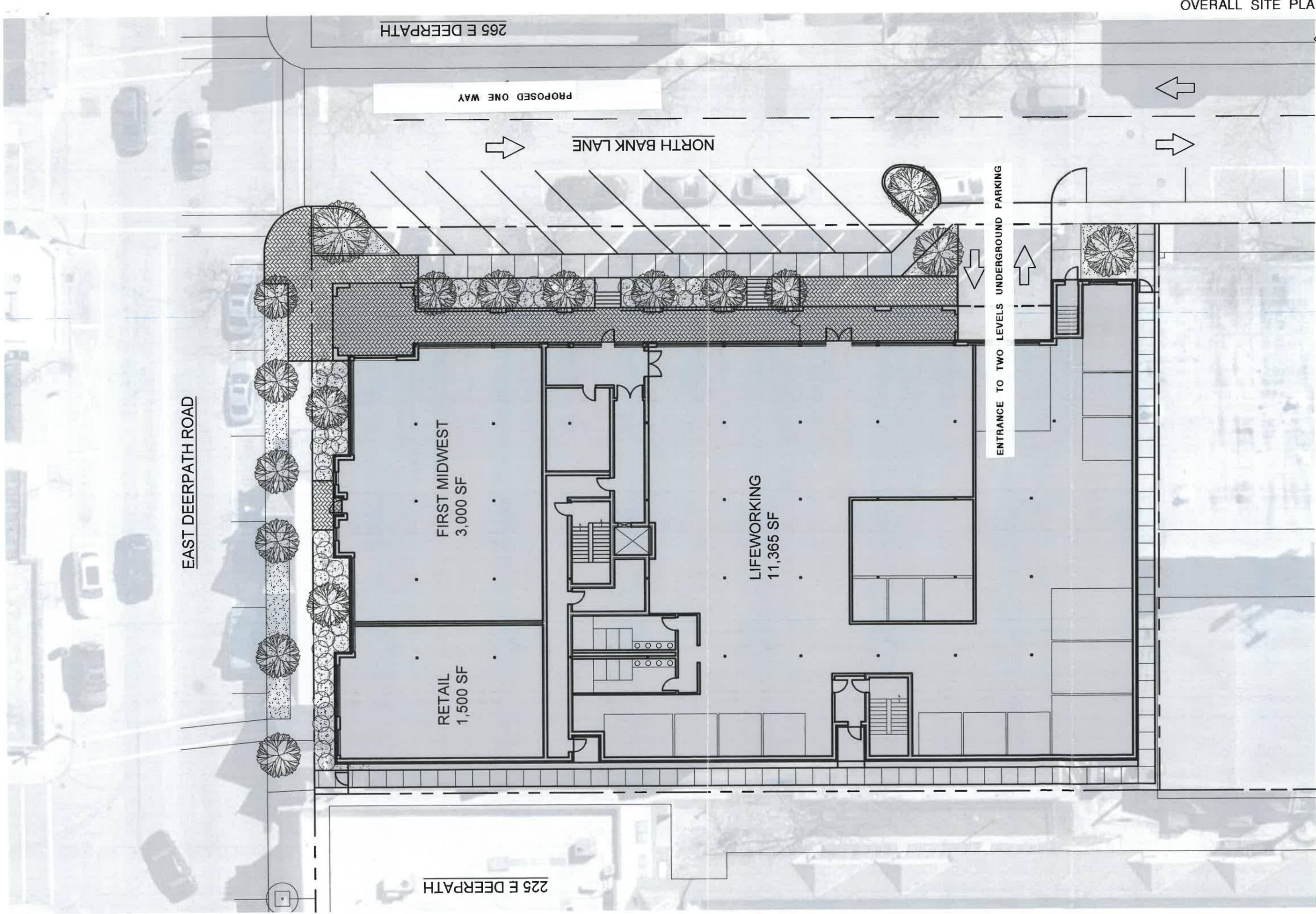


WITMER AND ASSOCIATES

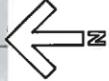








OVERALL SITE PLAN



EAST DEERPATH ROAD

265 E DEERPATH

PROPOSED ONE WAY

NORTH BANK LANE

ENTRANCE TO TWO LEVELS UNDERGROUND PARKING

225 E DEERPATH

RETAIL  
1,500 SF

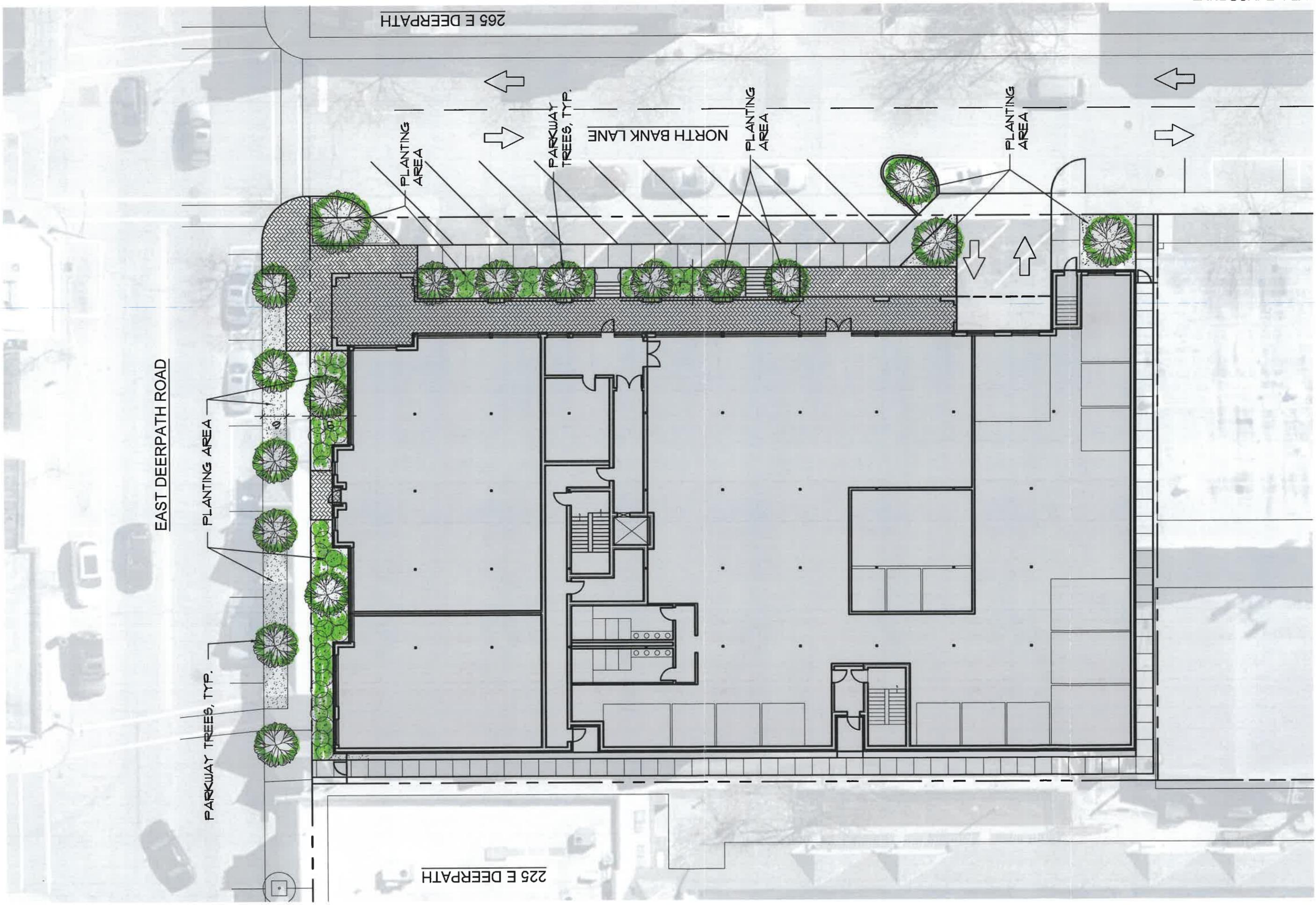
FIRST MIDWEST  
3,000 SF

LIFEWORING  
11,365 SF



Witmer & Associates  
Architecture and Interior Design  
witmerandassoc.com

241 E DEERPATH RD  
August 5, 2021  
SCALE: 1"= 20'



EAST DEERPETH ROAD

265 E DEERPETH

225 E DEERPETH

NORTH BANK LANE

PARKWAY TREES, TYP.

PLANTING AREA

PLANTING AREA

PARKWAY TREES, TYP.

PLANTING AREA

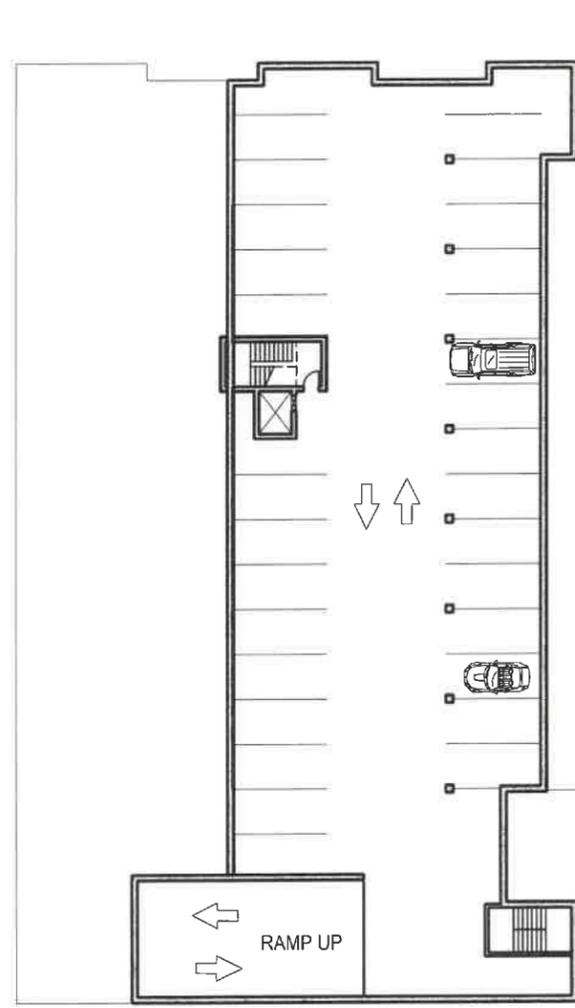
PLANTING AREA



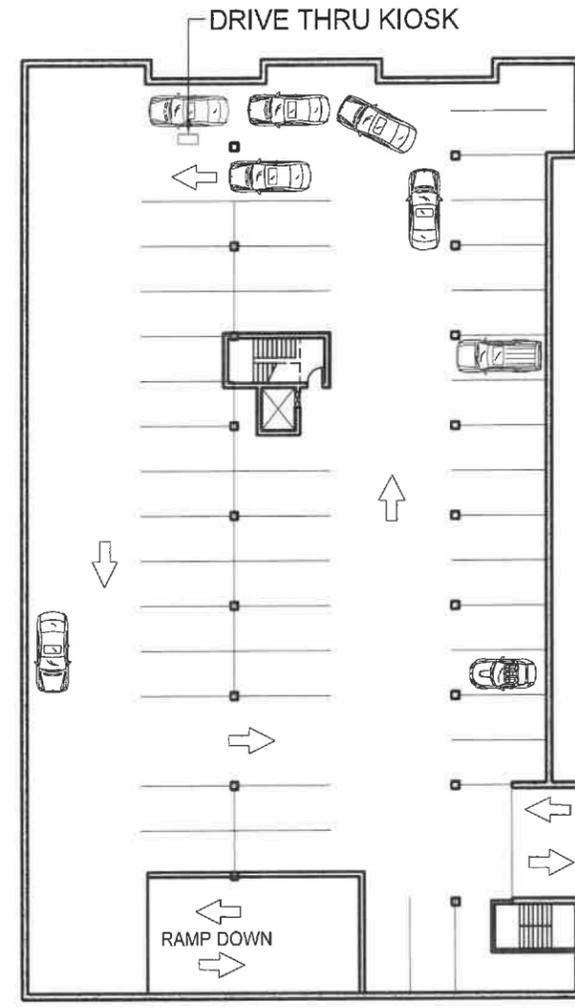
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 Architecture and Interior Design  
 witmerandassoc.com



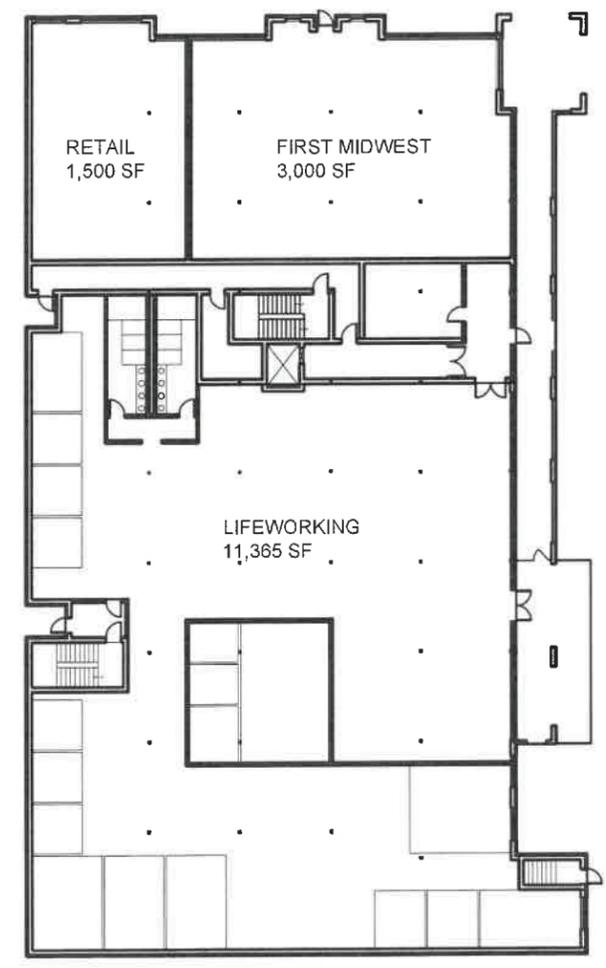
241 E DEERPETH RD  
 LANDSCAPE PLAN  
 August 5, 2021 SCALE: 1"= 20'



LOWER PARKING  
CONDO PARKING



UPPER PARKING  
COMMERCIAL PARKING



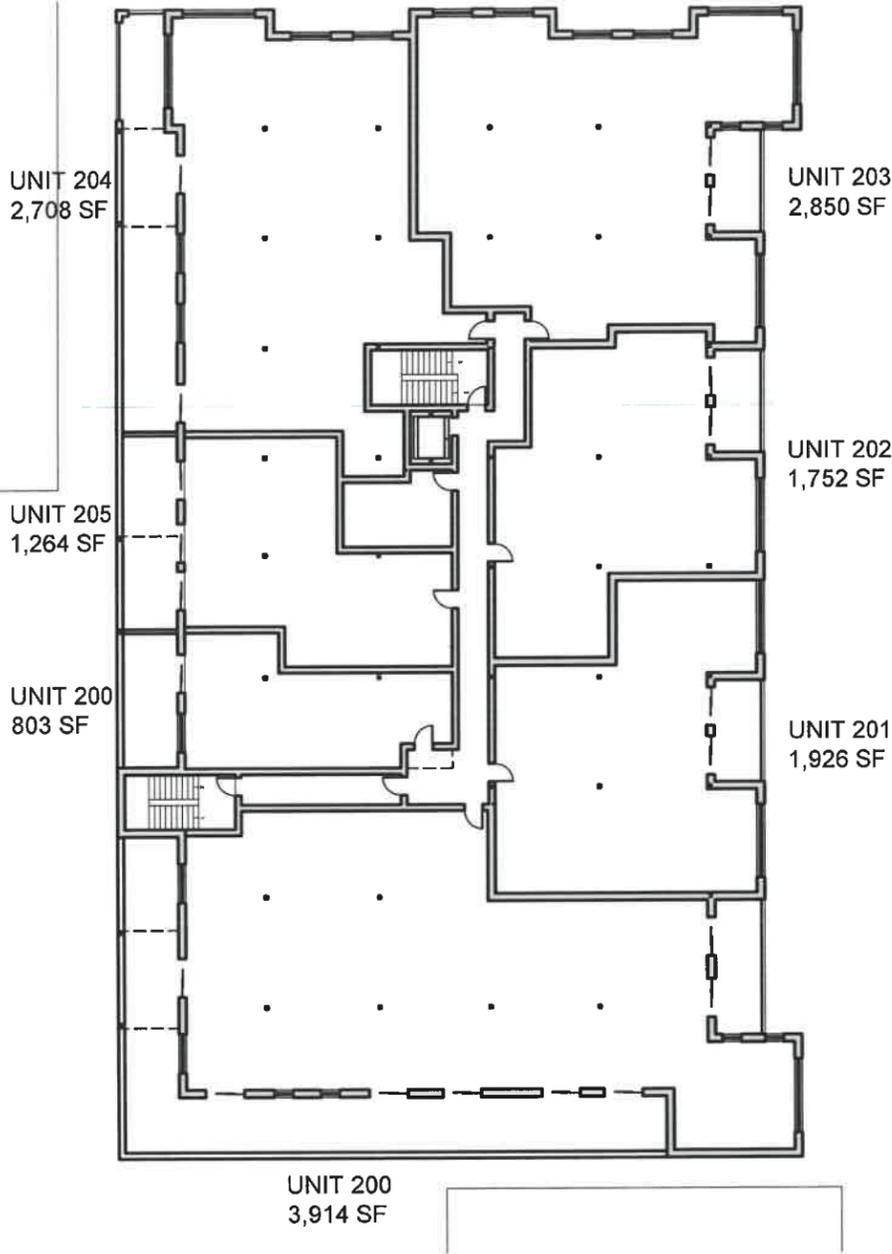
FIRST FLOOR



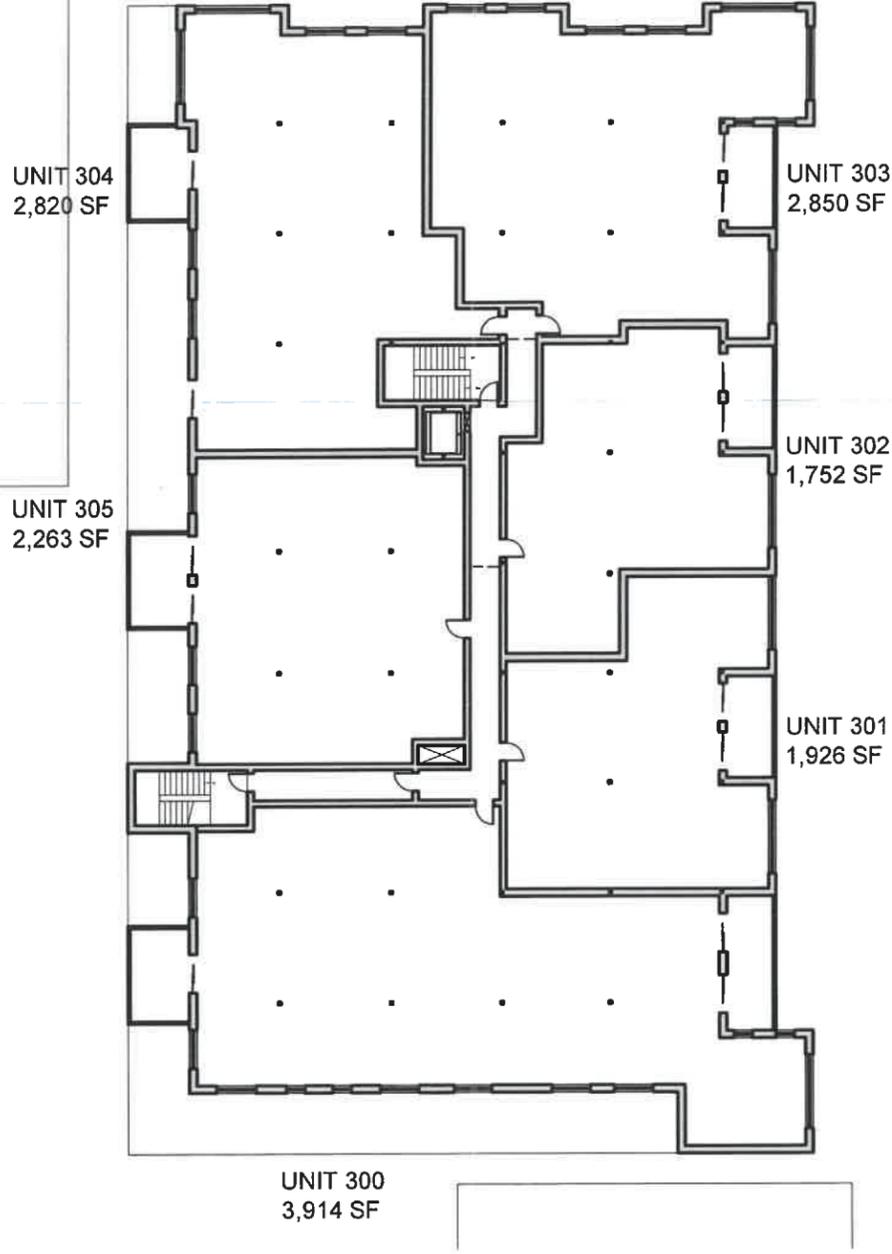
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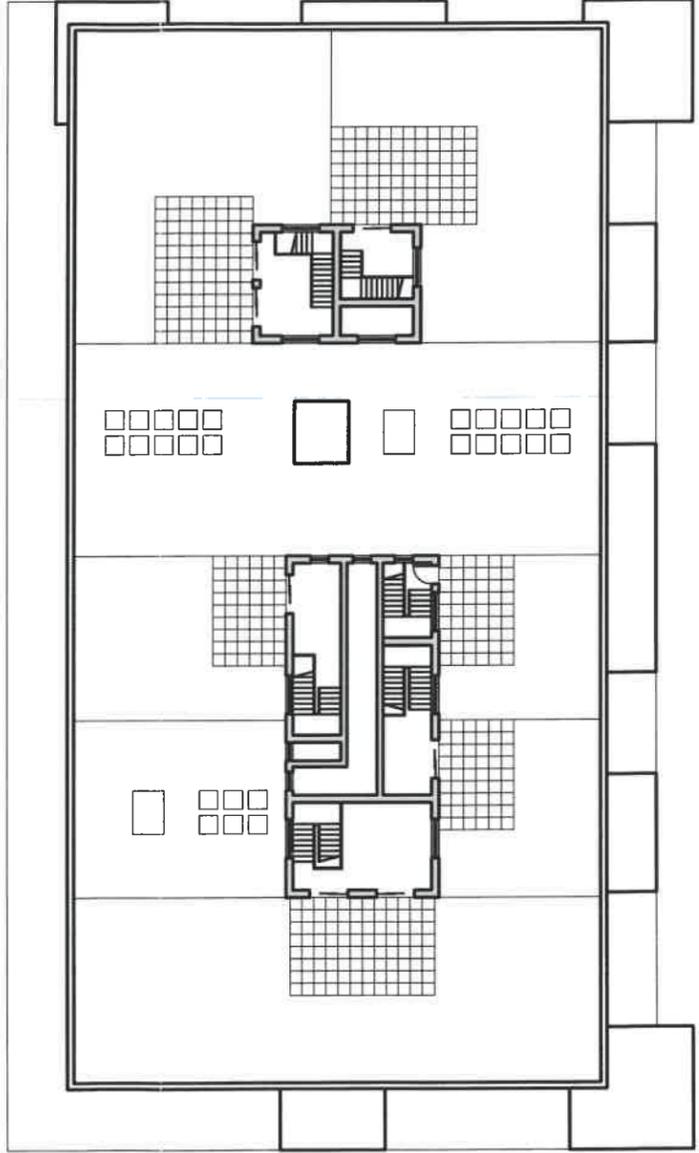
241 E DEERPATH  
FLOOR PLANS  
August 5, 2021 SCALE 1" = 30'-0"



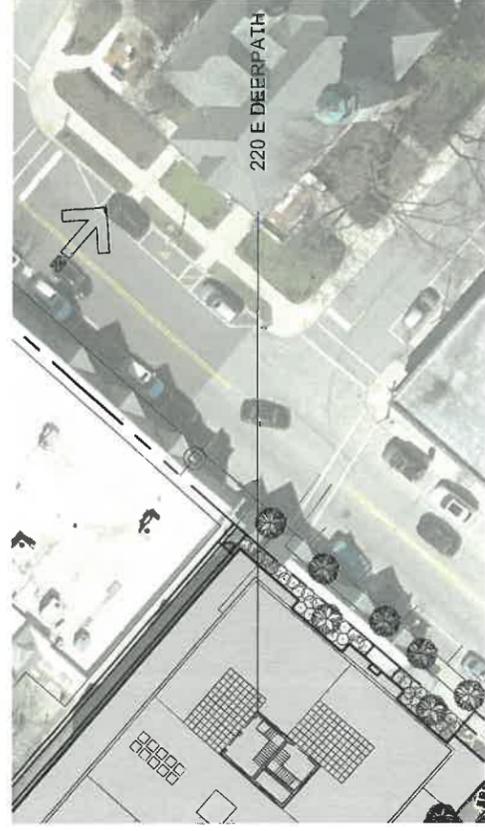
SECOND FLOOR



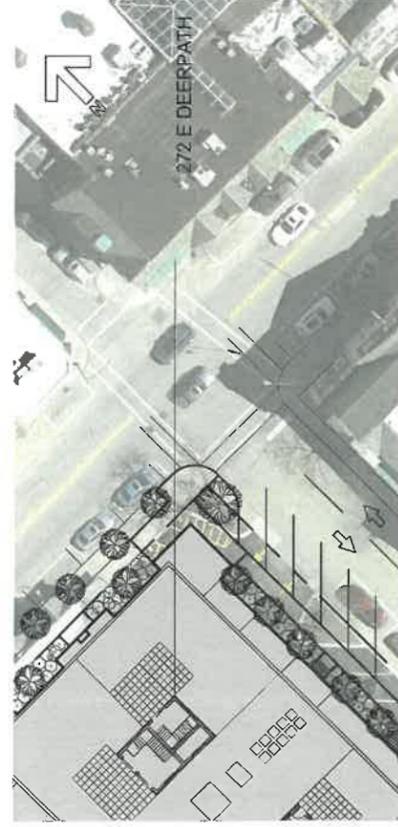
THIRD FLOOR



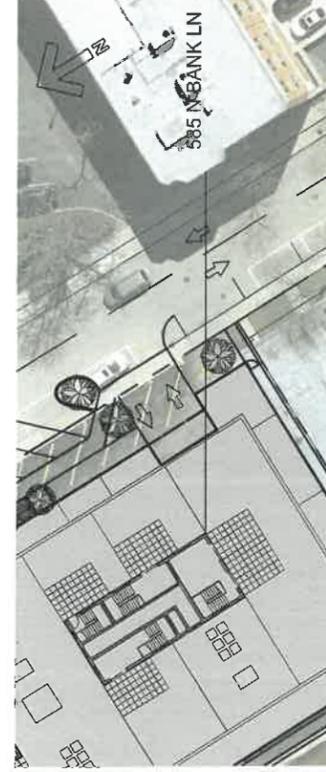
ROOF PLAN



VIEW FROM CITY HALL SECOND FLOOR

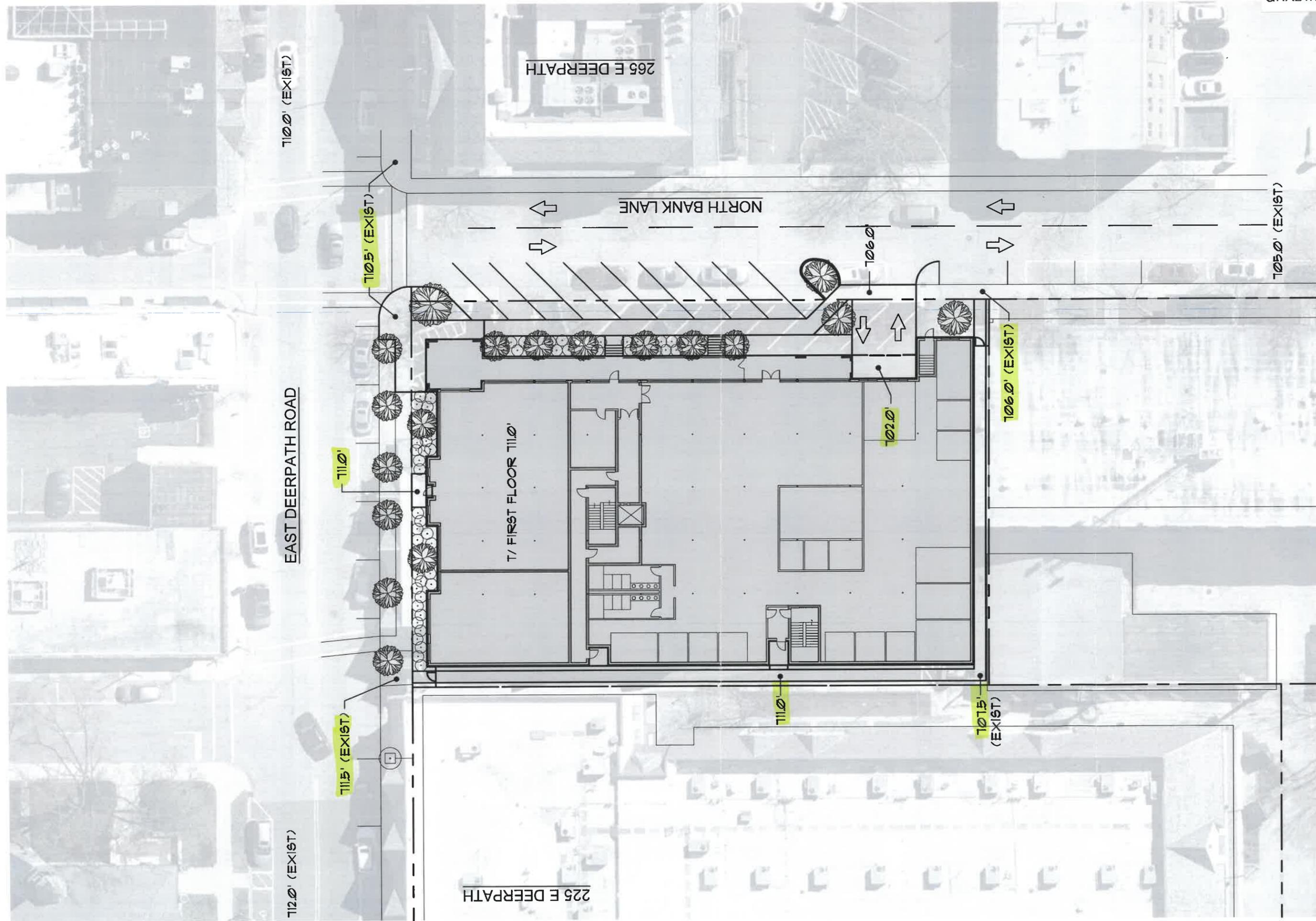


VIEW FROM THE ARCADE THIRD FLOOR



VIEW FROM 585 BANK LANE THIRD FLOOR

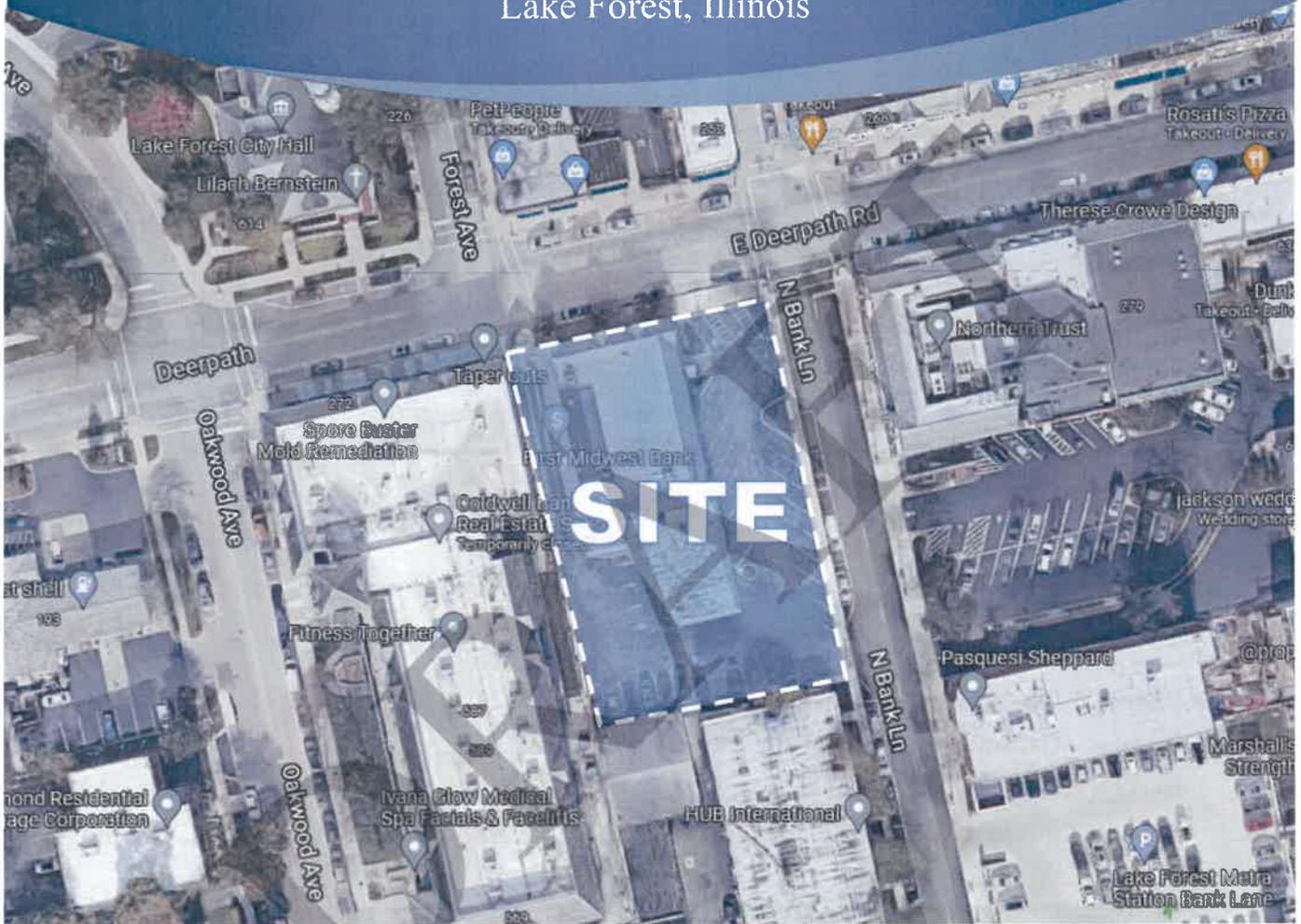




Note: The complete Draft Traffic Study is included here as background information. Sections 2 and 5 may be of the most interest as well as the "Discussion and Recommendations" element of the study found on page 20.

# Traffic Impact Study Proposed Mixed-Use Development

Lake Forest, Illinois



Prepared For:

## Witmer & Associates



October 6, 2021

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# 1. Introduction

This report summarizes the methodologies, results, and findings of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for a proposed mixed-use development to be located in Lake Forest, Illinois. The site, which is currently occupied by First Midwest Bank, is located in the southwest quadrant of the intersection of Deerpath Road with Bank Lane. As proposed, the site will be redeveloped with a three-story building consisting of approximately 11,365 square-feet of LifeWorking shared office/event space, an approximate 3,000 square-foot bank, and 1,500 square-feet of retail space on the ground level, 13 condominium units occupying the second and third levels of the building, and a below grade parking garage with a single bank drive-through lane. Access to the parking spaces will be provided via a single full movement access drive off Bank Lane.

The purpose of this study was to examine existing traffic conditions, assess the impact that the proposed development will have on traffic conditions in the area, and determine recommendations to mitigate any impacts and enhance the area's roadways and alternative modes of transportation.

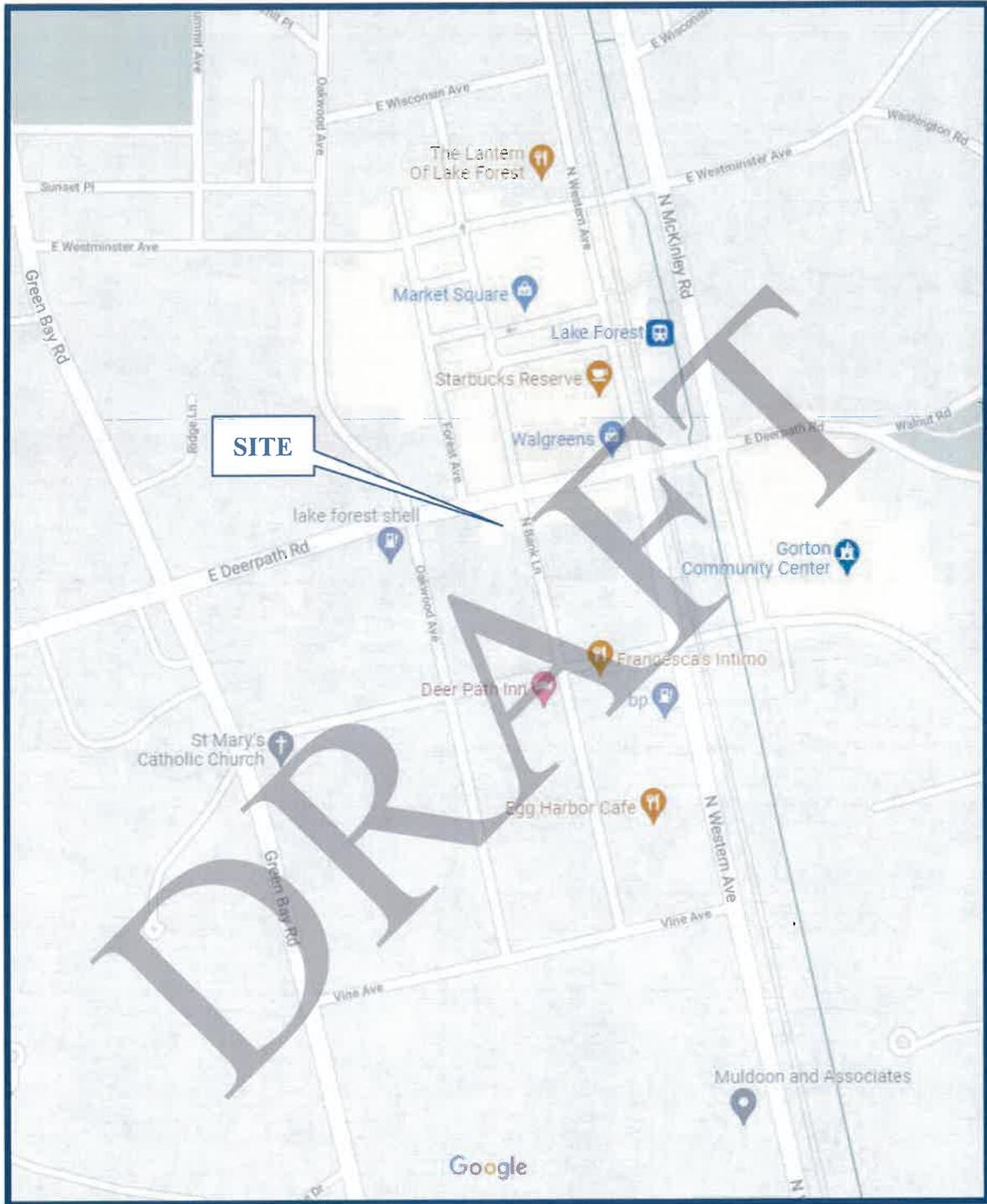
**Figure 1** shows the location of the site in relation to the area roadway system. **Figure 2** shows an aerial view of the site.

The sections of this report present the following:

- A summary of existing roadway conditions
- A description of alternate forms of transportation in the area
- A description of the proposed development
- A directional distribution of the traffic generated by the proposed development
- Vehicle trip generation for the development
- Future traffic conditions including access to the development
- Traffic analyses for a weekday morning and weekday evening peak hours
- An evaluation of and recommendations with respect to the adequacy of site access, the adjacent roadway system, and the availability and provision of alternate forms of transportation

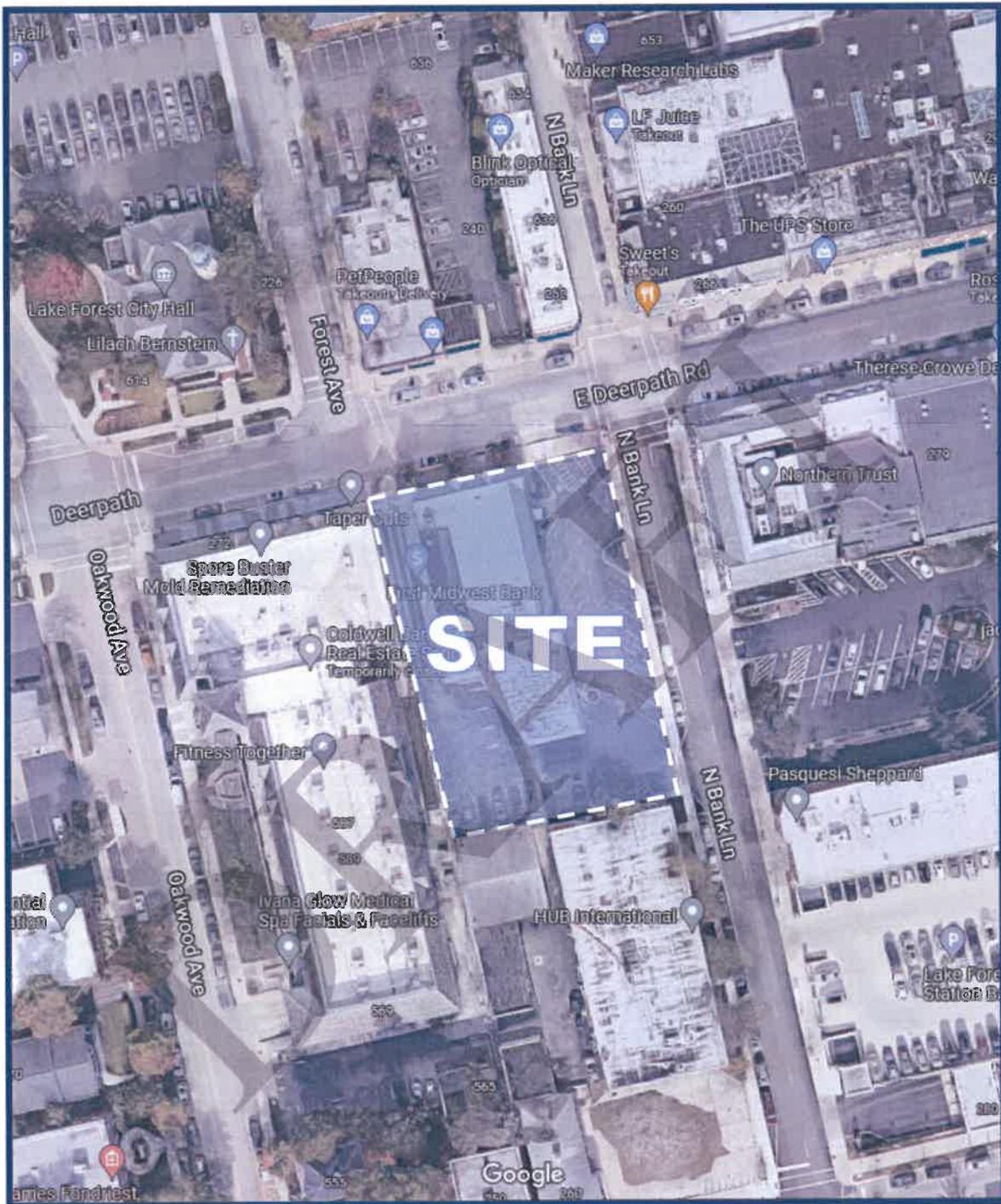
Traffic capacity analyses were conducted for the weekday morning and weekday evening peak hours for the following conditions:

1. Existing Conditions - Analyze the capacity of the existing roadway system using existing peak hour traffic volumes in the surrounding area.
2. Projected Conditions – Analyze the capacity of the future roadway system using the projected traffic volumes that include the existing traffic volumes, background development traffic growth, and the traffic estimated to be generated by the construction of the proposed development.



Site Location

Figure 1



Aerial View of Site

Figure 2

## 2. Existing Conditions

Existing transportation conditions in the vicinity of the site were documented based on field visits conducted by KLOA, Inc. in order to obtain a database for projecting future conditions. The following provides a description of the geographical location of the site, physical characteristics of the area roadway system including lane usage and traffic control devices, and existing peak hour traffic volumes.

### Site Location

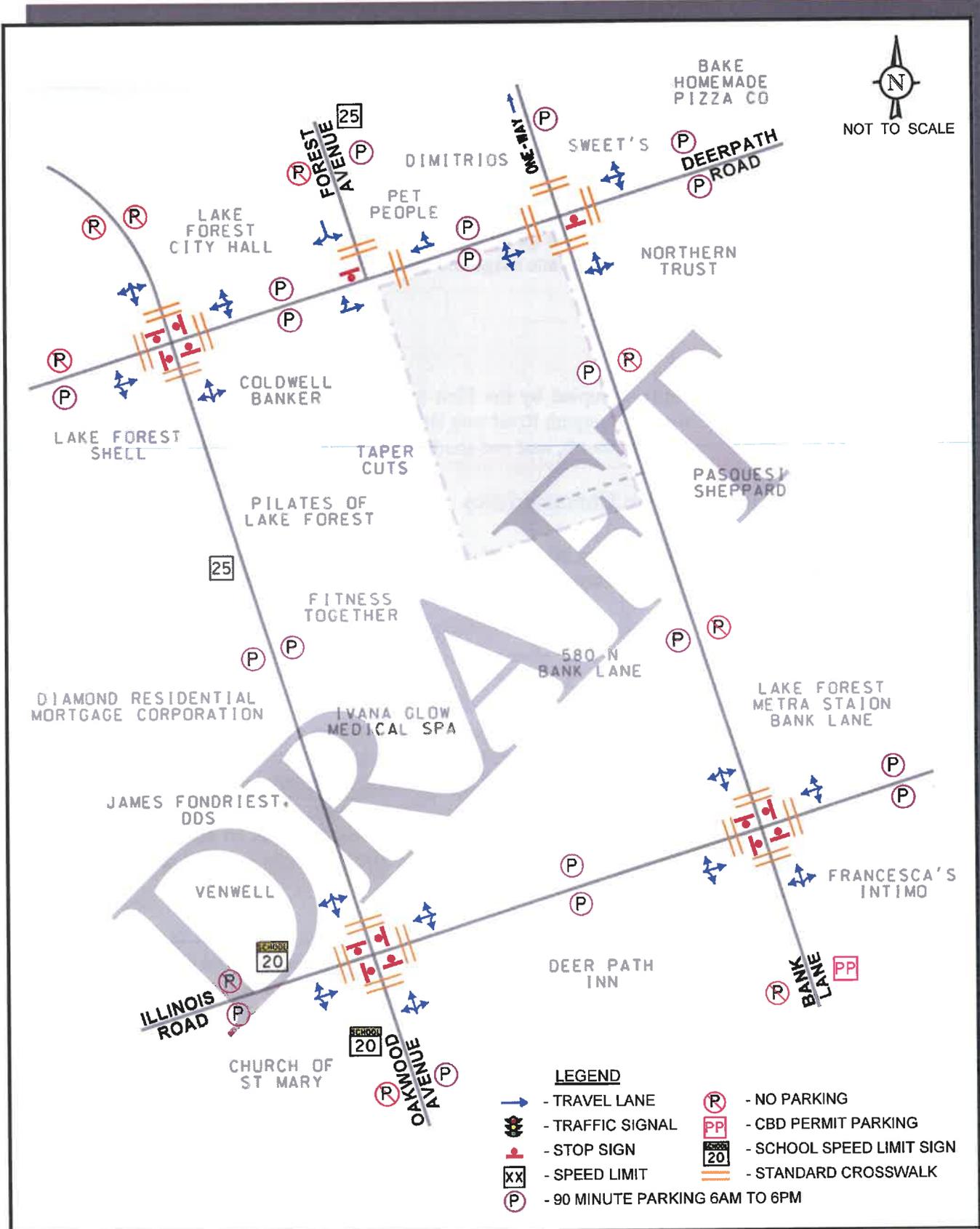
The site, which is currently occupied by the First Midwest Bank, is located in the southwest quadrant of the intersection of Deerpath Road with Bank Lane. Land uses in the vicinity of the site are primarily commercial to the north, east and south and residential to the west.

### Existing Roadway System Characteristics

The characteristics of the existing roadways near the development are described below and illustrated in **Figure 3**. All roadways are under the jurisdiction of the City of Lake Forest.

*Deerpath Road* is an east-west major collector roadway that in the vicinity of the site provides one travel lane in each direction. At its all-way stop sign controlled intersection with Oakwood Avenue, Deerpath Road provides a shared left/through/right-turn lane on the eastbound and westbound approaches and both legs provide standard style crosswalks. At its two-way stop sign controlled intersection with Bank Lane, Deerpath Road provides a shared left/through/right-turn lane on the eastbound and westbound approaches and both legs provide standard style crosswalks. Parking is generally permitted on both sides of the roadway, except for west of Oakwood Avenue in which no parking is permitted on the north side of the roadway, and this parking is restricted to 90-minutes between 6:00 A.M. and 6:00 P.M. Deerpath Road carries an annual average daily traffic (AADT) volume of 4,300 vehicles (IDOT AADT 2019) and has a posted speed limit of 25 miles per hour.

*Bank Lane* is a north-south local roadway that provides two-way travel (one lane in each direction) south of Deerpath Road and one-way northbound travel via a single travel lane north of Deerpath Road. At its two-way stop sign controlled intersection with Deerpath Road, Bank Lane provides a shared left/through/right-turn lane on the northbound approach that is under stop-sign control. Additionally, both legs provide standard style crosswalks. At its all-way stop-sign controlled intersection with Illinois Road, Bank Lane provides a shared left/through/right-turn lane and standard style crosswalks on the northbound and southbound approaches. North of Deerpath Road, parking is permitted on the east side of the roadway and is restricted to 90-minutes between 6:00 A.M. and 6:00 P.M. Between Deerpath Road and Illinois Road, parking is permitted on the west side of the roadway and is restricted to 90-minutes between 6:00 A.M. and 6:00 P.M. South of Illinois Road, parking is permitted on the east side of the roadway and is restricted to CBD Permit Parking between 6:00 A.M. and 6:00 P.M. Bank Lane has a posted speed limit of 25 miles per hour.



Proposed Mixed-Use  
Development  
Lake Forest, Illinois

Existing Roadway Characteristics

*Illinois Road* is an east-west local roadway that in the vicinity of the site provides one travel lane in each direction. At its all-way stop sign controlled intersection with Bank Lane, Illinois Road provides a shared left/through/right-turn lane and a standard style crosswalk on the eastbound and westbound approaches. At its all-way stop sign controlled intersection with Oakwood Avenue, Illinois Road provides a shared left/through/right-turn lane and a standard style crosswalk on the eastbound and westbound approaches. Parking is generally permitted on both sides of the roadway, except for west of Oakwood Avenue in which no parking is permitted on the north side of the roadway, and this parking is restricted to 90-minutes between 6:00 A.M. and 6:00 P.M. It should be noted that six of the parking spaces on the south side of the roadway along the St. Mary's Church frontage are utilized for buses between 8:00 A.M. and 9:00 A.M. and 3:00 P.M. to 4:00 P.M. West of Oakwood Avenue, Illinois Road has a school zone speed limit of 20 miles per hour.

*Oakwood Avenue* is a north-south local roadway that in the vicinity of the site provides one travel lane in each direction. At its all-way stop sign controlled intersection with Deerpath Road, Oakwood Avenue provides a shared left/through/right-turn lane and a standard style crosswalk on the northbound and southbound approaches. At its all-way stop sign controlled intersection with Illinois Road, Oakwood Avenue provides a shared left/through-right-turn lane and a standard style crosswalk on the northbound and southbound approaches. North of Deerpath Road, parking is prohibited on both sides of the roadway within the vicinity of the Lake Forest City Hall. Between Deerpath Road and Illinois Road, parking is permitted on both sides of the roadway and this parking is restricted to 90-minutes between 6:00 A.M. and 6:00 P.M. South of Illinois Road, parking is permitted on the east side of the roadway and this parking is restricted to 90-minutes between 6:00 A.M. and 6:00 P.M. Oakwood Avenue has a posted speed limit of 25 miles per hour and south of Illinois Road, Oakwood Avenue has a school zone speed limit of 20 miles per hour.

*Forest Avenue* is a north-south local roadway that in the vicinity of the site provides one travel lane in each direction. At its two-way stop sign controlled intersection with Deerpath Road, Forest Avenue provides a shared left/right-turn lane under stop-sign control and a standard style crosswalk. Parking is permitted on the east side of the roadway and this parking is restricted to 90-minutes between 6:00 A.M. and 6:00 P.M. Forest Avenue has a posted speed limit of 25 miles per hour.

## Public Transportation

The site is located within one-quarter of a mile of the Lake Forest Station for the Metra Union Pacific – North (UP-N) commuter railway. This railway provides daily service between Kenosha and the Chicago Ogilvie Transportation Center. As of September 13, 2021, this railway provides 37 inbound trains and 37 outbound trains on weekday, 13 inbound trains and 14 outbound trains on Saturday, and 9 inbound trains and 10 outbound trains on Sunday.

## Existing Traffic Volumes

In order to determine current vehicle, pedestrian, and bicycle conditions within the study area, KLOA, Inc. conducted peak period traffic, pedestrian, and bicycle counts on Tuesday, July 27, 2021, at the following intersections:

- Deerpath Road with Bank Lane
- Deerpath Road with Forest Avenue
- Deerpath Road with Oakwood Avenue
- Illinois Road with Bank Lane
- Illinois Road with Oakwood Avenue

The counts were all conducted during the weekday morning (7:00 A.M. to 9:00 A.M.) and weekday evening (4:00 P.M. to 6:00 P.M.) peak periods. The results of the traffic counts show that the weekday morning peak hour generally occurs between 8:00 A.M. and 9:00 A.M. and the weekday evening peak hour generally occurs between 4:00 P.M. and 5:00 P.M.

Based on a comparison of the 2021 traffic counts with traffic volumes published on the IDOT Traffic Count Database System website from 2019, it was determined that the 2021 traffic counts along Deerpath Road are consistent with traffic count data from pre-COVID-19 conditions. Therefore, it is anticipated that the Year 2021 traffic counts are representative of normal and typical conditions within the study area.

Figure 4 illustrates the existing peak hour vehicle traffic volumes. Figure 5 illustrates the existing pedestrian and bicycle volumes, showing direction of travel. Copies of the traffic count summary sheets are included in the Appendix.

## Crash Data Analysis

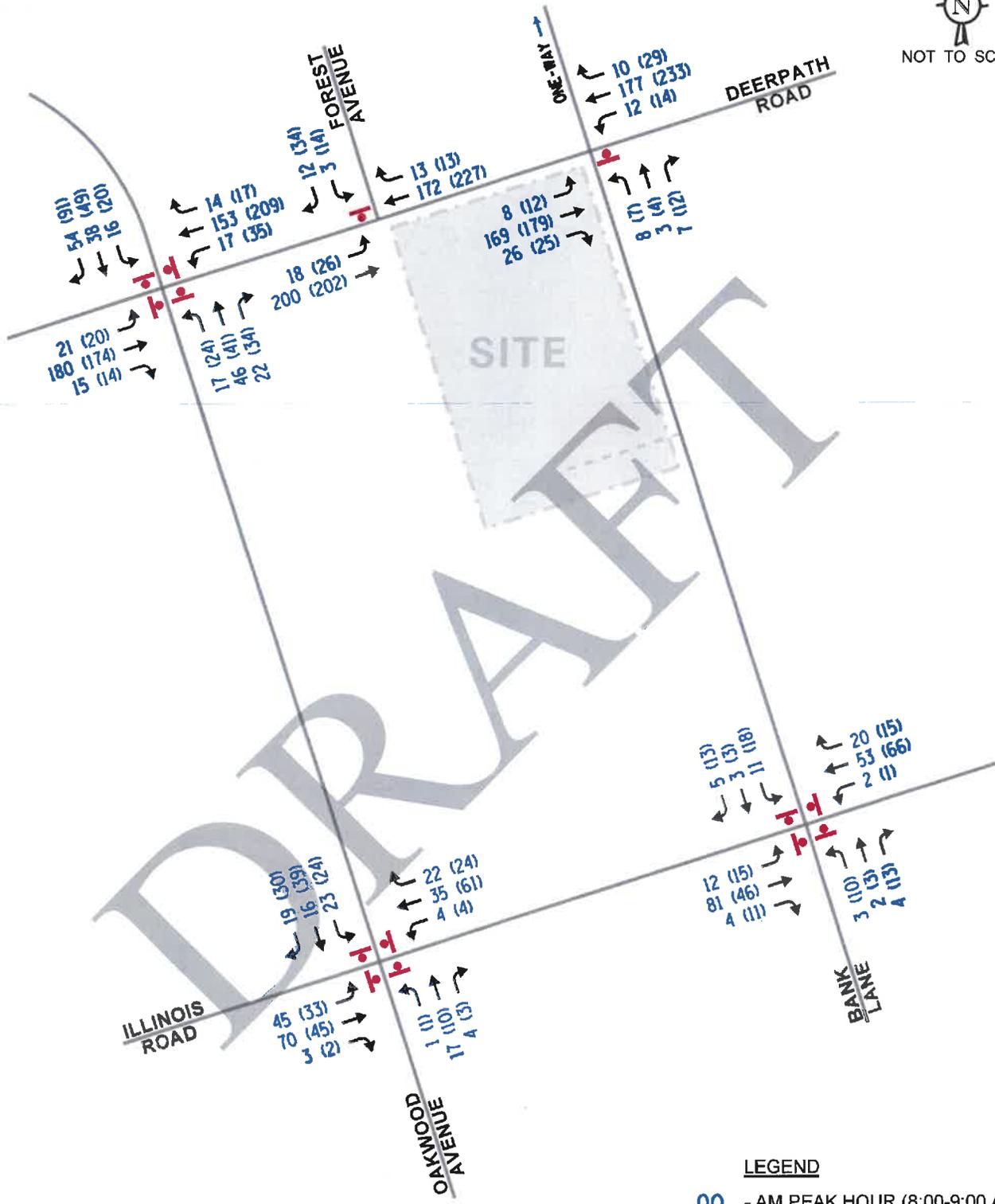
KLOA, Inc. obtained crash data<sup>1</sup> for the past five years (2016 to 2020) for the study area intersections. Tables 1 through 3 summarize the crash data for the intersections of Deerpath Road with Bank Lane, Deerpath Road with Oakwood Avenue, and Illinois Road with Oakwood Avenue, respectively. A review of the crash data indicated that the intersection of Illinois Road with Bank Lane experienced one crash in 2017, 2018, and 2019, and zero crashes in 2016 and 2020. Furthermore, no fatalities were reported at any of the study area intersections between 2016 and 2020.

---

<sup>1</sup> IDOT DISCLAIMER: The motor vehicle crash data referenced herein was provided by the Illinois Department of Transportation. Any conclusions drawn from analysis of the aforementioned data are the sole responsibility of the data recipient(s). Additionally, for coding years 2015 to present, the Bureau of Data Collection uses the exact latitude/longitude supplied by the investigating law enforcement agency to locate crashes. Therefore, location data may vary in previous years since data prior to 2015 was physically located by bureau personnel.



NOT TO SCALE



**LEGEND**

- 00** - AM PEAK HOUR (8:00-9:00 AM)
- (00)** - PM PEAK HOUR (4:00-5:00 PM)

Proposed Mixed-Use Development  
Lake Forest, Illinois

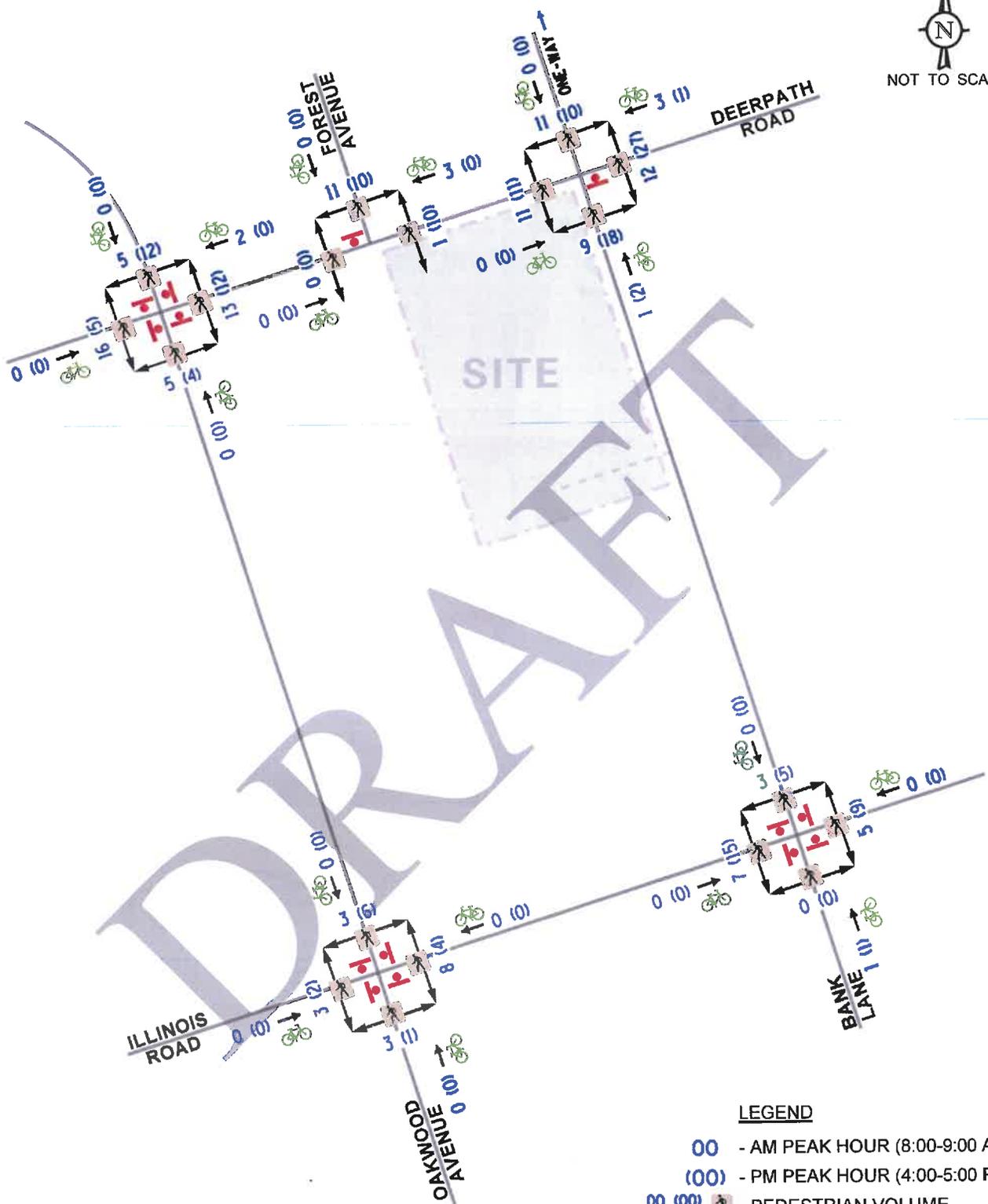
Year 2021 Base Traffic Volumes

**KLOA**  
Kenig, Lindgren, O'Hara, Aboona, Inc.

Job No: 21-208      Figure: 4



NOT TO SCALE



**LEGEND**

- 00 - AM PEAK HOUR (8:00-9:00 AM)
- (00) - PM PEAK HOUR (4:00-5:00 PM)
- 00 (00) [pedestrian icon] - PEDESTRIAN VOLUME
- 00 (00) [bicycle icon] - BICYCLE VOLUME

Proposed Mixed-Use Development  
Lake Forest, Illinois

Existing Pedestrian and Bicycle Traffic Volumes

Table 1  
DEERPATH ROAD WITH BANK LANE – CRASH SUMMARY

Year	Type of Crash Frequency							Total
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	
2016	1	0	0	0	1	1	1	4
2017	0	0	0	0	0	0	1	1
2018	1	0	0	0	0	1	0	2
2019	1	0	0	0	1	1	1	4
2020	0	0	0	0	0	1	0	1
<b>Total</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>3</b>	<b>12</b>
<b>Average</b>	<b>&lt;1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>2.4</b>

Table 2  
DEERPATH ROAD WITH OAKWOOD AVENUE – CRASH SUMMARY

Year	Type of Crash Frequency							Total
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	
2016	2	0	0	0	0	1	0	3
2017	0	0	0	0	0	1	1	2
2018	1	0	0	0	1	0	0	2
2019	0	0	0	3	0	1	1	5
2020	0	0	0	0	0	0	0	0
<b>Total</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>12</b>
<b>Average</b>	<b>&lt;1</b>	<b>0</b>	<b>0</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>2.4</b>

Table 3  
ILLINOIS ROAD WITH BANK LANE – CRASH SUMMARY

Year	Type of Crash Frequency							Total
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	
2016	1	0	0	0	1	1	1	4
2017	0	0	0	0	0	0	1	1
2018	0	0	0	0	0	0	0	0
2019	0	0	0	0	0	0	1	1
2020	0	0	0	0	0	0	1	1
<b>Total</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>7</b>
<b>Average</b>	<b>&lt;1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>1.4</b>

### 3. Traffic Characteristics of the Proposed Development

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

#### Existing Site and Proposed Development Plan

As indicated earlier, the site (which is occupied by First Midwest Bank) is located in the southwest corner of the intersection of Deerpath Road with Bank Lane. The site is currently served by an inbound only and an outbound only access drive off Bank Lane and via an inbound only access drive off Deerpath Road. As proposed, the site will be redeveloped with a three-story building consisting of approximately 11,365 square-feet of LifeWorking shared office/event space, an approximate 3,000 square-foot bank, and 1,500 square-feet of retail space on the ground level, 13 condominium units occupying the second and third levels of the building, and a below grade parking garage with a single bank drive-through lane. Overall, the number of curb cuts serving the site will be reduced from three to one.

#### *Proposed Vehicle Access/Parking*

Access to the parking garage will be provided via a full movement access drive off of Bank Lane located approximately 200 feet south of Deerpath Road. This access drive will provide one inbound lane and one outbound lane. The development will provide a total of 69 parking spaces on two below grade levels. The first level will contain 40 commercial parking spaces and a bank drive-through kiosk. The second level will contain 29 residential parking spaces.

#### *Proposed Pedestrian Access*

Pedestrian access to the proposed bank and retail space will be provided via exclusive entrances off of Deerpath Road and pedestrian access to the LifeWorking shared office space will be provided an exclusive entrance off Bank Lane. Pedestrian access to the residential units, will be provided via a lobby that will be located between the retail and bank space and the LifeWorking space. This lobby will have entrances off of Bank Lane as well as a proposed gated walkway that will be provided on the west and southsides of the building, connecting Deerpath Road to Bank Lane.

#### *On-Street Parking*

Under existing conditions, Deerpath Road along the site frontage provides five parallel parking spaces and Bank Lane along the site frontage provides five parallel parking spaces. As part of the proposed development, the five parallel parking spaces along Deerpath Road will be maintained and the parking spaces on Bank Lane will be converted to provide ten angled parking spaces.

## Directional Distribution

The directions from which traffic will approach and depart the site was estimated based on existing travel patterns, as determined from the traffic counts, one-way and turning restrictions, and the proposed access system of the development. **Figure 6** illustrates the directional distribution of traffic.

## Peak Hour Traffic Volumes

The number of peak hour vehicle trips estimated to be generated by the proposed development was based on trip generation rates published by the Institute of Transportation Engineers (ITE) in the *Trip Generation Manual*, 11<sup>th</sup> Edition. It should be noted that the surveys conducted by ITE are generally based on suburban areas where the primary mode of transportation is a personal automobile. As previously indicated, the proposed development is located within one-quarter mile of the Lake Forest Station for the Metra Union Pacific – North Commuter Railway. As such, some of the residents, employees and patrons, will utilize public transportation to get to/from the development. Based on census data provided for households located within one-quarter to one-half of a mile of the Lake Forest Metra Station, approximately 15 percent of residents utilize public transportation, bicycle or walking to travel to/from work. Furthermore, due to the location of the proposed development within downtown Lake Forest, some of the trips generated by the residential units and retail space will be trips that will patronize other commercial developments within the downtown area. However, in order to provide a conservative analysis, no public transportation or interaction reduction was applied to the trips estimated to be generated by the proposed development.

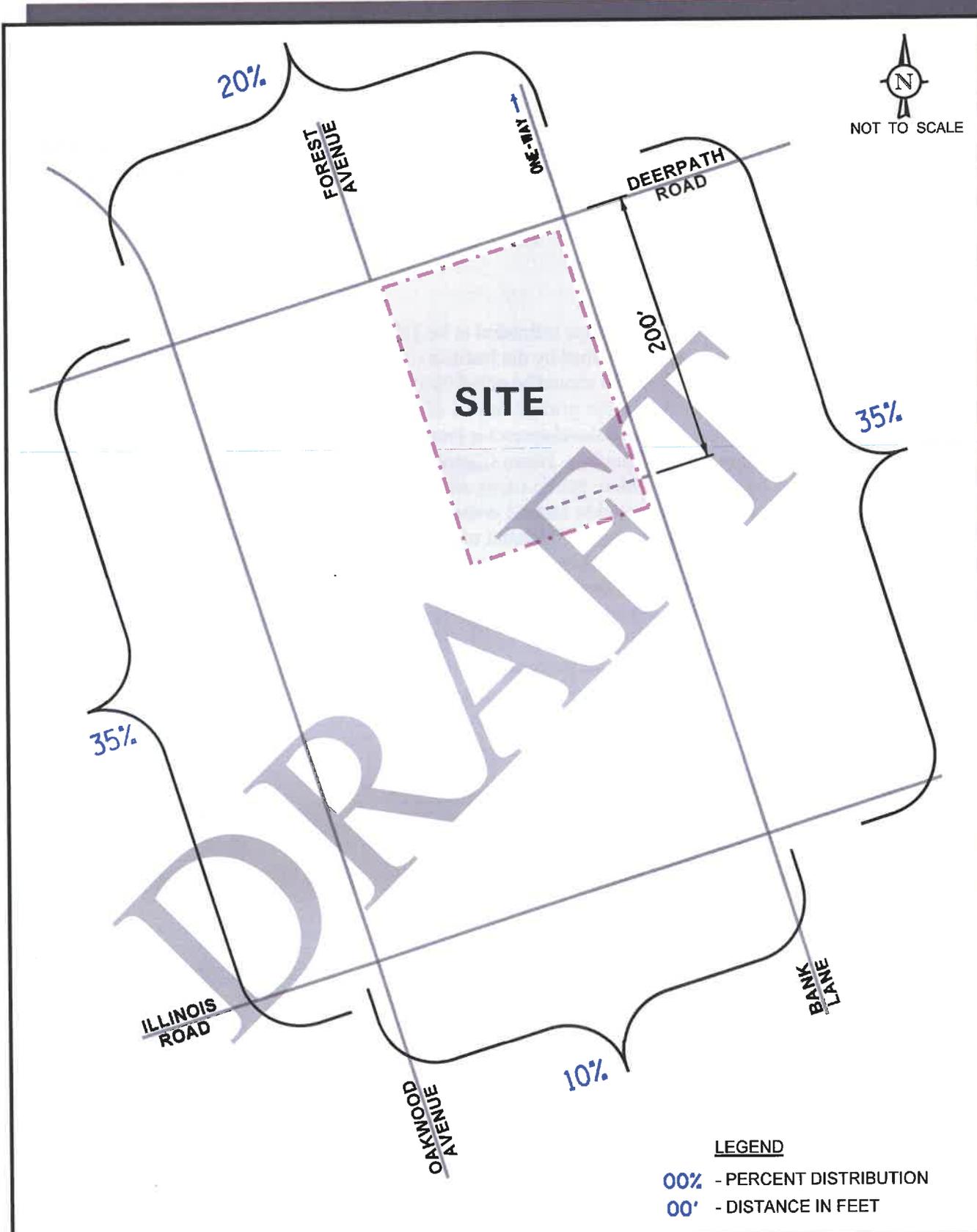
**Table 4** summarizes the trips projected to be generated by the development.

Table 4  
PROJECTED SITE-GENERATED TRAFFIC VOLUMES

ITE Land Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Daily Two-Way Traffic		
		In	Out	Total	In	Out	Total	In	Out	Total
710	Office (11,365 s.f.)	23	3	26	5	22	27	87	87	174
912	Bank (3,000 s.f.)	17	13	30	32	31	63	150	150	300
820	Retail (1,500 s.f.)	2	2	4	5	5	10	41	41	82
220	Residential (13 Units)	<u>6</u>	<u>21</u>	<u>27</u>	<u>16</u>	<u>10</u>	<u>26</u>	<u>79</u>	<u>79</u>	<u>158</u>
<b>Total New Trips</b>		<b>48</b>	<b>39</b>	<b>87</b>	<b>58</b>	<b>68</b>	<b>126</b>	<b>357</b>	<b>357</b>	<b>714</b>



NOT TO SCALE



**LEGEND**

**00%** - PERCENT DISTRIBUTION

**00'** - DISTANCE IN FEET

Proposed Mixed-Use  
Development  
Lake Forest, Illinois

Estimated Directional Distribution

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Job No: 21-208      Figure: 6

## Trip Generation Comparison

The number of peak hour vehicle trips estimated to be generated by the proposed development was compared to the trips currently generated by the site. The existing trip generation was based on traffic counts conducted at the three access drives serving the site on the same days and peak periods as the previously mentioned traffic counts. **Table 5** summarizes the trips currently generated by the site, compared to the trips projected to be generated by the proposed development. As can be seen from Table 5, the trips currently generated by the bank during the peak hours is less than the trips anticipated to be generated by the bank based on information published in the ITE *Trip Generation Manual*. Furthermore, these existing trips were not removed from the roadway network nor were removed from the new peak hour trip generation estimates and as such, the traffic study represents an evaluation of a conservative scenario. Overall, the new trips generated by the site are primarily attributed to the proposed office and retail space as well as the proposed residential units.

Table 5  
TRIP GENERATION COMPARISON

Condition	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
	In	Out	Total	In	Out	Total
Proposed Development	48	39	87	58	68	126
Existing First Midwest Bank	<u>5</u>	<u>1</u>	<u>6</u>	<u>14</u>	<u>12</u>	<u>26</u>
<b>Difference</b>	<b>43</b>	<b>38</b>	<b>81</b>	<b>44</b>	<b>56</b>	<b>100</b>

## 4. Projected Traffic Conditions

The total projected traffic volumes include the existing traffic volumes, increase in background traffic due to growth, and the traffic estimated to be generated by the proposed subject development.

### Development Traffic Assignment

The estimated weekday morning and weekday evening peak hour traffic volumes that will be generated by the proposed development were assigned to the roadway system in accordance with the previously described directional distribution (Figure 6). **Figure 7** illustrates the traffic assignment for the proposed development. For the purposes of this evaluation, all traffic generated by the development was assigned to the parking garage. However, some vehicles may utilize the on-street parking spaces within the vicinity of the site.

### Background Traffic Conditions

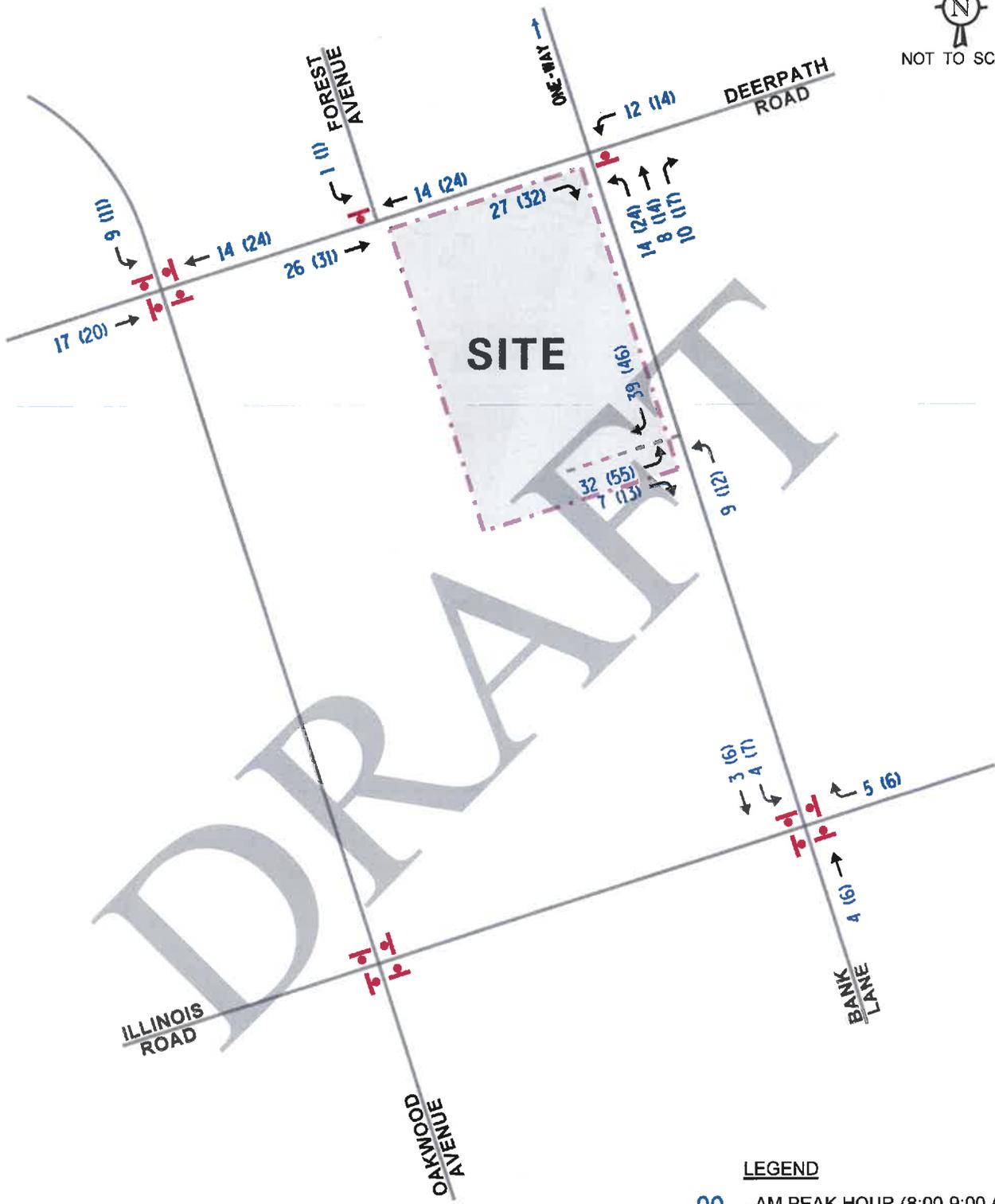
The Year 2021 traffic volumes (Figure 4) were increased by a regional growth factor to account for the increase in existing traffic related to regional growth in the area (i.e., not attributable to any particular planned development). Based on ADT projections provided by the Chicago Metropolitan Agency for Planning (CMAP), the existing traffic volumes are projected to increase by a compound annual growth rate of approximately 0.35 percent per year. As such, the traffic volumes were increased by two percent to represent Year 2027 (buildout plus five year) conditions. A copy of the CMAP projections letter is included in the Appendix.

### Year 2027 Projected Traffic Volumes

The new development-generated traffic (Figures 7) was added to the Year 2027 no-build traffic volumes to determine the Year 2027 total projected traffic volumes as illustrated in **Figure 8**.



NOT TO SCALE



**LEGEND**

- 00** - AM PEAK HOUR (8:00-9:00 AM)
- (00)** - PM PEAK HOUR (4:00-5:00 PM)

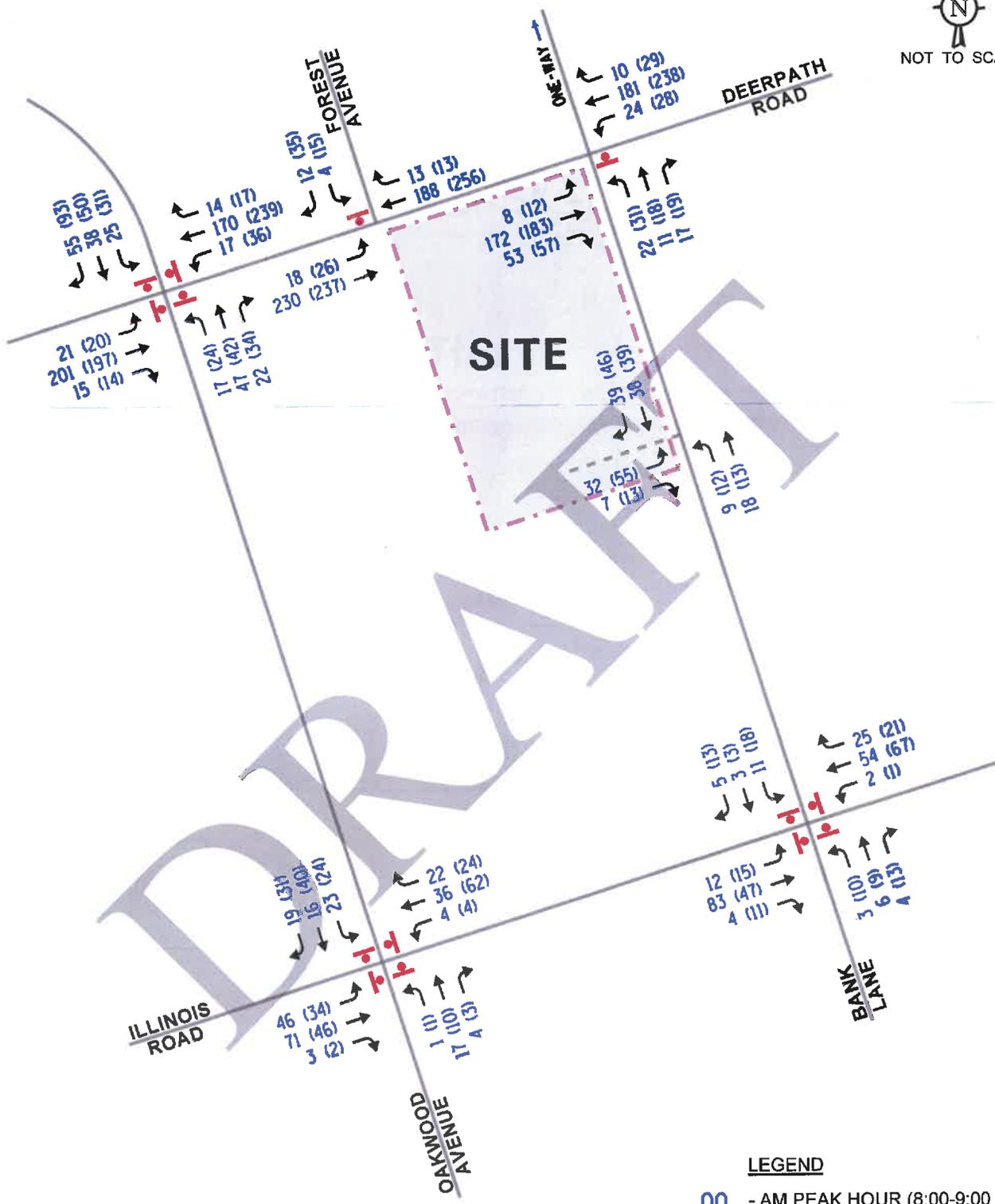
Proposed Mixed-Use Development  
Lake Forest, Illinois

**Estimated Site Generated Traffic Assignment**

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Job No: 21-208      Figure: 7



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**LEGEND**

- 00** - AM PEAK HOUR (8:00-9:00 AM)
- (00)** - PM PEAK HOUR (4:00-5:00 PM)

Proposed Mixed-Use Development  
Lake Forest, Illinois

Year 2027 Total Projected Traffic Volumes

**KLOA**  
Kenig, Lindgren, O'Hara, Aboona, Inc.  
Job No: 21-208      Figure: 8

## 5. Traffic Analysis and Recommendations

The following provides an evaluation conducted for the weekday morning and weekday evening peak hours. The analysis includes conducting capacity analyses to determine how well the roadway system and access drives are projected to operate and whether any roadway improvements or modifications are required.

### Traffic Analyses

Intersection analyses were performed for the weekday morning and weekday evening peak hours for the existing (Year 2021) and Year 2027 total projected traffic volumes.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM)*, 6<sup>th</sup> Edition and analyzed using Synchro/SimTraffic 11 software.

The analyses for the unsignalized intersections determine the average control delay to vehicles at an intersection. Control delay is the elapsed time from a vehicle joining the queue at a stop sign (includes the time required to decelerate to a stop) until its departure from the stop sign and resumption of free flow speed. The methodology analyzes each intersection approach controlled by a stop sign and considers traffic volumes on all approaches and lane characteristics.

The ability of an intersection to accommodate traffic flow is expressed in terms of level of service, which is assigned a letter from A to F based on the average control delay experienced by vehicles passing through the intersection. The *Highway Capacity Manual* definitions for levels of service and the corresponding control delay for signalized intersections and unsignalized intersections are included in the Appendix of this report.

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the existing and Year 2027 total projected conditions are presented in Tables 6 and 7. A discussion of the intersections follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 6  
CAPACITY ANALYSIS RESULTS – EXISTING CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
<b>Deerpath Road with Bank Lane<sup>1</sup></b>				
• Northbound Approach	B	11.1	B	11.4
• Eastbound Left Turn	A	7.7	A	7.9
• Westbound Left Turn	A	7.9	A	7.8
<b>Deerpath Road with Forest Lane<sup>1</sup></b>				
• Southbound Approach	B	10.1	B	11.2
• Eastbound Left Turn	A	7.8	A	7.9
<b>Deerpath Road with Oakwood Avenue<sup>2</sup></b>				
• Overall	A	9.7	B	10.9
• Eastbound Approach	B	10.2	B	11.0
• Westbound Approach	A	9.8	B	11.8
• Northbound Approach	A	9.0	A	9.6
• Southbound Approach	A	9.3	B	10.2
<b>Illinois Road with Bank Lane<sup>2</sup></b>				
• Overall	A	7.7	A	7.5
• Eastbound Approach	A	7.9	A	7.6
• Westbound Approach	A	7.5	A	7.6
• Northbound Approach	A	7.9	A	7.3
• Southbound Approach	A	7.5	A	7.4
<b>Illinois Road with Oakwood Avenue<sup>2</sup></b>				
• Overall	A	7.9	A	7.7
• Eastbound Approach	A	8.0	A	7.8
• Westbound Approach	A	7.4	A	7.6
• Northbound Approach	A	9.3	A	7.4
• Southbound Approach	A	7.7	A	7.8
1 – Two-Way Stop Sign Control    LOS = Level of Service				
2 – All-Way Stop Sign Control    Delay is measured in seconds.				

Table 7  
CAPACITY ANALYSIS RESULTS – PROJECTED CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
<b>Deerpath Road with Bank Lane<sup>1</sup></b>				
• Northbound Approach	B	12.2	B	14.1
• Eastbound Left Turn	A	7.7	A	7.9
• Westbound Left Turn	A	8.0	A	8.0
<b>Deerpath Road with Forest Lane<sup>1</sup></b>				
• Southbound Approach	B	10.5	B	11.7
• Eastbound Left Turn	A	7.9	A	8.0
<b>Deerpath Road with Oakwood Avenue<sup>2</sup></b>				
• Overall	B	10.3	B	11.9
• Eastbound Approach	B	10.8	B	11.9
• Westbound Approach	B	10.3	B	13.1
• Northbound Approach	A	9.3	A	10.0
• Southbound Approach	A	9.8	B	11.0
<b>Illinois Road with Bank Lane<sup>2</sup></b>				
• Overall	A	7.8	A	7.6
• Eastbound Approach	A	8.0	A	7.7
• Westbound Approach	A	7.5	A	7.6
• Northbound Approach	A	8.0	A	7.4
• Southbound Approach	A	7.7	A	7.6
<b>Illinois Road with Oakwood Avenue<sup>2</sup></b>				
• Overall	A	7.9	A	7.7
• Eastbound Approach	A	8.0	A	7.8
• Westbound Approach	A	7.4	A	7.6
• Northbound Approach	A	9.3	A	7.4
• Southbound Approach	A	7.7	A	7.8
<b>Bank Lane with Access Drive<sup>1</sup></b>				
• Eastbound Approach	A	9.1	A	9.3
• Northbound Left Turn	A	7.4	A	7.4
1 – Two-Way Stop Sign Control		LOS = Level of Service		
2 – All-Way Stop Sign Control		Delay is measured in seconds.		

## Discussion and Recommendations

The following summarizes how the intersections are projected to operate and identifies any roadway and traffic control improvements necessary to accommodate the development-generated traffic.

### *Deerpath Road with Bank Lane*

The results of the capacity analysis indicate that the northbound approach currently operates at level of service (LOS) B during the weekday morning and weekday evening peak hours. Furthermore, eastbound and westbound left-turn turning movements from Deerpath Road onto Bank Lane currently operate at LOS A during the peak hours. Under future conditions, the northbound approach is projected to continue operating at LOS B during the peak hours with increases in delay of approximately three seconds or less. Eastbound and westbound left-turning movements are projected to continue operating at LOS A during the peak hours with increases in delay of less than one second.

Observations conducted during the peak periods indicated that this intersection was not impacted by any queuing that may occur at the downstream traffic signal at the intersection of Deerpath Road with Western Avenue, particularly during train events. Overall, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway or traffic control improvements will be required.

### *Deerpath Road with Oakwood Avenue*

The results of the capacity analysis indicate that overall, this intersection currently operates at LOS A during the weekday morning peak hour and at LOS B during the weekday evening peak hour. Furthermore, all of the approaches operate at LOS B or better during the peak hours. Under future conditions, this intersection overall is projected to operate at LOS B during the weekday morning and weekday evening peak hours with increases in delay of approximately one second or less. Furthermore, all of the approaches are projected to continue operating at LOS B or better during the peak hours with increases in delay of approximately one second or less. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway or traffic control improvements will be required.

### *Illinois Road with Bank Lane*

The results of the capacity analysis indicate that this intersection overall and all of the approaches currently operate at LOS A during the weekday morning and weekday evening peak hours. Under future conditions, this intersection and all of the approaches are projected to continue operating at LOS A during the peak hours with increases in delay of less than one second. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway or traffic control improvements will be required.

### *Illinois Road with Oakwood Avenue*

The results of the capacity analysis indicate that this intersection overall and all of the approaches currently operate at LOS A during the weekday morning and weekday evening peak hours. Under future conditions, this intersection and all of the approaches are projected to continue operating at LOS A during the peak hours with increases in delay of less than one second. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway or traffic control improvements will be required.

### *Deerpath Road with Forest Avenue*

The results of the capacity analysis indicate that the southbound approach currently operates at LOS B during the weekday morning and weekday evening peak hours and eastbound left-turning movements from Deerpath Road onto Forest Avenue currently operates at LOS A during the peak hours. Under future conditions, the southbound approach and eastbound left-turning movements are projected to continue operating at existing levels of service with increases in delay of less than one second. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway or traffic control improvements will be required.

### *Bank Lane with Access Drive*

The results of the capacity analysis indicate that outbound movements from the proposed access drive onto Bank Lane are projected to operate at LOS A during the weekday morning and weekday evening peak hours. Furthermore, northbound left-turning movements from Bank Lane onto the access drive are projected to operate at LOS A during the peak hours. As such, this access drive will be adequate in accommodating the traffic estimated to be generated by the proposed development.

## **Internal Circulation Evaluation**

As previously indicated, parking for the development will be provided via a below grade parking garage. The upper level of the parking garage will provide 40 parking spaces for use of the office, retail and bank space. Furthermore, the upper level will provide a single bank drive-through kiosk. The lower level of the parking garage will provide 29 residential parking spaces.

Given the provision of the bank drive-through kiosk on the upper level of the parking garage, this level will operate in a one-way counterclockwise circulation allowing vehicles to access the drive-through kiosk in a single file line with a pass-by lane for other vehicles to circulate the parking spaces. It should be noted that the lower level will provide a single two-way drive aisle.

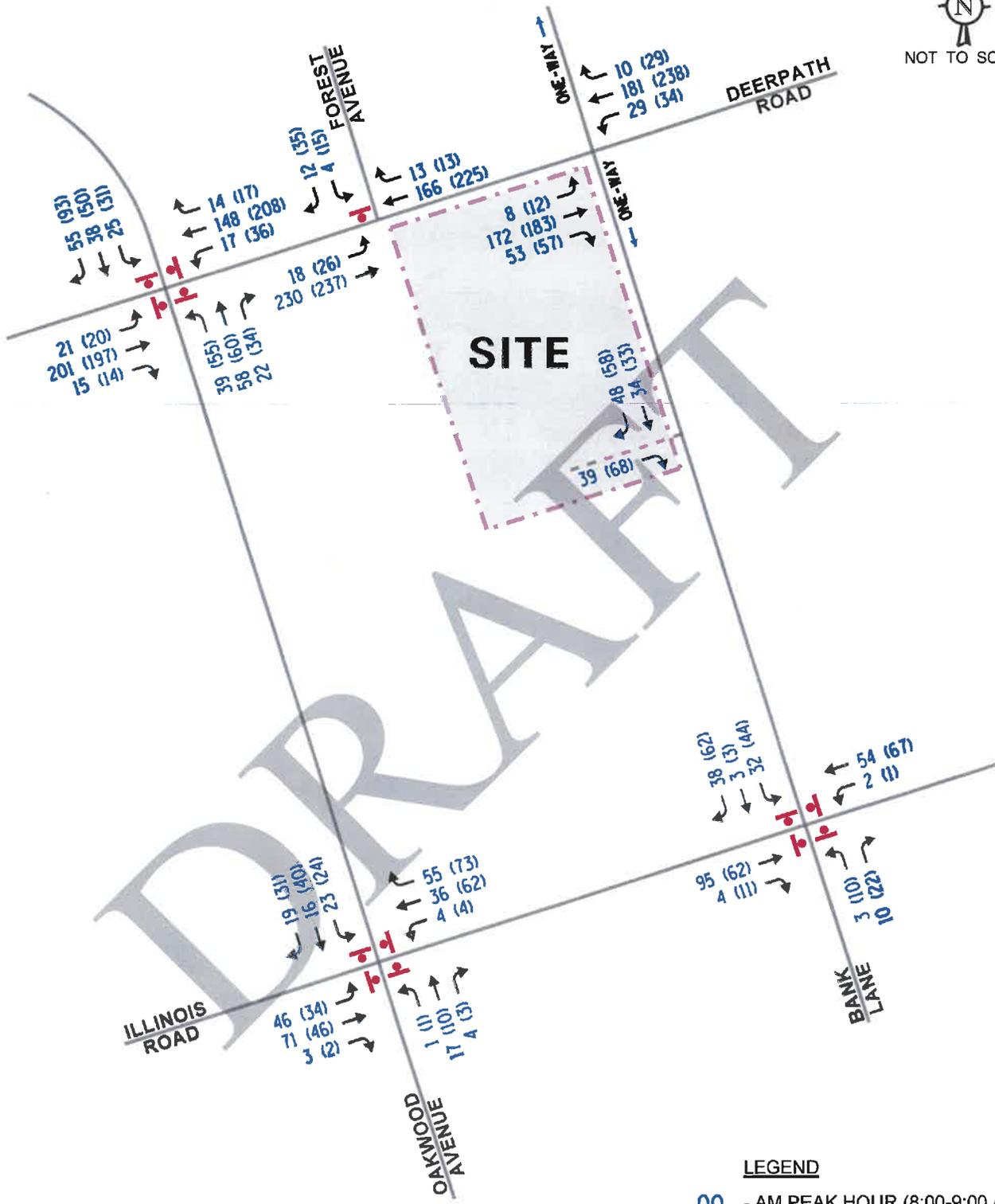
In order to ensure proper one-way circulation of the upper level of the parking garage adequate pavement marking should be provided indicating the direction of travel and do not enter and right-turn only signs should be provided to the southerly eastbound drive aisle informing patrons to turn right upon entering the parking garage.

## Bank Lane One-Way Conversion

Consideration was given to the conversion of Bank Lane from two-way traffic to one-way traffic in the southbound direction between Deerpath Road and Illinois Road. To determine the impact of the proposed conversion on the study area the traffic volumes were reassigned to the roadway network and capacity analyses were conducted for the projected traffic volumes. **Figure 9** illustrates the Year 2027 total projected traffic volumes with the proposed one-way conversion of Bank Lane. **Table 8** summarizes the results of the capacity analyses with the one-way conversion. As can be seen from Table 8, all of the study area intersections are projected to continue operating at acceptable levels of service during the peak hours with the conversion of Bank Lane to one-way southbound between Deerpath Road and Illinois Road. Overall, the proposed conversion of Bank Lane will have a limited impact on the operation of the study area intersections. However, this conversion would be beneficial as it will improve the flow of traffic through the intersection of Deerpath Road with Bank Lane and will allow for approximately 10 additional parallel parking spaces to be provided along the east side of the roadway.



NOT TO SCALE



**LEGEND**

- 00 - AM PEAK HOUR (8:00-9:00 AM)
- (00) - PM PEAK HOUR (4:00-5:00 PM)

Proposed Mixed-Use Development  
Lake Forest, Illinois

Year 2027 Total Projected Traffic Volumes  
With One-Way Conversion

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Kenig, Lindgren, O'Hara, Aboona, Inc.

Job No: 21-208      Figure: 9

Table 8

## CAPACITY ANALYSIS RESULTS – PROJECTED CONDITIONS – BANK LANE ONE-WAY

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
<b>Deerpath Road with Bank Lane<sup>1</sup></b>				
• Eastbound Left Turn	A	7.7	A	7.9
• Westbound Left Turn	A	8.0	A	8.0
<b>Deerpath Road with Forest Lane<sup>1</sup></b>				
• Southbound Approach	B	10.3	B	11.4
• Eastbound Left Turn	A	7.8	A	7.9
<b>Deerpath Road with Oakwood Avenue<sup>2</sup></b>				
• Overall	B	10.4	B	12.0
• Eastbound Approach	B	11.2	B	12.4
• Westbound Approach	B	10.2	B	12.8
• Northbound Approach	A	9.8	B	11.0
• Southbound Approach	A	9.9	B	11.1
<b>Illinois Road with Bank Lane<sup>2</sup></b>				
• Overall	A	7.9	A	7.8
• Eastbound Approach	A	8.1	A	7.8
• Westbound Approach	A	7.8	A	7.9
• Northbound Approach	A	7.8	A	7.3
• Southbound Approach	A	7.8	A	7.9
<b>Illinois Road with Oakwood Avenue<sup>2</sup></b>				
• Overall	A	7.9	A	7.8
• Eastbound Approach	A	8.1	A	7.9
• Westbound Approach	A	7.4	A	7.7
• Northbound Approach	A	9.4	A	7.5
• Southbound Approach	A	7.8	A	8.0
<b>Bank Lane with Access Drive<sup>1</sup></b>				
• Eastbound Approach	A	8.7	A	8.9
1 – Two-Way Stop Sign Control	LOS = Level of Service			
2 – All-Way Stop Sign Control	Delay is measured in seconds.			

## 6. Conclusion

Based on the preceding analyses and recommendations, the following conclusions have been made:

- The traffic that will be generated by the proposed development will be reduced due to the availability of alternative modes of transportations and due to its location within downtown Lake Forest.
- The adjacent roadway network has sufficient reserve capacity to accommodate the traffic projected to be generated by the proposed development.
- Providing access to the development via the a single access drive off Bank Lane will be adequate in accommodating the traffic estimated to be generated by the proposed development.
- The area roadway network will continue to operate at acceptable levels of service with and without the conversion of Bank Lane to one-way traffic in the southbound direction between Deerpath Road and Illinois Road. However, the conversion of the roadway segment to one-way will be beneficial based on the following:
  - It will improve the flow of traffic through the intersection of Deerpath Road with Bank Lane.
  - It will allow for 10 additional on-street parking spaces to be provided along the east side of Bank Lane.

# Appendix

Traffic Count Summary Sheets

Site Plan

CMAP 2050 Projection Letter

Level of Service Criteria

Capacity Analysis Summary Sheets

DRAFT

Traffic Count Summary Sheets





DRAFT

% Bicycles on Road	-	0.0	0.0	-	0.0	1.2	0.0	-	1.1	-	-	-	-	-	-	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.5
Pedestrians	-	-	-	1	-	-	-	14	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	52	-	-
% Pedestrians	-	-	-	100.0	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	100.0	-	-



Kenig Lindgren O'Hara Aboona, Inc.  
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018  
(847)518-9990 bmay@kloainc.com

Count Name: Deerpath Rd with Bank Access  
Drive  
Site Code:  
Start Date: 07/27/2021  
Page No: 3

### Turning Movement Peak Hour Data (8:00 AM)

Start Time	Deerpath Rd Eastbound					Deerpath Rd Westbound					Bank Access Drive Northbound					Forest Ave Southbound												
	U-Turn	Left	Thru	Right	Peds	U-Turn	Left	Thru	Right	Peds	U-Turn	Left	Thru	Right	Peds	U-Turn	Left	Thru	Right	Peds	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total	
8:00 AM	0	3	32	0	0	0	0	29	3	3	0	0	0	0	2	0	0	0	2	1	0	0	0	2	1	2	69	-
8:15 AM	0	5	41	0	0	0	0	48	8	1	0	0	0	0	1	0	0	0	1	2	1	0	0	1	2	1	101	-
8:30 AM	0	5	66	0	0	0	0	43	1	0	0	0	0	0	5	0	0	0	5	2	7	0	2	0	5	2	122	-
8:45 AM	0	5	55	0	0	0	0	55	3	0	0	0	0	0	2	0	0	0	4	6	5	0	1	0	4	6	123	-
Total	0	18	194	0	0	0	0	175	13	188	0	0	0	0	10	0	0	0	12	11	15	0	3	0	12	11	415	-
Approach %	0.0	8.5	91.5	0.0	-	0.0	0.0	93.1	6.9	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	80.0	-	-	0.0	20.0	0.0	80.0	-	-	-
Total %	0.0	4.3	46.7	0.0	-	0.0	0.0	42.2	3.1	45.3	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	2.9	-	3.6	0.0	0.7	0.0	2.9	-	3.6	-
PHF	0.000	0.900	0.735	0.000	-	0.000	0.000	0.795	0.542	0.810	0.000	0.000	0.000	0.000	-	0.000	0.375	0.000	0.600	-	0.596	0.000	0.375	0.000	0.600	-	0.843	-
Lights	0	17	179	0	-	0	0	151	12	173	0	0	0	0	-	0	3	0	12	-	15	0	3	0	12	-	384	-
% Lights	-	94.4	92.3	-	-	-	-	92.0	92.3	92.0	-	-	-	-	-	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	-	92.5	-
Buses	0	0	1	0	-	0	0	2	0	2	0	0	0	0	-	0	0	0	0	-	0	0	0	0	0	-	3	-
% Buses	-	0.0	0.5	-	-	-	-	1.1	0.0	1.1	-	-	-	-	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.7	-
Single-Unit Trucks	0	1	10	0	-	0	0	5	1	6	0	0	0	0	-	0	0	0	0	-	0	0	0	0	0	-	17	-
% Single-Unit Trucks	-	5.6	5.2	-	-	-	-	2.9	7.7	3.2	-	-	-	-	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	4.1	-
Articulated Trucks	0	0	4	0	-	0	0	4	0	4	0	0	0	0	-	0	0	0	0	-	0	0	0	0	0	-	8	-
% Articulated Trucks	-	0.0	2.1	-	-	-	-	2.3	0.0	2.1	-	-	-	-	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	1.9	-
Bicycles on Road	0	0	0	0	-	0	0	3	0	3	0	0	0	0	-	0	0	0	0	-	0	0	0	0	0	-	3	-
% Bicycles on Road	-	0.0	0.0	-	-	-	-	1.7	0.0	1.6	-	-	-	-	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.7	-
Pedestrians	-	-	-	-	0	-	-	-	-	1	-	-	-	-	10	-	-	-	-	-	11	-	-	-	-	-	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-



Kenig Lindgren O'Hara Aboona, Inc.  
9575 W. Higgins Rd., Suite 400

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Count Name: Deerpath Rd with Bank Access Drive  
Site Code:  
Start Date: 07/27/2021  
Page No: 4

### Turning Movement Peak Hour Data (4:00 PM)

Start Time	Deerpath Rd Eastbound				Deerpath Rd Westbound				Bank Access Drive Northbound				Forest Ave Southbound																			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	App. Total	Peds	Int. Total	
4:00 PM	0	8	50	0	0	0	75	1	0	0	0	0	0	0	0	0	0	0	1	0	0	8	3	0	0	1	0	0	0	9	143	-
4:15 PM	0	12	50	0	0	0	42	3	0	0	0	0	0	0	0	0	0	0	3	0	0	8	1	0	0	3	0	0	0	11	118	-
4:30 PM	0	1	48	1	0	0	61	5	0	0	0	0	0	0	0	0	0	0	6	0	0	8	1	0	0	6	0	0	0	14	130	-
4:45 PM	0	5	44	1	0	0	47	4	0	0	0	0	0	0	0	0	0	0	4	0	0	10	5	0	0	4	0	0	0	14	115	-
Total	0	26	192	2	0	0	225	13	0	0	0	0	0	0	0	0	0	0	14	0	0	34	10	0	0	14	0	0	0	48	506	-
Approach %	0.0	11.8	87.3	0.9	0.0	0.0	94.5	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.2	0.0	0.0	70.8	-	0.0	0.0	28.2	0.0	0.0	0.0	9.5	-	
Total %	0.0	5.1	37.9	0.4	0.0	0.0	44.5	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	6.7	-	0.0	0.0	2.8	0.0	0.0	0.0	0.857	-	
PHF	0.000	0.542	0.960	0.500	0.000	0.000	0.750	0.650	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.563	0.000	0.000	0.850	-	0.000	0.563	0.000	0.850	0.000	0.857	0.885	-	
Lights	0	25	188	2	0	0	216	13	0	0	0	0	0	0	0	0	0	0	13	0	0	34	-	0	13	0	0	0	47	491	-	
% Lights	-	96.2	97.9	100.0	-	-	96.0	100.0	-	-	-	-	-	-	-	-	-	-	-	92.9	-	100.0	-	-	-	92.9	-	100.0	-	97.9	97.0	-
Buses	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	-
% Buses	-	0.0	1.0	0.0	-	-	0.9	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	0.0	-	-	-	0.0	-	0.0	-	0.0	0.8	-
Single-Unit Trucks	0	1	2	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1	8	-	
% Single-Unit Trucks	-	3.8	1.0	0.0	-	-	1.8	0.0	-	-	-	-	-	-	-	-	-	-	7.1	-	0.0	-	-	-	-	7.1	-	0.0	-	2.1	1.6	-
Articulated Trucks	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	-	
% Articulated Trucks	-	0.0	0.0	0.0	-	-	1.3	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	0.0	-	-	-	0.0	-	0.0	-	0.0	0.6	-
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
% Bicycles on Road	-	0.0	0.0	0.0	-	-	0.0	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	0.0	-	-	-	0.0	-	0.0	-	0.0	0.0	-
Pedestrians	-	-	-	-	0	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-
% Pedestrians	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-



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Count Name: Deerpath Rd with Oakwood Ave  
Site Code:  
Start Date: 07/27/2021  
Page No: 1

### Turning Movement Data

Start Time	Deerpath Rd Eastbound						Deerpath Rd Westbound						Oakwood Ave Northbound						Oakwood Ave Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	8	31	2	2	41	0	5	38	3	46	0	5	1	2	0	0	8	0	0	5	5	5	10	105
7:15 AM	0	3	42	1	0	46	0	6	33	2	41	0	1	2	3	1	6	8	0	2	9	21	1	32	125
7:30 AM	0	10	44	4	0	58	0	4	35	6	45	0	7	6	7	0	20	20	0	2	12	6	1	20	143
7:45 AM	0	5	38	4	1	47	0	4	31	3	38	0	4	9	4	0	17	17	0	6	13	11	3	30	132
Hourly Total	0	26	155	11	3	192	0	18	137	14	170	0	17	18	16	1	51	51	0	10	39	43	10	92	505
8:00 AM	0	3	33	4	1	40	0	3	26	0	31	0	4	18	3	3	25	25	0	4	13	11	1	28	124
8:15 AM	0	6	35	2	5	43	0	4	35	8	47	0	1	11	5	0	17	17	0	3	7	12	3	22	129
8:30 AM	0	4	52	7	5	63	0	3	33	3	39	0	6	11	10	0	27	27	0	5	8	13	0	26	155
8:45 AM	0	8	58	2	4	68	0	7	46	3	56	0	6	6	4	2	16	16	0	4	10	18	1	32	172
Hourly Total	0	21	178	15	16	214	0	17	142	14	173	0	17	46	22	5	85	85	0	16	38	54	5	108	580
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	7	52	4	0	63	0	8	70	3	81	0	11	10	9	0	30	30	0	5	10	20	3	35	209
4:15 PM	0	4	45	2	2	51	0	10	47	5	62	0	4	10	8	1	22	22	0	5	12	28	4	45	180
4:30 PM	0	8	37	3	1	48	0	7	53	4	64	0	4	7	6	0	17	17	0	3	12	25	4	40	169
4:45 PM	0	1	40	5	2	46	0	10	39	5	54	0	5	14	11	3	30	30	0	7	15	18	1	40	170
Hourly Total	0	20	174	14	5	208	0	35	209	17	261	0	24	41	34	4	98	98	0	20	49	91	12	160	728
5:00 PM	0	1	35	3	16	39	0	15	67	2	84	0	10	5	5	2	20	20	0	3	16	30	8	49	192
5:15 PM	0	0	42	8	1	50	0	4	52	1	57	0	3	7	7	0	17	17	0	1	18	19	1	38	162
5:30 PM	0	4	48	6	6	63	0	11	42	4	57	0	4	9	7	0	20	20	0	1	8	17	1	26	166
5:45 PM	0	4	35	4	3	43	0	4	45	2	51	0	4	7	3	0	14	14	0	1	10	15	1	26	134
Hourly Total	0	14	160	21	25	195	0	34	208	9	249	0	21	28	22	3	71	71	0	6	52	81	11	139	654
Grand Total	0	81	667	61	50	809	0	105	694	54	853	0	79	133	94	16	306	306	0	52	178	289	38	499	2467
Approach %	0.0	10.0	82.4	7.5	-	-	0.0	12.3	81.4	6.3	-	0.0	25.8	43.5	30.7	-	-	-	0.0	10.4	35.7	53.9	-	-	-
Total %	0.0	3.3	27.0	2.5	-	32.8	0.0	4.3	28.1	2.2	34.6	0.0	3.2	5.4	3.8	-	12.4	12.4	0.0	2.1	7.2	10.9	-	20.2	-
Lights	0	77	640	59	-	776	0	103	657	54	814	0	77	132	92	-	301	301	0	49	176	265	-	490	2381
% Lights	-	95.1	96.0	96.7	-	95.4	-	98.1	94.7	100.0	95.4	-	97.5	99.2	97.9	-	98.4	98.4	-	94.2	98.9	98.5	-	98.2	96.5
Buses	0	0	7	0	-	7	0	0	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	14
% Buses	-	0.0	1.0	0.0	-	0.9	-	0.0	1.0	0.0	0.8	-	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.6
Single-Unit Trucks	0	4	13	2	-	19	0	1	15	0	16	0	2	1	1	-	4	4	0	3	1	2	-	6	45
% Single-Unit Trucks	-	4.9	1.9	3.3	-	2.3	-	1.0	2.2	0.0	1.9	-	2.5	0.8	1.1	-	1.3	1.3	-	5.8	0.6	0.7	-	1.2	1.8
Articulated Trucks	0	0	7	0	-	7	0	0	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	2
% Articulated Trucks	-	0.0	1.0	0.0	-	0.9	-	0.0	1.0	0.0	0.8	-	0.0	0.0	1.1	-	0.3	0.3	-	0.0	0.0	0.7	-	0.4	0.7
Bicycles on Road	0	0	0	0	-	0	0	1	8	0	9	0	0	0	0	0	0	0	0	0	1	0	0	1	10





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Count Name: Deerpath Rd with Oakwood Ave  
Site Code:  
Start Date: 07/27/2021  
Page No: 3

### Turning Movement Peak Hour Data (8:00 AM)

Start Time	Deerpath Rd Eastbound						Deerpath Rd Westbound						Oakwood Ave Northbound						Oakwood Ave Southbound																						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds
8:00 AM	0	3	33	4	1	40	0	3	28	0	2	31	0	4	18	3	3	25	0	4	13	11	1	28																	
8:15 AM	0	6	35	2	6	43	0	4	35	8	47	0	1	11	5	0	17	0	3	7	12	3	22																		
8:30 AM	0	4	52	7	5	63	0	3	33	3	39	0	6	11	10	0	27	0	5	8	13	0	26																		
8:45 AM	0	8	58	2	4	68	0	7	46	3	56	0	6	6	4	2	16	0	4	10	18	1	32																		
Total	0	21	178	15	16	214	0	17	142	14	173	0	17	46	22	5	85	0	16	38	54	5	108																		
Approach %	0.0	9.8	83.2	7.0	-	-	0.0	9.8	82.1	8.1	-	-	0.0	20.0	54.1	25.9	-	-	0.0	14.8	35.2	50.0	-	-																	
Total %	0.0	3.6	30.7	2.6	-	36.9	0.0	2.9	24.5	2.4	29.8	0.0	2.9	7.9	3.8	-	14.7	0.0	2.8	6.6	9.3	-	18.6																		
PHF	0.000	0.656	0.767	0.536	-	0.787	0.000	0.607	0.772	0.438	-	0.772	0.008	0.708	0.639	0.550	-	0.787	0.000	0.800	0.731	0.750	-	0.844																	
Lights	0	21	166	14	-	201	0	17	132	14	163	0	17	45	22	84	0	14	38	54	-	106																			
% Lights	-	100.0	93.3	93.3	-	93.9	-	100.0	93.0	100.0	-	94.2	-	100.0	97.8	100.0	-	98.8	-	87.5	100.0	100.0	-	98.1																	
Buses	0	0	2	0	-	2	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	-	0																		
% Buses	-	0.0	1.1	0.0	-	0.9	-	0.0	1.4	0.0	1.2	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0																		
Single-Unit Trucks	0	0	6	1	-	7	0	0	4	0	4	0	0	1	0	1	0	2	0	0	-	2																			
% Single-Unit Trucks	-	0.0	3.4	6.7	-	3.3	-	0.0	2.8	0.0	2.3	-	0.0	2.2	0.0	1.2	-	12.5	0.0	0.0	-	1.9																			
Articulated Trucks	0	0	4	0	-	4	0	0	2	0	2	0	0	0	0	0	0	0	0	0	-	0																			
% Articulated Trucks	-	0.0	2.2	0.0	-	1.9	-	0.0	1.4	0.0	1.2	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0																			
Bicycles on Road	0	0	0	0	-	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	-	0																			
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	1.4	0.0	1.2	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0																			
Pedestrians	-	-	-	-	16	-	-	-	-	13	-	-	-	-	-	-	5	-	-	-	-	5	-	-																	
% Pedestrians	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-																



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Count Name: Deerpath Rd with Oakwood Ave  
Site Code:  
Start Date: 07/27/2021  
Page No: 4

### Turning Movement Peak Hour Data (4:00 PM)

Start Time	Deerpath Rd Eastbound					Deerpath Rd Westbound					Oakwood Ave Northbound					Oakwood Ave Southbound												
	U-Turn	Left	Thru	Right	Peds	U-Turn	Left	Thru	Right	Peds	U-Turn	Left	Thru	Right	Peds	U-Turn	Left	Thru	Right	Peds	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total	
4:00 PM	0	7	52	4	0	0	8	70	3	0	11	10	9	0	0	0	5	10	20	3	35	209						
4:15 PM	0	4	45	2	2	0	10	47	5	0	4	10	8	1	22	0	5	12	28	4	45	180						
4:30 PM	0	8	37	3	1	0	7	53	4	0	4	7	6	0	17	0	3	12	25	4	40	169						
4:45 PM	0	1	40	5	2	0	10	39	5	0	5	14	11	3	30	0	7	15	18	1	40	170						
Total	0	20	174	14	5	0	35	209	17	0	24	41	34	4	99	0	20	49	91	12	160	728						
Approach %	0.0	9.6	83.7	6.7	-	0.0	13.4	90.1	6.5	-	0.0	24.2	41.4	34.3	-	0.0	12.5	30.6	56.9	-	-	-						
Total %	0.0	2.7	23.9	1.9	-	0.0	4.8	26.7	2.3	-	0.0	3.3	5.6	4.7	-	0.0	2.7	6.7	12.5	-	22.0	-						
PHF	0.000	0.625	0.837	0.700	-	0.000	0.875	0.746	0.850	-	0.009	0.545	0.732	0.773	-	0.825	0.000	0.714	0.817	0.813	-	0.889	0.871					
% Lights	0	19	168	14	-	0	35	200	17	-	0	24	41	33	-	96	0	19	48	89	-	156	707					
% Lights	-	95.0	96.6	100.0	-	-	100.0	95.7	100.0	-	-	100.0	100.0	97.1	-	99.0	-	95.0	99.0	97.8	-	97.5	97.1					
% Buses	0	0	2	0	-	0	0	1	0	-	0	0	0	0	-	0	0	0	0	0	-	0	3					
% Buses	-	0.0	1.1	0.0	-	-	0.0	0.5	0.0	-	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.4					
Single-Unit Trucks	0	1	4	0	-	0	0	5	0	-	0	0	0	1	-	1	0	1	1	0	-	2	13					
% Single-Unit Trucks	-	5.0	2.3	0.0	-	-	0.0	2.4	0.0	-	-	0.0	0.0	2.9	-	1.0	-	5.0	2.0	0.0	-	1.3	1.8					
Articulated Trucks	0	0	0	0	-	0	0	3	0	-	0	0	0	0	-	0	0	0	0	2	-	2	5					
% Articulated Trucks	-	0.0	0.0	0.0	-	-	0.0	1.4	0.0	-	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	2.2	-	1.3	0.7					
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0	0	0	-	0	0					
% Bicycles on Road	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0					
Pedestrians	-	-	-	-	5	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-				
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-				

Study Name E Illinois Rd with N Bank Ln  
 Start Date Tuesday, July 27, 2021 7:00 AM  
 End Date Tuesday, July 27, 2021 6:00 PM  
 Site Code

## Report Summary

Time Period	Class.	Eastbound								Westbound								Northbound								Southbound			
		U	HL	L	BL	T	R	I	O	U	L	T	BR	R	HR	I	O	L	BL	T	BR	R	I	O	U	HL	L	T	R
<b>Peak 1</b>	Lights	1	6	3	1	71	4	86	56	0	2	49	5	6	9	71	86	2	1	0	0	4	7	8	0	1	1	0	0
Specified Period	%	100%	86%	100%	100%	97%	100%	97%	97%	0%	100%	100%	100%	100%	100%	100%	97%	67%	50%	0%	0%	100%	78%	89%	0%	100%	100%	0%	0%
8:00 AM - 9:00 AM	Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
One Hour Peak	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8:00 AM - 9:00 AM	Single-Unit Truc	0	1	0	0	0	0	1	2	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0
	%	0%	14%	0%	0%	0%	0%	1%	3%	0%	0%	0%	0%	0%	0%	0%	33%	0%	0%	0%	0%	11%	11%	0%	0%	0%	0%	0%	
	articulated Truc	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
	%	0%	0%	0%	0%	3%	0%	2%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	50%	0%	0%	0%	11%	0%	0%	0%	0%	0%	0%	
	<b>Total</b>	<b>1</b>	<b>7</b>	<b>3</b>	<b>1</b>	<b>73</b>	<b>4</b>	<b>89</b>	<b>58</b>	<b>0</b>	<b>2</b>	<b>49</b>	<b>5</b>	<b>6</b>	<b>9</b>	<b>71</b>	<b>89</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>9</b>	<b>9</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>
	PHF	0.25	0.44	0.38	0.25	0.79	0.5	0.79	0.63	0	0.5	0.61	0.62	0.5	0.56	0.59	0.79	0.38	0.5	0	0	0.5	0.56	0.75	0	0.25	0.25	0	0
	Approach %							44%	29%							35%	44%						4%	4%					
<b>Peak 2</b>	Lights	1	9	0	5	46	10	71	93	0	1	65	7	1	7	81	77	10	2	0	0	10	22	12	0	0	2	0	4
Specified Period	%	100%	100%	0%	100%	100%	91%	99%	99%	0%	100%	98%	100%	100%	100%	99%	96%	100%	67%	0%	0%	77%	85%	80%	0%	0%	100%	0%	100%
4:00 PM - 5:00 PM	Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
One Hour Peak	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
4:00 PM - 5:00 PM	Single-Unit Truc	0	0	0	0	0	1	1	1	0	0	1	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	0	0
	%	0%	0%	0%	0%	0%	9%	1%	1%	0%	0%	2%	0%	0%	0%	1%	1%	0%	0%	0%	0%	8%	4%	13%	0%	0%	0%	0%	0%
	articulated Truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	0%	0%	15%	8%	0%	0%	0%	0%	0%	0%	
	bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	33%	0%	0%	0%	4%	7%	0%	0%	0%	0%	0%
	<b>Total</b>	<b>1</b>	<b>9</b>	<b>0</b>	<b>5</b>	<b>46</b>	<b>11</b>	<b>72</b>	<b>94</b>	<b>0</b>	<b>1</b>	<b>66</b>	<b>7</b>	<b>1</b>	<b>7</b>	<b>82</b>	<b>80</b>	<b>10</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>26</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>4</b>
	PHF	0.25	0.56	0	0.62	0.61	0.69	0.69	0.84	0	0.25	0.82	0.58	0.25	0.29	0.73	0.87	0.5	0.38	0	0	0.41	0.46	0.75	0	0	0.25	0	0.5
	Approach %							32%	41%							36%	35%						11%	7%					



Southeastbound									Southwestbound								Crosswalk					
HR	I	O	U	HL	L	BL	BR	HR	I	O	U	HL	BL	BR	R	HR	I	O	Total	Direction	Pedestria	Total
0	2	19	0	10	1	10	2	4	27	12	0	0	0	0	0	0	0	12	193	W	7	7
0%	100%	100%	0%	100%	100%	91%	67%	80%	90%	86%	0%	0%	0%	0%	0%	0%	0%	100%	96%		100%	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	E	5	5
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
0	0	0	0	0	0	0	1	1	2	1	0	0	0	0	0	0	0	0	4	S	0	0
0%	0%	0%	0%	0%	0%	0%	33%	20%	7%	7%	0%	0%	0%	0%	0%	0%	0%	0%	2%		0%	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	N	18	18
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%		100%	
0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	2	NW	5	5
0%	0%	0%	0%	0%	0%	9%	0%	0%	3%	7%	0%	0%	0%	0%	0%	0%	0%	0%	1%		100%	
0	2	19	0	10	1	11	3	5	30	14	0	0	0	0	0	0	0	12	201	NE	9	9
0	0.25	0.48	0	0.5	0.25	0.46	0.75	0.62	0.58	0.58	0	0	0	0	0	0	0	0.5	0.73		100%	
	1%	9%							15%	7%								6%			44	44
2	8	1	0	0	4	18	1	13	36	20	0	1	0	0	0	0	1	16	219	W	15	15
100%	100%	100%	0%	0%	100%	100%	33%	100%	95%	95%	0%	100%	0%	0%	0%	0%	100%	100%	96%		100%	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	E	9	9
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	4	S	0	0
0%	0%	0%	0%	0%	0%	0%	33%	0%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%		0%	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	N	9	9
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%		100%	
0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	2	NW	3	3
0%	0%	0%	0%	0%	0%	0%	33%	0%	3%	5%	0%	0%	0%	0%	0%	0%	0%	0%	1%		100%	
2	8	1	0	0	4	18	3	13	38	21	0	1	0	0	0	0	1	16	227	NE	10	10
0.5	0.5	0.25	0	0	0.33	0.64	0.75	0.65	0.79	0.88	0	0.25	0	0	0	0	0.25	0.57	0.81		100%	
	4%	0%							17%	9%							0%	7%			46	46



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Count Name: E Illinois Rd with Oakwood Ave  
Site Code:  
Start Date: 07/27/2021  
Page No.: 1

### Turning Movement Data

Start Time	E Illinois Rd Eastbound					E Illinois Rd Westbound					Oakwood Ave Northbound					Oakwood Ave Southbound					
	U-Turn	Left	Thru	Right	App. Total	U-Turn	Left	Thru	Right	App. Total	U-Turn	Left	Thru	Right	App. Total	U-Turn	Left	Thru	Right	App. Total	
7:00 AM	0	5	8	2	15	0	6	1	1	6	0	1	1	0	2	0	3	3	1	7	30
7:15 AM	0	0	7	2	9	1	1	3	1	6	0	0	2	1	3	0	2	9	1	12	30
7:30 AM	0	4	8	1	13	0	1	6	6	13	0	0	5	1	6	0	4	9	1	14	46
7:45 AM	0	4	7	0	11	1	0	7	4	12	0	0	5	1	6	0	7	10	2	19	48
Hourly Total	0	13	30	5	48	2	7	21	12	37	0	1	13	3	17	0	16	31	5	52	154
8:00 AM	0	13	23	2	38	0	1	6	3	9	0	0	7	0	7	0	5	5	5	15	69
8:15 AM	0	13	8	0	21	0	1	3	7	11	0	1	3	3	7	0	3	3	7	13	52
8:30 AM	0	10	19	1	30	0	1	10	7	18	0	0	3	1	4	0	7	3	4	14	66
8:45 AM	0	9	20	0	29	0	1	16	6	23	0	0	4	0	4	0	8	5	3	16	72
Hourly Total	0	45	70	3	118	0	4	35	22	61	0	1	17	4	22	0	23	16	19	58	259
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	12	7	0	19	0	0	20	5	25	0	0	2	0	2	0	6	6	10	22	68
4:15 PM	0	7	9	1	17	0	0	18	5	23	0	0	2	2	4	0	3	10	8	21	65
4:30 PM	0	5	11	0	16	1	1	18	5	25	0	0	2	1	3	0	9	9	4	22	66
4:45 PM	0	9	16	1	26	0	2	5	9	16	0	1	4	0	5	0	6	14	8	28	75
Hourly Total	0	33	43	2	78	1	3	61	24	89	0	1	10	3	14	0	24	39	30	93	274
5:00 PM	0	6	12	0	18	0	1	21	5	27	1	2	3	3	7	0	13	10	9	32	84
5:15 PM	0	4	13	0	17	0	1	21	11	33	0	0	1	2	3	0	10	7	6	23	76
5:30 PM	0	5	22	1	28	1	1	12	5	19	0	0	3	1	4	0	14	7	6	27	78
5:45 PM	0	8	15	0	23	1	1	13	8	23	0	0	3	0	3	0	5	6	0	11	60
Hourly Total	0	23	62	1	86	2	4	67	29	102	1	2	10	4	17	0	42	30	21	5	93
Grand Total	0	114	205	11	330	5	13	184	87	289	1	5	50	14	70	0	105	116	75	16	296
Approach %	0.0	34.5	62.1	3.3	-	1.7	4.5	63.7	30.1	-	1.4	7.1	71.4	20.6	-	0.0	35.5	39.2	25.3	-	-
Total %	0.0	11.6	20.8	1.1	-	0.5	1.3	10.7	8.8	-	0.1	0.5	5.1	1.4	-	0.0	10.7	11.8	7.6	-	-
Lights	0	114	204	11	-	5	13	183	82	-	1	4	50	14	-	0	98	114	73	-	-
% Lights	-	100.0	99.5	100.0	-	100.0	100.0	99.5	94.3	-	97.9	80.0	100.0	100.0	-	-	93.3	98.3	97.3	-	-
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-
Single-Unit Trucks	0	0	0	0	0	0	0	0	4	4	0	1	0	0	1	0	3	0	1	4	9
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	0.0	0.0	4.6	1.4	0.0	20.0	0.0	0.0	1.4	-	2.9	0.0	1.3	1.4	0.9
Articulated Trucks	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	1	1	1	3	5
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	0.0	0.5	1.1	0.7	0.0	0.0	0.0	0.0	0.0	-	1.0	0.9	1.3	1.0	0.5
Bicycles on Road	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	3	1	0	4	5

% Bicycles on Road	-	0.0	0.5	0.0	-	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	2.9	0.9	0.0	-	1.4	0.5
Pedestrians	-	-	-	6	-	-	-	-	-	24	-	-	-	-	-	12	-	-	-	-	-	-	-	-	16	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	100.0	-

DRAFT



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Count Name: E Illinois Rd with Oakwood Ave  
Site Code:  
Start Date: 07/27/2021  
Page No.: 3

### Turning Movement Peak Hour Data (8:00 AM)

Start Time	E Illinois Rd Eastbound						E Illinois Rd Westbound						Oakwood Ave Northbound						Oakwood Ave Southbound												
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
8:00 AM	0	13	23	2	0	36	0	1	6	2	2	9	0	0	7	0	0	2	7	0	5	5	0	15	0	5	5	5	0	15	69
8:15 AM	0	13	8	0	0	21	0	1	3	7	11	11	0	1	3	3	0	7	7	0	3	3	7	13	0	3	3	7	0	13	52
8:30 AM	0	10	19	1	2	30	0	1	10	7	18	18	0	0	3	1	0	4	4	0	7	3	4	14	0	7	3	4	2	14	66
8:45 AM	0	9	20	0	1	29	0	1	16	6	23	23	0	0	4	0	1	4	4	0	8	5	3	16	0	8	5	3	1	16	72
Total	0	45	70	3	3	118	0	4	35	22	61	61	0	1	17	4	3	22	22	0	23	16	19	58	0	23	16	19	3	58	259
Approach %	0.0	38.1	59.3	2.5	-	-	0.0	6.6	57.4	38.1	-	-	0.0	0.0	4.5	77.3	18.2	-	-	0.0	39.7	27.6	82.8	-	0.0	39.7	27.6	82.8	-	-	-
Total %	0.0	17.4	27.0	1.2	-	45.6	0.0	1.5	13.5	8.5	23.6	23.6	0.0	0.4	6.6	1.5	-	8.5	8.5	0.0	8.9	6.2	7.3	-	0.0	8.9	6.2	7.3	-	22.4	-
PHF	0.000	0.865	0.761	0.375	-	0.776	0.000	1.000	0.547	0.786	0.863	0.863	0.000	0.250	0.607	0.333	-	0.786	0.786	0.000	0.719	0.800	0.679	-	0.000	0.719	0.800	0.679	-	0.906	0.889
Lights	0	45	70	3	-	118	0	4	35	20	59	59	0	0	17	4	-	21	21	0	22	16	18	-	0	22	16	18	-	56	254
% Lights	-	100.0	100.0	100.0	-	100.0	-	100.0	100.0	90.9	96.7	96.7	-	0.0	100.0	100.0	-	95.5	95.5	-	95.7	100.0	94.7	-	-	95.7	100.0	94.7	-	96.6	98.1
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	2	2	2	0	1	0	0	-	1	1	0	1	0	0	-	0	1	0	0	-	1	4
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	9.1	3.3	3.3	-	100.0	0.0	0.0	-	4.5	4.5	-	4.3	0.0	0.0	-	-	4.3	0.0	0.0	-	1.7	1.5
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	1	-	0	0	0	1	-	1	1
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0	-	0.0	0.0	5.3	-	-	0.0	0.0	5.3	-	1.7	0.4
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	3	-	-	-	-	8	8	8	-	-	-	-	-	3	3	-	-	-	3	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	100.0	100.0	100.0	-	-	-	-	-	100.0	100.0	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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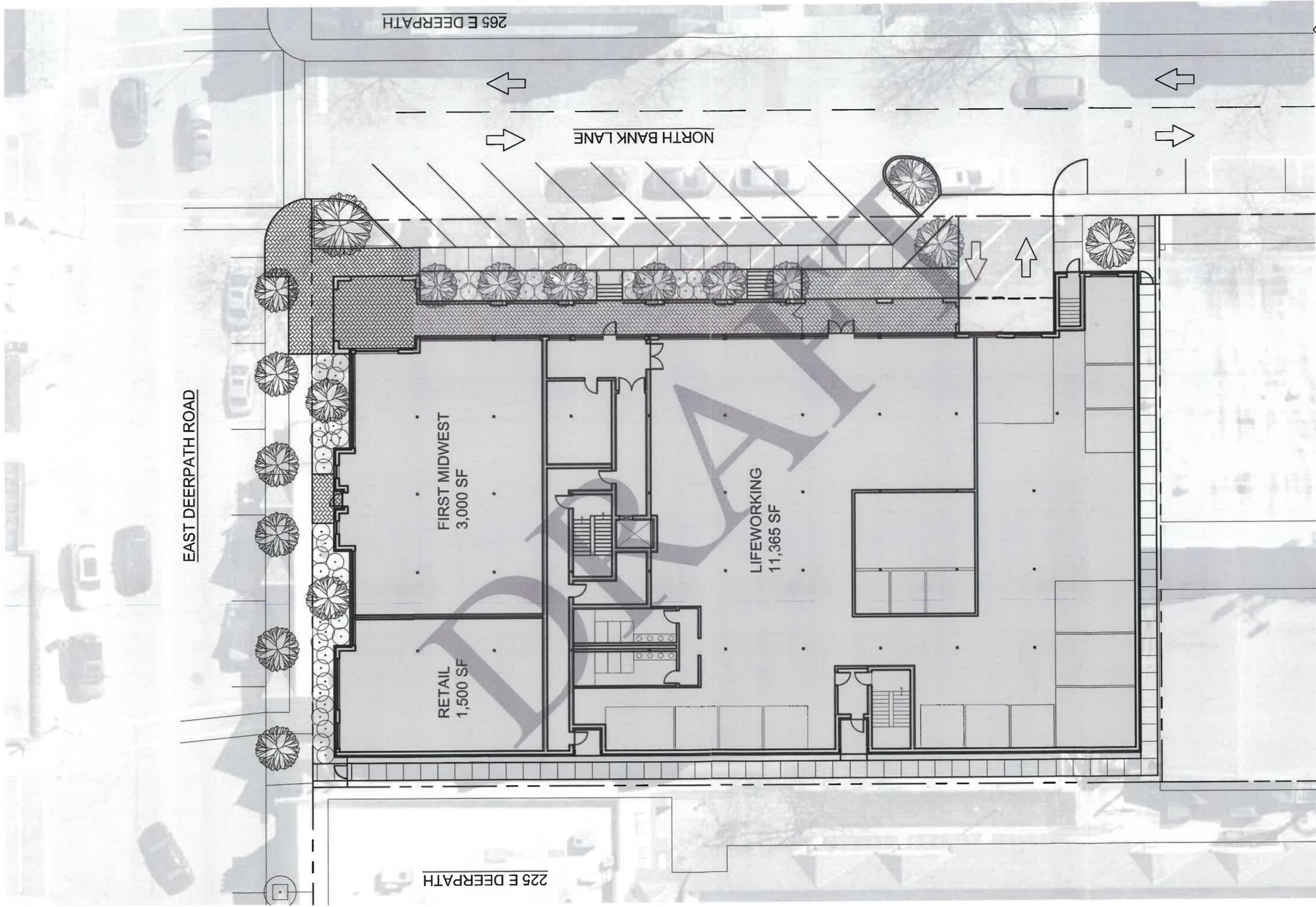
Count Name: E Illinois Rd with Oakwood Ave  
Site Code:  
Start Date: 07/27/2021  
Page No: 4

### Turning Movement Peak Hour Data (4:00 PM)

Start Time	E Illinois Rd Eastbound					E Illinois Rd Westbound					Oakwood Ave Northbound					Oakwood Ave Southbound					
	U-Turn	Left	Thru	Right	Peds	U-Turn	Left	Thru	Right	Peds	U-Turn	Left	Thru	Right	Peds	U-Turn	Left	Thru	Right	Peds	
	App. Total					App. Total					App. Total					App. Total					
4:00 PM	0	12	7	0	0	0	0	20	5	25	0	0	2	0	0	0	6	6	10	2	22
4:15 PM	0	7	9	1	0	0	0	18	5	23	0	0	2	2	1	4	3	10	8	0	21
4:30 PM	0	5	11	0	0	1	1	18	5	25	0	0	2	1	0	3	0	9	4	3	22
4:45 PM	0	9	16	1	2	26	0	5	9	16	0	1	4	0	0	5	0	6	14	8	28
Total	0	33	43	2	2	78	1	61	24	89	0	1	10	3	1	14	0	24	39	30	93
Approach %	0.0	42.3	55.1	2.6	-	-	1.1	3.4	27.0	-	0.0	7.1	71.4	21.4	-	-	0.0	25.8	41.9	32.3	-
Total %	0.0	12.0	15.7	0.7	-	28.5	0.4	1.1	8.5	-	32.5	0.0	3.6	1.1	-	5.1	0.0	8.8	14.2	10.9	-
PHF	0.000	0.688	0.672	0.500	-	0.750	0.250	0.375	0.667	-	0.890	0.000	0.625	0.375	-	0.700	0.000	0.667	0.696	0.750	-
Lights	0	33	43	2	-	78	1	61	24	-	88	0	10	3	-	14	0	23	39	30	-
% Lights	-	100.0	100.0	100.0	-	100.0	100.0	100.0	95.8	-	98.9	-	100.0	100.0	-	100.0	-	95.8	100.0	100.0	-
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-
Single-Unit Trucks	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	1
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	0.0	0.0	4.2	-	1.1	-	0.0	0.0	-	0.0	-	4.2	0.0	0.0	-
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-
Pedestrians	-	-	-	-	2	-	-	-	-	4	-	-	-	-	1	-	-	-	-	6	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-

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Site Plan



EAST DEERPATH ROAD

265 E DEERPATH

NORTH BANK LANE

225 E DEERPATH

FIRST MIDWEST  
3,000 SF

RETAIL  
1,500 SF

LIFEWORING  
11,365 SF



Witmer & Associates  
Architecture and Interior Design  
witmerandassoc.com

241 E DEERPATH RD  
August 5, 2021 SCALE: 1"= 20'

DRAFT

CMAP 2050 Projection Letter



Chicago Metropolitan  
Agency for Planning

433 West Van Buren Street  
Suite 450  
Chicago, IL 60607

312-454-0400  
cmap.illinois.gov

October 4, 2021

Brendan S. May  
Senior Consultant  
Kenig, Lindgren, O'Hara and Aboona, Inc.  
9575 West Higgins Road  
Suite 400  
Rosemont, IL 60018

**Subject: Deerpath Road @ Bank Lane**  
IDOT \_\_\_\_\_

Dear Mr. May:

In response to a request made on your behalf and dated October 4, 2021, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Current ADT	Year 2050 ADT
Deerpath Rd, @ Bank Lane	4,300	4,800

Traffic projections are developed using existing ADT data provided in the request letter and the results from the June 2021 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2050 socioeconomic projections and assumes the implementation of the ON TO 2050 Comprehensive Regional Plan for the Northeastern Illinois area. The provision of this data in support of your request does not constitute a CMAP endorsement of the proposed development or any subsequent developments.

If you have any questions, please call me at (312) 386-8806.

Sincerely,

Jose Rodriguez, PTP, AICP  
Senior Planner, Research & Analysis

cc: Rios (IDOT)  
2021\_CY\_TrafficForecast\LakeForest\la-30-21\la-30-21.docx

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Level of Service Criteria

## LEVEL OF SERVICE CRITERIA

Signalized Intersections		
Level of Service	Interpretation	Average Control Delay (seconds per vehicle)
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤10
B	Good progression, with more vehicles stopping than for Level of Service A.	>10 - 20
C	Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear. Number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	>20 - 35
D	The volume-to-capacity ratio is high and either progression is ineffective or the cycle length is too long. Many vehicles stop and individual cycle failures are noticeable.	>35 - 55
E	Progression is unfavorable. The volume-to-capacity ratio is high and the cycle length is long. Individual cycle failures are frequent.	>55 - 80
F	The volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	>80.0
Unsignalized Intersections		
Level of Service	Average Total Delay (SEC/VEH)	
A	0 - 10	
B	> 10 - 15	
C	> 15 - 25	
D	> 25 - 35	
E	> 35 - 50	
F	> 50	

Source: *Highway Capacity Manual*, 2010.

Capacity Analysis Summary Reports  
Weekday Morning Peak Hour – Existing Conditions

HCM 6th TWSC  
1: Bank Lane & Deerpath Road

10/06/2021

Intersection

Int Delay, s/veh 0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+				
Traffic Vol, veh/h	8	169	26	12	177	10	8	3	7	0	0	0
Future Vol, veh/h	8	169	26	12	177	10	8	3	7	0	0	0
Conflicting Peds, #/hr	11	0	9	9	0	11	11	0	12	12	0	11
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	9	9	10	7	0	0	25	0	0	0	0
Mvmt Flow	10	204	31	14	213	12	10	4	8	0	0	0

Major/Minor	Major1	Major2	Minor1						
Conflicting Flow All	236	0	0	244	0	0	507	513	241
Stage 1	-	-	-	-	-	-	249	249	-
Stage 2	-	-	-	-	-	-	258	264	-
Critical Hdwy	4.1	-	-	4.2	-	-	6.4	6.75	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.75	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.75	-
Follow-up Hdwy	2.2	-	-	2.29	-	-	3.5	4.225	3.3
Pot Cap-1 Maneuver	1343	-	-	1277	-	-	529	433	803
Stage 1	-	-	-	-	-	-	797	660	-
Stage 2	-	-	-	-	-	-	790	650	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1343	-	-	1266	-	-	508	0	787
Mov Cap-2 Maneuver	-	-	-	-	-	-	508	0	-
Stage 1	-	-	-	-	-	-	783	0	-
Stage 2	-	-	-	-	-	-	772	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.3	0.5	11.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	609	1343	-	-	1266	-	-
HCM Lane V/C Ratio	0.036	0.007	-	-	0.011	-	-
HCM Control Delay (s)	11.1	7.7	0	-	7.9	0	-
HCM Lane LOS	B	A	A	-	A	A	-
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-

**Intersection**

Int Delay, s/veh 0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↔		↕	
Traffic Vol, veh/h	18	200	172	13	3	12
Future Vol, veh/h	18	200	172	13	3	12
Conflicting Peds, #/hr	11	0	0	11	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	6	8	6	8	0	0
Mvmt Flow	21	238	205	15	4	14

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	231	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.16	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.254	-	-
Pot Cap-1 Maneuver	1314	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1300	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1300	-	-	-	725
HCM Lane V/C Ratio	0.016	-	-	-	0.025
HCM Control Delay (s)	7.8	0	-	-	10.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

HCM 6th AWSC  
3: Oakwood Avenue & Deerpath Road

10/06/2021

Intersection

Intersection Delay, s/veh 9.7  
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	21	180	15	17	153	14	17	46	22	16	38	54
Future Vol, veh/h	21	180	15	17	153	14	17	46	22	16	38	54
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	0	7	7	0	6	0	0	2	0	13	0	0
Mvmt Flow	25	214	18	20	182	17	20	55	26	19	45	64
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	10.2			9.8			9.3			9.3		
HCM LOS	B			A			A			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	10%	9%	15%
Vol Thru, %	54%	83%	83%	35%
Vol Right, %	26%	7%	8%	50%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	86	216	184	108
LT Vol	17	21	17	16
Through Vol	46	180	153	38
RT Vol	22	15	14	54
Lane Flow Rate	101	257	219	129
Geometry Grp	1	1	1	1
Degree of Util (X)	0.143	0.337	0.29	0.182
Departure Headway (Hd)	5.081	4.723	4.763	5.103
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	699	756	749	697
Service Time	3.163	2.786	2.828	3.183
HCM Lane V/C Ratio	0.144	0.34	0.292	0.185
HCM Control Delay	9	10.2	9.8	9.3
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.5	1.5	1.2	0.7

HCM 6th AWSC  
4: Bank Lane & Illinois Road

10/06/2021

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	81	4	2	53	20	3	2	4	11	3	5
Future Vol, veh/h	12	81	4	2	53	20	3	2	4	11	3	5
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	4	3	0	0	0	0	33	0	0	0	33	20
Mvmt Flow	16	111	5	3	73	27	4	3	5	15	4	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	7.5	7.9	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	33%	12%	3%	58%
Vol Thru, %	22%	84%	71%	16%
Vol Right, %	44%	4%	27%	26%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	9	97	75	19
LT Vol	3	12	2	11
Through Vol	2	81	53	3
RT Vol	4	4	20	5
Lane Flow Rate	12	133	103	26
Geometry Grp	1	1	1	1
Degree of Util (X)	0.016	0.152	0.112	0.032
Departure Headway (Hd)	4.798	4.112	3.912	4.379
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	750	868	909	822
Service Time	2.799	2.157	1.968	2.379
HCM Lane V/C Ratio	0.016	0.153	0.113	0.032
HCM Control Delay	7.9	7.9	7.5	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.5	0.4	0.1

Intersection

Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	45	70	3	4	35	22	1	17	4	23	16	19
Future Vol, veh/h	45	70	3	4	35	22	1	17	4	23	16	19
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	0	0	0	0	9	100	0	0	4	0	5
Mvmt Flow	50	78	3	4	39	24	1	19	4	26	18	21
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	8			7.4			9.3			7.7		
HCM LOS	A			A			A			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	38%	7%	40%
Vol Thru, %	77%	59%	57%	28%
Vol Right, %	18%	3%	36%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	118	61	58
LT Vol	1	45	4	23
Through Vol	17	70	35	16
RT Vol	4	3	22	19
Lane Flow Rate	24	131	68	64
Geometry Grp	1	1	1	1
Degree of Util (X)	0.041	0.152	0.076	0.077
Departure Headway (Hd)	6.013	4.167	4.054	4.323
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	598	847	888	833
Service Time	4.019	2.258	2.06	2.328
HCM Lane V/C Ratio	0.04	0.155	0.077	0.077
HCM Control Delay	9.3	8	7.4	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.5	0.2	0.2

Capacity Analysis Summary Reports  
Weekday Evening Peak Hour – Existing Conditions

HCM 6th TWSC  
1: Bank Lane & Deerpath Road

10/06/2021

Intersection															
Int Delay, s/veh	0.9														
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
Lane Configurations		↔			↔			↔							
Traffic Vol, veh/h	12	179	25	14	233	29	7	4	12	0	0	0			
Future Vol, veh/h	12	179	25	14	233	29	7	4	12	0	0	0			
Conflicting Peds, #/hr	10	0	18	18	0	10	11	0	27	27	0	11			
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop			
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None			
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-			
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-			
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-			
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86			
Heavy Vehicles, %	0	2	5	0	5	0	0	0	8	0	0	0			
Mvmt Flow	14	208	29	16	271	34	8	5	14	0	0	0			
Major/Minor	Major1	Major2			Minor1										
Conflicting Flow All	315	0	0	255	0	0	600	618	268						
Stage 1	-	-	-	-	-	-	269	269	-						
Stage 2	-	-	-	-	-	-	331	347	-						
Critical Hdwy	4.1	-	-	4.1	-	-	6.4	6.5	6.28						
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-						
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-						
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.372						
Pot Cap-1 Maneuver	1257	-	-	1322	-	-	467	409	756						
Stage 1	-	-	-	-	-	-	781	690	-						
Stage 2	-	-	-	-	-	-	732	638	-						
Platoon blocked, %	-	-	-	-	-	-	-	-	-						
Mov Cap-1 Maneuver	1257	-	-	1299	-	-	442	0	724						
Mov Cap-2 Maneuver	-	-	-	-	-	-	442	0	-						
Stage 1	-	-	-	-	-	-	758	0	-						
Stage 2	-	-	-	-	-	-	714	0	-						
Approach	EB	WB			NB										
HCM Control Delay, s	0.4	0.4			11.4										
HCM LOS		B			B										
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR								
Capacity (veh/h)	586	1257	-	-	1299	-	-								
HCM Lane V/C Ratio	0.046	0.011	-	-	0.013	-	-								
HCM Control Delay (s)	11.4	7.9	0	-	7.8	0	-								
HCM Lane LOS	B	A	A	-	A	A	-								
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-								

HCM 6th TWSC  
2: Deerpath Road & Forest Avenue

10/06/2021

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↔		↕	
Traffic Vol, veh/h	26	202	227	13	14	34
Future Vol, veh/h	26	202	227	13	14	34
Conflicting Peds, #/hr	10	0	0	10	10	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	4	2	4	0	7	0
Mvmt Flow	29	227	255	15	16	38
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	280	0	-	0	568	273
Stage 1	-	-	-	-	273	-
Stage 2	-	-	-	-	295	-
Critical Hdwy	4.14	-	-	-	6.47	6.2
Critical Hdwy Stg 1	-	-	-	-	5.47	-
Critical Hdwy Stg 2	-	-	-	-	5.47	-
Follow-up Hdwy	2.236	-	-	-	3.563	3.3
Pot Cap-1 Maneuver	1271	-	-	-	476	771
Stage 1	-	-	-	-	762	-
Stage 2	-	-	-	-	744	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1259	-	-	-	455	764
Mov Cap-2 Maneuver	-	-	-	-	455	-
Stage 1	-	-	-	-	735	-
Stage 2	-	-	-	-	737	-
Approach	EB	WB	SB			
HCM Control Delay, s	0.9	0	11.2			
HCM LOS			B			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1259	-	-	-	638	
HCM Lane V/C Ratio	0.023	-	-	-	0.085	
HCM Control Delay (s)	7.9	0	-	-	11.2	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3	

HCM 6th AWSC  
3: Oakwood Avenue & Deerpath Road

10/06/2021

Intersection

Intersection Delay, s/veh 10.9  
Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	20	174	14	35	209	17	24	41	34	20	49	91
Future Vol, veh/h	20	174	14	35	209	17	24	41	34	20	49	91
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	5	4	0	0	4	0	0	0	3	5	2	2
Mvmt Flow	23	200	16	40	240	20	28	47	39	23	56	105
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11	11.8	9.6	10.2
HCM LOS	B	B	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	24%	10%	13%	12%
Vol Thru, %	41%	84%	80%	31%
Vol Right, %	34%	7%	7%	57%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	99	208	261	160
LT Vol	24	20	35	20
Through Vol	41	174	209	49
RT Vol	34	14	17	91
Lane Flow Rate	114	239	300	184
Geometry Grp	1	1	1	1
Degree of Util (X)	0.173	0.347	0.422	0.269
Departure Headway (Hd)	5.458	5.218	5.062	5.26
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	657	689	711	682
Service Time	3.498	3.25	3.093	3.298
HCM Lane V/C Ratio	0.174	0.347	0.422	0.27
HCM Control Delay	9.6	11	11.8	10.2
HCM Lane LOS	A	B	B	B
HCM 95th-tile Q	0.6	1.6	2.1	1.1

HCM 6th AWSC  
4: Bank Lane & Illinois Road

10/06/2021

Intersection

Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	46	11	1	66	15	10	3	13	18	3	13
Future Vol, veh/h	15	46	11	1	66	15	10	3	13	18	3	13
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	0	0	9	0	2	0	0	0	23	0	33	0
Mvmt Flow	19	57	14	1	81	19	12	4	16	22	4	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.6	7.3	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	38%	21%	1%	53%
Vol Thru, %	12%	64%	80%	9%
Vol Right, %	50%	15%	18%	38%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	26	72	82	34
LT Vol	10	15	1	18
Through Vol	3	46	66	3
RT Vol	13	11	15	13
Lane Flow Rate	32	89	101	42
Geometry Grp	1	1	1	1
Degree of Util (X)	0.036	0.1	0.112	0.048
Departure Headway (Hd)	4.036	4.056	3.989	4.129
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	872	877	892	854
Service Time	2.129	2.111	2.043	2.217
HCM Lane V/C Ratio	0.037	0.101	0.113	0.049
HCM Control Delay	7.3	7.6	7.6	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.3	0.4	0.2

HCM 6th AWSC  
5: Oakwood Avenue & Illinois Road

10/06/2021

Intersection

Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	33	45	2	4	61	24	1	10	3	24	39	30
Future Vol, veh/h	33	45	2	4	61	24	1	10	3	24	39	30
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	1.00
Heavy Vehicles, %	0	0	0	0	0	4	0	0	0	4	0	0
Mvmt Flow	36	49	2	4	67	26	1	11	3	26	43	30
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.8	7.6	7.4	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	41%	4%	26%
Vol Thru, %	71%	56%	69%	42%
Vol Right, %	21%	3%	27%	32%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	14	80	89	93
LT Vol	1	33	4	24
Through Vol	10	45	61	39
RT Vol	3	2	24	30
Lane Flow Rate	15	88	98	99
Geometry Grp	1	1	1	1
Degree of Util (X)	0.018	0.104	0.109	0.115
Departure Headway (Hd)	4.302	4.243	4.014	4.157
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	837	834	879	848
Service Time	2.302	2.324	2.099	2.252
HCM Lane V/C Ratio	0.018	0.106	0.111	0.117
HCM Control Delay	7.4	7.8	7.6	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.3	0.4	0.4

Capacity Analysis Summary Reports  
Weekday Morning Peak Hour – Projected Condition

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+				
Traffic Vol, veh/h	8	172	53	24	181	10	22	11	17	0	0	0
Future Vol, veh/h	8	172	53	24	181	10	22	11	17	0	0	0
Conflicting Peds, #/hr	12	0	10	10	0	12	12	0	13	13	0	12
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	9	9	10	7	0	0	25	0	0	0	0
Mvmt Flow	10	207	64	29	218	12	27	13	20	0	0	0
Major/Minor	Major1			Major2			Minor1					
Conflicting Flow All	242	0	0	281	0	0	563	569	262			
Stage 1	-	-	-	-	-	-	269	269	-			
Stage 2	-	-	-	-	-	-	294	300	-			
Critical Hdwy	4.1	-	-	4.2	-	-	6.4	6.75	6.2			
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.75	-			
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.75	-			
Follow-up Hdwy	2.2	-	-	2.29	-	-	3.5	4.225	3.3			
Pot Cap-1 Maneuver	1336	-	-	1237	-	-	491	402	782			
Stage 1	-	-	-	-	-	-	781	647	-			
Stage 2	-	-	-	-	-	-	761	626	-			
Platoon blocked, %	-	-	-	-	-	-	-	-	-			
Mov Cap-1 Maneuver	1336	-	-	1225	-	-	464	0	765			
Mov Cap-2 Maneuver	-	-	-	-	-	-	464	0	-			
Stage 1	-	-	-	-	-	-	766	0	-			
Stage 2	-	-	-	-	-	-	732	0	-			
Approach	EB			WB			NB					
HCM Control Delay, s	0.3			0.9			12.2					
HCM LOS							B					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR					
Capacity (veh/h)	560	1336	-	-	1225	-	-					
HCM Lane V/C Ratio	0.108	0.007	-	-	0.024	-	-					
HCM Control Delay (s)	12.2	7.7	0	-	8	0	-					
HCM Lane LOS	B	A	A	-	A	A	-					
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-					

HCM 6th TWSC  
2: Deerpath Road & Forest Avenue

10/06/2021

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	18	230	188	13	4	12
Future Vol, veh/h	18	230	188	13	4	12
Conflicting Peds, #/hr	12	0	0	12	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	6	8	6	8	0	0
Mvmt Flow	21	274	224	15	5	14

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	251	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.16	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.254	-	-
Pot Cap-1 Maneuver	1291	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1276	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1276	-	-	-	677
HCM Lane V/C Ratio	0.017	-	-	-	0.028
HCM Control Delay (s)	7.9	0	-	-	10.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

HCM 6th AWSC  
3: Oakwood Avenue & Deerpath Road

10/06/2021

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	21	201	15	17	170	14	17	47	22	25	38	55
Future Vol, veh/h	21	201	15	17	170	14	17	47	22	25	38	55
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	0	7	7	0	6	0	0	2	0	13	0	0
Mvmt Flow	25	239	18	20	202	17	20	56	26	30	45	65
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	10.8			10.3			9.3			9.8		
HCM LOS	B			B			A			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	9%	8%	21%
Vol Thru, %	55%	85%	85%	32%
Vol Right, %	26%	6%	7%	47%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	86	237	201	148
LT Vol	17	21	17	25
Through Vol	47	201	170	38
RT Vol	22	15	14	55
Lane Flow Rate	102	282	239	140
Geometry Grp	1	1	1	1
Degree of Util (X)	0.151	0.376	0.322	0.209
Departure Headway (Hd)	5.326	4.8	4.846	5.357
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	677	739	732	674
Service Time	3.331	2.892	2.942	3.357
HCM Lane V/C Ratio	0.151	0.382	0.327	0.208
HCM Control Delay	9.3	10.8	10.3	9.8
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0.5	1.8	1.4	0.8

HCM 6th AWSC  
4: Bank Lane & Illinois Road

10/06/2021

Intersection

Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	83	4	2	54	25	3	6	4	15	6	5
Future Vol, veh/h	12	83	4	2	54	25	3	6	4	15	6	5
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	4	3	0	0	0	0	33	0	0	0	33	20
Mvmt Flow	16	114	5	3	74	34	4	8	5	21	8	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	7.5	8	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	12%	2%	58%
Vol Thru, %	46%	84%	67%	23%
Vol Right, %	31%	4%	31%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	13	99	81	26
LT Vol	3	12	2	15
Through Vol	6	83	54	6
RT Vol	4	4	25	5
Lane Flow Rate	18	136	111	36
Geometry Grp	1	1	1	1
Degree of Util (X)	0.024	0.156	0.121	0.044
Departure Headway (Hd)	4.896	4.146	3.916	4.453
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	735	858	904	809
Service Time	2.897	2.205	1.986	2.453
HCM Lane V/C Ratio	0.024	0.159	0.123	0.044
HCM Control Delay	8	8	7.5	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.6	0.4	0.1

HCM 6th AWSC  
5: Oakwood Avenue & Illinois Road

10/06/2021

Intersection

Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	46	71	3	4	36	22	1	17	4	23	16	19
Future Vol, veh/h	46	71	3	4	36	22	1	17	4	23	16	19
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	0	0	0	0	9	100	0	0	4	0	5
Mvmt Flow	51	79	3	4	40	24	1	19	4	26	18	21
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	7.4	9.3	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	38%	6%	40%
Vol Thru, %	77%	59%	58%	28%
Vol Right, %	18%	3%	35%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	120	62	58
LT Vol	1	46	4	23
Through Vol	17	71	36	16
RT Vol	4	3	22	19
Lane Flow Rate	24	133	69	64
Geometry Grp	1	1	1	1
Degree of Util (X)	0.041	0.154	0.078	0.078
Departure Headway (Hd)	6.022	4.169	4.061	4.331
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	598	847	886	831
Service Time	4.028	2.262	2.067	2.336
HCM Lane V/C Ratio	0.04	0.157	0.078	0.077
HCM Control Delay	9.3	8	7.4	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.5	0.3	0.3

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	32	7	9	18	38	39
Future Vol, veh/h	32	7	9	18	38	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	2	2	0
Mvmt Flow	34	7	9	19	40	41
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	98	61	81	0	0	
Stage 1	61	-	-	-	-	
Stage 2	37	-	-	-	-	
Critical Hdwy	6.4	6.2	4.1	-	-	
Critical Hdwy Stg 1	5.4	-	-	-	-	
Critical Hdwy Stg 2	5.4	-	-	-	-	
Follow-up Hdwy	3.5	3.3	2.2	-	-	
Pot Cap-1 Maneuver	906	1010	1529	-	-	
Stage 1	967	-	-	-	-	
Stage 2	991	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	
Mov Cap-1 Maneuver	901	1010	1529	-	-	
Mov Cap-2 Maneuver	901	-	-	-	-	
Stage 1	961	-	-	-	-	
Stage 2	991	-	-	-	-	
Approach	EB	NB		SB		
HCM Control Delay, s	9.1	2.5		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1529	-	919	-	-	
HCM Lane V/C Ratio	0.006	-	0.045	-	-	
HCM Control Delay (s)	7.4	0	9.1	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

Capacity Analysis Summary Reports  
Weekday Evening Peak Hour – Projected Conditions

HCM 6th TWSC  
1: Bank Lane & Deerpath Road

10/06/2021

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕				
Traffic Vol, veh/h	12	183	57	28	238	29	31	18	19	0	0	0
Future Vol, veh/h	12	183	57	28	238	29	31	18	19	0	0	0
Conflicting Peds, #/hr	11	0	20	20	0	11	12	0	30	30	0	12
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	2	5	0	5	0	0	0	8	0	0	0
Mvmt Flow	14	213	66	33	277	34	36	21	22	0	0	0
Major/Minor	Major1			Major2			Minor1					
Conflicting Flow All	322	0	0	299	0	0	666	682	296			
Stage 1	-	-	-	-	-	-	294	294	-			
Stage 2	-	-	-	-	-	-	372	388	-			
Critical Hdwy	4.1	-	-	4.1	-	-	6.4	6.5	6.28			
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-			
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-			
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.372			
Pot Cap-1 Maneuver	1249	-	-	1274	-	-	428	375	729			
Stage 1	-	-	-	-	-	-	761	673	-			
Stage 2	-	-	-	-	-	-	702	612	-			
Platoon blocked, %	-	-	-	-	-	-	-	-	-			
Mov Cap-1 Maneuver	1249	-	-	1250	-	-	397	0	695			
Mov Cap-2 Maneuver	-	-	-	-	-	-	397	0	-			
Stage 1	-	-	-	-	-	-	737	0	-			
Stage 2	-	-	-	-	-	-	672	0	-			
Approach	EB			WB			NB					
HCM Control Delay, s	0.4			0.8			14.1					
HCM LOS	B			A			B					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR					
Capacity (veh/h)	474	1249	-	-	1250	-	-					
HCM Lane V/C Ratio	0.167	0.011	-	-	0.026	-	-					
HCM Control Delay (s)	14.1	7.9	0	-	8	0	-					
HCM Lane LOS	B	A	A	-	A	A	-					
HCM 95th %tile Q(veh)	0.6	0	-	-	0.1	-	-					

HCM 6th TWSC  
2: Deerpath Road & Forest Avenue

10/06/2021

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↖	↗
Traffic Vol, veh/h	26	237	256	13	15	35
Future Vol, veh/h	26	237	256	13	15	35
Conflicting Peds, #/hr	11	0	0	11	11	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	4	2	4	0	7	0
Mvmt Flow	29	266	288	15	17	39
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	314	0	-	0	642	307
Stage 1	-	-	-	-	307	-
Stage 2	-	-	-	-	335	-
Critical Hdwy	4.14	-	-	-	6.47	6.2
Critical Hdwy Stg 1	-	-	-	-	5.47	-
Critical Hdwy Stg 2	-	-	-	-	5.47	-
Follow-up Hdwy	2.236	-	-	-	3.563	3.3
Pot Cap-1 Maneuver	1235	-	-	-	431	738
Stage 1	-	-	-	-	735	-
Stage 2	-	-	-	-	714	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1222	-	-	-	411	730
Mov Cap-2 Maneuver	-	-	-	-	411	-
Stage 1	-	-	-	-	707	-
Stage 2	-	-	-	-	707	-
Approach	EB	WB	SB			
HCM Control Delay, s	0.8	0	11.7			
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1222	-	-	-	592	
HCM Lane V/C Ratio	0.024	-	-	-	0.095	
HCM Control Delay (s)	8	0	-	-	11.7	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3	

HCM 6th AWSC  
 3: Oakwood Avenue & Deerpath Road

10/06/2021

Intersection	
Intersection Delay, s/veh	11.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	20	197	14	36	239	17	24	42	34	31	50	93
Future Vol, veh/h	20	197	14	36	239	17	24	42	34	31	50	93
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	5	4	0	0	4	0	0	0	3	5	2	2
Mvmt Flow	23	226	16	41	275	20	28	48	39	36	57	107
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.9	13.1	10	11
HCM LOS	B	B	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	24%	9%	12%	18%
Vol Thru, %	42%	85%	82%	29%
Vol Right, %	34%	6%	6%	53%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	100	231	292	174
LT Vol	24	20	36	31
Through Vol	42	197	239	50
RT Vol	34	14	17	93
Lane Flow Rate	115	266	336	200
Geometry Grp	1	1	1	1
Degree of Util (X)	0.182	0.396	0.485	0.305
Departure Headway (Hd)	5.707	5.374	5.203	5.497
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	626	669	691	652
Service Time	3.763	3.416	3.241	3.546
HCM Lane V/C Ratio	0.184	0.398	0.486	0.307
HCM Control Delay	10	11.9	13.1	11
HCM Lane LOS	A	B	B	B
HCM 95th-tile Q	0.7	1.9	2.7	1.3

HCM 6th AWSC  
4: Bank Lane & Illinois Road

10/06/2021

Intersection

Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	47	11	1	67	21	10	9	13	25	9	13
Future Vol, veh/h	15	47	11	1	67	21	10	9	13	25	9	13
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	0	0	9	0	2	0	0	0	23	0	33	0
Mvmt Flow	19	58	14	1	83	26	12	11	16	31	11	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.7	7.6	7.4	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	31%	21%	1%	53%
Vol Thru, %	28%	64%	75%	19%
Vol Right, %	41%	15%	24%	28%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	32	73	89	47
LT Vol	10	15	1	25
Through Vol	9	47	67	9
RT Vol	13	11	21	13
Lane Flow Rate	40	90	110	58
Geometry Grp	1	1	1	1
Degree of Util (X)	0.046	0.103	0.122	0.068
Departure Headway (Hd)	4.214	4.105	3.999	4.216
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	855	862	886	835
Service Time	2.214	2.18	2.073	2.316
HCM Lane V/C Ratio	0.047	0.104	0.124	0.069
HCM Control Delay	7.4	7.7	7.6	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.3	0.4	0.2

HCM 6th AWSC  
5: Oakwood Avenue & Illinois Road

10/06/2021

Intersection

Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	2	4	↕	24	1	↕	3	24	↕	31
Traffic Vol, veh/h	34	46	2	4	62	24	1	10	3	24	40	31
Future Vol, veh/h	34	46	2	4	62	24	1	10	3	24	40	31
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	1.00
Heavy Vehicles, %	0	0	0	0	0	4	0	0	0	4	0	0
Mvmt Flow	37	51	2	4	68	26	1	11	3	26	44	31
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.8	7.6	7.4	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	41%	4%	25%
Vol Thru, %	71%	56%	69%	42%
Vol Right, %	21%	2%	27%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	14	82	90	95
LT Vol	1	34	4	24
Through Vol	10	46	62	40
RT Vol	3	2	24	31
Lane Flow Rate	15	90	99	101
Geometry Grp	1	1	1	1
Degree of Util (X)	0.018	0.106	0.11	0.117
Departure Headway (Hd)	4.31	4.249	4.022	4.16
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	836	833	878	847
Service Time	2.31	2.33	2.106	2.255
HCM Lane V/C Ratio	0.018	0.108	0.113	0.119
HCM Control Delay	7.4	7.8	7.6	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.4	0.4	0.4

Intersection						
Int Delay, s/veh	4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	55	13	12	13	39	46
Future Vol, veh/h	55	13	12	13	39	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	2	2	0
Mvmt Flow	58	14	13	14	41	48
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	105	65	89	0	0	
Stage 1	65	-	-	-	-	
Stage 2	40	-	-	-	-	
Critical Hdwy	6.4	6.2	4.1	-	-	
Critical Hdwy Stg 1	5.4	-	-	-	-	
Critical Hdwy Stg 2	5.4	-	-	-	-	
Follow-up Hdwy	3.5	3.3	2.2	-	-	
Pot Cap-1 Maneuver	898	1005	1519	-	-	
Stage 1	963	-	-	-	-	
Stage 2	988	-	-	-	-	
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	890	1005	1519	-	-	
Mov Cap-2 Maneuver	890	-	-	-	-	
Stage 1	954	-	-	-	-	
Stage 2	988	-	-	-	-	
Approach	EB	NB		SB		
HCM Control Delay, s	9.3	3.5		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1519	-	910	-	-	
HCM Lane V/C Ratio	0.008	-	0.079	-	-	
HCM Control Delay (s)	7.4	0	9.3	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.3	-	-	

**Capacity Analysis Summary Reports**  
**Weekday Morning Peak Hour – Projected Condition**  
**One-Way Conversion of Bank Lane**

HCM 6th TWSC  
1: Bank Lane & Deerpath Road

10/06/2021

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↑				
Traffic Vol, veh/h	8	172	53	29	181	10	0	0	0	0	0	0
Future Vol, veh/h	8	172	53	29	181	10	0	0	0	0	0	0
Conflicting Peds, #/hr	12	0	10	10	0	12	12	0	13	13	0	12
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	9	9	10	7	0	0	25	0	0	0	0
Mvmt Flow	10	207	64	35	218	12	0	0	0	0	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	242	0	0	281	0	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.2	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.29	-	-
Pot Cap-1 Maneuver	1336	-	-	1237	-	0
Stage 1	-	-	-	-	-	0
Stage 2	-	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1336	-	-	1225	-	0
Mov Cap-2 Maneuver	-	-	-	-	-	0
Stage 1	-	-	-	-	-	0
Stage 2	-	-	-	-	-	0

Approach	EB	WB	NB
HCM Control Delay, s	0.3	1.1	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	-	1336	-	-	1225	-	-
HCM Lane V/C Ratio	-	0.007	-	-	0.029	-	-
HCM Control Delay (s)	0	7.7	0	-	8	0	-
HCM Lane LOS	A	A	A	-	A	A	-
HCM 95th %tile Q(veh)	-	0	-	-	0.1	-	-

HCM 6th TWSC  
2: Deerpath Road & Forest Avenue

10/06/2021

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	18	230	166	13	4	12
Future Vol, veh/h	18	230	166	13	4	12
Conflicting Peds. #/hr	12	0	0	12	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	6	8	6	8	0	0
Mvmt Flow	21	274	198	15	5	14

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	225	0	0
Stage 1	-	-	218
Stage 2	-	-	317
Critical Hdwy	4.16	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.254	-	3.5
Pot Cap-1 Maneuver	1320	-	510
Stage 1	-	-	823
Stage 2	-	-	743
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1305	-	490
Mov Cap-2 Maneuver	-	-	490
Stage 1	-	-	798
Stage 2	-	-	735

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1305	-	-	-	701
HCM Lane V/C Ratio	0.016	-	-	-	0.027
HCM Control Delay (s)	7.8	0	-	-	10.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

HCM 6th AWSC  
3: Oakwood Avenue & Deerpath Road

10/06/2021

<b>Intersection</b>	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	21	201	15	17	148	14	39	58	22	25	38	55
Future Vol, veh/h	21	201	15	17	148	14	39	58	22	25	38	55
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	0	7	7	0	6	0	0	2	0	13	0	0
Mvmt Flow	25	239	18	20	176	17	46	69	26	30	45	65
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
<b>Approach</b>	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	11.2			10.2			9.8			9.9		
HCM LOS	B			B			A			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	33%	9%	9%	21%
Vol Thru, %	49%	85%	83%	32%
Vol Right, %	18%	6%	8%	47%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	119	237	179	118
LT Vol	39	21	17	25
Through Vol	58	201	148	38
RT Vol	22	15	14	55
Lane Flow Rate	142	282	213	140
Geometry Grp	1	1	1	1
Degree of Util (X)	0.211	0.391	0.3	0.21
Departure Headway (Hd)	5.354	4.984	5.071	5.384
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	670	725	712	666
Service Time	3.389	2.992	3.08	3.42
HCM Lane V/C Ratio	0.212	0.389	0.299	0.21
HCM Control Delay	9.8	11.2	10.2	9.9
HCM Lane LOS	A	B	B	A
HCM 95th-ile Q	0.8	1.9	1.3	0.8

HCM 6th AWSC  
4: Bank Lane & Illinois Road

10/06/2021

Intersection

Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	95	4	2	54	0	3	0	10	32	6	38
Future Vol, veh/h	0	95	4	2	54	0	3	0	10	32	6	38
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	4	3	0	0	0	0	33	0	0	0	33	20
Mvmt Flow	0	130	5	3	74	0	4	0	14	44	8	52
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.1	7.8	7.8	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	0%	4%	42%
Vol Thru, %	0%	96%	96%	8%
Vol Right, %	77%	4%	0%	50%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	13	99	56	76
LT Vol	3	0	2	32
Through Vol	0	95	54	6
RT Vol	10	4	0	38
Lane Flow Rate	18	136	77	104
Geometry Grp	1	1	1	1
Degree of Util (X)	0.023	0.158	0.092	0.121
Departure Headway (Hd)	4.634	4.199	4.329	4.18
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	776	841	833	862
Service Time	2.642	2.29	2.329	2.185
HCM Lane V/C Ratio	0.023	0.162	0.092	0.121
HCM Control Delay	7.8	8.1	7.8	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.6	0.3	0.4

HCM 6th AWSC  
5: Oakwood Avenue & Illinois Road

10/06/2021

Intersection

Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	46	71	3	4	36	55	1	17	4	23	16	19
Future Vol, veh/h	46	71	3	4	36	55	1	17	4	23	16	19
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	0	0	0	0	9	100	0	0	4	0	5
Mvmt Flow	51	79	3	4	40	61	1	19	4	26	18	21
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.1	7.4	9.4	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	38%	4%	40%
Vol Thru, %	77%	59%	38%	28%
Vol Right, %	18%	3%	58%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	120	95	58
LT Vol	1	46	4	23
Through Vol	17	71	36	16
RT Vol	4	3	55	19
Lane Flow Rate	24	133	106	64
Geometry Grp	1	1	1	1
Degree of Util (X)	0.041	0.155	0.115	0.079
Departure Headway (Hd)	6.094	4.197	3.926	4.401
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	590	840	917	818
Service Time	4.102	2.297	1.93	2.407
HCM Lane V/C Ratio	0.041	0.158	0.116	0.078
HCM Control Delay	9.4	8.1	7.4	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.5	0.4	0.3

Intersection						
Int Delay, s/veh	2.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W				T	
Traffic Vol, veh/h	0	39	0	0	34	48
Future Vol, veh/h	0	39	0	0	34	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	2	2	0
Mvmt Flow	0	41	0	0	36	51
Major/Minor	Minor2		Major2			
Conflicting Flow All	62	62	-	-	-	0
Stage 1	62	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	949	1009	-	-	-	-
Stage 1	966	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	949	1009	-	-	-	-
Mov Cap-2 Maneuver	949	-	-	-	-	-
Stage 1	966	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	8.7		0			
HCM LOS	A					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	1009	-	-			
HCM Lane V/C Ratio	0.041	-	-			
HCM Control Delay (s)	8.7	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Capacity Analysis Summary Reports  
Weekday Evening Peak Hour – Projected Conditions  
One-Way Conversion of Bank Lane

HCM 6th TWSC  
1: Bank Lane & Deerpath Road

10/06/2021

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↑				
Traffic Vol, veh/h	12	183	57	34	238	29	0	0	0	0	0	0
Future Vol, veh/h	12	183	57	34	238	29	0	0	0	0	0	0
Conflicting Peds, #/hr	11	0	20	20	0	11	12	0	30	30	0	12
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	2	5	0	5	0	0	0	8	0	0	0
Mvmt Flow	14	213	66	40	277	34	0	0	0	0	0	0
Major/Minor	Major1	Major2			Minor1							
Conflicting Flow All	322	0	0	299	0	0	-	696	-	-	-	-
Stage 1	-	-	-	-	-	-	-	294	-	-	-	-
Stage 2	-	-	-	-	-	-	-	402	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	6.5	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	5.5	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	4	-	-	-	-
Pot Cap-1 Maneuver	1249	-	-	1274	-	-	0	368	0	-	-	-
Stage 1	-	-	-	-	-	-	0	673	0	-	-	-
Stage 2	-	-	-	-	-	-	0	604	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1249	-	-	1250	-	-	-	0	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	-	-
Stage 1	-	-	-	-	-	-	-	0	-	-	-	-
Stage 2	-	-	-	-	-	-	-	0	-	-	-	-
Approach	EB	WB			NB							
HCM Control Delay, s	0.4	0.9			0							
HCM LOS				A								
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR					
Capacity (veh/h)	-	1249	-	-	1250	-	-					
HCM Lane V/C Ratio	-	0.011	-	-	0.032	-	-					
HCM Control Delay (s)	0	7.9	0	-	8	0	-					
HCM Lane LOS	A	A	A	-	A	A	-					
HCM 95th %tile Q(veh)	-	0	-	-	0.1	-	-					

HCM 6th TWSC  
 2: Deerpath Road & Forest Avenue

10/06/2021

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↖	↗
Traffic Vol, veh/h	26	237	225	13	15	35
Future Vol, veh/h	26	237	225	13	15	35
Conflicting Peds, #/hr	11	0	0	11	11	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	4	2	4	0	7	0
Mvmt Flow	29	266	253	15	17	39
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	279	0	0	607	272	
Stage 1	-	-	-	272	-	
Stage 2	-	-	-	335	-	
Critical Hdwy	4.14	-	-	6.47	6.2	
Critical Hdwy Stg 1	-	-	-	5.47	-	
Critical Hdwy Stg 2	-	-	-	5.47	-	
Follow-up Hdwy	2.236	-	-	3.563	3.3	
Pot Cap-1 Maneuver	1272	-	-	451	772	
Stage 1	-	-	-	762	-	
Stage 2	-	-	-	714	-	
Platoon blocked, %	-	-	-	-	-	
Mov Cap-1 Maneuver	1259	-	-	430	764	
Mov Cap-2 Maneuver	-	-	-	430	-	
Stage 1	-	-	-	734	-	
Stage 2	-	-	-	707	-	
Approach	EB	WB	SB			
HCM Control Delay, s	0.8	0	11.4			
HCM LOS			B			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1259	-	-	-	620	
HCM Lane V/C Ratio	0.023	-	-	-	0.091	
HCM Control Delay (s)	7.9	0	-	-	11.4	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3	

HCM 6th AWSC  
 3: Oakwood Avenue & Deerpath Road

10/06/2021

Intersection	
Intersection Delay, s/veh	12
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	20	197	14	36	208	17	55	60	34	31	50	93
Future Vol, veh/h	20	197	14	36	208	17	55	60	34	31	50	93
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	5	4	0	0	4	0	0	0	3	5	2	2
Mvmt Flow	23	226	16	41	239	20	63	69	39	36	57	107
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.4	12.8	11	11.1
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	37%	9%	14%	18%
Vol Thru, %	40%	85%	80%	29%
Vol Right, %	23%	6%	7%	53%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	149	231	261	174
LT Vol	55	20	36	31
Through Vol	60	197	208	50
RT Vol	34	14	17	93
Lane Flow Rate	171	266	300	200
Geometry Grp	1	1	1	1
Degree of Util (X)	0.274	0.407	0.45	0.309
Departure Headway (Hd)	5.752	5.521	5.395	5.567
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	622	651	666	642
Service Time	3.816	3.577	3.448	3.628
HCM Lane V/C Ratio	0.275	0.409	0.45	0.312
HCM Control Delay	11	12.4	12.8	11.1
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.1	2	2.3	1.3

HCM 6th AWSC  
4: Bank Lane & Illinois Road

10/06/2021

Intersection

Intersection Delay, s/veh 7.8  
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	62	11	1	67	0	10	0	22	44	9	62
Future Vol, veh/h	0	62	11	1	67	0	10	0	22	44	9	62
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	0	0	9	0	2	0	0	0	23	0	33	0
Mvmt Flow	0	77	14	1	83	0	12	0	27	54	11	77
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach		EB		WB			NB			SB		
Opposing Approach		WB		EB			SB			NB		
Opposing Lanes		1		1			1			1		
Conflicting Approach Left		SB		NB			EB			WB		
Conflicting Lanes Left		1		1			1			1		
Conflicting Approach Right		NB		SB			WB			EB		
Conflicting Lanes Right		1		1			1			1		
HCM Control Delay		7.8		7.9			7.3			7.9		
HCM LOS		A		A			A			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	31%	0%	1%	38%
Vol Thru, %	0%	85%	99%	8%
Vol Right, %	69%	15%	0%	54%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	32	73	68	115
LT Vol	10	0	1	44
Through Vol	0	62	67	9
RT Vol	22	11	0	62
Lane Flow Rate	40	90	84	142
Geometry Grp	1	1	1	1
Degree of Util (X)	0.045	0.108	0.103	0.161
Departure Headway (Hd)	4.089	4.301	4.399	4.087
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	877	838	819	880
Service Time	2.105	2.304	2.402	2.1
HCM Lane V/C Ratio	0.046	0.107	0.103	0.161
HCM Control Delay	7.3	7.8	7.9	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.4	0.3	0.6

HCM 6th AWSC  
5: Oakwood Avenue & Illinois Road

10/06/2021

Intersection

Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	34	46	2	4	62	73	1	10	3	24	40	31
Future Vol, veh/h	34	46	2	4	62	73	1	10	3	24	40	31
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	1.00
Heavy Vehicles, %	0	0	0	0	0	4	0	0	0	4	0	0
Mvmt Flow	37	51	2	4	68	80	1	11	3	26	44	31
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	7.7	7.5	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	41%	3%	25%
Vol Thru, %	71%	56%	45%	42%
Vol Right, %	21%	2%	53%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	14	82	139	95
LT Vol	1	34	4	24
Through Vol	10	46	62	40
RT Vol	3	2	73	31
Lane Flow Rate	15	90	153	101
Geometry Grp	1	1	1	1
Degree of Util (X)	0.019	0.11	0.164	0.123
Departure Headway (Hd)	4.42	4.392	3.965	4.359
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	813	821	910	826
Service Time	2.429	2.392	1.965	2.365
HCM Lane V/C Ratio	0.018	0.11	0.168	0.122
HCM Control Delay	7.5	7.9	7.7	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.4	0.6	0.4

HCM 6th TWSC  
6: Bank Lane & Access Drive

10/06/2021

Intersection						
Int Delay, s/veh	3.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W				P	
Traffic Vol, veh/h	0	68	0	0	33	58
Future Vol, veh/h	0	68	0	0	33	58
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	2	2	0
Mvmt Flow	0	72	0	0	35	61
Major/Minor	Minor2		Major2			
Conflicting Flow All	66	66	-	-	-	0
Stage 1	66	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	944	1003	-	-	-	-
Stage 1	962	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	944	1003	-	-	-	-
Mov Cap-2 Maneuver	944	-	-	-	-	-
Stage 1	962	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	8.9		0			
HCM LOS	A					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	1003	-	-			
HCM Lane V/C Ratio	0.071	-	-			
HCM Control Delay (s)	8.9	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0.2	-	-			

## **Design Related Background Information**

*This information will be provided to the Historic Preservation Commission  
for consideration and action.*



NORTH EAST CORNER



NORTH WEST CORNER



NORTH ELEVATION



VIEW FROM CITY HALL

PROPOSED BUILDING



DEERPATH LOOKING SOUTH



DEERPATH LOOKING NORTH

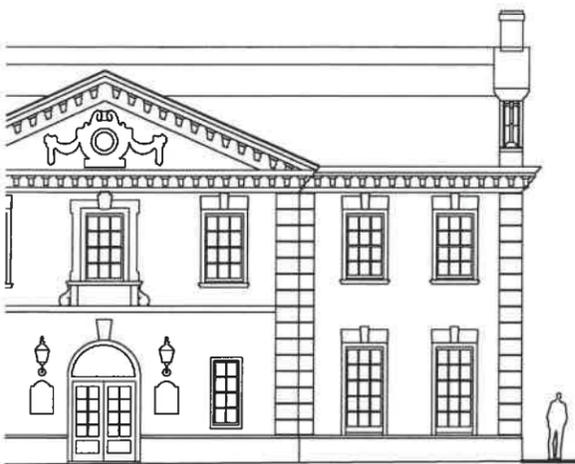
PROPOSED BUILDING



BANK LANE LOOKING WEST



EAST



NORTH

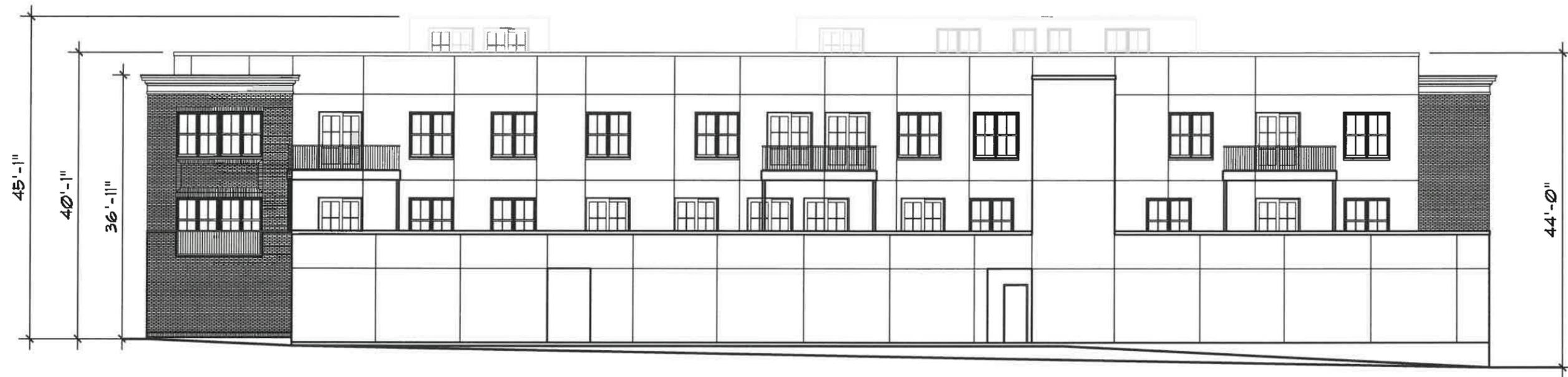




EAST



NORTH



WEST



SOUTH



DEERPETH LOOKING SOUTH



BANK LANE LOOKING WEST

HISTORIC RESOURCE EVALUATION  
The C. T. Gunn Building  
241 East Deerpath, Lake Forest



EXECUTIVE SUMMARY

Although the property located at 241 Deerpath has a long rich history that dates from before the construction of Market Square, which was conceived in 1912 to the north of Deerpath, the building located on the site in its current form dates from 1975. As such, it does not rise to the quality of the fabric of historic buildings that characterizes the business district of Lake Forest. In 1927-28, Stanley Anderson designed the C. T. Gunn Building as a speculative venture for Lake Forest grocer C. T. Gunn. It was an elegant graceful Tudor Revival building, symmetrical, with handsom detailing. Over the years the building underwent numerous changes; the most impactful, took place in the mid-1970s when Midwest Bank took it over and the integrity of the building was severely compromised with additions and alterations to the facades. It remains occupied by the bank, which is now the First Midwest Bank.

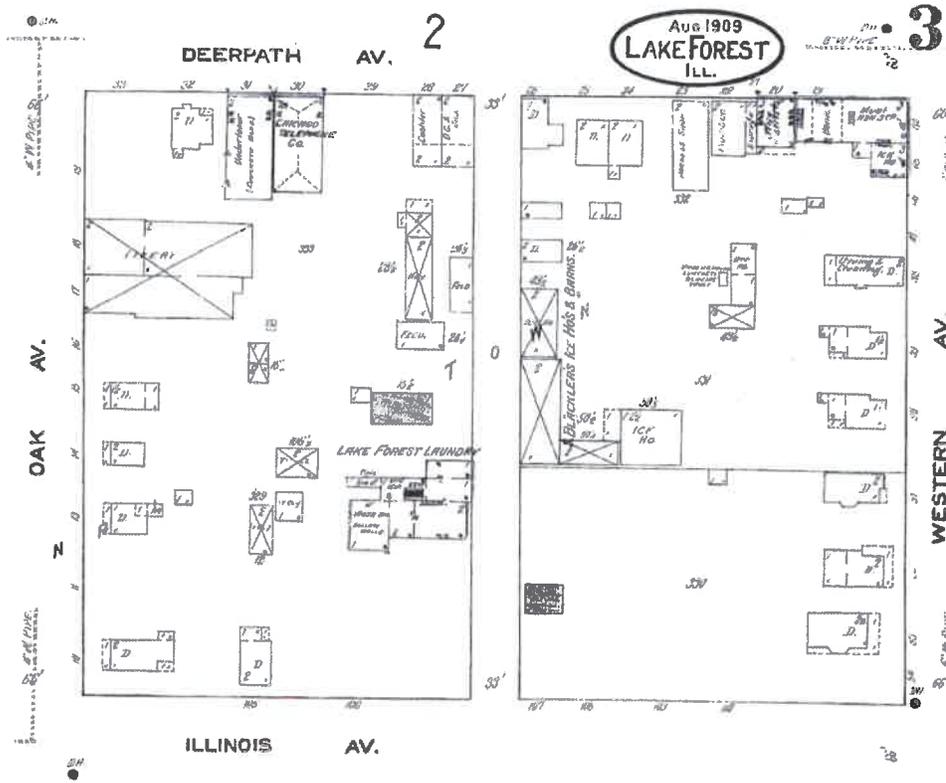
The First Midwest Bank is proposing to demolish the existing building and replace it with one that is compatible in scale, proportion and materials to other historic buildings in the business district. The principals of the Secretary of the Interior's Standards for Rehabilitation will be applied. The new building will be a product of the 21<sup>st</sup> Century, different from, but compatible with, the historic buildings that, like this one, are located in the Lake Forest Historic District.

After investigating the history and significance of the architecture of 241 Deerpath, Benjamin Historic Certifications concludes that, because of its compromised integrity--consisting of incompatible changes to Anderson's original design —demolishing the existing building and replacing it with one that is reflective of this time and compatible with the historic buildings in the Historic District is acceptable.



### HISTORY OF THE PROPERTY

Historically, this area of Lake Forest was part of the city's commercial center. The 1909 Sanborn Fire Insurance Map indicates that the two blocks from Western Avenue west to Oak Avenue and from Deerpath Avenue south to Illinois Avenue contained buildings that housed, among other businesses, a plumber, a dry cleaning establishment, a harness shop, an ice house and a laundry.



1909 Sanborn Map

There were three businesses located at the southwest corner of Deerpath and the street that is now Bank Lane: the J. E. Fitzgerald Plumbing, Heating and Vacuum Company, a cobbler (both in the corner building), a vacant lot, and the one-story Chicago Telephone Company (later the Telephone Exchange Building). A building housing an undertaker was located to the west of the Telephone Company building. The corner commercial building was a two-story wood frame building with residences over the two stores. The Telephone Company Building appears to be brick, the undertaker's building was stone with "WENBEN" carved into the front parapet wall. Later the building and adjacent land to the west housed a service station and Buick dealer. The stone building was remodeled and became Wenban's Funeral Home.

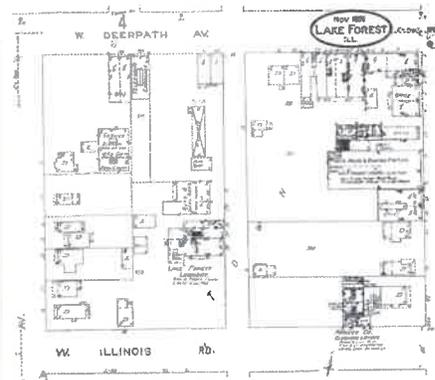


Store building at NE Corner of Deerpath and Bank Lane.  
 Storefront of NE Corner building, 1915  
 Ca. 1900



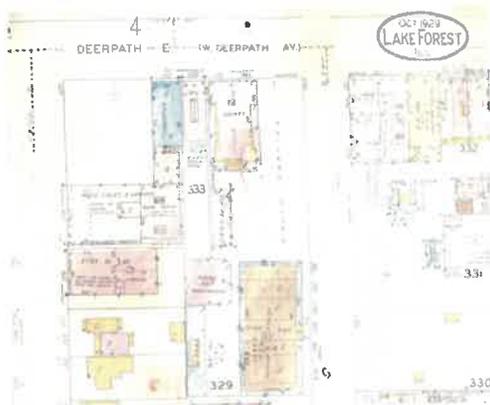
Wenban Building, west of Telephone Building 1903 Telephone Building; Wenban's after remodeling,

ca 1955.

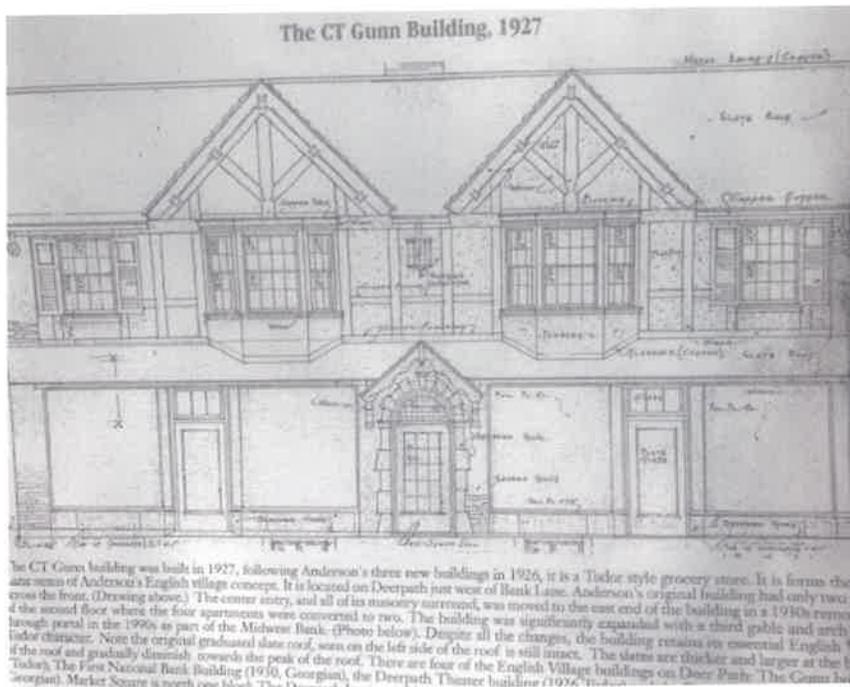


NE Corner of Deerpath and Bank Lane, 1915  
1926 Sanborn Map

Although the land between the building at the corner and the Telephone Exchange Building remained vacant between 1909 and 1926 as evidenced in the 1926 Sanborn (except for a private building and pipe shop located south of the corner building), by October, 1929, a large rectangular building that housed a hardware store that carried paints and had a general warehouse at the rear had been constructed. This building, which had apartments above with open porches along the west, south and east was designed for C. G. Gunn in 1927 by architect Stanley Anderson

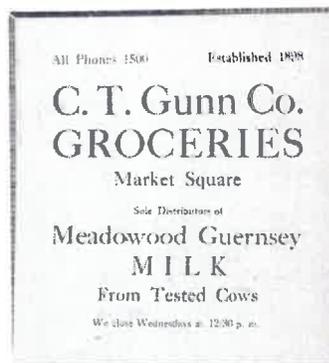


1929 Sanborn Map (updated ???to show removal of corner stores)



## Stanley Anderson drawing of front façade of C. T. Gunn Building, 1927

C. T. Gunn was a long-time Lake Forester. He was a Scottish immigrant who moved in 1889, at age 16 to Lake Forest, where he found a job clerking in James Anderson's store. In 1897, he and S. C. Orr opened a grocery store on Western Avenue. He went off on his own in 1902. When the building where his business was located was torn down to make way for Market Square he moved his grocery store to the south end of the Square, where Starbucks is now located.



Gunn sold his grocery business in 1926 and shortly after retired to Largo Florida. Stanley Anderson designed the building with the address of [241-43-45](#) Deerpath, likely as a real estate investment since Gunn had sold his business the year before. The application for a “house number” indicates that the C. T.

Gunn Stores and Flats were completed by July, 1928. The center entrance, at 243 Deerpath, accessed the second floor apartments. Side doors with the address of 241 and 245, accessed spaces intended for retail.

241  
New Address 241 + 245 E. Deerpath Date July 18 - 1928  
Do not fill in  
**APPLICATION FOR HOUSE NUMBER**  
Owner's Name G. T. Gunn Stores & Flats  
Tenant's Name First Nat Bank Bldg  
Old Address Lake Forest  
Lot 333 Block \_\_\_\_\_ Subdivision \_\_\_\_\_  
Location of House in Lot  
\_\_\_\_\_ feet from \_\_\_\_\_ North or South Lot line to building  
\_\_\_\_\_ feet from \_\_\_\_\_ East or West Lot line to building  
Be sure all information required is accurate.

Application for an address number, Department of Planning and Development, City of Lake Forest  
July 18, 1928

By 1930, the Greater Atlantic & Pacific Tea Company (commonly known as A & P) was operating there. The 1929 Sanborn map shows that just before, the building was used as a hardware/paint store.

It is not known exactly when half timbering was added to the east façade of the building, but an early photo of the building designed by Stanley Anderson does not show it.



Building at SW corner of Deerpath and Bank Lane. View NW, 1915

Between 1947 and 1949, several alterations took place, including modifications to the apartments. During those years, the building at 241 Deerpath was owned by Leon Wells and utilized by the A & P. In 1947, a loading platform was replaced (Permit 3064). Work was also done on the apartments; this included constructing a roof over the side porches (Permit 3285). Currently they are interior corridors.

No. 3064

### CITY OF LAKE FOREST APPLICATION FOR BUILDING PERMIT AND FOR A CERTIFICATE OF OCCUPANCY

As prescribed by the Building Code and Zoning Ordinances of Lake Forest  
Lake Forest, Ill. Dec 26 1947

The undersigned Mr. Leon Wells hereby applies to the City of  
Lake Forest, Illinois, for a Permit to construct, alter, repair or replace loading platform  
the following described structure or part thereof.

a. 1 story R & P Store  
(Type of structure such as Residence, Garage, etc.)  
to be used as a Retail Business (Kind of Occupancy) located at

No. 244 1/2 E. Street Dunlap Ave Block 333  
Subdivision Original Build of John Powell Lot 1  
Retail Business Section Location NW Section 33 Township

124 1/2 North Range IV East of the 1st P.M.

The proposed structure (is) (is not) to be within the Fire Limits, constructed of  
Concrete & steel reinforcing consisting of \_\_\_\_\_ rooms, \_\_\_\_\_ attic, \_\_\_\_\_ base-  
(Kind of Material)

vent. There will be \_\_\_\_\_ bath rooms, \_\_\_\_\_ toilet rooms. Plumbing fixtures include \_\_\_\_\_ bathtubs,  
\_\_\_\_\_ toilets, \_\_\_\_\_ bath tubs, \_\_\_\_\_ showers, \_\_\_\_\_ laundry tubs, \_\_\_\_\_ sinks and \_\_\_\_\_ (Other Plumbing)

The building will be heated by \_\_\_\_\_ (Kind of heat such as hot water)

using \_\_\_\_\_ (Kind of Fuel)

There (will) (will not) be domestic hot water using \_\_\_\_\_ (Kind of Fuel) \_\_\_\_\_ G.P.

more fully set forth in the plans and specifications submitted with this application.  
The estimated cost of the work contemplated, including pipe trades, and all construction work necessary to com-  
plete the structure is \$ 1200.00

The cubical content of the building or alteration is \_\_\_\_\_ cubic feet.

This estimate is made by Hanson & Weikens Title \_\_\_\_\_  
Address 213 San Francisco 1. Fr Telephone 299  
Owner: Mr. Leon Wells  
Address \_\_\_\_\_ Telephone \_\_\_\_\_

Application is also made for a Certificate of Occupancy to occupy and use the premises as above set forth, said  
certificate to be issued after the completion and acceptance of the building.  
If granted the Permit applied for and a Certificate of Occupancy is issued, I or We hereby agree to construct,  
alter, repair or \_\_\_\_\_ and to use said building and premises, only for  
the kind of occupancy designated above, in strict compliance with the provisions of the Zoning Ordinance, Building  
Code and Health Regulations of the City of Lake Forest.

The Applicant having read this application and fully understanding the intent thereof declares that the statements  
made are true to the best of \_\_\_\_\_ knowledge and belief.

Signature Hanson & Weikens By G.F. Weikens  
(Owner or Authorized Agent)

Building Permit 3064, for construction of a loading platform

The most obvious change from the front of the building was initiated on May 17, 1949, when a permit was issued for the store front to be reconstructed (Permit #3241).

**CITY OF LAKE FOREST  
APPLICATION FOR BUILDING PERMIT  
AND FOR A CERTIFICATE OF OCCUPANCY**

No. 3241

As prescribed by the Building Code and Zoning Ordinance of Lake Forest.

The undersigned T.F. Barrett Const. Co. Lake Forest, Illinois, hereby applies to the City of Lake Forest, Illinois, for a Permit to construct, alter, repair or reconstruct Store front the following described structure or structures:

A 2 story Retail Store apartments above

to be used as a \_\_\_\_\_ (Kind of occupancy) located at \_\_\_\_\_

No. 243 E Street Deerpath part 1233 Block \_\_\_\_\_  
 Subdivision City Subd of Lake Forest Section Location 710 & Section 33 Township \_\_\_\_\_  
Retail Business

The proposed structure (to be altered) to be within the fire limits constituted of \_\_\_\_\_  
 (Kind of Material) consisting of \_\_\_\_\_  
 (Kind of Material)

There will be \_\_\_\_\_ Bath rooms \_\_\_\_\_ Cold water \_\_\_\_\_ Plumbing fixtures include \_\_\_\_\_  
 Sinks \_\_\_\_\_ Bath tubs \_\_\_\_\_ Showers \_\_\_\_\_ Laundry tubs \_\_\_\_\_ Sinks and \_\_\_\_\_  
 \_\_\_\_\_

The building will be heated by \_\_\_\_\_ (Kind of heat such as hot water) \_\_\_\_\_  
 using \_\_\_\_\_ (Kind of fuel) \_\_\_\_\_  
 There (will) not be domestic hot water using \_\_\_\_\_ (Kind of fuel) \_\_\_\_\_

more fully set forth in the plans and specifications submitted with this application.  
 The estimated cost of the work contemplated, including fire losses, and all construction work necessary to complete the structure is \$ 2200.00

This estimate is made by T.F. Barrett Const. Co. \_\_\_\_\_  
 Address 6429 South Park Ave Chicago Ill Telephone \_\_\_\_\_  
 Owner Jason Walker \_\_\_\_\_  
 Address Lake Forest Ill Telephone \_\_\_\_\_

Application is also made for a Certificate of Occupancy to occupy and use the premises as above set forth, and certificates to be issued after the completion and acceptance of the building.

If granted the Permit applied for and a Certificate of Occupancy is issued, I or We hereby agree to construct, alter, repair or \_\_\_\_\_ and to use said building and premises, only for the kind of occupancy designated above, in strict compliance with the provisions of the Zoning Ordinance, Building Code and Health Regulations of the City of Lake Forest.

The applicant having read this application and fully understanding the intent thereof declares that the statements made are true to the best of \_\_\_\_\_ knowledge and belief.

Signature T.F. Barrett Const. Co.  
 Association Agent  
B. A. H. Jensen

NOTE: Accompanying this application is a plan or blueprint, drawn to scale showing the actual boundaries of the lot to be built upon, the area of the lot, the size and location of all buildings, the location of the sanitary sewer, storm water drains, water service, gas service, light and power service and telephone service. The said plan shall be drawn on 8 1/2" x 11" sheet, provided adequate in kind complete details can be shown on this size drawing.

Building Permit No. 3241 Issued May 17 1976  
 Certificate of Occupancy No. \_\_\_\_\_ Issued \_\_\_\_\_

Form 5-1-7-65

The major changes to the building took place beginning in 1970, when the building was owned by the Midwest National Bank. On October 22, 1975, National Wrecking Company took out a permit to demolish the one-story Telephone Exchange Building, which had previously been used for offices. Bleck and Bleck were the architects (No permit number). This firm was also the architect of record when the bank applied for a building permit to construct a two-story addition, including a gabled bay facing Deerpath and a gabled gateway that serves as a drive-thru. The permit was dated January 15, 1976. The addition was built immediately to the west of 241 East Deerpath at a cost of \$557,275 (Permit No. 007). During these years, there was masonry work and all the windows were replaced (with the exception of two second floor multilight double hungs on the front façade). Diamond muntin bars were sandwiched between the glass on the new windows.



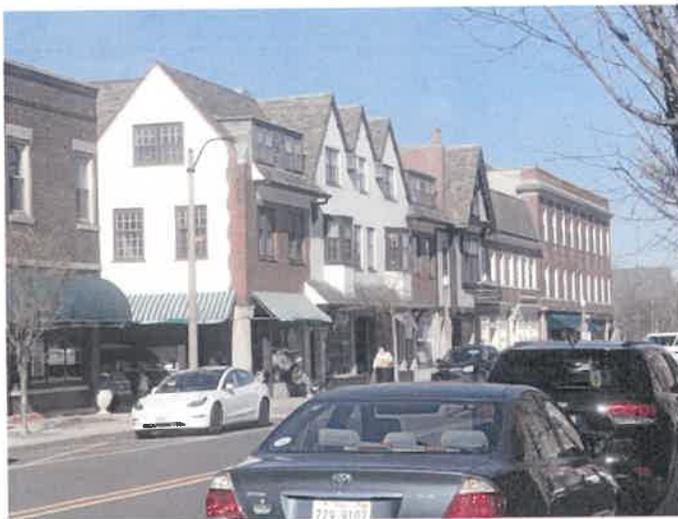
## CONCLUSION



The CT Gunn building was built in 1927, following Anderson's three new buildings in 1926, it is a Tudor style grocery store. It is further the...  
are near of Anderson's English village concept. It is located on Deerpath just west of Bank Lane, Anderson's original building had only two g...  
cross the front. (Drawing above.) The center entry, and all of its masonry surround, was moved to the east end of the building in a 1930s retrofit...  
of the second floor where the four apartments were converted to two. The building was significantly expanded with a third gable and arch...  
through portal in the 1990s as part of the Midwest Bank. (Photo below). Despite all the changes, the building retains its essential English Vi...  
Tudor character. Note the original graduated slate roof, seen on the left side of the roof - is still intact. The slates are thicker and larger at the ba...  
of the roof and gradually diminish towards the peak of the roof. There are four of the English Village buildings on Deer Path: The Gunn's buil...  
Tudor), The First National Bank building (1930, Georgian), the Deerpath Theater building (1936, Tudor), and the...  
Georgian). Market Square is north one block The Church...



Over the years the façade of 241 East Deerpath has been considerably altered. Although it is a Contributing building in the Lake Forest Historic District, the building is only superficially compatible, because of its half timbering and relocation of the central entrance, to the buildings located diagonally across the street—the Deerpath Theater Building and the East of Theater Building, both designed by Stanley Anderson in 1925. Because it is no long symmetrical, because its door and window openings have been reworked and because alterations have generally been unsympathetic, It is acceptable to take down 241 East Deerpath and replace it with one that is of our time while compatible with the historic buildings in Lake Forest’s business district.



Recent photographs illustrate that 241 East Deerpath, as

reworked in 1975, does not reflect the design quality nearby commercial buildings.



