

Plan Commission Meeting – November 13, 2024
Agenda Item 3

Code Amendment – Wireless Overlay District

Staff Report

Memorandum from the City Attorney

Maps – Recommended Additions to Overlay District

Map of **Existing** Wireless Infrastructure – City-wide

Photos – Selected Wireless Installations in Lake Forest

Current Code Language – Wireless Overlay Districts

- Map of Currently Permitted Areas

Images of “Concealed” Cell Towers

Correspondence Received Since Last Distributed

*The complete record of correspondence received
for this topic is available upon request.*

*Materials shown in italics are included in the Commission packet only.
A complete copy of the packet is available from the Community Development Department.*



STAFF REPORT AND RECOMMENDATION

Code Amendment – Section 159.154 Personal Wireless Service Facilities Overlay District Consideration of Designating a Location or Locations for Telecommunication Infrastructure in the Vicinity of the Waukegan and Everett Roads Intersection

TO:	Acting Chairman Pasquesi and Members of the Plan Commission
DATE:	November 13, 2024
FROM:	Catherine Czerniak, Director of Community Development
SUBJECT:	Consideration of a Code Amendment

Summary of Activity to Date

In recent years, the City has received an increasing number of contacts from residents, businesses, and schools about poor quality and unreliable wireless service. These concerns have been raised about various areas of the community and most frequently, about service in the vicinity of the Waukegan and Everett Roads intersection. The City has also been contacted by a number of companies that build out infrastructure for wireless service providers, “tower building companies” and by representatives of wireless provider companies who have expressed a need for and interest in building out infrastructure in the vicinity of Waukegan and Everett Roads.

In response to the contacts received by the City, at the September 16, 2024 City Council meeting, the Council unanimously directed the Plan Commission to consider an amendment to the Code provisions relating to wireless service facilities (infrastructure). The Council recognized that adequate telecommunications infrastructure today is an essential public service from safety, daily convenience, and business perspectives, not unlike electric service, sanitary sewers, and potable water. The Council expressed an interest in doing what the City is able to do *proactively*, to facilitate improvements in coverage and service quality throughout the community. The City Code already identifies numerous locations where wireless facilities are permitted. Information on the currently permitted locations is provided in this staff report and in the Commission packet. The purpose of this petition is to consider whether to approve additional sites for wireless facilities through a Code amendment and if so, with what limitations.

At the October 9, 2024 the Plan Commission opened a public hearing, received both written and verbal testimony, and began deliberations on a possible Code amendment. At the conclusion of that meeting, the Commission continued the public hearing and its deliberations to allow further research to be conducted, questions to be answered, and additional information to be provided.

Role of the Plan Commission

The City Council directed this discussion to the Plan Commission because the provisions that authorize, limit, and establish conditions for wireless facilities are part of the Zoning Code. Amendments to the Zoning Code are under the purview of the Plan Commission. The Commission is required to conduct a public hearing, invite testimony, and deliberate on any proposed Code

amendment and ultimately, forward a recommendation to the City Council for consideration and final action.

Commission Options

1. The Commission can recommend that the City Council **take no action**, that is, make no changes to the existing Code provisions.

In the future, telecommunication providers and tower builders will have the option of filing a petition for a Code amendment on their own to allow a tower, monopole, and antennas at a location and of a type of their choosing. The City is required to process petitions received within the mandated time period and it will be prudent for the City to evaluate any petition in strict accordance with all applicable regulations, limitations, and prior Court decisions.

The City will be in a reactive mode, as opposed to in a proactive position which would allow the City to identify possible locations and establish specific requirements or limitations the City deems to be in the best long term interest of the overall community.

2. **Recommend a Code amendment or amendments** to the City Council to add one or more permitted locations for a cell tower, monopole, and/or antennas on existing buildings and establish additional site specific conditions if appropriate.

A staff recommendation is provided at the end of this report.

Responses to Questions Raised by the Commission and Interested Parties

- **Why is the City considering an amendment to the current Code provisions relating to wireless infrastructure?**

As noted above, a need for improved wireless service in the vicinity of the Waukegan and Everett Roads intersection has been identified repeatedly by businesses, residents, schools, public safety personnel, and wireless providers. Wireless service is an essential public service.

The City has the opportunity to be proactive in identifying potential locations for additional wireless facilities and establishing conditions and limitations as determined to be appropriate as opposed to reacting to a petition if one is filed by a telecommunications provider in the future.

- **How does the Code regulate wireless facilities?**

In the late 1990's language relating to wireless facilities was added to the Code. The language acknowledged wireless facilities that had already been established prior to that time, without any City regulation, and identified locations and limitations for additional facilities. The sites were identified based on areas of interest identified by wireless providers, areas where the providers were willing to invest in building out infrastructure, and in some cases, based on requests from private property owners to allow wireless facilities on their sites.

- **Has the City entered into any agreements or commitments with any tower building companies or wireless carriers regarding the Telegraph Road train station site?**

No, although the City has had conversations that were initiated by various interested companies and providers for some time, no agreements or commitments have been entered into. All interested parties are able to submit testimony as part of the public hearing.

- **Where does the Code currently permit wireless infrastructure, cell towers, monopoles, and antennas?**

A map of the approved Wireless Overlay District is included in the Plan Commission packet which identifies all of the sites currently identified as permitted sites for wireless infrastructure. Permitted locations are identified in all four Wards however, the only permitted location in Ward 4 is a narrow strip of land adjacent to Route 41 along the very east edge of the 4th Ward.

The City Code identifies seven overall districts within in which towers and antenna are permitted. Four of the overlay districts allow towers ranging in height from 110 feet to 160 feet. These areas include City owned right of way on both sides of Route 41, the Hospital Campus, Lake Forest Academy Campus, and Woodlands Academy Campus just south of South Park. The remaining three districts authorize antennas mounted to roof tops at various locations in the Central Business District, on the City's water tower on Route 60, at the high school, and on the Lake Forest College Campus.

No permitted locations for wireless infrastructure are currently identified in the Code in the southwest quadrant of the City.

- **Why were no permitted sites identified near the Waukegan Road Business District or further south and west in the 4th Ward?**

The map included in the packet reflects a gap area, an area without wireless infrastructure and without any permitted sites for wireless infrastructure, in the southwest quadrant of the City, most of the 4th Ward. This area is low density and has limited business and office areas and was not identified until recent years as an area of need or interest by wireless providers. The City continually hears that today, there is a need for improved service in this area.

Currently, the southwest quadrant of the City receives service from surrounding wireless infrastructure which negatively impacts service levels in the areas that those cell towers and antennas are intended to serve. Establishing additional wireless facilities in the 4th Ward, will help to alleviate the burden on existing infrastructure and as a result, improve coverage in other parts of the community.

- **Where are the “dead zones” for wireless coverage?**

Identifying areas of poor coverage is not beneficial to wireless service companies for obvious reasons however, generalized existing coverage maps were provided as part of the written

correspondence submitted by a representative of one of the interested companies and is included in the Commission's packet.

➤ **Where are existing monopoles (cell towers) and antennas located?**

A map is provided in the Plan Commission packet identifying the locations of existing wireless infrastructure, free standing poles (cell towers/monopoles) and antennas mounted on existing structures throughout the community, near residential uses.

➤ **Why was the City owned train station parking lot on Telegraph Road put forward initially for discussion?**

The train station was identified as a potential location for a future monopole for several reasons.

- The train station parking lot is located within a quarter mile of the Waukegan and Everett Roads intersection, and this is the area of need and interest targeted by various wireless providers.
- The property is City owned which allows The City to negotiate the terms of any lease agreement.
- The parking lot on the site is not fully utilized.
- The site is along major transportation corridors, Waukegan Road and the railroad tracks. Metra commuters rely on connectivity at the station.
- The site is near the business district and near tallest buildings located in the 4th Ward.
- Other sites in the area were considered and determined not to provide the desired coverage and as a result, not likely to be sites the wireless providers are willing to invest in.

➤ **Are the Telegraph Road train station and the Waukegan Road/Setters' Square Business District in a Historic District?**

No.

➤ **What other sites were considered?**

In early discussions with wireless providers, the opportunity to collocate antennas on existing, taller buildings in the Waukegan and Everett Road area was explored. This approach did not provide sufficient height or the needed coverage.

Alternate tower sites were considered including:

- City owned property north and south of the fire station. This location is closer to homes than potential sites at the train station.
- The Sunset Corners parking lot. The parking on this commercial site is already tight at times. Sunset already has off site parking arrangements for employees.
- The St. Mary Primary School property. This site is not ideally located from a coverage perspective and is also closer to homes than the potential sites at the train station.
- The City's compost center. See the comments specific to this site later in this report.

- The Lake County Forest Preserves site to the south, the dog park on Waukegan Road. The Forest Preserves District does not allow new installations of wireless infrastructure on their property. If there is an existing lease for wireless facilities at the time the District acquires property, it is honored. In addition, this site is outside of the area identified by wireless providers as the targeted area.
- After the October meeting, it was determined that locations in the train station parking lot, closer to the station building present opportunities. These areas are now included in the recommendation at the end of this report.

Some of the above sites are in private ownership and it would be up to those owners to determine whether they have any interest in leasing a portion of their property for wireless facilities if in fact the site was determined to be workable by wireless service providers. The City cannot force a private property owner to enter into a lease to allow wireless facilities on their property.

For wireless providers and tower building companies whether or not to invest in new infrastructure is a business decision. The potential for any new wireless infrastructure is evaluated based on factors including how many customers will benefit, the quality of service that would be provided, how many new customers may be attracted, and the cost of the infrastructure.

➤ **Why not locate more antennas on the City's water tower at the compost center off of Route 60 instead of at the Telegraph Road train station?**

Currently, AT&T and T-Mobile have antennas on the antenna array that is mounted on top of the City's water tower. Prior to the installation of the array on top of the tower, and prior to any changes or additions to the existing antenna, the City consults a structural engineer for verification that the structural integrity of the water tower will not be compromised. The water tower itself is essential public infrastructure and is critical in consistently providing ample, high quality water to residents in the west portion of Lake Forest. With the existing wireless infrastructure on top of and inside the water tower, no additional wireless equipment can be accommodated on the tower.

However, the City has received an inquiry from a Verizon representative about locating at the compost center and in response, included in the staff recommendation at the end of this report is a potential opportunity for a stand alone cell tower or monopole on the small portion of the City's compost center property that is outside of the regulatory flood way which is a no disturbance area. Although a new cell tower at this location would not address the need in the vicinity of Waukegan and Everett Roads, it could help to improve service to the community overall.

➤ **Are lights required on cell towers and monopoles?**

Lights are required by the FAA at the top of cell towers and monopoles that are 200 feet or taller. No lights are required on poles at the heights permitted and proposed in the City.

➤ **What is a monopole?**

A monopole is a type of cell tower. Rather than a lattice tower or a tower that requires guy wires, a monopole is a single, cylindrical pole. In most installations, multiple antenna arrays are mounted on

the *exterior* of a monopole. Photos of some existing monopoles and roof top antennas in The City of Lake Forest are included in the Commission's packet for reference.

➤ **What is a flagpole installation?**

A flagpole is a type of stealth cell tower and is considered to be the least visually intrusive type of tower. On a flagpole, there are no external antenna arrays, the antennas are located inside the pole, in canisters stacked on top of each other. Multiple wireless providers can be accommodated on a single flagpole if it is taller enough. Although not preferred by wireless providers because a standard monopole installation is easier and less expensive to install than a flagpole, it is a desired option in cases where the visual appearance of the tower is a priority. All of the existing monopoles in The City of Lake Forest have external antenna arrays.

A requirement for a flagpole installation is recommended for the Telegraph Road train station.

➤ **What is the diameter of a flagpole installation at the base?**

At the base, a flagpole installation is 24 to 60 inches in diameter.

➤ **Is ground equipment required?**

Yes, equipment is required at or near the base of the tower. The equipment is enclosed in a secure area. The Code can specify the type of fencing, a brick wall, or landscaping.

At the proposed train station location, a brick wall enclosure is recommended as part of the Code amendment.

➤ **Do antennas on a cell tower or monopole make noise? Hum?**

No, the antennas do not emit any noise. An emergency generator is sometimes included in the ground equipment area. Like emergency generators installed at many residences throughout Lake Forest, the generator must be operated for short periods of time on a weekly or monthly basis to assure they remain operational.

➤ **What is the Spectrum Act and what implications does it have for the City?**

The following response was provided by the City Attorney:

Section 6409(a) of the Middle Class Tax Relief and Job Creation Act of 2012 (the "Collocation Law" also referred to as the "Spectrum Act"), substantively amended the Telecommunications Act by limiting local government authority to control (a) the collocation of new facilities, and (b) the removal or replacement of facilities on existing towers or structures.

Essentially, the Collocation Law limits the ability of the City (and all other local governments) to deny an application for the collocation of new wireless antennas or the replacement/modification of an existing tower as long as there is no substantial change in size of the tower. The FCC has issued fairly detailed rules on how they define a "substantial change" in tower size. For example, the FCC interprets an increase in the height of a tower by more than 10% as a "substantial change" that would not obligate the City to approve the collocation. A height increases of less than 10% would

not be considered a “substantial change” and therefore the City would likely be obligated to approve the collocation.

Background

In 1997, the City adopted and incorporated a Wireless Overlay District, Sections 159.150 through 159.999 into the City’s Zoning Code. The Overlay District was determined to be necessary by the City Council for the following reasons.

1. To direct the location of towers in The City.
2. To protect residential areas and land uses from potential adverse impacts of towers through proper engineering and siting of antennas and their support structures.
3. To minimize adverse visual impacts of towers through careful design, siting, landscape screening and innovation camouflaging techniques.
4. To accommodate the growing need for towers.
5. To promote and encourage shared use/co-location of existing and new towers as a primary option rather than construction of additional single use tower, and to reduce the number of such structures needed in the future.

The provisions of the Wireless Sections of the Code have been amended several times since the initial adoption in 1997 to add permitted locations for cell towers and antennas, modify the application requirements, and to streamline approvals for Distributed Antenna Systems (DAS). Several years ago, it was hoped that allowing telecommunications providers to broadly build out DAS systems, which are lower level antennas affixed to publicly owned light and utility poles, would eliminate or at least reduce the need for additional cell towers in the community, however, in areas where coverage is severely lacking, a tower which can accommodate multiple service providers, remains the most effective way to improve service.

It is important to note that municipalities are required to allow telecommunications systems to be built out as a necessary part of infrastructure serving the public. The Federal Communications Commission (FCC) sets health and safety standards on radio frequency radiation (RFR) emissions and importantly, local governments **are preempted** from taking into consideration health impacts from wireless telecommunication (cellular) towers and other facilities. The City Attorney has advised that health issues should not be a consideration in either the Plan Commission or City Council’s decision on the proposed amendment. A memorandum from the City Attorney is included in the Commission’s packet.

The existing Code provisions relating to wireless infrastructure include numerous requirements and limitations, including but not limited to, demonstration of committed wireless carriers prior to construction of any facilities, a prohibition on lighting, requirement that all applicable FAA standards are full met, limitations on the size of ground equipment buildings, compliance with applicable building and structural codes, requirements for screening and landscaping, and a requirement for removal of the wireless infrastructure if it is no longer needed.

The applicable sections from the Code as previously adopted and as currently in effect are included in the Commission’s packet.

Public Notice

Public notice of this hearing was published in a newspaper of local circulation and was mailed by the City to residents and property owners in the surrounding area. The agenda for this meeting was posted at four public locations and on the City's website. As of the date of this writing, staff has received several calls and numerous emails pertaining to this petition. All correspondence received has been distributed to the Plan Commission, made available to the Mayor and City Council, and is included in the record for the petition.

Staff Recommendation

Recommend approval of a Code amendment to the City Council to incorporate the following areas into the Wireless Overlay Districts to provide options for additional wireless infrastructure in areas where the need for service enhancements, quality and capacity, has been identified. The additional locations are subject to all of the applicable limitations and requirements currently in the Zoning Code Sections 159.150 through 159.999 and additional limitations as detailed below.

Maps reflecting the recommendations follow this staff report.

Proposed Amendments to Section 159.154 Overlay District A

Overlay District A	Portions of OR-2 as highlighted on Attachment A-1
	Portions of B-1 as highlighted on Attachment A-2
	Portions of R-4 as highlighted on Attachment A-3
	Portions of OA as highlighted on Attachment A-4
	Portions of R-5 as highlighted on Attachment A-5
	Portions of B-1 as highlighted on Attachment A-6 <ul style="list-style-type: none">• External antenna arrays are prohibited.• Locate to maximize distance from surrounding homes to the extent possible.• Tower must be constructed to accommodate at least three providers.• No more than one cell tower (monopole) is permitted in this location.• Ground equipment at this location must be screened with a masonry wall no to exceed six feet in height.
Overlay District B	Portions of R-4 as highlighted on Attachment B
Overlay District C	Portions of R-4 as highlighted on Attachment C
Overlay District D	Portions of R-1 and GR-3 as highlighted on Attachment D-1
	Portions of R-4 as highlighted on Attachment D-2
	Portions of R-5 as highlighted on Attachment D-3
Overlay District E	Portions of R-4 as highlighted on Attachment E
Overlay District F	Portions of R-1, R-2, and B-2 as highlighted on Attachment F
	Portions of B-1 and R-2 as highlighted on Attachment F-2
Overlay District G	A portion of B-2 as highlighted on Attachment G



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MEMORANDUM

To: Cathy Czerniak, City of Lake Forest
From: Julie Tappendorf, City Attorney
Subject: City Authority to Regulate Cellular Towers
Date: October 31, 2024

You asked us to provide a memorandum discussing the legal restrictions on a municipality's consideration of environmental or health-related concerns in regulating and restricting cellular towers and other wireless service facilities in a community. As discussed below, while local government zoning authority to control uses and structures within its borders is generally very broad, the federal government has restricted local zoning authority when it involves the regulation of telecommunications facilities, including cellular towers, antennas, and related equipment.

The federal government has deemed cellular communication to be a matter of interstate concern. Specifically, Congress enacted Section 704 of the Telecommunications Act of 1996 (Telecommunications Act) that creates a balance between the federal priority for expansion of cellular communications and local authority to control uses and structures through its zoning authority.

While the Telecommunications Act preserves local government authority over zoning decisions related to placement and construction of wireless facilities, there are several significant and express limits on this authority set out in the Telecommunication Act. Those limits include, for example, a ban on a local government prohibiting wireless service facilities entirely, timing restrictions on when a local government must act on a zoning request to install these facilities, and (as discussed below), a prohibition on a local government factoring the alleged environmental effects of radio frequency emissions into its zoning decisions on wireless facility applications.

Specifically, the Telecommunications Act includes the following language regarding local government regulation of wireless facilities on the basis of environmental effects:

No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions. (emphasis added).

October 31, 2024

Page 2

Courts have repeatedly interpreted this section of the Telecommunications Act to prohibit local governments from exercising zoning authority to deny or restrict wireless service facilities on the basis of the alleged “environmental effects” of these wireless facilities, such as electromagnetic radiation,¹ health risks due to radio frequency emissions,² or health risks generally.³ One court has interpreted this section of the Telecommunications Act to mean “any decision actually based on environmental effects is a violation” of the law.⁴ (emphasis added). Courts are clear that the environmental or health-related impacts of wireless facilities are a federal concern, and not a local one.

In short, if a local government considers or factors in environmental or health-related concerns of any kind while deliberating and acting on a zoning matter pertaining to a wireless facility (whether that matter is a text amendment to regulate or restrict facilities or a decision on a zoning application for a wireless facility), the local government’s decision could be subject to legal challenge.

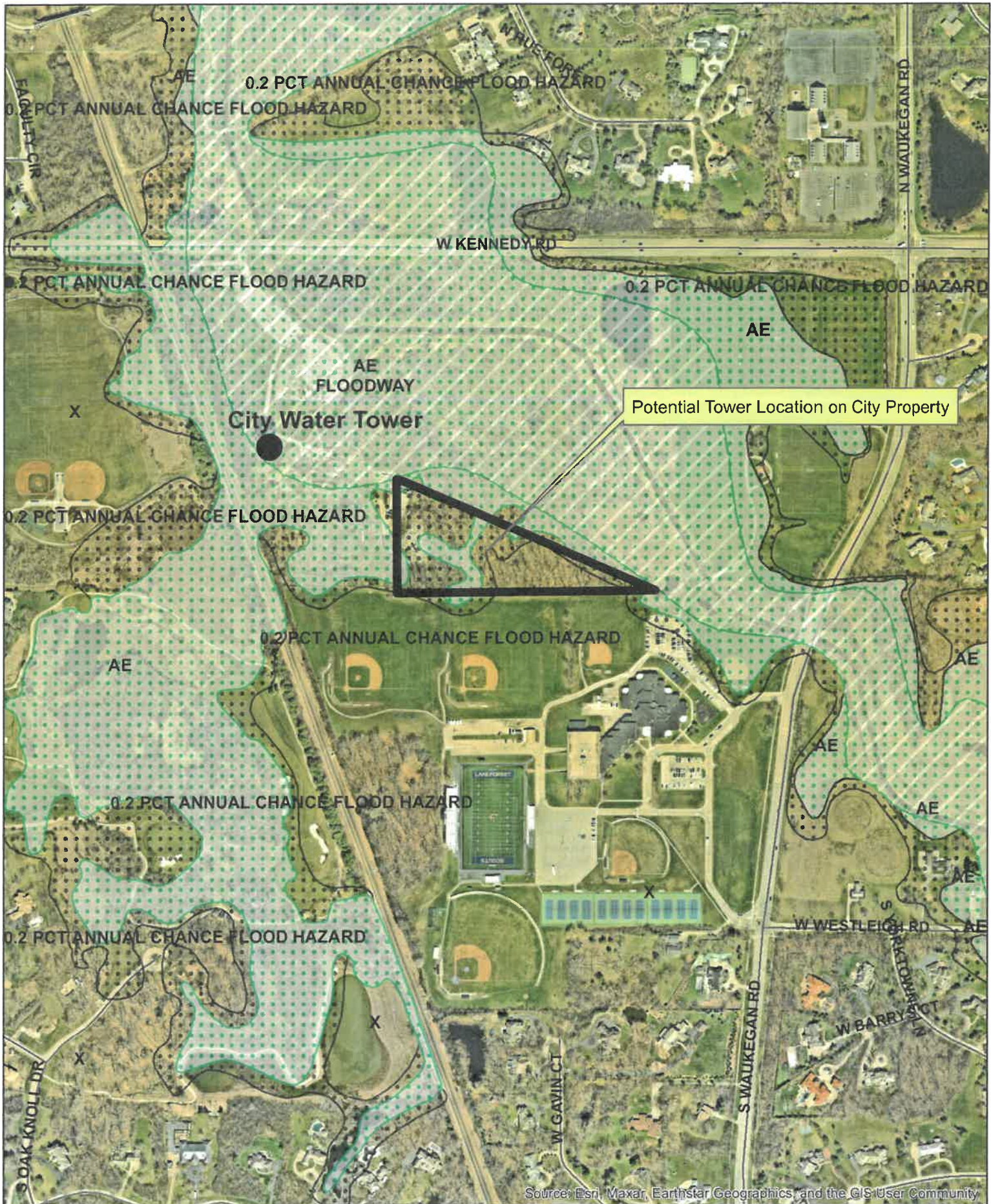
That does not mean that all local zoning decisions regarding wireless facilities must be approved or that wireless facilities have to be allowed everywhere in a community. Reasonable locational restrictions and other regulations on wireless facilities (height, setbacks, etc.) are permissible. However, a municipality is prohibited by federal law from regulating or restricting wireless facilities on the basis of environmental or health-related concerns so long as those facilities comply with federal regulations.

¹ *Prime Co Pers. Communs. v. City of Mequon*, 352 F.3d 1147, 1149 (7th Cir. 2003); *T-Mobile Northeast LLC v. Loudoun County Bd. of Supervisors*, 748 F.3d 185, 194-95 (4th Cir. 2014).

² *Telespectrum, Inc. v. PSC*, 227 F.3d 414, 424 (6th Cir. 2000); *Ruisard v. Vill. of Glen Ellyn*, 406 Ill. App. 3d 644, 667 (2d. Dist. 2010); *Freeman v. Burlington Broadcasters, Inc.*, 204 F.3d 311, 325 (2d Cir. 2000).

³ *Cellular Tel. Co. v. Town of Oyster Bay*, 166 F.3d 490, 494 (2d. Cir. 1999); *T-Mobile Northeast LLC v. Town of Ramapo*, 701 F. Supp. 2d 446, 456 (S.D. NY. 2009).

⁴ *Town of Ramapo*, 701 F. Supp. 2d at 460.



Proposed Addition to Overlay District A - 5
Up to 160' Monopole



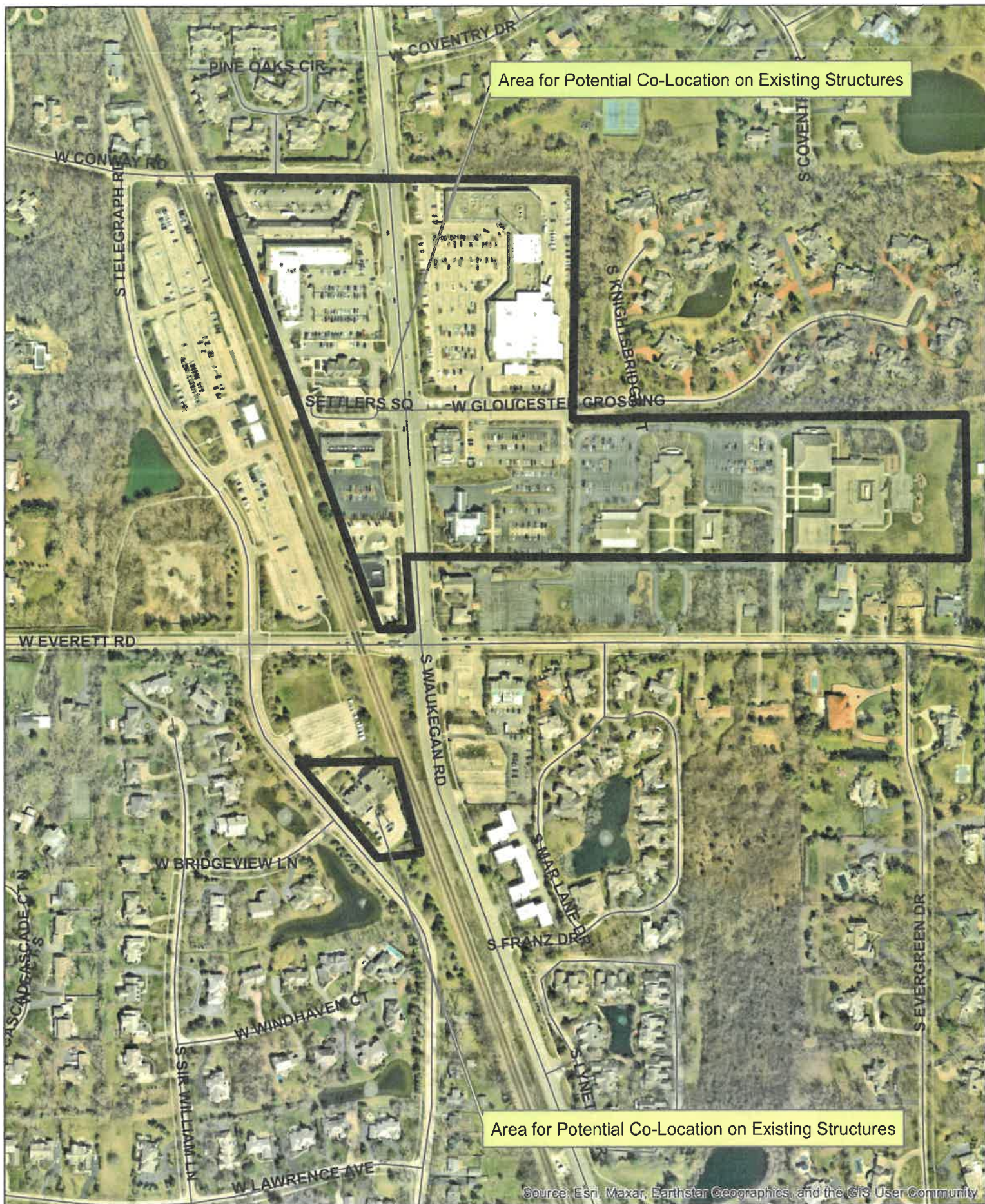


Source: Esri, Maxar, Earthstar Geographies, and the GIS User Community



Proposed Addition to Overlay District A - 6 Up to 160' Flag Pole Type Monopole





Proposed Addition to Overlay District F - 2 Co-Location on Existing Structures Only

Existing Wireless Infrastructure

Northwestern Lake Forest Hospital
139 feet
Carriers: Dish, AT&T, Verizon and T-Mobile

Lake Forest Academy
150 feet
Carriers: AT&T and Dish

Lake Forest High School
On Top of 4 Story Building

Central Business District
+/- 90 feet

Lake Forest College
50 feet
Verizon and T-Mobile

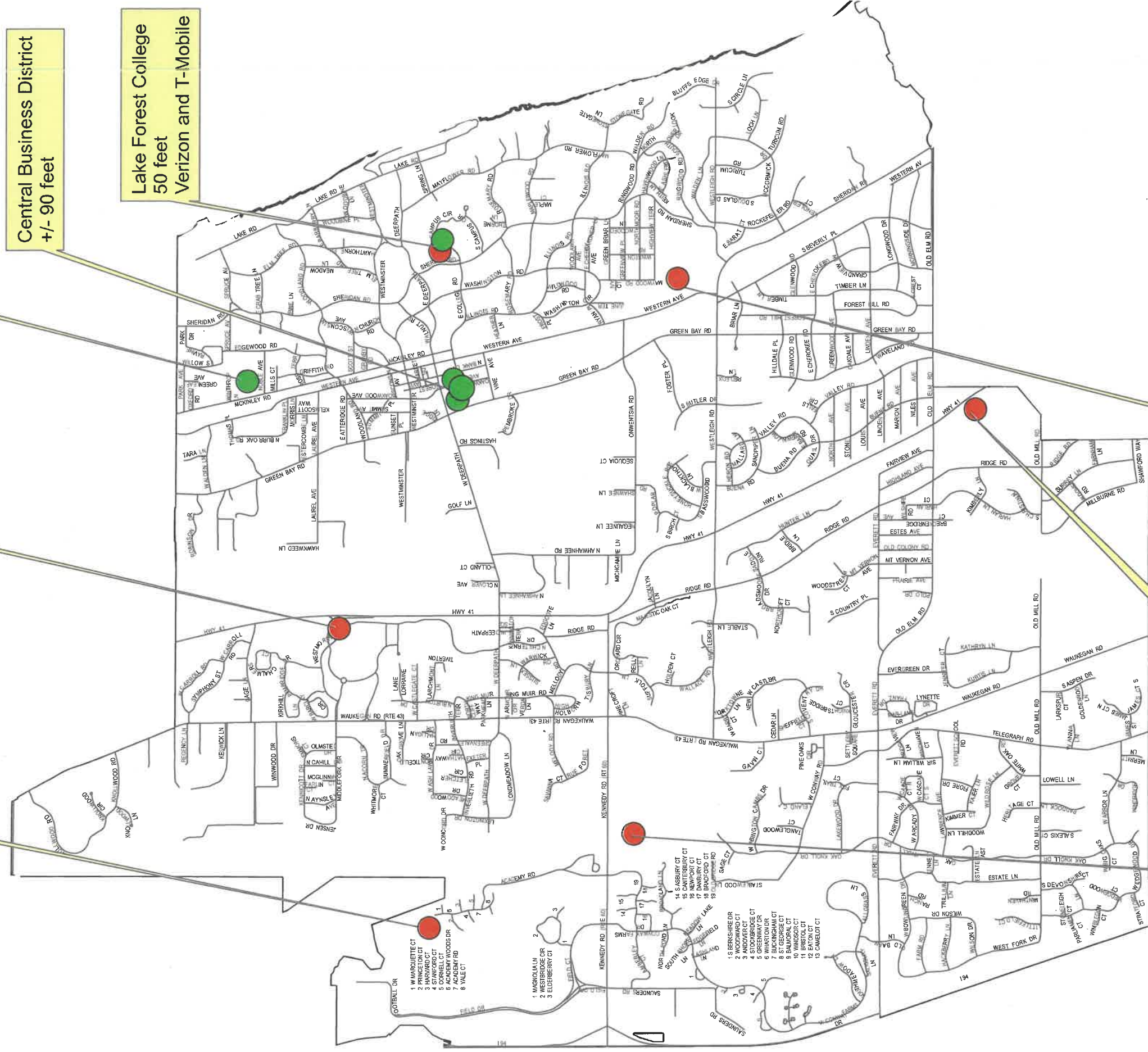
Water Tower
162 feet plus antenna arrays
AT&T and T-Mobile

Route 41
160 feet
T-Mobile

* Height and Service Provider
Based on Available Information

Woodlands Academy
110 feet
T-Mobile, AT&T, Dish and Verizon

Towers
Rooftop Antennas



Images of Selected Wireless Installations in The City of Lake Forest

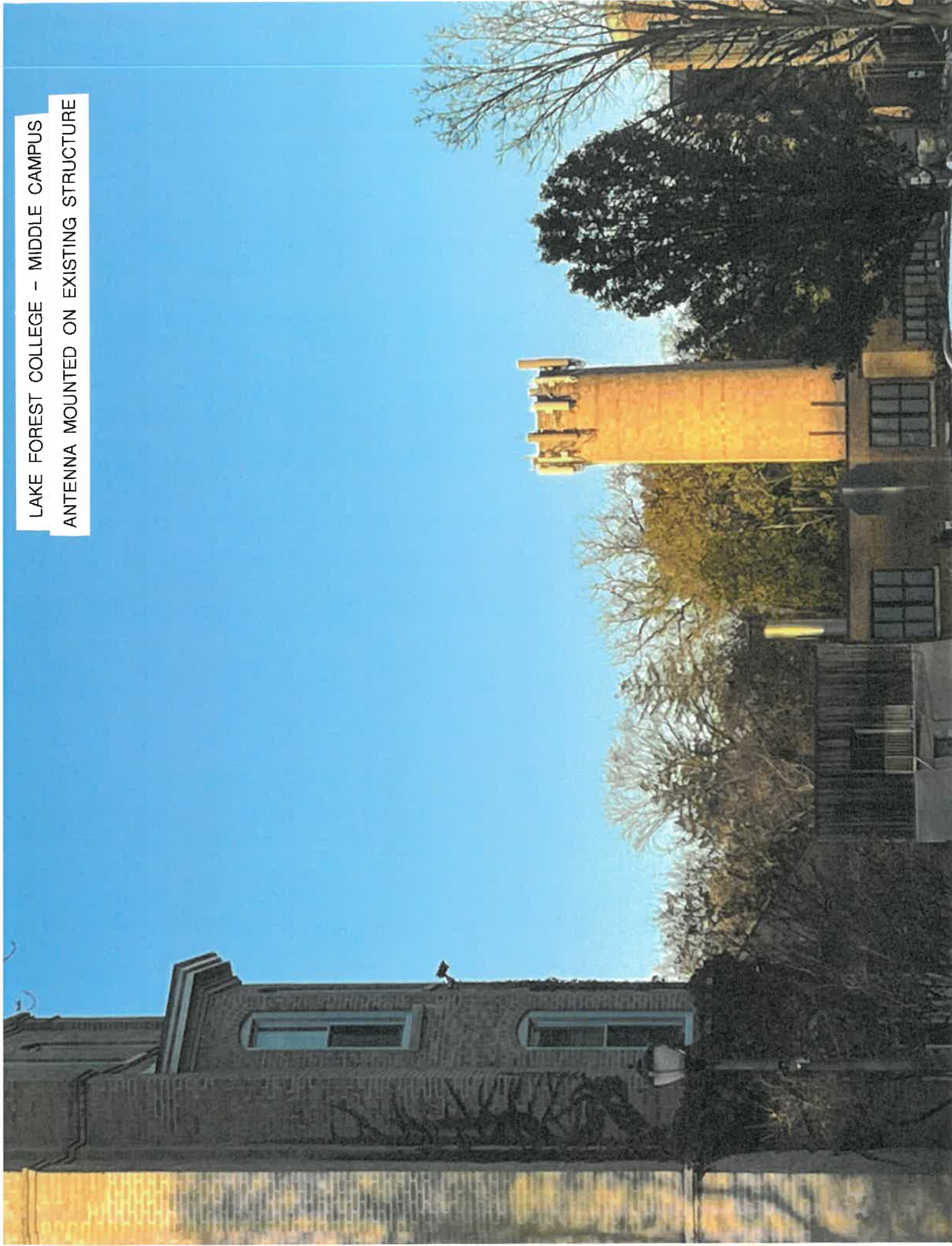




580 BANK LANE - ROOF TOP ANTENNA
VIEWED FROM DEERPATH/ILLINOIS INTERSECTION

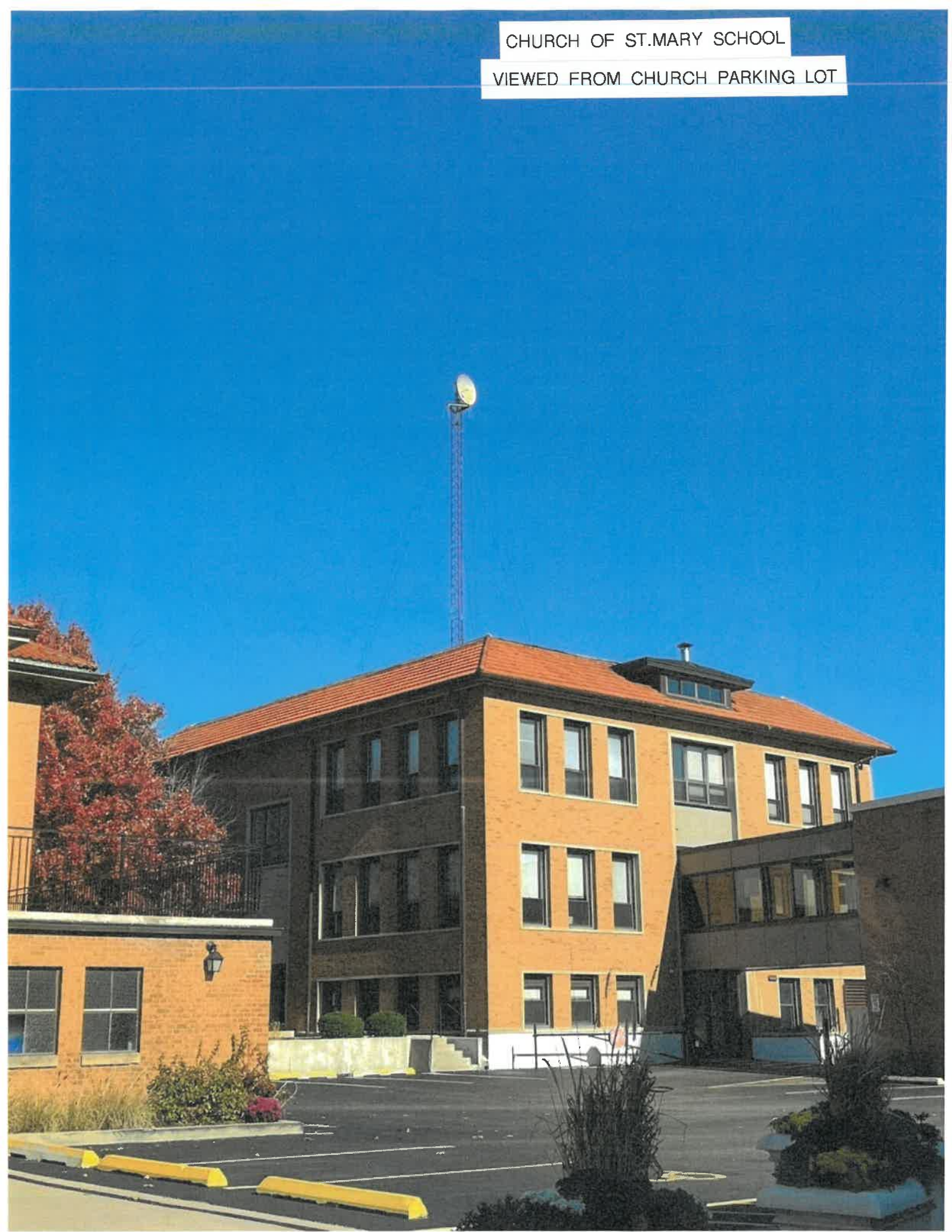


LAKE FOREST COLLEGE - MIDDLE CAMPUS
ANTENNA MOUNTED ON EXISTING STRUCTURE



CHURCH OF ST.MARY SCHOOL

VIEWED FROM CHURCH PARKING LOT



WOODLANDS ACADEMY MONOPOLE WITH EXTERNAL ANTENNA ARRAYS
VIEWED FROM SHERIDAN ROAD STREETSCAPE



WOODLANDS ACADEMY MONOPOLE WITH EXTERNAL ANTENNA ARRAYS

VIEWED FROM WESTERN AVENUE



WOODLANDS ACADEMY MONOPOLE WITH EXTERNAL ANTENNA ARRAYS
VIEWED FROM END OF JUNE TERRACE IN SOUTH PARK



CURRENT CODE LANGUAGE

§ 159.154 PERSONAL WIRELESS SERVICE FACILITIES OVERLAY DISTRICT.

(A) Wireless telecommunications facilities that meet the definition of personal wireless service facilities, as referenced in § 159.151, shall be considered a permitted use in the Personal Wireless Service Facilities Overlay District, provided that the proposed facilities meet the requirements of this subchapter, as well as the requirements of the individual district in which the facility is proposed to be located.

(B) Micro wireless facilities and small wireless facilities as defined in § 98.141 shall be considered a permitted use provided that the proposed facilities meet the requirements of § 98.142.

(C) New personal wireless service facilities will not be permitted in any area other than those areas contained within the overlay district, which are as follows:

Overlay District A	Portions of OR-2 as highlighted on Attachment A-1
	Portions of B-1 as highlighted on Attachment A-2
	Portions of R-4 as highlighted on Attachment A-3
	Portions of OA as highlighted on Attachment A-4
Overlay District B	Portions of R-4 as highlighted on Attachment B
Overlay District C	Portions of R-4 as highlighted on Attachment C
Overlay District D	Portions of R-1 and GR-3 as highlighted on Attachment D-1
	Portions of R-4 as highlighted on Attachment D-2
	Portions of R-5 as highlighted on Attachment D-3
Overlay District E	Portions of R-4 as highlighted on Attachment E
Overlay District F	Portions of R-1, R-2, and B-2 as highlighted on Attachment F
Overlay District G	A portion of B-2 as highlighted on Attachment G

SEE ATTACHED MAP FOR DISTRICT LOCATIONS

§ 159.155 OVERLAY DISTRICT REQUIREMENTS.

The installation of personal wireless service facilities, as defined in § 159.151, are permitted by right in the Personal Wireless Service Facilities Overlay District, subject to the provisions enumerated below.

(A) The personal wireless service facility is located in one of the districts referenced in § 159.154, Districts (A) through (F);

(B) The personal wireless service facility conforms to all standards of this subchapter, and also conforms to all applicable federal laws and regulations concerning use and operation;

(C) The personal wireless service facility is affixed to the walls or roof of an existing structure pursuant to the requirements of § 159.158, and the height of the antennas do not exceed ten feet above the parapet of the roof of the existing structure; or, if a freestanding antenna support structure, the support structure is designed to accommodate additional users and the height above grade of the antennas and support structure does not exceed the height limit noted below for each district:

District A	Height limit of 160 feet
District B	Height limit of 120 feet
District C	Height limit of 90 feet
District D	No freestanding antenna support structure shall be permitted
District E	Height limit of 110 feet
District F	No freestanding antenna support structure shall be permitted
District G	Replacement or extension of roof top antennas that existed as of February 1, 1999 shall be permitted. A maximum height of 50 feet above the primary roof surface shall be permitted

Zoning

(D) If the proposed personal wireless service facility meets the requirements of divisions (A) through (C) above, then the facility is permitted by right, and no special use permit hearing is required.

(E) If the proposed personal wireless service facility meets the requirements of divisions (A) and (B) above, but is either not designed to accommodate additional users or is proposed for a height in excess of the limit established in division (C) above, then the facility may be permitted only by special use permit.

(F) (1) In Overlay Districts A and B, proposed antennas may co-locate on to existing towers; provided such co-location is accomplished in a manner consistent with the provisions contained in this subchapter, then such co-locations are permitted by right and new or additional special use approval is not required. To provide further incentive for co-location as a primary option, towers in Districts A and B that are in existence as of the date of passage of this subchapter may be modified or reconstructed to accommodate the co-location of additional antennas, provided the additional antennas shall be of the same type as that on the existing tower.

(2) This is permitted by right, subject to the following criteria being met.

(a) *Height.* An existing tower may be modified or rebuilt to a taller height, not to exceed 20 feet over the tower's existing height, to accommodate the co-location of additional antennas. The height increase permitted under this provision allows the total height to exceed the height limit of the overlay district.

(b) *On-site location.* A tower which is being rebuilt to accommodate the co-location of additional antennas may be moved on-site within 50 feet of its existing location so long as it remains within the same zone and complies with the other provisions of this subchapter.

(Ord. 97-4, passed 3-20-1997; Ord. 98-6, passed 2-2-1998; Ord. 99-16, passed 3-2-1999)

§ 159.156 CO-LOCATION.

In order to minimize adverse visual impacts associated with the proliferation of towers, co-location of antennas by more than one provider on existing or new towers shall take precedence over the construction of new single-use towers. The city may deny an application to construct a new tower if the applicant has not made a good faith effort to mount the antennas on an existing structure, if a new tower structure is necessary, then it should be designed to accommodate antennas for more than one user. The site plan shall delineate an area near the base of the tower to be used for the placement of additional equipment and buildings for other users. If the tower structure is not designed to accommodate antennas for more than one user, the tower may be permitted only by special use permit. As part of the special use process, the applicant should demonstrate, based on economic, technical or physical reasons, why designing the tower structure to accommodate antennas for more than one user is not feasible. (Ord. 97-4, passed 3-20-1997; Ord. 98-6, passed 2-2-1998; Ord. 99-16, passed 3-2-1999)

§ 159.157 DESIGN CRITERIA FOR NEW SUPPORT STRUCTURES.

(A) *Compatibility.* Personal wireless service facilities should be architecturally compatible with the surrounding buildings and land uses in the zoning district or otherwise integrated, through location and design, to blend in with the existing characteristics of the site to the extent practical. Site location and development shall preserve the pre-existing character of the site as much as possible. Existing vegetation should be preserved or improved, and disturbance of the existing topography of the site should be minimized, unless such disturbance would result in less visual impact of the site on the surrounding area. The effectiveness of visual mitigation techniques should be evaluated, taking into consideration the site as built.

(B) *Setback provisions.*

(1) *Minimum setbacks.* Tower setbacks shall be measured from the base of the tower to the property line of the parcel on which it is located. Towers shall comply with the minimum setback requirements of the area in which they are located in all zoning districts.

(2) *Exceptions from setback requirements.* These setback provisions are intentionally designed to be flexible to take into account individual site characteristics and the nature of surrounding properties. Standardized setback provisions could harm one of the primary intents of this subchapter, which is to minimize the aesthetic impact of tower structures. The goal of minimizing the aesthetic impact of the tower structure may be best accomplished by an individual site review, with the petitioner bearing the burden of proving that their chosen tower location on the subject parcel is the least aesthetically intrusive. The city, in its reasonable discretion and upon finding that the intent of this subchapter would be furthered, may approve placement of an antenna support structure within the required setback areas based on one or more of the following criteria:

- (a) The location and nature of the principal structure, if any, on the parcel;
- (b) The location, size and nature of any structure on the subject parcel which would lend itself to partial concealment of the tower structure;
- (c) The location, height, density and nature of any trees on the subject parcel;
- (d) The relative location of the subject parcel to adjacent streets, alleys, roads or thoroughfares;
- (e) The near field and far field visual impact of the tower location on the subject parcel;

(f) Adjacent property structures, uses and layouts; and

(g) The Comprehensive Land Use Plan.

(C) *Color.* Support structures and antennas shall have a non-contrasting blue, gray or black finish, or a similar color that minimizes their visibility, unless a different color is required by the FCC or FAA.

(D) *Lights, signals and signs.* No signals, lights or signs shall be permitted on towers unless required by the FCC or the FAA.

(E) *Equipment structures.*

(1) Ground level equipment and buildings and the tower base shall be screened from public streets and residentially zoned properties.

(2) The standards for the equipment buildings are as follows:

(a) The maximum floor area is 300 square feet and the maximum height is 12 feet; and

(b) Ground level buildings shall be screened from all adjacent properties by landscape plantings, fencing or other appropriate means, as provided for in § 159.159.

(F) *Federal requirements.* All towers and antennas must meet or exceed current standards and regulations of the FAA, the FCC and any other agency of the federal government with the authority to regulate towers and antennas. If such standards and regulations are changed, then the owners of the towers and antennas governed by this subchapter shall bring such towers and antennas into compliance with such revised standards and regulations within three months of the effective date of such standards and regulations, unless a more stringent or lenient compliance schedule is mandated by the controlling federal agency. Failure to bring towers and antennas into compliance with such revised standards and regulations shall constitute grounds for the removal of the tower or antenna at the owner's expense.

(G) *Structural design.* Towers shall be constructed to the Electronic Industries Association ("EIA") Standards, which may be amended from time to time, and all applicable construction/building codes. Further, any improvements and/or additions to existing towers shall require submission of site plans sealed and verified by a professional engineer which demonstrate compliance with the EIA Standards and all other good industry practices in effect at the time of said improvement or addition. Said plans shall be submitted and reviewed at the time building permits are requested.

(H) *Building codes: safety standards.* To ensure the continuing structural integrity of towers, the owner of a tower shall ensure that it is maintained in compliance with standards contained in applicable city building codes and the applicable standards for towers that are published by the EIA and FCC, as amended from time to time. If, upon inspection made at the discretion of the city, the city concludes that a tower fails to comply with such codes or standards and constitutes a danger to persons or property, then upon notice being provided to the owner of the tower, the owner shall have 60 days to bring such tower into compliance with such standards and codes. If the owner fails to bring such tower into compliance within said 60 days, the city may remove such tower at the owner's expense.

(I) *Fencing/screening.* Support structures and equipment shelters shall be fenced to prohibit unauthorized access. Access to the support structure and equipment shelters shall be through a locked gate. Fencing shall be generally consistent with previously approved installations. The city may permit any combination of existing vegetation, topography, walls, decorative fences or other features if they achieve the goal of minimizing the visual impact of the site.

(J) *Antenna height.* The applicant shall demonstrate that the antennas are the minimum height required to function satisfactorily.

(K) *Antenna support structure safety.* The applicant shall demonstrate that the proposed antennas and support structure are safe and the surrounding areas will not be negatively affected by support

structure failure, falling ice or other debris. All support structures shall be fitted with anti-climbing devices, as approved by the manufacturers.

(L) *Required parking.* Adequate parking shall be required for maintenance workers.

(M) *Signal interference.* No antenna shall cause localized interference with the reception or transmission of any other communications signals including, but not limited to television and radio broadcast signals.

(N) *Location.* No antenna, tower or other facility for personal wireless services shall be located upon any lot or parcel except as provided in this subchapter. (Ord. 97-4, passed 3-20-1997; Ord. 98-6, passed 2-2-1998; Ord. 99-16, passed 3-2-1999)

§ 159.158 DESIGN CRITERIA FOR INSTALLATION OF ANTENNAS ON EXISTING STRUCTURES.

(A) *Mounted on walls or roof.* Antennas may be mounted to the walls or roof of an existing structure, as outlined in this section.

(B) *Existing structure.* If antennas are to be mounted on an existing structure, the determination of whether a wall mount or roof mount shall be permitted, shall be based on which option is typically less visually obtrusive.

(1) *Wall mounted antennas.* Antennas may be mounted on the walls of an existing structure, subject to the following criteria.

(a) The antennas must be architecturally compatible with the building or wall on which they are mounted, and designed and located so as to minimize any adverse aesthetic impact.

(b) The antennas shall be mounted in a configuration as flush to the wall as technically possible and shall not project above the wall on which they are mounted unless for technical reasons the antennas need to project above the roof line. If

required to project above the roof line, the antennas may not project above the parapet of the roof by more than ten feet.

(c) The antennas shall be constructed, painted and fully screened to match as closely as possible the color and texture of the building and wall on which they are mounted.

(d) No such antennas, antenna array or support structure shall be erected or maintained closer to any street than the minimum setback for the zone in which it is located.

(e) No guy or other support wires shall be used in connection with such antenna, antenna array or its support structure, except when used to anchor the antenna, antenna array or support structure to an existing building to which such antenna, antenna array or support structure is attached.

(f) If an accessory equipment shelter is present, it must blend with the surrounding buildings in architectural character, materials and color. The structure must be architecturally and visually (color, size, bulk) compatible with surrounding existing buildings, structures and uses, or those likely to exist under the terms of the underlying zoning. Such facilities will be considered architecturally and visually compatible if they are camouflaged to disguise the facility. The use of colors and facility designs should be compatible with surrounding buildings and/or uses in the area or those likely to exist in the area and should prevent, to the extent possible, the facility from dominating the surrounding area.

(2) *Roof mounted antennas.* Antennas may be mounted on the roof of an existing structure, subject to the following criteria.

(a) The city finds that it is not technically possible or aesthetically desirable to mount the antennas on a wall.

(b) No portion of the antennas may exceed ten feet above the parapet of the roof.

(c) Roof mounted antennas and related base stations are to be completely screened from ground level view, which shall be defined as a point 250 feet in any direction from the facility, by materials that are consistent and compatible with the design, color, and materials of the building.

(d) If the equipment shelter is to be constructed on the ground adjacent to the structure on which the antennas are mounted, the shelter shall comply with the provisions of § 159.157(E).

(e) Equipment mounted on a roof shall have a finish similar to the exterior building walls. Equipment for roof mounted antennas may also be located within the building on which the antennas are mounted.

(C) Other conditions.

(1) No antenna owner or lessee or officer or employee thereof shall act to exclude or attempt to exclude any other competitor from using the same building for the location of other antennas.

(2) No antenna owner or lessee or officer or employee thereof shall fail to cooperate in good faith to accommodate other competitors in their attempts to use the same building for other antennas. If a dispute arises about the feasibility of accommodating another competitor, the City Manager may require a third party technical study, at the expense of either or both parties, to resolve the dispute.

(Ord. 97-4, passed 3-20-1997; Ord. 98-6, passed 2-2-1998; Ord. 99-16, passed 3-2-1999)

§ 159.159 LANDSCAPING; SCREENING.

Landscaping shall be required to screen, to the greatest extent possible, the support structure, the fence surrounding the support structure and any other ground level features (such as a building), and in general soften the appearance of the personal wireless service facilities. The city may permit any combination of existing vegetation, topography, walls, decorative fences or other features instead of landscaping, if they achieve the same degree of

screening. If the antennas are mounted flush on an existing building, and other equipment is housed inside an existing structure, landscaping shall not be required.

(Ord. 97-4, passed 3-20-1997; Ord. 98-6, passed 2-2-1998; Ord. 99-16, passed 3-2-1999)

§ 159.160 NON-USE; ABANDONMENT.

(A) In the event the use of any tower has been discontinued for a period of 60 consecutive days, the tower may be deemed to be abandoned. Determination of the date of abandonment will be made by the Director of Community Development, who shall have the right to request documentation and/or affidavits from the tower owner/operator regarding the issue of tower usage.

(B) Upon such abandonment, the owner/operator of the tower shall have an additional 60 days within which to:

(1) Reactivate the use of the tower or transfer the tower to another owner/operator who makes actual use of the tower; or

(2) Dismantle and remove the tower. If such tower is not removed within said 60 days, the city may remove such tower at the owner's expense. If there are two or more users of a single tower, then this provision shall not become effective until all users cease using the tower.

(C) The applicant shall agree to deposit with the city a cash bond or irrevocable letter of credit in an amount as set by Council, in a form acceptable to the city. The letter of credit shall contain a provision by which the provider of the letter of credit shall be responsible for giving a 75-day notice of expiration of the letter of credit in writing, by certified mail, to the City Manager, City Attorney, City Clerk and Director of Community Development. In no event shall the letter of credit or the obligations contained within expire except upon the aforementioned written notice, it begin expressly agreed that the provider of the letter of credit shall extend the established expiration date to comply with the notice provision.

(D) At the earlier of 60 days from the date of abandonment without reactivation or transfer or upon completion of dismantling and removal, city approval for the tower shall automatically expire.
(Ord. 97-4, passed 3-20-1997; Ord. 98-6, passed 2-2-1998; Ord. 99-16, passed 3-2-1999)

§ 159.161 APPLICATION REQUIREMENTS.

(A) Applicants for permitted uses and special uses may utilize any combination of site plans, surveys, maps, technical reports or written narratives necessary to convey the following information.

(1) An applicant for a new antenna support structure shall demonstrate that a diligent effort has been made to locate the proposed facilities on an appropriate existing structure, and that due to valid considerations including physical constraints, economic or technological feasibility, no other appropriate location is available. Additionally, the applicant must demonstrate that they have contacted other personal wireless service providers to determine co-location opportunities for the site under consideration;

(2) The applicant must demonstrate by technological evidence that the height requested is the minimum height necessary to fulfill the site's function within the intended grid system. Further, the applicant must demonstrate use of the best available technology to minimize the number of total sites required in the community. At the time of application, the applicant should demonstrate how the proposed site fits into its overall grid inside the city limits and in contiguous communities;

(3) A scaled site plan clearly indicating the location, type, and height of the proposed tower, on-site land uses and zoning, adjacent land uses and zoning, adjacent roadways, proposed means of access, setbacks from property lines, elevation drawings of the proposed tower support structure, building, fencing, buffering and all other items required in this subchapter;

(4) A current map and aerial showing the location of the proposed tower;

(5) Legal description of the parcel;

(6) A map indicating the separation distance from residential areas, approximate distance between the proposed tower and the nearest residential unit, platted residentially zoned properties, and unplatted residentially zoned properties;

(7) A landscape plan showing specific landscape materials;

(8) Method of fencing and finished color and, if applicable, the method of camouflage and illumination;

(9) A notarized letter signed by the applicant stating the tower will comply with all EIA Standards and all applicable federal and state laws and regulations and the city code;

(10) A statement by the applicant that the tower will accommodate co-location of additional antennas for future users, unless the applicant is petitioning for a special use permit so that the tower need not be designed for co-location, and that requests for co-location will be considered in good faith; and

(11) The telecommunications provider must demonstrate that it is licensed by the FCC, if so required to be licensed by the FCC. The applicant, if not the telecommunications provider, shall submit proof of lease agreements with an FCC licensed telecommunications provider, if the provider is so required to be licensed by the FCC.

(B) This section shall apply to all applications which were filed prior to the effective date hereof and which have not been approved by the City Council as of the effective date of this subchapter, and to all applications filed thereafter.

(Ord. 97-4, passed 3-20-1997; Ord. 98-6, passed 2-2-1998; Ord. 99-16, passed 3-2-1999)

§ 159.162 THIRD PARTY REVIEW.

(A) Personal wireless services providers use various methodologies and analysis tools, including geographically based computer software, to determine

the specific technical parameters of personal wireless service facilities, such as expected coverage area, antenna configuration, and topographic constraints that affect signal paths, in certain instances there may be a need for expert review by a third party of the technical data and facilities proposed by the personal wireless services provider. The selection of the third party expert may be by mutual agreement by the applicant and city, or at the discretion of the city, with a provision for the applicant and interested parties to comment on the proposed expert and review its qualifications. The expert review is intended to be a site-specific review of technical aspects of the personal wireless service facilities and not a subjective review of the site selection. Such review shall address the accuracy and completeness of the technical data, whether the analysis techniques and methodologies are legitimate, and the validity of the conclusions and any specific technical issues outlined by the City Council, Plan Commission, Zoning Board of Appeals, city staff or other interested parties. Based on the results of the third party review, the city may require changes to the application for the personal wireless service facilities to comply with the recommendations of the expert.

(B) The expert review of the technical submission shall address the following:

- (1) The accuracy and completeness of the submission;
- (2) The applicability of analysis techniques and methodologies;
- (3) The validity of conclusions reached; and
- (4) Any specific technical issues designated by the city.

(Ord. 97-4, passed 3-20-1997; Ord. 98-6, passed 2-2-1998; Ord. 99-16, passed 3-2-1999)

§ 159.163 SEVERABILITY.

Should any section, division, sentence, clause, phrase or word of this subchapter be declared invalid or unconstitutional by a court or agency of competent jurisdiction, such invalidity or unconstitutionality shall not affect any of the remaining sections, divisions,

sentences, clauses, phrases or words of this subchapter, all of which will remain in full force and effect.

(Ord. 97-4, passed 3-20-1997; Ord. 98-6, passed 2-2-1998; Ord. 99-16, passed 3-2-1999)

§ 159.164 PROVISIONS FOR AMENDING THE OVERLAY DISTRICT.

Should the application of this subchapter have the effect of prohibiting a person or entity from providing personal wireless services to all or a portion of the city, such provider may petition the City Council for an amendment to this subchapter. The City Council, upon receipt of such a petition, shall promptly undertake review of the petition and shall make a determination on the petition within a reasonable period of time, taking into account the nature and scope of the petition, and any decision to deny such petition shall be in writing and supported by substantial evidence contained in a written record. The person or entity proposing to amend the section is required to demonstrate, using technological evidence, that the amendment to the overlay district is necessary in order to satisfy the service requirement of the respective grid system. The person or entity, if requesting an amendment to the overlay district in order to install a new antenna support structure, is required to demonstrate that it contacted the owners of structures in excess of 45 feet in height within a one mile radius of the site proposed, asked for permission to install the antennas on those structures, and was denied for reasons other than economic ones. The information submitted by the applicant shall include a map of the area to be served by the tower and its relationship to other antenna sites in the applicant's grid network, and an evaluation of existing buildings taller than 45 feet, existing personal wireless service towers and water tanks within one mile of the proposed tower.

(Ord. 97-4, passed 3-20-1997; Ord. 98-6, passed 2-2-1998; Ord. 99-16, passed 3-2-1999)

§ 159.165 NECESSITY.

This subchapter is necessary to protect the public health, safety and welfare of the residents of the city,

and covers matters of local concern. The City Council finds that an emergency exists due to the need for personal wireless services to be provided to potential customers, who are residents and property owners of the city.

(Ord. 97-4, passed 3-20-1997; Ord. 98-6, passed 2-2-1998; Ord. 99-16, passed 3-2-1999)

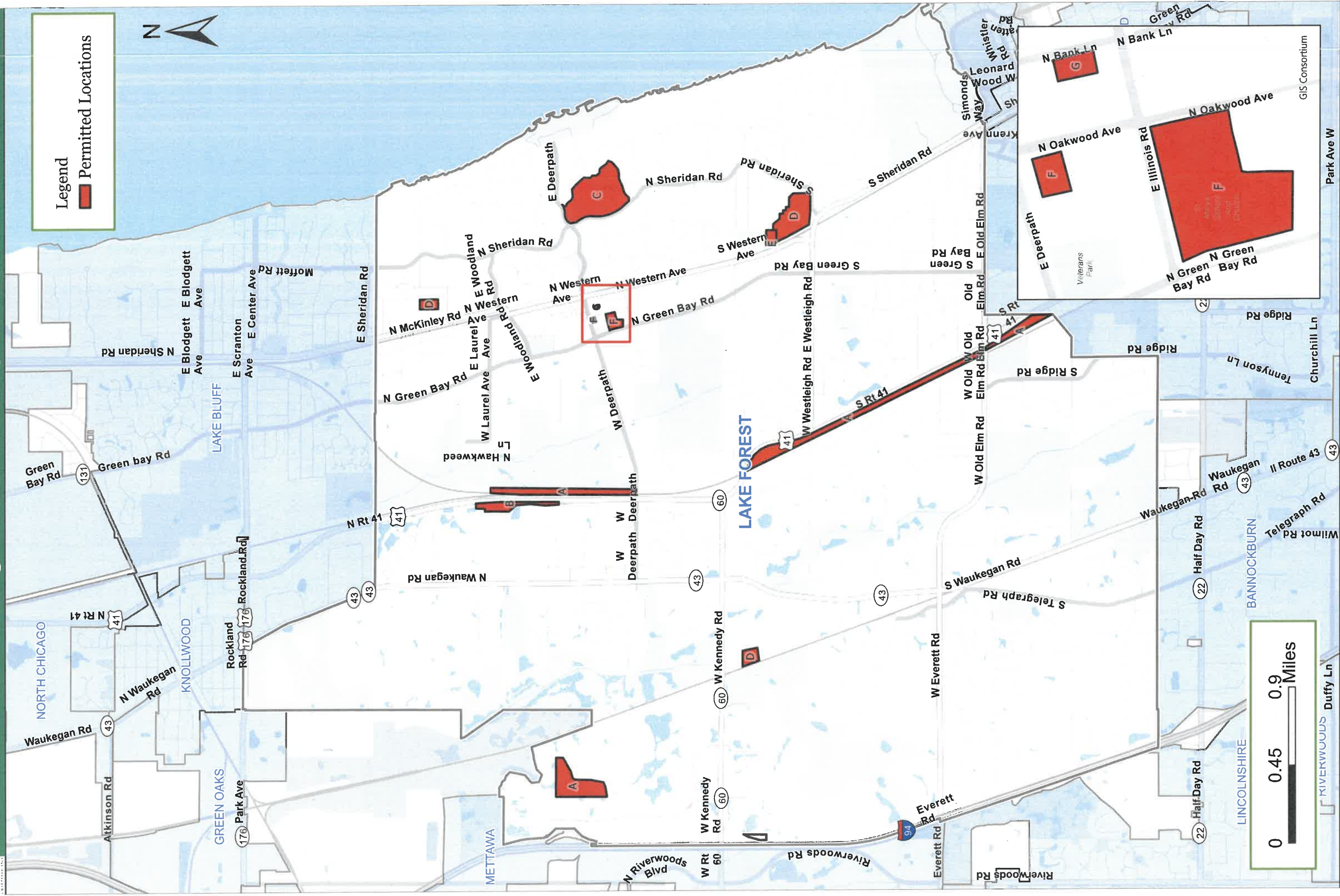
§ 159.999 PENALTY.

(A) (1) For any and every violation of the provisions of this chapter, for which no other penalty is provided, the owner, general agent or contractor of a building or premises where such violation has been committed or shall exist, and the lessee or tenant of an entire building or entire premises where such violation has been committed or shall exist, and the owners, general agent, contractor, lessee or tenant of any part of a building or premises in which part such violation has been committed or shall exist, and the general agent, architect, builder, contractor or any person who commits, takes part in or assists in such violation or who maintains any building or premises in which any such violation shall exist, shall for each and every violation and for each and every day or part thereof that such violation continued, be subject to a fine of not more than \$500.

(2) In any case that any building or structure is erected, constructed, reconstructed, altered, repaired, converted or maintained, or any building, structure or land is used in violation of this chapter or any other ordinance or lawful regulation, the proper authorities of the city, in addition to the remedies herein provided, may institute any appropriate action or proceeding to prevent such unlawful erection, construction, reconstruction, alteration, repair, conversion, maintenance or use or to impose a penalty for such violation, or to restrain, correct or abate such violation, in order to prevent the occupancy of said building, structure or land contrary to the provisions hereof, or to prevent any illegal act, conduct, business or use in or about such premises.
(Prior Code, § 46-32)

(B) Any person, firm or corporation violating any of the provisions or terms of §§ 159.150 through 159.165 upon conviction shall be punishable by a fine not to exceed the sum of \$750 for each day during which the offense continued. In addition to receiving any monetary remuneration, the city shall have the right to seek injunctive relief for any and all violations of §§ 159.150 through 159.165 and all other remedies provided at law or in equity.

(Ord. eff. 1-15-1972; Ord. 91-1(A), passed 1-7-1991; Ord. 97-4, passed 3-20-1997; Ord. 98-6, passed 2-2-1998; Ord. 99-16, passed 3-2-1999)



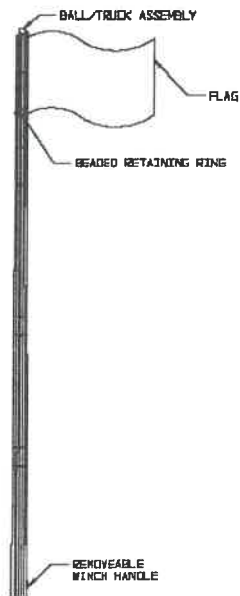
IMAGES CONCEPTUAL (STEALTH) CELL TOWERS



Tree concealment tower.
(Cellular) Bushnell's Basin, NY



150ft. 7-Carrier Concealed Flag Pole.
(without the flag)



Flag Pole Concealment

The Fred A. Nudd corporation has used it's many years of experience to develop a better flag pole design. This design enhanced visual ppearance, better antenna mounting and adjustment, ease of maintenance through multiple panels per level, a fully rotational flag truck assembly with internal winch.



Tapered Pole Concealment

The same full height taper from bottom to top used on the Flag Pole Concealment is used on our tapered Pole Concealment. These multi-carrier structures have the same features as our flag poles, but can be ordered without the flag and associated hardware. These



Tree Concealments

We offer the same high quality of our other products in our tree concealments. Ranging from a light to heavy density concealment we can design and build trees which rise up to 195 feet above the ground. We also offer towers which are designed for future expansion.

Correspondence Received Since Last Distribution

*The full record of correspondence, the materials previously distributed,
is available upon request.*

Friedrich, Michelle

Subject: FW: Proposed cell phone tower, 4th Ward

-----Original Message-----

From: Ryan London <ryanglondon@gmail.com>

Sent: Monday, November 4, 2024 3:05 PM

To: Czerniak, Cathy <CzerniaC@cityoflakeforest.com>

Cc: Weber, Eileen <WeberE@cityoflakeforest.com>; Walther, Richard <waltherr@cityoflakeforest.com>

Subject: Proposed cell phone tower, 4th Ward

CAUTION: This email originated from outside the organization. Verify the legitimacy of the email with the sender before clicking links or opening attachments from unexpected sources.

Dear Ms. Czerniak:

I am writing you to express my personal opposition to the proposed cell phone tower in my neighborhood.

My wife and I have been fourth ward residents since November of 2001, and our commitment to remain residents has been primarily based on our experience of Lake Forest as a community that is committed to preserve the values of our City while finding creative solutions towards a successful future.

I believe an individual cell phone tower at any prominent location, in any ward of Lake Forest would be detrimental to the values we have appreciated for the last 23 years.

It is my desire that the talented staff and volunteer leaders who the community entrusts to steward said values, will find an alternative location.

Very Respectfully,

Ryan London
1500 Telegraph Road
Lake Forest, IL

Friedrich, Michelle

Subject: FW: My Retraction for Cell Tower in West LF

-----Original Message-----

From: Judi Walker <judi-walker@comcast.net>
Sent: Tuesday, November 5, 2024 8:15 PM
To: Czerniak, Cathy <CzerniaC@cityoflakeforest.com>
Subject: My Retraction for Cell Tower in West LF

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Cathy- Received the flyer you sent out in the mail this past week- I'm having second thoughts about agreeing to this cell tower and what this structure would take away from the community I call home. As I'm driving down Waukegan and Everett Roads in West Lake Forest, I'm appreciating the beauty of the greenery of the tree tops in this little village of shops and train station. Personally we strive to beautify our community by planting trees. To place a metal tower 150' above and amidst this greenery just takes away from this beautiful canvas...I would stand with the current zoning code so my vote is perhaps we can find a more agreeable location for the residents that are affected nearby.
Sent from my iPhone

> On Oct 7, 2024, at 7:12 AM, Judi Walker <judi-walker@comcast.net> wrote:
> Definitely needed in West Lake Forest! Driving past Sunset Foods my
> cell service in car drops call. Horrible cell service at shopping mall
> at Sunset Foods... When I worked at Lovell's years ago, cell phone
> service horrible. My daughter lives in West Lake Forest and horrible
> cell service there, uses land line instead... I'm at 1300 Gavin Ct and
> she's on Kimmer Court in West Lake Forest... Sent from my iPhone

Friedrich, Michelle

Subject: FW: Cell Tower in West Lake Forest

From: jayspenchian@gmail.com <jayspenchian@gmail.com>

Sent: Wednesday, November 6, 2024 11:41 AM

To: Czerniak, Cathy <CzerniaC@cityoflakeforest.com>

Subject: Cell Tower in West Lake Forest

CAUTION: This email originated from outside the organization. Verify the legitimacy of the email with the sender before clicking links or opening attachments from unexpected sources.

Hi Catherine:

We live at 808 Oak Knoll Drive in Lake Forest – on the West side of Lake Forest near the train station where the proposed cell tower would be built and located.

I wanted to express my concern about this initiative. I think it is totally unnecessary and would not be worth the impact it would have on the aesthetics and home values of our community. I urge you to represent our community well and not amend the code that would allow the construction of the tower.

I ask you – would you want it constructed in your neighborhood?

Thank you for all you do for our wonderful community and for listening.

Best Regards,

Jay

Jay Spenchian

jayspenchian@gmail.com

248.881.7222

Friedrich, Michelle

Subject: FW: Question for you about an email

From: Hayley Cropper <hayleywcropper@gmail.com>

Sent: Wednesday, November 6, 2024 6:03 PM

To: Czerniak, Cathy <CzerniaC@cityoflakeforest.com>

Subject: Re: Question for you about an email

Thank you so much for this information! I do think a survey in the future would be great because the East side struggles a lot with cell service as well, this was also mentioned in my conversation with Pete Siebert at the Fire Department.

As for the water tower, it was previously stated that other companies were not interested in that location of the tower itself and the that equipment is outdated. I was not aware of a structural issue. Did the city engineer determine that finding or did that information come from a private cell/ tower company? I was speaking with a city engineer and in a different town and he said some water towers can hold up to 15 carriers depending on the size.

Are you aware of why the cell/tower company is not interested in the dump area? You would think that would be the perfect location, especially if we only have two carriers with outdated equipment. The neighborhood north of 60 suffers from cell service worse than my neighborhood, and that would help them as well. If the 150 foot tower was placed at the dump, the antennas would not need to be hidden either. So I am curious why that location is not being utilized more.

Thank you for your help!
Hayley Cropper

Sent from my iPhone

Friedrich, Michelle

Subject: FW: Cell Tower

-----Original Message-----

From: JoAnn Desmond <joanndesmond@gmail.com>

Sent: Thursday, November 7, 2024 9:58 AM

To: Czerniak, Cathy <CzerniaC@cityoflakeforest.com>

Subject: Cell Tower

CAUTION: This email originated from outside the organization. Verify the legitimacy of the email with the sender before clicking links or opening attachments from unexpected sources.

Hi Cathy,

I wrote to you in haste about supporting an appropriately designed cell tower at the train station on the day I was going abroad to visit my family in Sicily over a week ago. It was my thought that something innocuous as a rather small antenna atop the train station may improve cell service in the area. However, I have since heard from a number of my friends in west Lake Forest with legitimate concerns about the height, mass and safety issues surrounding the proposed cell tower and I can no longer offer support for such a project. I have also done some research on this issue and find that the proposed cell tower would be totally incongruous with the surrounding neighborhoods and certainly an undesirable location and an eyesore for our residential community. I do not have the expertise to comment on health concerns for residents who live in close proximity to a cell tower, but it is a legitimate concern that should also be a priority matter for public safety.

Although I will still be out of the country until the 13th, I did want to send you my concerns in the event that I am unable to attend the next meeting due to flight schedules.

Thank you for your consideration in this matter.

Sincerely,

JoAnn Desmond

1681 Yale Ct.

Sent from my iPhone

Subject: FW: Cell Tower West Lake Forest: Strongly oppose!

From: ADRIANA BRISKU <adrianabrisku@hotmail.com>
Date: November 7, 2024 at 9:36:39 PM CST
To: "Czerniak, Cathy" <CzerniaC@cityoflakeforest.com>
Subject: Cell Tower West Lake Forest: Strongly oppose!

CAUTION: This email originated from outside the organization. Verify the legitimacy of the email with the sender before clicking links or opening attachments from unexpected sources.

Ms. Cathy Czerniak,

I, like many of my neighbors and other area residents, are strongly opposed, and deeply disturbed the city of Lake Forest would even consider allowing a massive tower at this location.

I watched the last plan commission meeting. At the meeting it was mentioned there are tracks at this location for the proposed tower. The train station, and the tracks present, do not negate the neighborhoods and many homes right there. West Lake Forest resident homes, our property values, and the integrity of our area would be directly impacted by this massive tower (about 150', about 10-15 stories). We should not be sacrificed this way.

When shopping for a home in any area, we, like most shoppers look for many things: the house specifically of course, but also nearby factors like neighborhood, beauty, trees, location to schools and parks. Nowhere on that list of factors shopping for a home is the ranking of "cell service". Cell service is perfectly fine for us and for others it can be easily resolved for dead spot areas or for homes. In fact, the opposite, having a huge tower would be a major negative consequence to our home value and a reason NOT to buy.

There are often special considerations given to the east part of Lake Forest. Why not the same for West Lake Forest? West Lake Forest deserves to be beautiful too!!!!

Please, please, please do not do this to us!

Adriana Brisku
1275 W Cascade Court South
Lake Forest IL 60045

Friedrich, Michelle

Subject: FW: Cell Tower, West Lake Forest - strongly oppose and questions

From: Viktor Brisku <vbrisku@gmail.com>

Date: November 7, 2024 at 9:36:52 PM CST

To: "Czerniak, Cathy" <CzerniaC@cityoflakeforest.com>

Subject: Cell Tower, West Lake Forest - strongly oppose and questions

CAUTION: This email originated from outside the organization. Verify the legitimacy of the email with the sender before clicking links or opening attachments from unexpected sources.

Hi Ms Cathy Czerniak,

I am writing in strong opposition to the proposed tower at the West train station location. What are the other locations that were / are considered? What are the other solutions/technologies available and were they all considered? If there are dead spots, can we focus on, and work to serve the dead spots?, instead of a massive tower?

One massive tower is not the only way to deliver cell service. In fact, this may not be the best way to deliver the latest generations of services. Current 5G requires more access points, not fewer. As future generations are deployed, 6G, 7G, etc. high towers like this one, will not be best form. More points, scattered as needed, will be more effective. As an analogy we no longer build large antennas on the top of our home roof tops. We use smaller dish or wired options that are not visible. Our neighborhood does not even have electric wires visible. We should keep this consistency please!

Has the city considered other funding options? Private/Public funds. If there are residents that want better service, there are options. Carriers offer home boosters. Perhaps the city may consider boosters for any resident that wants one. That would come at a much lower cost versus major hit on property values and maintaining the beauty of our city for West Lake Forest too!

Has the city shared the full dimensions to the plan commission? We should be informed of the actual size and dimensions completely. The city is asking to build what may be the TALLEST structure in all of Lake Forest. (what could be ~10-15 stories) This "Pole" form tower proposed would need to be much higher to include all the communications components in stacked form inside. This tower would also need to be a much wider/larger diameter with all the components installed inside and not mounted on the exterior. How wide is this proposed tower?

If any of the board is "not sure about this"...then it needs to NO. Please no, please no, please no! Thank you.

Viktor Brisku
1275 W Cascade Court South
Lake Forest IL 60045

Friedrich, Michelle

Subject: FW: Opposition to Amending City Code 159.154 and to Placement of a Cell Tower in the West Lake Forest Train Station Lot

From: Dianne Casuto <dianne.casuto@gmail.com>

Sent: Friday, November 8, 2024 12:04 PM

To: Czerniak, Cathy <CzerniaC@cityoflakeforest.com>

Cc: Walther, Richard <waltherr@cityoflakeforest.com>; Weber, Eileen <WeberE@cityoflakeforest.com>

Subject: Opposition to Amending City Code 159.154 and to Placement of a Cell Tower in the West Lake Forest Train Station Lot

Dear Cathy:

I am writing to express my strong opposition to amending the City Code for the potential placement of a cell tower in the West Lake Forest Train Station parking lot. Please know that I do not oppose enhanced cell phone service (in fact I would welcome it) nor do I object to having a tower placed in the 4th Ward. My concern is with the currently proposed location which is directly adjacent to private homes, our downtown business district and even the Everett Elementary School.

I contend that further investigation into alternative sites still needs to be done. There already are cell towers and antennas on the west side; it is puzzling that those sites are not under serious consideration for upgrades or new tower placement. I have read the packet provided to the Plan Commission on Oct. 9, 2024 and it strikes me that the tower builder and cell phone service providers are eager to improve service here. But if they are demanding this one particular location, I suspect it is because that is the most convenient and cheapest option for them. Placing the tower in this particular location most likely is best for THEIR bottom line.

This cell tower will be a terrible eyesore and could decrease the property values of those of us who live near it. The service providers stand to gain monetarily from it; if better placement for the community causes them greater monetary expense, that needs to be their issue and their problem. This project should not come about at the expense of Lake Forest taxpayers.

I would also like to draw a comparison. The east side of the City has a train station abutting a thriving business district, beautiful homes and in close proximity to Lake Forest High School. The west side has the same set-up. I doubt this project would ever be considered for the east side; the uproar from residents, the Preservation Foundation and business owners would be deafening. If you would not consider erecting a cell tower there, equal consideration should be given to the west side.

I would appreciate you sharing this message with the Plan Commissioners.

Thank you.

Dianne Casuto
1200 Wild Rose Lane
Lake Forest, IL 60045

Friedrich, Michelle

Subject: FW: Proposed wireless overlay

From: TANYA HUANG <thuangmd@comcast.net>
Sent: Friday, November 8, 2024 1:48 PM
To: Czerniak, Cathy <CzerniaC@cityoflakeforest.com>
Subject: Proposed wireless overlay

CAUTION: This email originated from outside the organization. Verify the legitimacy of the email with the sender before clicking links or opening attachments from unexpected sources.

Hello Ms. Czerniak:

I will be unable to attend the Nov 13th meeting.

As a resident of Ward 4 I'd like to suggest the planning commission consider placement change for the tower to a location that may obstruct the view point partially. If it could be located near the train station building and potentially utilize the abandoned bank space at north end, it would be less obtrusive to nearby homes and passers by.

Thank you for adding my comments to your collective data.

Tanya Huang
951 Lakewood Dr.

November 8, 2024

To:

The Community Development Department
The City of Lake Forest
220 E Deerpath Rd,
Lake Forest, IL 60045

Dear Community Development Department,

Please find the included documentation relating to the lack of cellular coverage near the Metra Station at approximately W Everett Road and Route 43. This documentation includes a conceptual design for a proposed stealth “flagpole without a flag” cellular facility which, for the purposes of the upcoming re-zoning meeting, is meant for demonstrative purposes only and is not intended to be a specific proposal to the city for consideration at said meeting.

Vertical Bridge is a national tower company and preferred tower partner of all major carriers. For this area, Vertical Bridge is currently partnering with both Verizon and AT&T to build a structure that resolves existing coverage issues, and we expect T-Mobile to soon follow suit as the area lacks coverage for all three carriers.

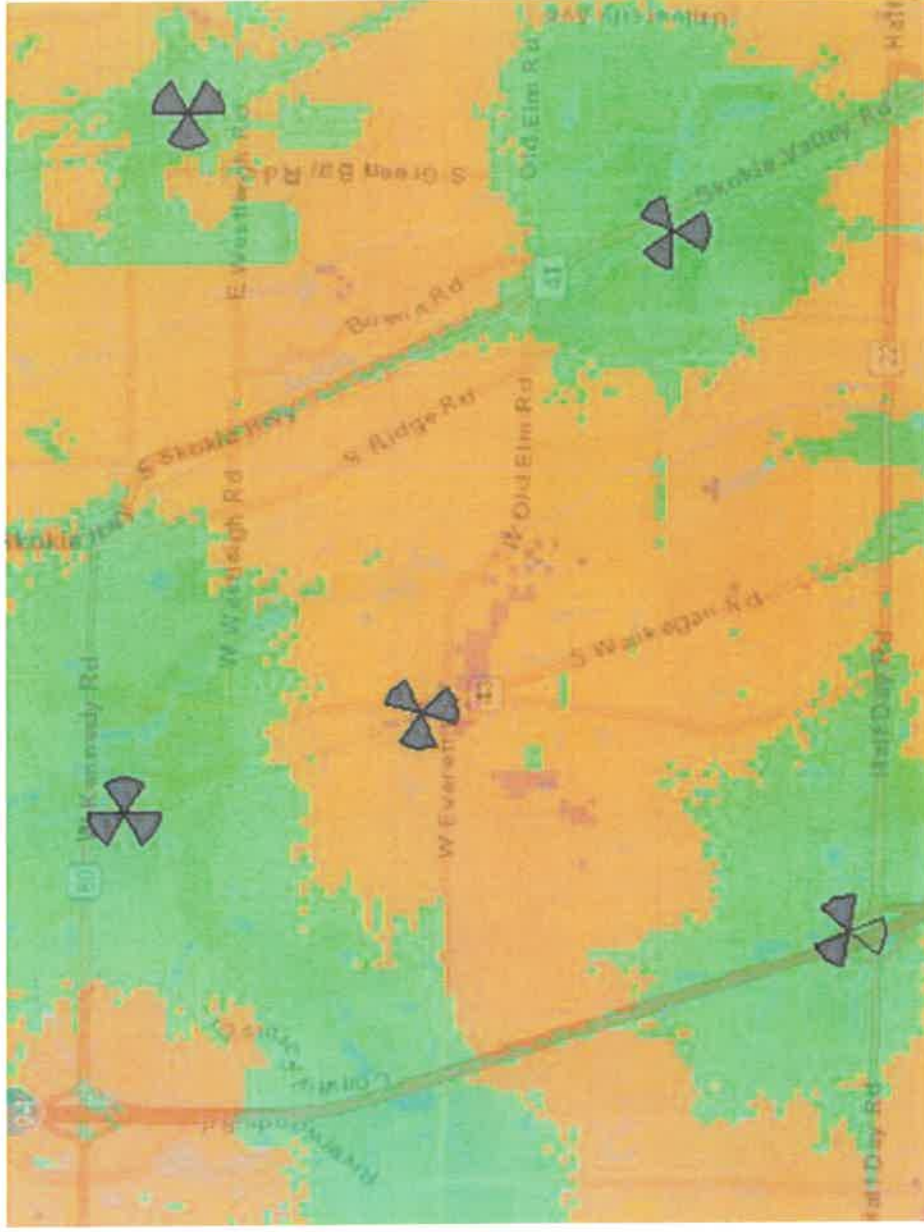
Sincerely,

Daniel Kalina

Daniel Kalina, Development
Vertical Bridge

AT&T Coverage Map

Existing Coverage Without Proposed New Facility



LTE: Baseline LTE: RSRP (dBm)

Great

Fair

Non-Uniform

AT&T Coverage Map

Future Coverage With Proposed New Facility



LTE: Baseline LTE: RSRP (dBm)

Great

Fair

Non-Uniform

Verizon Coverage Map

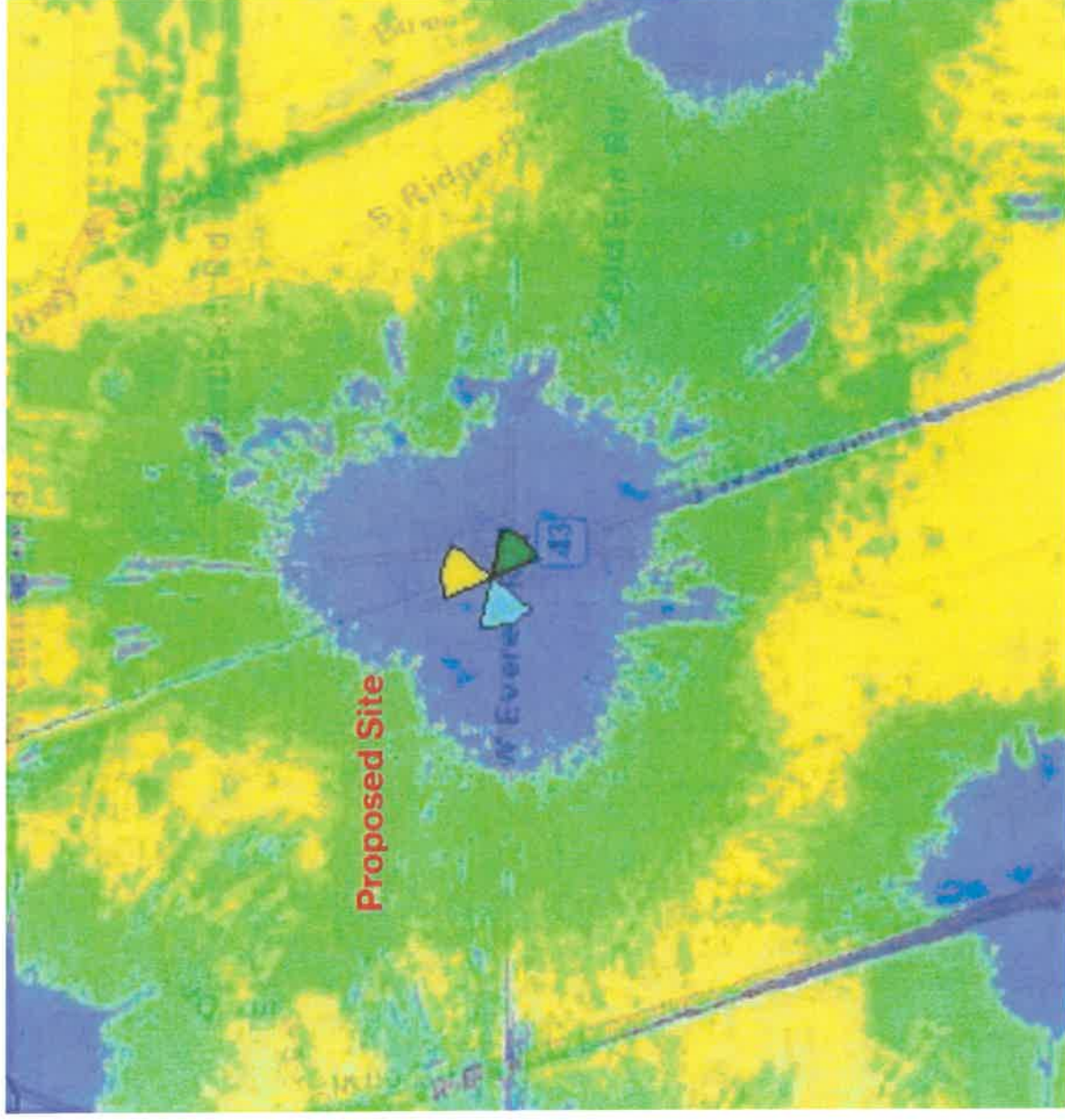
Existing Coverage Without Proposed New Facility



Reliable Indoor

Verizon Coverage Map

Existing Coverage Without Proposed New Facility



Reliable Indoor

Summary:

As shown in maps, Verizon Wireless has unreliable In-Vehicle coverage in several residential areas, as well as on the commercial/business area along RT43 and the Lake Forest Metra Train Station.

A new site is needed at the proposed location, to improve this service gap. The proposed location has been chosen as the most feasible candidate to meet the connectivity and coverage goals.

Project Objectives:

- Provide enhanced coverage that will support Emergency Services and Public Safety.
- Improve Indoor and in-vehicle coverage around and along the Commercial/Business area.
- Improve data connectivity and speed for daily commuters and local businesses/residences.

Carrier “Search Area” for Location of New Cellular Facility

The radius is 0.25 miles from the pin at the center of the circle below.



2024 WHO Study Confirms Cell Phone and Cell Tower Safety



Mobile Phones and Cell Phone Towers Are Not Linked to Brain Cancer, the Biggest Study to Date Finds.¹

Overview: A new World Health Organization-commissioned international systematic [review](#) of 5,000 studies focusing on 63 reports from 22 countries over a nearly 30-year period found that cell phone and cell tower **radiofrequency waves (RF) had no link to brain or childhood cancer risk**. Persuasively, as the use of cell phones has skyrocketed, cases of brain cancer have remained steady.² The review was conducted by eleven researchers across the world, led by a researcher from the Australian Radiation Protection and Nuclear Safety Agency, and published in the journal *Environment International*. This review is the most comprehensive to date and a clear demonstration of the safety of mobile technology.

Findings:

- Exposure to RF from mobile phone use likely **does not increase the risk of brain cancer** even with prolonged cell phone use (defined as 10 years or longer).
- RF exposure from broadcasting antennas or base stations, like towers, likely **does not increase the risk of childhood cancer**.
- Cell towers, which shuttle phone calls and text messages around the world using radio energy waves, are also [not a cancer risk](#), the researchers concluded.
- Newer generation mobile networks, including third- and fourth-generation, or 3G and 4G, actually produce "substantially lower" radio frequency emissions than older networks. While no major studies of 5G have been completed, there are studies of radar, which use similar frequencies, and there is no showing of an increased cancer risk.
- According to report author Ken Kapisris, having more cell phone towers reduces the amount of radio frequency emissions from cell phones because they don't have to work as hard to get a signal.

The Washington Post

Do Cellphones Cause Brain Cancer? A WHO Review of 63 Studies Finds No Link.

“ [Experts] found the risk of brain cancer did not increase, even with prolonged cellphone use (defined as 10 years or more), among those who spent a lot of time on their cellphones, or for people who made a lot of calls. They also found no increased risks of leukemia or brain cancer in children exposed to radio or TV transmitters or cellphone towers. ”

By Rachel Pannett, September 3, 2024

[1] Natasha May, "Mobile phones not linked to brain cancer, biggest study to date finds", *The Guardian*, September 3, 2024.

[2] Rachel Pannett, "Do cellphones cause brain cancer? A WHO review of 63 studies finds no link", *Washington Post*, September 3, 2024.



Wireless Networks and Your Health: THE FACTS

FACTS

- Wireless devices and facilities must adhere to radio frequency ("RF") emission guidelines established and enforced by the Federal Communications Commission ("FCC").

See FCC, Second Memorandum Opinion and Order and Notice of Proposed Rulemaking, 12 FCC Rcd 13494

- Under federal law, state and local governments may not regulate the placement, construction, and modification of wireless facilities on the basis of environmental effects of RF emissions if the facilities comply with FCC regulations governing RF emissions.

47 U.S.C. § 332(c)(7)(B)(iv)

- RF emissions from wireless facilities generally are significantly lower than permitted. According to recent studies, "RF exposures from base stations range from 0.002% to 2% of the levels of international exposure guidelines."

World Health Organization, Electromagnetic Fields and Public Health, who.int/teams/environment-climate-change-and-health/radiation-and-health/non-ionizing/base-stations-wireless-technologies

- The FCC has stated the "the possibility that a member of the general public could be exposed to RF levels in excess of the FCC guidelines is extremely remote."

FCC, Human Exposure to Radio Frequency Fields: Guidelines for Cellular Antenna Sites, fcc.gov/consumers/guides/human-exposure-radio-frequency-fields-guidelines-cellular-and-pcs-sites

- There is no credible scientific evidence that RF emissions from wireless base stations and wireless networks have adverse health or environmental effects.

CONCLUSIONS

- The World Health Organization has conducted a review of all available studies and concluded that "there is no convincing scientific evidence that the weak RF signals from base stations and wireless networks cause adverse health effects."

World Health Organization, Electromagnetic Fields and Public Health, who.int/teams/environment-climate-change-and-health/radiation-and-health/non-ionizing/base-stations-wireless-technologies

- The U.S. Food and Drug Administration has stated "[t]o date, there is no consistent or credible scientific evidence of health problems caused by the exposure to radio frequency energy emitted by cell phones." The FDA included 5G products when making this evaluation.

U.S. Food and Drug Administration, Scientific Evidence for Cell Phone Safety, fda.gov/radiation-emitting-products/cell-phones/scientific-evidence-cell-phone-safety

- A 2022 National Cancer Institute study conducted over 15 years concluded that "[o]ur findings support the accumulating evidence that cellular telephone use under usual conditions does not increase brain tumor incidence."

Schuz et al, "Cellular Telephone Use and the Risk of Brain Tumors: Update of the UK Million Women Study", 2022. <https://pubmed.ncbi.nlm.nih.gov/35350069/>

- The FCC has stated "no scientific evidence currently establishes a definitive link between wireless device use and cancer or other illnesses."

FCC, Wireless Devices and Health Concerns, fcc.gov/consumers/guides/wireless-devices-and-health-concerns

- A 2022 Frontiers of Public Health study found that over half of studies about 5G safety concerns were written "by authors with links to anti-5G campaigning organizations" and that those studies "have disproportionately influenced the narrative"

Frank de Vocht and Patricia Albers, frontiersin.org/articles/10.3389/fpubh.2022.1082031/full

EXISTING

SIMULATION - A4

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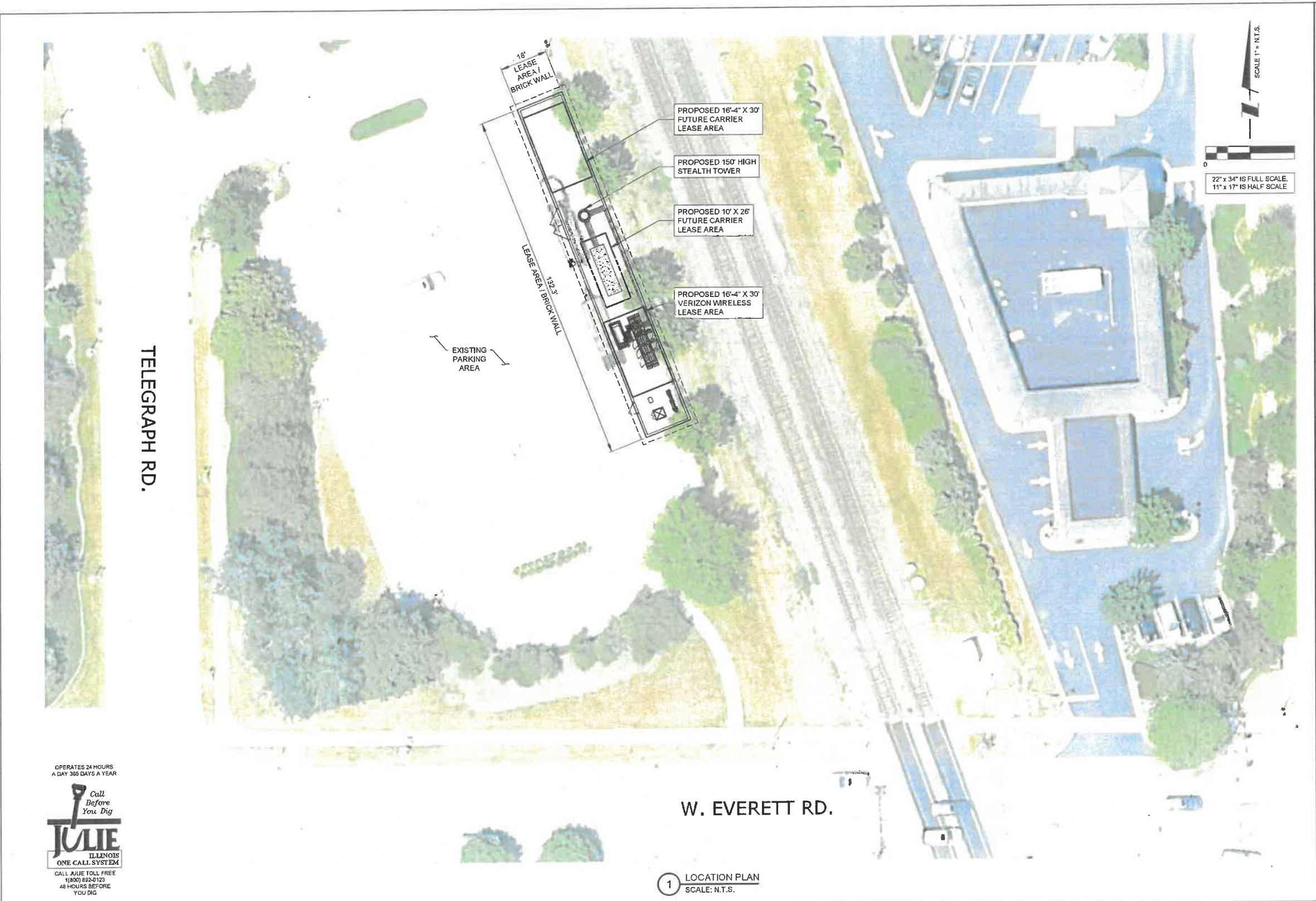


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750 PARK OF COMMERCE DRIVE
SUITE 200
BOCA RATON, FL 33487
www.verticalbridge.com

PLANS PREPARED BY:
TERRA
CONSULTING ENGINEERS, LTD.
600 BUSSE HIGHWAY
PAUK RIDGE, IL 60069
PH: 847-698-6209
FAX: 847-698-9401

SEAL:

NO.	DESCRIPTION	DATE	BY	TJS
		09/17/24	JJR	
1	ISSUED FOR REVIEW	10/25/24		
	REVISED TO SHOW VERIZON WIRELESS			

SITE #
US-IL-5866
MGD LOC. #
5000902422

EVERETT
&
RT43

920 S. WAUKEGAN RD.
LAKE FOREST, IL 60045

DRAWN BY: JJR

CHECKED BY: DS

DATE: 09/11/24

PROJECT #: 107-105

SHEET TITLE
LOCATION PLAN

SHEET NUMBER
LP

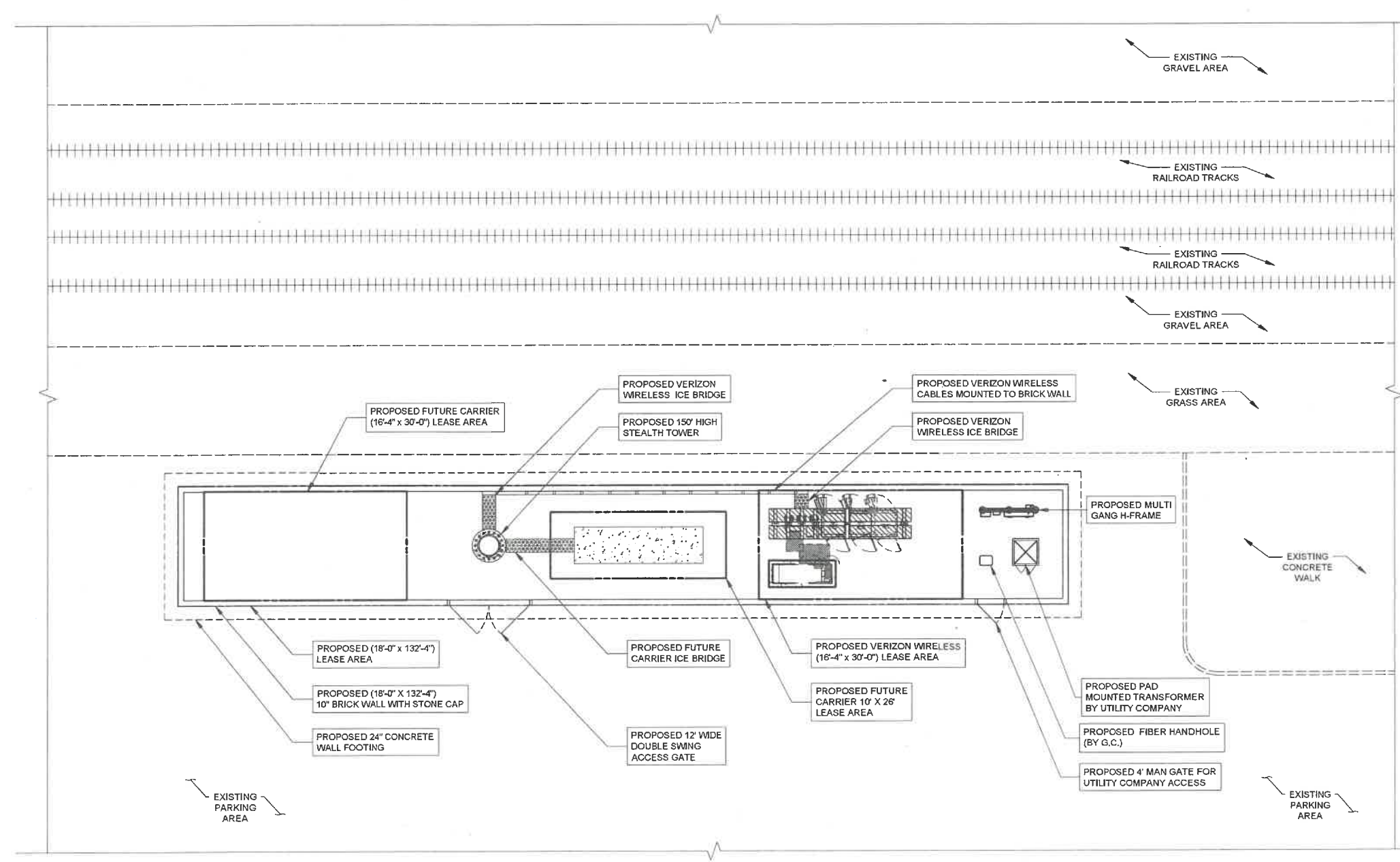
OPERATES 24 HOURS
A DAY 365 DAYS A YEAR

Call Before You Dig

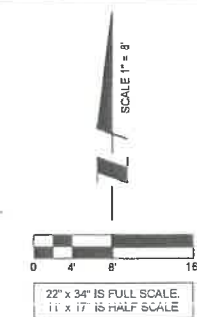
JULIE
ILLINOIS
ONE CALL SYSTEM

CALL JULIE TOLL FREE
1(800) 692-0123
48 HOURS BEFORE
YOU DIG

1 LOCATION PLAN
SCALE: N.T.S.



1 ENLARGED SITE PLAN
SCALE: 1" = 8'



750 PARK OF COMMERCE DRIVE
SUITE 200
BOCA RATON, FL 33487
www.verticalbridge.com

PLANS PREPARED BY:

600 BUSSE HIGHWAY
PARK RIDGE, IL 60063
PH: 847-698-6408
FAX: 847-698-6481

SEAL:

NO.	DATE	BY	DESCRIPTION
1	08/11/24	JJR	ISSUED FOR REVIEW
	10/05/24	TJS	REVISED TO SHOW VERIZON WIRELESS

SITE #
US-IL-5866
MGD LOC. #
5000902422

EVERETT
&
RT43

920 S. WAUKEGAN RD.
LAKE FOREST, IL 60045

DRAWN BY:	JJR
CHECKED BY:	DS
DATE:	09/11/24
PROJECT #	107-105

SHEET TITLE

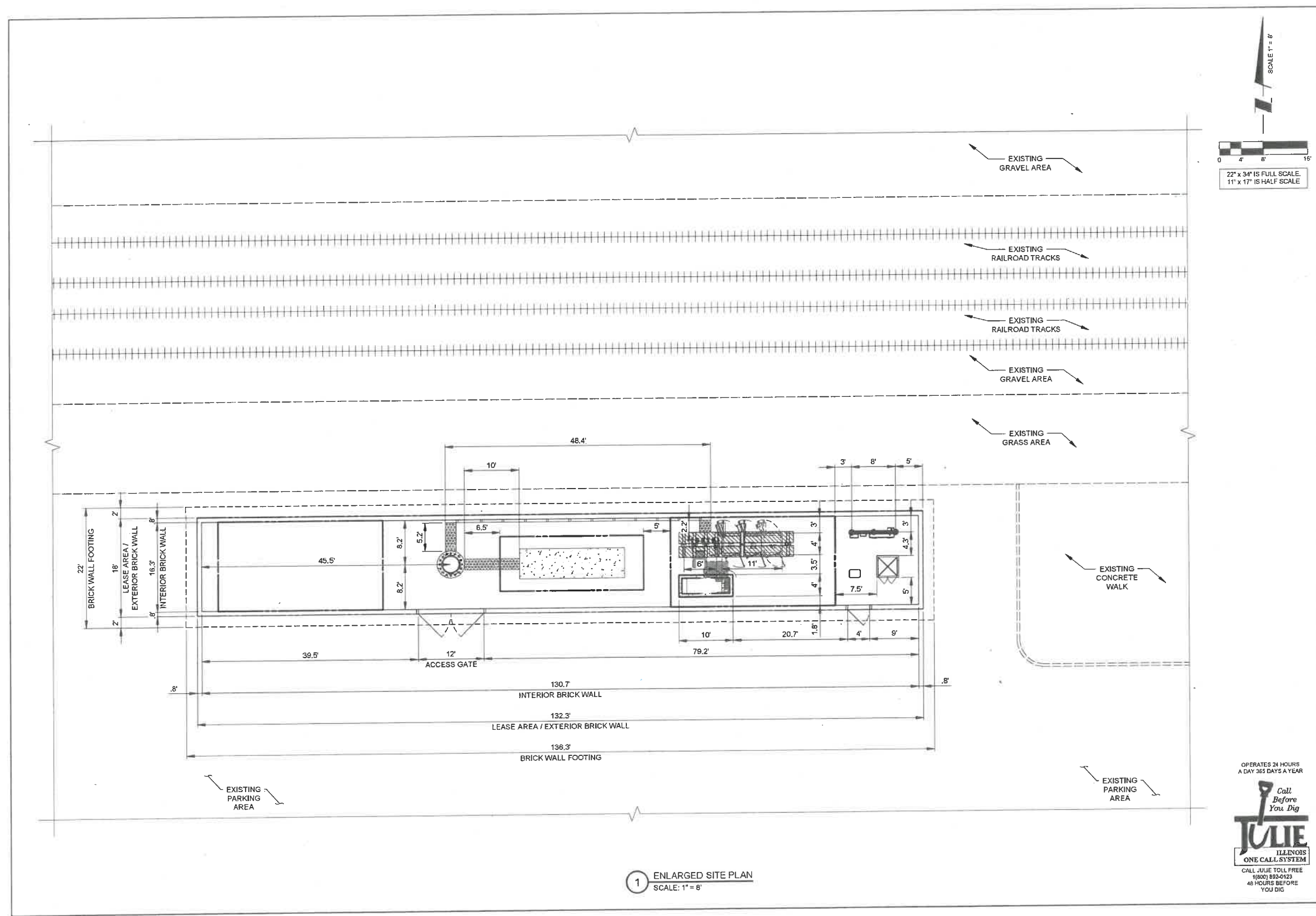
ENLARGED SITE PLAN

SHEET NUMBER

C-1

OPERATES 24 HOURS
A DAY 365 DAYS A YEAR

Call Before You Dig
ILLINOIS
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CALL JULIE TOLL FREE
1(800) 892-0123
48 HOURS BEFORE
YOU DIG



1 ENLARGED SITE PLAN
SCALE: 1" = 8'

SCALE 1" = 8'

22" x 34" IS FULL SCALE.
11" x 17" IS HALF SCALE

750 PARK OF COMMERCE DRIVE
SUITE 200
BOCA RATON, FL 33487
www.verticalbridge.com

PLANS PREPARED BY:

600 BUSSE HIGHWAY
PARK RIDGE, IL 60068
PH: 847-695-6400
FAX: 847-695-6481

SEAL:

NO.	DATE	BY	DESCRIPTION
1	09/11/24	JJR	ISSUED FOR REVIEW
	10/25/24	TJS	REMOVED TO SHOW VERIZON WIRELESS

SITE #
US-IL-5866
MGD LOC. #
5000902422

EVERETT
&
RT43

920 S. WAUKEGAN RD.
LAKE FOREST, IL 60045

DRAWN BY: JJR

CHECKED BY: DS

DATE: 09/11/24

PROJECT #: 107-105

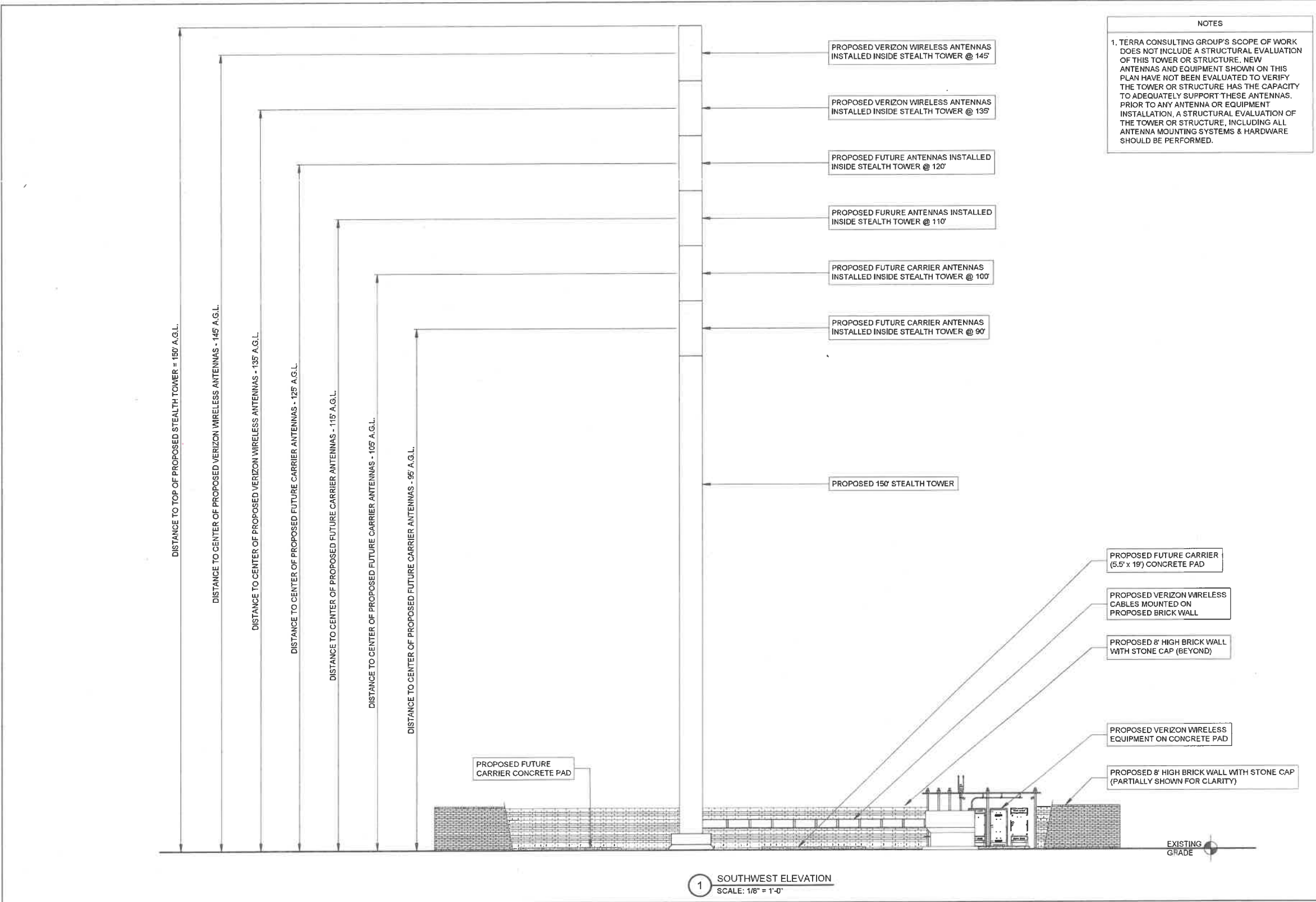
SHEET TITLE
**DIMENSION
PLAN**

SHEET NUMBER
C-1A

OPERATES 24 HOURS
A DAY 365 DAYS A YEAR

ILLINOIS
ONE CALL SYSTEM

CALL JULIE TOLL FREE
(800) 895-0123
48 HOURS BEFORE
YOU DIG



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CONSULTING GROUP, LLC
600 BUSSE HIGHWAY
PARK RIDGE, IL 60068
PH: 847-438-6400
FAX: 847-438-4411

SEAL

REVISIONS		NO.	DATE	BY	DESCRIPTION
		1	09/17/24	JJR	ISSUED FOR REVIEW
			10/25/24	TJS	REVISED TO SHOW VERIZON WIRELESS

SITE #
US-IL-5866
MGD LOC. #
5000902422

EVERETT
&
RT43

920 S. WAUKEGAN RD.
LAKE FOREST, IL 60045

DRAWN BY: JJR
CHECKED BY: DS
DATE: 09/11/24
PROJECT #: 107-105

SHEET TITLE
SITE ELEVATION

SHEET NUMBER
ANT-1

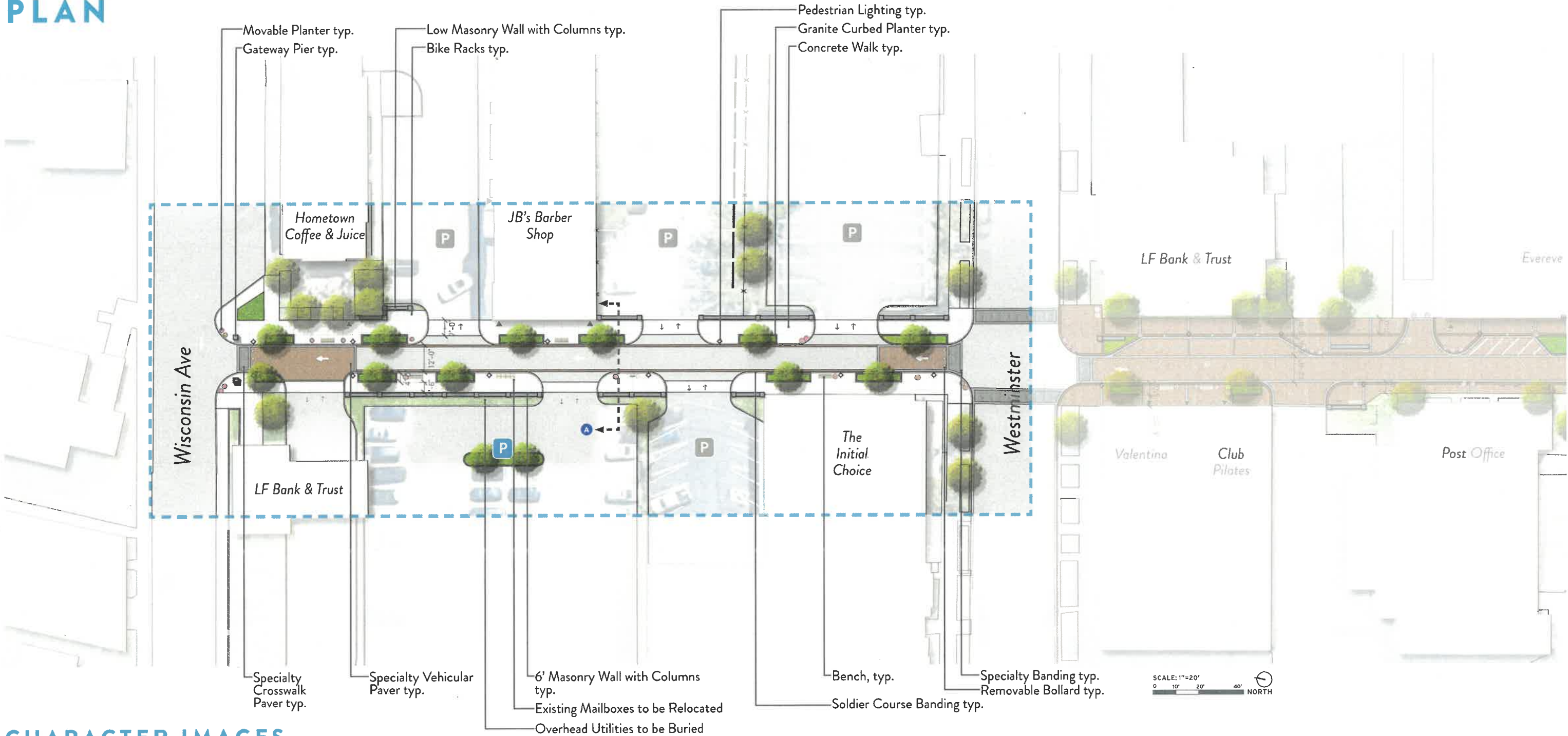
Plan Commission Meeting – November 13, 2024
Agenda Item 4

Bank Lane Streetscape Enhancement Plan - Draft

For information, Input, Discussion

BLOCK 1 - North Gateway

PLAN



CHARACTER IMAGES



Street Trees

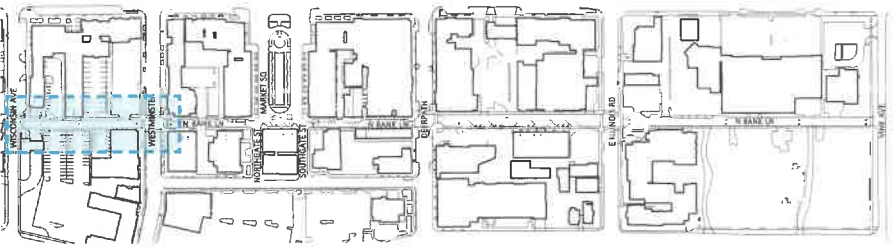


Landscaping & Furnishings



Curbed Planters & Benches

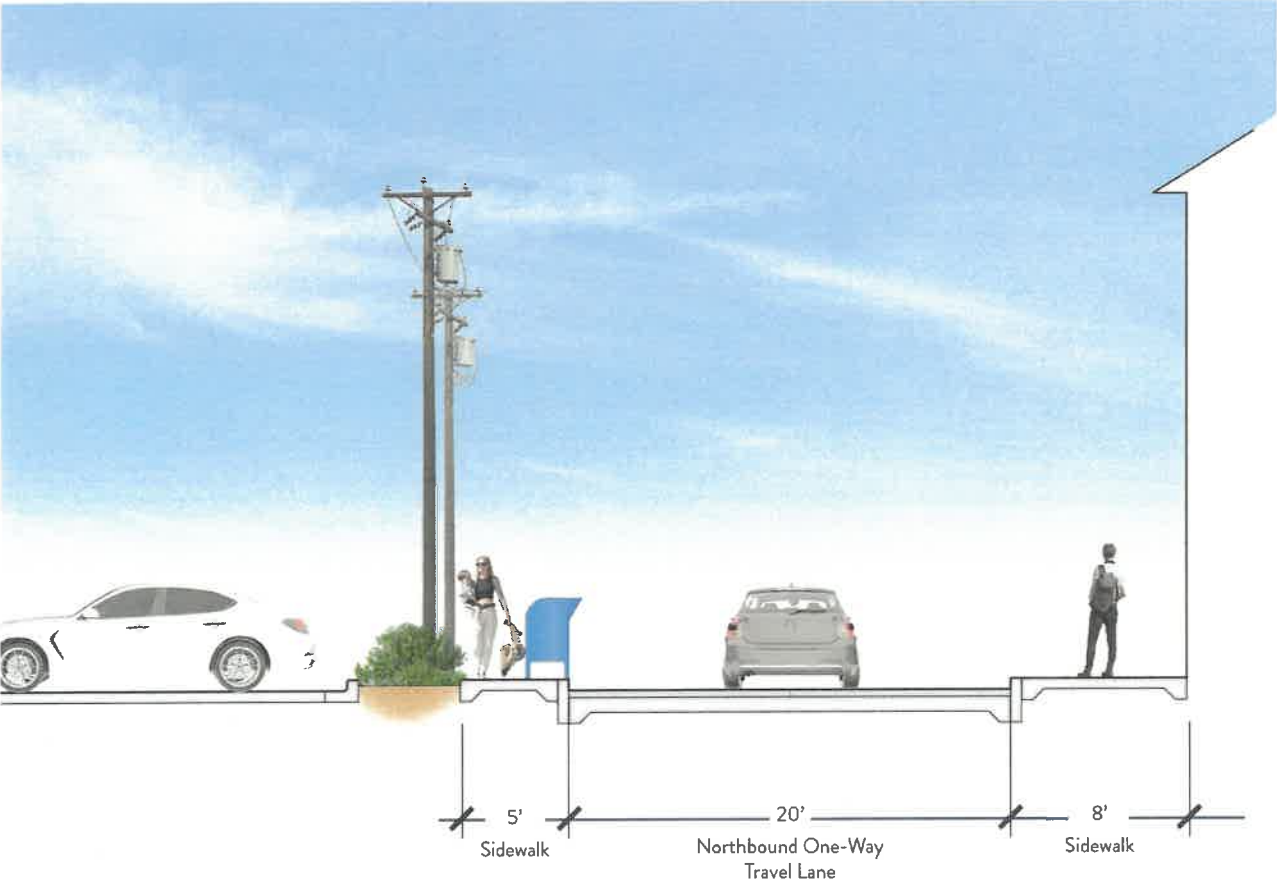
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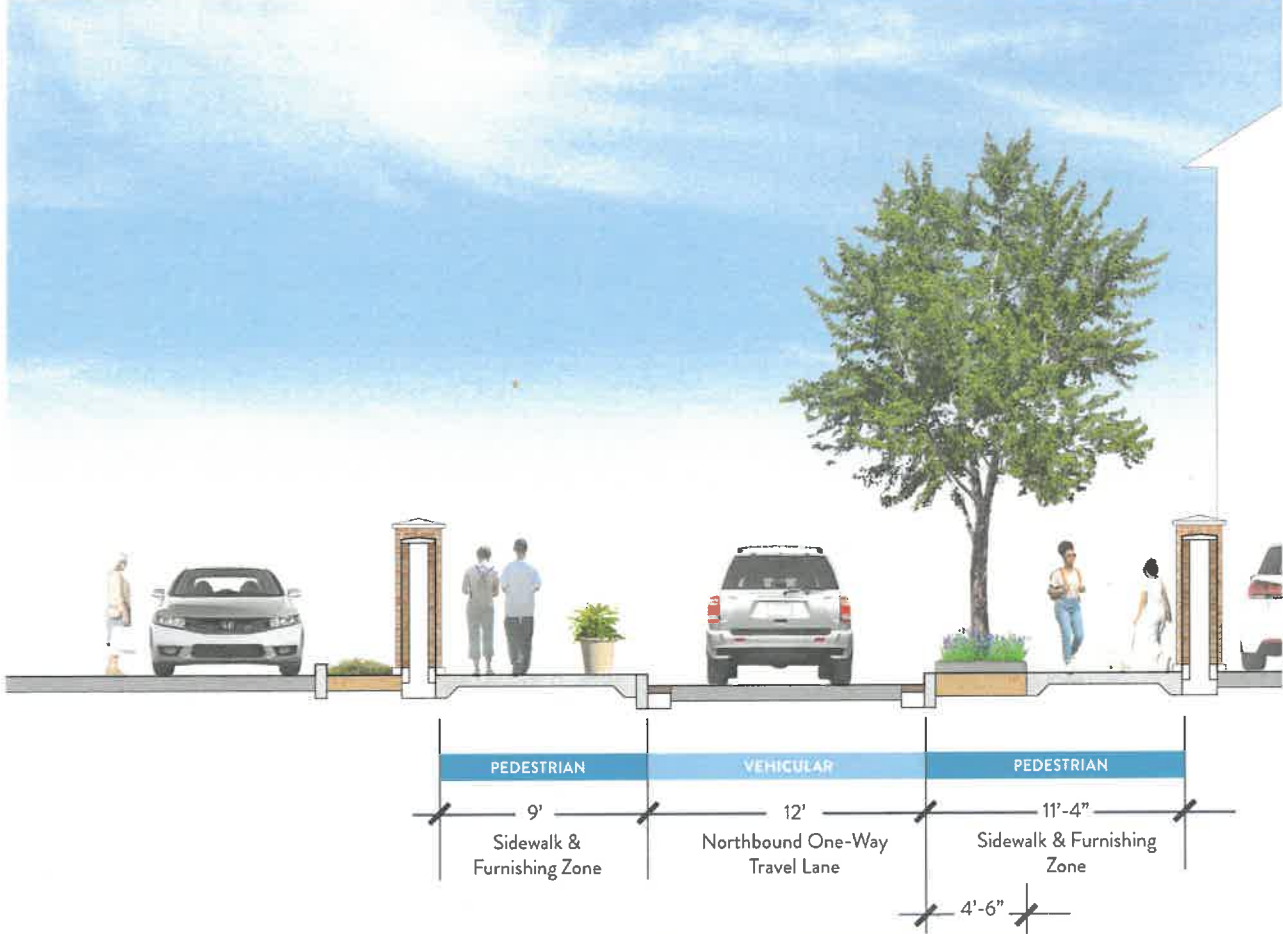
BLOCK 1 - North Gateway

SECTION A

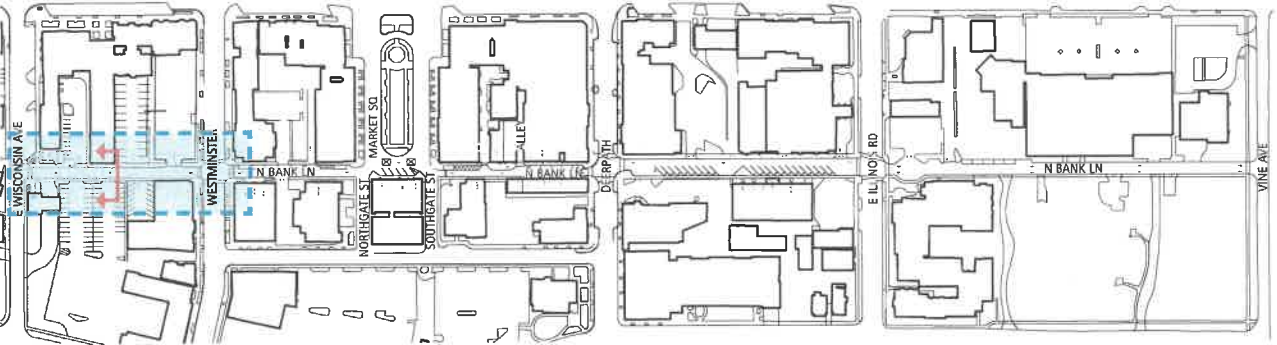
Existing



Proposed

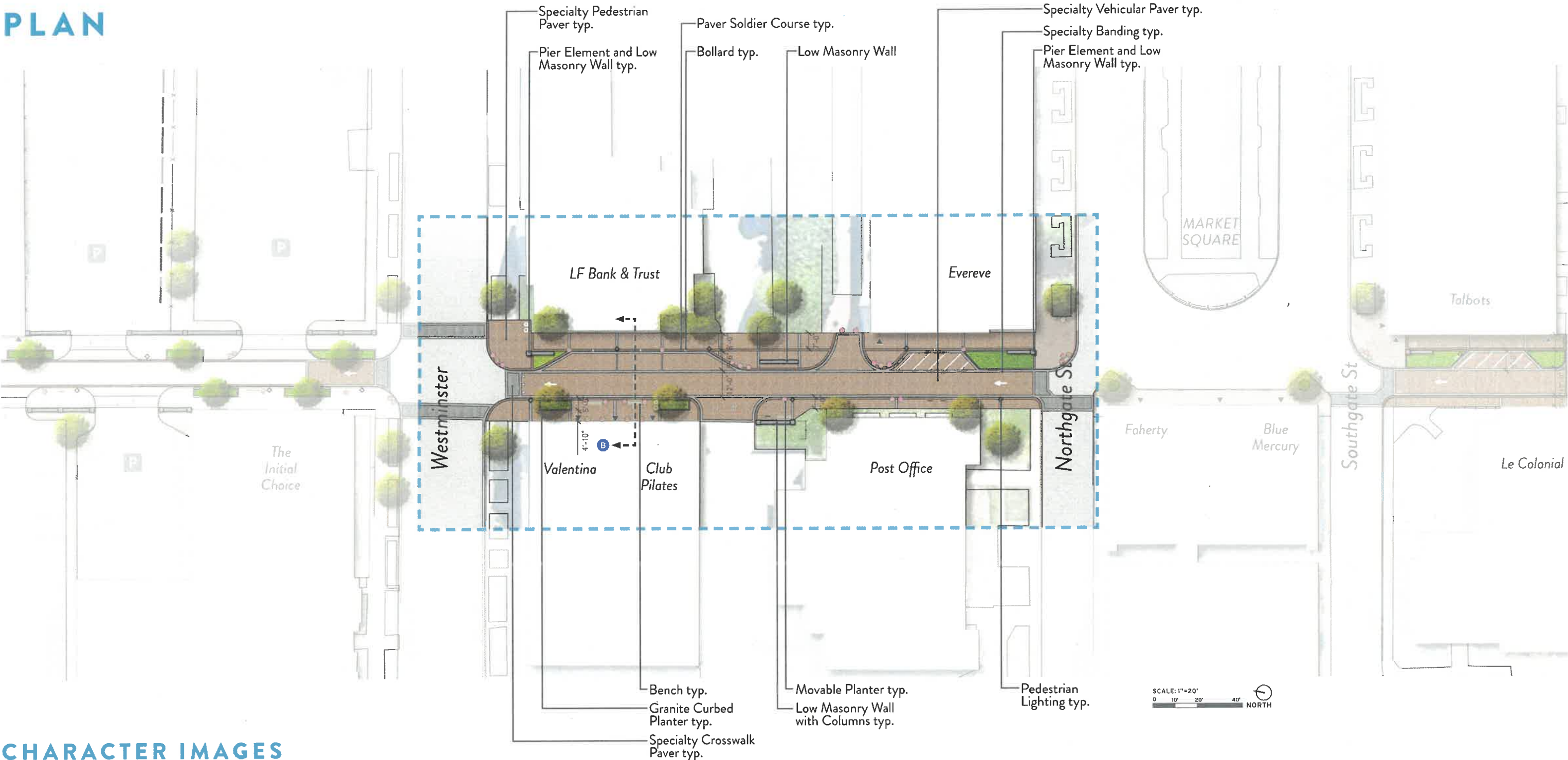


SECTION LOCATION KEY MAP



BLOCK 2 - North Market Square

PLAN



CHARACTER IMAGES



Specialty Pedestrian Zone Pavers

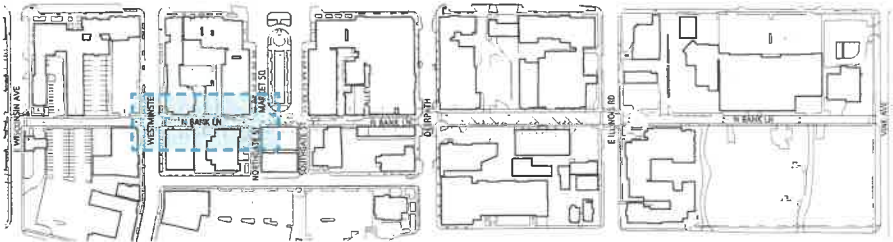


Activated Streetscape



Architectural Wall Details

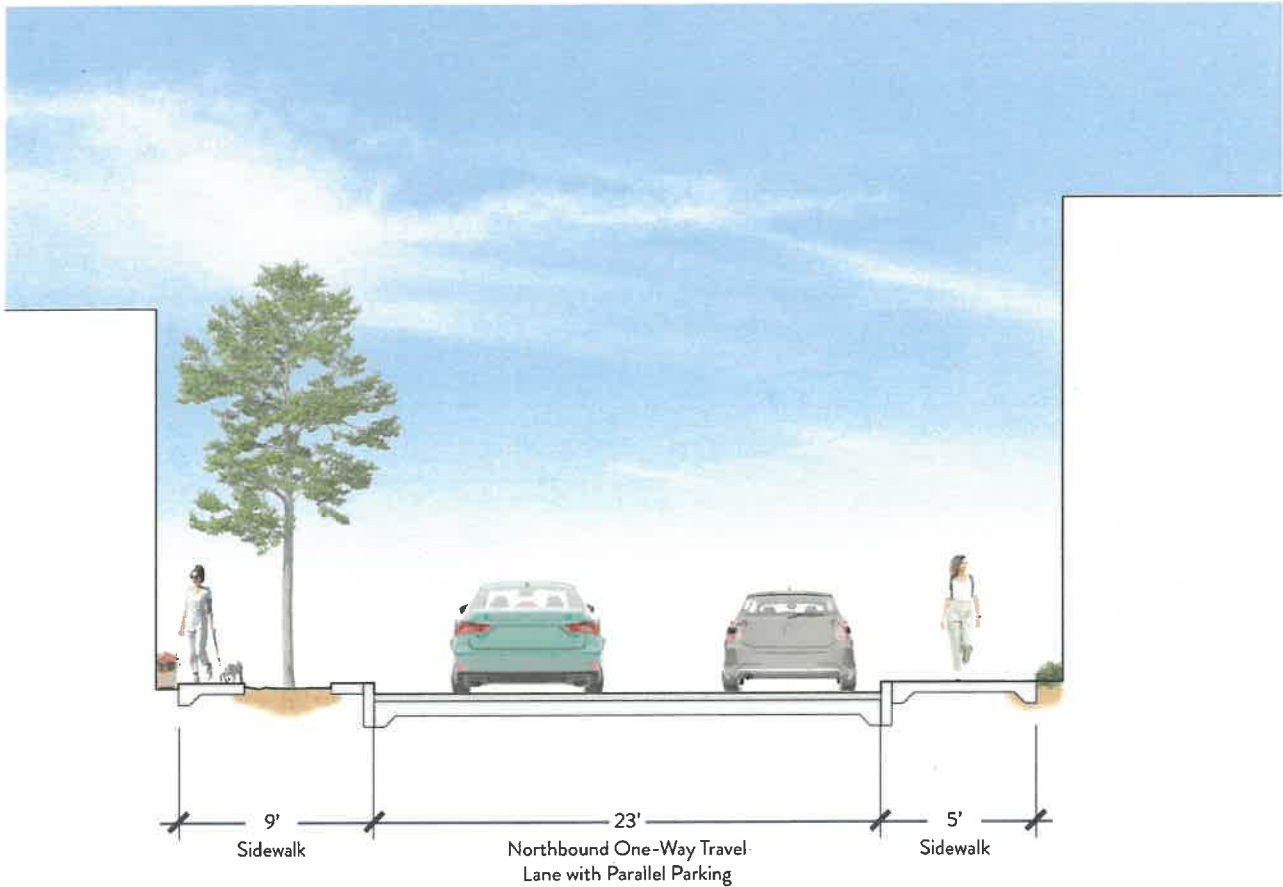
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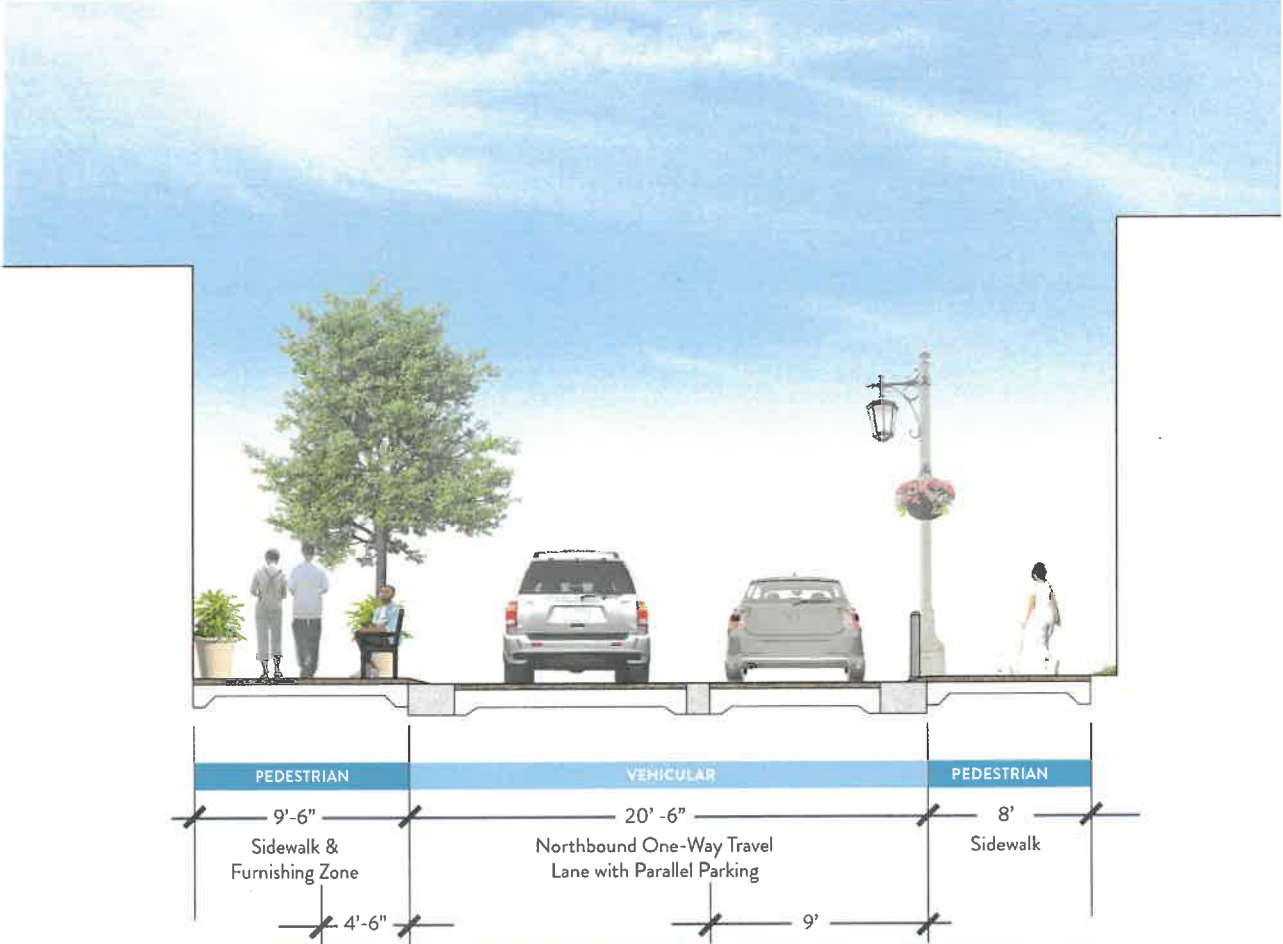
BLOCK 2 - North Market Square

SECTION B

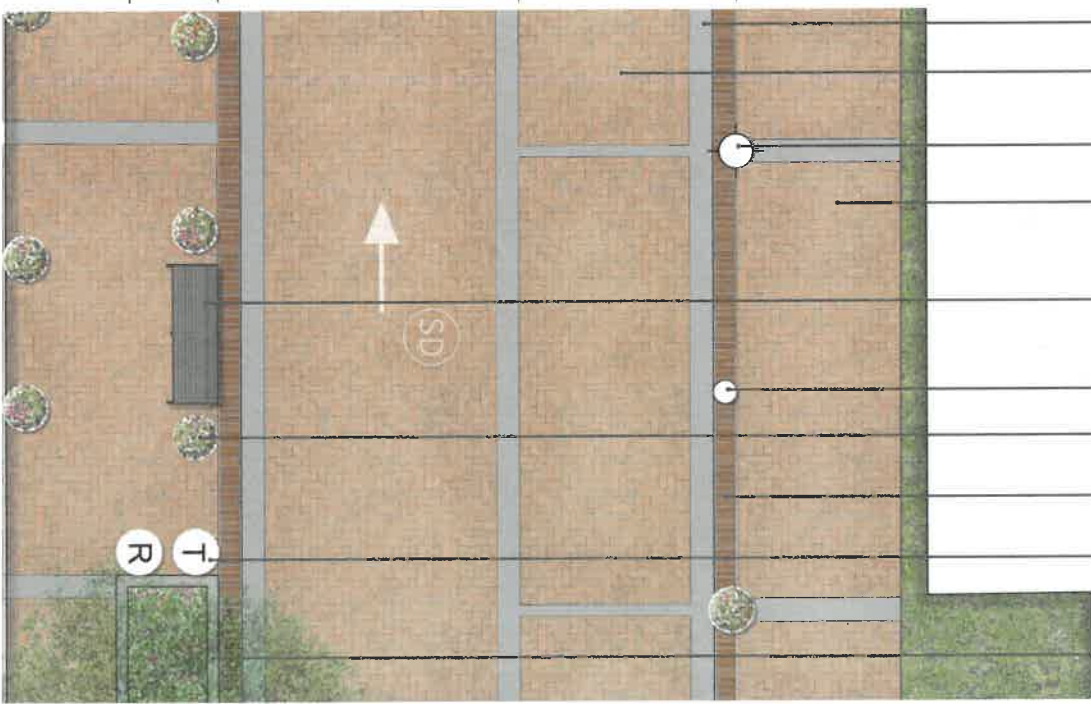
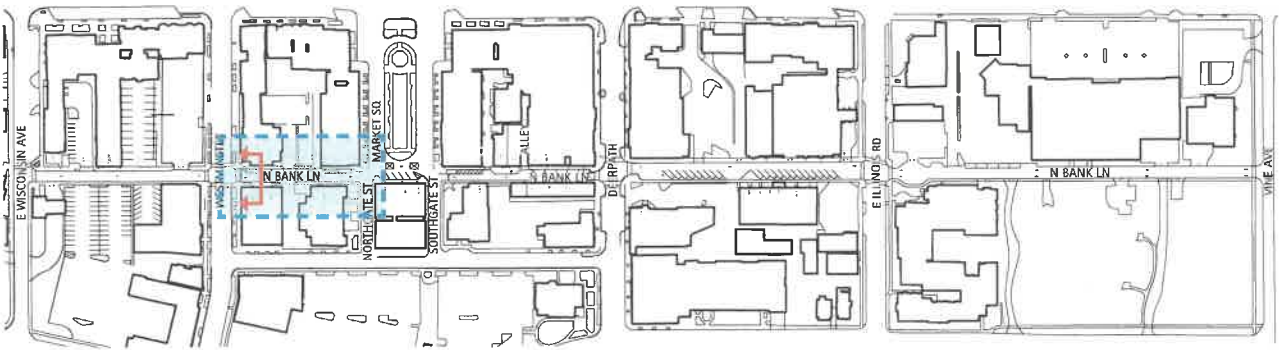
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Proposed



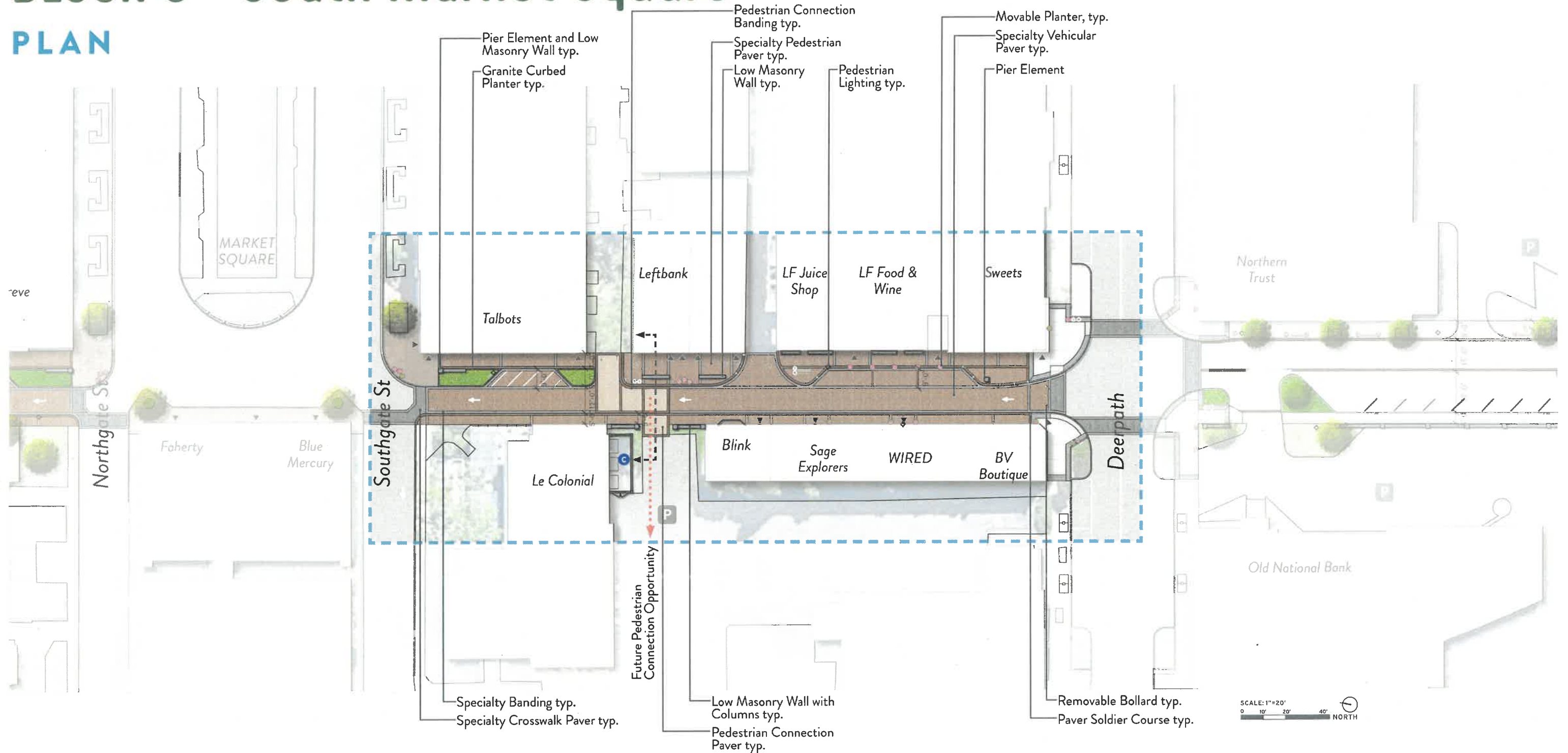
SECTION LOCATION KEY MAP



- Specialty Banding typ.
- Specialty Vehicular Paver typ.
- Pedestrian Lighting typ.
- Specialty Pedestrian Paver typ.
- Bench typ.
- Bollard typ.
- Movable Planter typ.
- Soldier Course Banding typ.
- Trash and Recycling typ.
- Granite Curbed Planter typ.

BLOCK 3 - South Market Square

PLAN



CHARACTER IMAGES



Pedestrian Gateway

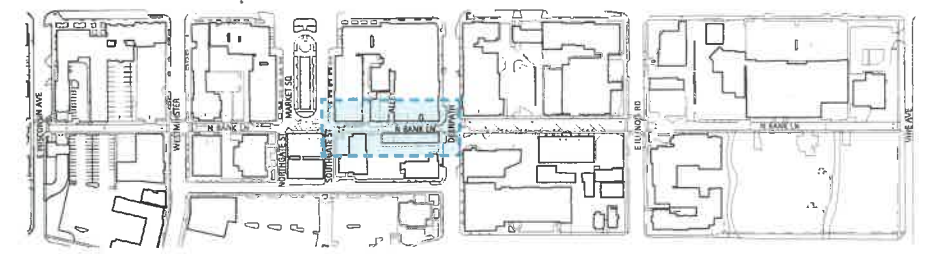


Parallel Parking



Furnishing Zone

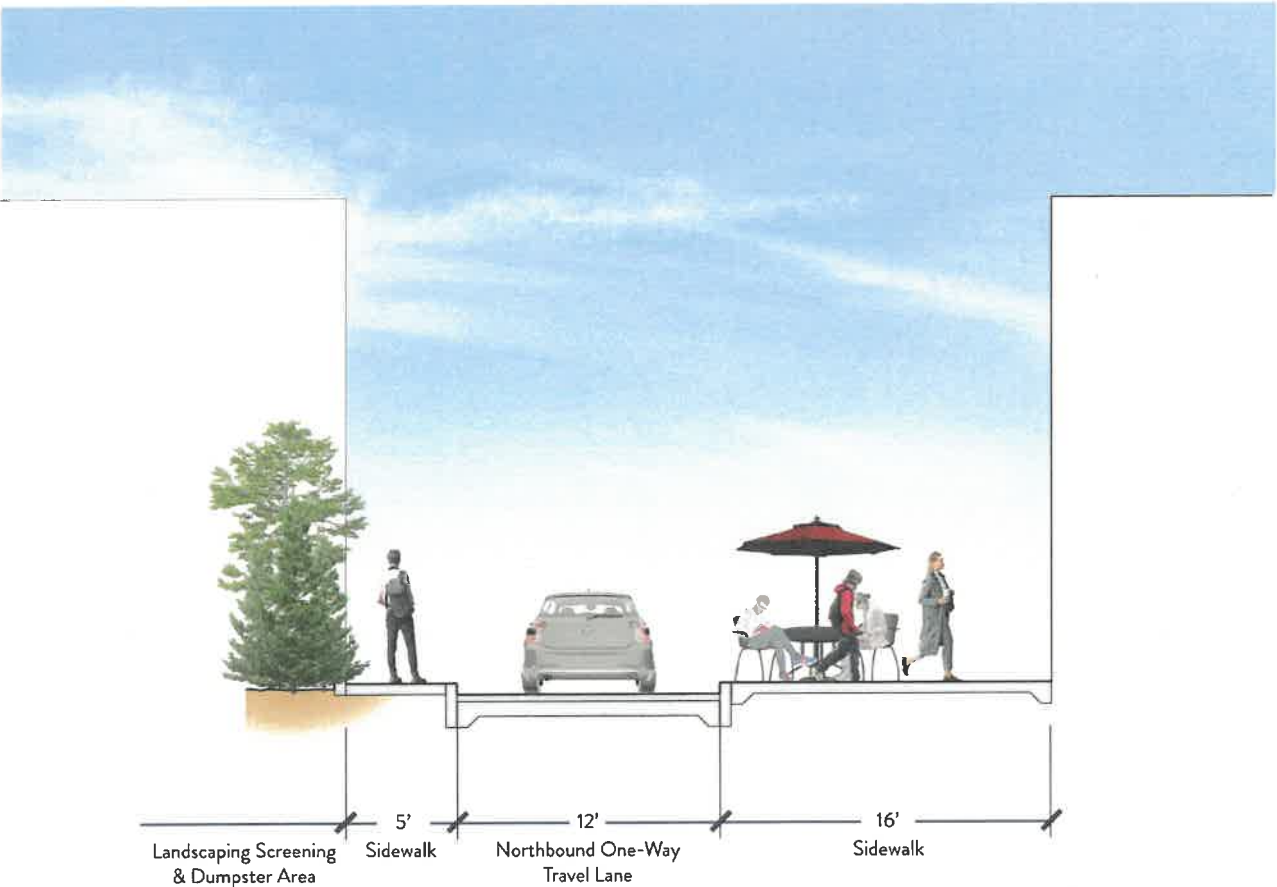
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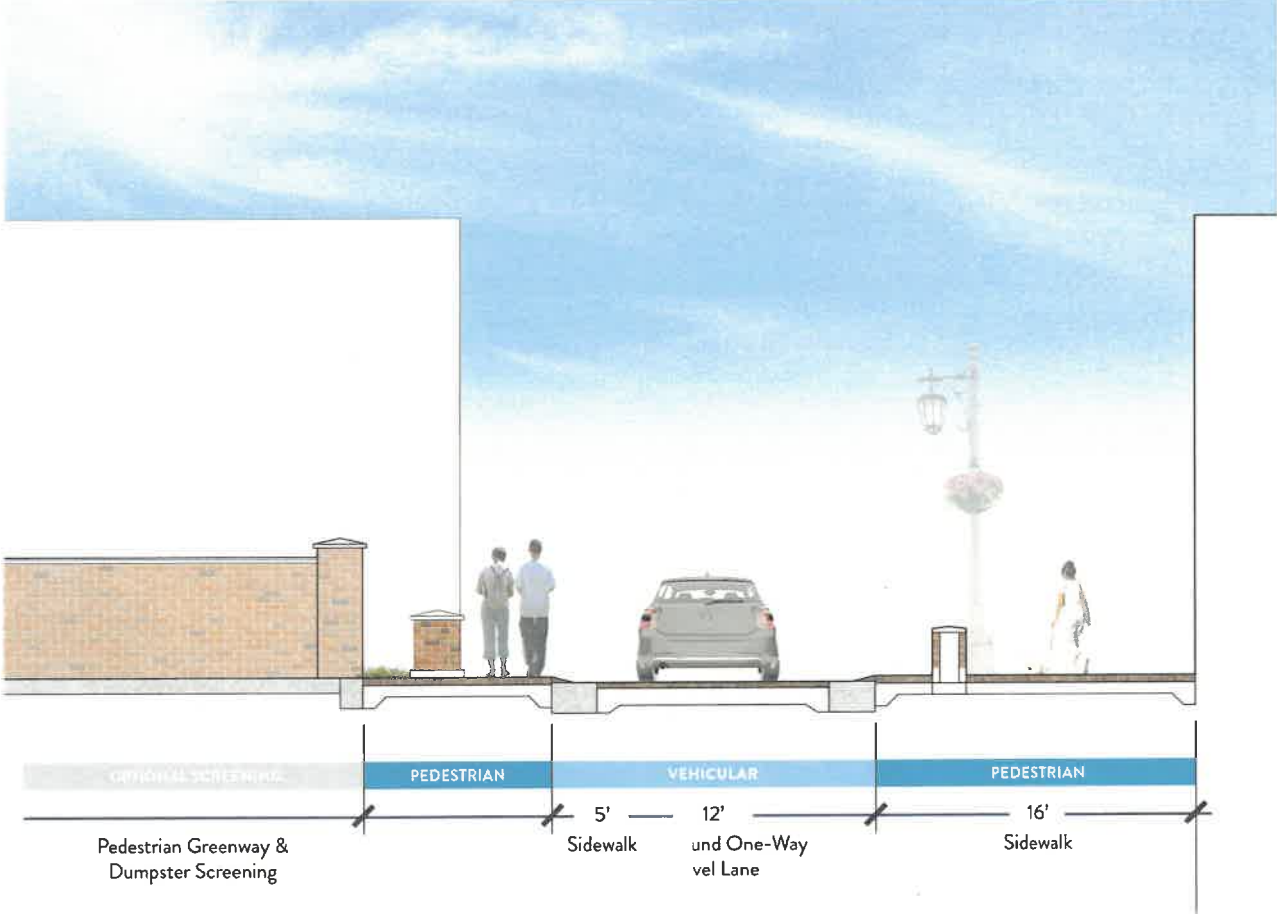
BLOCK 3 - South Market Square

SECTION C

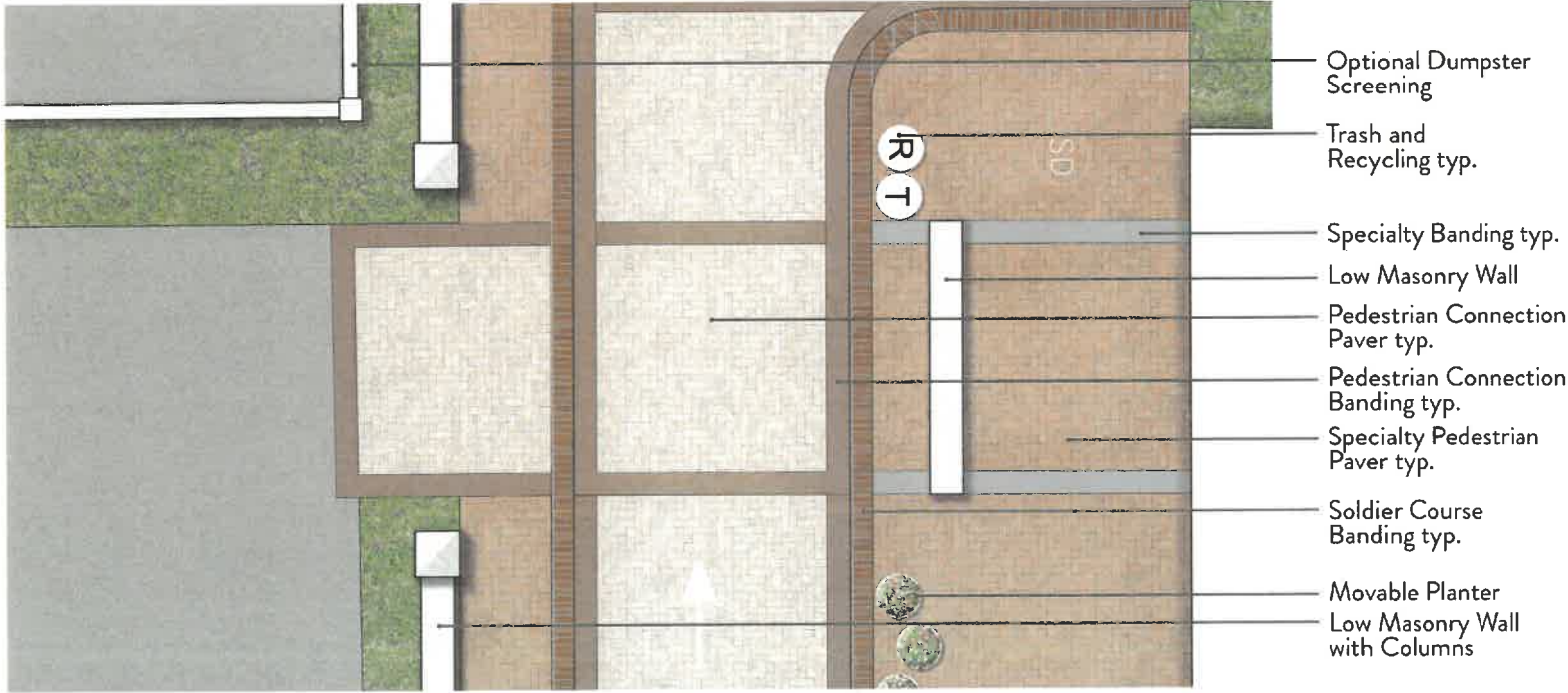
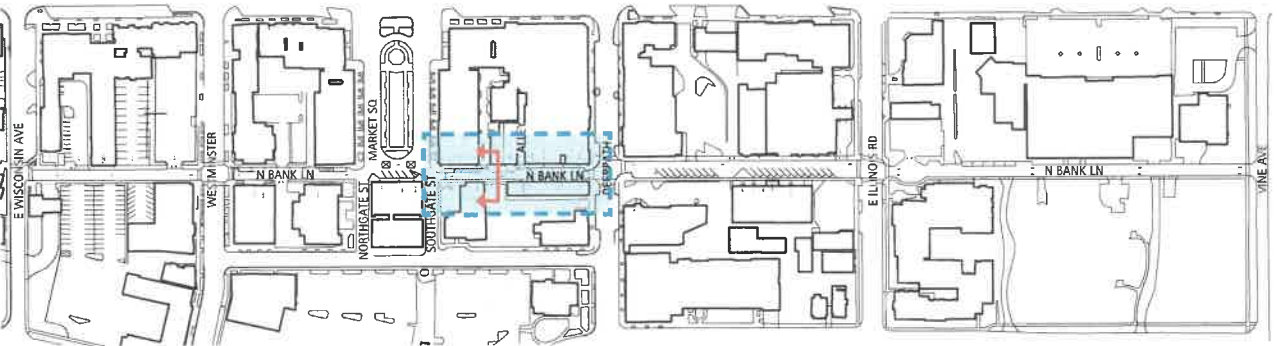
Existing



Proposed

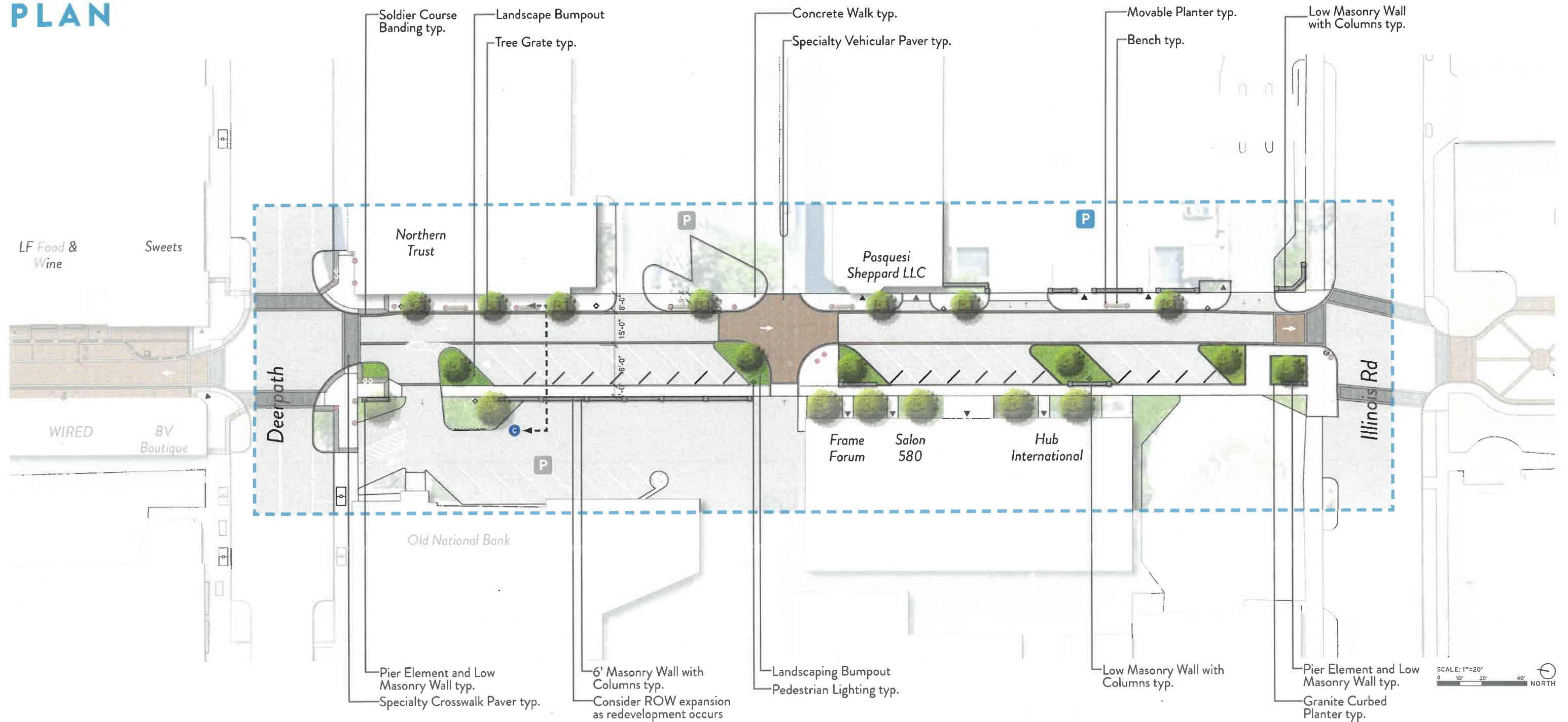


SECTION LOCATION KEY MAP



BLOCK 4 - Central

PLAN



CHARACTER IMAGES



Vibrant Intersections

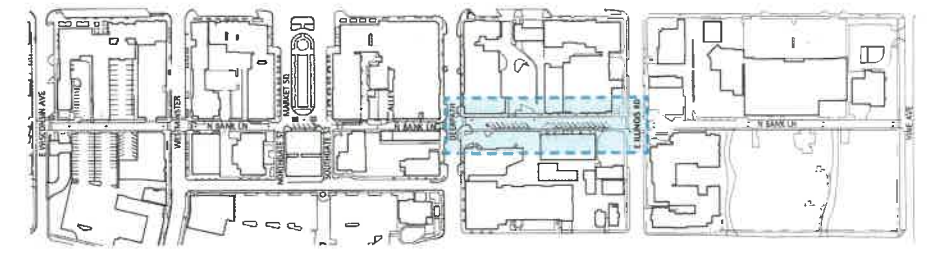


Pedestrian Zone



Linear Plaza

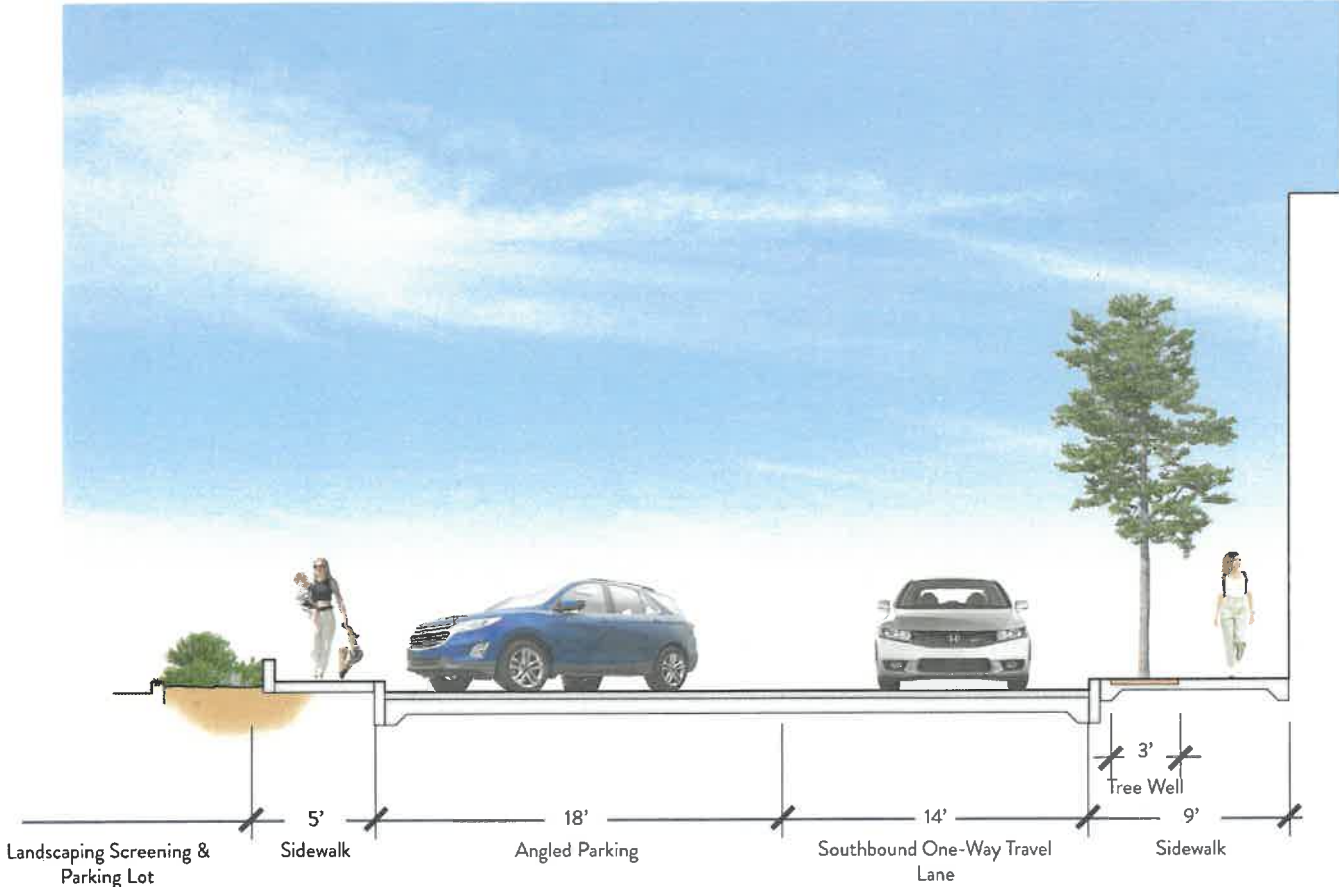
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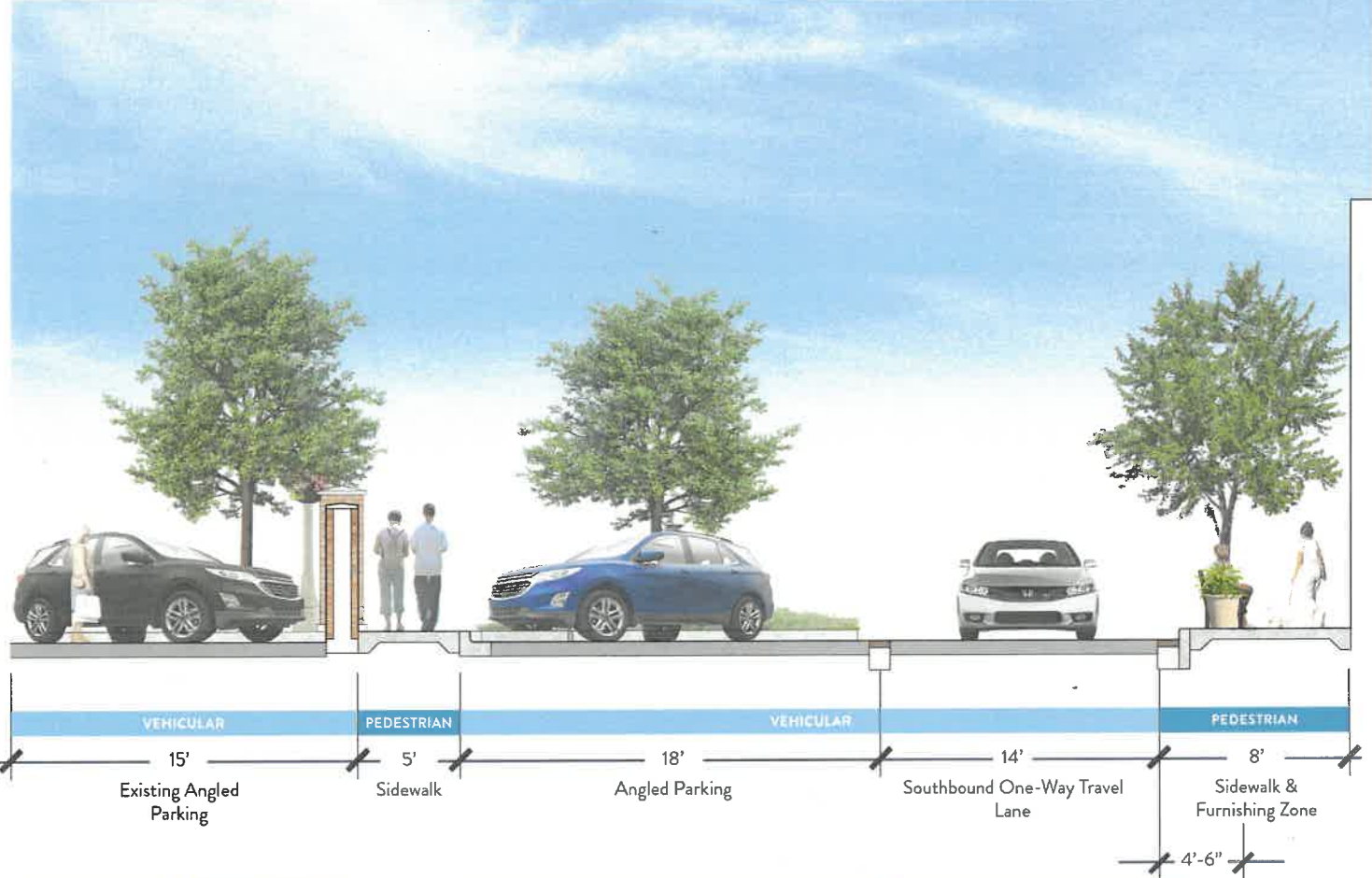
BLOCK 4 - Central

SECTION D

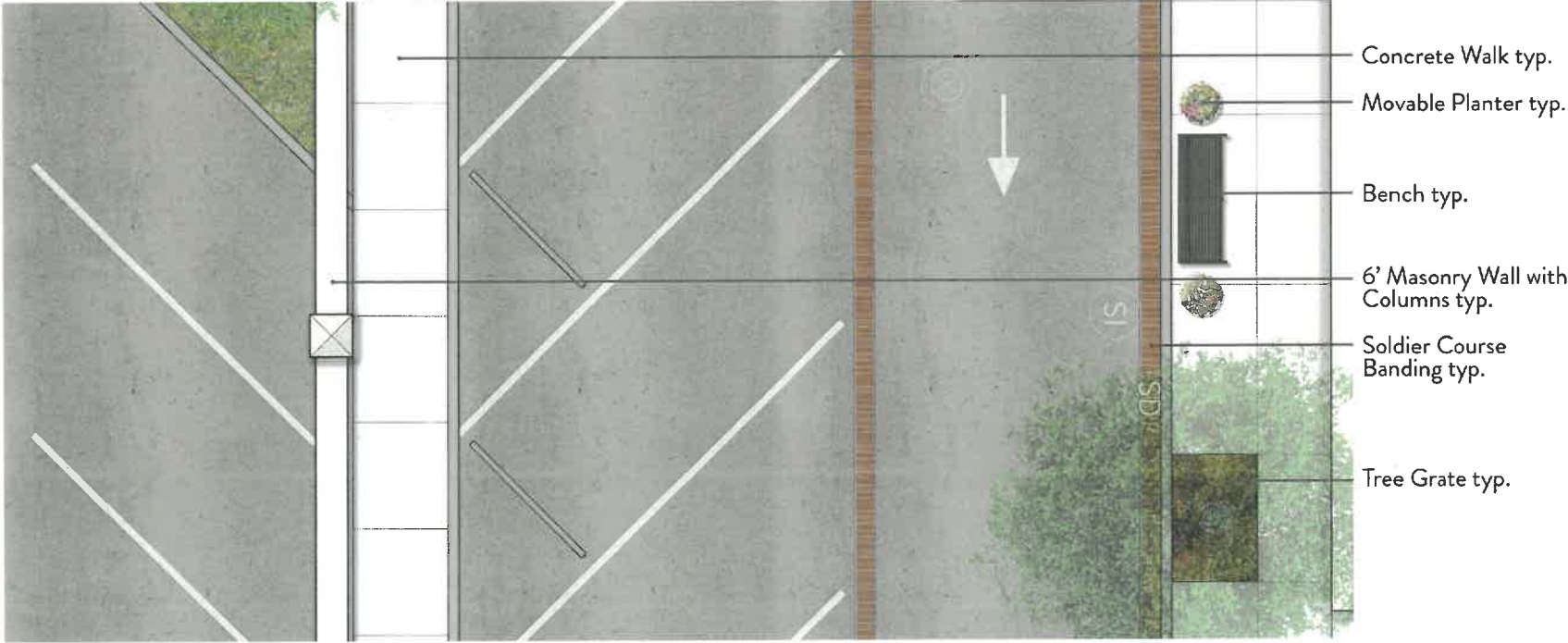
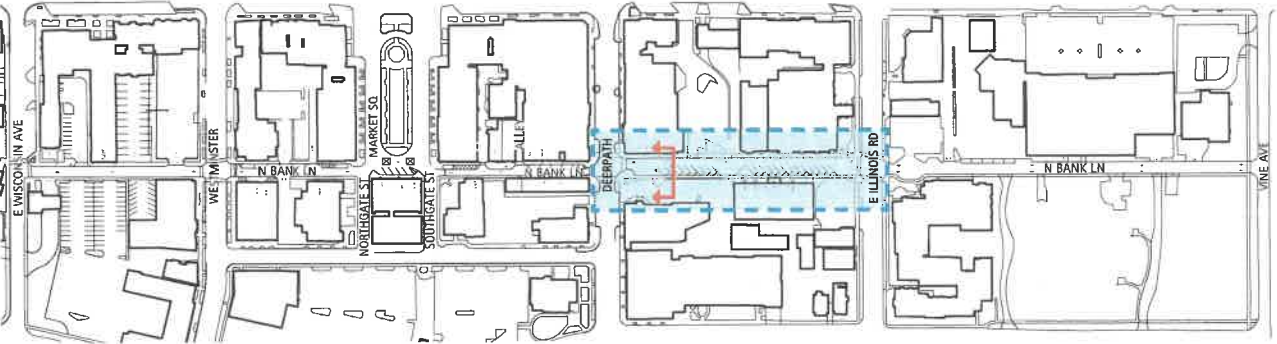
Existing



Proposed

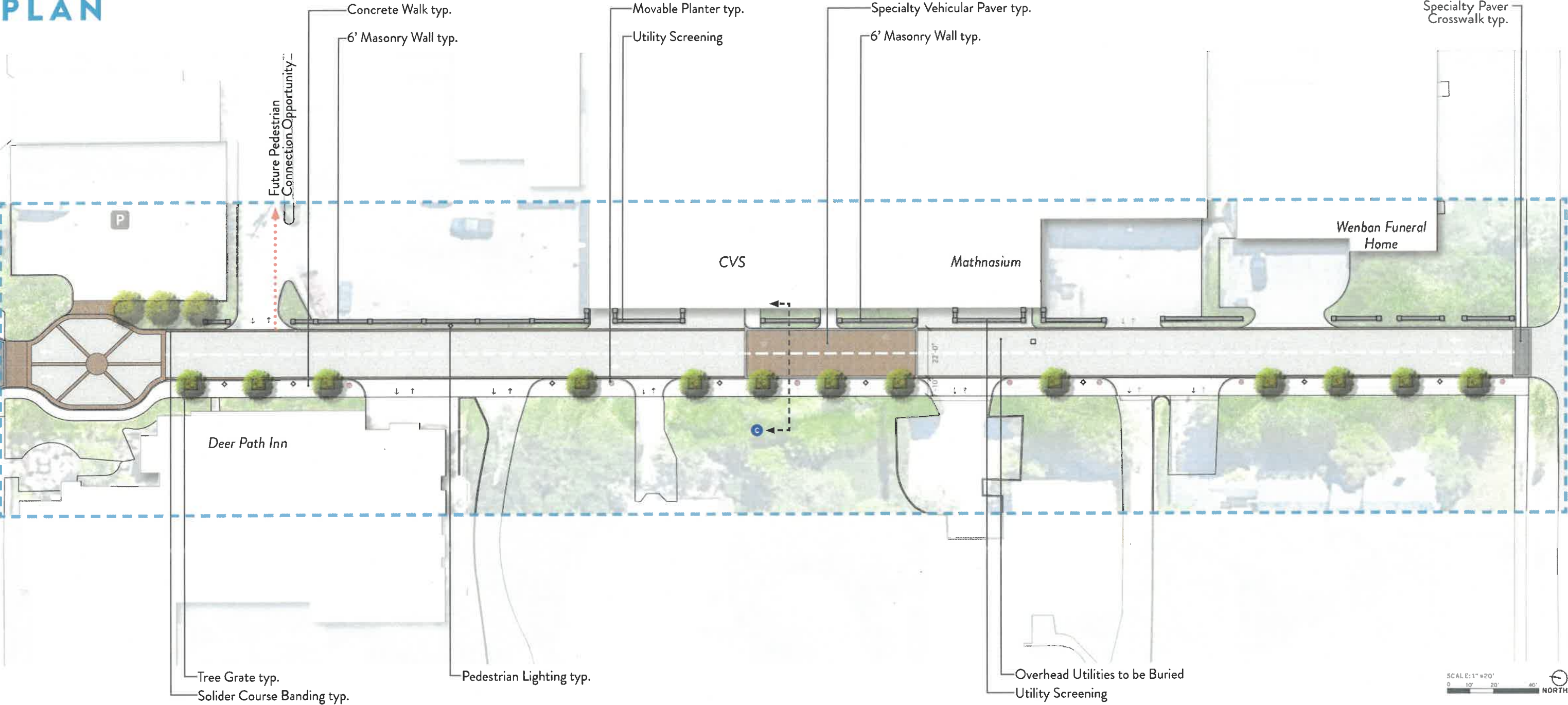


SECTION LOCATION KEY MAP



BLOCK 5 - South Gateway

PLAN



CHARACTER IMAGES



6' Masonry Wall with Columns

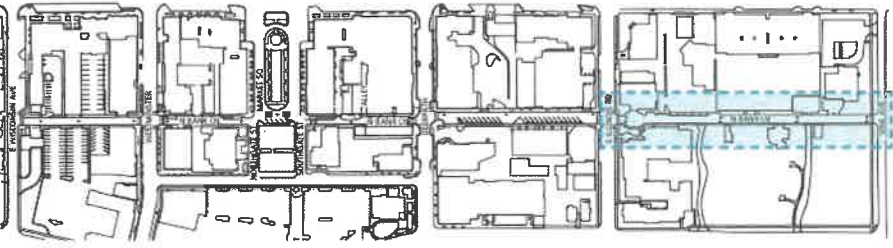


Movable Planters



Gateway Piers

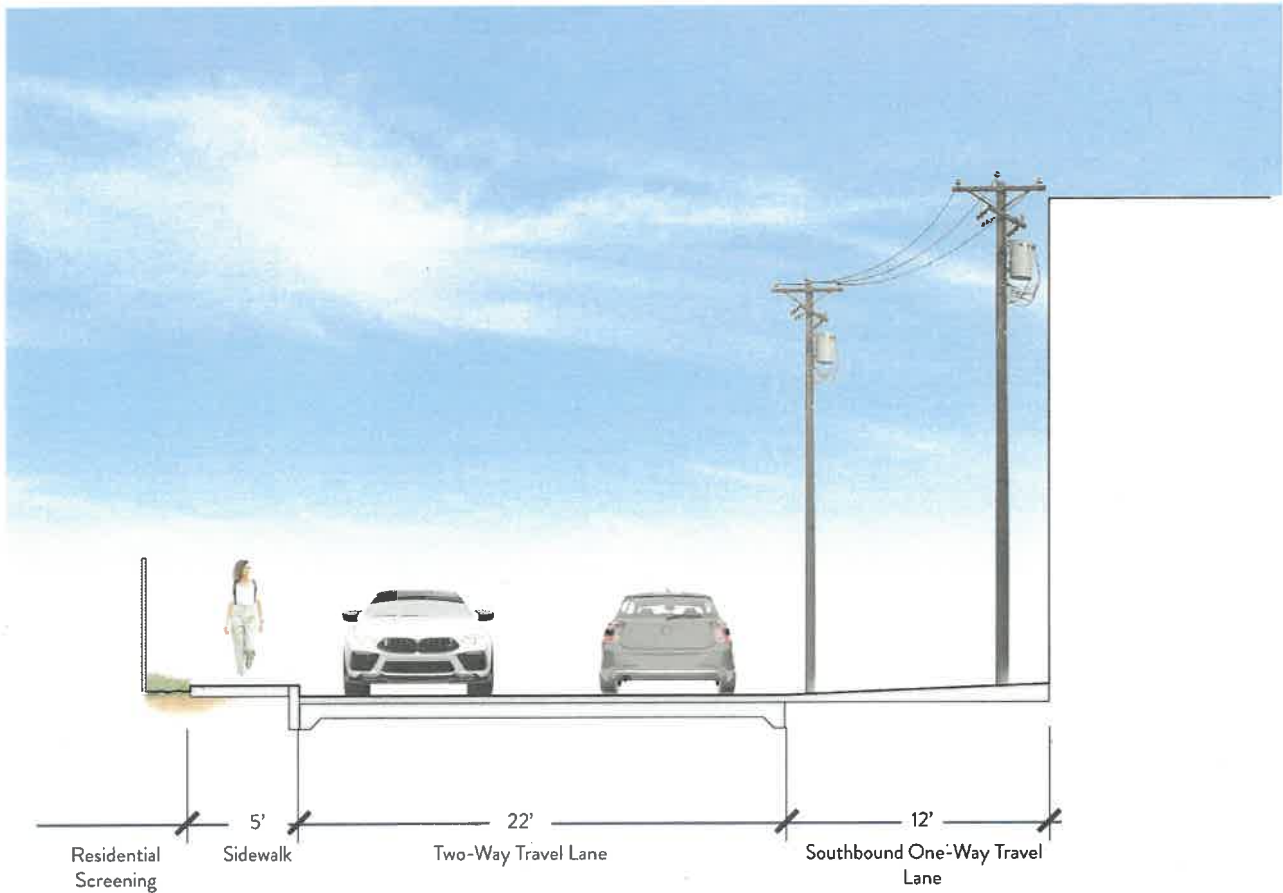
KEY MAP



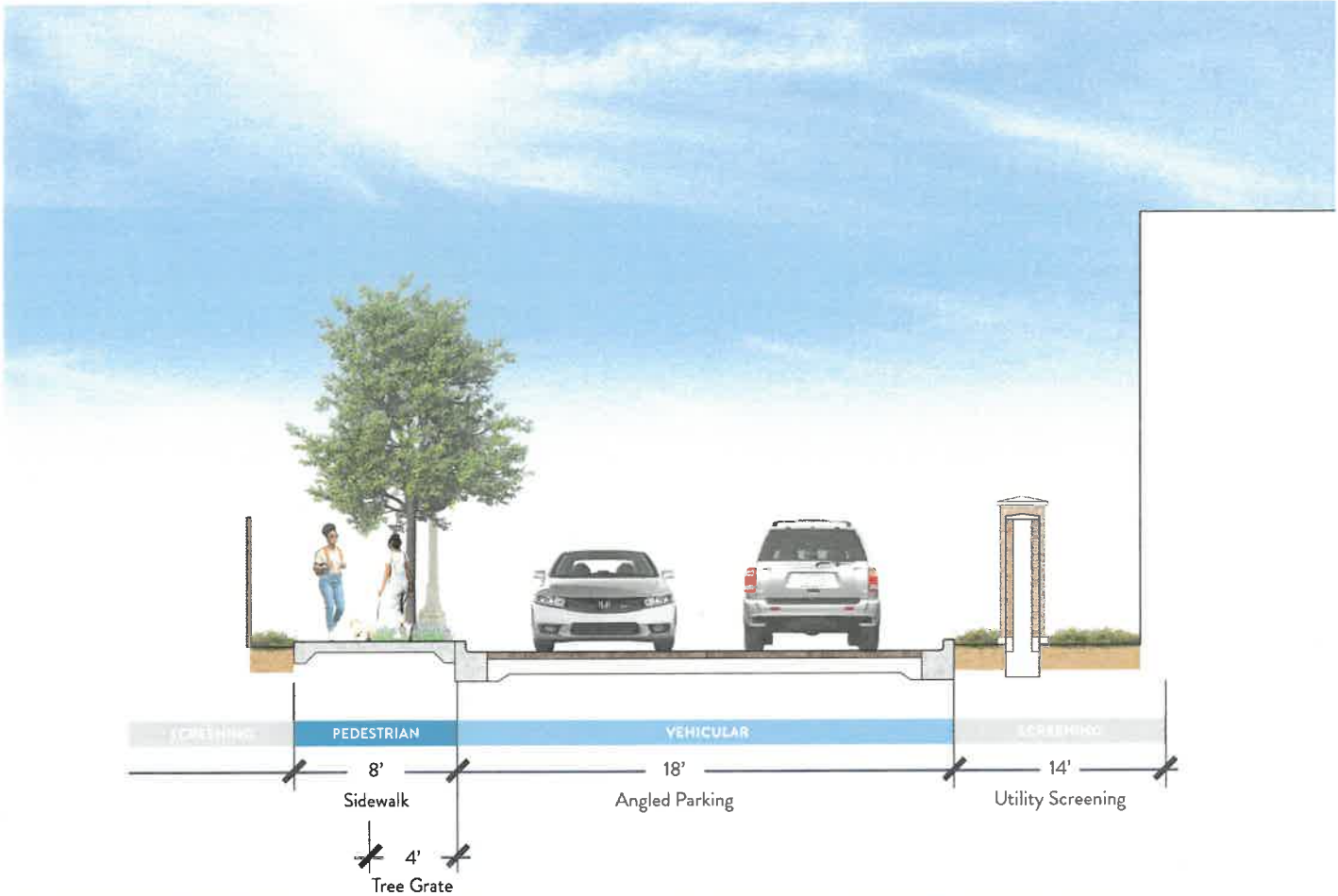
BLOCK 5 - South Gateway

SECTION E

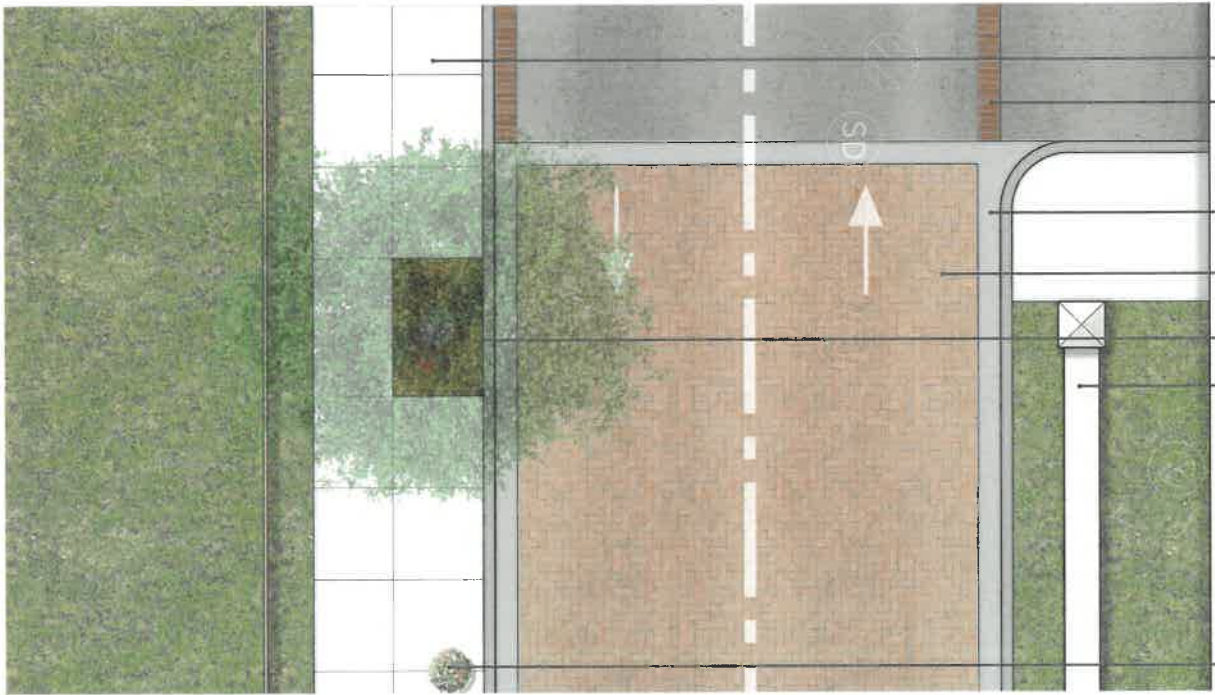
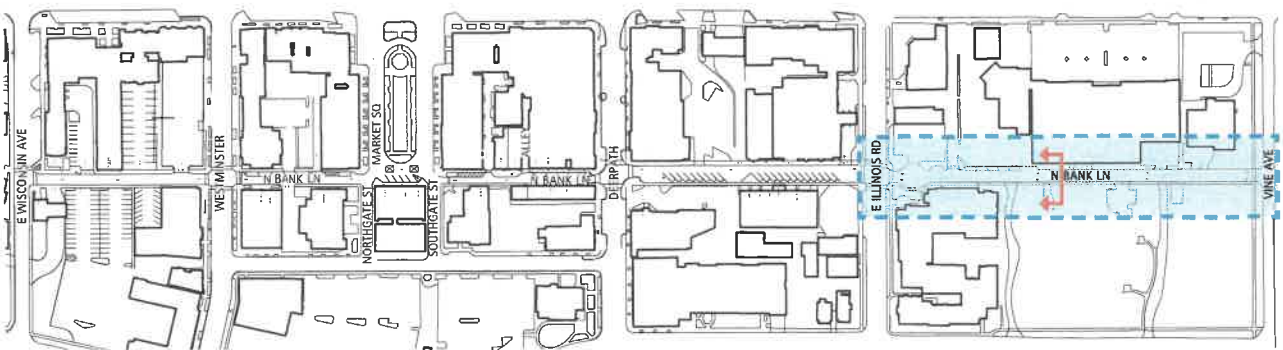
Existing



Proposed



SECTION LOCATION KEY MAP



Hardscape Materials Palette

Specialty Pedestrian and Streetscape Paver:
Unilock Town Hall 3 Color Blend



Pedestrian Connection Banding & Paver:
Unilock Brussels Block



Specialty Crosswalk Paver & Banding:
Unilock Nordic Star Swatch (Deerpath Pavers)



Granite Curbed Planters:
Unilock Nordic Star Swatch (Deerpath Pavers)



Materials:
1. Unit Brick Pavers: Custom Unit Pavers as manufactured by Unilock, Contact: Brad Swanson, Brad.Swanson@unilock.com, 630.742.4168
a. Shape: Hollandsone
b. Size: 4" x 8" x 3" (100mm x 200mm x 80mm)
c. Finish: Series
d. Color: Nordic Star
Visual Inspection - All units shall be sound and free of defects that would interfere with proper placing of the unit or impair the strength or performance of the construction.



Materials: Materials must be as specified in the plans and as follows:
1. Granite Bollard: Granite Bollards must be natural Granite per the specifications shown below. See plans for locations.
a. Type: Academy Black as manufactured by Coldspring Granite USA, Contact: Sam Stuber/Randy Delphin, RDolphina@coldspringusa.com, 800.328.5040
i. Size: Custom Shape and Size per plans
ii. Finish: Diamond 10 finish on all surfaces
iii. Color: Academy Black



Streetscape Elements



TREE GRATE



PEDESTRIAN LIGHT



BENCH



GRANITE BOLLARD



REMOVABLE BOLLARD



MOVABLE PLANTERS



BIKE RACKS

Streetscape Elements

