 <p>CITY OF ST. CHARLES ILLINOIS • 1834</p>	AGENDA ITEM EXECUTIVE SUMMARY		Agenda Item number: 4a
	Title:	Plan Commission recommendation to approve a Special Use to construct a Communication Tower for Verizon Cell Tower, 4050 E. Main St.	
	Presenter:	Rachel Hitzemann, Planner	
Meeting: Planning & Development Committee		Date: August 14, 2023	
Proposed Cost: N/A		Budgeted Amount: N/A	Not Budgeted: <input type="checkbox"/>
TIF District: None			
Executive Summary (if not budgeted, please explain):			
<p>DTA Properties LLC have submitted a Special Use application requesting to construct a 138' Cellular Communication Tower. The Volkswagen Dealership on the property will remain the primary use on the site.</p> <p>The details of the Special Use are as follows:</p> <ul style="list-style-type: none"> • Install new 138ft communication tower located at the north center of the property • Construct a 20'x 35' fenced lease area for tower and equipment <p><u>The Pheasant Run Ownership Association</u></p> <p>This property is a member of The Pheasant Run Ownership Association. Association covenants state that cell towers are not permitted on association property. However, the Applicant has worked with the members of the association to permit the tower. A formal agreement has been reached and is ready for signatures.</p> <p><u>Plan Commission Recommendation</u></p> <p>Plan Commission held a public hearing on 8/8/23. The Commission unanimously voted to recommend approval of the Special Use with the condition that the agreement with The Pheasant Run Property Association is signed.</p>			
Attachments (please list):			
Plan Commission Resolution, Staff Report, Application, FAA Approval Letter, Owners Association Letter			
Recommendation/Suggested Action (briefly explain):			
Plan Commission recommendation to approve a Special Use to construct a Communication Tower for Verizon Cell Tower, 4050 E. Main St.			

City of St. Charles, Illinois
Plan Commission Resolution No. 05-2023

**A Resolution Recommending Approval of an Application for Special Use to
construct a Communication Tower for Verizon Cell Tower, 4050 E. Main St.
(DRA Properties, LLC)**

Passed by Plan Commission on August 8, 2023

WHEREAS, it is the responsibility of the St. Charles Plan Commission to hold public hearings and review requests for Special Use; and,

WHEREAS, the Plan Commission held a public hearing and reviewed the application for a Special Use to construct a Communication Tower for Verizon Cell Tower, 4050 E. Main St. (DRA Properties, LLC); and,

WHEREAS, the Plan Commission adopts the following Findings of Fact for Special Use provided by the Applicant, in accordance Section 17.04.330.C of the Zoning Ordinance:

A. Public Convenience: The Special Use will serve the public convenience at the proposed location.

This tower will improve coverage and capacity to the City of St. Charles. It will also enhance E-911 services.

B. Sufficient Infrastructure: That adequate utilities, access roads, drainage and/or necessary facilities have been, or are being, provided.

The adequate utilities will be provided.

C. Effect on Nearby Property: That the Special Use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish or impair property values within the neighborhood.

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

D. Effect on Development of Surrounding Property: That the establishment of the Special Use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.

The establishment of the Special Use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.

- E. Effect on General Welfare: That the establishment, maintenance or operation of the Special Use will not be detrimental to or endanger the public health, safety, comfort or general welfare.**

The establishment, maintenance, or operation of the Special use will not be detrimental to or endanger the public health, safety, comfort of general welfare. A cell tower is equivalent to a home Wi-Fi system or baby monitor and falls within FCC regulations.

- F. Conformance with Codes: That the proposed Special Use conforms to all applicable provisions of the St. Charles Municipal Code and meets or exceeds all applicable provisions of this Title, except as may be varied pursuant to a Special Use for Planned Unit Development.**

The proposed Special Use conforms to all applicable provisions of the St. Charles Municipal Code and meets or exceeds all applicable provisions of this Title.

NOW, THEREFORE, be it resolved by the St. Charles Plan Commission to recommend to City Council approval of a Special Use to construct a Communication Tower for Verizon Cell Tower, 4050 E. Main St. (DRA Properties, LLC) with a condition the agreement with The Pheasant Run Property Association is signed.

Roll call vote:

Ayes: Moad, Hibel, Funke, Weise, Rosenberg, Studebaker

Nays:

Absent: Vargulich, Gruber, Ewoldt

Motion carried 6-0

PASSED, this 8th day of August 2023.

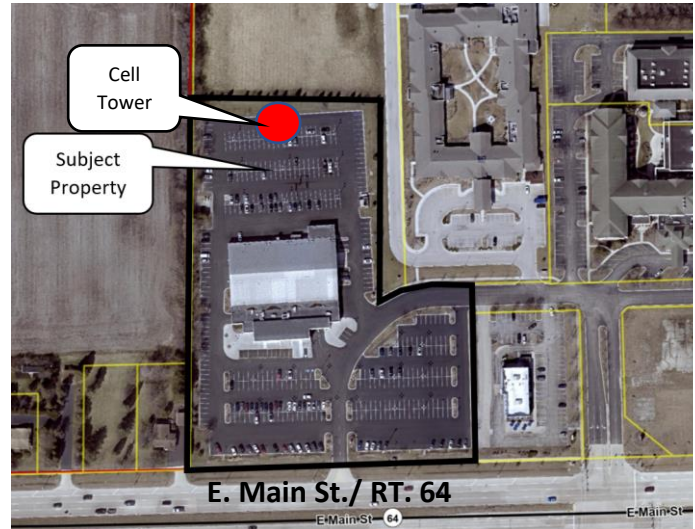
Chairman
St. Charles Plan Commission



Staff Report
Plan Commission Meeting – August 8, 2023

Applicant:	Melissa Olson, DRA Properties
Property Owner:	St. Charles VW Real Estate
Location:	4050 E. Main St./ RT. 64
Purpose:	Construct Communication Tower on site
Applications:	Special Use for Communication Tower
Public Hearing:	Yes, required
Zoning:	BR Regional Business
Current Land Use:	Commercial
Comprehensive Plan:	Corridor/ Regional Commercial

VW Site – Verizon Cell Tower



Subject Property

Summary of Proposal:	<p>Application for Special Use has been submitted to construct a Communication Tower on the north center portion of the property. A Communication Tower is a permitted Special Use in the BR- Regional Business District. A Site Plan has been provided, proposing the following:</p> <ul style="list-style-type: none"> • 138ft communication tower located at the north center of the property • 20'x 35' fenced lease area for tower and equipment
Info / Procedure on Application:	<p>Special Use:</p> <ul style="list-style-type: none"> • Per Sec. 17.04.330, the purpose of a Special Use is as follows: “Special Uses listed within the various zoning districts include those uses that may be acceptable if established in an appropriate manner and location within a zoning district, but may not be acceptable if established in a different manner or location. Special Uses may include, but are not limited to, public and quasi-public uses affected with the public interest, and uses that may have a unique, special or unusual impact upon the use or enjoyment of neighboring property.” • Public hearing is required, with a mailed notice to surrounding property owners. • 6 findings of fact – ALL findings must be in the affirmative to recommend approval.
Suggested Action:	See Section V “Suggested Action” for the Commission’s options regarding action on this application, given an issue regarding a restriction on cell towers in the subdivision’s Declaration of Covenants.
Staff Contact:	Rachel Hitzemann, Planner

I. PROPERTY INFORMATION

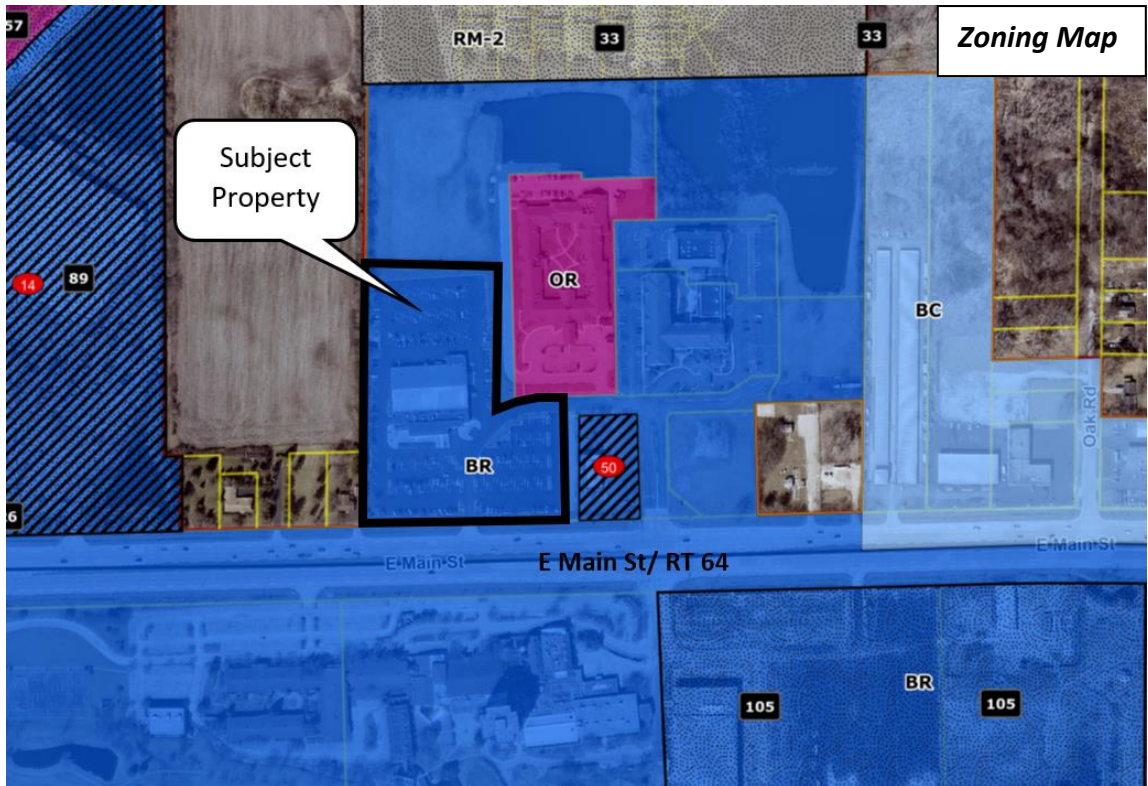
A. History / Context

The subject property, 4050 E. Main St., is located on the East side of town across from the Pheasant Run property. The parcel is approx. 6.86 acres in size. The existing building on the site is home to a Volkswagen Dealership. The Dealership will remain operating at this location, and the applicant will just lease a small portion of the site. A Verizon communication tower was previously located on the Pheasant Run resort tower, but due to the circumstances surrounding that property Verizon is looking to relocate the tower.

B. Zoning

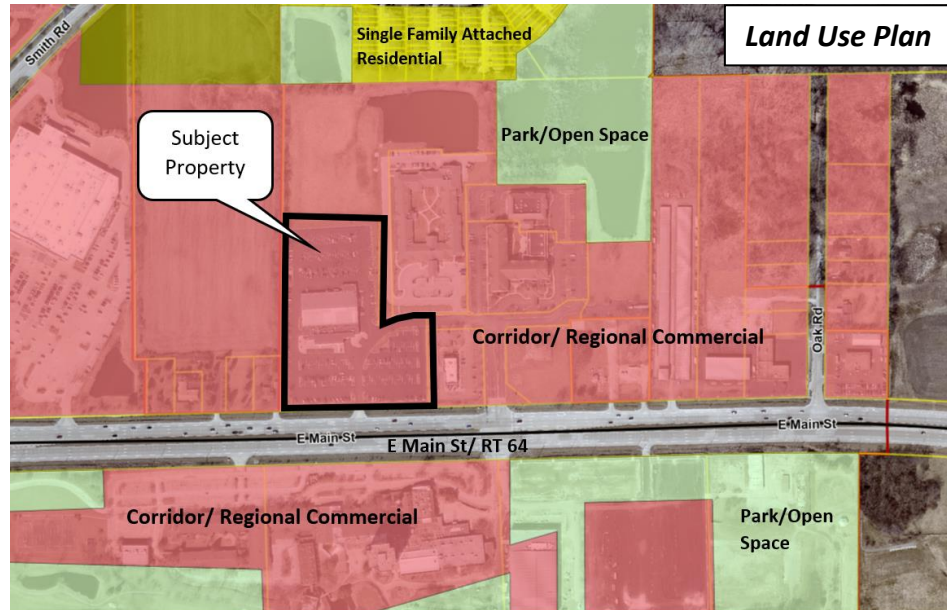
The subject property is zoned BR Regional Business District. The same zoning designation exists adjacent to the property on the north, south and east along Main St. East of the property there is also an OR-Office Research parcel. West of the property is unincorporated DuPage County, which is zoned R-3 Single family and O-R Office Research.

	Zoning	Land Use
Subject Property	BR Regional Business	Volkswagen Dealership
North	BR Regional Business	Vacant Lot
East	BR Regional Business & OR-Office Research	Commercial – Culvers Residential- Silverado Memory Care
South	BR- Regional Business	Commercial- Pheasant Run
West	Unincorporated (R-3 Single Family & O-R Office Research)	Residential & Agriculture



C. Comprehensive Plan

The subject property is designated Corridor/ Regional Commercial in the Land Use Plan adopted as part of the 2013 Comprehensive Plan. All adjacent properties have the same designation, which is intended for larger shopping centers and developments that have a more regional draw.



The Corridor/Regional Commercial land use category is described as follows:

Areas designated as corridor/regional commercial are intended to accommodate larger shopping centers and developments that serve a more regional function, drawing on a customer base that extends beyond the City limits. These areas often have a mix of “big box” stores, national retailers, and a “critical mass” of multiple stores and large shared parking areas. Areas designated for corridor/regional commercial are located primarily in larger consolidated areas along the City’s heavily traveled corridors and intersections. Commercial service uses can also have an appropriate place in corridor/ regional commercial areas, but must be compatible with adjacent and nearby retail and commercial shopping areas and be located as to not occupy prime retail locations. (p.39)

II. PLANNING ANALYSIS

Staff has analyzed the submitted application and plans for conformance with the standards established in applicable sections of the Zoning Ordinances, including:

- Ch. 17.22 General Provisions
- Ch. 17.14 Business & Mixed Use Districts
- Ch. 17.24 Off-Street Parking, Loading & Access

A. Proposed Use

Verizon is looking to lease a 20’ X 25’ portion in the north center of this property to construct a 138’ communication tower and install necessary ground equipment.

“Communication Tower” is a Special Use in the BR Regional Business zoning district.

The Zoning Code defines a Communication Tower as;

“A structure designed and constructed primarily for the purpose of supporting one or more Communication Antennas, including self-supporting lattice towers, guy towers and monopole towers. This use includes radio and television transmission towers, personal communications service (PCS), microwave towers, common-carrier towers, cellular telephone towers, and the like. This use does not include any structure erected solely for a residential, non-commercial individual use, such as television reception antennas, satellite dishes or non-commercial wireless antennas (amateur radio). This use includes Wireless Support Structures supporting Small Wireless Facilities, as defined in and regulated by Chapter 13. 24 " Small Cell Wireless Facilities", when designed and constructed primarily for the purpose of supporting one or more Small Wireless Facilities.”

Per Sec. 17.04.330, the purpose of a Special Use is as follows:

“Special Uses listed within the various zoning districts include those uses that may be acceptable if established in an appropriate manner and location within a zoning district, but may not be acceptable if established in a different manner or location. Special Uses may include, but are not limited to, public and quasi-public uses affected with the public interest, and uses that may have a unique, special or unusual impact upon the use or enjoyment of neighboring property.”

There are no specific Use Standards in the Zoning Ordinance for Communication Towers. There are six Findings of Fact for Special Uses, all of which must be found in the affirmative for the Plan Commission to recommend approval. The applicant has provided responses to the Findings of Fact, attached to the application.

B. Bulk Standards

The table below compares the proposed Site Plan with the applicable requirements of the BR District. Section 17.22.020 contains additional requirements for Communication Tower height and setbacks from residential districts, which are also noted in the table. All bulk standards appear to be met.

Category	BR District	Site Plan
Min. Lot Area	1 acre	6.86
Max. Building Coverage	30%	12% (existing)
Max. GFA per Building	None	36,323 (existing)
Max. Tower Height	150ft	138ft
Tower Setbacks:		
<i>Front (Main St.)</i>	20 ft.	631 ft.
<i>Interior Side (west)</i>	20 ft.	170 ft.
<i>Interior Side (east)</i>	15 ft.	181ft
<i>Rear (south)</i>	30 ft.	32 ft.
<i>From Residential Properties</i>	500 ft	505 ft and 510 ft

The Monopole tower and fenced enclosure meet all bulk requirements. No changes to the dealership are proposed at part of this project.

C. Site Access

The property is currently accessed via a driveway off of Main St./ RT. 64. No changes will be made to this drive as part of the proposed plan. An access easement over the site will be provided to the applicant from the property owner to conduct repair and maintenance on the tower.

III. DEPARTMENTAL REVIEWS

City Staff reviewed the plans and provided technical comments to the applicant.

IV. DECLARATION OF COVENANTS

This property is located within the Pheasant Run Crossing Subdivision which has a Declaration of Covenants, Conditions and Restrictions. Under that document, cell towers are not permitted. However, the applicant has worked with the property association to allow the tower. The Association has provided an approval letter for the tower with the condition that a formal agreement be signed by the applicants and Association prior to building permit approval.

V. SUGGESTED ACTION

The applicant has provided responses to the Findings of Fact for Special Use as part of the application. All six findings must be in the affirmative for the Commission to recommend approval.

Based on the outstanding item regarding the cell tower restriction in the subdivision Declaration of Covenants, the Plan Commission may choose to:

- a. Open the public hearing on the Special Use and immediately continue the item until clarification on resolution to the Declaration of Covenants can be provided.

OR

- b. Conduct the public hearing on the Special Use and continue the item until further clarification on resolution to the Declaration of Covenants can be provided.

VI. ATTACHMENTS

- Applications for Special Use; received 12/19/2022
- Plans
- Airspace Map & Study dated 10/6/2022
- Property Association Letter dated 7/17/23

4. Identify the Type of Application:

- Special Use for Planned Unit Development - PUD Name:**
 - New PUD
 - Amendment to existing PUD- Ordinance #:
 - PUD Preliminary Plan filed concurrently

- Other Special Use (from list in the Zoning Ordinance): 17.22.020**
 - Newly established Special Use
 - Amendment to an existing Special Use Ordinance #:

5. Information Regarding Special Use:

Comprehensive Plan designation of the property: Neighborhood Commercial

Is the property a designated Landmark or in a Historic District? No

What is the property's current zoning? BR Regional Business District

What is the property currently used for? Car dealership

If the proposed Special Use is approved, what improvements or construction are planned?

Install a 145' cell tower on a leased area measuring 20' x 60'

6. For Special Use Amendments only:

Why is the proposed change necessary?

N/A

What are the proposed amendments? (Attach proposed language if necessary)

N/A

Note for existing buildings: If your project involves using an existing building, whether you plan to alter it or not, please contact the St. Charles Fire Department (630-377-4458) and the Building and Code Enforcement Division (630-377-4406) for information on building, life safety and other code requirements. Depending on the proposed use, size of structure and type of construction, these requirements can result in substantial costs.

7. Required Attachments:

If multiple zoning or subdivision applications will be submitted concurrently, do not submit duplicate checklist items or plans. Fee must be paid for each application.

APPLICATION FEE: Special Use for PUD: \$1,000
All other Special Use requests: \$750

REIMBURSEMENT OF FEES AGREEMENT: An original, executed Reimbursement of Fees Agreement and deposit of funds in escrow with the City, as provided by Appendix B of the Zoning Ordinance.

REIMBURSEMENT OF FEES INITIAL DEPOSIT: Deposit of funds in escrow with the City. Required deposit is based on review items (number of applications filed) and the size of the subject property:

Number of Review Items	Under 5 Acres	5-15 Acres	16-75 Acres	Over 75 Acres
1	\$1,000	\$2,000	\$3,000	\$4,000
2 or 3	\$2,000	\$4,000	\$5,000	\$7,000
4 or more	\$3,000	\$5,000	\$7,000	\$10,000

PROOF OF OWNERSHIP: a) A current title policy report; or
b) A deed and a current title search

NOTE: Private covenants and deed restrictions can limit private property rights with respect to the use of land even though the City's Zoning Ordinance may authorize the use or a less restrictive use. We strongly advise that you perform a title search on the property to determine if there any private covenants containing use restrictions or other deed restrictions. As those private covenants and deed restrictions may conflict with the City's Zoning Ordinance, it is further recommended that you consult with an attorney to obtain an opinion with respect to whether your intended use is compatible with those restrictions.

OWNERSHIP DISCLOSURE: Use the appropriate disclosure form (attached), if the owner or applicant is a Partnership, Corporation, Trust, or LLC.

LETTER OF AUTHORIZATION: If the property owner is not the applicant, an original letter of authorization from the property owner permitting the applicant to file the zoning application with the City of St. Charles for the subject property.

LEGAL DESCRIPTION: For entire subject property, on 8 1/2 x 11 inch paper and Microsoft Word file.

PLAT OF SURVEY: A current plat of survey for the subject property showing all existing improvements on the property, prepared by a registered Illinois Professional Land Surveyor.

FINDINGS OF FACT: Fill out the attached "Criteria for Planned Unit Developments (PUDs)" form for any PUD application and the "Findings of Fact – Special Use" form for all other Special Use applications.

LIST OF PROPERTY OWNERS WITHIN 250 FT.: Fill out the attached form or submit on a separate sheet. The form or the list must be signed and notarized. Property ownership information may be obtained using Kane County's interactive GIS mapping tool: http://gistech.countyofkane.org/gisims/kanemap/kanegis4_AGOx.html

SOIL AND WATER CONSERVATION DISTRICT LAND USE OPINION APPLICATION: As required by State law, submit a Land Use Opinion application and required fee directly to the Kane-DuPage Soil and Water Conservation District. Provide a copy of completed Land Use Opinion application to the City. The Land Use Opinion application can be found on the Kane-DuPage SWCD website: <http://www.kanedupageswcd.org/>

- ENDANGERED SPECIES REPORT:** As required by State law, file an Endangered Species Consultation Agency Action with the Illinois Department of Natural Resources. Provide a copy of the report to the City. The online Ecological Compliance Assessment Tool (EcoCAT) should be utilized: <https://dnr2.illinois.gov/EcoPublic/>
- TRAFFIC STUDY:** If applicable. Staff will advise you whether a traffic study is recommended based on the project. Regardless, the Plan Commission or City Council may request a traffic study as a part of the review process.
- PLANS:** All required plans shall be drawn on sheets no larger than 24" x 36", unless the Director of Community Development permits a larger size when necessary to show a more comprehensive view of the project. All required plans shall show north arrow and scale, and shall be drawn at the same scale (except that a different scale may be used to show details or specific features). All plans shall include the name of the project, developer or owner of site, person or firm preparing the plan, and the date of plan preparation and all revisions.

Copies: Ten (10) full size copies, one (1) 11" by 17", and PDF electronic file emailed to: cd@stcharlesil.gov

Site Plan or plans shall show the following information:

1. Accurate boundary lines with dimensions
2. Streets on and adjacent to the tract: Name and right-of-way width
3. Location, size, shape, height, and use of existing and proposed structures
4. Location and description of streets, sidewalks, and fences
5. Surrounding land uses
6. Date, north point, and scale
7. Ground elevation contour lines
8. Building/use setback lines
9. Location of any significant natural features
10. Location of any 100-year recurrence interval floodplain and floodway boundaries
11. Location and classification of wetland areas as delineated in the National Wetlands Inventory
12. Existing zoning classification of property
13. Existing and proposed land use
14. Area of property in square feet and acres
15. Proposed off-street parking and loading areas
16. Number of parking spaces provided, and number required by ordinance
17. Angle of parking spaces
18. Parking space dimensions and aisle widths
19. Driveway radii at the street curb line
20. Width of driveways at sidewalk and street curb line
21. Provision of handicapped parking spaces
22. Dimensions of handicapped parking spaces
23. Depressed ramps available to handicapped parking spaces
24. Location, dimensions and elevations of freestanding signs
25. Location and elevations of trash enclosures
26. Provision for required screening, if applicable
27. Exterior lighting plans showing:
 - a. Location, height, intensity and fixture type of all proposed exterior lighting
 - b. Photometric information pertaining to locations of proposed lighting fixtures

(Note- For a Special Use for PUD, submit PUD Preliminary Plan Application In lieu of Site Plan)

I (we) certify that this application and the documents submitted with it are true and correct to the best of my (our) knowledge and belief.

Record Owner

Date

Y. Melissa Olson

12/14/22

Applicant or Authorized Agent

Date

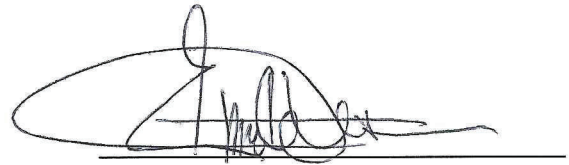
Zoning Letter of Authorization

To: Rachel Hitzemann

City of St. Charles IL Planning & Zoning

I, Emir Abinion, am the authorized signer for St. Charles VW Real Estate LLC, owner of the property located at 4050 E. Main Street in St. Charles, IL.

I give Melissa Olson with DRA Properties, LLC permission to file this zoning application with the City of St. Charles for a proposed communications tower.

A handwritten signature in black ink, appearing to read "Emir Abinion", is written over a horizontal line. The signature is stylized and cursive.

Emir Abinion

Date: 1/5/23

OWNERSHIP DISCLOSURE FORM
LIMITED LIABILITY COMPANY (L.L.C.)

Missouri (M)
STATE OF ILLINOIS)
St. Louis) SS.
@ KANE COUNTY)

I, Douglas Dolan, being first duly sworn on oath depose and say that I am
Manager of DRA Properties, an Illinois Limited Liability
Company (L.L.C.), and that the following persons are all of the members of the said L.L.C.:

Douglas Dolan _____

By: Douglas Dolan, Manager

Subscribed and Sworn before me this 14th day of
December, 20 22.

Margie D. Oliver
Notary Public



FINDINGS OF FACT – SPECIAL USE

Use this form for all Special Uses, except for PUDs or PUD Amendments

The St. Charles Zoning Ordinance requires the Plan Commission to consider the factors listed below in making a recommendation to the City Council. As the applicant, the "burden of proof" is on you to show how your proposed Special Use will comply with each of the applicable standards. Therefore, you need to "make your case" by explaining specifically how your project meets each of the following standards.

Project Name or Address: DRA Properties, LLC

From the St. Charles Zoning Ordinance, Section 17.04.430.C.2:

No Special Use or amendment to Special Use shall be recommended by the Plan Commission unless it finds that the proposed Special Use or amendment to Special Use will conform with each of these standards. The Plan Commission shall submit its written findings together with its recommendations to the City Council after the conclusion of the Public Hearing, and also may recommend such conditions as it may deem necessary to ensure conformance with these standards.

On the basis of the evidence presented at the public hearing, the Plan Commission shall record its reasons for recommending approval or denial of the petition (findings of fact) in accordance with the following standards:

A. Public Convenience: The Special Use will serve the public convenience at the proposed location.

This tower will improve coverage and capacity to the City of St. Charles. It will also enhance E-911 services.

B. Sufficient Infrastructure: That adequate utilities, access roads, drainage and/or necessary utilities have been, or are being, provided.

The adequate utilities will be provided.

- C. **Effect on Nearby Property:** That the Special Use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish or impair property values within the neighborhood.

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

- D. **Effect on Development of Surrounding Property:** That the establishment of the Special Use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.

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- E. **Effect on General Welfare:** That the establishment, maintenance or operation of the Special Use will not be detrimental to or endanger the public health, safety, comfort or general welfare.

The establishment, maintenance, or operation of the Special Use will not be detrimental to or endanger the public health, safety, comfort, or general welfare. A cell tower is equivalent to a home wi-fi system or a baby monitor.

The establishment, maintenance, or operation of the Special Use will not be detrimental to or endanger the public health, safety, comfort or general welfare. A cell tower is equivalent to a home wi-fi system or baby monitor and falls within FCC regulations.

- F. **Conformance with Codes:** That the proposed Special Use conforms to all applicable provisions of the St. Charles Municipal Code and meets or exceeds all applicable provisions of this Title, except as may be varied pursuant to a Special Use for Planned Unit Development.

The proposed Special Use conforms to all applicable provisions of the St. Charles Municipal Code and meets or exceeds all applicable provisions of this Title.

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NONRESIDENTIAL ZONING COMPLIANCE TABLE

Name of Development: *St. Charles VW Real Estate*

	Zoning District Requirement	Existing PUD Requirement (if applicable)	Proposed
	District: BR <input checked="" type="checkbox"/>	Ordinance #: Main Street, St. Charles	
Minimum Lot Area	1 acre		1,200 sqft.
Minimum Lot Width	None		20x60ft.
Maximum Building Coverage	30%		Outdoor cabinets
Maximum Gross Floor Area per Building	None		N/A
Maximum Building Height	40 ft.		145'
Front Yard	Min. 20ft.		42'
Interior Side Yard	Min. 15ft.		30'
Exterior Side Yard	Min 20ft.		30'
Minimum Rear Yard	30 ft.		15'
Landscape Buffer Yard ²	40 ft.		N/A
% Overall Landscaped Area	75%		N/A
Building Foundation Landscaping	N/A		N/A
Public Street Frontage Landscaping	Yes		Yes
Parking Lot Landscaping			N/A
# of Parking Spaces			6
Drive-through Stacking Spaces (if applicable)	N/A		N/A.

² Within the zoning districts specified, a Landscape Buffer Yard shall be provided along any lot line that abuts or is across a street from property in any RE, RS, RT or RM District. See Chapter 17.26 for planting and screening requirements for Landscape Buffers. Landscape Buffer Yards may include or overlap with other required yards.

Documentation that lead to this location

The city has a 500' setback from residential property. This is the only location based on the search ring we were given.

The DuPage airport is in close proximity to our location and we needed to stay out of the protected airspace.




PHEASANT RUN CELL SITE

Verizon Site Name: Smith & Main, St.
Charles, IL

By Dolan Realty Advisors, LLC

**Why is this site
important to St.
Charles' Cellular
Network?**

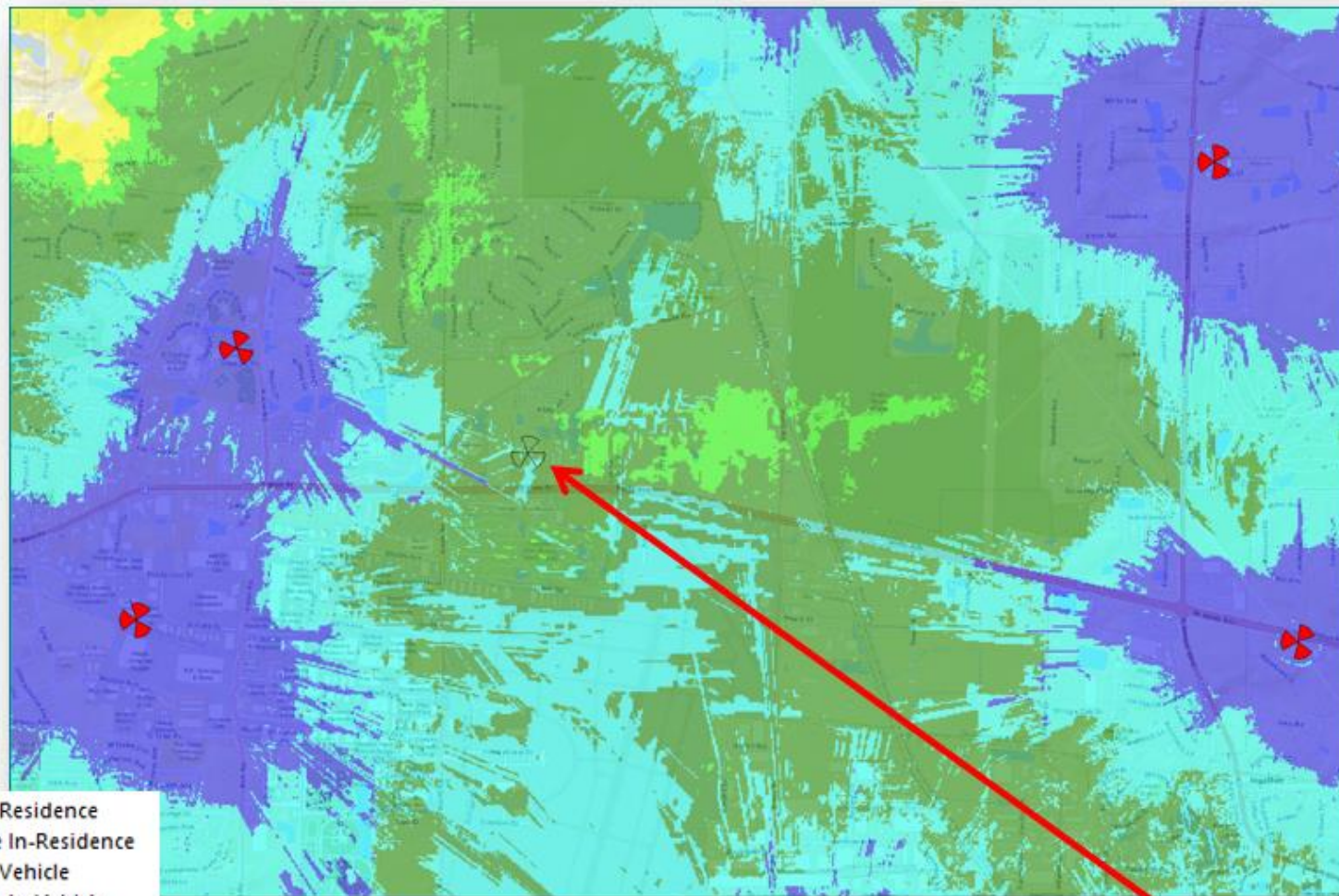
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Smith and Main

Pre & Post Simulations



Without Proposed Smith and Main Site

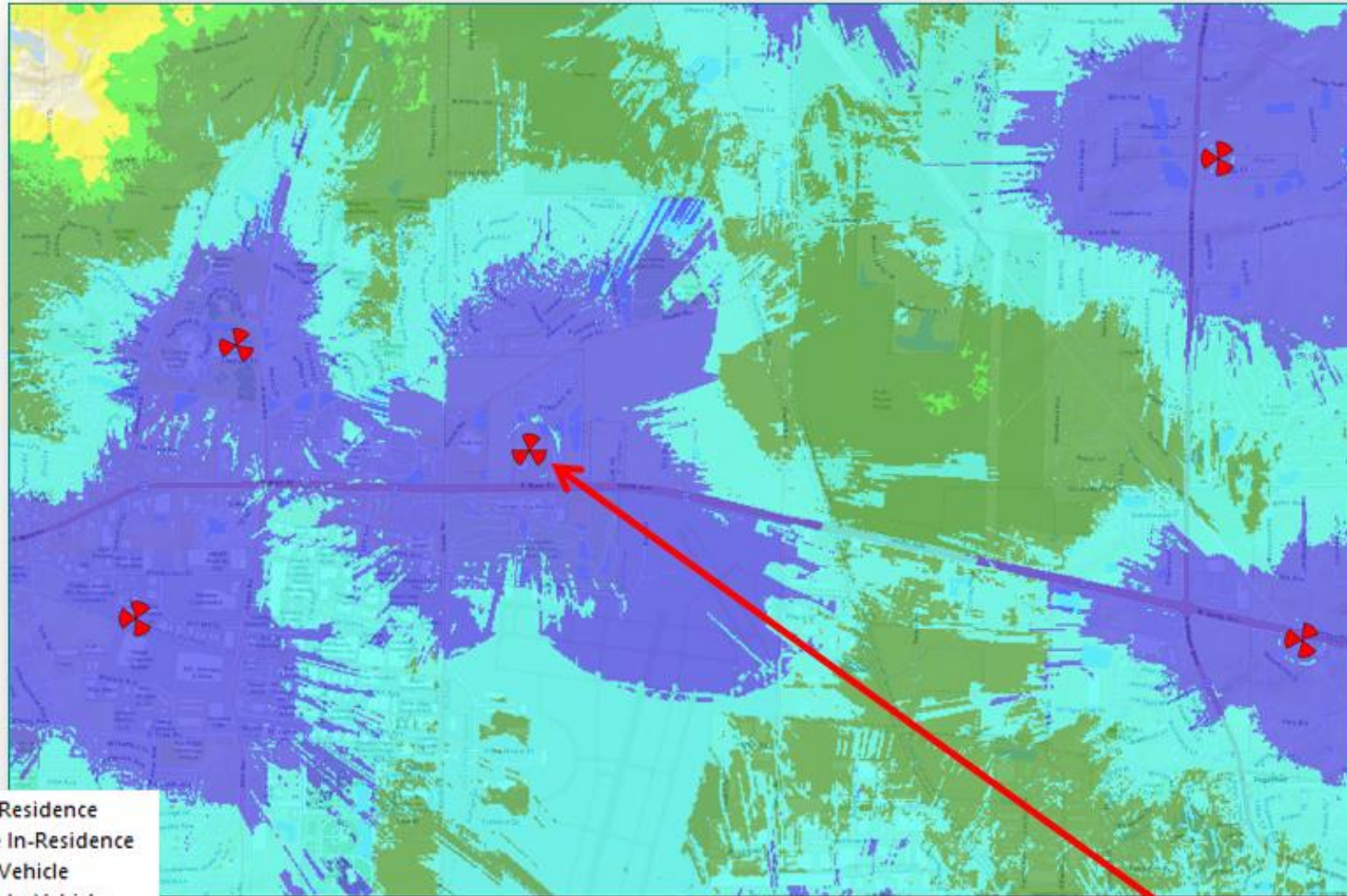


- Reliable In-Residence
- Un-Reliable In-Residence
- Reliable In-Vehicle
- Un-Reliable In-Vehicle
- Reliable On-Street



Proposed new site location

With Proposed Smith and Main Site



- Reliable In-Residence
- Un-Reliable In-Residence
- Reliable In-Vehicle
- Un-Reliable In-Vehicle
- Reliable On-Street



Proposed new site location

Summary

- The proposed site will help fill in a much needed coverage gap
- The site will also improve reliable coverage on street level along North Ave and inside the surrounding Residential and Commercial businesses
- In addition this site will offload capacity to the heavily traffic congested neighboring towers

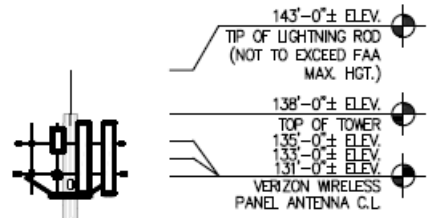
The primary objective of this site is to provide:

1. Fill in Coverage gap along North Ave and provide reliable coverage inside Residential/Commercial Areas
2. Network Capacity offload to the neighboring sectors serving St. Charles
3. Reliable coverage for E-911 calls
4. Improve 4G/5G data speeds in the local area



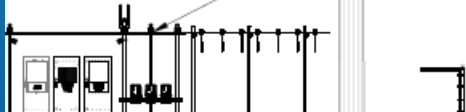
Site Plan





138' MONOPOLE TOWER ON
CONCRETE FOUNDATION
(DESIGN BY OTHERS)

LESSEE EQUIPMENT PAD AND
OUTDOOR EQUIPMENT



FAA Approval

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ** (CORRECTION)**

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Monopole Full Relo Smith & Main
Location:	St. Charles, IL
Latitude:	41-55-24.41N NAD 83
Longitude:	88-15-24.84W
Heights:	769 feet site elevation (SE) 139 feet above ground level (AGL) 908 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

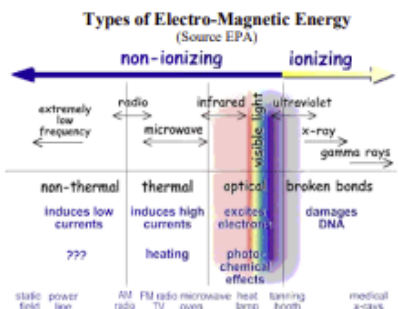
- At least 10 days prior to start of construction (7460-2, Part 1)
 Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

Radio Frequency Safety



What is RF Energy? Radio Frequency (RF) energy is a type of electromagnetic (EM) energy, which is energy that travels, or radiates, through space. Light is EM energy. The sun radiates RF energy as well as light. Just as we have harnessed light to see at night, we have harnessed RF energy in radios to communicate over great and small distances. The first radios appeared in the late 1800s. In the 20th century, the usage of both artificial light and radio communications boomed such that today stores are open 24 hours a day and mobile phones let us communicate anywhere in the world.



RF is non-ionizing: its energy is too weak to remove or add charged particles to an atom. Ionization changes an atom's structure, turning it into an ion. When ionizing radiation, such as X-Rays and Gamma Rays, affects molecules, such as DNA, it can cause permanent defects; hence damage is cumulative. Non-ionizing radiation such as light, infra-red, microwave and RF cannot change the makeup of an atom. Such non-ionizing radiation does induce currents and cause cellular heating, but these effects are not cumulative. Once non-ionizing radiation is removed, its effects cease. However, excessive heating can have serious health effects, which is why RF safety is important.

How much is too much? Based on years of scientific research, the Federal Communications Commission (FCC) has adopted limits for human exposure. It has set a *Maximum Permissible Exposure for the General Population* -- people who have no control of their exposure -- and a separate maximum for *Occupational* -- workers who understand the risks and can take appropriate actions when working in environments with elevated RF energy. While there are large safety margins, exceeding these limits can cause serious health problems such as burns, dizziness, heat stroke and even death. In the US the FCC regulates human exposure to RF energy.

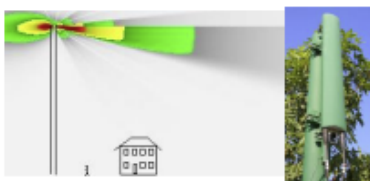
What is Maximum Permissible Exposure?

- 100% of *Occupational Limit* is the Human Exposure Limit which has a 10 times safety factor
- The *General Population Limit* is an additional 5 times lower for a total of a 50 fold safety factor.
- 5% of the *General Population limit* = 1% of the *Occupational Limit* = 1/1,000th of the level known to cause potentially harmful effects.

Comparing Power There is a wide range of powers used based on the radio service. Broadcasters use very high power and portable devices use very little. Wireless base stations and phones limit their power to eliminate interference and prolong battery life. They will typically use ¼ or less their maximum power. For most RF exposure analysis maximum power is assumed.

Source	Power (Watts)
TV Broadcast	1,000,000
Radio Broadcast	50,000
Wireless Base Station	4,000
WiFi	1/10
Mobile Phone	1/2

Wireless Base Stations Typical antennas at wireless base stations focus the RF energy so that it is pointing away from the site to give maximum coverage. Relatively little energy is exposed to areas below the antenna. Areas below rooftop mounted antennas have reduced exposure in the building because roofing absorbs and reflects RF energy.



Andrew 932DG65VTE

What will the exposure be? Every situation is different but areas around wireless base stations that the public can access, such as the bottom of a tower or inside a building with antennas, are typically much less than 5% of the General Population limit. Our measurements under and in the neighborhood of mobile phone installations are generally less than 0.1% of the limit, similar to measurements a few feet from a WiFi access point.

Do you still have questions / concerns? Please contact Site Safe.

Matthew J. Butcher

Matthew J Butcher, PE
VP Engineering & Development

RF Safety and Regulatory History

- Increasing concern since the 1950's when high powered radar systems were introduced which led to health issues.
- ANSI initiated the Radiation Hazards Standards project in 1960 with Dept of Navy and IEEE.
- The National Environmental Policy Act (NEPA) of 1969 required the FCC to evaluate the effects of RF with respect to the quality of the human environment.
- ANSI published standards for RF Safety in 1982.
- The FCC first adapted rules on RF Safety in 1985.
- After more research the IEEE published a standard C95.1 in 1992 that was also adopted by ANSI.
- The Federal Telecommunications Act of 1996, Section 704 prohibits local zoning authorities from denying permits on the basis of radio frequency emissions concerns as long as the emissions comply with current FCC regulations.
- In 1997 the FCC enacted the current rules that are followed for RF Health and Safety. The IEEE standard was the basis but input from over 150 parties was used to create these regulations.
- FCC Exposure Limits are similar to ICNIRP limits which are promoted by the WHO for use worldwide.
- In 2009 the ICNIRP found "no evidence of any adverse effects below the basic restrictions" and made no change to exposure limits.
- In 2012 both United Kingdom and Norwegian public health agencies released reports which found current protective exposure levels appropriate after an exhaustive review of the scientific literature.
- In 2013 the FCC initiated an inquiry on the need for reassessment of RF exposure limits with a Notice of Inquiry (ET Docket No. 13-84).
- Research continues on this topic and various concerns have been raised over the years but by far the majority of public health and scientific committees worldwide have not found a rationale to change the current RF exposure limits.
- While many on-line resources compile lists of information that link RF energy to health problems, independent analysis that looks at the breadth of research and publications generally find concern below current limits unconvincing.

Reference:

- Site Safe, Inc. <http://www.sitesafe.com>
- FCC Radio Frequency Safety <http://www.fcc.gov/encyclopedia/radio-frequency-safety>
- National Council on Radiation Protection and Measurements (NCRP) <http://www.ncrponline.org/>
- International Committee on Electromagnetic Safety, (IEEE / ICES) <http://www.ices-emfsafety.org/>
- American National Standards Institute (ANSI) <http://www.ansi.org>
- Environmental Protection Agency (EPA) <http://www.epa.gov/radtown/wireless-tech.html>
- National Institutes of Health (NIH) <http://www.niehs.nih.gov/health/topics/agents/cmfi/>
- Occupational Safety and Health Agency (OSHA) <http://www.osha.gov/SLTC/radiofrequencyradiation/>
- International Commission on Non-Ionizing Radiation Protection (ICNIRP) <http://www.icnirp.org/>
- World Health Organization (WHO) <http://www.who.int/peh-emf/en/> and <http://www.who.int/features/qa/30/en/>
- National Cancer Institute <http://www.cancer.gov/cancertopics/factsheet/Risk/cellphones>
- American Cancer Society (ACS) http://www.cancer.org/docroot/PED/content/PE_D_1_3X_Cellular_Phone_Towers.asp?sitearea=PED
- European Commission Scientific Committee on Emerging and Newly Identified Health Risks http://ec.europa.eu/health/scientific_committees/opinions_layman/en/electromagnetic-fields/index.htm
- Fairfax County, Virginia Public School Survey <http://www.fcps.edu/fts/safety-security/RFEESurvey/>
- UK Health Protection Agency Advisory Group on Non-ionising Radiation http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1317133826368
- Norwegian Institute of Public Health <http://www.fhi.no/dokumenter/545eca7147.pdf>
- Independent Health Policy Expert / Pediatrician <http://theincidentaleconomist.com/wordpress/healthcare-triage-your-cell-phone-wont-give-you-cancer/>

Health and safety background.

Health and safety organizations worldwide have studied potential health effects of RF emissions for decades, and studies continue.

The Federal Communications Commission (FCC) guidelines for operating wireless networks are based on the recommendations of federal health and safety agencies including:

- The Environmental Protection Agency (EPA)
- The Food and Drug Administration (FDA)
- The National Institute for Occupational Safety and Health (NIOSH)
- The Occupational Safety and Health Administration (OSHA)
- The Institute of Electrical and Electronics Engineers (IEEE)
- The National Council on Radiation Protection and Measurements (NCRP)

Wireless technology, equipment and network operations are highly regulated.

Photo-simulation



© 2021 Google



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Why are we expanding the wireless network?

More people than ever before rely on wireless connections to manage their lives and businesses.

Verizon is expanding its wireless network to meet the growing demands of today and tomorrow.

But it takes time.

40_{GB}
of data per month

By the end of 2022, the average monthly usage per smartphone is expected to surpass 15GB, and then grow to 40GB by the end of 2027.¹

69%
are now wireless

68.7% of adults and 79.1% of children lived in wireless-only households.²

76%
of travelers

76% of travelers say a mobile phone is the most important trip accessory.³

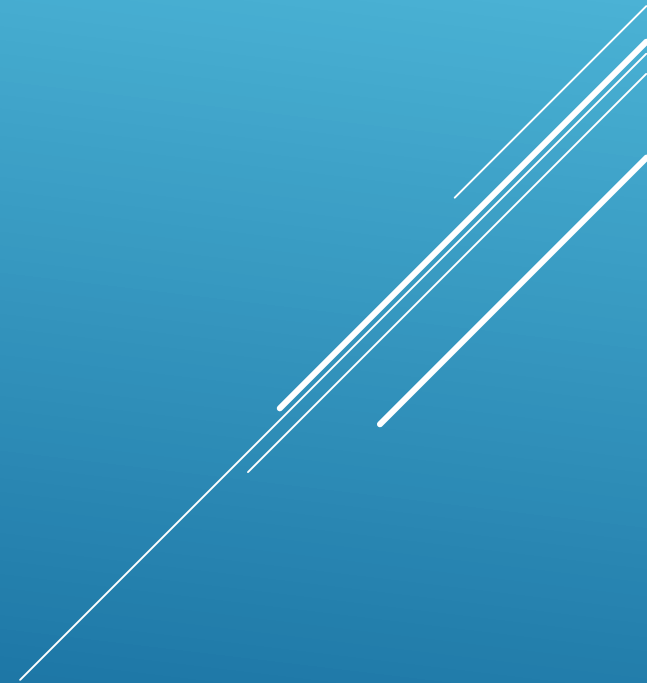
Staying ahead of demand.

A wireless network is like a highway system...

More wireless traffic needs more wireless facilities just like more vehicle traffic needs more lanes.

- Many wireless users share each cell site and congestion may result when too many try to use it at the same time.
- Wireless coverage may already exist in an area, but with data usage growth increasing exponentially each year, more capacity is needed.
- To meet capacity demands, we need to add more wireless antennas closer to users and closer to other cell sites to provide the reliable service customers have come to expect from Verizon.

The monthly data traffic in North America is projected to amount to 19.53 exabytes (the equivalent of over four billion DVD's) by 2027. In 2021, the average data traffic amounted to almost 5 EB per month.*



Wireless connectivity is critical in schools and communities.

Wireless is a critical component in schools and for today's students.

20k

learning apps are available for iPads.

72%

of iTunes top selling educational apps are designed for preschool and elementary students.

600+

school districts replaced text books with tablets in classrooms.

77%

of parents think tablets are beneficial to kids.

74%

of school administrators feel digital content increases student engagement.

70%

of teens use cellphones to help with homework.

Property Values



Wireless facilities and property values.

Cell service in and around the home has emerged as a critical factor in home-buying decisions.

National studies demonstrate that most home buyers value good cell service over many other factors including the proximity of schools when purchasing a home.

90%

Of single family homebuyers consider an area of good cellular service somewhat important or very important when buying a home.¹

87%

Of prospective homebuyers identified faster mobile phone connections as somewhat or very important when looking at 5G and a potential home.¹

22%

On average, U.S. households now have a total of ²² connected devices.

Summary

- A monopole design was chosen as the best structure type for this environment.
- The tower will be built to accommodate 4 carriers which will allow for future growth without having to build new towers.
- Reliable wireless service is essential to local residents, business owners, public safety officials, and visitors to the City of St. Charles.
- This proposal will allow Verizon and others to provide this critical service when needed.
- This will improve service to the entire City of St. Charles.



FULL RELO SMITH & MAIN CELL SITE

LOCATION NO. 711056
PROJECT NO. 20222341126

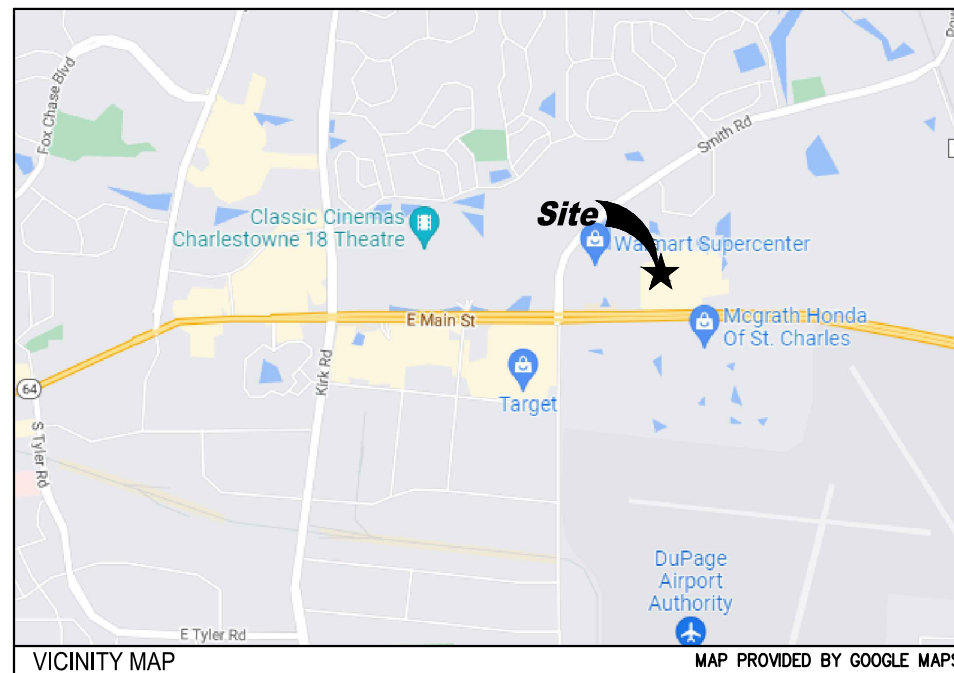
IL-64
ST CHARLES, IL 60174
DUPAGE COUNTY

138' MONOPOLE TOWER
WITH COMMUNICATIONS EQUIPMENT

DRAWING INDEX

TOWER DEVELOPMENT OWNER CONSTRUCTION SECTION

- T-1 PROJECT INFORMATION, LOCATION MAPS, AND DRAWING INDEX
- 1 OF 3 SITE SURVEY
- 2 OF 3 SITE SURVEY
- 3 OF 3 SITE SURVEY
- GN-1 GENERAL CONSTRUCTION NOTES
- C-1 SITE LOCATION PLAN
- C-2 DEVELOPED SITE PLAN
- C-3 ENLARGED SITE PLAN
- C-3.1 REMEDIATION PLAN
- C-4 SITE CIVIL DETAILS
- C-5 TYPICAL FENCE DETAILS
- A-1 TOWER ELEVATION
- E-1 UTILITY SITE PLAN, AND NOTES
- E-2 ELECTRIC AND TELCO UTILITY DETAILS
- E-3 ENLARGED GROUNDING PLAN
- E-4 GROUNDING DETAILS



APPLICANT
VERIZON WIRELESS
DAVID HENDRIXSON
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ROLLING MEADOWS, IL 60008
PH: (231) 578-8860
EMAIL: DAVID.HENDRIXSON@VERIZONWIRELESS.COM

UTILITIES - ELECTRIC
ST CHARLES ELECTRIC
PAUL HOPKINS
PH: (630) 377-4403
EMAIL: PHOPKINS@STCHARLESIL.GOV

UTILITIES - FIBER
LEDCOR TECHNICAL SERVICES
MATTHEW BARRETT
723 N OAKLAWN AVE,
ELMHURST, IL 60126
PH: (708) 278-1998
EMAIL: MATTHEW.BARRETT@LEDCOR.COM

SITE ACQUISITION
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DOUG DOLAN
343 S. KIRKWOOD ROAD #5
BOX# 220130
KIRKWOOD, MO 63122
PH: (314) 963-7700
EMAIL: DDOLAN@DOLANREALTYADVISORS.COM

POLICE DEPARTMENT
ST CHARLES POLICE DEPT
1515 W MAIN ST,
ST. CHARLES, IL 60174
PH: (630) 377-4435

FIRE DEPARTMENT
ST CHARLES FIRE DEPT
112 N RIVERSIDE AVE,
ST. CHARLES, IL 60174
PH: (630) 377-4458

LANDLORD
ST CHARLES VW REAL ESTATE
4050 E MAIN ST,
ST. CHARLES, IL 60174
PH: (630) 818-4150

SURVEYOR
WILLIAMS & WORKS
BILL MCCLURE
549 OTTAWA AVE NW
GRAND RAPIDS, MI 49503
PH: (616) 224-1500
EMAIL: MCCLURE@WILLIAMS-WORKS.COM

ARCHITECTURAL AND ENGINEERING
MISSION 1 COMMUNICATIONS
MARK ALLEN
6202 CONSTITUTION DRIVE, SUITE C
FORT WAYNE, IN 46804
PH: (260) 436-3922
EMAIL: M.ALLEN@M1COMM.COM

CONSULTANT TEAM

PROJECT DESCRIPTION
INSTALLATION OF PANEL ANTENNA, ASSOCIATED APPLIANCES, COAXIAL CABLE AND MOUNTS ON AN 138' MONOPOLE TOWER.
INSTALLATION OF A 4'-0" X 11'-0" UNMANNED EQUIPMENT PAD ON CONCRETE FOUNDATION. INSTALLATION OF GENERAC SD030-1PE-190JT 30KW DIESEL GENERATOR ON EQUIPMENT CONCRETE FOUNDATION.
NEW TELEPHONE (FIBER) SERVICE TO SITE AND EQUIPMENT SKID. NO WATER SUPPLY OR SEWAGE TO/FROM THE SITE.

SITE COORDINATES AND ELEVATION
LATITUDE - N41° 55' 24.41"
LONGITUDE - W88° 15' 24.86"
GRD ELEV. - ±769' AMSL

PROJECT DESCRIPTION



DIRECTIONS TO SITE



CERTIFICATION:
**PRELIMINARY
NOT FOR
CONSTRUCTION**

RELEASE	
DATE	
08-11-22	PRELIMINARY SITE PLAN
09-22-22	PRELIMINARY SITE PLAN
11-09-22	LEASE EXHIBIT
12-09-22	LEASE EXHIBIT
12-29-22	LEASE EXHIBIT
01-30-22	90% CDs
04-04-23	LEASE EXHIBIT
06-09-23	LEASE EXHIBIT
06-14-23	90% CDs

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DRAWN BY: JUT
CHECKED BY: MJA

SITE NAME:

**FULL RELO
SMITH & MAIN
CELL SITE**

SITE ADDRESS:

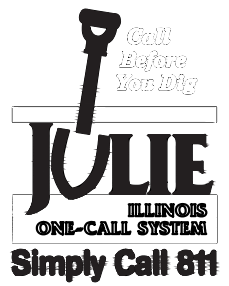
IL-64
ST CHARLES, IL 60174

SHEET TITLE:

PROJECT INFORMATION,
LOCATION MAPS,
AND DRAWING INDEX

A&E PROJECT NO.:

SHEET NO.:



SURVEYOR'S NOTE

THE PARENT PARCEL BOUNDARY OF THIS DRAWING IS ILLUSTRATED FROM RECORD INFORMATION AND IS APPROXIMATE.

THE ORIGINAL TOPOGRAPHICAL SURVEY FOR THIS MAP WAS PERFORMED ON NOVEMBER 14, 2022, REVISED LOCATION PERFORMED ON MAY 23, 2023.

NOT TO BE USED AS CONSTRUCTION DRAWINGS.

UNDERGROUND UTILITY MARKING WAS REQUESTED OF THE JULIE ONE-CALL SYSTEM ON NOVEMBER 04, 2022 AS TICKET NUMBER X223080343

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON NAVD 88 DATUM.

CONTOURS ARE ILLUSTRATED AT 1.0' INTERVALS.

BM#1) ELEV. 766.00
DESCRIPTION: BOX CUT EAST SIDE OF CONCRETE BASE ON NORTHEAST LIGHT POLE AT FOX MOTORS PARKING LOT.

ZONING DATA

ACCORDING TO THE SITE CANDIDATE INFORMATION PACKAGE THIS SITE IS ZONED:

SETBACKS:

FRONT: ?

REAR: ?

SIDE: ?

FLOOD PLAIN INFORMATION

WE HAVE CONSULTED THE FEDERAL EMERGENCY MANAGEMENT AGENCY NATIONAL FLOOD INSURANCE MAP AS PREPARED FOR THE CITY OF ST. CHARLES, DUPAGE COUNTY, ILLINOIS, COMMUNITY PANEL NUMBER 17043C0017J DATED AUGUST 01, 2019, AND FIND THAT THE PROJECT SITE IS ZONED X (UNSHADED) (AREA OF MINIMAL FLOOD HAZARD)

BASIS OF BEARINGS

LATITUDE AND LONGITUDE OF SITE REFERENCE POINT ARE BASED ON NAD83(2011)

BEARINGS ARE BASED ON ILLINOIS STATE PLANE, IL EAST 1201 TO ORIENT DRAWING TO TRUE NORTH, ROTATE CLOCKWISE 00°03'04.84".

EASEMENTS, COVENANTS, CONDITIONS, AND RESTRICTIONS

THE TITLE COMMITMENT ISSUED BY NEAR NORTH TITLE GROUP AS COMMITMENT NO. IL2209789, DATED OCTOBER 25, 2022 LISTS THE FOLLOWING EASEMENTS, COVENANTS, CONDITIONS, AND RESTRICTIONS, THAT ARE MATTERS OF SURVEY, AFFECTING THE PARENT PARCEL UNDER "SCHEDULE B-II":

8. Unrecorded lease to Fox Valley Volkswagen dated July 30, 2015, and all rights thereunder of, and all acts done or suffered thereunder by, said lessee or by any party claiming by, through, or under said lessee. As disclosed and affected by:

Subordination and attornment agreement recorded February 24, 2016 as document R2016-017346, and the terms and provisions contained therein. AFFECTS THE SUBJECT PROPERTY. BLANKET IN NATURE.

9. Notations and Illinois Department of Transportation legends on plat of Pheasant Run Crossing recorded August 19, 2015 as document R2015-092580, as to access limits as to Illinois Route 64. AFFECTS THE SUBJECT PROPERTY. BLANKET IN NATURE.

10. Easements for public utilities over, upon and under the Land as shown on the Plat of Easement recorded June 11, 2012 as document R2012-074422. AFFECTS THE SUBJECT PROPERTY AS SHOWN.

11. Temporary Construction Easement per order document R2012-017755 in Case # 10ED114 in favor of Illinois Department of Transportation. AFFECTS THE SUBJECT PROPERTY AS SHOWN.

12. Easements, building setback lines, parking setback lines, access note and other provisions on the plat of Pheasant Run Crossing recorded August 19, 2015 as document R2015-092580. AFFECTS THE SUBJECT PROPERTY AS SHOWN.

13. Covenants and Restrictions (but omitting any such covenant or restriction based on race, color, religion, sex, handicap, familial status or national origin unless and only to the extent that said covenant (A) is exempt under Chapter 42, Section 3607 of the United States Code or (B) relates to handicap but does not discriminate against handicapped person), relating to Pheasant Run Crossing Property Association, assessments, buildings, uses, easements, maintenance and other matters contained in the document recorded August 19, 2015 as document R2015-092581 which does not contain a reversionary or forfeiture clause. AFFECTS THE SUBJECT PROPERTY. BLANKET IN NATURE.

14. (A) Terms, provisions and conditions relating to the easement described as Parcel 1A contained in the plat recorded August 19, 2015 as document R2015-092580 creating said easement.

(B) Rights of the adjoining owner or owners to the concurrent use of said easement AFFECTS THE SUBJECT PROPERTY. BLANKET IN NATURE.

**LOC. #711056
SMITH & MAIN**

PROPRIETOR

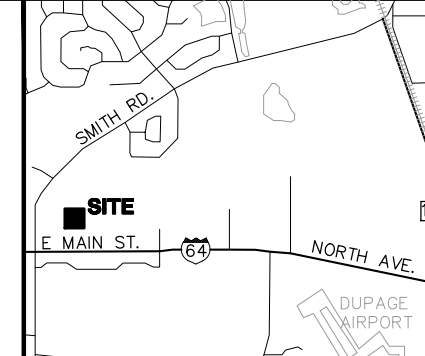
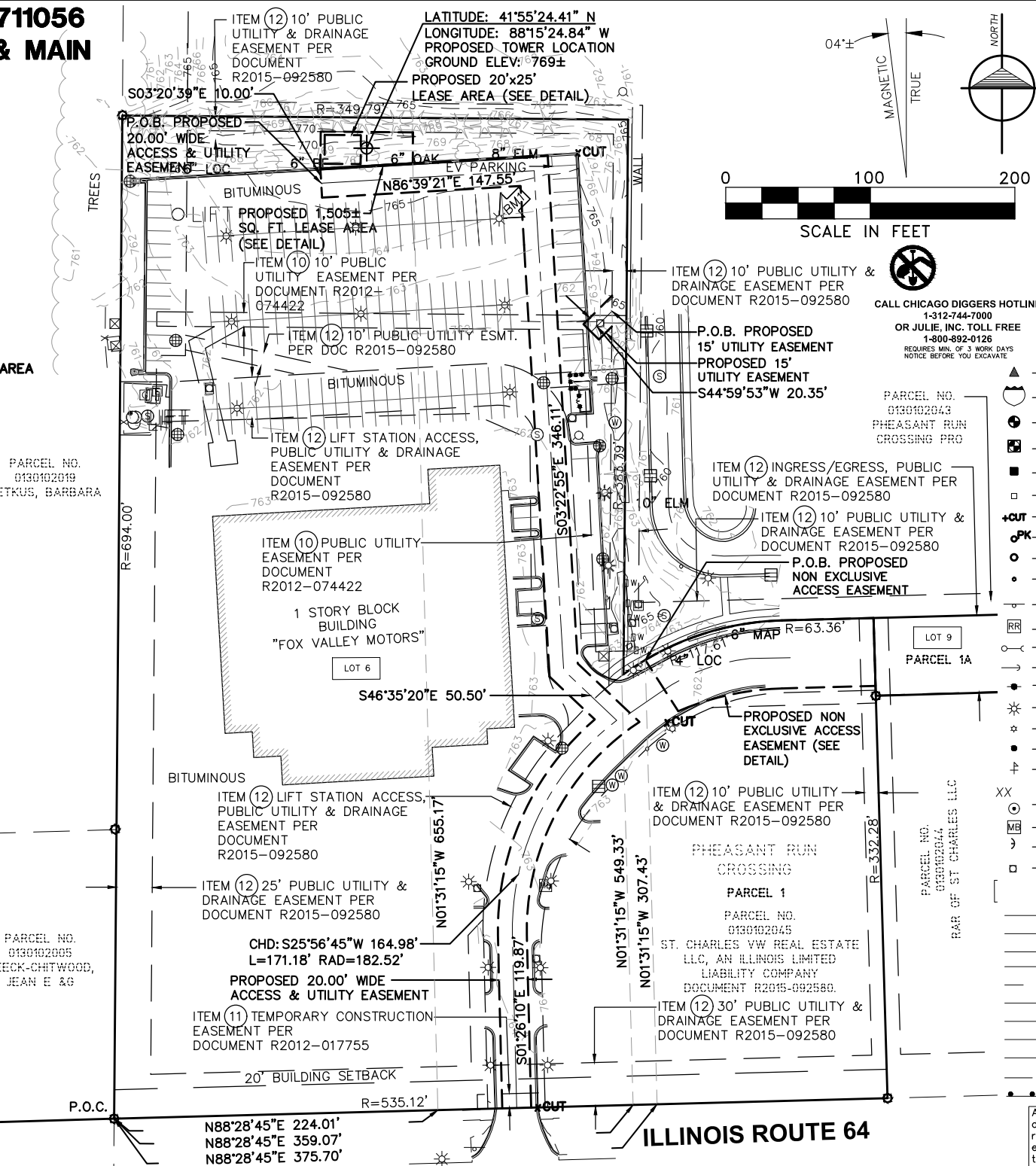
ST. CHARLES VW REAL ESTATE LLC
4050 E MAIN ST
SAINT CHARLES, IL 60174

LEGAL DESCRIPTION

PROPOSED 1,505 S.F. LEASE AREA
SEE SHEET 2 OF 2

PARCEL NO. 0130102019
PETKUS, BARBARA

PARCEL NO. 0130102005
SEECK-CHITWOOD, JEAN E & S



LEGEND

- WELL
- HIGHWAY
- MONUMENT
- MONUMENT BOX
- XCUT
- PK NAIL
- FOUND IRON STAKE
- SET IRON STAKE
- SIGN
- RR SIGN
- GUY POLE
- GUY ANCHOR
- UTILITY POLE
- LIGHT POLE
- ORNAMENTAL LIGHT POLE
- POST
- U.G. UTILITY MARKER
- SOIL BORING
- MAILBOX
- SATELLITE DISH
- HAND HOLE
- U.G. UTILITY MARKER
- U.G. UTILITY MARKER
- FIRE HYDRANT
- POST INDICATOR VALVE
- WATER VALVE
- GAS VALVE
- UST FILL PORT
- GAS PUMP
- GAS METER
- WATER METER
- TELEPHONE RISER
- ELECTRIC METER
- CABLE TV RISER
- CATCH BASIN
- ROUND CATCH BASIN
- UTILITY MANHOLE
- STORM MANHOLE
- SANITARY MANHOLE
- ELECTRIC MANHOLE
- TELEPHONE MANHOLE
- WATER MANHOLE
- HANDICAP PARKING SPACE
- SHRUB
- TREE
- PINE TREE
- EXISTING CONTOURS
- TELEPHONE UTILITY LINE
- ELECTRIC UTILITY LINE
- WATER UTILITY LINE
- GAS UTILITY LINE
- STEAM UTILITY LINE
- STORM UTILITY LINE
- SANITARY UTILITY LINE
- FIBER OPTIC UTILITY LINE
- OVERHEAD UTILITY LINE
- FENCE LINE
- GUARD RAIL

All utilities as shown are approximate locations derived from actual measurements and available records. They should not be interpreted to be in exact location nor should it be assumed that they are the only utilities in the area.

LEGAL DESCRIPTION

PARENT PARCEL

PARCEL 1:

LOT 6 OF PHEASANT RUN CROSSING BEING A SUBDIVISION OF PART OF THE SOUTH 1/2 OF LOT 1 (ACCORDING TO THE GOVERNMENT SURVEY) OF THE NORTHWEST 1/4 OF SECTION 30, TOWNSHIP 40 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN WAYNE TOWNSHIP, DUPAGE COUNTY, ILLINOIS, ACCORDING TO THE PLAT THEREOF RECORDED AUGUST 19, 2015, AS DOCUMENT R2015-092580.

PARCEL 1A:

EASEMENT FOR INGRESS AND EGRESS AS PER PLAT RECORDED AUGUST 19, 2015, AS DOCUMENT R2015-092580 FOR BENEFIT OF PARCEL 1 OVER LOT 9 OF PHEASANT RUN CROSSING AFORESAID. (ACCESS ROAD)

This map was made from the below legal description which was given to us as a complete description of the property. Both map and description should be compared with the Abstract of Title or Title Policy for any exceptions, easements or differences in description.



I, Samuel A. Miles, do hereby certify that the drawing shown hereon is a correct representation of a survey performed at and under my direction.

All dimensions shown are in feet and decimal parts thereof.

Given under my hand and seal this 14th day of June, 2023.

Samuel A. Miles

Samuel A. Miles
Illinois Professional Land Surveyor No. 035.003984
Expires November 30, 2024

Note: This certification only applies to improvements within the lease site and easements as shown hereon.

ILLINOIS REGISTERED DESIGN FIRM
LICENSE NUMBER 184.007034-0008
LICENSE EXPIRES: APRIL 30, 2025

Table with columns: DATE, DWG. BY, SCALE, SURVEYED, UPDATE, CHKD BY, PROJECT NO.



**LOC. #711056
SMITH & MAIN**

Survey Prepared for:
Mission 1 Communications
6202 Constitution Drive
Suite C
Fort Wayne, IN 46804
(260) 436-3922
Project Manager: Mark J Allen

Table with columns: NO., DESCRIPTION, DATE. Lists revisions to the drawing.

williams&works
engineers | surveyors | planners
http://williams-works.com
616.224.1500 phone
549 Ottawa Ave NW
Grand Rapids, MI 49503

SITE NAME

SMITH & MAIN

SITE NUMBER

LOC. #711056

SITE ADDRESS

4050 E MAIN ST.
ST. CHARLES, IL
60174

SHEET TITLE

S1

SHEET 1 OF 3

SURVEYOR'S NOTE

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 NOT TO BE USED AS CONSTRUCTION DRAWINGS.

LEGAL DESCRIPTION

PROPOSED 1,505 S.F. LEASE AREA
 SEE SHEET 3 OF 3

LEGAL DESCRIPTION

PROPOSED 20.00' WIDE ACCESS & UTILITY EASEMENT
 SEE SHEET 3 OF 3

LEGAL DESCRIPTION

PROPOSED 20'x25' LESSEE LEASE AREA
 SEE SHEET 3 OF 3

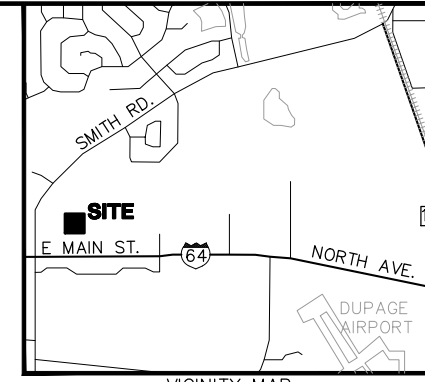
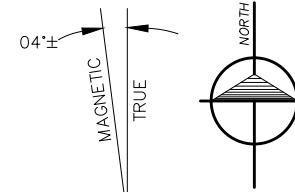
LEGAL DESCRIPTION

PROPOSED 15.00' WIDE UTILITY EASEMENT
 SEE SHEET 3 OF 3

LEGAL DESCRIPTION

PROPOSED NON EXCLUSIVE ACCESS EASEMENT
 SEE SHEET 3 OF 3

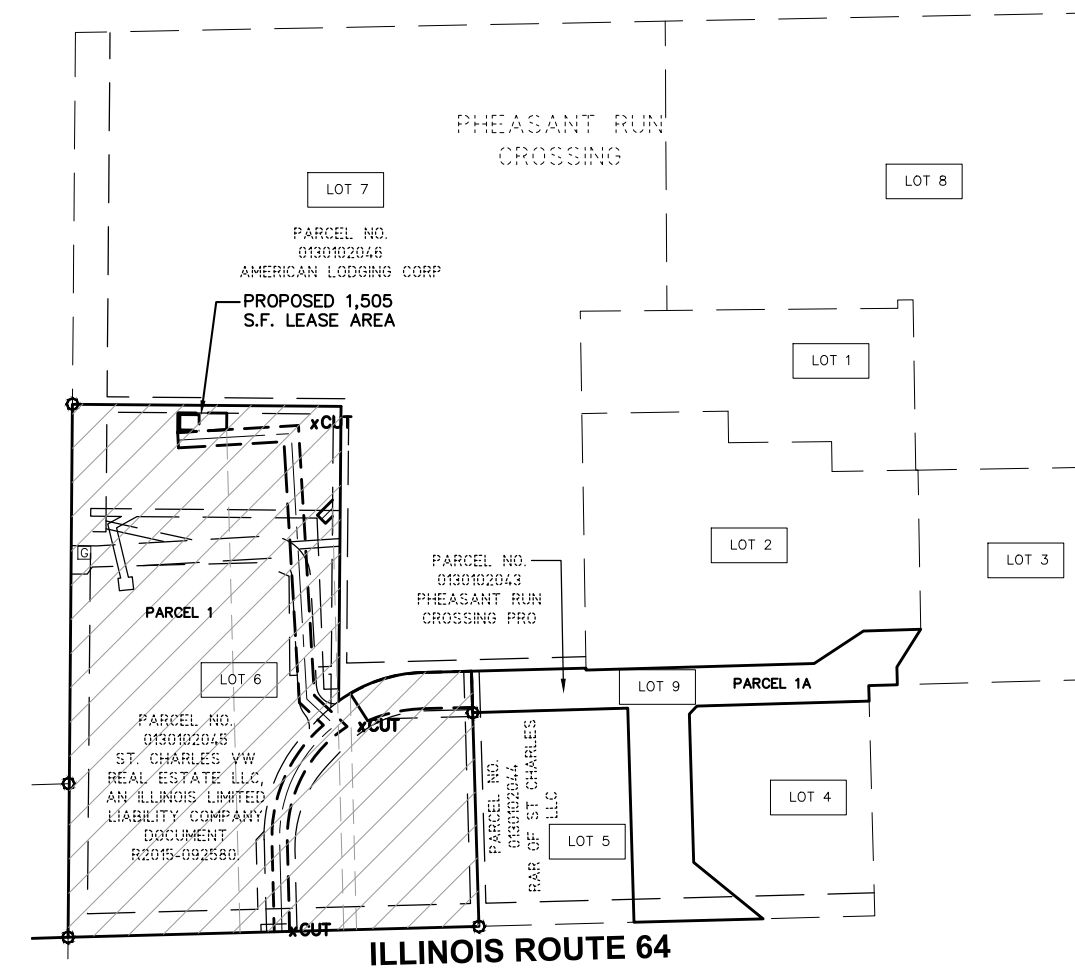
**LOC. #711056
 SMITH & MAIN**



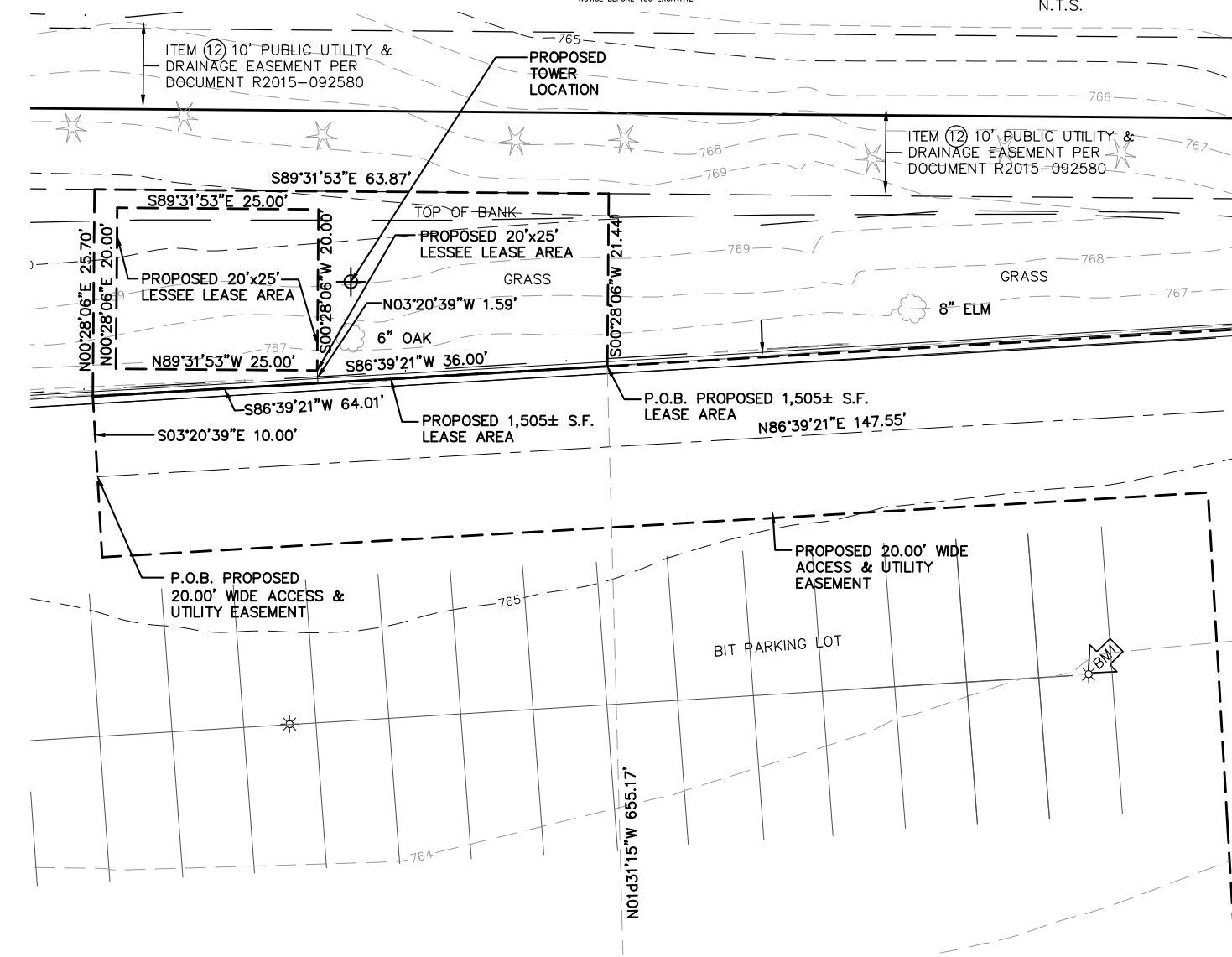
**LOC. #711056
 SMITH & MAIN**

Survey Prepared for:
 Mission 1 Communications
 6202 Constitution Drive
 Suite C
 Fort Wayne, IN 46804
 (260) 436-3922
 Project Manager: Mark J Allen

REVISIONS		
NO.	DESCRIPTION	DATE
1	REVISED LEASE AREA	11/29/22
2	REVISED LEASE AREA, TOWER AND EASEMENTS LOCATION	11/30/22
3	REVISED LEASE AREA, AND TOWER LOCATION	12/12/22
4	REVISED LEASE AREA, AND TOWER LOCATION	12/14/22
5	REVISED LEASE AREA, AND TOWER LOCATION	05/24/23
6	ADD 150' LEASE AREA, UTILITY EASEMENT, NON EXCLUSIVE ACCESS EASEMENT	06/13/23



PROPERTY DETAIL
 SCALE 1"=250'



LEASE AREA DETAIL
 SCALE 1"=20'

LEGEND		
▲ - TRAVERSE POINT	⊠ - AC UNIT	⊙ - ROUND CATCH BASIN
▲ - WELL	□ - U.G. UTILITY MARKER	⊙ - UTILITY MANHOLE
⊙ - HIGHWAY	⊙ - FIRE HYDRANT	⊙ - STORM MANHOLE
⊙ - MONUMENT	⊙ - POST INDICATOR VALVE	⊙ - SANITARY MANHOLE
⊙ - MONUMENT BOX	⊙ - WATER VALVE	⊙ - ELECTRIC MANHOLE
■ - RIGHT OF WAY MARKER	⊙ - GAS VALVE	⊙ - TELEPHONE MANHOLE
⊙ - SET WOODSTAKE	⊙ - UST FILL PORT	⊙ - WATER MANHOLE
+CUT - XCUT	⊙ - GAS PUMP	⊙ - HANDICAP PARKING SPACE
PK - PK NAIL	⊙ - GAS METER	⊙ - FENCE LINE
○ - FOUND IRON STAKE	⊙ - WATER METER	⊙ - GUARD RAIL
○ - SET IRON STAKE	⊙ - TELEPHONE RISER	
⊙ - SIGN	⊙ - ELECTRIC METER	
RR - RR SIGN	⊙ - CABLE TV RISER	
	⊙ - CATCH BASIN	
		⊙ - GUY POLE
		⊙ - GUY ANCHOR
		⊙ - UTILITY POLE
		⊙ - LIGHT POLE
		⊙ - ORNAMENTAL LIGHT POLE
		⊙ - POST
		⊙ - U.G. UTILITY MARKER
		XX - SOIL BORING
		MB - MAILBOX
		⊙ - SATELLITE DISH
		⊙ - HAND HOLE
		(ELEV) - EXISTING CONTOURS
		⊙ - SHRUB
		⊙ - TREE
		⊙ - PINE TREE
		⊙ - TELEPHONE UTILITY LINE
		⊙ - ELECTRIC UTILITY LINE
		⊙ - WATER UTILITY LINE
		⊙ - GAS UTILITY LINE
		⊙ - STEAM UTILITY LINE
		⊙ - STORM UTILITY LINE
		⊙ - SANITARY UTILITY LINE
		⊙ - FIBER OPTIC UTILITY LINE
		⊙ - OVERHEAD UTILITY LINE

All utilities as shown are approximate locations derived from actual measurements and available records. They should not be interpreted to be in exact location nor should it be assumed that they are the only utilities in the area.



I, Samuel A. Miles, do hereby certify that the drawing shown hereon is a correct representation of a survey performed at and under my direction.
 All dimensions shown are in feet and decimal parts thereof.
 Given under my hand and seal this 14th day of June, 2023.

Samuel A. Miles
 Samuel A. Miles
 Illinois Professional Land Surveyor No. 035.003984
 Expires November 30, 2024

Note: This certification only applies to improvements within the lease site and easements as shown hereon.

ILLINOIS REGISTERED DESIGN FIRM
 LICENSE NUMBER 184.007034-0008
 LICENSE EXPIRES: APRIL 30, 2025

DATE: 11/14/22	DWG. BY: A.G.G.
SCALE: N/A	SURVEYED: D.S./N.S.
UPDATE: AGG061323	CHKD BY: S.A.M.
PROJECT NO.: 215249.062	

SURVEYED BY:

williams & works
 engineers | surveyors | planners
 616.224.1500 phone
 549 Ottawa Ave NW
 Grand Rapids, MI 49503
<http://williams-works.com>

SITE NAME

SMITH & MAIN

SITE NUMBER

LOC. #711056

SITE ADDRESS

**4050 E MAIN ST.
 ST. CHARLES, IL
 60174**

SHEET TITLE

S2

SHEET 2 OF 3

SURVEYOR'S NOTE

THE PARENT PARCEL BOUNDARY OF THIS DRAWING IS ILLUSTRATED FROM RECORD INFORMATION AND IS APPROXIMATE.

THE ORIGINAL TOPOGRAPHICAL SURVEY FOR THIS MAP WAS PERFORMED ON NOVEMBER 14, 2022, REVISED LOCATION PERFORMED ON MAY 23, 2023 .

NOT TO BE USED AS CONSTRUCTION DRAWINGS.

**LOC. #711056
SMITH & MAIN**

LEGAL DESCRIPTION

PROPOSED 1,505 S.F. LEASE AREA

All that part of Lot 6 of Pheasant Run Crossing being a Subdivision of part of the South 1/2 of Lot 1 (according to the Government Survey) of the Northwest 1/4 of Section 30, Township 40 North, Range 9 East of the Third Principal Meridian, in Wayne Township, DuPage County, Illinois, recorded as Document R2015-092580 DuPage County Records; described as; Commencing at the southwest corner of said Lot 6; thence North 88°28'45" East 224.01 feet along the south line of said Pheasant Run Crossing; thence North 01°31'15" West 655.17 feet TO THE PLACE OF BEGINNING OF THIS DESCRIPTION; thence South 86°39'21" West 64.01 feet thence North 00°28'06" East 25.70 feet; thence South 89°31'53" East 63.87 feet; thence South 00°28'06" West 21.44 feet to the place of beginning of this description.
Containing 1,505 square feet more or less.

LEGAL DESCRIPTION

PROPOSED 20.00' WIDE ACCESS & UTILITY EASEMENT

A 20.00 foot wide easement in that part of Lot 6 of Pheasant Run Crossing being a Subdivision of part of the South 1/2 of Lot 1 (according to the Government Survey) of the Northwest 1/4 of Section 30, Township 40 North, Range 9 East of the Third Principal Meridian, in Wayne Township, DuPage County, Illinois, recorded as Document R2015-092580 DuPage County Records; the centerline of which is described as; Commencing at the southwest corner of said Lot 6; thence North 88°28'45" East 224.01 feet along the south line of said Pheasant Run Crossing; thence North 01°31'15" West 655.17 feet to the southeasterly corner of a 1,505 square foot Lease Area; thence South 86°39'21" West 64.01 feet; thence South 03°20'39" East 10.00 feet TO THE PLACE OF BEGINNING OF THIS CENTERLINE DESCRIPTION; thence North 86°39'21" East 147.55 feet; thence South 03°22'55" East 346.11 feet; thence South 46°35'20" East 50.50 feet; thence southwesterly 171.18 feet along a 182.52 foot radius curve to the left, the chord of which bears South 25°56'45" West 164.98 feet; thence South 01°26'10" East 119.87 feet to the north right of way line of Illinois Route 64 for the place of ending of this centerline description. The sidelines to be lengthened and/or shortened to meet at angle points and to terminate at said North right of way.

LEGAL DESCRIPTION

PROPOSED 20'x25' LESSEE LEASE AREA

All that part of Lot 6 of Pheasant Run Crossing being a Subdivision of part of the South 1/2 of Lot 1 (according to the Government Survey) of the Northwest 1/4 of Section 30, Township 40 North, Range 9 East of the Third Principal Meridian, in Wayne Township, DuPage County, Illinois, recorded as Document R2015-092580 DuPage County Records; described as; Commencing at the southwest corner of said Lot 6; thence North 88°28'45" East 224.01 feet along the south line of said Pheasant Run Crossing; thence North 01°31'15" West 655.17 feet to the southeast corner of a 1,505 square foot lease area; thence South 86°39'21" West 36.00 feet; thence North 03°20'39" West 1.59 feet TO THE PLACE OF BEGINNING OF THIS DESCRIPTION; thence North 89°31'53" West 25.00 feet; thence North 00°28'06" East 20.00 feet; thence South 89°31'53" East 25.00 feet; thence South 00°28'06" West 20.00 feet to the place of beginning of this description.
Containing 500 square feet more or less.

LEGAL DESCRIPTION

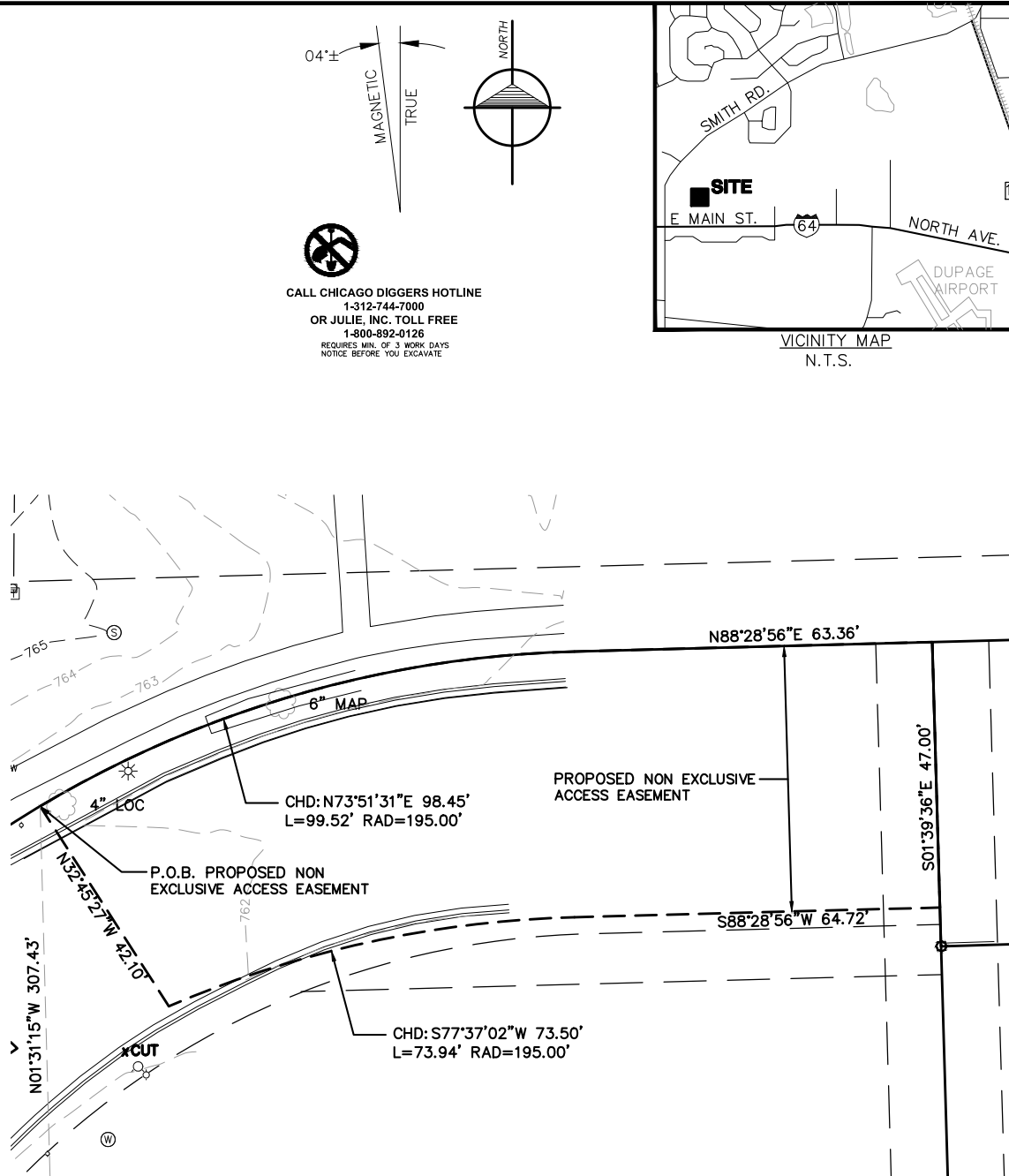
PROPOSED 15.00' WIDE UTILITY EASEMENT

A 15.00 foot wide easement in that part of Lot 6 of Pheasant Run Crossing being a Subdivision of part of the South 1/2 of Lot 1 (according to the Government Survey) of the Northwest 1/4 of Section 30, Township 40 North, Range 9 East of the Third Principal Meridian, in Wayne Township, DuPage County, Illinois, recorded as Document R2015-092580 DuPage County Records; the centerline of which is described as; Commencing at the southwest corner of said Lot 6; thence North 88°28'45" East 359.07 feet along the south line of said Pheasant Run Crossing; thence North 01°31'15" West 549.33 feet to a point on the west line of a 10.00 wide public utility & drainage easement per Document R2015-092580 DuPage County Records and TO THE PLACE OF BEGINNING OF THIS CENTERLINE DESCRIPTION; thence South 44°59'53" West 20.35 feet for the place of ending of this centerline description. The sidelines to be lengthened and/or shortened to terminate at said westerly line.

LEGAL DESCRIPTION

PROPOSED NON EXCLUSIVE ACCESS EASEMENT

All that part of Lot 6 of Pheasant Run Crossing being a Subdivision of part of the South 1/2 of Lot 1 (according to the Government Survey) of the Northwest 1/4 of Section 30, Township 40 North, Range 9 East of the Third Principal Meridian, in Wayne Township, DuPage County, Illinois, recorded as Document R2015-092580 DuPage County Records; described as; Commencing at the southwest corner of said Lot 6; thence North 88°28'45" East 375.70 feet along the south line of said Pheasant Run Crossing; thence North 01°31'15" West 307.43 feet TO THE PLACE OF BEGINNING OF THIS DESCRIPTION; thence northeasterly 99.52 feet along a 195.00 foot radius curve to the right, the chord of which bears North 73°51'31" East 98.45 feet; thence North 88°28'56" East 63.36 feet; thence South 01°39'36" East 47.00 feet; thence South 88°28'56" West 64.72 feet; thence southwesterly 73.94 feet along a 195.00 foot radius curve to the left, the chord of which bears South 77°37'02" West 73.50 feet; thence North 32°45'27" West 42.10 feet to the place of beginning of this description.



LEASE AREA DETAIL
SCALE 1"=30'

I, Samuel A. Miles, do hereby certify that the drawing shown hereon is a correct representation of a survey performed at and under my direction.
All dimensions shown are in feet and decimal parts thereof.
Given under my hand and seal this 14th day of June, 2023.



Samuel A. Miles
Samuel A. Miles
Illinois Professional Land Surveyor No. 035.003984
Expires November 30, 2024

Note: This certification only applies to improvements within the lease site and easements as shown hereon.

DATE: 11/14/22	DWG. BY: A.G.G.
SCALE: N/A	SURVEYED: D.S./N.S.
UPDATE: AGG061323	CHKD BY: S.A.M.
PROJECT NO.: 215249.062	

ILLINOIS REGISTERED DESIGN FIRM
LICENSE NUMBER 184.007034-0008
LICENSE EXPIRES: APRIL 30, 2025



**LOC. #711056
SMITH & MAIN**

Survey Prepared for:
Mission 1 Communications
6202 Constitution Drive
Suite C
Fort Wayne, IN 46804
(260) 436-3922
Project Manager: Mark J. Allen

NO.	DESCRIPTION	DATE
1	REVISED LEASE AREA	11/29/22
2	REVISED LEASE AREA, TOWER AND EASEMENTS LOCATION	11/30/22
3	REVISED LEASE AREA, AND TOWER LOCATION	12/12/22
4	REVISED LEASE AREA, AND TOWER LOCATION	12/14/22
5	REVISED LEASE AREA, AND TOWER LOCATION	05/24/23
6	ADD 20' WIDE LEASE AREA, UTILITY EASEMENT, NON EXCLUSIVE ACCESS EASEMENT	06/13/23

williams & works
engineers | surveyors | planners
http://williams-works.com
616.224.1500 phone
549 Ottawa Ave NW
Grand Rapids, MI 49503

SURVEYED BY:

SITE NAME
SMITH & MAIN

SITE NUMBER

LOC. #711056

SITE ADDRESS

**4050 E MAIN ST.
ST. CHARLES, IL
60174**

SHEET TITLE

S3

SHEET 3 OF 3

Abbreviations and Symbols

A/C	AIR CONDITIONING	N	NORTH
ADJ	ADJUSTABLE	N/A	NOT APPLICABLE
AFF	ABOVE FINISH FLOOR	NIC	NOT IN CONTRACT
APPROX	APPROXIMATELY	NTS	NOT TO SCALE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	O/C,O.C.	ON CENTER
AWG	AMERICAN WIRE GAUGE	OD	OUTSIDE DIAMETER
BLDG	BUILDING	OPG	OPENING
BLK	BLOCK	OPP	OPPOSITE
BMR	BASE MOBILE RADIO	PLYWD	PLYWOOD
B/S	BUILDING STANDARD	PR	PAIR
CLG	CEILING	PROJ	PROJECT
CLR	CLEAR	PROP	PROPERTY
CND.C	CONDUIT	PT	PRESSURE TREATED
CONC	CONCRETE	REQ'D	REQUIRED
CONST	CONSTRUCTION	RM	ROOM
CONT	CONTINUOUS	RO	ROUGH OPENING
DBL	DOUBLE	S	SOUTH
DIA,Ø	DIAMETER	SHT	SHEET
DIAG	DIAGONAL	SIM	SIMILAR
DIM	DIMENSION	SPEC	SPECIFICATION
DN	DOWN	SQ	SQUARE
DTL,DTL	DETAIL	SS	STAINLESS STEEL
DWG	DRAWING	STL	STEEL
E	EAST	STRUCT	STRUCTURAL
EA	EACH	SUSP	SUSPENDED
EL,ELEV	ELEVATION	SV	SHEET VINYL
ELECT	ELECTRICAL	THRU	THROUGH
EQ	EQUAL	TNND	TINNED
EQUIP	EQUIPMENT	TOC	TOP OF CONCRETE
EW	EACH WAY	TOM	TOP OF MASONRY
EXIST	EXISTING	TYP	TYPICAL
EXT	EXTERIOR	UBC	UNIFORM BUILDING CODE
FIN	FINISH	UNO	UNLESS NOTED OTHERWISE
FLUOR	FLUORESCENT	VERT	VERTICAL
FLR	FLOOR	VIF	VERIFY IN FIELD
FT	FOOT	VT	VINYL TILE
GA	GAUGE	W	WEST
GALV	GALVANIZE(D)	W/W	WITH WINDOW
GC	GENERAL CONTRACTOR	W/O	WITHOUT
GRND	GROUND	WP	WATERPROOF
GWB	GYPNUM WALL BOARD	∠	ANGLE
GYP BD	GYPNUM BOARD	& C	AND CENTER LINE
HARD'WD	HARDWOOD	PL	PROPERTY LINE
HORIZ	HORIZONTAL	#	AT NUMBER
HR	HOUR		
HT	HEIGHT		
HVAC	HEATING, VENTING & AIR CONDITIONING		
ID	INSIDE DIA.		
IN	INCH		
INFO	INFORMATION		
INSUL	INSULATION		
INT	INTERIOR		
LB(S)	POUND(S)		
MAX	MAXIMUM		
MECH	MECHANICAL		
MET,MTL	METAL		
MFR	MANUFACTURER		
MGR	MANAGER		
MIN	MINIMUM		
MISC	MISCELLANEOUS		

Symbols

	REVISION		DETAIL REFERENCE
	KEY NOTE		ELEVATION REFERENCE
	ROOM NUMBER		SECTION REFERENCE
	KEYED NOTE		

General Notes

- SCHEDULE: THE CONSTRUCTION OF THE SITE REQUIRES A CERTAIN SEQUENCE OF EVENTS TO MINIMIZE CONSTRUCTION TIME REQUIRED UNTIL AVAILABILITY OF CELLULAR TELEPHONE SERVICE.
- CONSTRUCTION STAKING: THE GENERAL CONTRACTOR SHALL CONTACT THE SURVEYOR TO SCHEDULE CONSTRUCTION STAKING. SURVEYOR TO STAKE LEASE AREA CORNERS, EQUIPMENT PAD CORNERS, CENTER OF THE 3 TOWER LEGS (VERIFY LEG CENTER LINE DIMENSION WITH TOWER DRAWINGS) AND CENTERLINE OF ALL ACCESS AND UTILITY EASEMENTS.
- SITE CLEARING - EXCAVATION AND FILL: ALL NEW EQUIPMENT PAD AND TOWER LOCATIONS SHALL BE CLEARED OF ALL TOPSOIL AND VEGETATION. CONTRACTOR SHALL USE EXCAVATED MATERIAL FROM FOUNDATION EXCAVATION AND SHALL PROVIDE, SPREAD AND COMPACT BANK RUN GRAVEL AS REQUIRED TO BRING EQUIPMENT PAD UP TO ELEVATIONS AS INDICATED BY THE FINAL SUB-GRADE ELEVATIONS AS SHOWN ON THE PLANS.
- EQUIPMENT SKID FOUNDATIONS: THE CONTRACTOR SHALL INSTALL THE EQUIPMENT EQUIPMENT PAD FOUNDATION AND TOWER FOUNDATION(S) INCLUDING THE ANCHOR BOLTS AS FURNISHED BY THE TOWER MANUFACTURER (TOWER FABRICATION, ERECTION, AND ANTENNA INSTALLATION SHALL BE BY OTHERS). CONTRACTOR SHALL CONTACT THE GEOTECHNICAL CONSULTANT FOR ON SITE INSPECTIONS PRIOR TO POURING CONCRETE FOR TOWER AND EQUIPMENT PAD FOUNDATIONS. CONCRETE CORES (THREE (3) CYLINDERS PER TRUCK) TO BE TAKEN AND TESTED BY THE CONSULTANT AND PROVIDE THREE (3) COPIES OF THE TESTING RESULTS TO THE VERIZON WIRELESS PROJECT MANAGER.
- PREFABRICATED EQUIPMENT PAD: THE GENERAL CONTRACTOR SHALL PROVIDE ALL LABOR, EQUIPMENT AND MATERIALS FOR THE PROPER LIFTING OF THE EQUIPMENT PAD FROM THE TRANSPORT TRUCK BED TO THE FINAL POSITION ON THE CONCRETE FOUNDATION. THE EQUIPMENT PAD SHALL BE LIFTED INTO PLACE BY USING EIGHT (8) LIFTING EYELETS PROVIDED BY THE EQUIPMENT PAD MANUFACTURER. THE EQUIPMENT PAD MANUFACTURER REQUIRES EIGHT (8) 3/4" DIA., 15' LONG STEEL CABLES CONNECTED TO THE SPREADER BAR. IF THE SPREADER BAR IS AT LEAST TWO FEET WIDER THAN THE EQUIPMENT PAD, CORNER PROTECTORS WILL NOT BE USED. THE APPROXIMATE WEIGHT OF THE EQUIPMENT PAD WITH THE TELEPHONE EQUIPMENT IS 72,000 LBS (REFER TO EQUIPMENT PAD LIFTING INSTRUCTIONS ON SHEET B-1). THE CONTRACTOR SHALL ANCHOR THE EQUIPMENT PAD TO THE CONCRETE SLAB WITH STEEL PLATES AND ANCHOR BOLTS PROVIDED BY THE EQUIPMENT PAD MANUFACTURER. THE VERIZON WIRELESS EQUIPMENT PAD SHALL NOT BE USED FOR THE STORAGE OF ANY MATERIALS, TOOLS, ETC. USED BY THE CONTRACTOR OR SUB-CONTRACTORS.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF THE ELECTRICAL DISCONNECT, EXTERIOR LIGHT FIXTURE, DOOR CANOPIES (WITH CAULKING), MUFFLER AND LOOSE SHIP MATERIALS, INCLUDING FUELING, START UP AND TESTING (COORDINATE WITH OPERATIONS TO SET GENERATOR ROUTINE RUN DATE).
- THE GENERAL CONTRACTOR SHALL INSTALL THE TOWER FOUNDATION, INCLUDING THE ANCHOR BOLTS AS FURNISHED BY THE TOWER MANUFACTURER. TOWER FABRICATION, ERECTION, AND ANTENNA INSTALLATION SHALL BE BY OTHERS.
- ACCESS DRIVEWAY: THE GENERAL CONTRACTOR SHALL CONSTRUCT THE ACCESS DRIVEWAY PER THE ALIGNMENT AND CROSS SECTION ON THE DRAWINGS. IF ANY AREA OF CONSTRUCTION REQUIRES MORE FILL OF AGGREGATE STONE THAN SHOWN ON THE DRAWINGS, THE GENERAL CONTRACTOR SHALL NOTIFY THE ARCHITECT FOR APPROVAL OF THE SIZE, TYPE AND QUANTITY OF STONE/FILL NECESSARY, AND SHALL NOT BE USED UNTIL APPROVAL BY THE ARCHITECT/ENGINEER.
- UTILITIES: THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXCAVATION AND PROPER BACK FILLING OF TRENCHES REQUIRED FOR UNDERGROUND TELEPHONE AND ELECTRICAL UTILITIES. REFER TO ELECTRICAL SHEETS FOR THE UTILITY TRENCH PLAN AND DETAILS COORDINATE, SERVICE DATE WITH THE RESPECTIVE UTILITY COMPANIES.
- ANTENNAS INSTALLATION: ALL ANTENNAS AND LINES AND ICE BRIDGE SHALL BE INSTALLED BY ANTENNA CONTRACTOR. DURING THIS WORK THE GENERAL CONTRACTOR SHALL BE LIMITED TO THE WORK WHICH CAN BE PERFORMED IN THE VICINITY OF THE WATER TOWER.
- HERBICIDE: AFTER PLACEMENT AND COMPACTING OF FILL AROUND THE PREFABRICATED EQUIPMENT PAD AND BEFORE PLACEMENT OF LIMESTONE SURFACE, A WEED BARRIER SHALL BE PLACED AND HERBICIDE SHALL BE SPRAYED OVER ALL DISTURBED AREAS.
- TRASH REMOVAL: THE GENERAL CONTRACTOR SHALL REMOVE ALL TRASH AS CREATED BY HIMSELF AND HIS SUBCONTRACTORS AND ALSO BY OTHER CONTRACTORS INCLUDING CABLE REELS, CARDBOARD BOXES, AND PACKAGING. THE GENERAL CONTRACTOR SHALL PROVIDE A TRASH DUMPSTER (40 YARD ROLL OFF) ON THE SITE UNTIL ALL CONSTRUCTION WORK AND EQUIPMENT INSTALLATION WORK HAS BEEN COMPLETED. ALL TRASH SHALL BE REMOVED FROM THE SITE IN A TIMELY FASHION TO A LEGAL DISPOSAL AREA. FAILURE TO PROVIDE A DUMPSTER ON SITE WILL RESULT IN A \$1000.00 REDUCTION IN THE CONTRACT AMOUNT.
- FINAL CLEAN UP: UPON COMPLETION OF ALL WORK BY THE GENERAL CONTRACTOR AND ALL OTHER CONTRACTORS ON THIS PROJECT, THE GENERAL CONTRACTOR SHALL STRIP AND CLEAN THE FLOOR OF THE EQUIPMENT PAD, USING AN INDUSTRIAL STRIPPING MACHINE. THE FINISHED FLOOR SHALL BE CLEAN AND DUST FREE. NO SURFACE FINISHES SHALL BE APPLIED. THE GENERAL CONTRACTOR IS ALSO RESPONSIBLE FOR THE REMOVAL OF ALL EXCESS MATERIALS FROM INSIDE THE EQUIPMENT PAD ALONG WITH SHIPMENT OF NOTED MATERIALS BACK TO THE OWNER.
- GENERAL CONTRACTOR SHALL REQUEST DELIVERY OF VERIZON WIRELESS ANTENNAS AND MISCELLANEOUS MATERIALS WHEN READY TO RECEIVE AND INVENTORY. ANY SHORTAGES MUST BE REPORTED TO THE VERIZON WIRELESS PROJECT MANAGER WITHIN 48 HOURS OF DELIVERY. REQUEST FOR FINAL CLEAN UP WILL BE AT THE DIRECTION OF THE VERIZON WIRELESS PROJECT MANAGER.
- THE GENERAL CONTRACTOR SHALL PROVIDE AND MAINTAIN A PORTABLE TOILET ON SITE DURING THE DURATION OF THE CONSTRUCTION PROJECT.
- INDIANA PROTECTION SERVICE: CONTACT IUPS (800) 382-5544 IN INDIANA OR (800) 428-5200 OUTSIDE INDIANA AT LEAST 48 HOURS PRIOR TO DIGGING.
- THE GENERAL CONTRACTOR SHALL NOTIFY THE PROJECT ADMINISTRATOR 48 HOURS PRIOR TO POURING CONCRETE FOR EQUIPMENT PAD FOUNDATION.
- THE CONTRACTOR WILL, UPON BECOMING AWARE OF SUBSURFACE OR LATENT PHYSICAL CONDITIONS DIFFERING FROM THOSE DISCLOSED BY THE ORIGINAL SOIL INVESTIGATION WORK, PROMPTLY NOTIFY THE OWNER VERBALLY TO PERMIT VERIFICATION OF THE CONDITIONS, AND IN WRITING, AS TO THE NATURE OF THE DIFFERING CONDITIONS. NO CLAIM BY THE CONTRACTOR FOR ANY CONDITIONS DIFFERING FROM THOSE ANTICIPATED IN THE PLANS AND SPECIFICATIONS AND DISCLOSED BY THE STUDIES WILL BE ALLOWED UNLESS THE CONTRACTOR HAS SO NOTIFIED THE OWNER, VERBALLY AND IN WRITING, AS REQUIRED ABOVE, OF SUCH DIFFERING SUBSURFACE CONDITIONS.
- BEFORE AND DURING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE ADEQUATE EROSION CONTROL AS NECESSARY IN THE FORM OF SILT FENCES FOR THE SITE AND BALES AROUND ANY EXISTING MANHOLES, INLETS, OR CATCHBASINS (WHEN PRESENT) SUSCEPTIBLE TO EROSION. EROSION CONTROL MEASURES SHALL BE PERIODICALLY INSPECTED TO ENSURE PROPER FUNCTION. EROSION CONTROL SHALL BE REMOVED UPON COMPLETION OF WORK.
- CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING PAVED, CONCRETE, OR GRAVEL PARKING AREAS AND DRIVES. CONTRACTORS SHALL PHOTOGRAPH AND VIDEOTAPE EXISTING PARKING AREAS AND DRIVES PRIOR TO CONSTRUCTION, ANY DAMAGE CAUSED DURING CONSTRUCTION SHALL BE REPLACED TO EXISTING OR BETTER CONDITION AT NO ADDITIONAL COST.
- GRADE ALL AREAS DISTURBED DURING CONSTRUCTION TO MATCH EXISTING SURROUNDINGS AFTER WORK IS COMPLETE OR AS WEATHER PERMITS WITH APPROVAL FROM THE PROPERTY OWNER.

SOME NOTES MAY NOT APPLY

Geotechnical Information

- REFER TO THE PROJECT MANUAL FOR ADDITIONAL INFORMATION AND REQUIREMENTS RELATED TO CONSTRUCTION.
- THE OWNER HAS CAUSED A GEOTECHNICAL EXPLORATION TO BE PERFORMED AT THE SITE BY:
TBD
- THE CONTRACTOR SHALL NOTIFY THE CLIENT'S GEOTECHNICAL ENGINEER TO COORDINATE HAVING A FIELD REPRESENTATIVE ON SITE FOR TESTING AND INSPECTION. COPIES OF THE REPORT ARE ISSUED TO THE CONTRACTOR FOR CONVENIENCE ONLY. THE REPORT IS NOT A PART OF THE CONTRACT DOCUMENTS. NEITHER THE OWNER NOR THE ENGINEER/ARCHITECT GUARANTEE THE ACCURACY OR VALIDITY OF THE DATA CONTAINED THEREIN, NOR DO THEY ASSUME ANY RESPONSIBILITY FOR THE CONTRACTOR'S USE OR INTERPRETATION OF THE DATA CONTAINED THEREIN.

GEOTEXTILE PARAMETERS		
PROPERTY	MINIMUM VALUE (a)	TEST METHOD
TENSILE STRENGTH	200 LBS.	ASTM D-4632
PUNCTURE STRENGTH	90 LBS.	ASTM D-4833
MULLEN BURST	400 LBS.	ASTM D-3786
TRAPEZOIDAL TEAR	75 LBS.	ASTM D-4533
(a) ALL VALUES REPRESENT MINIMUM ROLL VALUES		

NOTES:

THE FABRIC SHOULD BE PLACED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. INTERSECTIONS OF SHEETS MUST BE SEWN OR SUFFICIENTLY OVERLAPPED (AT LEAST 24 INCHES) OR AS SPECIFIED BY THE MANUFACTURER). THE GEOTEXTILE SHEETS SHOULD ALSO BE PLACED TAUT TO REDUCE WRINKLES OR FOLDS. CARE MUST BE EXERCISED TO PREVENT PHYSICAL DAMAGE OF THE GEOTEXTILE PRIOR TO, DURING, AND AFTER INSTALLATION. UTILITIES SHOULD BE INSTALLED BEFORE PLACING THE GEOTEXTILE FABRIC.



CERTIFICATION:
PRELIMINARY NOT FOR CONSTRUCTION

RELEASE	
DATE	
08-11-22	PRELIMINARY SITE PLAN
09-22-22	PRELIMINARY SITE PLAN
11-09-22	LEASE EXHIBIT
12-09-22	LEASE EXHIBIT
12-29-22	LEASE EXHIBIT
01-30-22	90% CDs
04-04-23	LEASE EXHIBIT
06-09-23	LEASE EXHIBIT
06-14-23	90% CDs

THIS DRAWING IS COPYRIGHTED AND IS THE SOLE PROPERTY OF THE OWNER. IT IS PRODUCED SOLELY FOR USE BY THE OWNER AND ITS AFFILIATES. REPRODUCTION OR USE OF THIS DRAWING AND/OR THE INFORMATION CONTAINED IN IT IS FORBIDDEN WITHOUT THE WRITTEN PERMISSION OF THE OWNER.

DRAWN BY: JUT
CHECKED BY: MJA

SITE NAME:

**FULL RELO
SMITH & MAIN
CELL SITE**

SITE ADDRESS:

IL-64
ST CHARLES, IL 60174

SHEET TITLE:

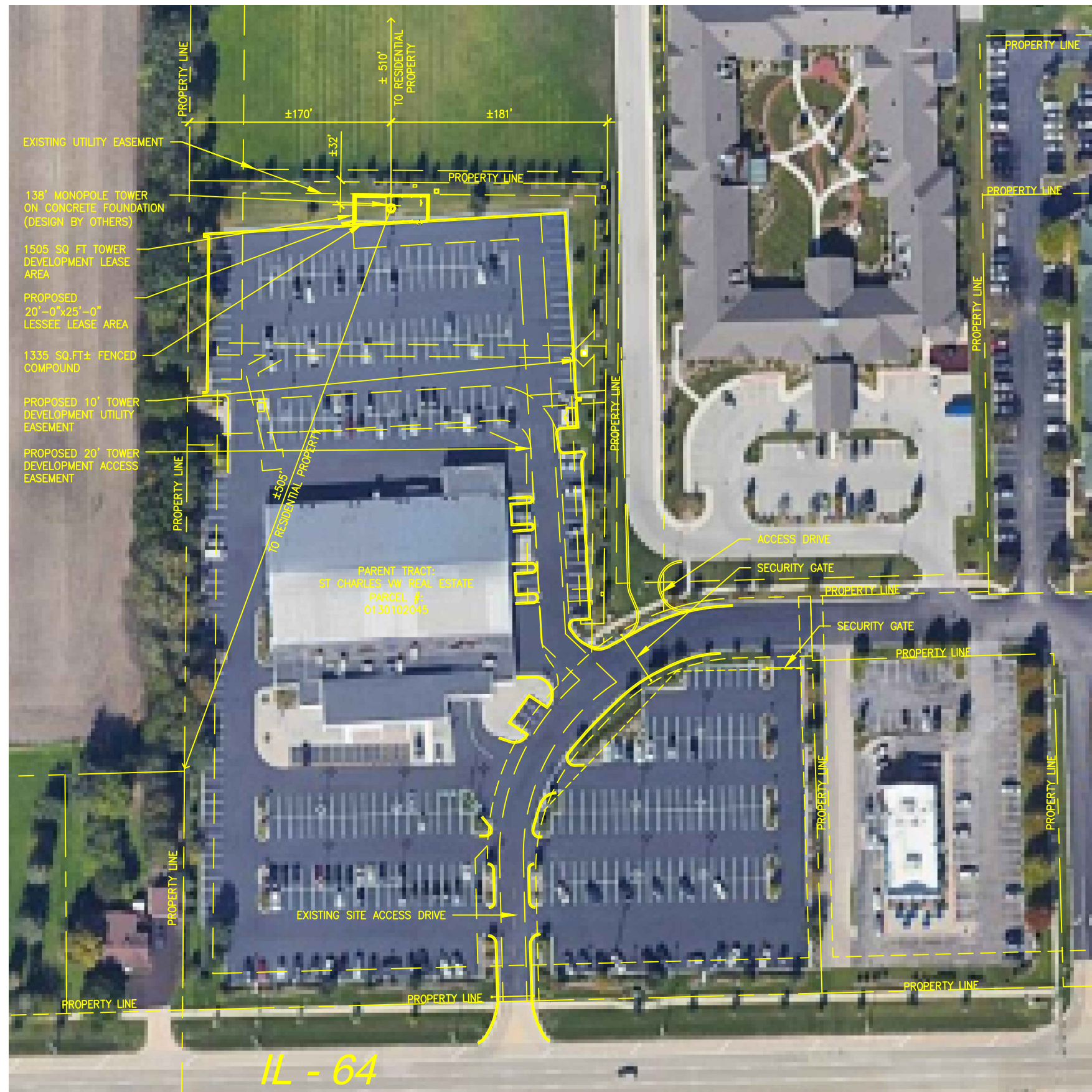
GENERAL CONSTRUCTION NOTES

A&E PROJECT NO.:

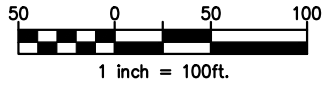
SHEET NO.:

GN-1





Site Location Plan - C



6202 Constitution Drive, Suite C
Fort Wayne, IN 46804

CERTIFICATION:
**PRELIMINARY
NOT FOR
CONSTRUCTION**

RELEASE DATE	DESCRIPTION
08-11-22	PRELIMINARY SITE PLAN
09-22-22	PRELIMINARY SITE PLAN
11-09-22	LEASE EXHIBIT
12-09-22	LEASE EXHIBIT
12-29-22	LEASE EXHIBIT
01-30-22	90% CDs
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CHECKED BY: MJA

SITE NAME:

**FULL RELO
SMITH & MAIN
CELL SITE**

SITE ADDRESS:

IL-64
ST CHARLES, IL 60174

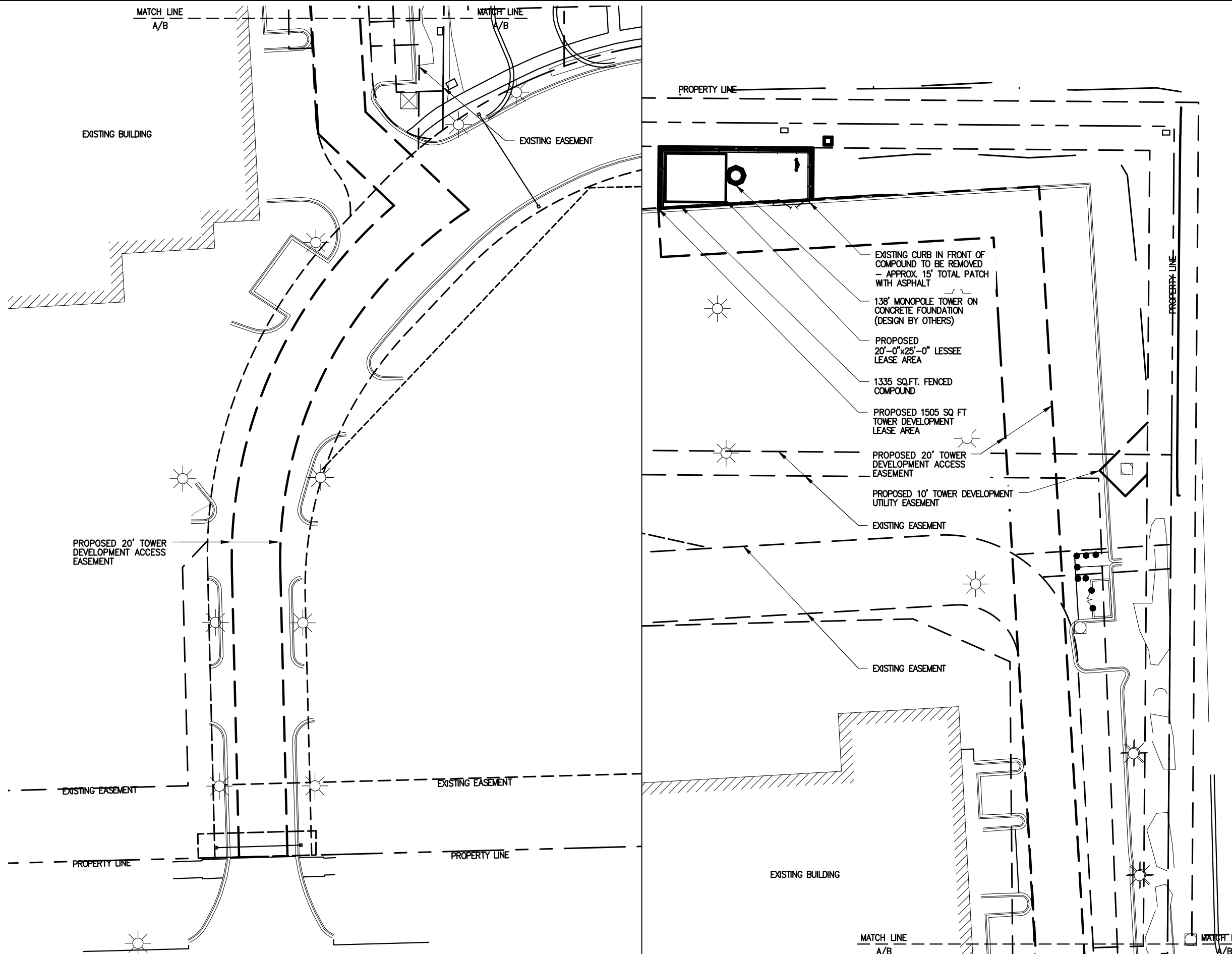
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SITE LOCATION PLAN

A&E PROJECT NO.:

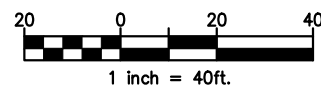
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IL-64

Developed Site Plan



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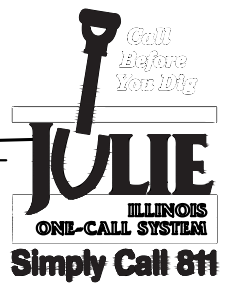
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ST CHARLES, IL 60174

SHEET TITLE:

DEVELOPED SITE PLAN

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SHEET NO.:



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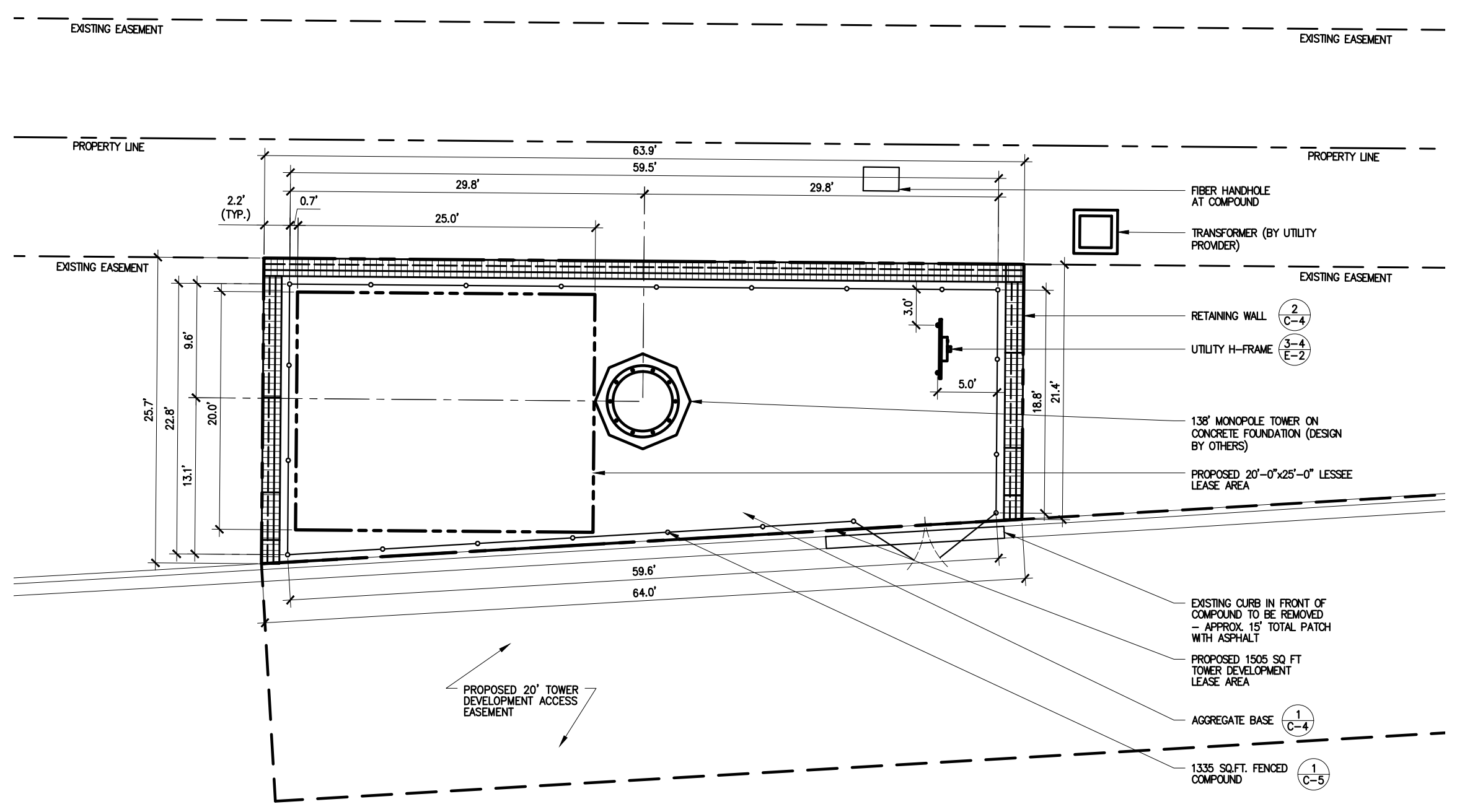
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ENLARGED SITE PLAN

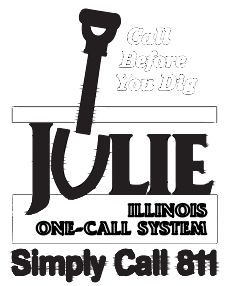
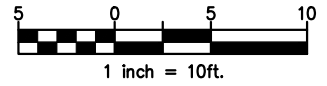
A&E PROJECT NO.:

SHEET NO.:

C-3



Enlarged Site Plan



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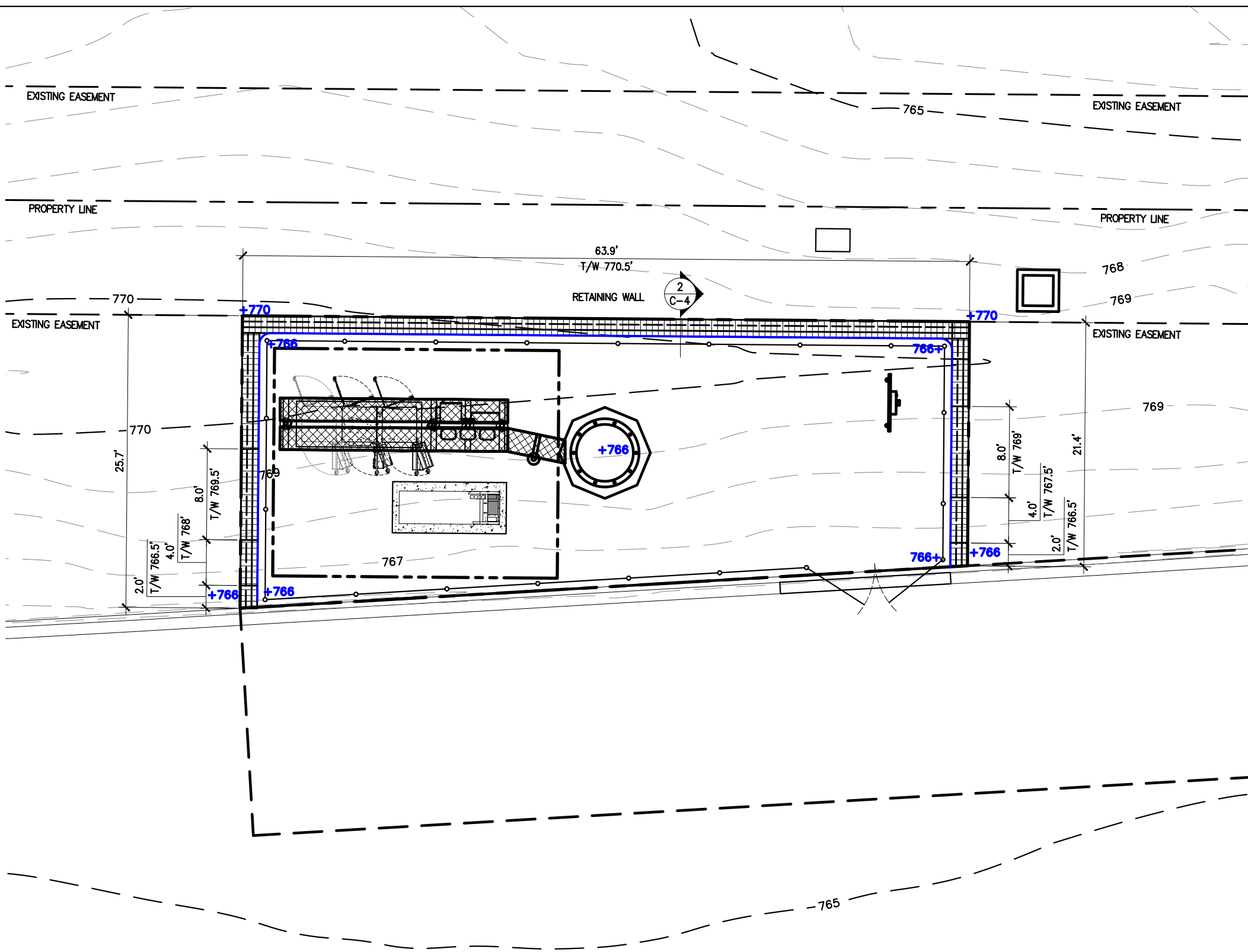
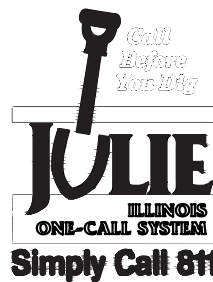
SHEET TITLE:

REMEDIATION PLAN

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SHEET NO.:

C-3.1

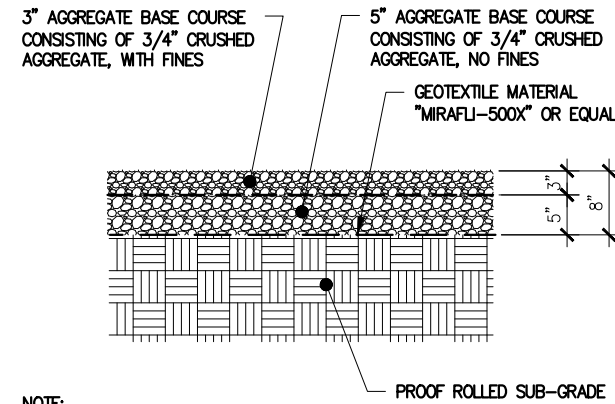


Contour Legend:

- +XXX.X SPOT ELEVATION - SUBGRADE (FINISH GRADE OF SITE = 0.67' ABOVE SUBGRADE)
- EXIST. CONTOUR - MINOR
- EXIST. CONTOUR - MAJOR
- NEW CONTOUR

Remediation Plan

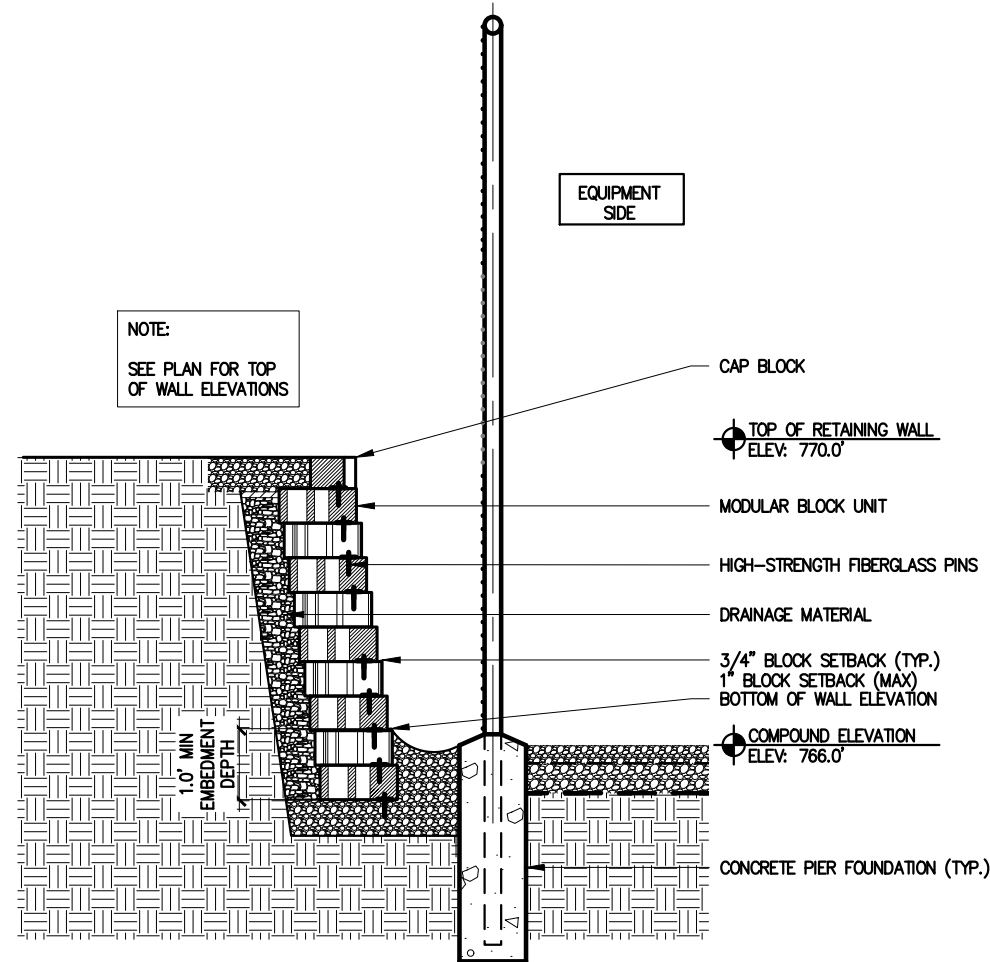




NOTE:
IT IS THE RESPONSIBILITY OF THE G.C.
TO VERIFY THE LIMESTONE IS UNIFORMLY
WHITE IN COLOR AFTER PLACEMENT

1 Aggregate Base

SCALE: 1/2" = 1'-0"



2 Typ. Block Retaining Wall

SCALE: 3/8" = 1'-0"



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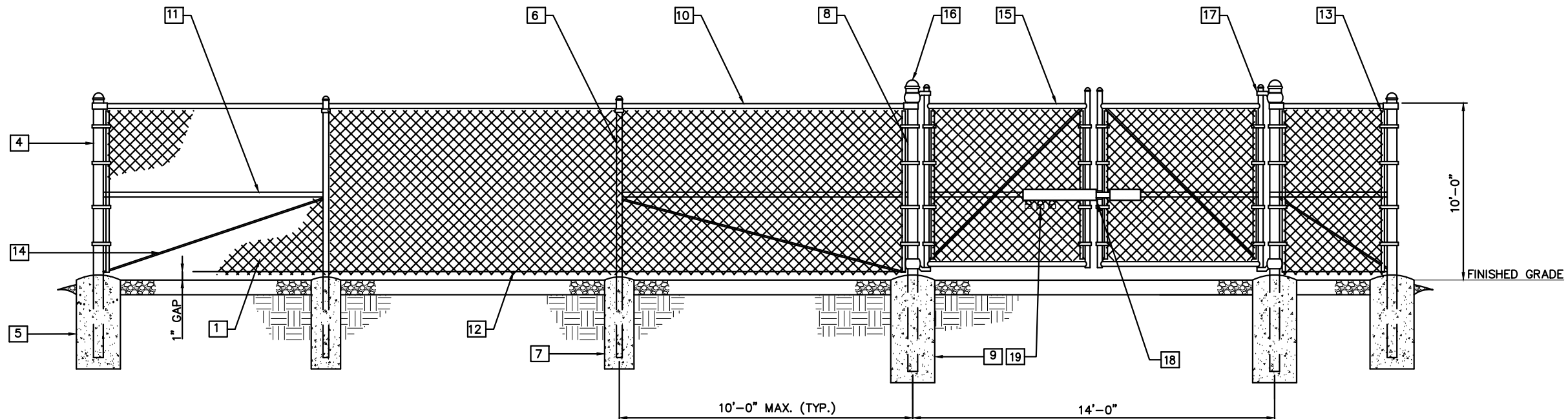
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SHEET TITLE:

SITE CIVIL DETAILS

A&E PROJECT NO.:

SHEET NO.:



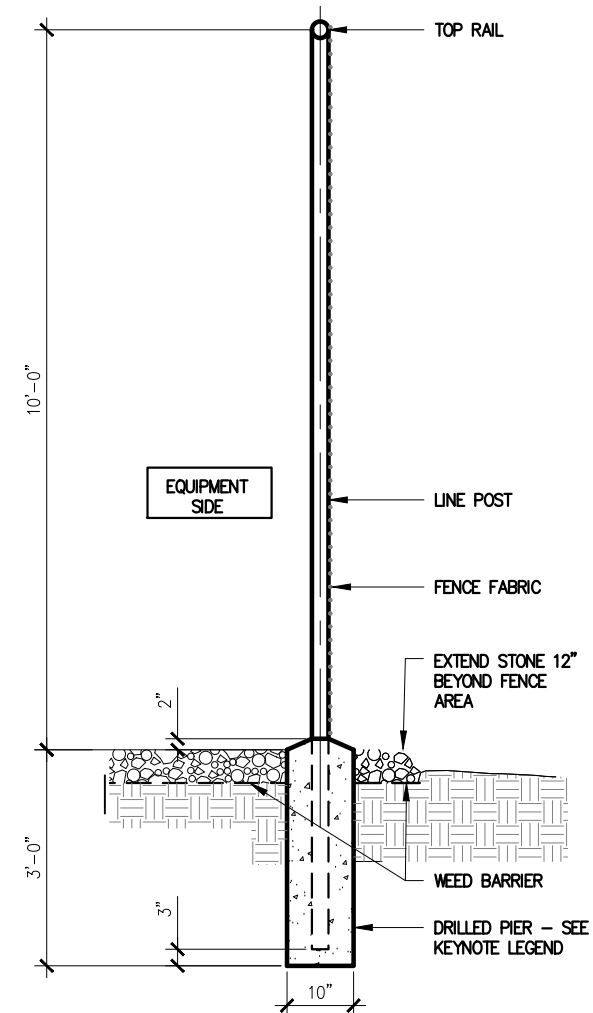
1 Typical Fence Elevation
SCALE: 1/4" = 1'-0"

Keynote Legend

- 1 FABRIC: 9 GAUGE, 2" BLACK VINYL MESH, ASTM A392 (SEE FENCE SECTION FOR HEIGHT).
- 2 NOT USED
- 3 NOT USED
- 4 END AND CORNER POSTS: 3"Ø PIPE SCH. 40 (GALV.) ASTM F1083
- 5 CONCRETE FOUNDATION: 36"x12"Ø (3000 PSI)
- 6 LINE POSTS: 2"Ø PIPE SCH. 40 (GALV.) ASTM F1083
- 7 CONCRETE FOUNDATION: 36"x10"Ø (3000 PSI)
- 8 GATE POSTS: 4"Ø PIPE SCH. 40 (GALV.) ASTM F1083
- 9 CONCRETE FOUNDATION: 48"x12"Ø (3000 PSI)
- 10 TOP RAIL & BRACE RAIL: 1-1/2"Ø PIPE SCH. 40 (GALV.) ASTM F1083
- 11 MIDDLE RAILS: 1-1/2"Ø PIPE SCH. 40 (GALV.) ASTM F1083
- 12 BOTTOM TENSION WIRE: 0.177"Ø METALLIC-COATED STEEL (GALV.), MARCELLED, ASTM A824
- 13 TENSION BARS: 3/16"x3/4", FULL HEIGHT OF FABRIC, FINISH TO MATCH FENCE FRAMEWORK.
- 14 TENSION ROD: 3/8"Ø WITH ADJ. TIGHTENER, FINISH TO MATCH FENCE FRAMEWORK.
- 15 GATE FRAME: 2"Ø SCH. 40 (GALV.) ASTM F1083
- 16 POST CAPS: PER POST DIAMETER.
- 17 GATE HINGES: NON-LIFT-OFF TYPE, OFFSET TO PERMIT 180 DEGREE SWING.
- 18 STYMILOCK SYSTEM
- 19 MARINE-GRADE PROGRAMMABLE FOUR DIGIT PADLOCK (SESAME BRAND OR APPROVED EQUAL)

NOTES:

1. REFER TO PROJECT SPECIFICATIONS FOR INFORMATION NOT SHOWN IN THE DRAWING.
2. FENCE FABRIC SHALL CONFORM TO CHAIN LINK FENCE MANUFACTURERS INSTITUTE (CLFMI) PRODUCT MANUAL.
3. INSTALL FENCE IN COMPLIANCE WITH ASTM F 567.
4. INSTALL SWING GATES IN COMPLIANCE WITH ASTM F 900.
5. DO NOT BEGIN INSTALLATION AND ERECTION BEFORE FINAL GRADING IS COMPLETED, UNLESS OTHERWISE PERMITTED. INSTALL FENCING ON BOUNDARY LINES INSIDE OF PROPERTY LINE ESTABLISHED BY SURVEY.
6. DRILL OR HAND-EXCAVATE (USING POST - HOLE DIGGER) HOLES FOR POSTS TO DIAMETERS AND SPACINGS INDICATED, IN FIRM, UNDISTURBED OR COMPACTED SOIL. IF NOT INDICATED ON DRAWINGS, EXCAVATE HOLES FOR EACH POST TO MINIMUM DIAMETER RECOMMENDED BY FENCE MANUFACTURER, BUT NOT LESS THAN (4) TIMES LARGEST GROSS-SECTION OF POST.
7. REMOVE POST HOLE SPOILS FROM SITE. DO NOT SET SPOILS ON AGGREGATE WITHOUT ADEQUATE PROTECTION.
8. PROTECT PORTION OF POSTS ABOVE GROUND FROM CONCRETE SPLATTER. PLACE CONCRETE AROUND POSTS AND VIBRATE OR TAMP FOR CONSOLIDATION. CHECK EACH POST FOR VERTICAL AND TOP ALIGNMENT AND HOLD IN POSITION DURING PLACEMENT AND FINISHING OPERATIONS, UNLESS OTHERWISE SHOWN, EXTEND CONCRETE FOOTING 1 INCH ABOVE GRADE AND TROWEL TO A CROWN TO SHED WATER.
9. INSTALL BARBED WIRE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
10. APPLY FABRIC TO OUTSIDE OF FRAMEWORK.



2 Typical Fence Section
SCALE: 3/8" = 1'-0"

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SHEET TITLE:
TYPICAL FENCE DETAILS

A&E PROJECT NO.:

SHEET NO.:

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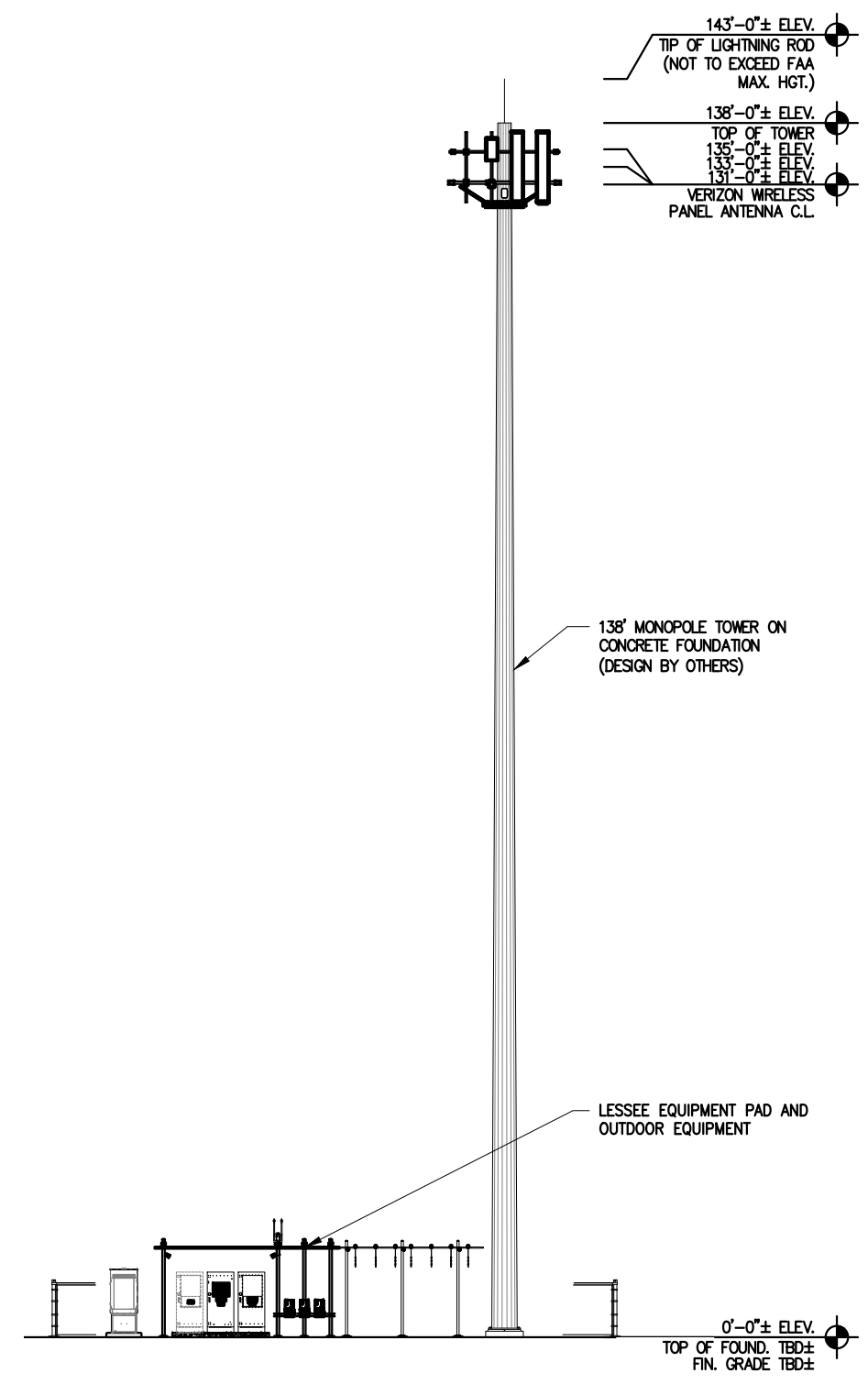
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ST CHARLES, IL 60174

SHEET TITLE:

TOWER ELEVATION

A&E PROJECT NO.:

SHEET NO.:



1 Tower Elevation
SCALE: 1" = 20'-0"

General Notes

WORK INCLUDES

THESE NOTES AND ACCOMPANYING DRAWINGS COMPLEMENT THE PROVISIONS AND INSTALLATIONS BY THE ELECTRICAL CONTRACTOR, OF ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO INSTALL THE ELECTRICAL WORK COMPLETE IN CONNECTION WITH THIS VERIZON WIRELESS SITE AND SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:

1. THE PROVISIONS, INSTALLATION, AND CONNECTION OF A GROUNDING ELECTRODE SYSTEM COMPLETE WITH A BUILDING AND SECONDARY GROUNDING, CELLULAR TELEPHONE COMMUNICATIONS TOWER AND CONNECTIONS TO THE INCOMING ELECTRICAL DISTRIBUTION EQUIPMENT.
2. THE PROVISION AND INSTALLATION OF AN OVERHEAD ELECTRICAL SERVICE OR UNDERGROUND ELECTRICAL SERVICE AND ALL ASSOCIATED WIRE AND CONDUIT AS REQUIRED AND/OR INDICATED ON PLANS.
3. THE PROVISION, INSTALLATION OF CONDUIT AND CONNECTIONS FOR LOCAL TELEPHONE SERVICE.
4. THE FURNISHING AND INSTALLATION OF THE ELECTRICAL SERVICE ENTRANCE CONDUCTORS, CONDUITS, METER SOCKET, AND CONNECTIONS TO THE SERVICE EQUIPMENT WITHIN THE ENCLOSURE.
5. TWO INCH (2") AND THREE INCH (3") DIAMETER PVC CONDUITS SCHEDULE 40.
6. ALL PVC CONDUITS SHOULD BE LEFT WITH NYLON PULL CORD FOR FUTURE USE.
7. EXCAVATION, TRENCHING, AND BACKFILLING FOR CONDUIT(S), CABLE(S), AND EXTERNAL GROUNDING SYSTEM.

CODES, PERMITS, AND FEES

1. ALL REQUIRED PERMITS, LICENSES, INSPECTIONS AND APPROVALS SHALL BE SECURED AND ALL FEES FOR SAME PAID BY CONTRACTOR.
2. THE INSTALLATION SHALL COMPLY WITH ALL APPLICABLE CODES: STATE, LOCAL AND NATIONAL, AND THE DESIGN, PERFORMANCE CHARACTERISTICS AND METHODS OF CONSTRUCTION OF ALL ITEMS AND EQUIPMENT SHALL BE IN ACCORDANCE WITH THE LATEST ISSUE OF THE VARIOUS APPLICABLE STANDARD SPECIFICATIONS OF THE FOLLOWING AUTHORITIES:

N.E.C.	NATIONAL ELECTRIC CODE
A.N.S.I.	AMERICAN NATIONAL STANDARDS INSTITUTE
I.E.E.E.	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
A.S.T.M.	AMERICAN SOCIETY FOR TESTING MATERIALS
N.E.M.A.	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
U.L.	UNDERWRITERS LABORATORIES, INC.
N.F.P.A.	NATIONAL FIRE PROTECTION ASSOCIATION

GROUNDING ELECTRODE SYSTEM

1. CONNECTIONS
ALL GROUNDING CONNECTIONS SHALL BE MADE BY THE "CADWELD" PROCESS CONNECTIONS SHALL INCLUDE ALL CABLE TO CABLE, SPLICES, ETC. ALL CABLE TO GROUND RODS, GROUND RODS SPLICES AND LIGHTNING PROTECTION SYSTEM AS INDICATED. GROUND FOUNDATION ONLY AS INDICATED BY PM. ALL MATERIALS USED (MOLDS, WELDING, METAL, TOOLS, ETC.) SHALL BE BY "CADWELD" PROCESS AND INSTALLED PER MANUFACTURERS RECOMMENDATIONS AND PROCEDURES. GROUND CONDUCTOR SHALL HAVE A MINIMUM 24" BENDING RADIUS.
2. ALL CADWELD CONNECTIONS ON GALVANIZED SURFACES SHALL BE CLEANED THOROUGHLY AND COLORED TO MATCH SURFACE WITH (2) TWO COATS OF SHERWIN-WILLIAMS GALVITE (WHITE) PAINT B50W3 (OR EQUAL) OR SHERWIN-WILLIAMS SILVERBRITE (ALUMINIUM) B59S11 (OR EQUAL).
3. ALL ELECTRICAL & MECHANICAL GROUND CONNECTIONS SHALL HAVE ANTI-OXIDANT COMPOUND APPLIED TO CONNECTION
4. FENCE/GATE:
GROUND FENCE POSTS WITHIN 6 FEET OF ENCLOSURE AND 25 FEET OF TOWER AS INDICATED ON DRAWINGS. GROUND EACH GATE POST AND CORNER POST. GROUND CONNECTIONS TO FENCE POSTS SHALL BE MADE BY THE "CADWELD" PROCESS AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND PROCEDURES. ALL OTHER CONNECTIONS FOR THE GROUND GRID SYSTEM SHALL BE MADE BY THE "CADWELD" PROCESS, AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND PROCEDURES.

TRANSPORT BY OTHERS.
FIBER COORDINATION IS NOT COMPLETE (PENDING FIBER CONTACT). PRIOR TO CONSTRUCTION, CONTACT DESIGNER FOR UPDATE.

Utility Color Legend

█	ELECTRIC
█	GAS, OIL, STEAM
█	COMMUNICATIONS
█	POTABLE WATER
█	RECLAIMED WATER
█	SEWER/ DRAINAGE
█	SURVEY MARKS

5. UTILITY COMPANY COORDINATION:
ELECTRICAL CONTRACTOR SHALL CONFIRM THAT ALL WORK IS IN ACCORDANCE WITH THE RULES OF THE LOCAL UTILITY COMPANY BEFORE SUBMITTING THE BID, THE CONTRACTOR SHALL CHECK WITH THE UTILITY COMPANIES SUPPLYING SERVICE TO THIS PROJECT AND SHALL DETERMINE FROM THEM ALL EQUIPMENT AND CHARGES WHICH THEY WILL REQUIRE AND SHALL INCLUDE THE COST IN THE BID.
6. GROUND TEST:
GROUND TESTS SHALL BE PERFORMED AS REQUIRED BY VERIZON STANDARD PROCEDURES. GROUND GRID RESISTANCE SHALL NOT EXCEED 5 OHMS. CONTRACTOR SHALL SUBMIT THE GROUND RESISTANCE TEST REPORT AS FOLLOWS:
 1. ONE (1) COPY TO OWNER REPRESENTATIVE
 2. ONE (1) COPY TO ENGINEER
 3. ONE (1) COPY TO KEEP INSIDE EQUIPMENT ENCLOSURE

RACEWAYS AND WIRING

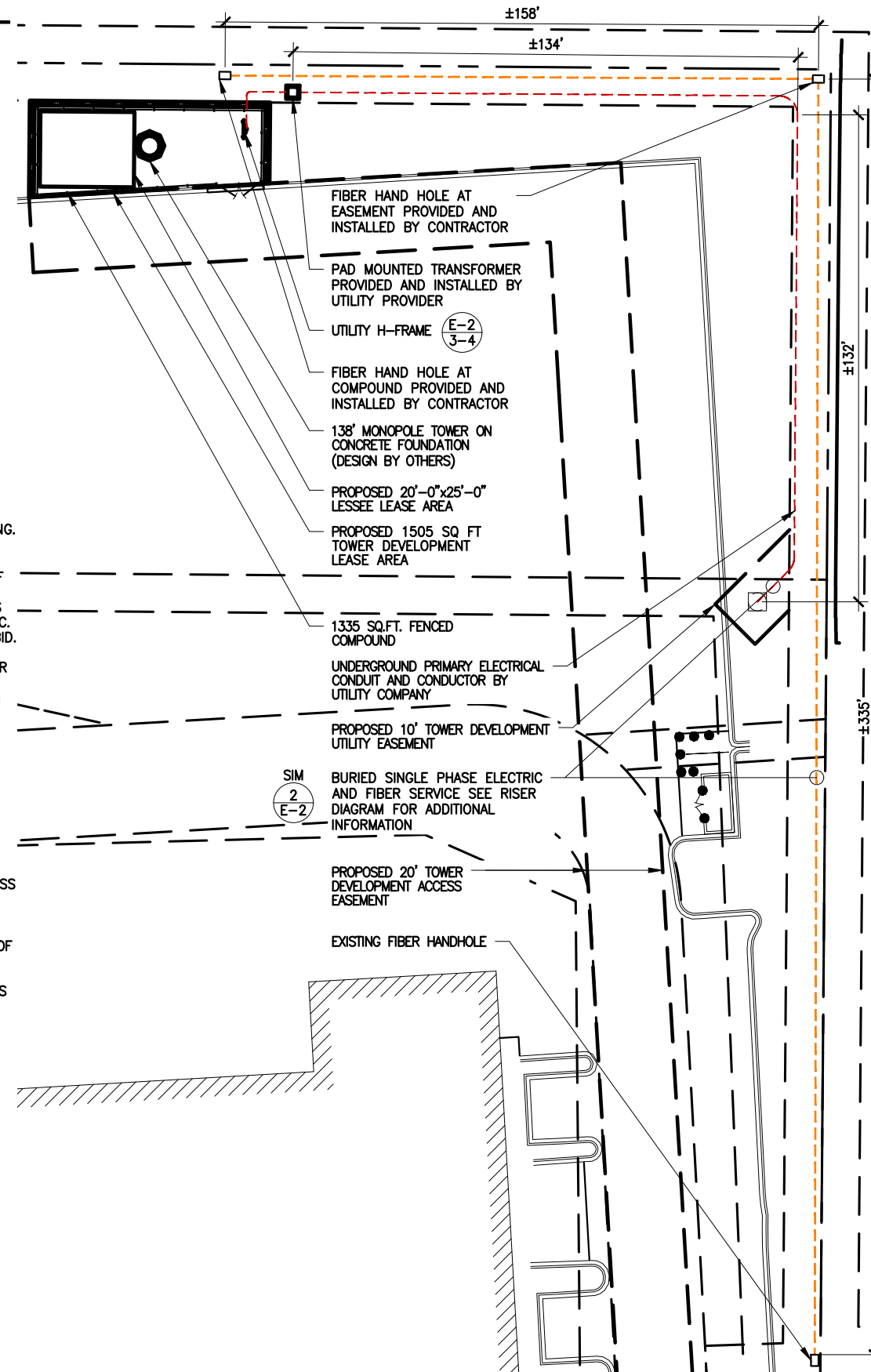
1. WIRING OF EVERY KIND MUST BE INSTALLED IN CONDUIT, UNLESS NOTED OTHERWISE, OR AS APPROVED BY THE ENGINEER.
2. UNLESS OTHERWISE SPECIFIED, ALL WIRING SHALL BE COPPER (CU) TYPE THWN, SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
3. RACEWAYS SHALL BE GALVANIZED STEEL, SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, UNLESS OTHERWISE NOTED. ALL RACEWAYS SHALL BE APPROVED FOR THE INSTALLATION.
4. PULL OR JUNCTION BOXES SHALL BE PROVIDED AS REQUIRED TO FACILITATE INSTALLATION OF RACEWAYS AND WIRING. PROVIDE JUNCTION AND PULLBOXES FOR CONDUIT RUNS WITH MORE THAN (360) DEGREES OF BENDS.
5. PROVIDE A COMPLETE RACEWAY AND WIRING INSTALLATION, PERMANENTLY AND EFFECTIVELY GROUNDED IN ACCORDANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE AND LOCAL CODES.
6. ELECTRICAL PANELBOARD SHALL BE FURNISHED AND INSTALLED BY OTHERS. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION.
7. ALL STEEL CONDUIT SHALL BE BONDED AT BOTH ENDS WITH GROUNDING BUSHING.

GENERAL NOTES:

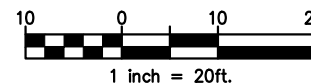
SEE DETAILS AND SCHEDULES ON DRAWINGS AND SPECIFICATIONS FOR MEANING OF ABBREVIATIONS AND ADDITIONAL REQUIREMENTS AND INFORMATION. CHECK ARCHITECTURAL, STRUCTURAL AND OTHER MECHANICAL AND ELECTRICAL DRAWINGS FOR SCALE, SPACE LIMITATIONS, COORDINATION, AND ADDITIONAL INFORMATION, ETC. REPORT ANY DISCREPANCIES, CONFLICTS, ETC. TO ENGINEER BEFORE SUBMITTING BID. ALL EQUIPMENT FURNISHED BY OTHERS (FBO) SHALL BE PROVIDED WITH PROPER MOTOR STARTERS, DISCONNECTS, CONTROLS, ETC. BY THE ELECTRICAL CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE. THE ELECTRICAL CONTRACTOR SHALL INSTALL AND COMPLETELY WIRE ALL ASSOCIATED EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S WIRE DIAGRAMS AND AS REQUIRED FOR A COMPLETE OPERATING INSTALLATION. ELECTRICAL CONTRACTOR SHALL VERIFY AND COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF (FBO) EQUIPMENT PRIOR TO ROUGH-IN OF CONDUIT AND WIRING TO AVOID CONFLICTS.

COORDINATION WITH UTILITY COMPANY

THE ELECTRICAL CONTRACTOR SHALL COORDINATE COMPLETE ELECTRICAL SERVICE WITH LOCAL UTILITY COMPANY FOR A COMPLETE OPERATIONS SYSTEM, INCLUDING TRANSFORMER CONNECTIONS, CONCRETE TRANSFORMER PADS, IF REQUIRED, METER SOCKETS, PRIMARY CABLE RACEWAY REQUIREMENTS, SECONDARY SERVICE, ETC. PRIOR TO SUBMITTING BID TO INCLUDE ALL LABOR AND MATERIALS. THE ELECTRICAL CONTRACTOR SHALL INCLUDE IN THE BID ANY OPTIONAL OR EXCESS FACILITY CHARGES ASSOCIATED WITH PROVIDING ELECTRICAL SERVICE FROM LOCAL UTILITY COMPANY. VERIFY BEFORE BIDDING TO INCLUDE ALL COSTS. THE ELECTRICAL CONTRACTOR SHALL VERIFY THE AVAILABLE FAULT CURRENT WITH THE LOCAL UTILITY COMPANY PRIOR TO SUBMITTING BID. ADJUST A.I.C. RATINGS OF ALL OVERCURRENT PROTECTION DEVICES IN DISTRIBUTION EQUIPMENT AS REQUIRED TO COORDINATE WITH AVAILABLE FAULT CURRENT FROM LOCAL UTILITY COMPANY. ALL GROUNDING RODS PROVIDED BY THE POWER OR TELEPHONE UTILITY COMPANIES MUST BE TIED INTO THE MAIN EXTERNAL GROUND RING.



Utility Plan



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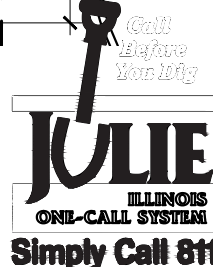
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SHEET TITLE:

UTILITY PLAN AND
GENERAL NOTES

A&E PROJECT NO.:

SHEET NO.:



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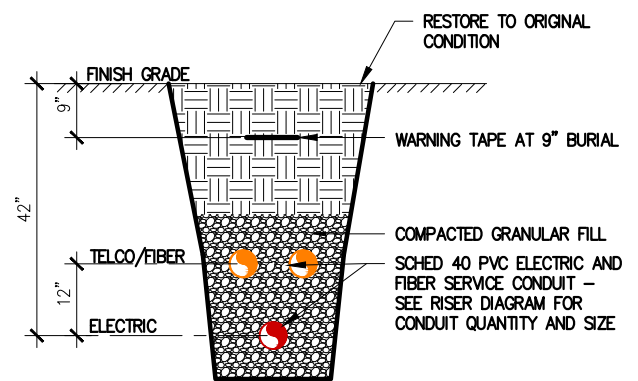
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ELECTRICAL AND TELCO
UTILITY DETAILS

A&E PROJECT NO.:

SHEET NO.:

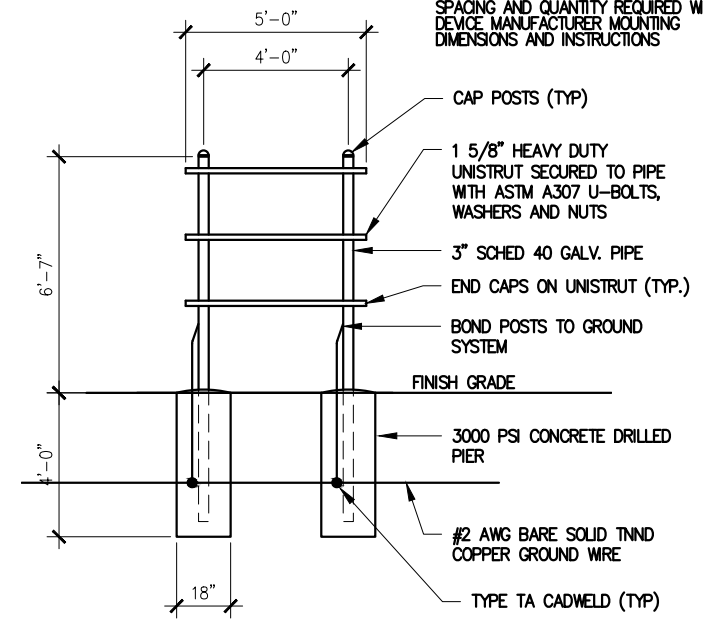


2 Buried Utility

SCALE: 3/8" = 1'-0"

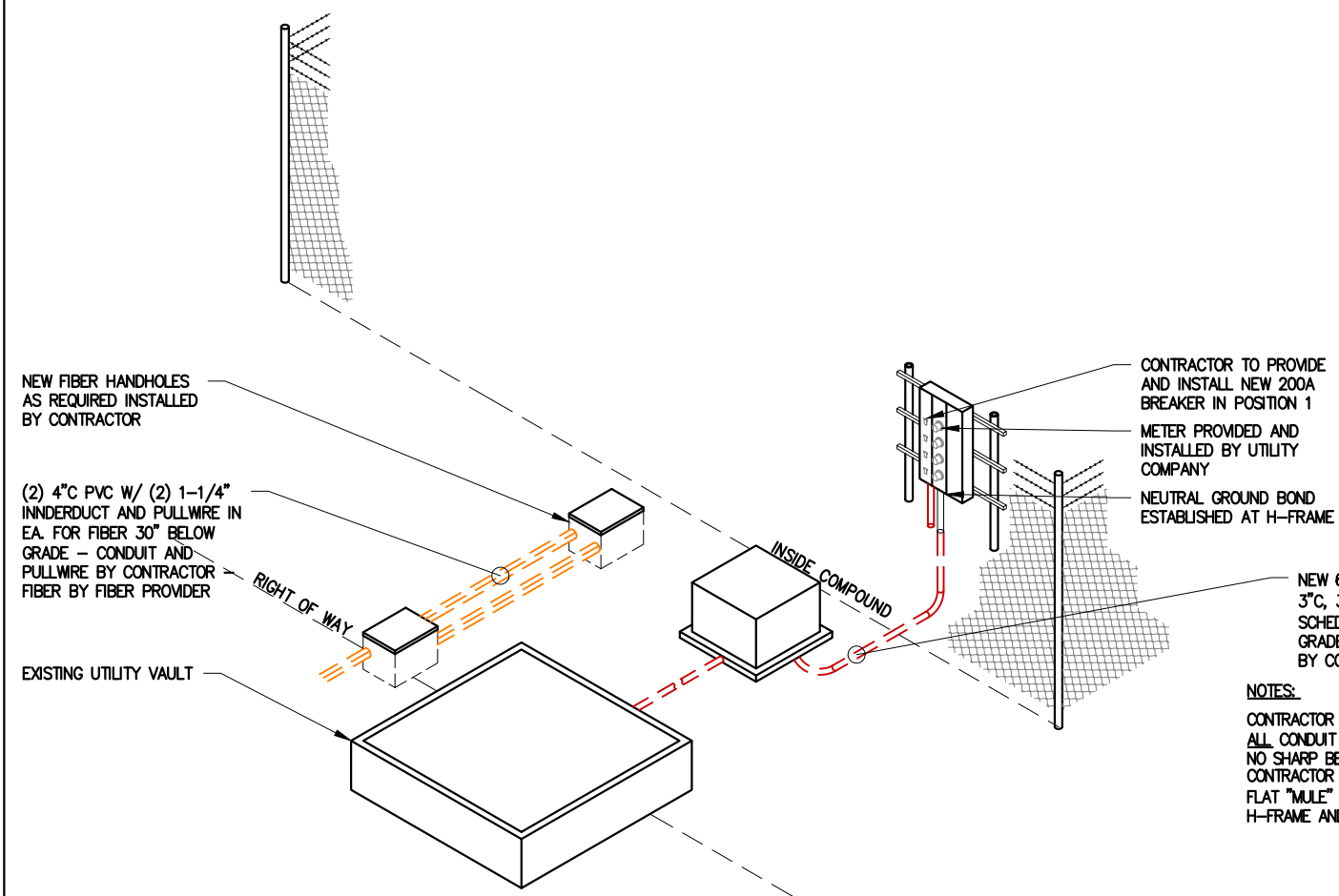
NOTES:

ALL MATERIAL TO BE GALVANIZED UNLESS NOTED OTHERWISE
CONTRACTOR TO FIELD VERIFY UNISTRUT SPACING AND QUANTITY REQUIRED WITH DEVICE MANUFACTURER MOUNTING DIMENSIONS AND INSTRUCTIONS



3 Utility H-Frame Unistrut

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



1 Utility Riser Diagram

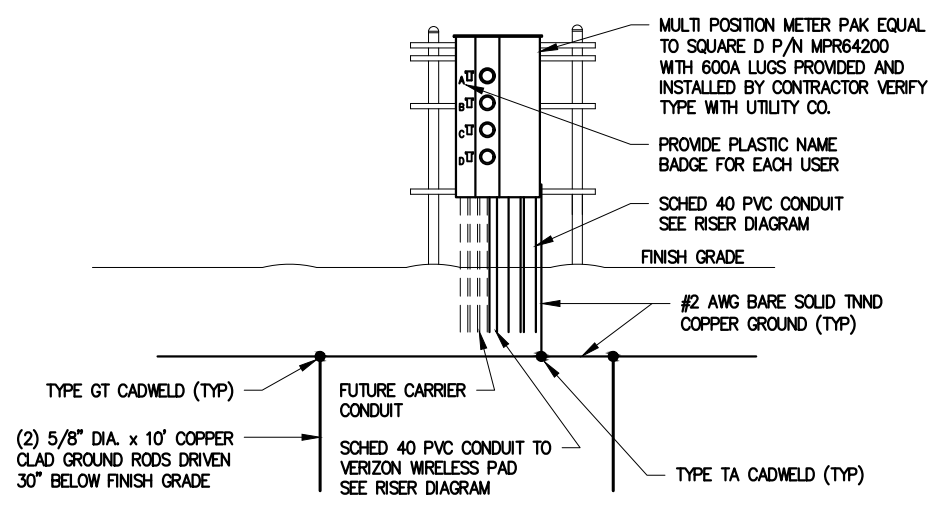
SCALE: N.T.S.

NOTES:

CONTRACTOR TO COORDINATE ALL INSPECTIONS.
ALL CONDUIT ELBOWS TO BE LONG SWEEP 90° ONLY. NO SHARP BENDS.
CONTRACTOR SHALL SUPPLY DETECTABLE METALLIC FLAT "MULE" TAPE IN ALL UTILITY CONDUIT BETWEEN H-FRAME AND EQUIPMENT PAD

Utility Color Legend

- ELECTRIC
- GAS, OIL, STEAM
- COMMUNICATIONS
- POTABLE WATER
- RECLAIMED WATER
- SEWER/ DRAINAGE
- SURVEY MARKS

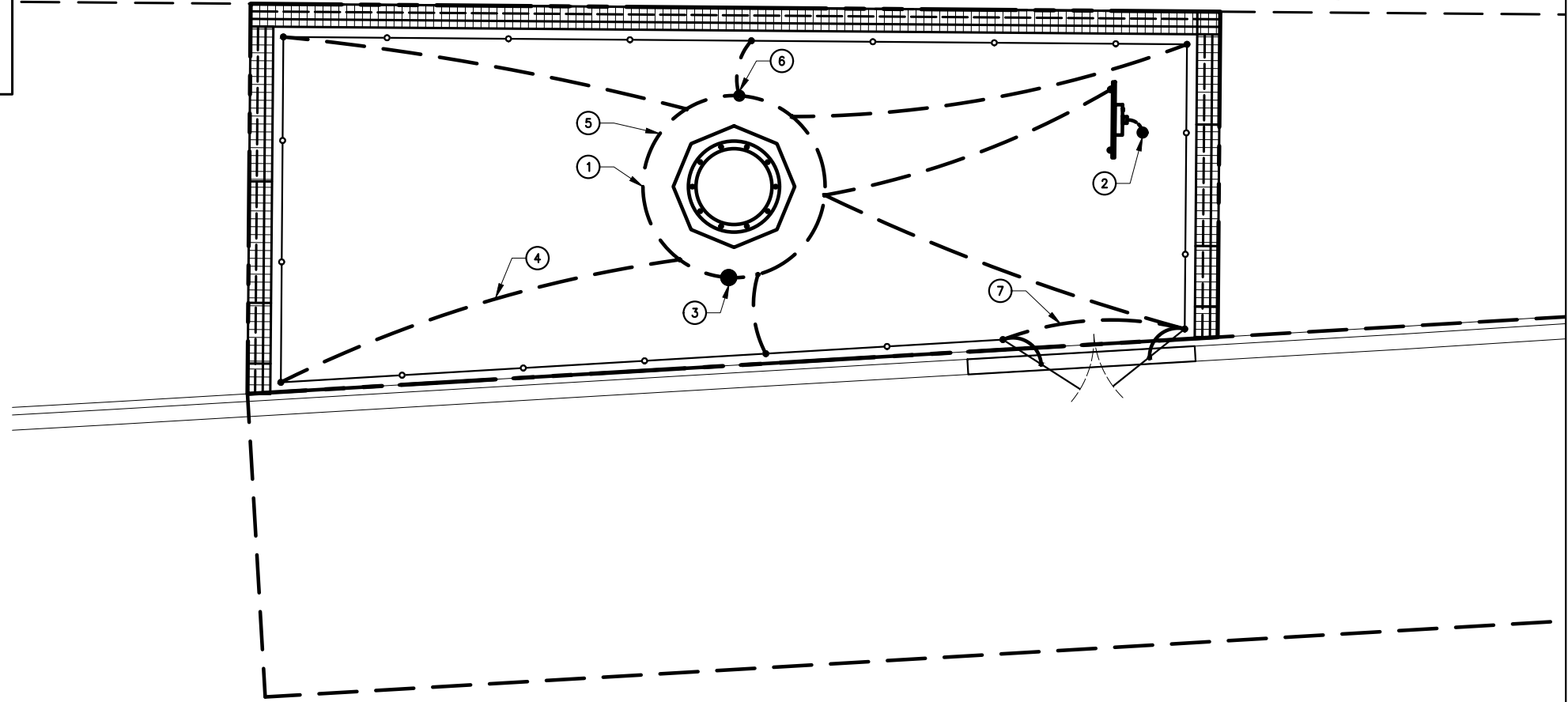


4 Utility H-Frame - Electrical

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

TYPICAL GROUNDING NOTES

1. #2 AWG TINNED SOLID BARE COPPER CONDUCTOR 42" BELOW GRADE (TYPICAL) MINIMUM 24" BENDING RADIUS
2. DISCONNECT AND ELECTRIC SERVICE GROUND TO GROUND ROD
3. 5/8" X 10' COPPER CLAD GROUND ROD
4. GROUND CHAIN LINK FENCE (TYPICAL) EXOTHERMIC CONNECTION (TYPE VS) GROUND FENCE POSTS WITHIN 6 FEET OF PAD AND 25 FEET OF TOWER. (SEE DETAIL, SHEET E-4)
5. PROPOSED TOWER GROUND RING (V.I.F.)
6. COPPER CLAD GROUND ROD WITH INSPECTION WELL TOP OF GROUND ROD MAX 24" BURY. SEE DETAIL SHEET E-4.
7. GATE JUMPERS SEE DETAIL ON SHEET E-4



Grounding Legend

- ⊙ GROUND ROD
- ⊕ GROUND SYSTEM TEST WELL (HAND HOLE)
- CADWELD CONNECTION
- FENCE LINE

Enlarged Grounding Plan



CERTIFICATION:
**PRELIMINARY
NOT FOR
CONSTRUCTION**

RELEASE DATE	DESCRIPTION
08-11-22	PRELIMINARY SITE PLAN
09-22-22	PRELIMINARY SITE PLAN
11-09-22	LEASE EXHIBIT
12-09-22	LEASE EXHIBIT
12-29-22	LEASE EXHIBIT
01-30-22	90% CDs
04-04-23	LEASE EXHIBIT
06-09-23	LEASE EXHIBIT
06-14-23	90% CDs

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DRAWN BY: JUT
CHECKED BY: MJA

SITE NAME:

**FULL RELO
SMITH & MAIN
CELL SITE**

SITE ADDRESS:

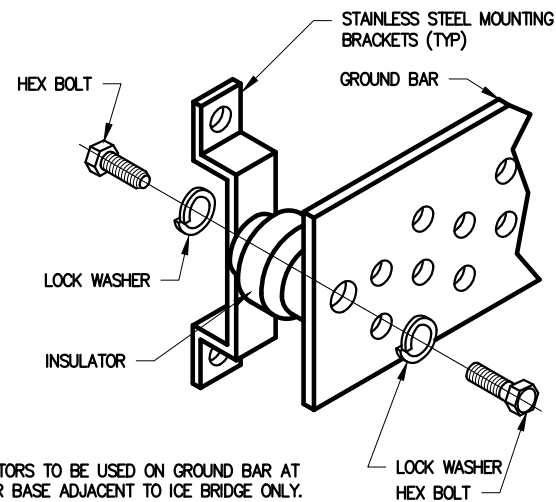
IL-64
ST CHARLES, IL 60174

SHEET TITLE:

ENLARGED GROUNDING
PLAN

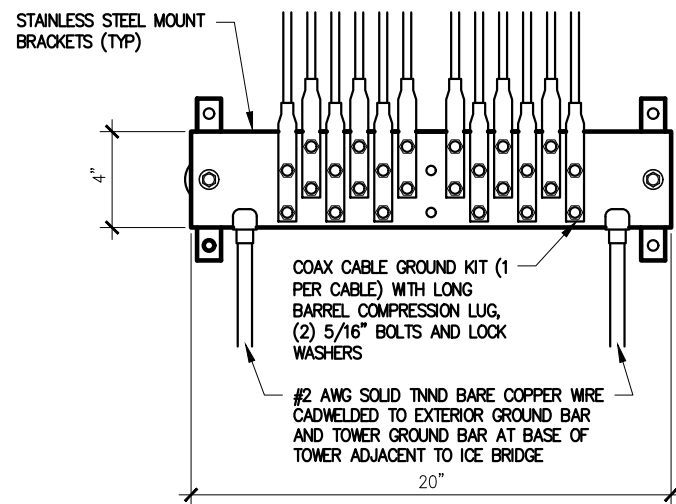
A&E PROJECT NO.:

SHEET NO.:

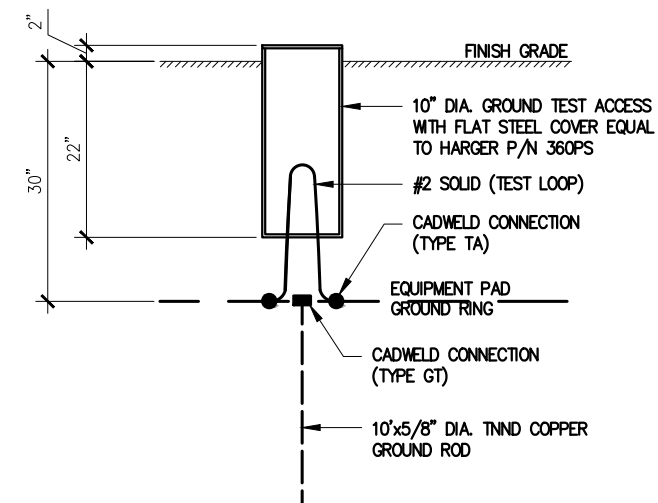


NOTE:
ISOLATORS TO BE USED ON GROUND BAR AT TOWER BASE ADJACENT TO ICE BRIDGE ONLY. GROUND BAR AT ANTENNA ELEVATION TO BE ATTACHED DIRECTLY TO TOWER STEEL.

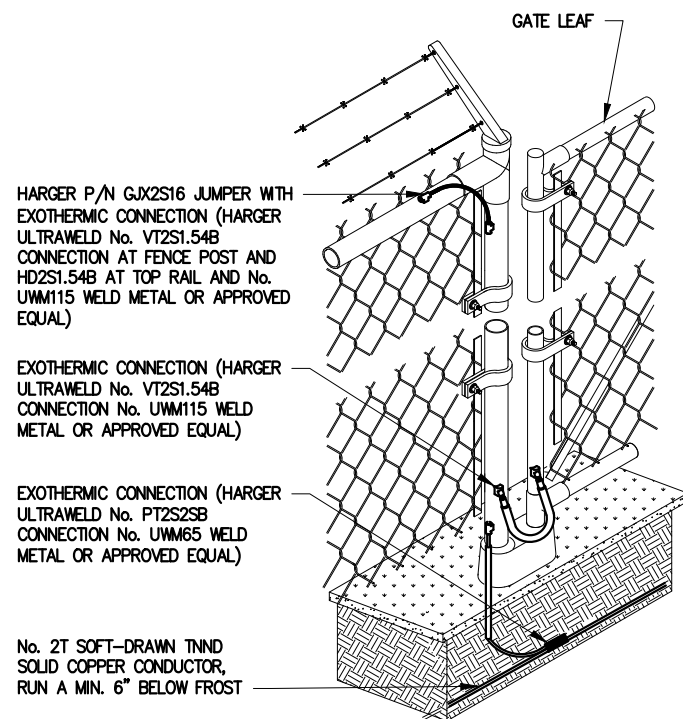
1 Ground Bar Installation
SCALE: 3" = 1'-0"



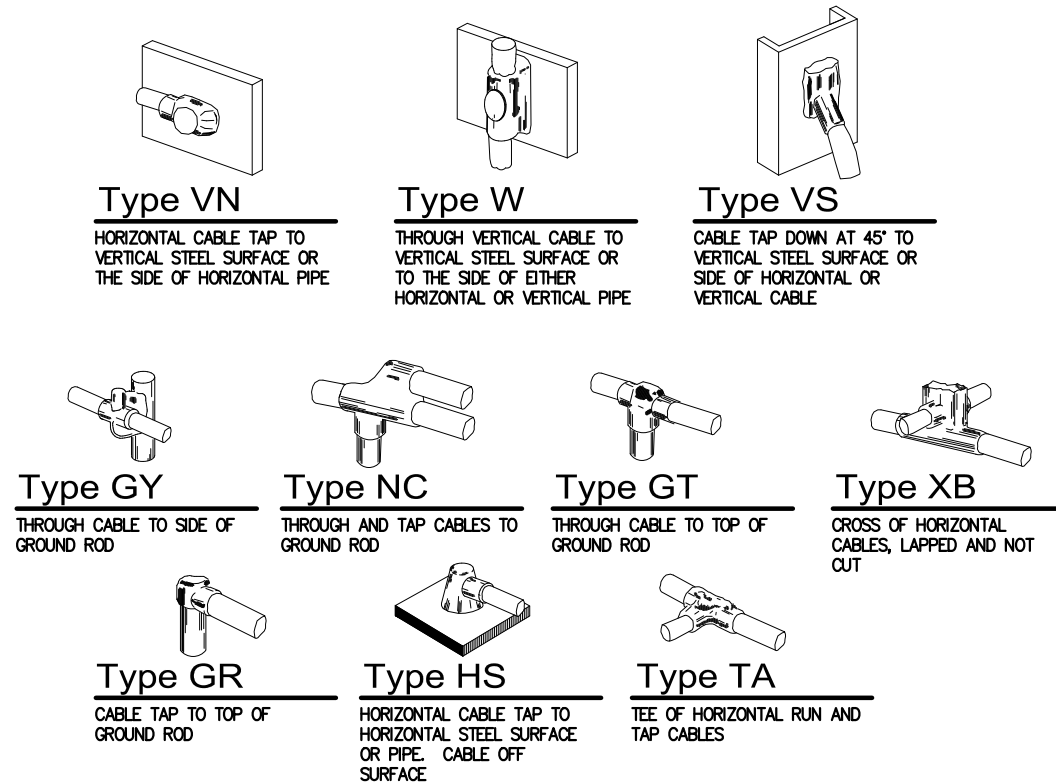
2 Tower Ground Bar
SCALE: 1 1/2" = 1'-0"



3 Grounding Inspection Test Well
SCALE: 1/2" = 1'-0"



4 Fence and Gate Grounding
SCALE: N.T.S.



5 Exothermic (Cadweld) Details
SCALE: N.T.S.

CERTIFICATION:
**PRELIMINARY
NOT FOR
CONSTRUCTION**

RELEASE DATE	DESCRIPTION
08-11-22	PRELIMINARY SITE PLAN
09-22-22	PRELIMINARY SITE PLAN
11-09-22	LEASE EXHIBIT
12-09-22	LEASE EXHIBIT
12-29-22	LEASE EXHIBIT
01-30-22	90% CDs
04-04-23	LEASE EXHIBIT
06-09-23	LEASE EXHIBIT
06-14-23	90% CDs

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DRAWN BY: JUT
CHECKED BY: MJA

SITE NAME:

**FULL RELO
SMITH & MAIN
CELL SITE**

SITE ADDRESS:

IL-64
ST CHARLES, IL 60174

SHEET TITLE:

GROUNDING DETAILS

A&E PROJECT NO.:

SHEET NO.:

CELLCO PARTNERSHIP d/b/a



FULL RELO SMITH & MAIN CELL SITE

LOCATION NO. 711056
PROJECT NO. 20222341126

IL-64
ST CHARLES, IL 60174
DUPAGE COUNTY

138' MONOPOLE TOWER
WITH COMMUNICATIONS EQUIPMENT



MISSION 1
COMMUNICATIONS

6202 Constitution Drive, Suite C
Fort Wayne, IN 46804

CERTIFICATION:

**PRELIMINARY
NOT FOR
CONSTRUCTION**

RELEASE

DATE	DESCRIPTION
08-11-22	PRELIMINARY SITE PLAN
09-22-22	PRELIMINARY SITE PLAN
11-09-22	LEASE EXHIBIT
12-09-22	LEASE EXHIBIT
12-29-22	LEASE EXHIBIT
01-30-22	90% CDs
04-04-23	LEASE EXHIBIT
06-09-23	LEASE EXHIBIT
06-14-23	90% CDs

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DRAWN BY: JUT
CHECKED BY: MJA

SITE NAME:

**FULL RELO
SMITH & MAIN
CELL SITE**

SITE ADDRESS:

IL-64
ST CHARLES, IL 60174

SHEET TITLE:

PROJECT INFORMATION,
LOCATION MAPS,
AND DRAWING INDEX

A&E PROJECT NO.:

SHEET NO.:

VZW T-1

APPLICANT
VERIZON WIRELESS
DAVID HENDRIXSON
1701 GOLF ROAD, TOWER 2, SUITE 400
ROLLING MEADOWS, IL 60008
PH: (231) 578-8860
EMAIL: DAVID.HENDRIXSON@VERIZONWIRELESS.COM

SITE ACQUISITION
DOLAN REALTY ADVISORS, LLC
DOUG DOLAN
343 S. KIRKWOOD ROAD #5
BOX# 220130
KIRKWOOD, MO 63122
PH: (314) 963-7700
EMAIL: DDOLAN@DOLANREALTYADVISORS.COM

SURVEYOR
WILLIAMS & WORKS
BILL MCCLURE
549 OTTAWA AVE NW
GRAND RAPIDS, MI 49503
PH: (616) 224-1500
EMAIL: MCCLURE@WILLIAMS-WORKS.COM

ARCHITECTURAL AND ENGINEERING
MISSION 1 COMMUNICATIONS
MARK ALLEN
6202 CONSTITUTION DRIVE, SUITE C
FORT WAYNE, IN 46804
PH: (260) 436-3922
EMAIL: M.ALLEN@M1COMM.COM

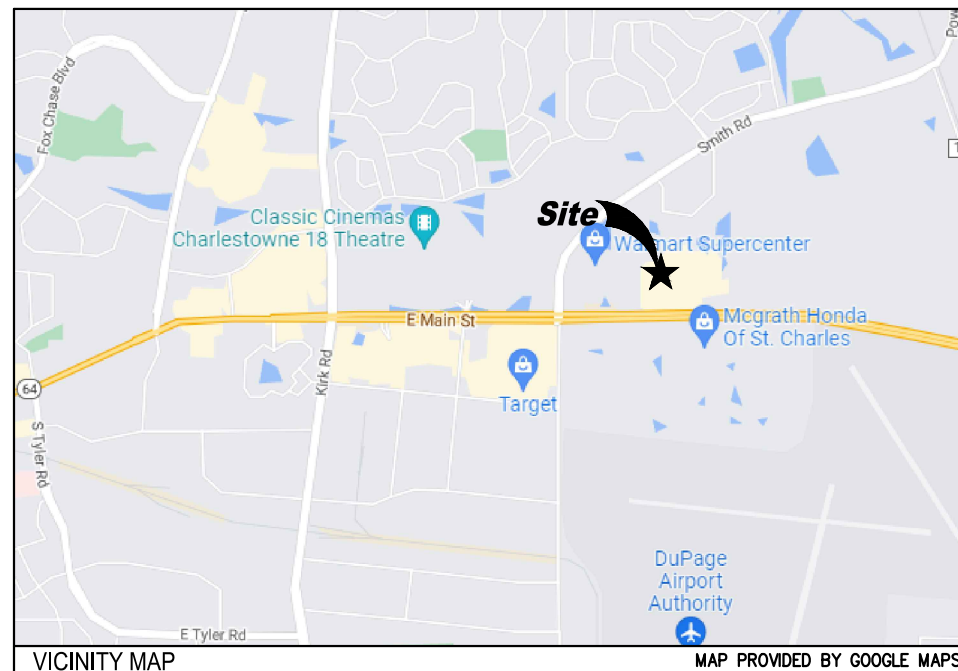
UTILITIES - ELECTRIC
ST CHARLES ELECTRIC
PAUL HOPKINS
PH: (630) 377-4403
EMAIL: PHOPKINS@STCHARLESIL.GOV

UTILITIES - FIBER
LEDCOR TECHNICAL SERVICES
MATTHEW BARRETT
723 N OAKLAWN AVE,
ELMHURST, IL 60126
PH: (708) 278-1998
EMAIL: MATTHEW.BARRETT@LEDCOR.COM

POLICE DEPARTMENT
ST CHARLES POLICE DEPT
1515 W MAIN ST,
ST. CHARLES, IL 60174
PH: (630) 377-4435

FIRE DEPARTMENT
ST CHARLES FIRE DEPT
112 N RIVERSIDE AVE,
ST. CHARLES, IL 60174
PH: (630) 377-4458

LANDLORD
ST CHARLES VW REAL ESTATE
4050 E MAIN ST,
ST. CHARLES, IL 60174
PH: (630) 818-4150



DRAWING INDEX

VERIZON WIRELESS CONSTRUCTION SECTION

VZW T-1	PROJECT INFORMATION, LOCATION MAPS, AND DRAWING INDEX
1 OF 3	SITE SURVEY
2 OF 3	SITE SURVEY
3 OF 3	SITE SURVEY
VZW C-1	DEVELOPED SITE PLAN
VZW C-2	ENLARGED SITE PLAN
VZW C-3	ICE BRIDGE, AND FOUNDATION DETAILS
VZW EP-1	4'-0"x11'-0" EQUIPMENT PAD PLAN
VZW EP-2	EQUIPMENT PAD - ELEV VIEW
VZW EP-3	GENERATOR DETAILS
VZW A-1	TOWER ELEVATION AND ANTENNA INFORMATION
VZW A-2	ANTENNA EQUIPMENT INFORMATION
VZW A-3	ANTENNA EQUIPMENT INFORMATION
VZW A-4	ANTENNA EQUIPMENT INFORMATION
VZW E-1	ENLARGED UTILITY PLAN
VZW E-2	ELECTRIC AND TELCO UTILITY DETAILS
VZW E-3	ENLARGED GROUNDING PLAN
VZW E-4	GROUNDING SCHEMATIC
VZW E-5	GROUNDING DETAILS
VZW SP-1	SPECIFICATIONS
VZW SP-2	SPECIFICATIONS

CONSULTANT TEAM

PROJECT DESCRIPTION

INSTALLATION OF PANEL ANTENNA, ASSOCIATED APPLIANCES, COAXIAL CABLE AND MOUNTS ON AN 138' MONOPOLE TOWER.
INSTALLATION OF A 4'-0" X 11'-0" UNMANNED EQUIPMENT PAD ON CONCRETE FOUNDATION. INSTALLATION OF GENERAC SD030-1PE-190JT 30KW DIESEL GENERATOR ON EQUIPMENT CONCRETE FOUNDATION.
NEW TELEPHONE (FIBER) SERVICE TO SITE AND EQUIPMENT SKID. NO WATER SUPPLY OR SEWAGE TO/FROM THE SITE.

SITE COORDINATES AND ELEVATION

LATITUDE - N41° 55' 24.41"
LONGITUDE - W88° 15' 24.86"
GRD ELEV. - ±769' AMSL

PROJECT DESCRIPTION



DIRECTIONS TO SITE



SURVEYOR'S NOTE

THE PARENT PARCEL BOUNDARY OF THIS DRAWING IS ILLUSTRATED FROM RECORD INFORMATION AND IS APPROXIMATE.

THE ORIGINAL TOPOGRAPHICAL SURVEY FOR THIS MAP WAS PERFORMED ON NOVEMBER 14, 2022, REVISED LOCATION PERFORMED ON MAY 23, 2023.

NOT TO BE USED AS CONSTRUCTION DRAWINGS.

UNDERGROUND UTILITY MARKING WAS REQUESTED OF THE JULIE ONE-CALL SYSTEM ON NOVEMBER 04, 2022 AS TICKET NUMBER X223080343

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON NAVD 88 DATUM.

CONTOURS ARE ILLUSTRATED AT 1.0' INTERVALS.

BM#1) ELEV. 766.00
DESCRIPTION: BOX CUT EAST SIDE OF CONCRETE BASE ON NORTHEAST LIGHT POLE AT FOX MOTORS PARKING LOT.

ZONING DATA

ACCORDING TO THE SITE CANDIDATE INFORMATION PACKAGE THIS SITE IS ZONED:

SETBACKS:

FRONT: ?

REAR: ?

SIDE: ?

FLOOD PLAIN INFORMATION

WE HAVE CONSULTED THE FEDERAL EMERGENCY MANAGEMENT AGENCY NATIONAL FLOOD INSURANCE MAP AS PREPARED FOR THE CITY OF ST. CHARLES, DUPAGE COUNTY, ILLINOIS, COMMUNITY PANEL NUMBER 17043C0017J DATED AUGUST 01, 2019, AND FIND THAT THE PROJECT SITE IS ZONED X (UNSHADED) (AREA OF MINIMAL FLOOD HAZARD)

BASIS OF BEARINGS

LATITUDE AND LONGITUDE OF SITE REFERENCE POINT ARE BASED ON NAD83(2011)

BEARINGS ARE BASED ON ILLINOIS STATE PLANE, IL EAST 1201 TO ORIENT DRAWING TO TRUE NORTH, ROTATE CLOCKWISE 00°03'04.84".

EASEMENTS, COVENANTS, CONDITIONS, AND RESTRICTIONS

THE TITLE COMMITMENT ISSUED BY NEAR NORTH TITLE GROUP AS COMMITMENT NO. IL2209789, DATED OCTOBER 25, 2022 LISTS THE FOLLOWING EASEMENTS, COVENANTS, CONDITIONS, AND RESTRICTIONS, THAT ARE MATTERS OF SURVEY, AFFECTING THE PARENT PARCEL UNDER "SCHEDULE B-II":

8. Unrecorded lease to Fox Valley Volkswagen dated July 30, 2015, and all rights thereunder of, and all acts done or suffered thereunder by, said lessee or by any party claiming by, through, or under said lessee. As disclosed and affected by:

Subordination and attornment agreement recorded February 24, 2016 as document R2016-017346, and the terms and provisions contained therein. AFFECTS THE SUBJECT PROPERTY. BLANKET IN NATURE.

9. Notations and Illinois Department of Transportation legends on plat of Pheasant Run Crossing recorded August 19, 2015 as document R2015-092580, as to access limits as to Illinois Route 64. AFFECTS THE SUBJECT PROPERTY. BLANKET IN NATURE.

10. Easements for public utilities over, upon and under the Land as shown on the Plat of Easement recorded June 11, 2012 as document R2012-074422. AFFECTS THE SUBJECT PROPERTY AS SHOWN.

11. Temporary Construction Easement per order document R2012-017755 in Case # 10ED114 in favor of Illinois Department of Transportation. AFFECTS THE SUBJECT PROPERTY AS SHOWN.

12. Easements, building setback lines, parking setback lines, access note and other provisions on the plat of Pheasant Run Crossing recorded August 19, 2015 as document R2015-092580. AFFECTS THE SUBJECT PROPERTY AS SHOWN.

13. Covenants and Restrictions (but omitting any such covenant or restriction based on race, color, religion, sex, handicap, familial status or national origin unless and only to the extent that said covenant (A) is exempt under Chapter 42, Section 3607 of the United States Code or (B) relates to handicap but does not discriminate against handicapped person), relating to Pheasant Run Crossing Property Association, assessments, buildings, uses, easements, maintenance and other matters contained in the document recorded August 19, 2015 as document R2015-092581 which does not contain a reversionary or forfeiture clause. AFFECTS THE SUBJECT PROPERTY. BLANKET IN NATURE.

14. (A) Terms, provisions and conditions relating to the easement described as Parcel 1A contained in the plat recorded August 19, 2015 as document R2015-092580 creating said easement.

(B) Rights of the adjoining owner or owners to the concurrent use of said easement AFFECTS THE SUBJECT PROPERTY. BLANKET IN NATURE.

**LOC. #711056
SMITH & MAIN**

PROPRIETOR

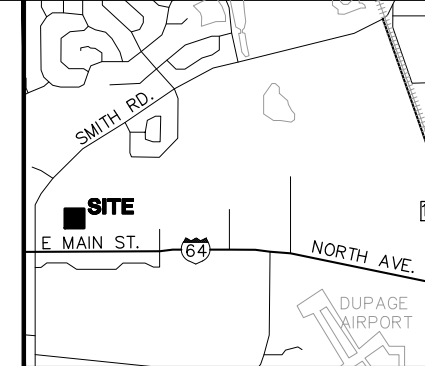
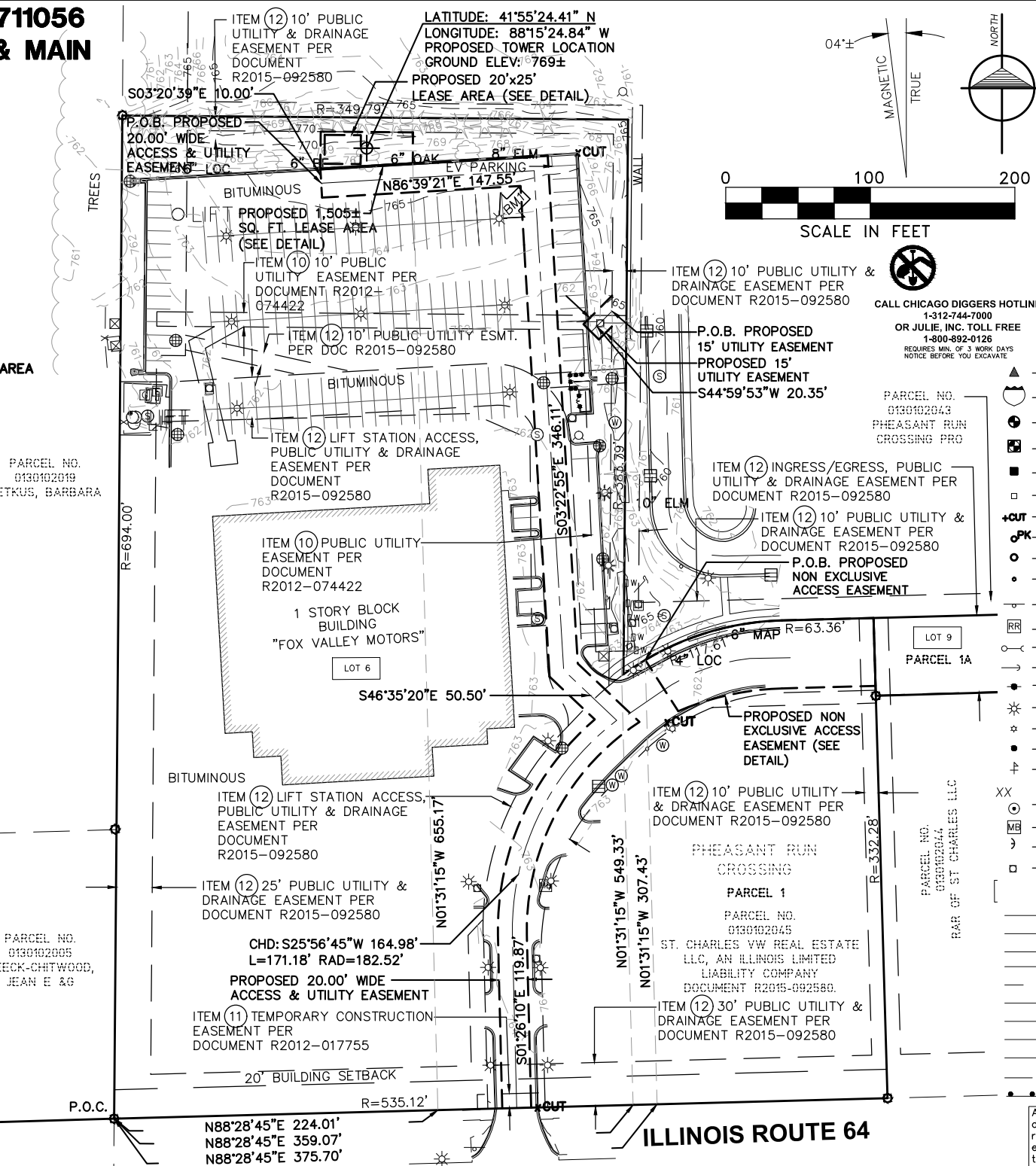
ST. CHARLES VW REAL ESTATE LLC
4050 E MAIN ST
SAINT CHARLES, IL 60174

LEGAL DESCRIPTION

PROPOSED 1,505 S.F. LEASE AREA
SEE SHEET 2 OF 2

PARCEL NO. 0130102019
PETKUS, BARBARA

PARCEL NO. 0130102005
SEECK-CHITWOOD, JEAN E & S



LEGEND

- WELL
- HIGHWAY
- MONUMENT
- MONUMENT BOX
- XCUT
- PK NAIL
- FOUND IRON STAKE
- SET IRON STAKE
- SIGN
- RR SIGN
- GUY POLE
- GUY ANCHOR
- UTILITY POLE
- LIGHT POLE
- ORNAMENTAL LIGHT POLE
- POST
- U.G. UTILITY MARKER
- SOIL BORING
- MAILBOX
- SATELLITE DISH
- HAND HOLE
- U.G. UTILITY MARKER
- U.G. UTILITY MARKER
- PIV - POST INDICATOR VALVE
- WATER VALVE
- GAS VALVE
- UST FILL PORT
- GAS PUMP
- GAS METER
- WATER METER
- TELEPHONE RISER
- ELECTRIC METER
- CABLE TV RISER
- CATCH BASIN
- ROUND CATCH BASIN
- UTILITY MANHOLE
- STORM MANHOLE
- SANITARY MANHOLE
- ELECTRIC MANHOLE
- TELEPHONE MANHOLE
- WATER MANHOLE
- HANDICAP PARKING SPACE
- SHRUB
- TREE
- PINE TREE
- EXISTING CONTOURS
- TELEPHONE UTILITY LINE
- ELECTRIC UTILITY LINE
- WATER UTILITY LINE
- GAS UTILITY LINE
- STEAM UTILITY LINE
- STORM UTILITY LINE
- SANITARY UTILITY LINE
- FIBER OPTIC UTILITY LINE
- OVERHEAD UTILITY LINE
- FENCE LINE
- GUARD RAIL

All utilities as shown are approximate locations derived from actual measurements and available records. They should not be interpreted to be in exact location nor should it be assumed that they are the only utilities in the area.

LEGAL DESCRIPTION

PARENT PARCEL

PARCEL 1:

LOT 6 OF PHEASANT RUN CROSSING BEING A SUBDIVISION OF PART OF THE SOUTH 1/2 OF LOT 1 (ACCORDING TO THE GOVERNMENT SURVEY) OF THE NORTHWEST 1/4 OF SECTION 30, TOWNSHIP 40 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN WAYNE TOWNSHIP, DUPAGE COUNTY, ILLINOIS, ACCORDING TO THE PLAT THEREOF RECORDED AUGUST 19, 2015, AS DOCUMENT R2015-092580.

PARCEL 1A:

EASEMENT FOR INGRESS AND EGRESS AS PER PLAT RECORDED AUGUST 19, 2015, AS DOCUMENT R2015-092580 FOR BENEFIT OF PARCEL 1 OVER LOT 9 OF PHEASANT RUN CROSSING AFORESAID. (ACCESS ROAD)

This map was made from the below legal description which was given to us as a complete description of the property. Both map and description should be compared with the Abstract of Title or Title Policy for any exceptions, easements or differences in description.



I, Samuel A. Miles, do hereby certify that the drawing shown hereon is a correct representation of a survey performed at and under my direction.

All dimensions shown are in feet and decimal parts thereof.

Given under my hand and seal this 14th day of June, 2023.

Samuel A. Miles

Samuel A. Miles
Illinois Professional Land Surveyor No. 035.003984
Expires November 30, 2024

Note: This certification only applies to improvements within the lease site and easements as shown hereon.

ILLINOIS REGISTERED DESIGN FIRM
LICENSE NUMBER 184.007034-0008
LICENSE EXPIRES: APRIL 30, 2025

DATE: 11/14/22	DWG. BY: A.G.G.
SCALE: 1"=100'	SURVEYED: D.S./N.S.
UPDATE: AGG061323	CHKD BY: S.A.M.
PROJECT NO.: 215249.062	



**LOC. #711056
SMITH & MAIN**

Survey Prepared for:
Mission 1 Communications
6202 Constitution Drive
Suite C
Fort Wayne, IN 46804
(260) 436-3922
Project Manager: Mark J Allen

NO.	DESCRIPTION	DATE
1	REVISED LEASE AREA	11/29/22
2	REVISED LEASE AREA, TOWER AND EASEMENTS LOCATION	11/30/22
3	REVISED LEASE AREA, AND TOWER LOCATION	12/12/22
4	REVISED LEASE AREA, AND TOWER LOCATION	12/14/22
5	REVISED LEASE AREA, AND TOWER LOCATION	05/24/23
6	ADD 1500 LEASE AREA, UTILITY EASEMENT, NON EXCLUSIVE ACCESS EASEMENT	06/13/23

williams & works
engineers | surveyors | planners
http://williams-works.com
616.224.1500 phone
548 Ottawa Ave NW
Grand Rapids, MI 49503

SITE NAME

SMITH & MAIN

SITE NUMBER

LOC. #711056

SITE ADDRESS

**4050 E MAIN ST.
ST. CHARLES, IL
60174**

SHEET TITLE

S1

SHEET 1 OF 3

SURVEYOR'S NOTE

THE PARENT PARCEL BOUNDARY OF THIS DRAWING IS ILLUSTRATED FROM RECORD INFORMATION AND IS APPROXIMATE.
 THE ORIGINAL TOPOGRAPHICAL SURVEY FOR THIS MAP WAS PERFORMED ON NOVEMBER 14, 2022, REVISED LOCATION PERFORMED ON MAY 23, 2023.
 NOT TO BE USED AS CONSTRUCTION DRAWINGS.

LEGAL DESCRIPTION

PROPOSED 1,505 S.F. LEASE AREA
 SEE SHEET 3 OF 3

LEGAL DESCRIPTION

PROPOSED 20.00' WIDE ACCESS & UTILITY EASEMENT
 SEE SHEET 3 OF 3

LEGAL DESCRIPTION

PROPOSED 20'x25' LESSEE LEASE AREA
 SEE SHEET 3 OF 3

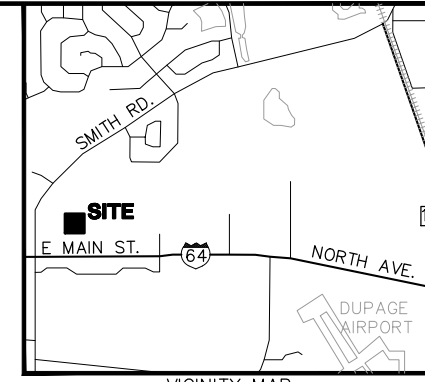
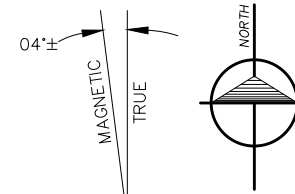
LEGAL DESCRIPTION

PROPOSED 15.00' WIDE UTILITY EASEMENT
 SEE SHEET 3 OF 3

LEGAL DESCRIPTION

PROPOSED NON EXCLUSIVE ACCESS EASEMENT
 SEE SHEET 3 OF 3

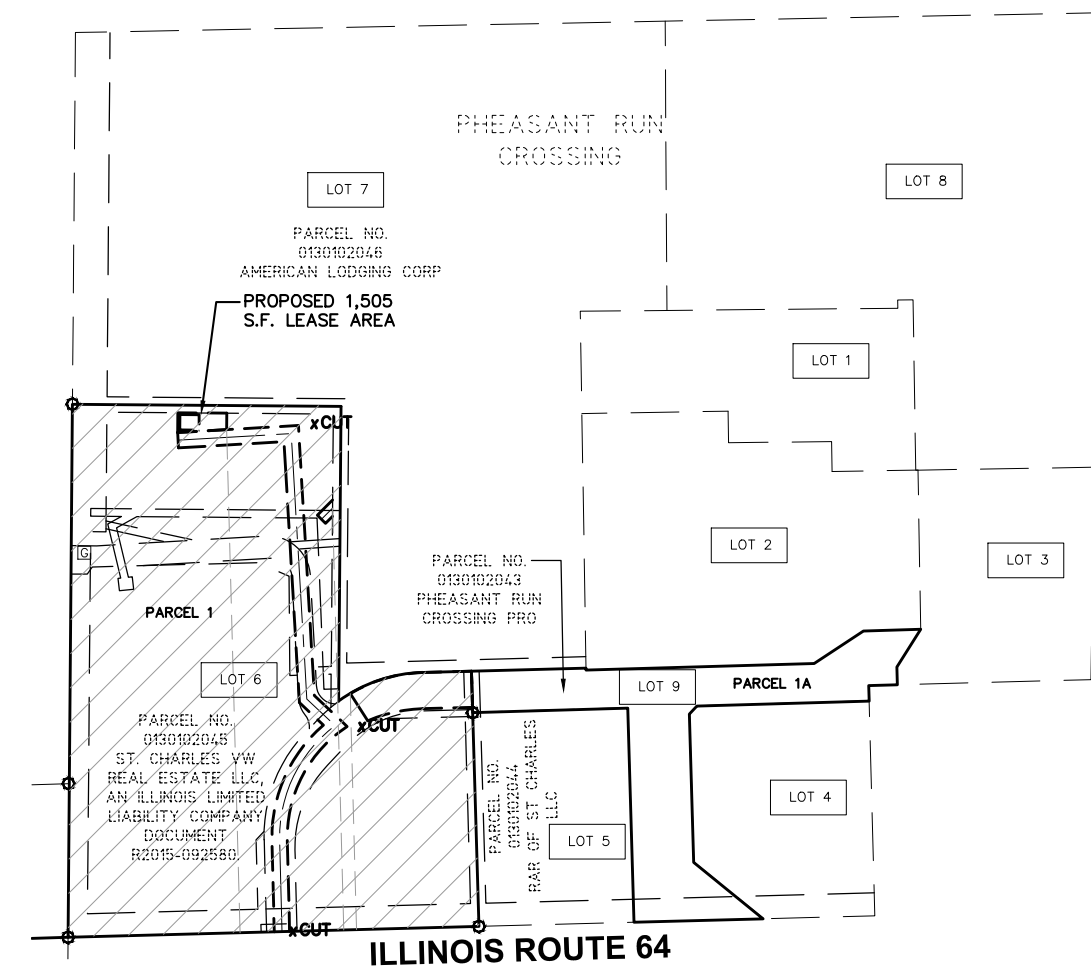
**LOC. #711056
 SMITH & MAIN**



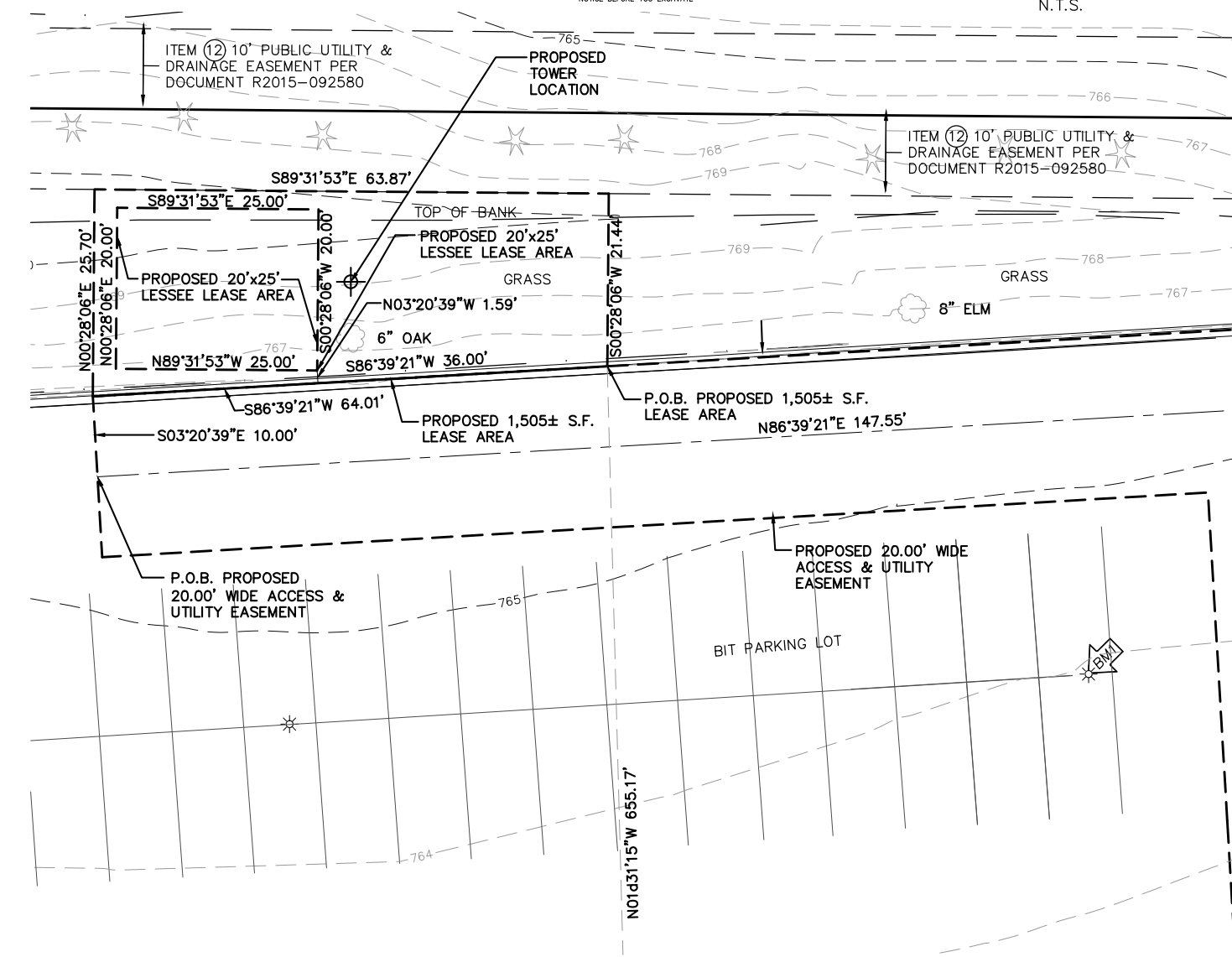
**LOC. #711056
 SMITH & MAIN**

Survey Prepared for:
 Mission 1 Communications
 6202 Constitution Drive
 Suite C
 Fort Wayne, IN 46804
 (260) 436-3922
 Project Manager: Mark J Allen

REVISIONS		
NO.	DESCRIPTION	DATE
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3	REVISED LEASE AREA, AND TOWER LOCATION	12/12/22
4	REVISED LEASE AREA, AND TOWER LOCATION	12/14/22
5	REVISED LEASE AREA, AND TOWER LOCATION	05/24/23
6	ADD 150' LEASE AREA, UTILITY EASEMENT, NON EXCLUSIVE ACCESS EASEMENT	06/13/23



PROPERTY DETAIL
 SCALE 1"=250'



LEASE AREA DETAIL
 SCALE 1"=20'

LEGEND

- ▲ - TRAVERSE POINT
- ▲ - WELL
- ⊖ - HIGHWAY
- ⊙ - MONUMENT
- ⊠ - MONUMENT BOX
- - RIGHT OF WAY MARKER
- - SET WOODSTAKE
- +CUT - XCUT
- PK - PK NAIL
- - FOUND IRON STAKE
- - SET IRON STAKE
- - SIGN
- RR - RR SIGN
- ⊠ - AC UNIT
- - U.G. UTILITY MARKER
- ⊙ - FIRE HYDRANT
- PIV - POST INDICATOR VALVE
- ◇ - WATER VALVE
- ⊗ - GAS VALVE
- ⊕ - UST FILL PORT
- ⊠ - GAS PUMP
- ⊠ - GAS METER
- W - WATER METER
- ⊠ - TELEPHONE RISER
- ⊠ - ELECTRIC METER
- ⊠ - CABLE TV RISER
- ⊠ - CATCH BASIN
- - GUY POLE
- - GUY ANCHOR
- - UTILITY POLE
- ⊙ - LIGHT POLE
- ⊙ - ORNAMENTAL LIGHT POLE
- - POST
- - U.G. UTILITY MARKER
- XX - SOIL BORING
- MB - MAILBOX
- ⊙ - SATELLITE DISH
- - HAND HOLE
- ⊙ - ROUND CATCH BASIN
- ⊙ - UTILITY MANHOLE
- ⊙ - STORM MANHOLE
- ⊙ - SANITARY MANHOLE
- ⊙ - ELECTRIC MANHOLE
- ⊙ - TELEPHONE MANHOLE
- ⊙ - WATER MANHOLE
- ♿ - HANDICAP PARKING SPACE
- - SHRUB
- - TREE
- - PINE TREE
- - TELEPHONE UTILITY LINE
- - ELECTRIC UTILITY LINE
- - WATER UTILITY LINE
- - GAS UTILITY LINE
- - STEAM UTILITY LINE
- - STORM UTILITY LINE
- - SANITARY UTILITY LINE
- - FIBER OPTIC UTILITY LINE
- - OVERHEAD UTILITY LINE
- - FENCE LINE
- - GUARD RAIL

All utilities as shown are approximate locations derived from actual measurements and available records. They should not be interpreted to be in exact location nor should it be assumed that they are the only utilities in the area.



I, Samuel A. Miles, do hereby certify that the drawing shown hereon is a correct representation of a survey performed at and under my direction.
 All dimensions shown are in feet and decimal parts thereof.
 Given under my hand and seal this 14th day of June, 2023.

Samuel A. Miles
 Samuel A. Miles
 Illinois Professional Land Surveyor No. 035.003984
 Expires November 30, 2024

Note: This certification only applies to improvements within the lease site and easements as shown hereon.

ILLINOIS REGISTERED DESIGN FIRM
 LICENSE NUMBER 184.007034-0008
 LICENSE EXPIRES: APRIL 30, 2025

DATE: 11/14/22	DWG. BY: A.G.G.
SCALE: N/A	SURVEYED: D.S./N.S.
UPDATE: AGG061323	CHKD BY: S.A.M.
PROJECT NO.: 215249.062	

SURVEYED BY:

williams&works
 engineers | surveyors | planners
 616.224.1500 phone
 549 Ottawa Ave NW
 Grand Rapids, MI 49503
<http://williams-works.com>

SITE NAME: _____

SMITH & MAIN

SITE NUMBER: _____

LOC. #711056

SITE ADDRESS: _____

**4050 E MAIN ST.
 ST. CHARLES, IL
 60174**

SHEET TITLE: _____

S2

SHEET 2 OF 3

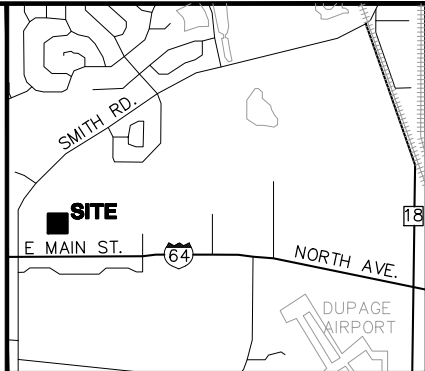
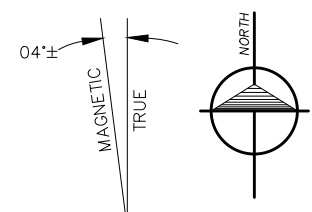
SURVEYOR'S NOTE

THE PARENT PARCEL BOUNDARY OF THIS DRAWING IS ILLUSTRATED FROM RECORD INFORMATION AND IS APPROXIMATE.

THE ORIGINAL TOPOGRAPHICAL SURVEY FOR THIS MAP WAS PERFORMED ON NOVEMBER 14, 2022, REVISED LOCATION PERFORMED ON MAY 23, 2023.

NOT TO BE USED AS CONSTRUCTION DRAWINGS.

**LOC. #711056
SMITH & MAIN**



CALL CHICAGO DIGGERS HOTLINE
1-312-744-7000
OR JULIE, INC. TOLL FREE
1-800-892-0126
REQUIRES MIN. OF 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE



**LOC. #711056
SMITH & MAIN**

Survey Prepared for:
Mission 1 Communications
6202 Constitution Drive
Suite C
Fort Wayne, IN 46804
(260) 436-3922
Project Manager: Mark J. Allen

LEGAL DESCRIPTION

PROPOSED 1,505 S.F. LEASE AREA

All that part of Lot 6 of Pheasant Run Crossing being a Subdivision of part of the South 1/2 of Lot 1 (according to the Government Survey) of the Northwest 1/4 of Section 30, Township 40 North, Range 9 East of the Third Principal Meridian, in Wayne Township, DuPage County, Illinois, recorded as Document R2015-092580 DuPage County Records; described as; Commencing at the southwest corner of said Lot 6; thence North 88°28'45" East 224.01 feet along the south line of said Pheasant Run Crossing; thence North 01°31'15" West 655.17 feet TO THE PLACE OF BEGINNING OF THIS DESCRIPTION; thence South 86°39'21" West 64.01 feet thence North 00°28'06" East 25.70 feet; thence South 89°31'53" East 63.87 feet; thence South 00°28'06" West 21.44 feet to the place of beginning of this description.
Containing 1,505 square feet more or less.

LEGAL DESCRIPTION

PROPOSED 20.00' WIDE ACCESS & UTILITY EASEMENT

A 20.00 foot wide easement in that part of Lot 6 of Pheasant Run Crossing being a Subdivision of part of the South 1/2 of Lot 1 (according to the Government Survey) of the Northwest 1/4 of Section 30, Township 40 North, Range 9 East of the Third Principal Meridian, in Wayne Township, DuPage County, Illinois, recorded as Document R2015-092580 DuPage County Records; the centerline of which is described as; Commencing at the southwest corner of said Lot 6; thence North 88°28'45" East 224.01 feet along the south line of said Pheasant Run Crossing; thence North 01°31'15" West 655.17 feet to the southeasterly corner of a 1,505 square foot Lease Area; thence South 86°39'21" West 64.01 feet; thence South 03°20'39" East 10.00 feet TO THE PLACE OF BEGINNING OF THIS CENTERLINE DESCRIPTION; thence North 86°39'21" East 147.55 feet; thence South 03°22'55" East 346.11 feet; thence South 46°35'20" East 50.50 feet; thence southwesterly 171.18 feet along a 182.52 foot radius curve to the left, the chord of which bears South 25°56'45" West 164.98 feet; thence South 01°26'10" East 119.87 feet to the north right of way line of Illinois Route 64 for the place of ending of this centerline description. The sidelines to be lengthened and/or shortened to meet at angle points and to terminate at said North right of way.

LEGAL DESCRIPTION

PROPOSED 20'x25' LESSEE LEASE AREA

All that part of Lot 6 of Pheasant Run Crossing being a Subdivision of part of the South 1/2 of Lot 1 (according to the Government Survey) of the Northwest 1/4 of Section 30, Township 40 North, Range 9 East of the Third Principal Meridian, in Wayne Township, DuPage County, Illinois, recorded as Document R2015-092580 DuPage County Records; described as; Commencing at the southwest corner of said Lot 6; thence North 88°28'45" East 224.01 feet along the south line of said Pheasant Run Crossing; thence North 01°31'15" West 655.17 feet to the southeast corner of a 1,505 square foot lease area; thence South 86°39'21" West 36.00 feet; thence North 03°20'39" West 1.59 feet TO THE PLACE OF BEGINNING OF THIS DESCRIPTION; thence North 89°31'53" West 25.00 feet; thence North 00°28'06" East 20.00 feet; thence South 89°31'53" East 25.00 feet; thence South 00°28'06" West 20.00 feet to the place of beginning of this description.
Containing 500 square feet more or less.

LEGAL DESCRIPTION

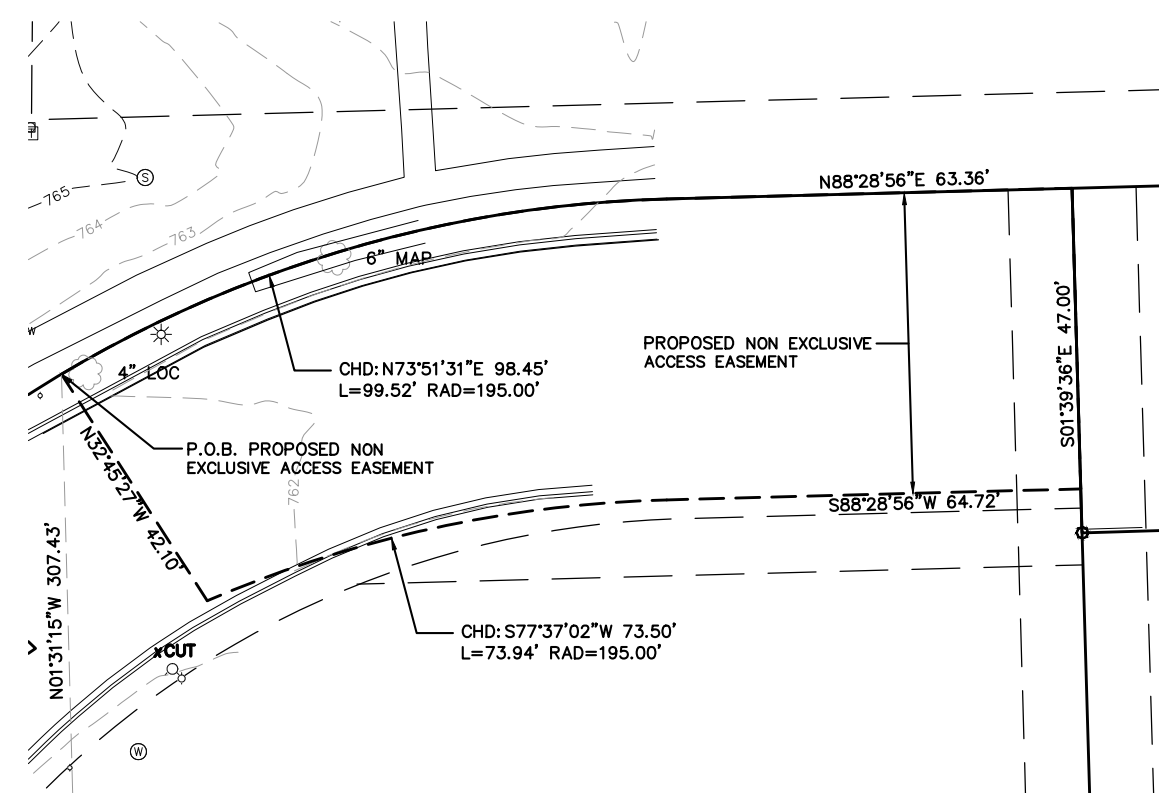
PROPOSED 15.00' WIDE UTILITY EASEMENT

A 15.00 foot wide easement in that part of Lot 6 of Pheasant Run Crossing being a Subdivision of part of the South 1/2 of Lot 1 (according to the Government Survey) of the Northwest 1/4 of Section 30, Township 40 North, Range 9 East of the Third Principal Meridian, in Wayne Township, DuPage County, Illinois, recorded as Document R2015-092580 DuPage County Records; the centerline of which is described as; Commencing at the southwest corner of said Lot 6; thence North 88°28'45" East 359.07 feet along the south line of said Pheasant Run Crossing; thence North 01°31'15" West 549.33 feet to a point on the west line of a 10.00 wide public utility & drainage easement per Document R2015-092580 DuPage County Records and TO THE PLACE OF BEGINNING OF THIS CENTERLINE DESCRIPTION; thence South 44°59'53" West 20.35 feet for the place of ending of this centerline description. The sidelines to be lengthened and/or shortened to terminate at said westerly line.

LEGAL DESCRIPTION

PROPOSED NON EXCLUSIVE ACCESS EASEMENT

All that part of Lot 6 of Pheasant Run Crossing being a Subdivision of part of the South 1/2 of Lot 1 (according to the Government Survey) of the Northwest 1/4 of Section 30, Township 40 North, Range 9 East of the Third Principal Meridian, in Wayne Township, DuPage County, Illinois, recorded as Document R2015-092580 DuPage County Records; described as; Commencing at the southwest corner of said Lot 6; thence North 88°28'45" East 375.70 feet along the south line of said Pheasant Run Crossing; thence North 01°31'15" West 307.43 feet TO THE PLACE OF BEGINNING OF THIS DESCRIPTION; thence northeasterly 99.52 feet along a 195.00 foot radius curve to the right, the chord of which bears North 73°51'31" East 98.45 feet; thence North 88°28'45" East 63.36 feet; thence South 01°39'36" East 47.00 feet; thence South 88°28'56" West 64.72 feet; thence southwesterly 73.94 feet along a 195.00 foot radius curve to the left, the chord of which bears South 77°37'02" West 73.50 feet; thence North 32°45'27" West 42.10 feet to the place of beginning of this description.



LEASE AREA DETAIL
SCALE 1"=30'

I, Samuel A. Miles, do hereby certify that the drawing shown hereon is a correct representation of a survey performed at and under my direction.
All dimensions shown are in feet and decimal parts thereof.
Given under my hand and seal this 14th day of June, 2023.



Samuel A. Miles
Samuel A. Miles
Illinois Professional Land Surveyor No. 035.003984
Expires November 30, 2024

Note: This certification only applies to improvements within the lease site and easements as shown hereon.

DATE: 11/14/22	DWG. BY: A.G.G.
SCALE: N/A	SURVEYED: D.S./N.S.
UPDATE: AGG061323	CHKD BY: S.A.M.
PROJECT NO.: 215249.062	

ILLINOIS REGISTERED DESIGN FIRM
LICENSE NUMBER 184.007034-0008
LICENSE EXPIRES: APRIL 30, 2025

NO.	DESCRIPTION	DATE
1	REVISED LEASE AREA	11/29/22
2	REVISED LEASE AREA, TOWER AND EASEMENTS LOCATION	11/30/22
3	REVISED LEASE AREA, AND TOWER LOCATION	12/12/22
4	REVISED LEASE AREA, AND TOWER LOCATION	12/14/22
5	REVISED LEASE AREA, AND TOWER LOCATION	05/24/23
6	ADD 150' LEASE AREA, UTILITY EASEMENT, NON EXCLUSIVE ACCESS EASEMENT	06/13/23

williams&works
engineers | surveyors | planners
http://williams-works.com
616.224.1500 phone
549 Ottawa Ave NW
Grand Rapids, MI 49503

SURVEYED BY:

SITE NAME: **SMITH & MAIN**

SITE NUMBER:

LOC. #711056

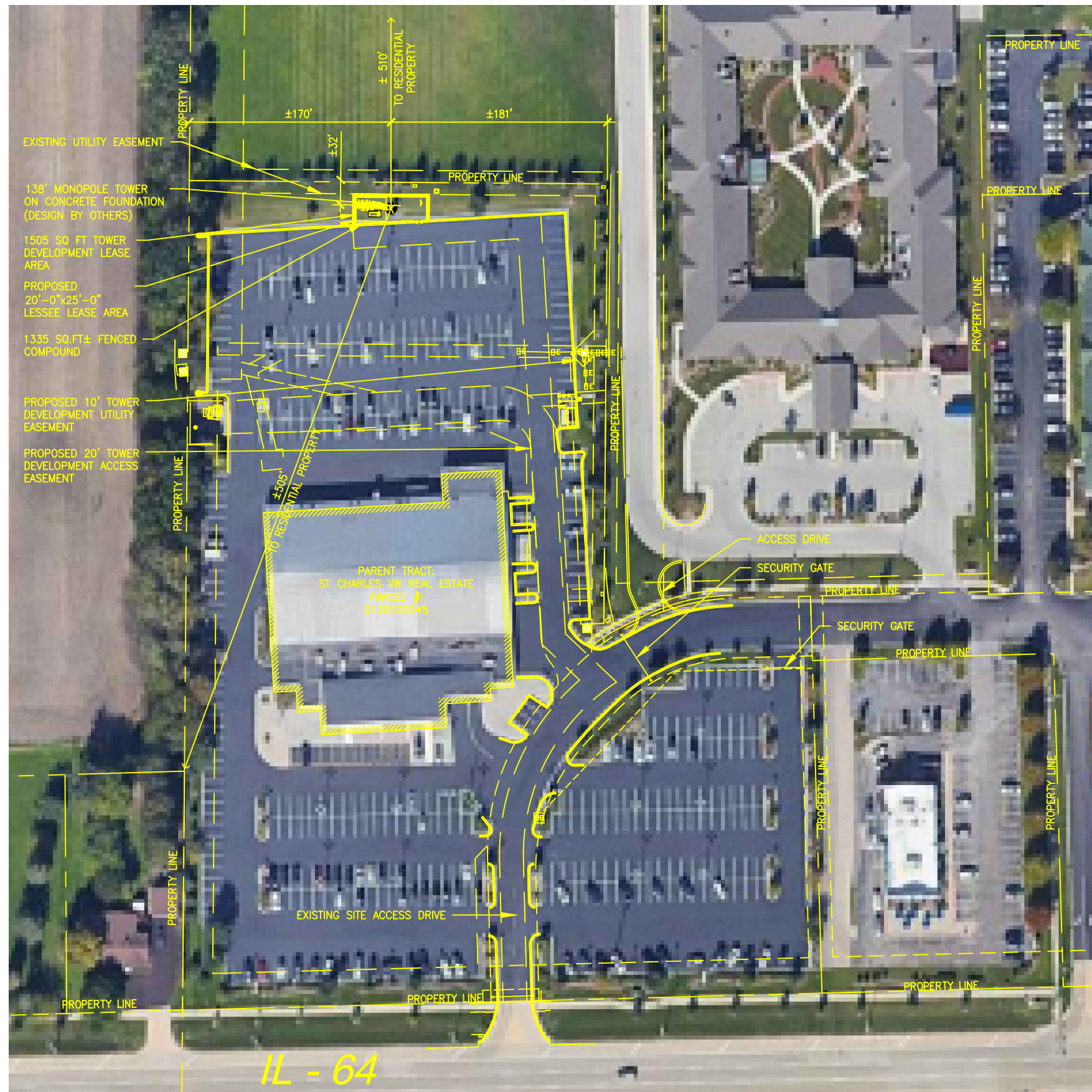
SITE ADDRESS:

**4050 E MAIN ST.
ST. CHARLES, IL
60174**

SHEET TITLE:

S3

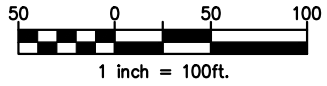
SHEET 3 OF 3



- EXISTING UTILITY EASEMENT
- 138" MONOPOLE TOWER ON CONCRETE FOUNDATION (DESIGN BY OTHERS)
- 1505 SQ. FT. TOWER DEVELOPMENT LEASE AREA
- PROPOSED 20'-0" x 25'-0" LESSEE LEASE AREA
- 1335 SQ. FT. ± FENCED COMPOUND
- PROPOSED 10' TOWER DEVELOPMENT UTILITY EASEMENT
- PROPOSED 20' TOWER DEVELOPMENT ACCESS EASEMENT

IL - 64

Developed Site Plan



MISSION 1
COMMUNICATIONS

6202 Constitution Drive, Suite C
Fort Wayne, IN 46804

CERTIFICATION:

**PRELIMINARY
NOT FOR
CONSTRUCTION**

RELEASE DATE	DESCRIPTION
08-11-22	PRELIMINARY SITE PLAN
09-22-22	PRELIMINARY SITE PLAN
11-09-22	LEASE EXHIBIT
12-09-22	LEASE EXHIBIT
12-29-22	LEASE EXHIBIT
01-30-22	90% CDs
04-04-23	LEASE EXHIBIT
06-09-23	LEASE EXHIBIT
06-14-23	90% CDs

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DRAWN BY: JUT
CHECKED BY: MJA

SITE NAME:

**FULL RELO
SMITH & MAIN
CELL SITE**

SITE ADDRESS:

IL-64
ST CHARLES, IL 60174

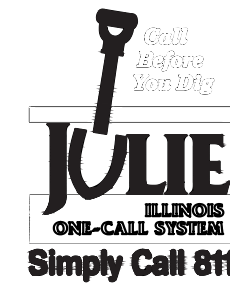
SHEET TITLE:

DEVELOPED SITE PLAN

A&E PROJECT NO.:

SHEET NO.:

VZW C-1





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Fort Wayne, IN 46804

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DATE	DESCRIPTION
08-11-22	PRELIMINARY SITE PLAN
09-22-22	PRELIMINARY SITE PLAN
11-09-22	LEASE EXHIBIT
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01-30-22	90% CDs
04-04-23	LEASE EXHIBIT
06-09-23	LEASE EXHIBIT
06-14-23	90% CDs

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DRAWN BY: JUT
CHECKED BY: MJA

SITE NAME:

**FULL RELO
SMITH & MAIN
CELL SITE**

SITE ADDRESS:

IL-64
ST CHARLES, IL 60174

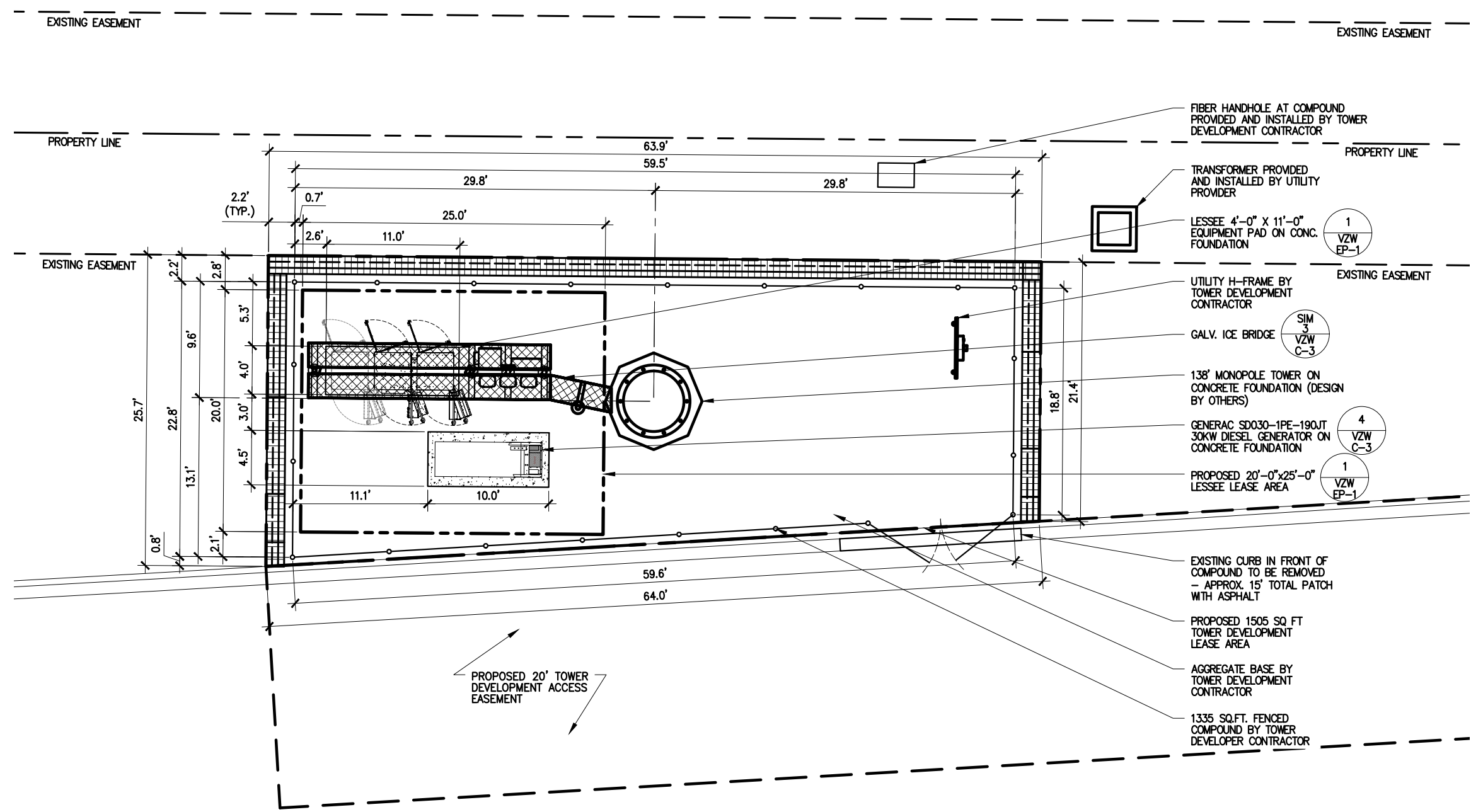
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ENLARGED SITE PLAN

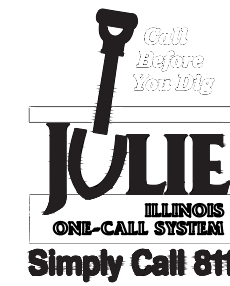
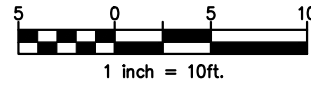
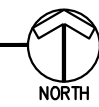
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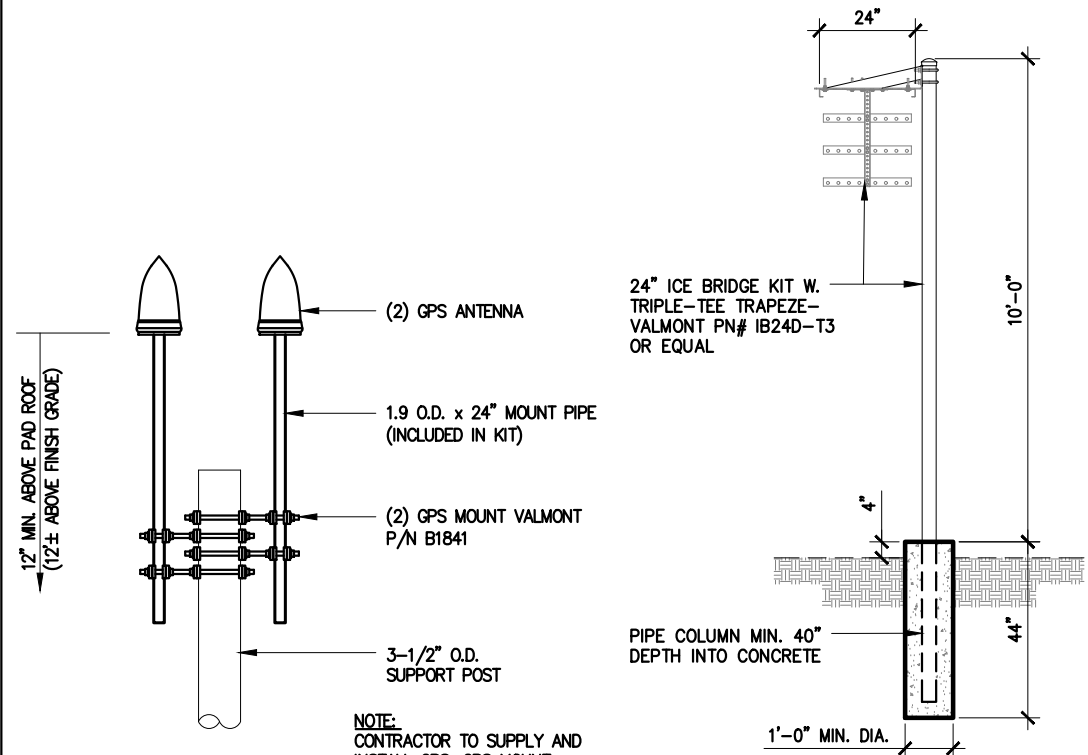
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VZW C-2



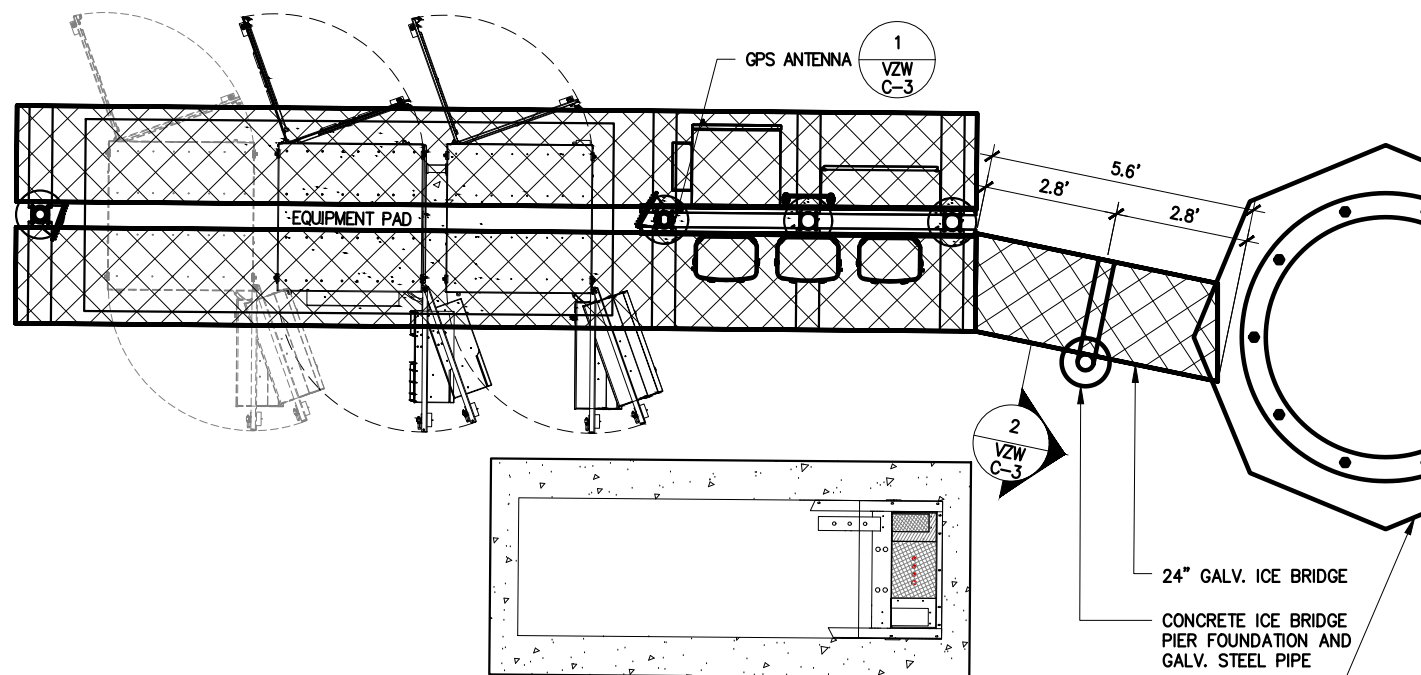
Enlarged Site Plan





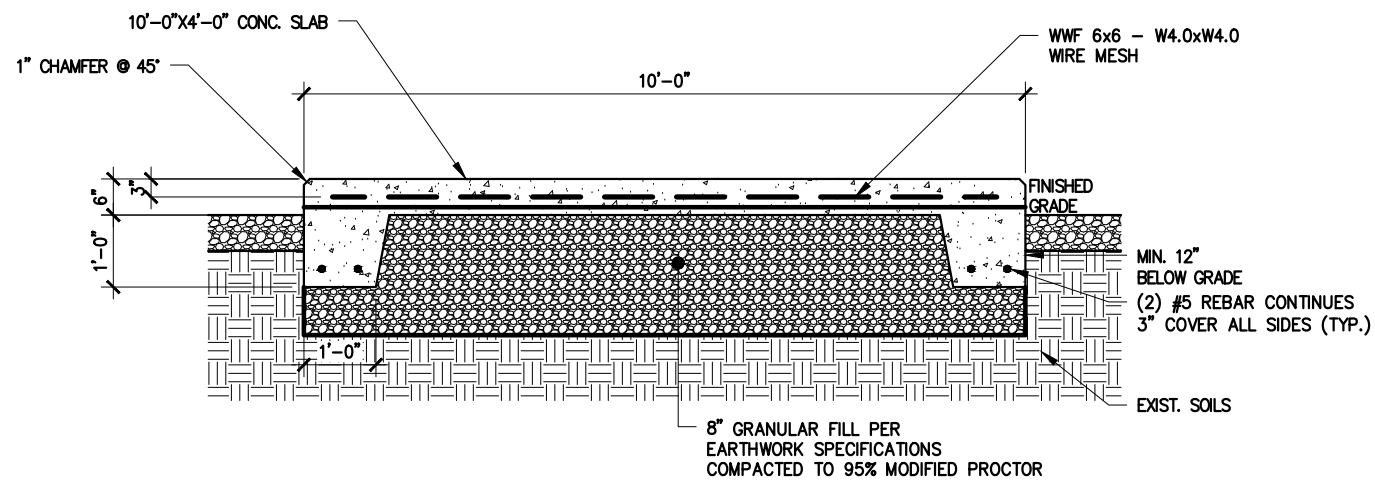
1 GPS Mount Detail SCALE: 3/4" = 1'-0"

2 Ice Bridge Section SCALE: 1/4" = 1'-0"

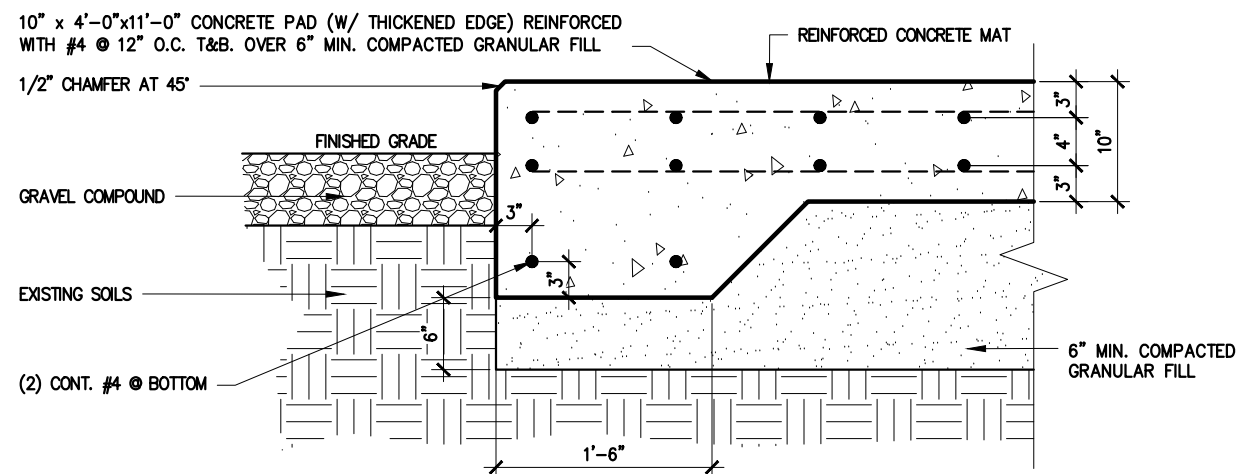


3 Ice Bridge Plan SCALE: 1/4" = 1'-0"

- CONCRETE NOTES:**
1. ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 318 AND ACI 301, LATEST EDITION. THESE DOCUMENTS SHALL BE AVAILABLE IN THE FIELD OFFICE.
 2. EXCEPT WHERE OTHERWISE INDICATED, CONCRETE SHALL BE NORMAL WEIGHT AND WITH MINIMUM 28-DAY COMPRESSIVE STRENGTHS OF F'c=4000 PSI. ALL EXTERIOR EXPOSED CONCRETE SHALL BE AIR ENTRAINED WITH 6% AIR CONTENT.
 3. REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60. ALL WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
 4. UNLESS NOTED OTHERWISE, ALL SLABS-ON-GRADE SHALL BE REINFORCED WITH (1) LAYER OF 6x6 W2.1xW2.1 W.W.F..
 5. ALL PERIMETER WALL AND COLUMN FOOTINGS SHALL BEAR A MINIMUM OF 3'-6" BELOW FINISHED GRADES.
 6. PLACE ALL SLABS ON GRADE WITH AN APPROVED PATTERN AND SEQUENCE OF CONSTRUCTION AND CONTROL JOINTS (MAXIMUM OF 15'-0" O.C.) TO MINIMIZE SHRINKAGE CRACKS.
 7. CONCRETE MIX DESIGN SHALL BE SUBMITTED TO ARCHITECT / ENGINEER FOR REVIEW.
 8. ALL FOOTINGS TO BEAR ON MINIMUM NET ALLOWABLE SOIL BEARING CAPACITY OF 2,000 PSF TO BE VERIFIED IN FIELD.



4 Generator Slab Detail SCALE: 3/8" = 1'-0"



5 Concrete Pad Section SCALE: 3/4" = 1'-0"



MISSION 1
COMMUNICATIONS

6202 Constitution Drive, Suite C
Fort Wayne, IN 46804

CERTIFICATION:

**PRELIMINARY
NOT FOR
CONSTRUCTION**

RELEASE

DATE	DESCRIPTION
08-11-22	PRELIMINARY SITE PLAN
09-22-22	PRELIMINARY SITE PLAN
11-09-22	LEASE EXHIBIT
12-09-22	LEASE EXHIBIT
12-29-22	LEASE EXHIBIT
01-30-22	90% CDs
04-04-23	LEASE EXHIBIT
06-09-23	LEASE EXHIBIT
06-14-23	90% CDs

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DRAWN BY: JUT
CHECKED BY: MJA

SITE NAME:

**FULL RELO
SMITH & MAIN
CELL SITE**

SITE ADDRESS:

IL-64
ST CHARLES, IL 60174

SHEET TITLE:

ICE BRIDGE, AND
FOUNDATION DETAILS

A&E PROJECT NO.:

SHEET NO.:

VZW C-3

CERTIFICATION:

FOR REFERENCE ONLY

RELEASE

DATE	DESCRIPTION
08-11-22	PRELIMINARY SITE PLAN
09-22-22	PRELIMINARY SITE PLAN
11-09-22	LEASE EXHIBIT
12-09-22	LEASE EXHIBIT
12-29-22	LEASE EXHIBIT
01-30-22	90% CDs
04-04-23	LEASE EXHIBIT
06-09-23	LEASE EXHIBIT
06-14-23	90% CDs

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DRAWN BY: JUT
CHECKED BY: MJA

SITE NAME:

**FULL RELO
SMITH & MAIN
CELL SITE**

SITE ADDRESS:

IL-64
ST CHARLES, IL 60174

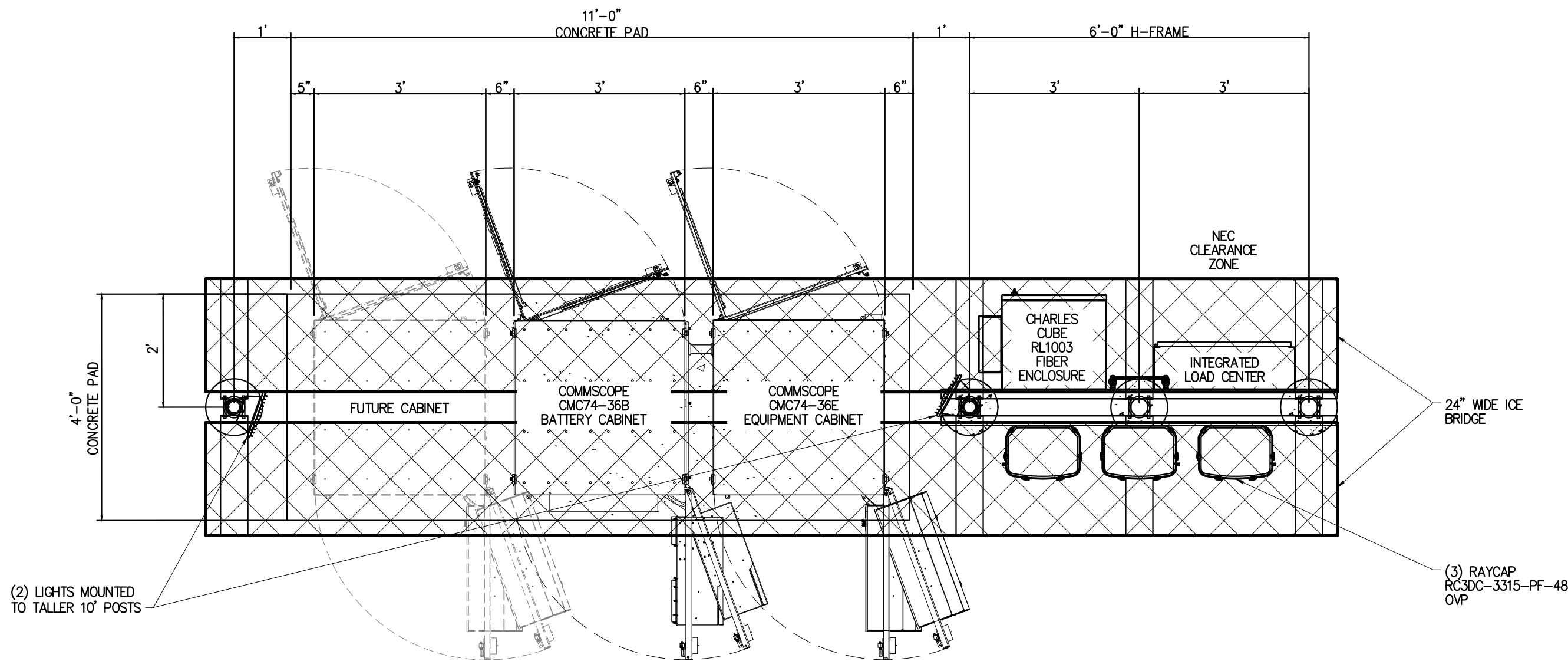
SHEET TITLE:

4'-0"x11'-0" EQUIPMENT
PAD PLAN

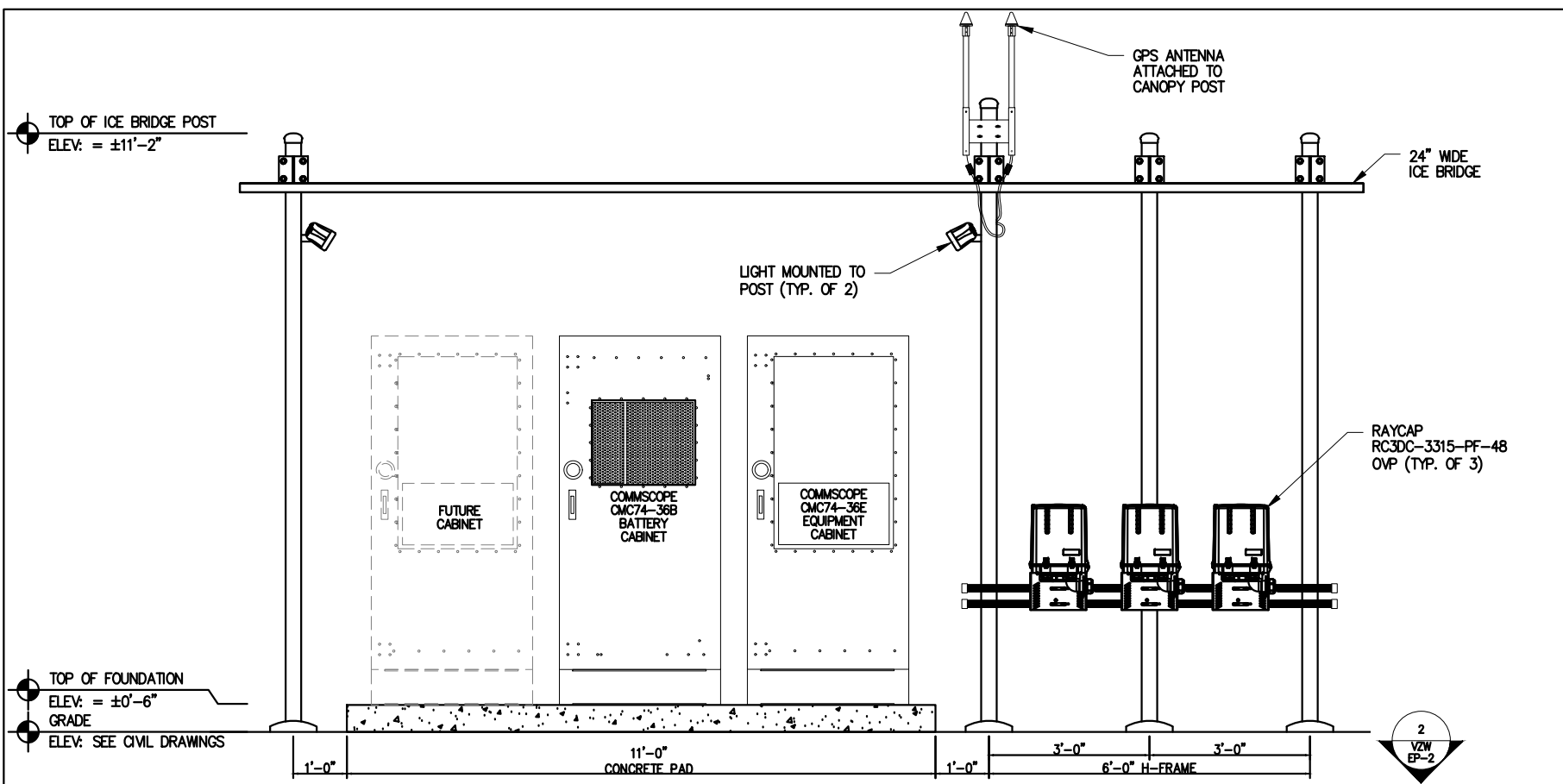
A&E PROJECT NO.:

SHEET NO.:

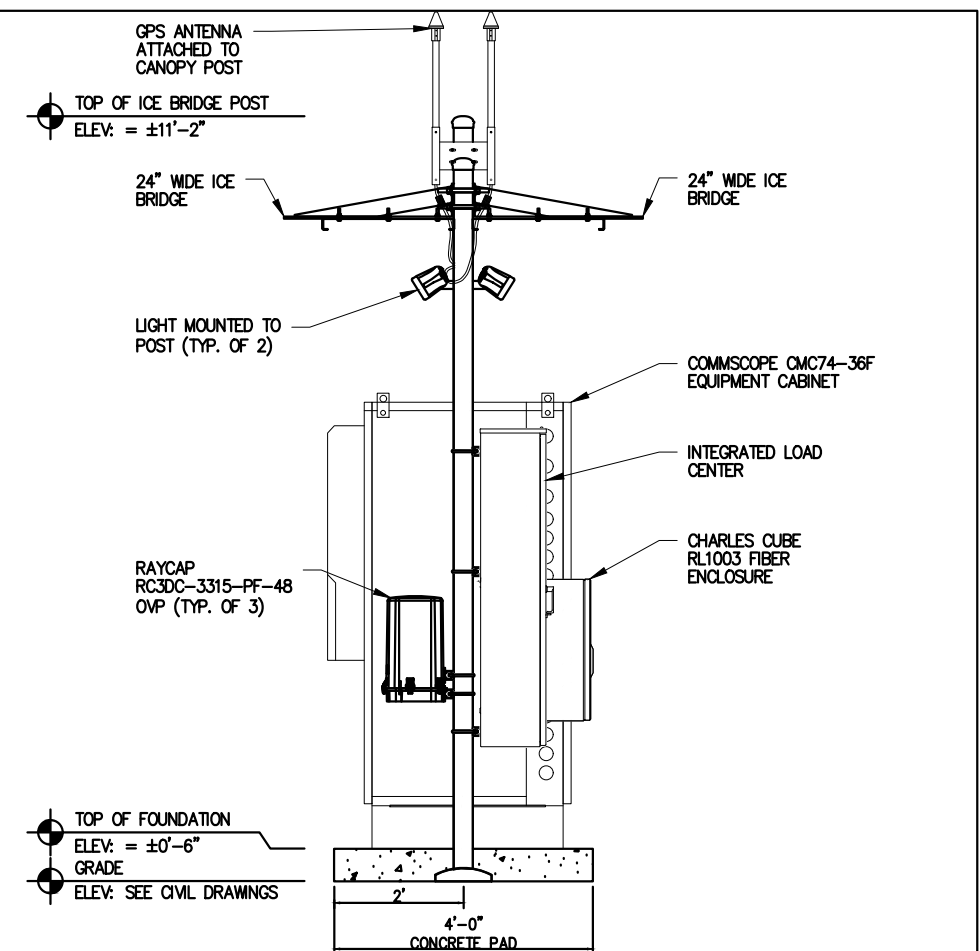
VZW EP-1



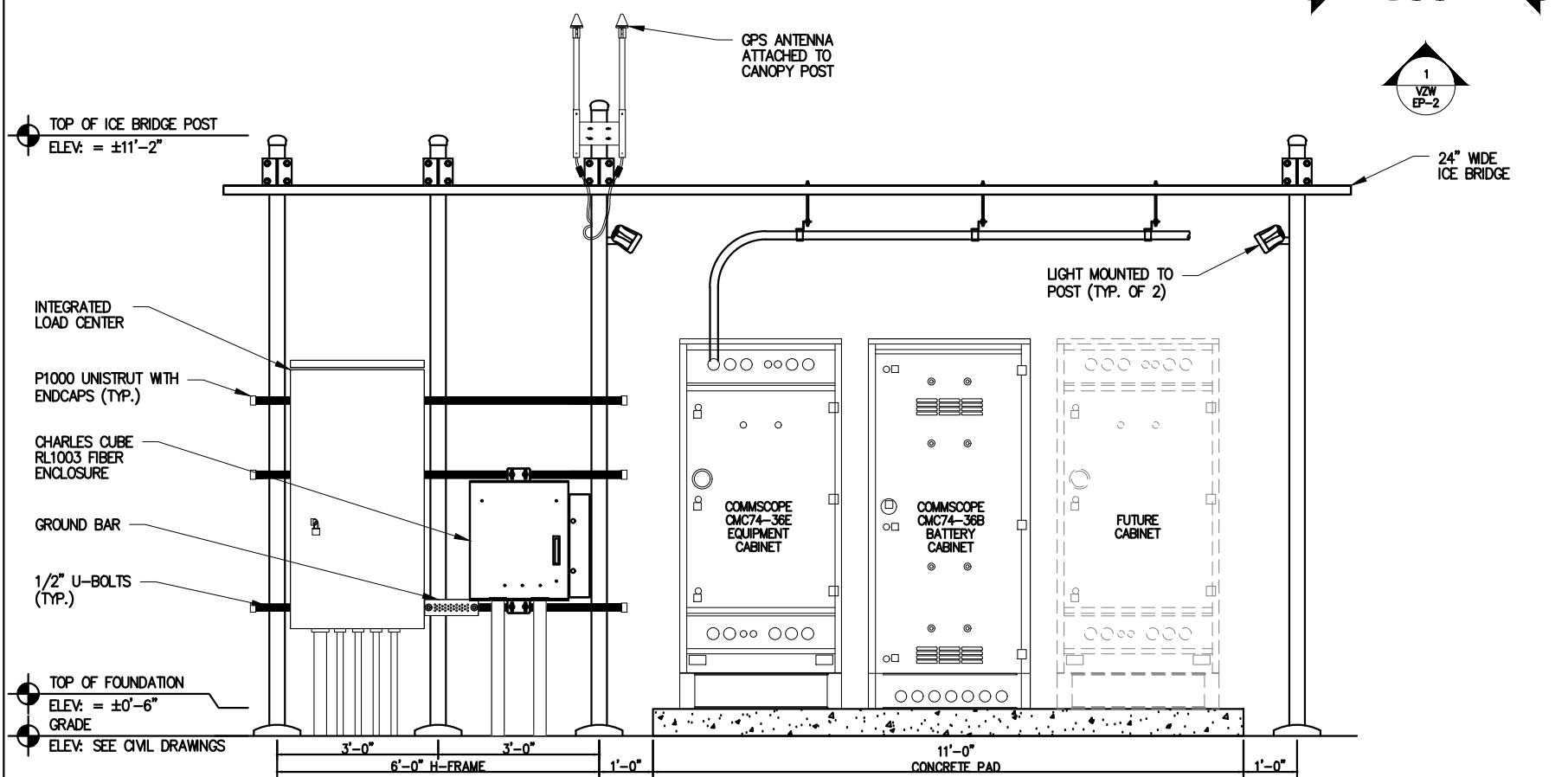
1 Equipment Pad - Layout Plan
SCALE: 1/2" = 1'-0"



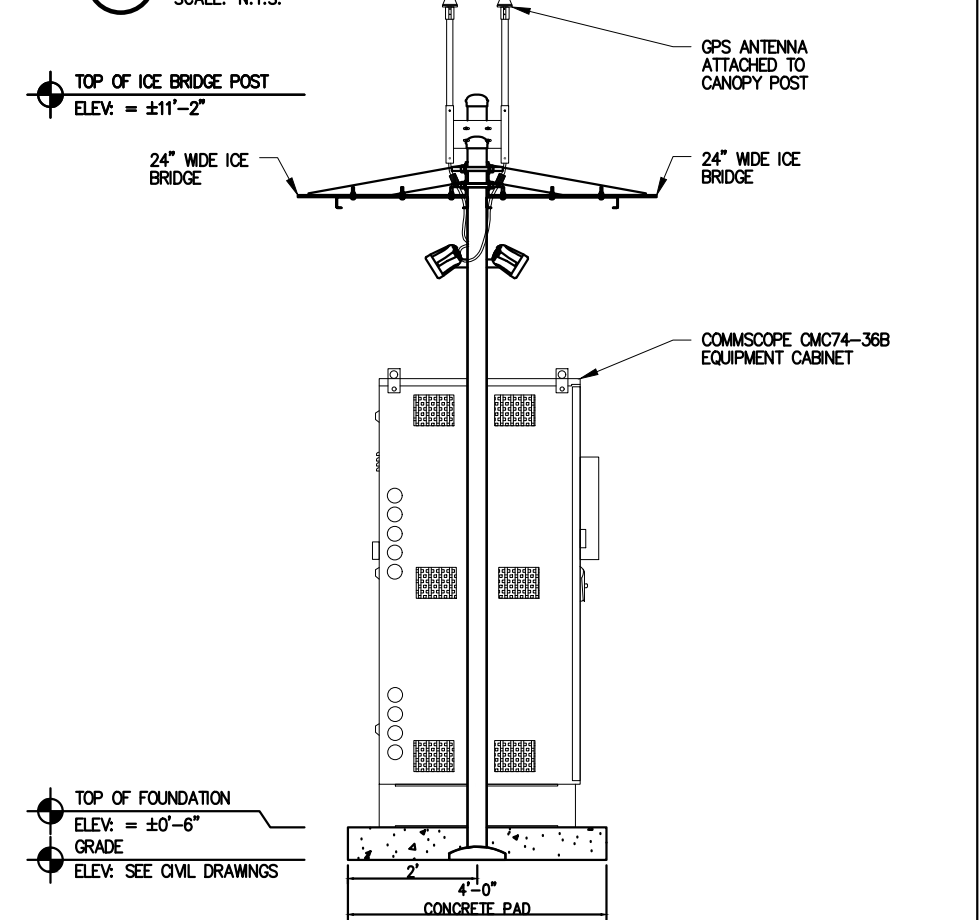
1 Equipment Pad Elevation
SCALE: N.T.S.



2 Equipment Pad Elevation
SCALE: N.T.S.



3 Equipment Pad Elevation
SCALE: N.T.S.



4 Equipment Pad Elevation
SCALE: N.T.S.



CERTIFICATION:

FOR REFERENCE ONLY

RELEASE DATE	DESCRIPTION
08-11-22	PRELIMINARY SITE PLAN
09-22-22	PRELIMINARY SITE PLAN
11-09-22	LEASE EXHIBIT
12-09-22	LEASE EXHIBIT
12-29-22	LEASE EXHIBIT
01-30-22	90% CDs
04-04-23	LEASE EXHIBIT
06-09-23	LEASE EXHIBIT
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DRAWN BY: JUT
CHECKED BY: MJA

SITE NAME:
FULL RELO SMITH & MAIN CELL SITE

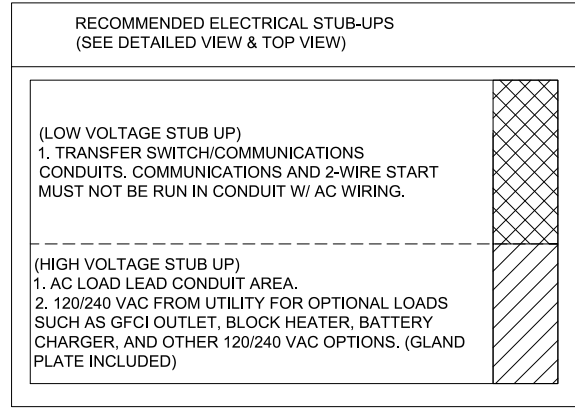
SITE ADDRESS:
IL-64
ST CHARLES, IL 60174

SHEET TITLE:
EQUIPMENT PAD - ELEV VIEW

A&E PROJECT NO.:

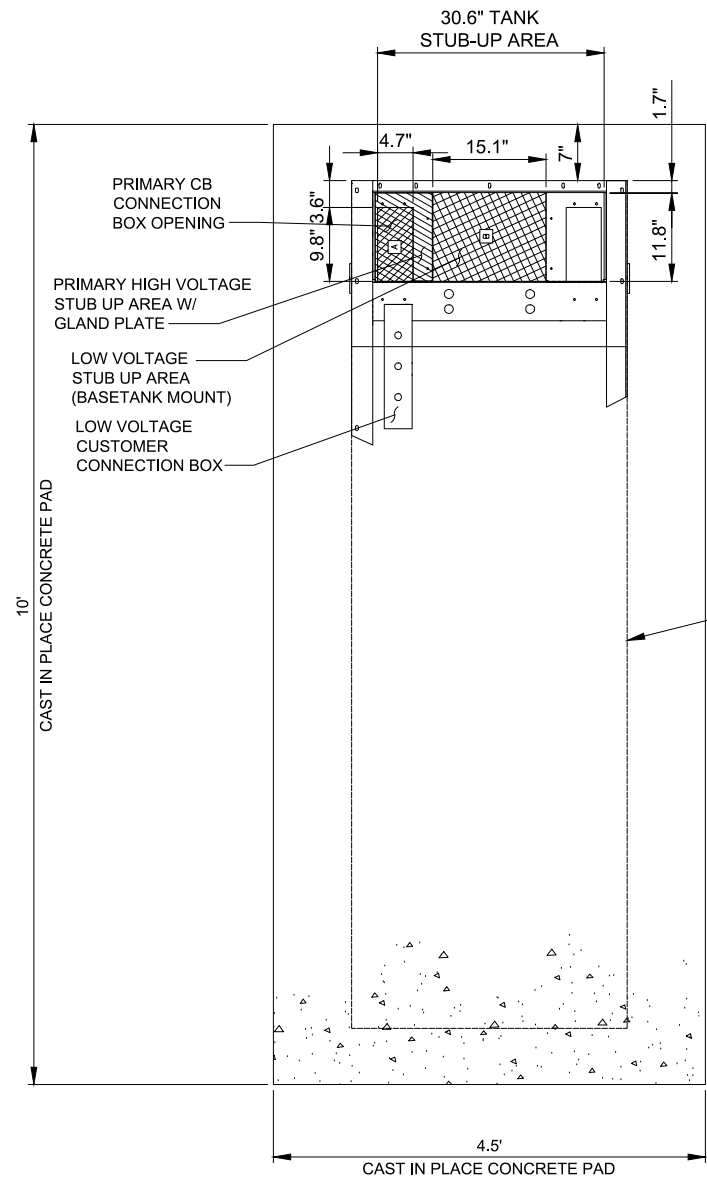
SHEET NO.:

VZW EP-2

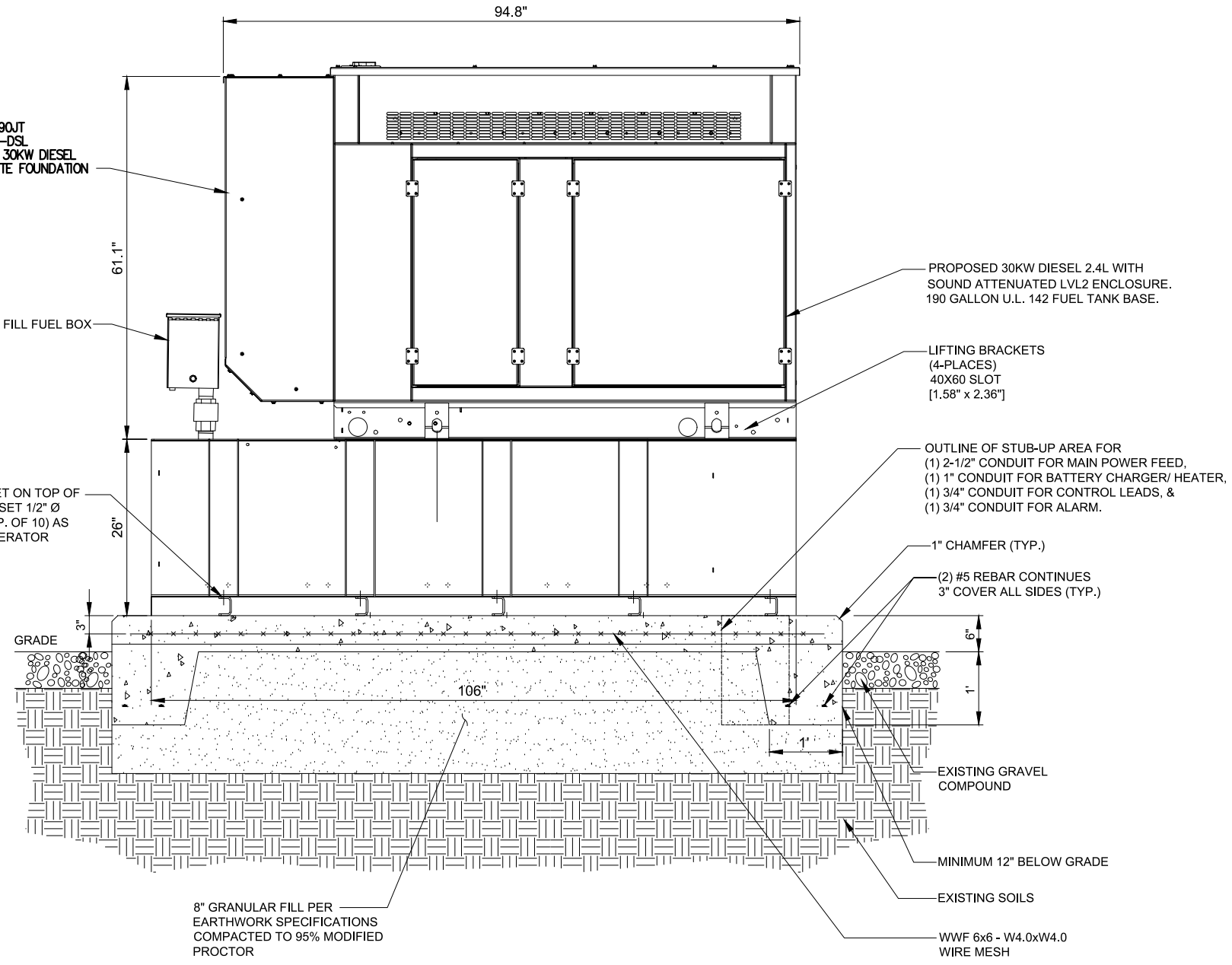


NOTES:

- SEE GENERATOR MANUFACTURE'S DRAWINGS FOR PHYSICAL LOCATION OF FUEL LINES, CONTROL AND POWER INTERCONNECTIONS AND OTHER INTERFACES THAT ARE TO CAST INTO THE CONCRETE. THE PREFERRED METHOD IS TO BRING THE CONDUIT THROUGH THE PAD TO THE UNDERSIDE OF THE GENERATOR (MINIMIZES RODENT DAMAGE). FINISH CONNECTIONS WITH FLEXIBLE CONDUIT PER GENERATOR MANUFACTURES SPECS. RIGID CONDUITS SHALL BE SECURED TO THE EXISTING SLAB, THEN BURIED BETWEEN SLAB AND SHELTER.
- THE GENERATOR SHALL BE LOCATED A MIN 5' AWAY FROM A COMBUSTIBLE WALL.
-THE GENERATOR SHALL BE LOCATED A MIN OF 3' AWAY FROM A NON-COMBUSTIBLE WALL.



GENERAC SD030-1PE-190JT
GEN-GENSET-WP-30KW-DSL
-1PH-190C-AHU-TANK 30KW DIESEL
GENERATOR ON CONCRETE FOUNDATION



① Generator Foundation -Plan View
SCALE: 1/2" = 1'-0"

② Generator Foundation - Side View
SCALE: 1/2" = 1'-0"



CERTIFICATION:

FOR REFERENCE ONLY

RELEASE DATE	DESCRIPTION
08-11-22	PRELIMINARY SITE PLAN
09-22-22	PRELIMINARY SITE PLAN
11-09-22	LEASE EXHIBIT
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01-30-22	90% CDs
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06-09-23	LEASE EXHIBIT
06-14-23	90% CDs

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DRAWN BY: JUT
CHECKED BY: MJA

SITE NAME:

**FULL RELO
SMITH & MAIN
CELL SITE**

SITE ADDRESS:

IL-64
ST CHARLES, IL 60174

SHEET TITLE:

GENERATOR
DETAILS

A&E PROJECT NO.:

SHEET NO.:

VZW EP-3

Antenna Summary

Added															
700	850	1900	AWS	CBRS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	Item ID
				LTE		ERICSSON	KRE105281/1	131	131.3	20(19) 150(20) 270(21)		false	PHYSICAL	3	
LTE	LTE 5G	LTE	LTE			COMMSCOPE	NH46SC-R2B	133	137	10(0001) 10(01) 120(0002) 120(02) 240(0003) 240(03)		false	PHYSICAL	6	000000001900056293
					5G	Ericsson	AIR6449	135	136.3	10(0001) 120(0002) 240(0003)		false	PHYSICAL	3	
Removed															
700	850	1900	AWS	CBRS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	Item ID
No data available.															
Retained															
700	850	1900	AWS	CBRS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	Item ID
No data available.															

Added: 12 Removed: 0 Retained: 0

Service Info

Service	Band	Channel	Power	Antenna	Height	Azimuth	Roll	Gain	Frequency	Bandwidth	Modulation	Code Rate	QAM	SPS	CP Length	CP Offset	CP Type	CP Position	CP Ratio	CP Type	CP Position	CP Ratio
LTE	700	131	20	KRE105281/1	131.3	20	19	150	270	10	QPSK	0.2	16	1	12.5	0	Normal	Normal	1/2	Normal	Normal	1/2
LTE	850	133	120	NH46SC-R2B	137	120	01	120	02	240	QPSK	0.2	16	1	12.5	0	Normal	Normal	1/2	Normal	Normal	1/2
LTE	1900	135	10	AIR6449	136.3	10	01	120	02	240	QPSK	0.2	16	1	12.5	0	Normal	Normal	1/2	Normal	Normal	1/2

RF EMISSIONS REPORT REQUIRED

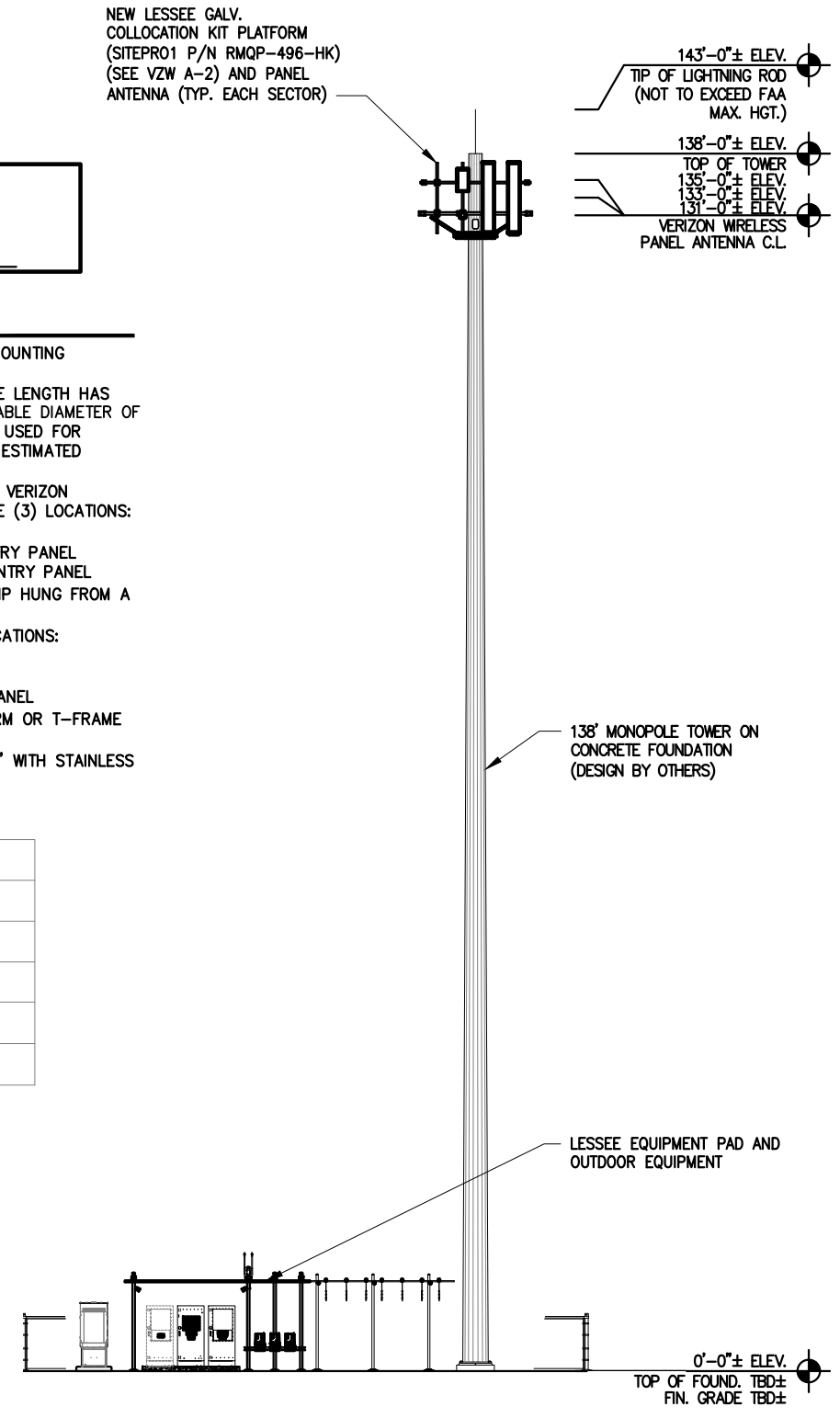
YES NO

DATE OF REPORT: _____

General Notes

- VERIFY EACH COAXIAL CABLE LENGTH, ROUTING, AND ALL MOUNTING APPURTENANCES WITH OWNER PRIOR TO ORDERING.
- THE MAXIMUM COAXIAL CABLE AND DC-FIBER HYBRID CABLE LENGTH HAS BEEN ESTIMATED AT 140.9 FEET WITH A CORRESPONDING CABLE DIAMETER OF 1 5/8". THIS CABLE LENGTH IS APPROXIMATE AND IS NOT USED FOR CONSTRUCTION. ACTUAL CABLE LENGTHS MAY VARY FROM ESTIMATED MAXIMUM LENGTH AND MUST BE VERIFIED.
- COLOR CODE ALL MAIN CABLES, VERIFY COLOR CODES WITH VERIZON CONSTRUCTION MANAGER. CABLES TO BE TAGGED IN THREE (3) LOCATIONS:
 - TOP OF TOWER AT ANTENNA
 - INSIDE EQUIPMENT PAD NEAR THE COAX BUILDING ENTRY PANEL
 - OUTSIDE EQUIPMENT PAD NEAR THE COAX BUILDING ENTRY PANEL
- EACH COAX CABLE SHALL BE SUPPORTED WITH COLUMN GRIP HUNG FROM A J-HOOK AT THE TOP OF THE TOWER.
- EACH COAX CABLE SHALL BE GROUNDED AT THREE (3) LOCATIONS:
 - TOWER PLATFORM OR T-FRAME
 - TOWER BASE
 - OUTSIDE EQUIPMENT PAD AT COAX BUILDING ENTRY PANEL
- COAX CABLE TO BE SUPPORTED EVERY 3' O.C. ON PLATFORM OR T-FRAME WITH STAINLESS STEEL HANGERS.
- COAX CABLES TO BE SUPPORTED ON THE TOWER EVERY 18" WITH STAINLESS STEEL HANGERS.

HYBRID CABLE ESTIMATE	
RAD CENTER	133'
OVP	10'
PORT HEIGHT	-9'
ICE BRIDGE	6.9'
ESTIMATED LENGTH	140.9'



1 Tower Elevation
SCALE: 1" = 20'-0"



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12-09-22	LEASE EXHIBIT
12-29-22	LEASE EXHIBIT
01-30-22	90% CDs
04-04-23	LEASE EXHIBIT
06-09-23	LEASE EXHIBIT
06-14-23	90% CDs

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DRAWN BY: JUT
CHECKED BY: MJA

SITE NAME:

**FULL RELO
SMITH & MAIN
CELL SITE**

SITE ADDRESS:

IL-64
ST CHARLES, IL 60174

SHEET TITLE:

TOWER ELEVATION,
ANTENNA INFORMATION,
NOTES AND DETAILS

A&E PROJECT NO.:

SHEET NO.:

VZW A-1



6202 Constitution Drive, Suite C
Fort Wayne, IN 46804

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CHECKED BY: MJA

SITE NAME:

**FULL RELO
SMITH & MAIN
CELL SITE**

SITE ADDRESS:

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ST CHARLES, IL 60174

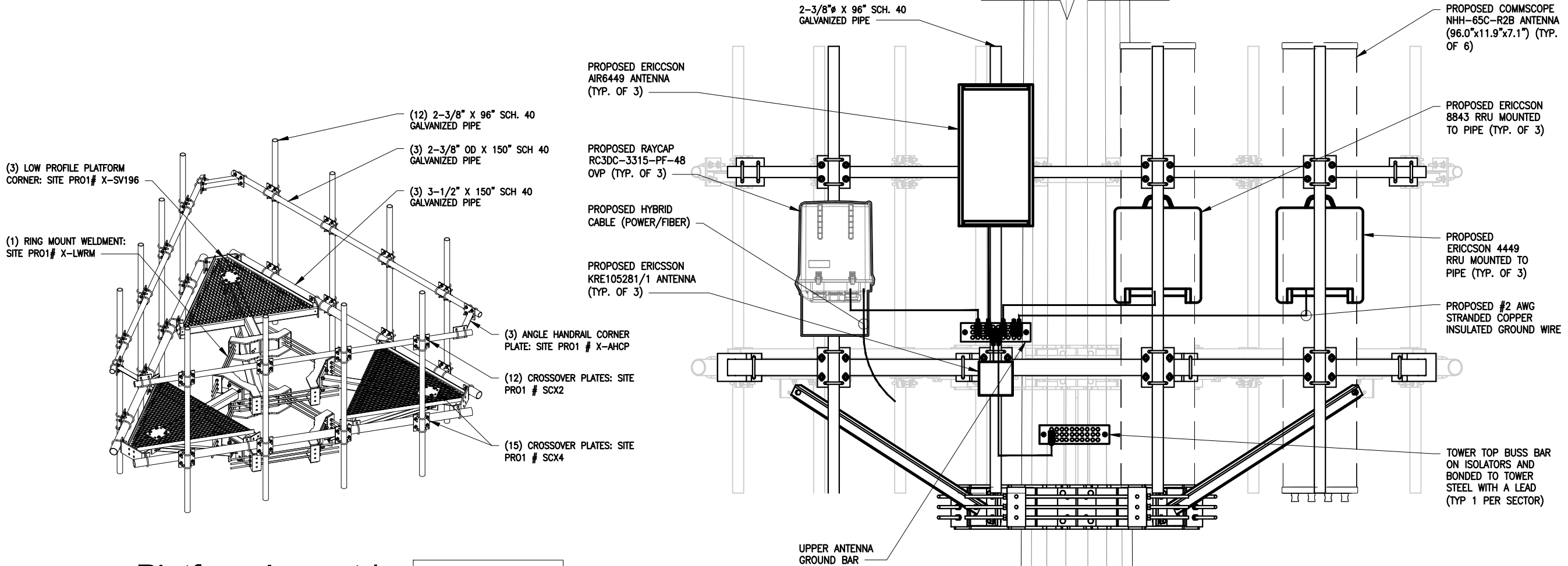
SHEET TITLE:

PLATFORM MOUNT
INFORMATION
NOTES & DETAILS

A&E PROJECT NO.:

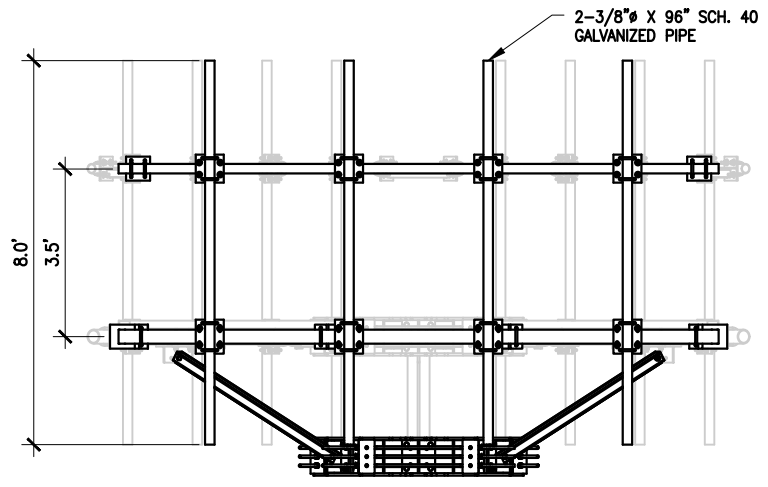
SHEET NO.:

VZW A-2



Antenna, RRU, TMA, & Surge Protector Mounting Detail

SCALE: 1/2" = 1'-0"



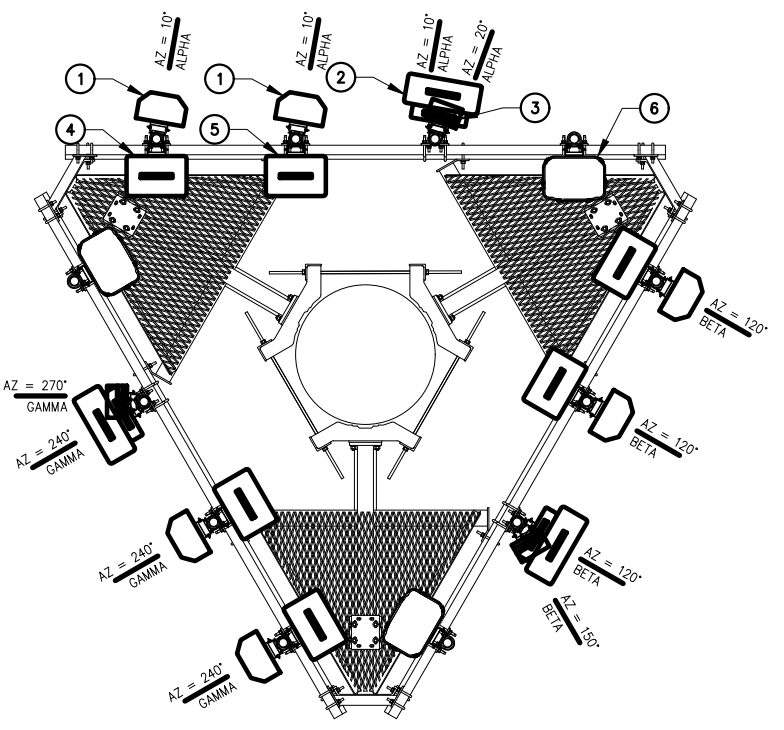
1 Elevation

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

4 Platform Isometric

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

ACTUAL EQUIPMENT MAY VARY
(SEE ECR FOR PROPOSED
EQUIPMENT CONFIGURATION)



3 Antenna Azimuth

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

PART NUMBER: RMQP-496-HK
DESCRIPTION: Co-Location Platform Kit
PRICE: 2448.72

A valmont COMPANY

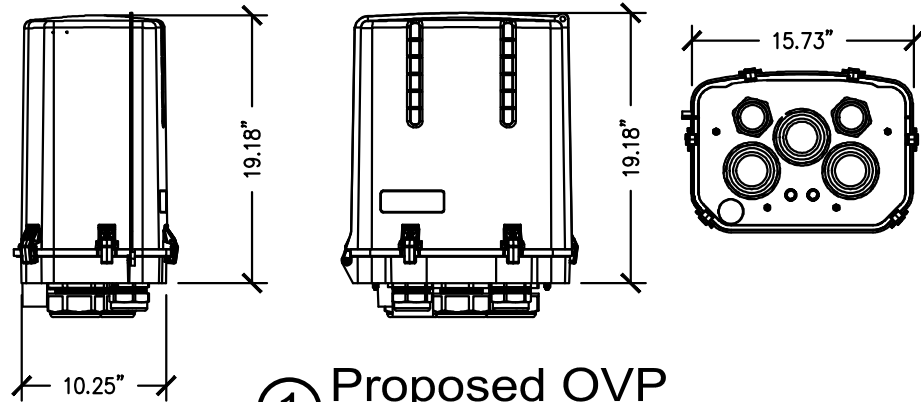
PLATFORM ORIENTATION 0°, 120°, 240°

1. PROPOSED COMMSCOPE NHH-65C-R2B ANTENNA (96.0"x11.9"x7.1") (TYP. OF 6)
2. PROPOSED ERICSSON AIR6449 ANTENNA (TYP. OF 3)
3. PROPOSED ERICSSON KRE105281/1 ANTENNA (TYP. OF 3)
4. PROPOSED ERICSSON 4449 RRU MOUNTED TO PIPE (TYP. OF 3)
5. PROPOSED ERICSSON 8843 RRU MOUNTED TO PIPE (TYP. OF 3)
6. PROPOSED RAYCAP RC3DC-3315-PF-48 OVP WITH RAYCAP 3315-ALM-RS485 ALARM MOUNTED TO PIPE (TYP. OF 3)

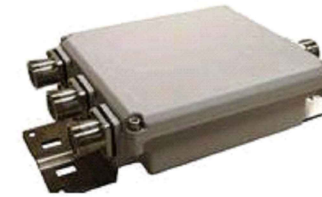
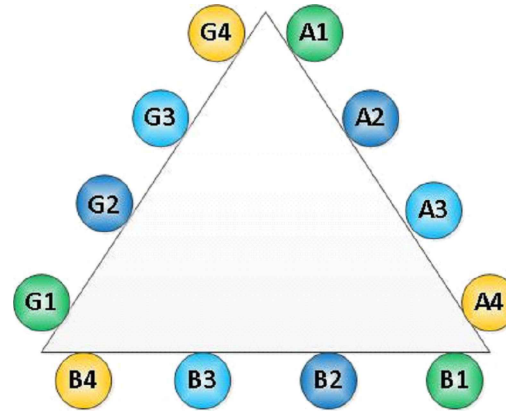
DC Surge Protection for RRH/Integrated Antenna Radio Head
RCMDC-3315-PF-48
 Tower / Base / Rooftop / Rooftop Distribution Models



Mounting Bracket Included
 Shown with optional 90° elbow for side entry. Can be installed on left or right side of unit.



① Proposed OVP
 N.T.S.



Triplexer



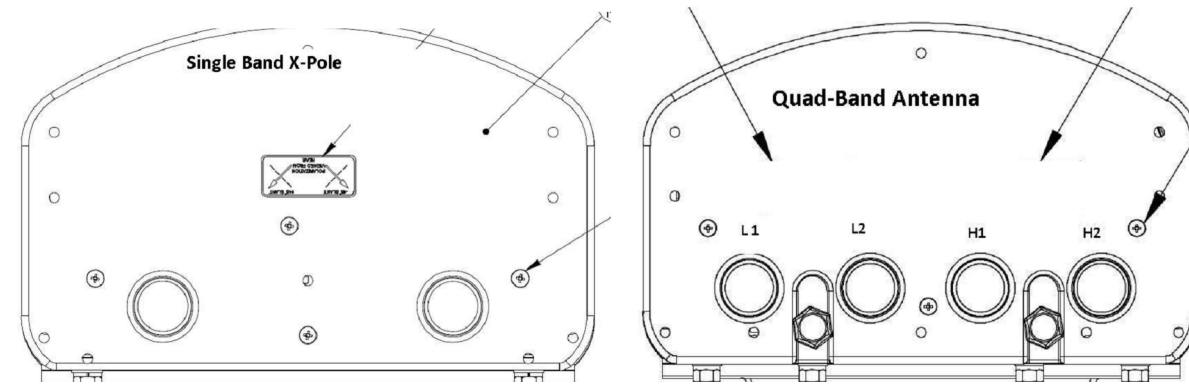
Diplexer



RET Portable Control Unit



RET Cable



③ Proposed Components
 N.T.S.

Radio 8843 & 4449

Dual Band	Radio 8843	Radio 4449
Band	Band2 (1.9GHz) Band66A (2.1GHz)	Band13 (700MHz) Band5 (850MHz)
Frequency	DL: 1930-1990MHz UL: 1850-1910MHz	DL: 2130-2180MHz UL: 1710-1780MHz
RBW	60 MHz	10 MHz
OBW	60 MHz	10 MHz
Carrier Bandwidth	5, 10, 15, 20 MHz	10 MHz
Total # of carriers	up to 24 per radio over both bands	up to 24 per radio over both bands
RF Chain	4T4R, 2T4R, 2T2R (SW configurable)	4T4R, 2T4R, 2T2R (SW configurable)
RF Output Power	320W	320W
RX Sensitivity	Typical: -82/86dBm @ 1Rx	Typical: -105.5, BS: -105.7 dBm @ 1Rx
Modulation	EVM: 64QAM<5%, 256QAM<3.5% QAM	EVM: 64QAM<5%, 256QAM<3.5% QAM
Input Power	38V-58.5 VDC	38V-58.5 VDC
Power Consumption	1373 (estimated) Watt @ 100% RF load, typical conditions	1344 (estimated) Watt @ 100% RF load, typical conditions
Size HxWxD*	28"x15"x10"	28"x15"x10"
Weight*	85 lbs	85 lbs
Operating Temperature	-40°C (-40°F) ~ 55°C (131°F) (Without solar load)	-40°C (-40°F) ~ 55°C (131°F) (Without solar load)
Cooling	Natural convection	Natural convection
CPRI Cascade	up to 4 ports	up to 4 ports
Optic Interface	2 CPRI ports: 2.5 G, 5 G, 10 G, 10.1 Gbps	2 CPRI ports: 2.5 G, 5 G, 10 G, 10.1 Gbps
RET & TMA Interface	1 ALD/RET port AISG v2.0	1 ALD/RET port AISG v2.0
Bias-T	Supported on 2 RF ports (first port supports one band, second port supports the other band)	Supported on 2 RF ports (first port supports one band, second port supports the other band)
NB-IoT	supported	supported
Alarm Input	2	2

RADIO 8843 RADIO 4449

Preliminary



April 2017

② Proposed RRU
 N.T.S.



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DRAWN BY: JUT
 CHECKED BY: MJA

SITE NAME:

FULL RELO
 SMITH & MAIN
 CELL SITE

SITE ADDRESS:

IL-64
 ST CHARLES, IL 60174

SHEET TITLE:

ANTENNA EQUIPMENT
 INFORMATION

A&E PROJECT NO.:

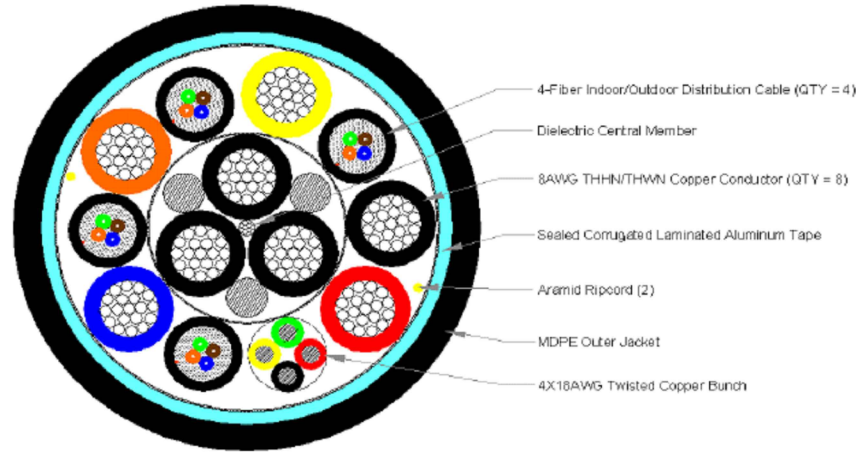
SHEET NO.:

VZW A-3

Remote Radio Hybrid Cable
Cell Tower Applications
Single-Cable Power and Fiber Solution
 RRH with Corrugated Aluminum Shield
 Fiber Cable: Four 4-fiber Subunits
 Copper Conductors: 8X8AWG THWN/THHN and a 4X18AWG Twisted Bunch



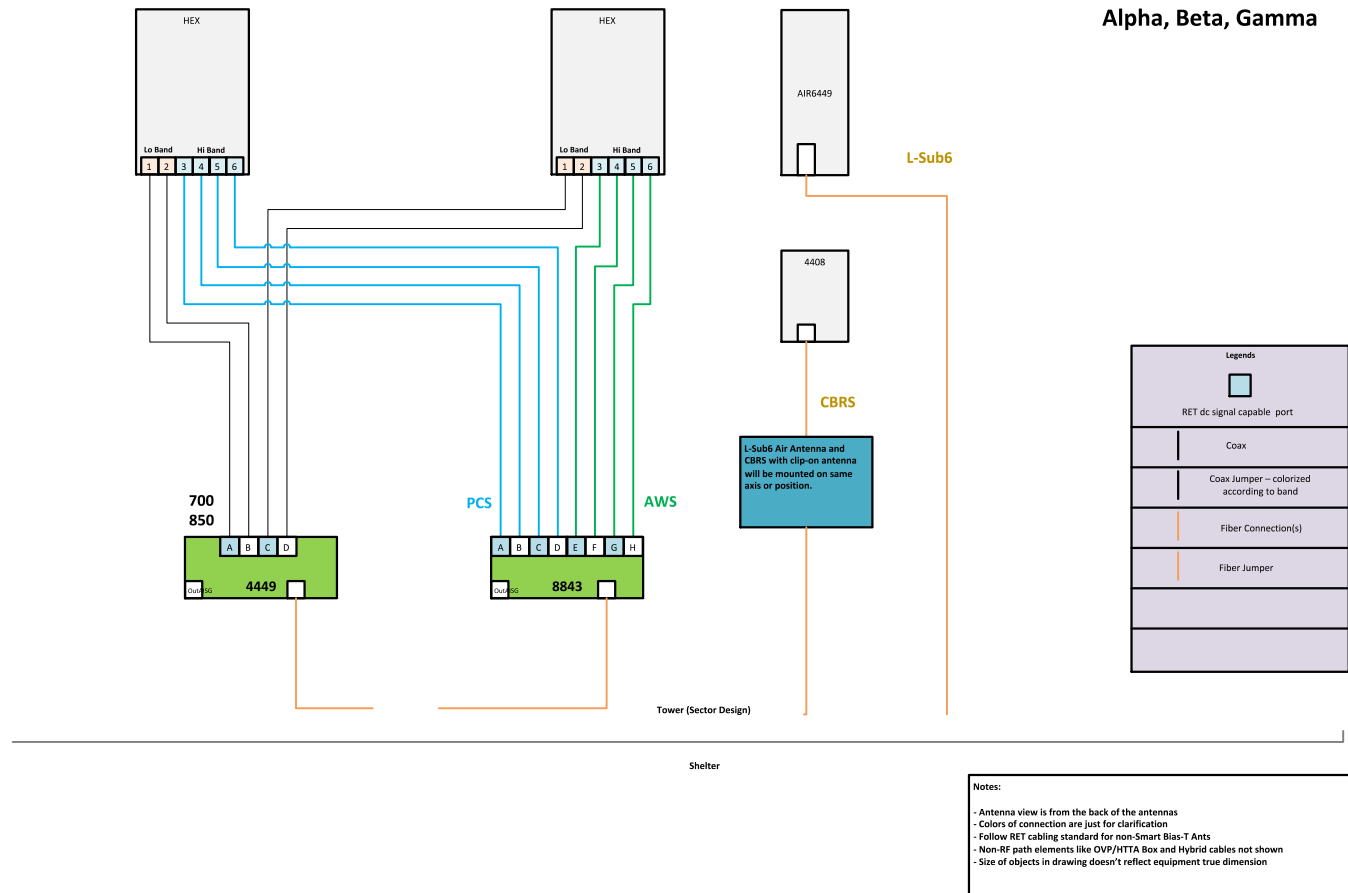
1100 CommScope Place SE
 P.O. Box 1729
 Hickory, NC 28603-1729
 (800) 652-1708
 (828) 324-2200
 Fax: (828) 328-3400
 Int'l Fax: (828) 323-4889
www.commscope.com



Cable Summary		Cable Type	RFF-16SM-808-418-APE
Outer jacket		MDPE	
Shielding		Corrugated Aluminum	
Water block		Tape	
Ripcord		Aramid (QTY = 2)	
Conductors		8 x 8AWG and 4X18AWG Bunch	
Fiber Cables		4 x 4 SM fibers	
Strength Member		GRP	
Optical Fiber Details for Fiber Cable 1		Fiber type	Single Mode G.652.D
Fiber Coating Diameter		0.9mm Tight Buffer	
Number of Fiber Subunits		4	
Fiber count (each subunit)		4	
Fiber Subunit Diameter (mm)		5.07	
Max attenuation, 1310 nm		0.5	dB/km
Max attenuation, 1550 nm		0.5	dB/km
Copper Conductor Details		Number, Size	8 x 8awg
DC resistance		0.628 (2.06)	ohm/kft (ohm/km)
Cable Details		Outer Diameter	1.09 (27.7) inch (mm)
Weight		0.75 (1.12)	lb/ft (kg/m)
Minimum Bend Radius - loaded		21.9 (555)	inch (mm)
Minimum Bend Radius - unloaded		10.9 (277)	inch (mm)
Max Tensile Load - short term		800 (3560)	lb (N)
Max Tensile Load - long term		240 (1070)	lb (N)
Operating Temperature Range		-40 to +80	°C
Installation Temperature Range		-30 to +70	°C
Storage Temperature Range		-40 to +80	°C
Crush resistance, FOTP-41		22	N/mm
Impact resistance, FOTP-25		20 impacts of 2.94 Nm	
Flexing, FOTP-104		5 cycles	
Twisting, FOTP-95		exceeds	



Drawings not to scale
 Specifications subject to change
 Revision Date: 6/28/12



1 Proposed Configuration

Equipment Summary														
Equipment Type	Location	700	850	1800	AWG	CBRS	L-Sub6	Make	Model	Cable Length	Cable Size	Instal Type	Quantity	Item ID
RRH	Tower							Ericsson	4449 B49 AC			PHYSICAL	3	00000001980068145
RRH	Tower	LTE	LTE					Ericsson	4449			PHYSICAL	3	00000001980068758
RRH	Tower							Ericsson	8843			PHYSICAL	3	00000001980068904
RRH	Tower						3G	Ericsson	AIR6449			PHYSICAL	3	00000001980068904
RRU	Ground (Outdoor)							Ericsson	KDU13781511			PHYSICAL	1	00000001980118031
Battery	Ground (Outdoor)							COMMSCOPE	70050540			PHYSICAL	1	00000001980064383
Cable Site Routers	Ground (Outdoor)							NOXICAP/PMC-801	3HE15386AA			PHYSICAL	1	00000001980182058
Power Plants	Ground (Outdoor)							ABB	10916M73			PHYSICAL	8	00000001980438927
Power Plants	Ground (Outdoor)							COMMSCOPE	70027283			PHYSICAL	2	00000001980063723
Power Plants	Ground (Outdoor)							COMMSCOPE	70024251			PHYSICAL	1	00000001980063340
Shelter/Cabinets	Ground (Outdoor)							COMMSCOPE	70020058			PHYSICAL	1	00000001980206238
Shelter/Cabinets	Ground (Outdoor)							COMMSCOPE	70020093			PHYSICAL	2	00000001980063418
Shelter/Cabinets	Ground (Outdoor)							COMMSCOPE	8K-88P-STDV-F#1			PHYSICAL	4	00000001980078991
Upconverter	Ground (Outdoor)							JOHNMEZZAL-802	PS-18-SYS-16-4B			PHYSICAL	1	00000001980405828
Upconverter	Ground (Outdoor)							JOHNMEZZAL-802	PS-PSU-162-4B			PHYSICAL	6	00000001980405927
Upconverter	Ground (Outdoor)							JOHNMEZZAL-802	PS-PSU-COV-4B			PHYSICAL	2	00000001980405932
Hybrid Cable	Tower							COMMSCOPE/ET-901	HFT1206-240V-A-4x4			PHYSICAL	3	00000001980000000
DXP Box	Shelter							RAYCAP	3315ALMAR548			PHYSICAL	3	00000001980079885
DXP Box	Tower							RAYCAP/NC-801	RVZDC-3315-PP-48		TSR Web	PHYSICAL	3	00000001980422867
DXP Box	Ground (Outdoor)							RAYCAP	RVZDC-4325-PP-48			PHYSICAL	2	00000001980410916
Other	Ground (Outdoor)							COMMSCOPE	70049443			PHYSICAL	1	00000001980009809
Alarm	Ground (Outdoor)							ASENTRA	180070748			PHYSICAL	1	180070748
Alarm	Ground (Outdoor)							ASENTRA	180070800			PHYSICAL	1	180070800
Alarm	Ground (Outdoor)							ASENTRA	180070812			PHYSICAL	1	180070812
Alarm	Tower							RAYCAP/NC-801	3315ALMAR548			PHYSICAL	3	00000001980079885
Alarm	Ground (Outdoor)							ASENTRA	S340CRANCA81			PHYSICAL	1	00000001980077179
RRU	Ground (Outdoor)							Ericsson	KDU137815111			PHYSICAL	2	00000001980081841



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12-09-22	LEASE EXHIBIT
12-29-22	LEASE EXHIBIT
01-30-22	90% CDs
04-04-23	LEASE EXHIBIT
06-09-23	LEASE EXHIBIT
06-14-23	90% CDs

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DRAWN BY: JUT
 CHECKED BY: MJA

SITE NAME:

FULL RELO SMITH & MAIN CELL SITE

SITE ADDRESS:

IL-64
 ST CHARLES, IL 60174

SHEET TITLE:

ANTENNA EQUIPMENT INFORMATION

A&E PROJECT NO.:

SHEET NO.:

VZW A-4



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SITE NAME:

**FULL RELO
SMITH & MAIN
CELL SITE**

SITE ADDRESS:

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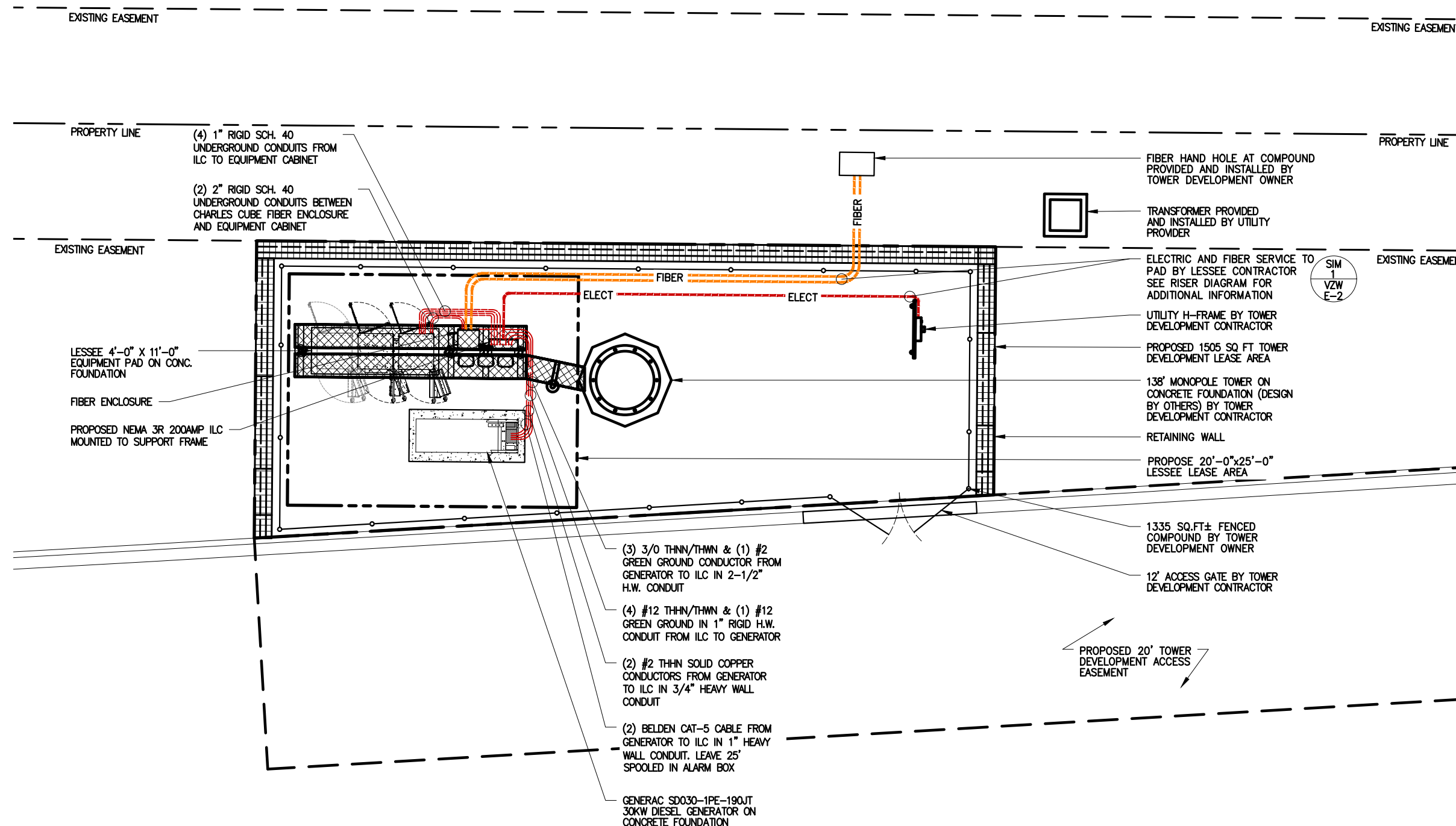
SHEET TITLE:

ENLARGED UTILITY PLAN

A&E PROJECT NO.:

SHEET NO.:

VZW E-1

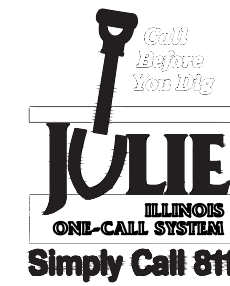
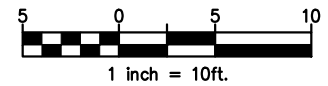


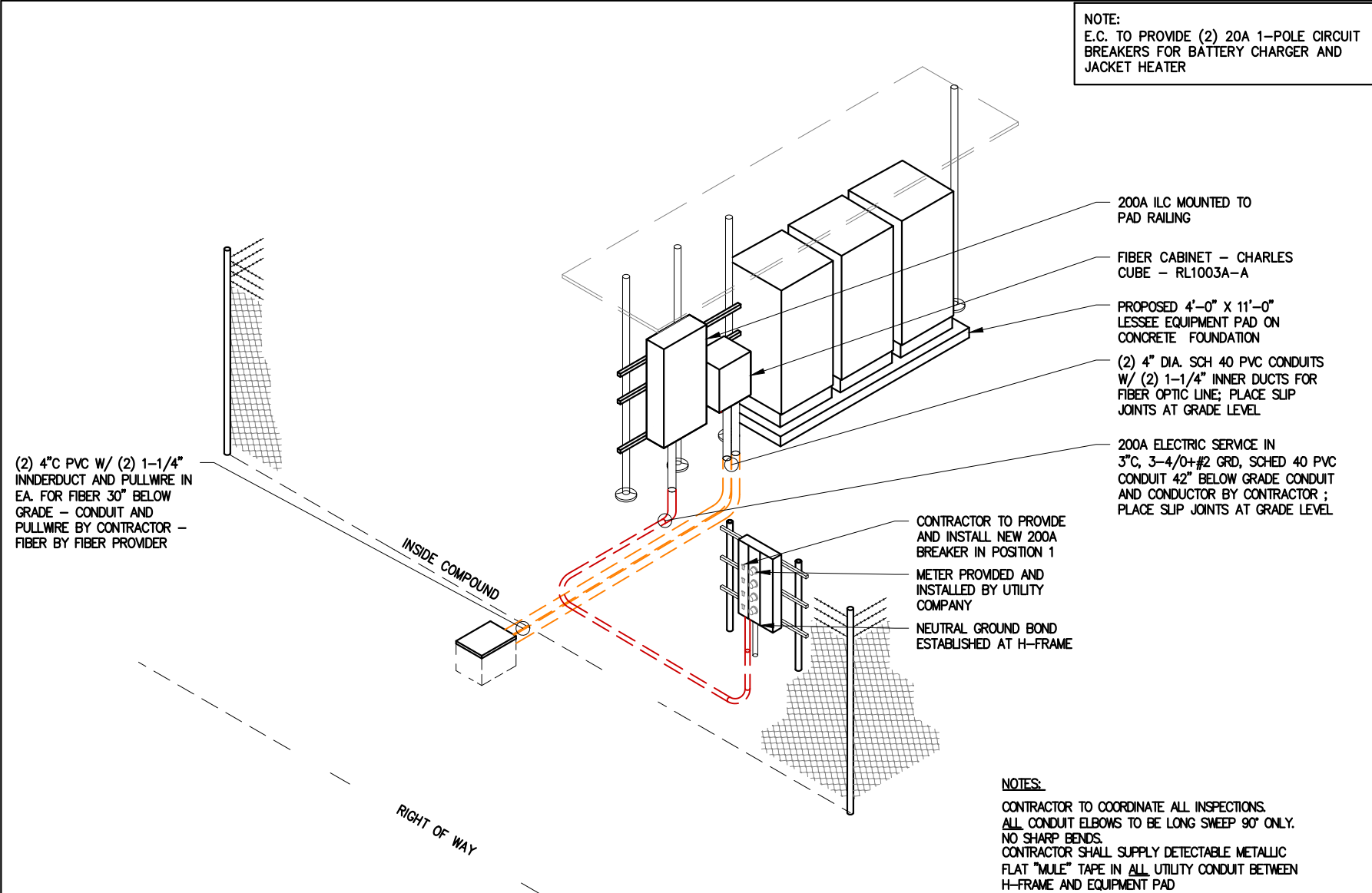
TRANSPORT BY OTHERS. FIBER COORDINATION IS NOT COMPLETE (PENDING FIBER CONTACT). PRIOR TO CONSTRUCTION, CONTACT DESIGNER FOR UPDATE.

Utility Color Legend

- █ ELECTRIC
- █ GAS, OIL, STEAM
- █ COMMUNICATIONS
- █ POTABLE WATER
- █ RECLAIMED WATER
- █ SEWER/ DRAINAGE
- █ SURVEY MARKS

Enlarged Utility Plan

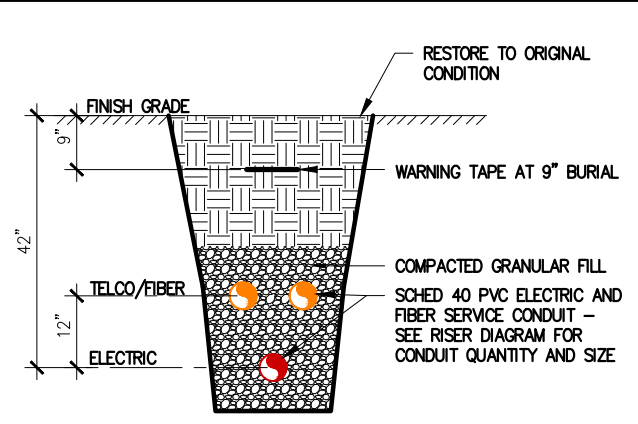




1 Utility Riser Diagram
SCALE: N.T.S.

Utility Color Legend

Red	ELECTRIC
Yellow	GAS, OIL, STEAM
Orange	COMMUNICATIONS
Blue	POTABLE WATER
Purple	RECLAIMED WATER
Green	SEWER/ DRAINAGE
Pink	SURVEY MARKS



2 Buried Utility
SCALE: 3/8" = 1'-0"

NOTES:
CONTRACTOR TO COORDINATE ALL INSPECTIONS.
ALL CONDUIT ELBOWS TO BE LONG SWEEP 90° ONLY. NO SHARP BENDS.
CONTRACTOR SHALL SUPPLY DETECTABLE METALLIC FLAT "MULE" TAPE IN ALL UTILITY CONDUIT BETWEEN H-FRAME AND EQUIPMENT PAD



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DRAWN BY: JUT
CHECKED BY: MJA

SITE NAME:
**FULL RELO
SMITH & MAIN
CELL SITE**

SITE ADDRESS:
IL-64
ST CHARLES, IL 60174

SHEET TITLE:
ELECTRICAL AND TELCO
UTILITY DETAILS

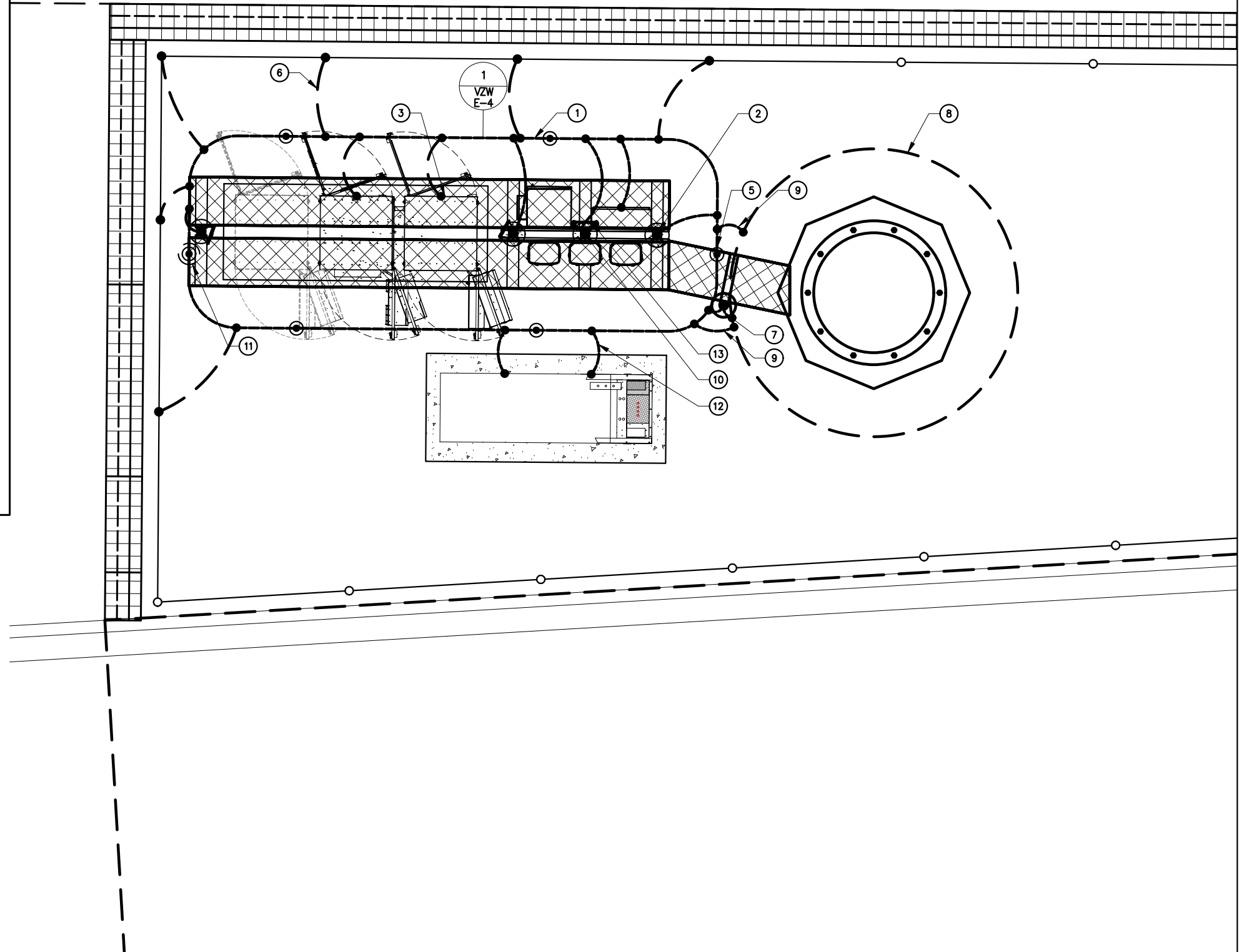
A&E PROJECT NO.:

SHEET NO.:

VZW E-2

TYPICAL GROUNDING NOTES

1. #2 AWG TINNED SOLID BARE COPPER CONDUCTOR 42" BELOW GRADE (TYPICAL) MINIMUM 24" BENDING RADIUS
2. PAD CORNER POST, STEEL COLUMN, STEEL BEAM & CANOPY GROUND
3. CABINET GROUND BOLTED TO UNIT HOUSING
4. DISCONNECT AND ELECTRIC SERVICE GROUND TO GROUND ROD
5. 5/8" X 10' COPPER CLAD GROUND ROD
6. GROUND CHAIN LINK FENCE (TYPICAL) EXOTHERMIC CONNECTION (TYPE VS) GROUND FENCE POSTS WITHIN 6 FEET OF PAD AND 25 FEET OF TOWER. (SEE DETAIL, SHEET VZW E-5.)
7. GROUND CABLE WAVEGUIDE BRIDGE (TYP.) BY ELECTRICAL CONTRACTOR.
8. TOWER GROUND RING (V.I.F.)
9. BOND PROPOSED TOWER GROUND RING TO PROPOSED GROUND RING WITH #2 AWG TINNED SOLID COPPER CONDUCTOR IN 2 LOCATIONS.
10. TWO #2 LEADS FROM THE EGR TO THE GROUND BAR AT UTILITY FRAME LOCATED ON EQUIPMENT PAD STEEL. CADWELD AT EGR AND DOUBLE HOLE LUGS ON EQUIPMENT PAD.
11. COPPER CLAD GROUND ROD WITH INSPECTION WELL TOP OF GROUND ROD MAX 24" BURY. SEE DETAIL SHEET VZW E-5.
12. EXTEND GROUND CONDUCTORS IN 1/2" RIGID H.W. CONDUIT ADJACENT TO PAD, OFFSET AND ATTACH TO EXTERIOR OF GENERATOR HOUSING AND EXTEND TO GROUND LUGS AS REQUIRED, VERIFY LOCATION WITH GENERAC.
13. MGB MOUNTED UNDER PERIMETER BEAM



Grounding Legend

- ⊙ GROUND ROD
- ⊕ GROUND SYSTEM TEST WELL (HAND HOLE)
- CADWELD CONNECTION
- FENCE LINE

Enlarged Grounding Plan



MISSION 1
COMMUNICATIONS

6202 Constitution Drive, Suite C
Fort Wayne, IN 46804

CERTIFICATION:

**PRELIMINARY
NOT FOR
CONSTRUCTION**

RELEASE

DATE	DESCRIPTION
08-11-22	PRELIMINARY SITE PLAN
09-22-22	PRELIMINARY SITE PLAN
11-09-22	LEASE EXHIBIT
12-09-22	LEASE EXHIBIT
12-29-22	LEASE EXHIBIT
01-30-22	90% CDs
04-04-23	LEASE EXHIBIT
06-09-23	LEASE EXHIBIT
06-14-23	90% CDs

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DRAWN BY: JUT
CHECKED BY: MJA

SITE NAME:

**FULL RELO
SMITH & MAIN
CELL SITE**

SITE ADDRESS:

IL-64
ST CHARLES, IL 60174

SHEET TITLE:

ENLARGED GROUNDING
PLAN

A&E PROJECT NO.:

SHEET NO.:

VZW E-3

CERTIFICATION:

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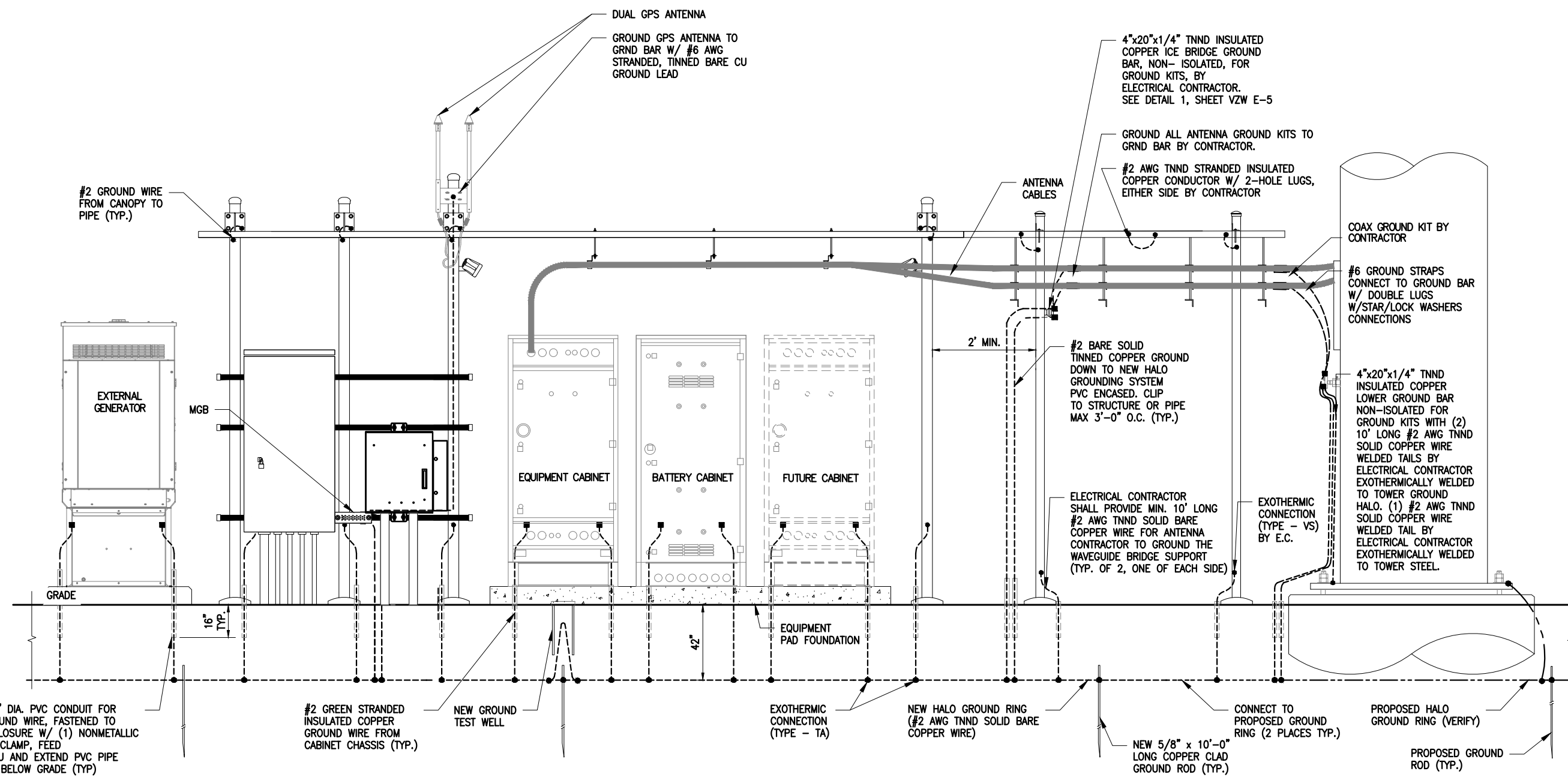
SHEET TITLE:

GROUNDING SCHEMATIC
AND DETAILS

A&E PROJECT NO.:

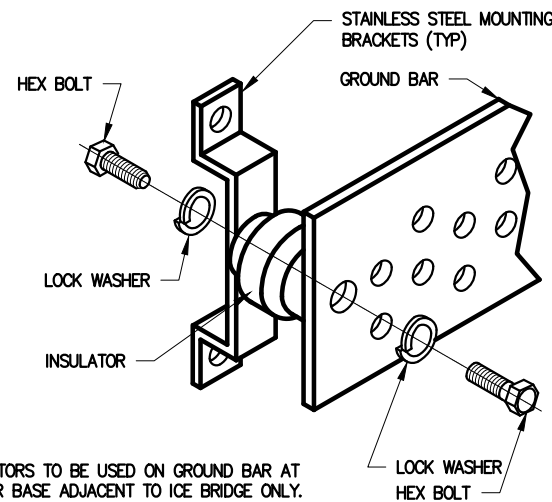
SHEET NO.:

VZW E-4



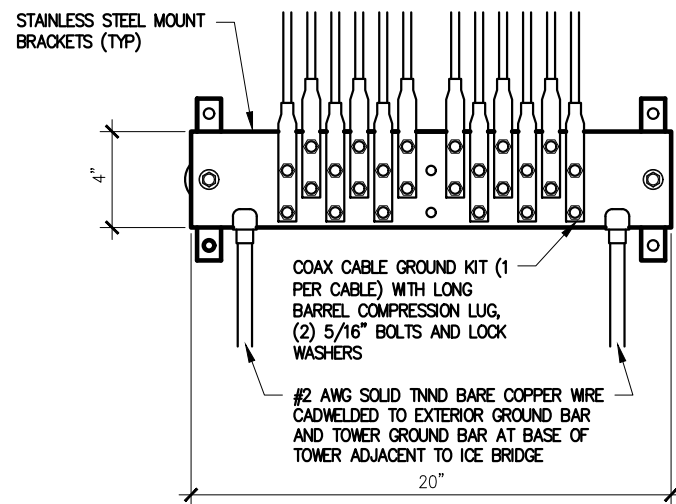
**Skid and Tower
Grounding Elevation Schematic**
1 SCALE: N.T.S.

SEE SITE PLAN FOR EQUIPMENT
LOCATION AND ORIENTATION

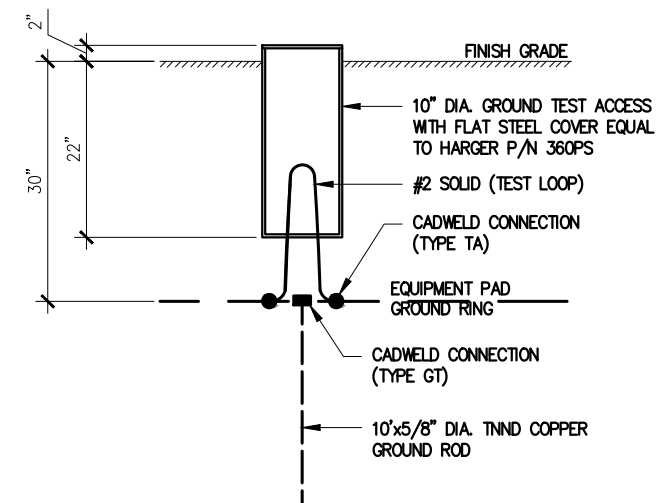


NOTE:
ISOLATORS TO BE USED ON GROUND BAR AT TOWER BASE ADJACENT TO ICE BRIDGE ONLY. GROUND BAR AT ANTENNA ELEVATION TO BE ATTACHED DIRECTLY TO TOWER STEEL.

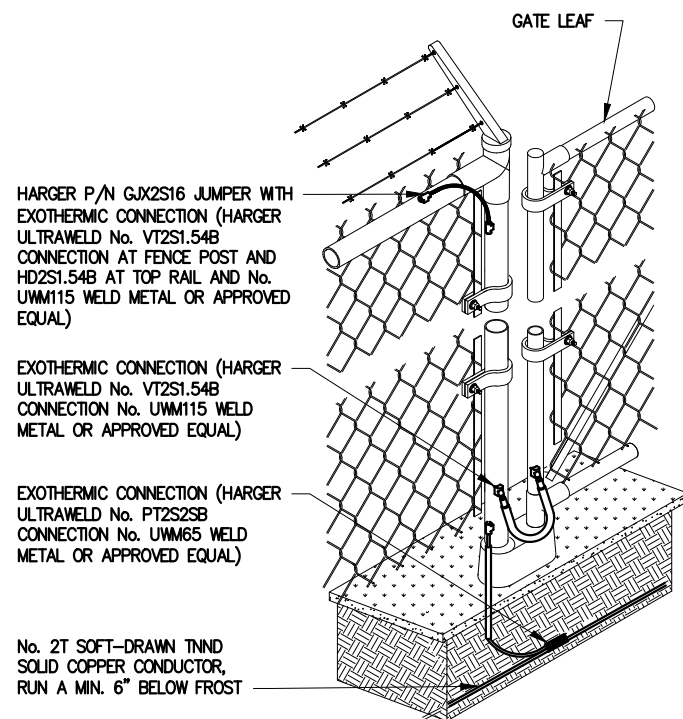
1 Ground Bar Installation
SCALE: 3" = 1'-0"



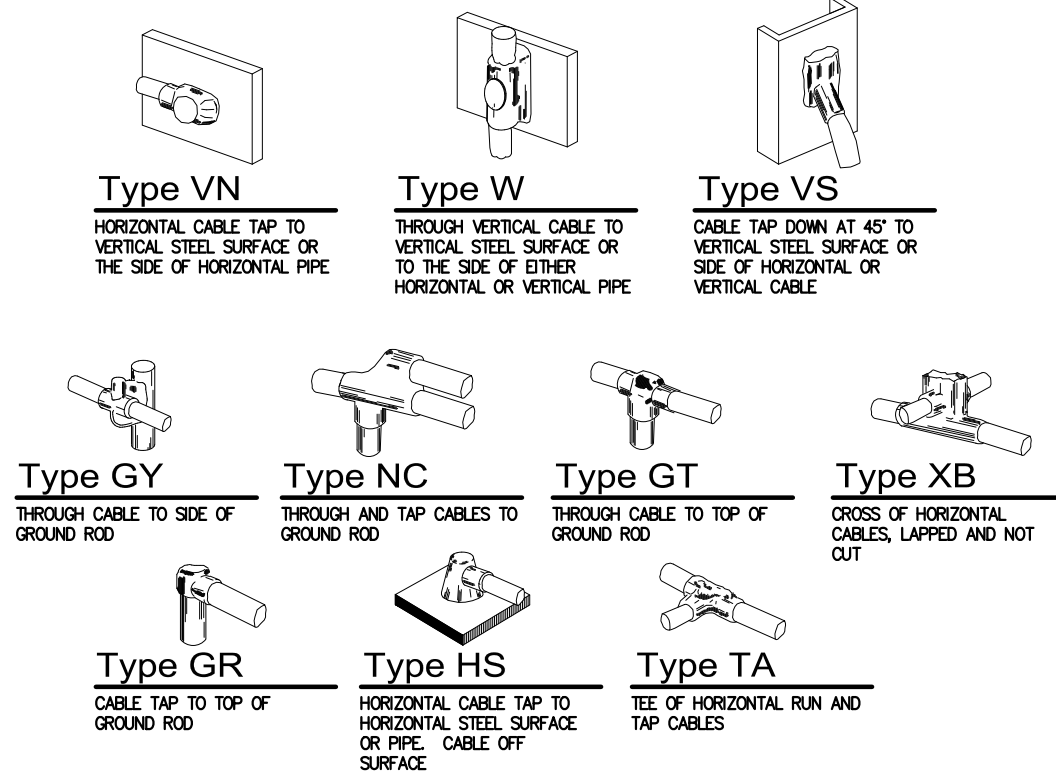
2 Tower Ground Bar
SCALE: 1 1/2" = 1'-0"



3 Grounding Inspection Test Well
SCALE: 1/2" = 1'-0"



4 Fence and Gate Grounding
SCALE: N.T.S.



5 Exothermic (Cadweld) Details
SCALE: N.T.S.



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SITE ADDRESS:

IL-64
ST CHARLES, IL 60174

SHEET TITLE:

GROUNDING DETAILS

A&E PROJECT NO.:

SHEET NO.:

VZW E-5

GENERAL

THE CONSTRUCTION DOCUMENT DRAWINGS ARE INTERRELATED. WHEN PERFORMING THE WORK, EACH CONTRACTOR MUST REFER TO ALL DRAWINGS. COORDINATION IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

DIVISION 1: GENERAL REQUIREMENTS

SECTION 01700 - PROJECT CLOSEOUT

PART 1 - GENERAL

- 1. OBTAIN AND SUBMIT RELEASES ENABLING THE OWNER UNRESTRICTED USE OF THE WORK AND ACCESS TO SERVICES AND UTILITIES; INCLUDE OCCUPANCY PERMITS, OPERATING CERTIFICATES AND SIMILAR RELEASES.
2. SUBMIT RECORD DRAWINGS, DAMAGE OR SETTLEMENT SURVEY, PROPERTY SURVEY, AND SIMILAR FINAL RECORD INFORMATION.
3. COMPLETE FINAL CLEAN UP REQUIREMENTS, INCLUDING TOUCH-UP PAINTING, TOUCH UP AND OTHERWISE REPAIR AND RESTORE MARRED EXPOSED FINISHES.

PART 2 - FINAL CLEANING

- 1. COMPLETE THE FOLLOWING CLEANING OPERATIONS BEFORE REQUESTING INSPECTION FOR CERTIFICATION OF COMPLETION.
A. CLEAN THE PROJECT SITE, YARD AND GROUNDS, IN AREAS DISTURBED BY CONSTRUCTION ACTIVITIES, INCLUDING LANDSCAPE DEVELOPMENT AREAS, OF RUBBISH, WASTE MATERIALS, LITTER AND FOREIGN SUBSTANCES. SWEEP PAVED AREAS BROOM CLEAN. REMOVE PETRO-CHEMICAL SPILLS, STAINS AND OTHER FOREIGN DEPOSITS. RAKE GROUNDS THAT ARE NEITHER PLANTED NOR PAVED, TO A SMOOTH EVEN-TEXTURED SURFACE.
B. REMOVE TOOLS, CONSTRUCTION EQUIPMENT, MACHINERY AND SURPLUS MATERIAL FROM THE SITE.
C. REMOVE SNOW AND ICE TO PROVIDE SAFE ACCESS TO THE SITE AND EQUIPMENT ENCLOSURE.
D. CLEAN EXPOSED EXTERIOR AND INTERIOR HARD-SURFACED FINISHES TO A DIRT-FREE CONDITION, FREE OF STAINS, FILMS AND SIMILAR FOREIGN SUBSTANCES. AVOID DISTURBING NATURAL WEATHERING OF EXTERIOR SURFACES.
E. REMOVE DEBRIS FROM LIMITED ACCESS SPACES, INCLUDING ROOFS, EQUIPMENT ENCLOSURE, MANHOLES, AND SIMILAR SPACES.
F. REMOVE LABELS THAT ARE NOT PERMANENT LABELS.
G. TOUCH-UP AND OTHERWISE REPAIR AND RESTORE MARRED EXPOSED FINISHES AND SURFACES. REPLACE FINISHES AND SURFACES THAT CAN NOT SATISFACTORILY REPAIRED OR RESTORED, OR THAT SHOW EVIDENCE OF REPAIR OR RESTORATION. DO NOT PAINT OVER "UL" AND SIMILAR LABELS, INCLUDING ELECTRICAL NAME PLATES.
H. LEAVE THE PROJECT CLEAN AND READY FOR OCCUPANCY.
I. DUST-OFF ALL EQUIPMENT, INCLUDING BATTERY PACKS, WITHIN EQUIPMENT ENCLOSURE.
J. STRIP, WASH AND WAX FLOOR WITHIN EQUIPMENT ENCLOSURE WITH NON-STATIC WAX.
2. REMOVAL OF PROTECTION: REMOVE TEMPORARY PROTECTION AND FACILITIES INSTALLED DURING CONSTRUCTION TO PROTECT PREVIOUSLY COMPLETED INSTALLATIONS DURING THE REMAINDER OF THE CONSTRUCTION PERIOD.

DIVISION 2: SITE WORK

SECTION 02200 - EARTHWORK AND DRAINAGE

PART 1 - GENERAL

- 1. WORK INCLUDED: SEE SITE PLAN
2. DESCRIPTIONS
ACCESS DRIVE WITH TURNAROUND AREA, LEASE AREA, AND IF APPLICABLE UNDERGROUND UTILITY EASEMENTS ARE TO BE CONSTRUCTED TO PROVIDE A WELL DRAINED, EASILY MAINTAINED, EVEN SURFACE FOR MATERIAL AND EQUIPMENT DELIVERIES AND MAINTENANCE PERSONNEL ACCESS.
3. QUALITY ASSURANCE
A. APPLY SOIL STERILIZER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS (AS NEEDED).
B. APPLY AND MAINTAIN GRASS SEED AS RECOMMENDED BY THE SEED PRODUCER (IF REQUIRED).
C. PLACE AND MAINTAIN VEGETATION LANDSCAPING, IF INCLUDED WITHIN THE CONTRACT, AS RECOMMENDED BY NURSERY INDUSTRY STANDARDS.
4. SEQUENCING
A. CONFIRM SURVEY STAKES AND SET ELEVATION STAKES PRIOR TO ANY CONSTRUCTION.
B. COMPLETELY GRUB THE ACCESS DRIVE WITH TURNAROUND, UNDERGROUND UTILITY EASEMENTS, (IF APPLICABLE) AND LEASE AREA PRIOR TO FOUNDATION CONSTRUCTION, PLACEMENT OF BACKFILL AND SUB-BASE MATERIAL.
C. CONSTRUCT TEMPORARY CONSTRUCTION AREA ALONG ACCESS DRIVE.
D. BRING THE LEASE AREA AND ACCESS DRIVE WITH TURNAROUND TO BASE COURSE ELEVATION PRIOR TO INSTALLING FOUNDATION.
E. APPLY SOIL STERILIZER PRIOR TO PLACING BASE MATERIALS.
F. GRADE, SEED, FERTILIZE, AND MULCH ALL AREAS DISTURBED BY CONSTRUCTION (INCLUDING UNDERGROUND UTILITY EASEMENTS) IMMEDIATELY AFTER BRINGING LEASE AREA AND ACCESS DRIVE WITH TURNAROUND TO BASE COURSE ELEVATION, WATER TO ENSURE GROWTH.
G. REMOVE GRAVEL FROM TEMPORARY CONSTRUCTION ZONE TO AN AUTHORIZED AREA OR AS DIRECTED BY PROJECT MANAGER.
H. AFTER APPLICATIONS OF FINAL SURFACES, APPLY SOIL STERILIZER TO STONE SURFACES.
5. SUBMITTALS
A. BEFORE CONSTRUCTION
IF LANDSCAPING IS APPLICABLE TO THE CONTRACT, SUBMIT TWO COPIES OF THE LANDSCAPE PLAN UNDER NURSERY LETTERHEAD. IF A LANDSCAPE ALLOWANCE WAS INCLUDED IN THE CONTRACT, PROVIDE AN ITEMIZED LISTING OF PROPOSED COSTS ON NURSERY LETTERHEAD (REFER TO PLANS FOR LANDSCAPING REQUIREMENTS).

- B. AFTER CONSTRUCTION
1. MANUFACTURER'S DESCRIPTION OF PRODUCT AND WARRANTY STATEMENT ON SOIL STERILIZED.
2. MANUFACTURER'S DESCRIPTION OF PRODUCT ON GRASS SEED AND FERTILIZER
3. LANDSCAPING WARRANTY STATEMENT.
6. WARRANTY
A. IN ADDITION TO THE WARRANTY ON ALL CONSTRUCTION COVERED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL REPAIR ALL DAMAGE AND RESTORE AREA AS CLOSE TO ORIGINAL CONDITION AS POSSIBLE AT SITE AND SURROUNDINGS.
B. SOIL STERILIZATION APPLICATION TO GUARANTEE VEGETATION FREE ROAD AND SITE AREAS FOR ONE YEAR FROM DATE OF FINAL INSPECTION.
C. DISTURBED AREAS WILL REFLECT GROWTH OF NEW GRASS COVER PRIOR TO FINAL INSPECTION.
D. LANDSCAPING, IF INCLUDED WITHIN THE SCOPE OF THE CONTRACT, WILL BE GUARANTEED FOR ONE YEAR FROM DATE OF FINAL INSPECTION.

PART 2 - PRODUCTS

- 1. MATERIALS
A. SOIL STERILIZER SHALL BE EPA-REGISTERED, PRE-EMERGENCE LIQUID:
TOTAL KILL PRODUCT 910 EPA 10292-7 PHASAR CORPORATION P.O. BOX 5123 DEARBORN, MI 48128 (313) 563-8000
AMBUSH HERBICIDE EPA REGISTERED FRAMAR INDUSTRIAL PRODUCTS 1435 MORRIS AVE. UNION, NJ 07083 (800) 526-4924
B. ROAD AND SITE MATERIALS SHALL CONFORM TO MDOT SPECIFICATIONS FILL MATERIAL (UNLESS OTHERWISE NOTED) - ACCEPTABLE SELECT FILL SHALL BE IN ACCORDANCE WITH STATE DEPARTMENT OF HIGHWAY AND TRANSPORTATION STANDARD SPECIFICATIONS.
C. SOIL STABILIZER FABRIC SHALL BE MIRAFI - 500X.

PART 3 - EXECUTION

- 1. INSPECTIONS
LOCAL BUILDING INSPECTORS SHALL BE NOTIFIED NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS, UNLESS OTHERWISE SPECIFIED BY JURISDICTION.
2. PREPARATION
A. CLEAR TREES, BRUSH AND DEBRIS FROM LEASE AREA, ACCESS DRIVE WITH TURN-AROUND AND UNDER GROUND UTILITY EASEMENTS AS REQUIRED FOR CONSTRUCTION.
B. PRIOR TO OTHER EXCAVATION AND CONSTRUCTION, GRUB ORGANIC MATERIAL TO A MINIMUM OF SIX (6) INCHES BELOW GRADE.
C. UNLESS OTHERWISE INSTRUCTED BY VERIZON WIRELESS, TRANSPORT ALL REMOVED TREES, BRUSH AND DEBRIS FROM THE PROPERTY TO AN AUTHORIZED LANDFILL.
D. PRIOR TO PLACEMENT OF FILL OR BASE MATERIALS, ROLL THE SOIL.
E. WHERE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, LINE THE AREAS WITH STABILIZER MAT PRIOR TO PLACEMENT OF FILL OR BASE MATERIAL.
3. INSTALLATION
A. GRADE OR FILL THE LEASE AREA AND ACCESS DRIVE WITH TURNAROUND AS REQUIRED IN ORDER THAT UPON DISTRIBUTION OF SPOILS, RESULTING FROM EXCAVATIONS, THE RESULTING GRADE WILL CORRESPOND WITH SAID SUB-BASE COURSE. ELEVATIONS ARE TO BE CALCULATED FROM BENCHMARK, FINISH GRADES, OR INDICATED SLOPES.
B. CLEAR EXCESS SPOILS, IF ANY, FROM JOB SITE AND DO NOT SPREAD BEYOND THE LIMITS OF PROJECT AREA UNLESS AUTHORIZED BY VERIZON WIRELESS CONSTRUCTION MANAGER AND AGREED TO BY LANDOWNER.
C. BRING THE ACCESS DRIVE WITH TURNAROUND TO BASE COURSE ELEVATION TO FACILITATE CONSTRUCTION AND OBSERVATION DURING CONSTRUCTION OF THE SITE.
D. AVOID CREATING DEPRESSIONS WHERE WATER MAY POND.
E. THE CONTRACT SHALL INCLUDE GRADING, BANKING, AND DITCHING, UNLESS OTHERWISE INDICATED.
F. WHEN IMPROVING AN EXISTING ACCESS DRIVE, GRADE THE EXISTING DRIVE TO REMOVE ANY ORGANIC MATTER AND SMOOTH THE SURFACE BEFORE PLACING FILL OR STONE.
G. PLACE FILL OR STONE IN SIX (6) INCH MAXIMUM LIFTS, AND COMPACT BEFORE PLACING NEXT LIFT.
H. THE TOP SURFACE COURSE, SHALL EXTEND A MINIMUM OF ONE (1) FOOT BEYOND THE SITE FENCE (UNLESS OTHERWISE NOTED) AND SHALL COVER THE AREA AS INDICATED.
I. APPLY RIPRAP TO THE SIDE SLOPES OF ALL FENCED SITE AREAS, PARKING AREAS, AND ALL OTHER SLOPES GREATER THAN 2:1.
J. APPLY RIPRAP TO THE SIDES OF DITCHES OR DRAINAGE SWALES.
K. RIPRAP ENTIRE DITCH FOR SIX (6) FEET IN ALL DIRECTIONS AT CULVERT OPENINGS.
L. APPLY SEED, FERTILIZER, AND STRAW COVER TO ALL OTHER DISTURBED AREAS, DITCHES, AND DRAINAGE SWALES, NOT OTHERWISE RIPRAPPED.
M. UNDER NO CIRCUMSTANCES WILL DITCHES, SWALES, OR CULVERTS BE PLACED SO THAT THEY DIRECT WATER TOWARDS, OR PERMIT STANDING WATER IMMEDIATELY ADJACENT TO EQUIPMENT PAD OR EQUIPMENT. IF DESIGNS OR ELEVATIONS ARE IN CONFLICT WITH THIS, ADVISE CONSTRUCTION MANAGER IMMEDIATELY.
N. IN DITCHES WITH SLOPES GREATER THAN 10%, MOUND DIVERSIONARY HEADWALLS IN THE DITCH AT CULVERT ENTRANCES. POSITION THE HEADWALL AT AN ANGLE NO GREATER THAN 60° OFF THE DITCH LINE. RIPRAP THE UPSTREAM SIDE OF THE HEADWALL AS WELL AS THE DITCH FOR SIX (6) FEET ABOVE THE CULVERT ENTRANCE.
O. APPLY SEED AND FERTILIZER TO SURFACE CONDITIONS WHICH WILL ENCOURAGE ROOTING. RAKE AREAS TO BE SEED TO EVEN THE SURFACE AND LOOSEN THE SOIL.
P. SOW SEED IN TWO DIRECTIONS IN TWICE THE QUANTITY RECOMMENDED BY THE SEED PRODUCER.
Q. ENSURE GROWTH OF SEEDED AND LANDSCAPED AREAS, BY WATERING, UP TO THE POINT OF RELEASE FROM THE CONTRACT. CONTINUE TO REWORK THE BARE AREAS UNTIL COMPLETE COVERAGE IS OBTAINED.

- 4. FIELD QUALITY CONTROL
COMPACT SOILS TO MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D-1557. AREAS OF SETTLEMENT WILL BE EXCAVATED AND REFILLED AT CONTRACTOR'S EXPENSE. INDICATE PERCENTAGE OF COMPACTION ACHIEVED ON AS-BUILT DRAWINGS.
5. PROTECTION
A. PROTECT SEEDED AREAS FROM EROSION BY SPREADING STRAW TO A UNIFORM LOOSE DEPTH OF 1-2 INCHES, STAKE AND TIE DOWN AS REQUIRED. USE OF EROSION CONTROL MESH OR MULCH NET WILL BE AN ACCEPTABLE ALTERNATE.
B. ALL TREES PLACED IN CONJUNCTION WITH A LANDSCAPE CONTRACT WILL BE WRAPPED, TIED WITH HOSE PROTECTED WIRE, AND SECURED TO 2" x 2" x 4'-0" WOODEN STAKES EXTENDING TWO- FEET INTO THE GROUND ON FOUR SIDES OF OF THE TREE.
C. PROTECT ALL EXPOSED AREAS AGAINST WASHOUTS AND SOIL EROSION. PLACE STRAW BALES AT THE INLET APPROACH TO ALL NEW OR EXISTING CULVERTS. WHERE THE SITE OR ROAD AREAS HAVE BEEN ELEVATED IMMEDIATELY ADJACENT TO THE RAIL LINE, STAKE EROSION CONTROL FABRIC FULL LENGTH IN THE SWALE TO PREVENT CONTAMINATION OF THE RAIL BALLAST. ALL EROSION CONTROL METHODS SHALL CONFORM TO APPLICABLE BUILDING CODE REQUIREMENTS.

SECTION 02830 - FENCING AND GATE(S)

PART 1 - GENERAL

- 1. WORK INCLUDED
SEE PLAN FOR SITE AND LOCATION OF FENCE AND GATE(S).
2. QUALITY ASSURANCE
ALL STEEL MATERIALS UTILIZED IN CONJUNCTION WITH THIS SPECIFICATION WILL BE GALVANIZED OR STAINLESS STEEL. WEIGHT OF ZINC COATING ON THE FABRIC SHALL NOT BE LESS THAN 12 OUNCES PER SQUARE FOOT OF MATERIAL COVERED. POSTS SHALL BE HOT-DIPPED IN GRADE 'E' ZINC, 18 OUNCES PER SQUARE FOOT.
3. SEQUENCING
IF THE SITE AREA HAS BEEN BROUGHT UP TO SURFACE COURSE ELEVATION (PRIOR TO THE FENCE CONSTRUCTION), FENCE POST EXCAVATION SPOILS MUST BE CONTROLLED TO PRECLUDE CONTAMINATION OF SAID SURFACE COURSE.
4. SUBMITTALS
A. MANUFACTURER'S DESCRIPTIVE LITERATURE.
B. CERTIFICATE OR STATEMENT OF COMPLIANCE WITH THE SPECIFICATIONS.

PART 2 - PRODUCTS

- 1. FENCE MATERIAL
A. ALL FABRIC WIRE, RAILS, HARDWARE, AND OTHER STEEL MATERIALS SHALL BE HOT-DIPPED GALVANIZED.
B. FABRIC SHALL BE SEVEN-FOOT HIGH OR TO MATCH EXISTING FENCE TWO" CHAIN LINK MESH OF NO. 9 GAUGE (0.148") WIRE. THE FABRIC SHALL HAVE A KNUCKLED FINISH FOR THE TOP SELVAGES. FABRIC SHALL CONFORM TO THE SPECIFICATIONS OF ASTM A-392 CLASS 1.
C. BARBED WIRE SHALL BE DOUBLE-STRAND, 12-1/2 GAUGE TWISTED WIRE, WITH 14-GAUGE, 4-POINT ROUND BARBS SPACED ON FIVE" CENTERS.
D. ALL POSTS SHALL BE SCHEDULE - 40 MECHANICAL SERVICE PIPE AND SHALL BE TYPE 1 ASTM A-128 AND OF THE FOLLOWING DIA.
LINE 2 1/2" SCHEDULE 40 (3" O.D.)
CORNER 3" SCHEDULE 40 (3 1/2" O.D.)
GATE 4" SCHEDULE 40 (4 1/2" O.D.)
E. GATE POSTS SHALL BE EXTENDED 12 INCHES, INCLUDING DOME CAP, TO PROVIDE FOR ATTACHMENT OF BARBED WIRE.
F. ALL TOP AND BRACE RAILS SHALL BE 1 5/8" DIA. DIA. SCHEDULE - 40 MECHANICAL-SERVICE PIPE.
G. GATE FRAMES AND BRACES SHALL BE 2" DIA. SCHEDULE 40 MECHANICAL-SERVICE PIPE. FRAMES SHALL HAVE WELDED CORNERS.
H. GATE FRAMES SHALL HAVE A FULL-HEIGHT VERTICAL BRACE, AND A FULL-WIDTH HORIZONTAL BRACE, SECURED IN PLACE BY USE OF GATE BRACE CLAMPS.
I. GATE HINGES SHALL BE MERCHANTS METAL MODEL 64386 HINGE ADAPTER WITH MODEL 6409, 188-DEGREE ATTACHMENT.
J. THE GUIDE (LATCH ASSEMBLY) SHALL BE HEAVY INDUSTRIAL DOUBLE GATE LATCH, SEE DETAIL.
K. LATCHES AND STOPS SHALL BE PROVIDED FOR ALL GATES.
L. PLUNGER ROD COMPLETE WITH RECEPTOR TO BE PROVIDED AT THE INACTIVE LEAF OF ALL DOUBLE GATE INSTALLATIONS.
M. ALL STOPS SHALL HAVE KEEPERS CAPABLE OF HOLDING THE GATE LEAF IN THE OPEN POSITION.
N. A NO. 7 GAUGE ZINC COATED TENSION WIRE SHALL BE USED AT THE BOTTOM OF THE FABRIC, TERMINATED WITH BAND CLIPS AT CORNER AND GATE POSTS.
O. A SIX" BY 1/2" DIA. EYEBOLT TO HOLD TENSION WIRE SHALL BE PLACED AT LINE POSTS.
P. STRETCHER BARS SHALL BE 3/16" BY 3/4" OR HAVE EQUIVALENT CROSS-SECTIONAL AREA.
Q. ALL CORNER GATE AND PANELS SHALL HAVE A 3/8" TRUSS ROD WITH TURNBUCKLES.
R. ALL POSTS EXCEPT GATE POSTS SHALL HAVE A COMBINATION CAP AND BARBED WIRE SUPPORTING ARM. GATE POSTS SHALL HAVE A DOME CAP.
S. OTHER HARDWARE INCLUDES BUT MAY NOT BE LIMITED TO TIE CLIPS, BAND CLIPS AND TENSION BAND CLIPS.
T. BARBED WIRE GATE GUARDS SHALL BE FITTED WITH DOME CAPS.
U. BARBED WIRE SUPPORT ARMS SHALL BE PRESSED STEEL COMPLETE WITH SET BOLT AND LOCK WIRE IN THE ARM.
V. ALL CAPS SHALL BE MALLEABLE IRON, DOME OR ACORN SHAPED AS REQUIRED BY PIPE SIZE.
W. WHERE THE USE OF CONCRTINA HAS BEEN SPECIFIED, 24" DIA. COIL. BARBED TAPE, STAINLESS STEEL, CYCLONE FENCE MODEL GBP TO TYPE III SHALL BE FURNISHED. IT SHALL BE SUPPORTED ABOVE THE TOP RAIL BY USE OF SIX (6) WIRE BARBED WIRE ARMS POSITIONED ATOP EACH LINE/CORNER POST.

PART 3 - EXECUTION

- 1. INSPECTION
TO CONFIRM PROPER DEPTH AND DIA. OF POST HOLE EXCAVATIONS. ALL POST HOLES WILL BE EXCAVATED AS PER CONSTRUCTION DOCUMENTS.
2. INSTALLATION
A. FOUNDATIONS SHALL HAVE A MINIMUM SIX (6) INCH CONCRETE COVER UNDER POST.
B. ALL FENCE POSTS SHALL BE VERTICALLY PLUMB ; ONE QUARTER (1/4) INCH
C. AT CORNER POSTS, GATE POSTS, AND SIDES OF GATE FRAME, FABRIC SHALL BE ATTACHED WITH STRETCHER AND TENSION BAND-CLIPS AT FIFTEEN(15) INCH INTERVALS.
D. AT LINE POSTS, FABRIC SHALL BE ATTACHED WITH BAND-CLIPS AT FIFTEEN (15) INCH INTERVALS.
E. FABRIC SHALL BE ATTACHED TO BRACE RAILS, TENSION WIRE AND TRUSS RODS WITH TIE-CLIPS AT TWO (2) FOOT INTERVALS.
F. A MAXIMUM GAP OF ONE INCH WILL BE PERMITTED BETWEEN TIE CHAIN LINE FABRIC AND THE FINAL GRADE.
G. GATE SHALL BE INSTALLED SO LOCKS ARE ACCESSIBLE FROM BOTH SIDES.
H. GATE HINGE BOLTS SHALL HAVE THEIR THREADS PEENED OR WELDED TO PREVENT UNAUTHORIZED REMOVAL.
I. CONCRETE TO BE A MINIMUM OF 4,000 PSI AT 7 DAYS. CEMENT SHALL EXCEED ASTM C150, TYPE IIIA.
3. PROTECTION
UPON COMPLETION OF ERECTION, INSPECT FENCE MATERIAL AND PAINT FIELD CUTS OR GALVANIZING BREAKS WITH ZINC-BASED PAINT, COLOR TO MATCH THE GALVANIZED METAL. APPLICABLE STANDARDS
ASTM-A120 SPECIFICATION FOR PIPE, STEEL BLACK AND HOT-DIPPED ZINC COATED (GALVANIZED) WELDED AND SEAMLESS, FOR ORDINARY USES.
ASTM-A123 ZINC (HOT-DIP GALVANIZED) COATING ON IRON AND STEEL PRODUCTS.
ASTM-A153 STANDARD SPECIFICATION FOR ZINC COATING (HOT-DIP) ON IRON AND STEEL HARDWARE.
ASTM-A392 SPECIFICATION FOR ZINC-COATED STEEL CHAIN LINK FENCE FABRIC.
ASTM-A491 SPECIFICATION FOR ALUMINIUM-COATED STEEL CHAIN LINK FENCE FABRIC
ASTM-A525 STANDARD SPECIFICATION FOR STEEL SHEET ZINC COATED (GALVANIZED) BY THE HOT-DIPPED PROCESS.
ASTM-A570 SPECIFICATION FOR HOT-ROLLED CARBON STEEL SHEET AND STRIP. STRUCTURAL QUALITY.
ASTM-A535 SPECIFICATION FOR ALUMINIUM COATED STEEL BARBED WIRE.
FEDERAL SPECIFICATION RR-F-191- FENCING, WIRE AND POST METAL (AND GATES, CHAIN LINK FENCE FABRIC, AND ACCESSORIES)

DIVISION 3: CONCRETE

SECTION 03000 -BASIC CONCRETE MATERIALS AND METHODS

PART 1 - GENERAL

- 1. WORK INCLUDED
FORMWORK, REINFORCEMENT, ACCESSORIES, CAST-IN-PLACE CONCRETE, FINISHING, AND CURING.
2. INSPECTIONS
A. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING BUILDING DEPARTMENT INSPECTIONS REQUIRED FOR HIS SCOPE OF WORK.
B. ALL REINFORCING STEEL SHALL BE INSPECTED AND APPROVED BY THE VERIZON WIRELESS CONSTRUCTION MANAGER PRIOR TO PLACEMENT OF CONCRETE.
C. THE VERIZON WIRELESS CONSTRUCTION MANAGER SHALL BE NOTIFIED NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS.
3. QUALITY ASSURANCE
A. CONSTRUCT AND ERECT CONCRETE FORMWORK IN ACCORDANCE WITH ACI 301 AND ACI 318.
B. PERFORM CONCRETE REINFORCING WORK IN ACCORDANCE WITH ACI 301, ACI 318, AND ASTM A184.
C. PERFORM CAST-IN-PLACE CONCRETE WORK IN ACCORDANCE WITH ACI 301, ACI 318, AND ACI 117-90.
D. OPEN FOUNDATION TRENCHES SHALL BE INSPECTED BY VERIZON WIRELESS CONSTRUCTION MANAGER PRIOR TO PLACEMENT OF CONCRETE.
4. SUBMITTALS
SUBMIT CONCRETE MIX AND REINFORCING STEEL SHOP DRAWINGS FOR APPROVAL BY VERIZON WIRELESS CONSTRUCTION MANAGER/ENGINEER. THE SHOP DRAWINGS SHALL BE SUBMITTED IN THE FORM OF TWO (2) CONCRETE MIX DESIGN INFORMATION SHEETS AND TWO (2) BLUELINE DRAWINGS FOR REINFORCING STEEL.

PART 2 - PRODUCTS

- 1. REINFORCEMENT MATERIALS
A. REINFORCEMENT STEEL, ASTM A615, 60 KSI YIELD GRADE, DEFORMED BILLET STEEL BARS, PLAIN FINISH.
B. WELDED STEEL WIRE FABRIC ASTM A185 PLAIN TYPE, IN FLAT SHEETS, PLAIN FINISH.
C. CHAIRS, BOLSTERS, BAR SUPPORTS, SPACERS. SIZED AND SHAPED FOR SUPPORTS OF REINFORCING.
D. FABRICATE CONCRETE REINFORCING IN ACCORDANCE WITH ACI 315, ACI 318, ASTM A184.
2. CONCRETE MATERIALS
A. CEMENT: ASTM C150, PORTLAND TYPE
B. FINE AND COURSE AGGREGATES: ASTM C33 - MAXIMUM SIZE OF CONCRETE AGGREGATE SHALL NOT EXCEED ; ONE (1) INCH SIZE SUITABLE FOR INSTALLATION METHOD UTILIZED OR ONE-THIRD CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING.
C. WATER: CLEAN AND NOT DETRIMENTAL TO CONCRETE
D. AIR ENTRAINING ADMIXTURE: ASTM C260
E. BONDING AGENT: LATEX EMULSION FOR BONDING NEW TO OLD CONCRETE AS MANUFACTURED BY DAYTON SUPERIOR.
F. NON-SHRINK GROUT: PREMIXED COMPOUND CONSISTING OF NONMETALLIC AGGREGATE, CEMENT, WATER REDUCING AND PLASTICISING AGENTS.



MISSION 1 COMMUNICATIONS

6202 Constitution Drive, Suite C Fort Wayne, IN 46804

CERTIFICATION:

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RELEASE

Table with columns for DATE and description of releases, including PRELIMINARY SITE PLAN and LEASE EXHIBIT.

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DRAWN BY: JUT CHECKED BY: MJA

SITE NAME:

FULL RELO SMITH & MAIN CELL SITE

SITE ADDRESS:

IL-64 ST CHARLES, IL 60174

SHEET TITLE:

SPECIFICATIONS

A&E PROJECT NO.:

SHEET NO.:

VZW SP-1

CONTINUED ON SHEET SP-2

3. CONCRETE MIX
- CONCRETE MATERIALS SHALL CONFORM TO THE APPROPRIATE A.C.I. REQUIREMENTS FOR EXPOSED STRUCTURAL CONCRETE.
 - MIX AND DELIVER CONCRETE IN ACCORDANCE WITH ASTM C94, ALT. 3.
 - PROPORTIONS OF CONCRETE MATERIALS SHALL BE SUITABLE FOR THE INSTALLATION METHOD UTILIZED AND SHALL RESULT IN DURABLE CONCRETE FOR LOCAL ANTICIPATED AGGRESSIVE ACTIONS. THE DURABILITY REQUIREMENTS OF ACI 318 CHAPTER 4 SHALL BE SATISFIED BASED ON THE CONDITIONS EXPECTED AT THE SITE. PROVIDE CONCRETE AS FOLLOWS:
 - COMPRESSIVE STRENGTH: 4000 psi AT 7 DAYS.
SEE TOWER MANUFACTURER DRAWINGS FOR CAISSON CONCRETE COMPRESSIVE STRENGTH
 - SLUMP: 3 INCHES

PART 3 - EXECUTION

- INSERTS, EMBEDDED COMPONENTS AND OPENINGS
 - THE CONTRACTOR SHALL COORDINATE AND CROSS-CHECK ARCHITECTURAL, BUILDING & ELECTRICAL DRAWINGS FOR OPENINGS, SLEEVES, ANCHORS, HANGERS, AND OTHER ITEMS RELATED TO CONCRETE WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THE PROPER LOCATION BEFORE PLACING CONCRETE.
 - PROVIDE FORMED OPENINGS WHERE REQUIRED FOR WORK TO BE EMBEDDED IN AND PASSING THROUGH CONCRETE MEMBERS.
 - COORDINATE WORK OF OTHER SECTIONS IN FORMING AND SETTING OPENING, SLOTS, RECESSES, CHASES, SLEEVES, BOLTS, ANCHORS, AND OTHER INSERTS.
 - INSTALL CONCRETE ACCESSORIES STRAIGHT, LEVEL AND PLUMB.
- REINFORCEMENT PLACEMENT
 - PLACE REINFORCEMENT, SUPPORTED AND SECURED AGAINST DISPLACEMENT.
 - ENSURE REINFORCING IS CLEAN, FREE OF LOOSE SCALE, DIRT, OR OTHER FOREIGN COATINGS.
 - WELDING IS PROHIBITED ON REINFORCING STEEL AND EMBEDMENTS.
 - MINIMUM CONCRETE COVER FOR REINFORCING SHALL BE 3 INCHES UNLESS OTHERWISE NOTED.
 - CONCRETE COVER FROM TOP OF FOUNDATION TO ENDS OF VERTICAL REINFORCEMENT SHALL NOT EXCEED 3 INCHES NOR BE LESS THAN 2 INCHES.
- PLACING CONCRETE
 - VIBRATE ALL CONCRETE.
 - ALL CONCRETE WORK SHALL ADHERE TO THE LATEST A.C.I. STANDARDS FOR WINTER POURING AND CURING PROCEDURES IF SEASONAL CONDITIONS APPLY
- CURING
 - AFTER PLACEMENT, PROTECT CONCRETE FROM PREMATURE DRYING.
 - MAINTAIN CONCRETE WITH MINIMAL MOISTURE LOSS AT RELATIVELY CONSTANT TEMPERATURE FOR A PERIOD NECESSARY FOR HYDRATION OF CEMENT AND HARDENING OF CONCRETE.
- PROVIDE HAND RUBBED SMOOTH FINISH TO ALL EXPOSED VERTICAL FORMED CONCRETE SURFACES.
- FIELD QUALITY CONTROL
 - SUBMIT THREE (3) CONCRETE TEST CYLINDERS - TAKEN FOR EVERY 15 CUBIC YARD OR LESS. SUBMIT CONCRETE TESTS TO THE PROJECT MANAGER IN ACCORDANCE WITH ASTM, C-31 AND C-39.
 - SUBMIT ONE (1) ADDITIONAL TEST CYLINDER - TAKEN DURING COLD WEATHER POURS, AND CURED ON JOB SITE UNDER SAME CONDITIONS AS CONCRETE IT REPRESENTS.
 - SUBMIT ONE (1) SLUMP TEST - TAKEN FOR EACH SET OF TEST CYLINDERS TAKEN.
 - THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL COSTS INCURRED ASSOCIATED WITH CONCRETE TESTING.
- DEFECTIVE CONCRETE
MODIFY OR REPLACE CONCRETE NOT CONFORMING TO REQUIRED LINES, DETAILS OR ELEVATIONS AT COST OF GC, AS DIRECTED BY ARCHITECT/ENGINEER.

DIVISION 5: METALS

SECTION 05000 - METALS

PART 1 - GENERAL

- SECTION INCLUDES:
STRUCTURAL STEEL FRAMING MEMBERS, BASE PLATES, PLATES, BARS AND GROUTING UNDER BASE PLATES.
- SUBMITTALS:
SHOP DRAWINGS: INDICATE SIZES, SPACING, AND LOCATIONS OF STRUCTURAL MEMBERS, OPENINGS, CONNECTIONS, CAMBERS, LOADS, AND WELDED SECTIONS.
- QUALITY ASSURANCE
 - FABRICATE STRUCTURAL STEEL MEMBERS IN ACCORDANCE WITH AISC SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
 - PERFORM DESIGN UNDER DIRECT SUPERVISION OF A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE.

PART 2 - PRODUCTS

- MATERIALS:

A. STRUCTURAL STEEL MEMBERS:	ASTM A572, GRADE 50
B. STRUCTURAL TUBING:	ASTM A500, GRADE B
C. PIPE:	ASTM A53, TYPE E OR S, GRADE B
D. BOLTS, NUTS, AND WASHERS:	ASTM A325
E. ANCHOR BOLTS:	ASTM A307
F. WELDING MATERIALS:	AWS D1.1, TYPE REQUIRED FOR MATERIALS BEING WELDED
G. GROUT:	NON-SHRINK TYPE, PREMIXED COMPOUND CONSISTING OF NONMETALLIC AGGREGATE, CEMENT, WATER REDUCING AND PLASTICIZING ADDITIVES, CAPABLE OF DEVELOPING A MINIMUM COMPRESSIVE STRENGTH OF 7000 psi AT 28 DAYS.
H. SHOP AND TOUCH-UP PRIMER:	SSPC 15, TYPE 1, RED OXIDE
I. TOUCH-UP PRIMER FOR GALV. SURFACES:	ZINC RICH TYPE

- FABRICATION:
CONTINUOUSLY SEAL JOINTED MEMBERS BY CONTINUOUS WELDS. GRIND EXPOSED WELDS SMOOTH.
- FINISH:
 - PREPARE STRUCTURAL COMPONENT SURFACES IN ACCORDANCE WITH SSPC
 - SP-1 TO SP-10 PROCEDURES.
 - STRUCTURAL STEEL MEMBERS SHALL BE HOT DIPPED GALVANIZED.

PART 3 - EXECUTION

- EXAMINATION AND PREPARATION:
VERIFY THAT THE FIELD CONDITIONS ARE ACCEPTABLE.
- ERECTION:
 - ALLOW FOR ERECTION LOADS. PROVIDE TEMPORARY BRACING TO MAINTAIN FRAMING IN ALIGNMENT UNTIL COMPLETION OF ERECTION AND INSTALLATION OF PERMANENT BRIDGING AND BRACING.
 - FIELD WELD COMPONENTS INDICATED ON SHOP DRAWINGS.
 - DO NOT FIELD CUT OR ALTER STRUCTURAL MEMBERS WITHOUT APPROVAL OF THE ARCHITECT/ENGINEER.
 - AFTER ERECTION, TOUCH-UP WELDS, ABRASIONS, AND SURFACES NOT SHOP PRIMED OR GALVANIZED WITH TOUCH-UP PRIMERS AS SPECIFIED UNDER SECTION 05000, -METALS, PART 2 - PRODUCTS, H & I. SURFACES TO BE IN CONTACT WITH CONCRETE NOT INCLUDED.
- FIELD QUALITY CONTROL:
FIELD INSPECTION OF MEMBERS, CONNECTIONS, WELDS AND TORQUING.

DIVISION 16: ELECTRICAL

SECTION 16050 - BASIC ELECTRICAL MATERIALS AND METHODS

- CONTRACTOR SHALL REVIEW THE CONTRACT DOCUMENTS PRIOR TO ORDERING THE ELECTRICAL EQUIPMENT AND STARTING THE ACTUAL CONSTRUCTION. CONTRACTORS SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE ARCHITECT LISTING ANY DISCREPANCIES OR CONFLICTING INFORMATION.
- ELECTRICAL PLANS, DETAILS AND DIAGRAMS ARE DIAGRAMMATIC ONLY. VERIFY EXACT LOCATIONS AND MOUNTING HEIGHTS OF ELECTRICAL EQUIPMENT WITH OWNER PRIOR TO INSTALLATION.
- EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANELBOARD, PULLBOX, JUNCTION BOX, SWITCH BOX, ETC. THE TYPE OF TAGGING METHODS SHALL BE IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (O.S.H.A.).
- ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN GOOD WORKING CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED "J" WHERE APPLICABLE. MATERIALS SHALL MEET WITH APPROVAL OF ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA, NBFU AND "UL" LISTED.
- ALL CONDUIT SHALL HAVE A PULL CORD.
- PROVIDE PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS, AND CIRCUITS.
- ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C.
- THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY IBC, NEC AND ALL APPLICABLE CODES.
- PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.
- PLASTIC PLATES FOR ALL SWITCHES, RECEPTACLES, TELEPHONE AND BLANKED OUTLETS SHALL HAVE ENGRAVED LETTERING WHERE INDICATED ON THE DRAWINGS. WEATHERPROOF RECEPTACLES SHALL HAVE SIERRA #MPD-8 LIFT COVERS PLATES.

SECTION 16400 - SERVICE AND DISTRIBUTION

- WIRE AND CABLE CONDUCTORS SHALL BE COPPER, 600V, TYPE THHN OR THWN, WITH A MIN. SIZE OF #12 AWG, COLOR CODED. ALL RECTIFIER DROPS SHALL BE STRANDED TO ACCEPT CRIMP CONNECTORS.
- ALL CHEMICAL GROUND RODS SHALL BE "UL" APPROVED.
- METER SOCKET AMPERES, VOLTAGE, NUMBER OF PHASES SHALL BE AS NOTED ON THE DRAWINGS. MANUFACTURED BY MILBANK OR APPROVED EQUAL, AND SHALL BE UTILITY COMPANY APPROVED.
- CONDUIT:
 - RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH GALVANIZED ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR. RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.
 - ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTING SHALL BE GLAND RING COMPRESSION TYPE.
 - FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "JAKE" OR "SQUEEZE" TYPE. ALL FLEXIBLE CONDUITS SHALL HAVE FULL LENGTH GROUND WIRE.
 - ALL UNDERGROUND CONDUIT SHALL BE AS NOTED ON THE DRAWINGS AT A MINIMUM DEPTH OF 42" BELOW GRADE.
- CONTRACTOR TO COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS ARE TO BE PAID BY THE CONTRACTOR.
- ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS WITH WHITE ON BLUE BACKGROUND LETTERING (MINIMUM LETTER HEIGHT SHALL BE 1/4-INCH). NAMEPLATES SHALL BE FASTENED WITH STAINLESS STEEL SCREWS, NOT ADHESIVE.
- UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL POTENTIAL GROUNDING TESTS BY AN INDEPENDENT TESTING SERVICE ENGAGED BY THE CONTRACTOR SHALL BE SUBMITTED FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.

8. GROUNDING ELECTRODE SYSTEM

- PREPARATION
 - SURFACE PREPARATION:
ALL CONNECTIONS SHALL BE MADE TO BARE METAL. ALL PAINTED SURFACES SHALL BE FIELD INSPECTED AND MODIFIED TO ENSURE PROPER CONTACT. NO WASHERS ARE ALLOWED BETWEEN THE ITEMS BEING GROUNDED. ALL CONNECTIONS ARE TO HAVE A NON-OXIDIZING AGENT APPLIED PRIOR TO INSTALLATION.
 - GROUND BAR PREPARATION:
ALL COPPER GROUND BARS SHALL BE CLEANED, POLISHED AND A NON-OXIDIZING AGENT APPLIED. NO FINGERPRINTS OR DISCOLORED COPPER WILL BE PERMITTED.
 - SLEEVES:
ALL GROUNDING CONDUCTORS SHALL RUN THROUGH PVC SLEEVES WHEREVER CONDUCTORS RUN THROUGH WALLS, FLOORS OR CEILINGS. IF CONDUCTORS MUST RUN THROUGH EMT, BOTH ENDS OF CONDUIT SHALL BE GROUNDED. SEAL BOTH ENDS OF CONDUIT WITH SILICONE CAULK.
- GROUND BARS
 - ALL GROUND BARS SHALL BE 1/4-INCH THICK TINNED COPPER PLATE AND OF SIZE INDICATED ON DRAWINGS.
 - ALL CONNECTIONS TO THE GROUND BAR SHALL OBSERVE THE FOLLOWING SEQUENCE:
 - BOLT-HEAD
 - 2-HOLE LUG
 - TINNED COPPER BUSS BAR
 - STAR WASHER
 - NUT
- EXTERNAL CONNECTIONS
 - ALL BURIED GROUNDING CONNECTIONS SHALL BE MADE BY THE EXOTHERMIC WELD PROCESS. CONNECTIONS SHALL INCLUDE ALL CABLE TO CABLE, SPLICES, TEES, CROSSES, ETC. ALL CABLE TO GROUND RODS, GROUND ROD SPLICES AND LIGHTNING PROTECTION SYSTEMS ARE TO BE AS INDICATED. ALL MATERIALS USED (MOLDS, WELDING METAL, TOOLS, ETC.) SHALL BE BY "CADWELD" AND INSTALLED PER MANUFACTURER'S RECOMMENDED PROCEDURES.
 - ALL ABOVE GRADE GROUNDING AND BONDING CONDUCTORS SHALL BE CONNECTED BY TWO HOLE CRIMP TYPE (COMPRESSION) CONNECTIONS (EXCEPT FOR THE ACEG AND GROUND ROD) MECHANICAL CONNECTIONS, FITTINGS OR CONNECTIONS THAT DEPEND SOLELY ON SOLDER SHALL NOT BE USED. ALL CABLE TO CABLE CONNECTIONS SHALL BE HIGH PRESSURE DOUBLE CRIMP TYPE CONNECTIONS. CONNECTIONS TO STRUCTURAL STEEL SHALL BE EXOTHERMIC WELDS.
- GROUND RODS
 - ALL GROUND RODS SHALL BE 5/8-INCH DIAMETER X 10'-0" LONG "COPPERWELD" OR APPROVED EQUAL, OF THE NUMBER AND LOCATIONS INDICATED. GROUND RODS SHALL BE DRIVEN FULL LENGTH VERTICAL IN UNDISTURBED EARTH.
- GROUND CONDUCTORS
 - ALL GROUND CONDUCTORS SHALL BE STANDARD TINNED SOLID BARE COPPER ANNEALED, AND OF SIZE INDICATED ON DRAWINGS UNLESS NOTED OTHERWISE.
- LUGS
 - LUGS SHALL BE 2-HOLE, LONG BARREL, STRAND COPPER UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS. LUGS SHALL BE THOMAS AND BETTS SERIES #548 BE OR EQUIVALENT

A. 535 MCM DLO	54880BE
B. 262 MCM DLO	54872BE
C. #1/0 DLO	54862BE
D. #4/0 THWN AND BARE	54866BE
E. #2/0 THWN	54862BE
F. #2 THHN	54207BE
G. #6 DLO	54205BE
 - WHEN THE DIRECTION OF THE CONDUCTOR MUST CHANGE, IT SHALL BE DONE GRADUALLY. THE CURVATURE OF THE TURN SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING CHART:

GROUNDING CONDUCTOR SIZE	RADIUS TO INSIDE EDGE
NO. 6 AWG TO NO. 4 AWG	6 INCHES
NO. 2 AWG TO NO. 1/0 AWG	8 INCHES
NO. 2/0 AWG TO 4/0 MCM	12 INCHES
250 MCM TO 750 MCM	24 INCHES

- GROUND RING
 - THE EXTERNAL GROUND RING ENCIROLING THE TOWER (IF APPLICABLE) AND BETWEEN THE EQUIPMENT PAD ANCHORS SHALL BE MINIMUM NO. 2 A.W.G. SOLID TINNED BARE COPPER CONDUCTOR IN DIRECT CONTACT WITH THE EARTH AT THE DEPTH INDICATED ON THE DRAWINGS. CONDUCTOR BENDS SHALL HAVE A MINIMUM BENDING RADIUS OF EIGHT (8) INCHES.
 - ALL EXTERNAL GROUND RINGS ARE TO BE JOINED TOGETHER AND ALL CONNECTIONS MUST BE CADWELDED. NO LUGS OR CLAMPS WILL BE ACCEPTED.
- FENCE/GATE
 - GROUND EACH GATE POST, CORNER POST AND GATE AS INDICATED ON THE DRAWINGS. FENCING WITHIN 6' OF PAD SHOULD BE TIED TO THE GROUND RING AT EVERY OTHER FENCE POST (8') .GROUND CONNECTIONS TO FENCE POSTS AND ALL OTHER CONNECTIONS FOR THE GROUND GRID SYSTEM SHALL BE MADE BY EXOTHERMIC WELD PROCESS, AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND PROCEDURES, AND SPRAYED WITH COLD-GALVANIZED PAINT.
- I.E.E.E. FALL POTENTIAL TESTS
CONTRACTOR TO CONDUCT GROUND RESISTANCE TEST IN THE FORMAT AS FOLLOWS:
 - FOR RAW LAND SITE
 - GROUND TESTS SHALL BE PERFORMED AS INDICATED ON DRAWINGS. A BIDDLE GROUND OHMER OR THE METHOD OF USING TWO AUXILIARY GROUND RODS (AS DESCRIBED IN I.E.E.E. STANDARDS NO. 81-1983, PART 1) MAY BE USED. THE I.E.E.E. METHOD REQUIRES THE USE OF AN A.C. TEST CURRENT. THE AUXILIARY TEST RODS MUST BE SUFFICIENTLY FAR AWAY FROM THE ROD UNDER TEST SO THAT THE REGIONS IN WHICH THEIR RESISTANCE IS LOCALIZED DO NOT OVERLAP. THE TEST POINT WILL BE THE GROUND ROD AND WILL CONSIST OF THE THREE POINT FALL OF POTENTIAL MEGGER TEST METHOD, USING THE BIDDLE NULL-BALANCE EARTH TESTER (MEGGER #250220-2 OR EQUIVALENT)

B. EQUIPMENT PAD

- FIRST TEST - SHALL BE WITH FOUR GROUND RODS INSTALLED, ONE AT EACH CORNER OF THE PAD BUT NOT CONNECTED TO THE MAIN GROUNDING BUS. FURNISH WIRE TO CONNECT (TEMPORARY CLAMP) ALL FOUR GROUND RODS TOGETHER TO MAKE A SYSTEM TEST AFTER EACH ROD IS INDIVIDUALLY TESTED. IF ANY INDIVIDUAL ROD TESTS 25 OHMS OR MORE, THE ELECTRICAL CONTRACTOR AND OWNER'S REPRESENTATIVE SHOULD BE NOTIFIED SO THAT THE ROD CAN BE DRIVEN DEEPER UNTIL ALL FOUR RODS HAVE A RESISTANCE OF 10 OHMS OR LESS ON A DRY DAY.
 - SECOND TEST - SHALL BE WITH THE GROUND RODS CONNECTED, WITH DRY SOIL AND WHEN NO STANDING WATER HAS BEEN PRESENT FOR THE PAST TEN (10) DAYS. THE MAXIMUM ALLOWABLE READING IS 5 OHS TO GROUND. IF THE RESISTANCE OF THE ENTIRE SYSTEM EXCEEDS 5 OHMS, NOTIFY THE CONTRACTOR AND OWNER'S REPRESENTATIVE SO THAT ADDITIONAL AND/OR DEEPER RODS CAN BE INSTALLED.
- TOWER
 - FIRST TEST - SHALL BE WITH THREE GROUND RODS INSTALLED (MINIMUM), EQUALLY SPACED AROUND THE TOWER FOUNDATION, BUT NOT CONNECTED TO THE EQUIPMENT PAD EXTERNAL GROUND RING. FURNISH WIRE TO CONNECT (TEMPORARY CLAMP) ALL THREE GROUND RODS TOGETHER TO MAKE A SYSTEM TEST AFTER EACH ROD IS INDIVIDUALLY TESTED. IF ANY INDIVIDUAL ROD TESTS 25 OHMS OR MORE, NOTIFY THE CONTRACTOR AND OWNER'S REPRESENTATIVE SO THAT THE ROD CAN BE DRIVEN DEEPER UNTIL ALL THREE (3) RODS HAVE A RESISTANCE OF 10 OHMS OR LESS ON A DRY DAY.
 - SECOND TEST - SHALL BE WITH THE GROUND RODS CONNECTED, WITH DRY SOIL AND WHEN NO STANDING WATER HAS BEEN PRESENT FOR THE PAST TEN (10) DAYS, THE MAXIMUM ALLOWABLE READING IS 5 OHMS TO GROUND. IF THE RESISTANCE OF THE ENTIRE SYSTEM EXCEEDS 5 OHMS THE ELECTRICAL CONTRACTOR AND OWNER'S REPRESENTATIVE SHOULD BE NOTIFIED SO THAT EITHER ADDITIONAL AND/OR DEEPER RODS CAN BE INSTALLED.
 - EQUIPMENT PAD AND TOWER
 - AFTER THE EQUIPMENT PAD AND TOWER GROUND RESISTANCE TEST IS COMPLETED, CONTRACTOR SHALL TIE EQUIPMENT PAD EXTERNAL GROUND RING AND TOWER EXTERNAL GROUND RING TOGETHER. AFTER FIRST AND SECOND TEST ALL CONNECTIONS MUST BE MADE USING EXOTHERMIC WELD. NO LUGS OR CLAMPS WILL BE ACCEPTED.
 - AFTER ALL THE EXTERNAL GROUND RINGS ARE TIED TOGETHER, COMPLETE A MEGGER CHECK OF THE GROUND SYSTEM SHOULD BE DONE. THE MAXIMUM ALLOWABLE LEADING IS 5 OHMS TO GROUND.
- GROUNDING RESISTANCE TEST REPORT
UPON COMPLETION OF THE TESTING FOR EACH SITE, A TEST REPORT SHOWING RESISTANCE IN OHMS WITH AUXILIARY POTENTIAL ELECTRODES AT FIVE (5) FEET AND TEN (10) FEET INTERVALS UNTIL THE AVERAGE RESISTANCE STARTS INCREASING AND ALSO NOTE THAT 10-15 PHOTOS MUST BE TAKEN TO PROOF ENTIRE EXTERNAL GROUND RING SYSTEM BEFORE BACKFILL. TWO (2) SETS OF TEST DOCUMENTS ARE OF THE INDEPENDENT TESTING SERVICE TO BE BOUND AND SUBMITTED WITHIN ONE (1) WEEK OF WORK COMPLETION.

SECTION 16503 - POLES, POSTS, AND STANDARDS (SINGLE MAST AND SELF SUPPORTING TOWERS)

- GENERAL
 - LIGHTNING ROD AND EXTENSION PIPE INCLUDING ALL APPURTENANCES, TO BE FURNISHED BY OWNER, IF REQUIRED.
 - PROVIDE TEMPORARY LIGHTING FOR TOWER AS PER FAA REGULATIONS DURING CONSTRUCTION, IF REQUIRED.
- GROUNDING:
GROUND TOWER WITH A MINIMUM OF #2 AWG TINNED SOLID BARE COPPER CONDUCTOR CADWELDED TO TOWER BASE PLATE. TWO (2) GROUNDING LEADS PER TOWER BASE PLATE.
NO EXOTHERMIC WELDS SHALL BE ATTACHED DIRECTLY TO THE MONOPOLE TOWER SHAFT.

SECTION 16745 - TELECOMMUNICATIONS WIRING COMPONENTS (COAXIAL ANTENNA CABLE)

- GENERAL
 - ALL MATERIALS, PRODUCTS OR PROCEDURES INCORPORATED INTO WORK SHALL BE NEW AND OF STANDARD COMMERCIAL QUALITY.
 - CERTAIN MATERIALS AND PRODUCTS WILL BE SUPPLIED BY THE OWNER (REFER TO GENERAL CONDITIONS FOR THE LIST OF OWNER FURNISHED EQUIPMENT, MATERIALS AND SUPPLIES FOR THESE ITEMS). THE CONTRACTOR IS RESPONSIBLE FOR PICKUP AND DELIVERY OF ALL SUCH MATERIALS
 - ALL OTHER MATERIALS AND PRODUCTS SPECIFIED IN THE CONTRACT DOCUMENTS SHALL BE SUPPLIED BY THE CONTRACTOR.
- MATERIALS:
 - COAXIAL CABLE:
 - INSTALL COAXIAL CABLE AND TERMINATIONS BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS WITH COAXIAL CABLES SUPPORTED AT NO MORE THAN 3'-0" O.C. WEATHERPROOF ALL CONNECTORS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURERS' REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF EQUIPMENT LOCATION UNLESS OTHERWISE STATED.
 - ALL COAX RUN LENGTHS GREATER THAN 175 FEET SHALL BE 1-5/8", ALL COAX. RUN LENGTH BETWEEN 101 FEET AND 174 FEET SHALL BE 1-1/4", AND IN LENGTH LESS THAN OR EQUAL TO 100 FEET SHALL BE 7/8".
- ANTENNA AND COAXIAL CABLE GROUNDING
 - ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS)
- COAXIAL CABLE IDENTIFICATION
 - TO PROVIDE EASY IDENTIFICATION AND UNIFORM MARKING OF ANTENNA CABLING, PLASTIC TAGS SHALL BE USED AT THE FOLLOWING LOCATIONS:
 - FIRST LOCATION IS AT THE END OF THE COAX NEAREST THE ANTENNA (WHERE THE COAXIAL CABLE AND JUMPER ARE CONNECTED).
 - SECOND LOCATION IS INSIDE THE EQUIPMENT PAD NEAR THE WAVEGUIDE ENTRY PORT.
 - USE ANDREW CABLE TIES (PT.# 27290) TO SECURE IDENTIFICATION TAGS.
- TESTING
TENANT SHALL PROVIDE AN INDEPENDENT TESTING AGENCY TO PERFORM COAXIAL SWEEP TEST & REPORT. THE CONTRACTOR IS TO PROVIDE ONE CLIMBER / QUALIFIED PERSONNEL TO ASSIST IN ANY REPAIRS AND WEATHERPROOFING ONCE THE TEST IS COMPLETE. THE CONTRACTOR IS TO PROVIDE VERIZON WIRELESS WITH A MINIMUM OF 48 HOURS NOTICE PRIOR TO THE TIME OF THE SWEEP TEST.



CERTIFICATION:

PRELIMINARY NOT FOR CONSTRUCTION

RELEASE DATE	DESCRIPTION
08-11-22	PRELIMINARY SITE PLAN
09-22-22	PRELIMINARY SITE PLAN
11-09-22	LEASE EXHIBIT
12-09-22	LEASE EXHIBIT
12-29-22	LEASE EXHIBIT
01-30-22	90% CDs
04-04-23	LEASE EXHIBIT
06-09-23	LEASE EXHIBIT
06-14-23	90% CDs

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DRAWN BY: JUT
CHECKED BY: MJA

SITE NAME:

FULL RELO SMITH & MAIN CELL SITE

SITE ADDRESS:

IL-64
ST CHARLES, IL 60174

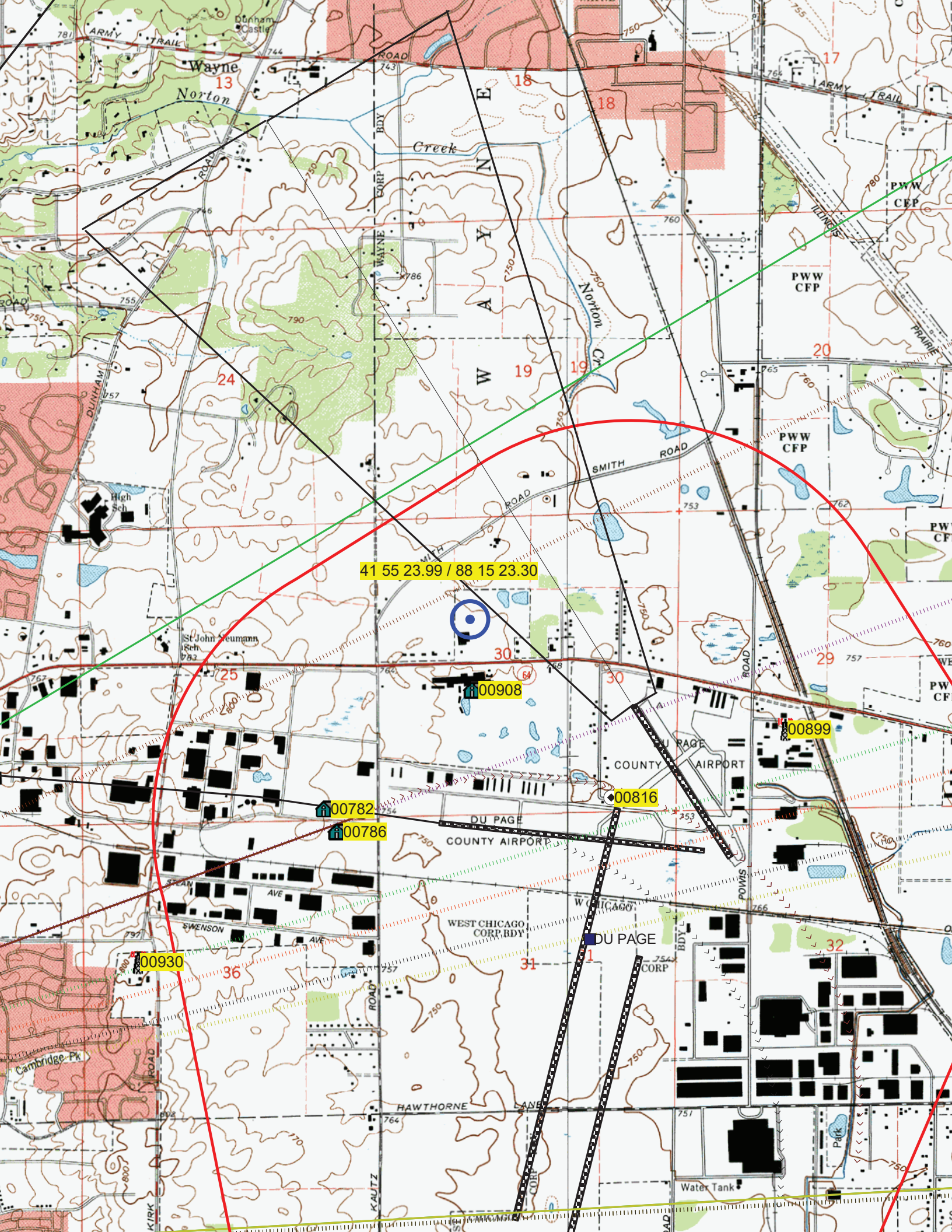
SHEET TITLE:

SPECIFICATIONS

A&E PROJECT NO.:

SHEET NO.:

VZW SP-2



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Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2023-AGL-12607-OE

Issued Date: 07/20/2023

Margie Oliver
DRA Properties, LLC
343 S. Kirkwood Road, #5
Box# 220130
Kirkwood, MO 63122

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ** (CORRECTION)**

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Monopole Full Relo Smith & Main
Location:	St. Charles, IL
Latitude:	41-55-24.41N NAD 83
Longitude:	88-15-24.84W
Heights:	769 feet site elevation (SE) 139 feet above ground level (AGL) 908 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

This determination expires on 01/20/2025 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination of No Hazard is granted provided the following conditional statement is included in the proponent's construction permit or license to radiate:

Upon receipt of notification from the Federal Communications Commission that harmful interference is being caused by the licensee's (permittee's) transmitter, the licensee (permittee) shall either immediately reduce the power to the point of no interference, cease operation, or take such immediate corrective action as is necessary to eliminate the harmful interference. This condition expires after 1 year of interference-free operation.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (847) 294-7458, or fred.souchet@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2023-AGL-12607-OE.

Signature Control No: 590550289-594043666

Fred Souchet
Specialist

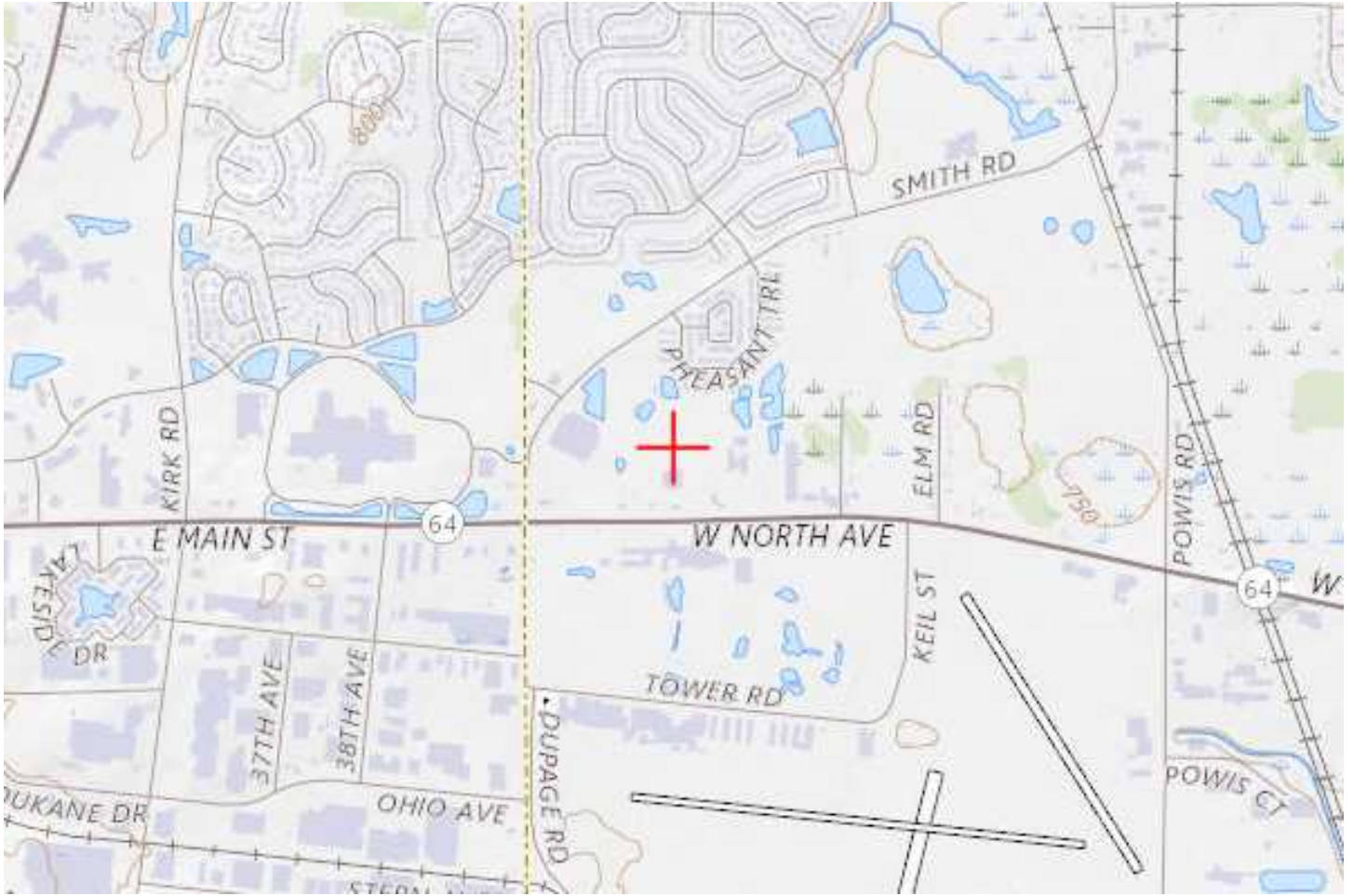
(DNE)

Attachment(s)
Frequency Data
Map(s)

cc: FCC

Frequency Data for ASN 2023-AGL-12607-OE

LOW FREQUENCY	HIGH FREQUENCY	FREQUENCY UNIT	ERP	ERP UNIT
6	7	GHz	55	dBW
6	7	GHz	42	dBW
10	11.7	GHz	55	dBW
10	11.7	GHz	42	dBW
17.7	19.7	GHz	55	dBW
17.7	19.7	GHz	42	dBW
21.2	23.6	GHz	55	dBW
21.2	23.6	GHz	42	dBW
614	698	MHz	1000	W
614	698	MHz	2000	W
698	806	MHz	1000	W
806	901	MHz	500	W
806	824	MHz	500	W
824	849	MHz	500	W
851	866	MHz	500	W
869	894	MHz	500	W
896	901	MHz	500	W
901	902	MHz	7	W
929	932	MHz	3500	W
930	931	MHz	3500	W
931	932	MHz	3500	W
932	932.5	MHz	17	dBW
935	940	MHz	1000	W
940	941	MHz	3500	W
1670	1675	MHz	500	W
1710	1755	MHz	500	W
1850	1910	MHz	1640	W
1850	1990	MHz	1640	W
1930	1990	MHz	1640	W
1990	2025	MHz	500	W
2110	2200	MHz	500	W
2305	2360	MHz	2000	W
2305	2310	MHz	2000	W
2345	2360	MHz	2000	W
2496	2690	MHz	500	W



**PHEASANT RUN CROSSING PROPERTY ASSOCIATION
1412 RED FOX COURT
ST. CHARLES, IL 60174**

July 17, 2023

Rachel Hitzemann, AICP
Planner
City of St. Charles
2 E. Main Street
St. Charles, IL 60174

Re: Proposed Lease ("Proposed Lease") between St. Charles VW Real Estate, LLC as Lessor ("VW") and DRA Properties, LLC as Lessee ("DRA")

Dear Ms. Hitzemann,

This letter is in reference to the Proposed Lease of approximately 1,200 square feet located on Lot 6 of Pheasant Run Crossing, to be used for the erection and operation of a cellular communications tower ("Proposed Antenna Tower").

Pursuant to Section 2.01 (L) of Exhibit "B" of the Declaration (the "Declaration") of Covenants, Conditions and Restrictions of Pheasant Run Crossing, no antenna of any sort is permitted on the property of Pheasant Run Crossing without the express permission of the Reviewing Entity. At this time, the Reviewing Entity is the Declarant of the Pheasant Run Crossing Property Association (the "Association").

As the Declarant, I can tell you that the Association has reached a tentative agreement with DRA regarding the major terms pursuant to which the Association would give its permission for the construction and operation of the Proposed Antenna Tower. Therefore, we have no objection to the City of St. Charles proceeding with its approvals process, including permitting and zoning, so long as no final permit is issued until the conditions in the next paragraph are met.

Final permission of the Association for the Proposed Antenna Tower, as required by Section 2.01(L) of Exhibit "B" of the Declaration, will be given when the following conditions are met:

1. Drafting of a written agreement memorializing the major terms that the Association and DRA have agreed to in connection with the Proposed Antenna Tower;
2. Approval by the members of the Pheasant Run Crossing Property Association of such written agreement; and
3. Signing of such written agreement.

Sincerely,



Philip J. Held
Reviewing Entity for the
Pheasant Run Crossing Property Association