



City of Fort Atkinson
City Manager's Office
101 N. Main Street
Fort Atkinson, WI 53538

**PLAN COMMISSION MEETING
IN PERSON AND VIA ZOOM
TUESDAY, APRIL 23, 2024 – 4:00 PM
CITY HALL – SECOND FLOOR**

<https://us02web.zoom.us/j/82214860406?pwd=TEVyUVdQM05VNFVzb0E2TUNTbnZlZz09>

Meeting ID: 822 1486 0406

Passcode: 53538

Dial by Location

+1 312 626 6799

If you have special needs or circumstances which may make communication or accessibility difficult at the meeting, please call (920) 397-9901. Accommodations will, to the fullest extent possible, be made available on request by a person with a disability.

AGENDA

- 1. Call meeting to order**
- 2. Roll call**
- 3. New Business**
 - a. **Public Hearing:** Conditional Use Permit relating to a new wireless telecommunications service facility located in the 1500 block of Commonwealth Drive (Draeger)
- 4. Adjournment**

Date Posted: April 19, 2024

Plan Commission Members: Chairperson Rebecca Houseman; Secretary Andy Selle; Council Representative Eric Schultz; and Commissioners Roz Highfield, Jill Kessenich, Loren Gray and Diana Shull

CC: City Council; City Staff; City Attorney; News Media; Fort Atkinson School District; Fort Atkinson Chamber of Commerce

Notice is hereby given that a majority of the Fort Atkinson City Council may be present at this meeting at the location and time indicated above to gather information about any subject matters on this agenda over which they have decision-making responsibility. This may constitute a meeting of the City Council pursuant to State ex rel. Badke v. Greendale Village Bd., 173 Wis.2d. 553, 494 N.W.2d 408 (1993), and must be noticed as such although the City Council will not take any formal action at this meeting.

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SITE PLAN AND CONDITIONAL USE PERMIT REPORT TO THE PLAN COMMISSION

DATE: April 23, 2024

PROPERTY ADDRESS: No address (Commonwealth Drive)

PARCEL NUMBER: 226-0614-3242-011

OWNER: Highway 12, LLC

APPLICANT: Tillman Infrastructure, LLC on behalf of
AT&T Mobility

FILE NUMBER: CUP-2024-01

EXISTING ZONING: SMU, Suburban Mixed Use

PROPOSED ZONING: SMU, Suburban Mixed
Use

EXISTING LAND USE: Vacant

REQUESTED USES: Wireless Communication
Tower

BACKGROUND

Section 15.10.42 of the City of Fort Atkinson Zoning Ordinance outlines the requirements for the Site Plan application. This requires review of the proposed development's building configuration, site layout and access, parking, exterior building design, landscaping, grading and erosion, stormwater, exterior lighting, signage, and operational plan.

Section 15.10.32 of the City of Fort Atkinson Zoning Ordinance outlines the requirements for the Conditional Use application and procedure. This requires the Site Plan as referenced above and a public hearing before the Plan Commission.

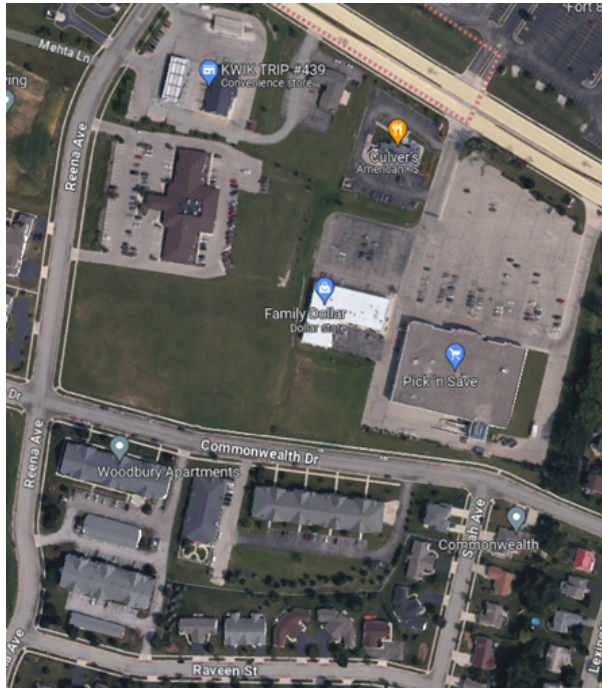
REQUEST OVERVIEW

The applicant has indicated that a lease agreement has been established with the property owner for use of the current vacant property along Commonwealth Drive for a future communication tower use. The property owner will need to provide an affidavit prior to Plan Commission approval, indicating their approval of the application submitted by the potential lessee.

The existing property is 0.8 acres, located directly south of Family Dollar, west of Pick n' Save, north of residential apartments, and east of an existing vacant property. There are no existing structures or access points on the site, but stormwater detention areas exist near the northern and western property lines. The stormwater detention in place serves the property to the north. Previously ownership of the adjacent parcel and this one was the same, but has since been sold. The stormwater pond in place should be attached to the north parcel using a quit claim deed or similar, as a condition of Plan Commission approval.

The proposed development includes a 193-foot metal communication tower, access drive and

utility easement from Commonwealth Drive, and ground-level equipment structures. Additionally, landscaping and fencing surrounding the tower and equipment structures is also proposed.



Within the new Zoning Ordinance, a Communication Tower land use has a defined set of requirements and criteria that must be met prior to granting approval. Additionally, these land uses require a Conditional Use Permit in all zoning districts. This memo reviews the proposed development in respect to the Site Plan requirements, Conditional Use findings, and all land use-specific requirements from Section 15.03.20(1) of the City's Zoning Ordinance.

SITE PLAN REVIEW:

The proposed structure and site layout are required to meet the minimum dimensional standards of the zoning district. These requirements are met, as shown below.

Requirement	Size	Proposed Development
Minimum Front Setback	25 feet	118 feet
Minimum Side Setback	10 feet	57 feet
Minimum Rear Setback	10 feet	53 feet
Maximum Principal Building Height	40 feet	193 feet*
Minimum Pavement Setback (lot line to pavement, excludes driveway entrances)	Side/Rear: 5 feet ROW: 10 feet	Side: >5 feet Rear: >5 feet ROW: >10 feet
Maximum Impervious Surface Ratio	75%	20%
Minimum Green Space	25%	80%
Maximum Building Coverage	50%	15%

*Per Section 15.03.20(1)(j)1. Tower height shall be restricted to 200 feet. Zoning District height restrictions shall not apply to commercial communication towers.

The proposed new land use for the property is Communication Tower, which is permitted as a Conditional Use within the Suburban Mixed Use Zoning District. As noted above, there are a wide variety of land use-specific requirements for Communication Towers. Each are listed below from Section 15.03.20(1):

Required Permit:

- Applicant must provide basic name, address, and location information = met
- Construction plans for structure and equipment = met
- Explanation on why the proposed location was chosen and why collocation with a different structure isn't feasible = met
- Visual analysis of the proposed tower and its features = met
- Registration with the City as a telecommunications provider = met

Placement Requirements:

- Towers shall be setback from any property line a minimum distance equal to 100% of the height of the communication tower = met (per Wis. State Statutes 66.0404, an applicant can provide an engineering certification showing that a mobile service support structure is designed to collapse within a smaller area than the required setback of the local zoning ordinance. If provided, the local zoning ordinance setback requirements do not apply.)
- No tower may be installed closer than ¼ mile from another tower = met

Structural Requirements:

- Designed and constructed to comply with the Wisconsin Administrative Code = met

Tower Design Requirements:

- Constructed of metal or other nonflammable material = met
- Reasonable special design requirements apply where findings of particular sensitivity are made = N/A (see Trileaf letter)
- Sufficient anti-climbing measures are incorporated = met
- Accessory antennas are designed to blend with supporting structure = met
- Designed to accommodate at least three separate antennas for collocation purposes = met

Equipment Building Requirements:

- Minimal impact on principal use of the property = N/A (no other land use on property)
- Exterior storage is not permitted = met (none proposed)
- Buildings or structure must be screened from view from all adjacent lots with a minimum Bufferyard of 0.4 or structures designed to match architectural characteristics of the neighborhoods = met (fencing and trees proposed)
- Minimum principal structure setbacks of the underlying zoning district apply = met

Height Requirements:

- Tower height shall be limited to 200 feet. Zoning District height restrictions shall not apply to commercial communication towers = met (193 feet)
- Towers shall not encroach into municipal airport airspace (airport height limits) = met (outside of limit area)

Collocation Requirements:

- Designed to accommodate the applicant's antenna and two additional users = met

Advertising Requirements:

- No signage permitted on the tower outside of manufacturer identification = met

Lighting Requirements

- No illumination on the tower unless required by the FAA = met

Fencing Requirements

- Tower shall be enclosed by a solid fence at least 6 feet tall or a minimum Bufferyard of 0.4 = met

Color Requirements

- Neutral colors only unless required by the FAA = met (grey)

The proposed project has submitted all required elements of the Site Plan review that are included within the attachment. Below is a review of the various other zoning standards that are required with the proposed development:

Access and Visibility Standards (Section 15.06.03, 15.06.04, and 15.06.05)

- Multiple access points from one street can be approved through the Site Plan process on lots greater than 200 feet long = met (one new access point proposed)
- No access is permitted within 50 feet of an intersection = met
- Minimum driveway setback is 10 feet from side lot line = met
- Maximum driveway size is 24 feet wide = met (15' proposed)
- At least one ped/bicycle access point to at least one street frontage is required = **not met**
- All structures must be located outside of vision triangles at the right-of-way intersections = met

Parking and Loading Standards (Section 15.06.06 and 15.06.07)

- All access points, drive isles, driveways, and parking areas must be constructed of a hard surface = **not met**
- Curbs are required adjacent to buildings, planting islands, required front yards, and to prevent vehicles from extending over pedestrian paths or right-of-way = **not met**
- All parking stalls must provide pavement markings = N/A
- Throat depth (distance between street access and traffic circulation area/parking area) must be a minimum of 25 feet = N/A (no parking or traffic circulation proposed)
- Minimum parking stall dimensions are required to be 9 feet wide and 18 feet long = N/A
- Minimum parking isles widths are required to be 24 feet wide = N/A
- Minimum and maximum off-street parking stalls = met (none required or proposed)
- A minimum of 4 on-site bicycle stalls are required = met (none required or proposed)
- Minimum loading area must be at least 10 feet wide and 25 feet long = N/A

Exterior Lighting Standards (Section 15.06.20)

- At the property line, a maximum of 1.0 footcandle is required = **unknown**
- The average lighting on-site is required to be a maximum average of 3.0 footcandles = **unknown**
- The maximum height of all freestanding light fixtures is 30 feet = **unknown**
- All exterior lighting elements must be shielded and downward facing = **unknown**

Outdoor Storage and Screening Standards (Section 15.06.21)

- All trash containment structures are required to be enclosed, a maximum of 6 feet in height, and made of solid wood with an access gate = met (none proposed)
- All building mechanicals on the exterior of the building are required to be screened = met
- Outdoor storage areas must be screened = met

Landscaping Standards (Section 15.08.30)

Point values are provided for each type of plant and the amount required in each portion of the site is listed within the Zoning Ordinance. This provides the developer with options in customizing the planting selection and location to best fit the project and site.

- 179 landscaping points are required for the street frontage = met
- 35 landscaping points are required for the paved surface areas = met
- 0 landscaping points are required for the building foundation = N/A
- 0 landscaping points are required for the yards = N/A

The total proposed landscaping points equates to 957 points provided (29 total arborvitae trees) surrounding three sides of the fenced enclosure area. The minimum 0.4 bufferyard requirements for Communication Towers are met with the combination of a 6-foot-tall solid fence and the proposed trees.

Exterior Building Design Standards (Section 15.07.40)

There are defined exterior building design standards for different types of uses in the Zoning Code. This project is a telecommunications land use in the Suburban Mixed Use Zoning District. Communication tower and ground-mounted equipment design standards are outlined in Section 15.03.20(1), as included above.

CONDITIONAL USE FINDINGS

In reviewing and taking final action on a proposed conditional use permit, the Plan Commission shall consider whether the proposed conditional use (staff review of each finding is underlined):

- Is in harmony with the Comprehensive Plan. I believe this condition is met. The proposed communication tower provides increased telecommunication services within this area of the community that has been identified by the applicant as a gap within the existing network. Overall, it supports continued mixed-use growth and development in this portion of Fort Atkinson.
- Would result in a substantial or undue adverse impact on nearby property, the character of the neighborhood, environmental factors, traffic factors, parking, public improvements, public property or rights-of-way, or other matters affecting the public health, safety, or general welfare. I believe this condition is met. The applicant has complied with the requirements of the ordinance, which includes a variety of ways to mitigate adverse impacts of the use on its surroundings (tower color, safety measures,

plantings and fencing, and setback from Commonwealth Drive).

- Maintains the desired consistency of land uses, land use intensities, and land use impacts as related to the environs of the subject property. I believe this condition is met. This area contains a mix of uses including retail, clinics, restaurants, and other large-scale commercial entities, in addition to residential. While the height of the tower is certainly much larger than any existing structure in this immediate area, the visual analysis and site plan shows the applicant's effort to mitigate negative impacts on surrounding properties.
- The conditional use is located in an area that will be adequately served by, and will not impose an undue burden on, any of the improvements, facilities, utilities or services provided by public or private agencies serving the subject property. I believe this condition is met. This infill site is already adequately served by utilities and infrastructure, in addition to the use requiring very little use of those facilities for its operations. It also improves telecommunications services and coverage in this portion of Fort Atkinson.
- The potential public benefits outweigh any potential adverse impacts of the proposed conditional use, after taking into consideration the applicant's proposal and any requirements recommended by the applicant to ameliorate such impacts. I believe this condition is met. The proposed communication tower provides public benefits by improving telecommunications services and coverage in Fort Atkinson. Additionally, the applicant has complied with the requirements of the ordinance, which includes a variety of ways to mitigate adverse impacts on the surrounding properties.

The Plan Commission may impose conditions on any conditional use permit related to the physical development and operation, vehicles and equipment of the use, roadway impacts, or other conditions as necessary.

Post Construction Stormwater Management (Ordinance 18-190)

This ordinance follows state law for all developments with greater than 1 acre of disturbance. The ordinance manages stormwater based upon sites characterized as new construction, redevelopment, or in-fill. The ordinance requires the development's stormwater leaving the site be controlled among three categories, volume (peak runoff), TSS (total suspended solids) and Infiltration.

The size of this development is under the 1 acre threshold of the ordinance. The City has consistently asked applicants to make provisions for meaningful stormwater improvements to the site regardless. In this situation, ensuring drainage of impervious surface to the east and west into greenspace will suffice and the applicant has indicated a small retention pond offset from the pad to receive water as well.

-

Construction Site Erosion Control Plan (Ordinance 18-189)

This ordinance follows requires certain levels of control during construction to reduce the movement of sediment (dirt) off the construction site and into local waterways (Rock River, Bark River, Allen Creek).

- Best Management Practices (BMP) that reduce the sediment load of stormwater runoff by a minimum of 80% = N/A
- Written Erosion Control Plan = met
- Prevent tracking of sediment off-site by equipment = **not met**
- Protect catch basins that take sediment laden stormwater into local rivers = **not met**
- Prevent the discharge of sediment as part of site dewatering = **not met**

The plan should add a stabilized construction entrance and detail, inlet protection for the nearest receiving catch basin the right of way, note the location of silt fence on the grading plan, and provide a dewatering detail for use if needed.

PUBLIC NOTICE

A Public Hearing is required for Conditional Use and has been adequately noticed per state statute requirements. No public notice is required for Site Plan review and action. A public notice was sent out to neighbors within 100 feet of the property and published in the Jefferson County Daily Union on April 2, 2024 and April 9, 2024.

COMPREHENSIVE LAND USE PLAN (2019):

The subject parcel lies within the Northwest Quadrant Planning Area (see Attachments) and is identified as Community Commercial within the Plan. The opportunities indicated on the Plan include urban mixed-use development and redevelopment opportunities, community gateway experience, sustainable design, and proximity to Madison enhances marketability.

The subject property is also shown as Community Commercial on the Future Land Use Map. This designation includes indoor commercial, office, community facilities, and controlled outdoor display land uses intended to serve the entire community. The proposed new land use of the property will be Telecommunications (Communication Tower). Staff believes the proposal is in concert with the Comprehensive Plan.

DISCUSSION

As the community's demand grows for increased telecommunication services and coverage, new communication towers are sometimes needed to support those services. As noted in the applicant's analysis of existing communication towers, there are only two within Fort Atkinson

today, covering the north and south ends of the City. This has created a gap between the existing tower northwest of the community (located within the Town) and those within the City.

Furthermore, telecommunication uses are highly regulated by federal bodies that limit local authority. Additionally, Wisconsin State Statutes further limit local authority of these uses and a community's ability to regulate uses via the Conditional Use process (Act 67). This results in a community needing to identify substantial evidence (as defined in statutes) to deny this type of land use as a Conditional Use and that the applicant's proposal is not consistent with Wisconsin State Statutes 66.0404 and the requirements of the zoning ordinance to deny the application. As noted above, the applicant has provided all required materials to satisfy these requirements.

Overall, the proposed development should meet the requirements of the City's ordinances

The City's Management Team has reviewed the application and all comments have been included within this document.

RECOMMENDATION

No recommendations are required for the Public Hearing.

ATTACHMENTS

1. Fort Atkinson CUP application and Exhibits
2. CUP Application Tillman Communications Tower 2024
3. CUP for Tillman Tower Public Notice
4. Construction Drawings
5. Storm water retention area
6. Northwest Quadrant Planning Area
7. Future Lane Use Map

TILLMAN INFRASTRUCTURE / AT&T



**APPLICATION FOR A CONDITIONAL USE PERMIT
APPROVAL FOR
THE PROPOSED MOBILE SERVICE FACILITY
AT**

**COMMONWEALTH DR. (911 ADDRESS TO BE ASSIGNED)
FORT ATKINSON, WI 53538**

TILLMAN SITE # – TI-OPP-29071

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Letter of Application

March 12, 2024

Mr. Jed Draeger
Building Inspector
Zoning Administrator
City of Fort Atkinson
101 N. Main Street
Fort Atkinson WI 53538

RE: Tillman/AT&T Site Number: TI-OPP-29071
1517 Madison Avenue Fort Atkinson, WI 53538

Dear Mr. Draeger:

Tillman Infrastructure, on behalf of its tower tenant, AT&T Mobility, has finalized a lease agreement with the owner of the property referenced above to construct a wireless telecommunications service facility. The proposed shared use facility is designed to house the equipment necessary to provide the technology needed to provide clear and uninterrupted wireless telecommunications services to the residents of Fort Atkinson.

This mobile service support structure and facility is proposed pursuant to the Fort Atkinson Zoning Ordinance, 15.03.20 Telecommunication Land Uses, bulk regulations in the SMU Suburban Mixed Use District, and the WI Revised Statutes 66.0404. The proposed mobile service facility will consist of a 165'-0" tall self-support lattice tower with a 8'-0" lightning rod for a total height of 173'-0" to be located within a 75'-0" x 75'-0" lease area. The proposed mobile service support structure will be erected, owned and managed by Tillman Infrastructure and upon construction; AT&T Mobility will locate their equipment on the tower at the 180'-0" level. The facility is unstaffed and will only require service technicians, in a pick-up/van sized vehicle, to visit the site approximately once per month.

On behalf of Tillman Infrastructure and AT&T Mobility, LCC Telecom Services has submitted all required documentation for the proposed tower in accordance with the Fort Atkinson Zoning Ordinance and Section 66.0404 of the Wisconsin statutes.

Should you have any questions please feel free to contact me. I look forward to working with you during the approval process to provide the residents of Fort Atkinson the best possible PCS coverage.

Sincerely,

John Wallace

John Wallace
Zoning Specialist

Application Materials

Site Data Sheet

Applicant:	Tillman Infrastructure, LLC 152 West 57 th Street 8 th Floor New York, New York 10018 AT&T Mobility 4100 Morosgo Drive NE Atlanta, Georgia 30324
Agent:	John Wallace LCC Telecom Services 10700 Higgins Road Suite 240 Rosemont, IL 60018
Tower Owner:	Tillman Infrastructure, LLC 152 West 57 th Street 8 th Floor New York, New York 10018
Applicant's Interest in the Property:	Leasehold
Property Owner:	HIGHWAY 12 LLC, W6353 Roe Ln Fort Atkinson, WI 24340
Parcel ID Number:	226-0614-3242-011
Address of Property:	To be assigned by county 911
Request:	Application for conditional use approval and any other approvals or permits necessary to erect a 165'-0" self-support lattice tower with a 8'-0" lightning rod for a total height of 173'-0" to be located within a 75'-0" x 75'-0" lease area.

Legal Description

THIS SURVEY WAS COMPLETED WITH THE AID OF TITLE WORK PREPARED BY WESTCOR LAND TITLE INSURANCE COMPANY, COMMITMENT DATE OF JUNE 7, 2023, BEING FILE/COMMITMENT NO. TIL-154716-C, FOR THE SUBJECT PROPERTY, TO DETERMINE THE IMPACTS OF EXISTING TITLE EXCEPTIONS.

SURVEY MATTERS OR EASEMENTS LISTED IN SCHEDULE 'B':

10. EASEMENT BETWEEN RAMESH SHAH; AND CITY OF FORT ATKINSON, WISCONSIN, DATED AUGUST 27, 1997 AND RECORDED SEPTEMBER 4, 1997 IN (BOOK) 1003 (PAGE) 693 (INSTRUMENT) 978836, IN JEFFERSON COUNTY, WISCONSIN. EASEMENT LIES ON PARENT TRACT – AS SHOWN. APPEARS TO BE VACATED BY DOC 1028163
11. ANY AND ALL MATTERS DISCLOSED ON THE MAP ENTITLED "CERTIFIED SURVEY MAP" DATED AUGUST 18, 1999 AND RECORDED AUGUST 20, 1999 IN (BOOK) 18 (PAGE) 224, (INSTRUMENT) 1028163 IN JEFFERSON COUNTY, WISCONSIN. EASEMENT LIES ON PROPERTY – AS SHOWN
12. DISTRIBUTION EASEMENT UNDERGROUND JOINT BETWEEN HIGHWAY 12, LLC, A WISCONSIN LIMITED LIABILITY COMPANY; AND WISCONSIN ELECTRIC POWER COMPANY, A WISCONSIN CORPORATION DOING BUSINESS AS WE ENERGIES, WISCONSIN BELL, INC., D.B.A. SBC WISCONSIN AND MARCUS CABLE PARTNERS, L.L.C., D.B.A. CHARTER COMMUNICATIONS, DATED SEPTEMBER 23, 2003 AND RECORDED OCTOBER 16, 2003 IN (INSTRUMENT) 1137416, IN JEFFERSON COUNTY, WISCONSIN. EASEMENT LIES ON PROPERTY – AS SHOWN
13. ANY AND ALL MATTERS DISCLOSED ON THE MAP ENTITLED "CERTIFIED SURVEY MAP" DATED MARCH 9, 2004 AND RECORDED APRIL 14, 2004 IN (BOOK) 23 (PAGE) 152, (INSTRUMENT) 1149697 IN JEFFERSON COUNTY, WISCONSIN. EASEMENT LIES ON PROPERTY – AS SHOWN
14. ANY AND ALL MATTERS DISCLOSED ON THE MAP ENTITLED "CERTIFIED SURVEY MAP" DATED MARCH 9, 2004 AND RECORDED JULY 28, 2004 IN (BOOK) 23 (PAGE) 281, (INSTRUMENT) 1157199 IN JEFFERSON COUNTY, WISCONSIN. EASEMENTS LIE ON PARENT TRACT – AS SHOWN

PARENT PARCEL, LEGAL DESCRIPTION (NOT FIELD SURVEYED) PER TITLE

SITUATED IN THE COUNTY OF JEFFERSON, STATE OF WISCONSIN:

LOT 2 OF CERTIFIED SURVEY MAP NO. 4624 RECORDED IN VOLUME 23 OF CERTIFIED SURVEYS ON PAGE 281 AS DOCUMENT NO. 1157199, BEING A PART OF THE NORTHWEST $\frac{1}{4}$ OF THE SOUTHEAST $\frac{1}{4}$ IN SECTION 32, TOWNSHIP 6 NORTH, RANGE 14 EAST, CITY OF FORT ATKINSON, JEFFERSON COUNTY, WISCONSIN.

PARCEL ID: 226-0614-3242-011

BEING A PORTION OF THE SAME PROPERTY CONVEYED TO HIGHWAY 12, LLC, A WISCONSIN LIMITED LIABILITY COMPANY IN QUIT CLAIM DEED FROM RAMESH SHAH & ILA SHAH DATED JULY 2, 2003 AND RECORDED JULY 18, 2003 IN INSTRUMENT NO. 1127599. DEED WAS RE-RECORDED AUGUST 11, 2003 IN INSTRUMENT NO. 1130338 TO CORRECT THE LEGAL DESCRIPTION.

PROPOSED LEASE AREA:

A PART OF LOT 2 OF CERTIFIED SURVEY MAP NO. 4624 RECORDED IN VOLUME 23 OF CERTIFIED SURVEYS ON PAGE 281 AS DOCUMENT NO. 1157199, BEING A PART OF THE NW1/4 OF THE SE1/4 OF SECTION 32, TOWNSHIP 6 NORTH, RANGE 14 EAST, CITY OF FORT ATKINSON, JEFFERSON COUNTY, WISCONSIN, MORE PARTICULARLY DESCRIBED AS COMMENCING AT THE SE CORNER OF SAID LOT 2; THENCE N82°37'39"W, ALONG THE SOUTH LINE OF SAID LOT 2, 103.24 FEET; THENCE N13°24'06"E, 89.83 FEET; THENCE S76°35'54"E, 30.00 FEET TO THE POINT OF BEGINNING FOR THE LEASE AREA HEREIN INTENDED TO BE DESCRIBED: THENCE N76°35'54"W, 75.00 FEET; THENCE N13°24'06"E, 75.00 FEET; THENCE S76°35'54"E, 75.00 FEET; THENCE S13°24'06"W, 75.00 FEET TO THE POINT OF BEGINNING, CONTAINING 5,625 SQUARE FEET.

PROPOSED ACCESS/UTILITY EASEMENT:

A PART OF LOT 2 OF CERTIFIED SURVEY MAP NO. 4624 RECORDED IN VOLUME 23 OF CERTIFIED SURVEYS ON PAGE 281 AS DOCUMENT NO. 1157199, BEING A PART OF THE NW1/4 OF THE SE1/4 OF SECTION 32, TOWNSHIP 6 NORTH, RANGE 14 EAST, CITY OF FORT ATKINSON, JEFFERSON COUNTY, WISCONSIN, MORE PARTICULARLY DESCRIBED AS COMMENCING AT THE SE CORNER OF SAID LOT 2; THENCE N82°37'39"W, ALONG THE SOUTH LINE OF SAID LOT 2, 103.24 FEET; THENCE N13°24'06"E, 89.83 FEET; THENCE S76°35'54"E, 30.00 FEET TO THE POINT OF BEGINNING FOR THE LEASE AREA HEREIN INTENDED TO BE DESCRIBED: THENCE N76°35'54"W, 75.00 FEET; THENCE N13°24'06"E, 75.00 FEET; THENCE S76°35'54"E, 75.00 FEET; THENCE S13°24'06"W, 75.00 FEET TO THE POINT OF BEGINNING, CONTAINING 5,625 SQUARE FEET.

Narrative Overview

Tillman Infrastructure, LLC. (“Tillman Infrastructure”), requests a conditional use permit for a mobile service support structure and facility and any other permits or approvals necessary to install the facility on property located in an SMU zoning district at 37478 Commonwealth Drive, Fort Atkinson, WI 24340. Tillman Infrastructure has an agreement with AT&T Mobility (hereinafter “AT&T”) to develop this site on behalf of AT&T. In addition to AT&T, the site will be offered as a shared facility to any other communication carriers that need a facility in this area. AT&T has acquired the necessary licenses from the Federal Communications Commission (“FCC”) to provide Personal Communications Services (“PCS”) coverage throughout the United States. These licenses include the Fort Atkinson area.

The proposed site is in a Suburban Mixed Use (SMU) district. In accordance with the Fort Atkinson Zoning Ordinance, a mobile service support structure and facilities is permitted in this district as a conditional use. The proposed tower will benefit the residents of Fort Atkinson by optimizing coverage and capacity and allowing for competition in the communications tower industry which will ultimately benefit all consumers.

The mobile service support structure and facility that Tillman Infrastructure is proposing to install on the property for AT&T will provide uninterrupted PCS services to the residents of the Fort Atkinson, including wireless telephone service, voice paging, messaging and wireless internet and broadband data transmission. All registered wireless provider’s technology operates at various radio frequency bands allocated by the FCC as part of their license.

PCS systems operate on a grid system where overlapping cells mesh together, forming a seamless network. No single site can function as a stand-alone entity as each site is interconnected, forming the network. The technical criteria for establishing cell sites are very exacting as to the location and height within the geographic area deemed necessary for AT&T and other mobile service providers to provide uninterrupted services.

In accordance with the Fort Atkinson’s Zoning Ordinance Section, Tillman Infrastructure has made application to install a mobile service facility. The proposed wireless telecommunications facility will consist of a 165’-0” tall self-support lattice tower with a 8’-0” lightning rod for a total height of 173’-0” to be located within a 75’-0” x 75’-0” lease area.

The facility is unstaffed and will require service technicians, in a pick-up/van sized vehicle, to visit the site approximately once per month. Access will be provided via an easement, with the proposed property entry being off of Commonwealth Drive, which currently terminates and turns into an unimproved access to an old cemetery on the subject property (the proposed location is directly south of said cemetery; extension of access road off of Commonwealth Dr. will turn south and extend on the east side of cemetery before curving west to proposed compound) . The site is entirely self-monitored through a sophisticated alarm system which is connected to a main switch station. The system alerts personnel to any equipment malfunction or breach of security. Additionally, the facility will not utilize Fort Atkinson's water or sanitation services and will require no additional police and fire services. The only utilities used by the facility will be power and land-line telephone.

In accordance with FCC regulations, the mobile service facility will not interfere with any form of communications, including but not limited to, land-line phones, cable and satellite television and radio broadcasts. PCS technology has become a vital part of emergency services, aiding residents and motorists in a variety of situations, thus helping to protect the general public's health, safety and welfare. The proposed wireless telecommunications facility at this site will further enhance the goals of providing the most reliable network possible in this area.

The proposed mobile service facility will be designed and constructed to meet all applicable governmental and industry safety standards. Specifically, Tillman Infrastructure will comply with all FCC and FAA rules and regulations regarding construction requirements and technical standards. Any and all RF emissions are subject to the exclusive jurisdiction of the FCC. Any height, lighting or marking issues are subject to the exclusive jurisdiction of the FAA.

LCC Telecom Services, on behalf of Tillman Infrastructure, looks forward to working with Fort Atkinson to bring the benefits of the proposed service to the area. The addition of the mobile service facility will ensure the best uninterrupted wireless services for the citizens of Fort Atkinson.

Compliance with Fort Atkinson New Tower and Suburban Mixed Use (SMU) Regulations

This wireless communications facility is being constructed pursuant to the Fort Atkinson Zoning Ordinance, Section 15.03.20 Telecommunication Land Uses, bulk regulations in the SMU Suburban Mixed Use District, and the WI Revised Statutes of 66.0404, which the zoning code explicitly acknowledges. No water nor sewer will be required at the site located at 42.93933120 latitude, and -88.86169927 longitude, nor will any signage be placed on it except that required by the FAA and FCC on the compound fence.

The SMU bulk district regulations call for a 20,000 square foot lot, 50' of frontage, 30' off of Commonwealth Drive, and ten (10') off the side and rear setbacks, all of which the proposed location meets per the site plan in the enclosed preliminary construction drawings.

Compliance with the Communication Tower regulations are answered individually in bold below:

Section 15.03.20: Telecommunication Land Uses

(1) Communication Tower: Any structure that is designed and constructed for the purpose of supporting one or more antennas for communication purposes such as cellular telephones or similar, including self-supporting lattice towers, guyed towers, or monopole towers.

Tower is self-supporting lattice tower.

(c) Submittal and review procedure requirements and other requirements specific to Communication Towers must be consistent with Wis. Stats. 66.0404.

Agree.

(d) Permit Required. A permit is required for all new Communication Towers or modifications to existing Communication Towers. The permit application shall contain all of the following information:

1. The name and business address of, and the contact individual for, the applicant.
2. The location of the proposed or affected support structure.
3. The location of the proposed mobile service facility..
4. If the application is to substantially modify an existing support structure, a construction plan which describes the proposed modifications to the support structure and the equipment and network components, including antennas, transmitters, receivers, base stations, power supplies, cabling, and related equipment associated with the proposed modifications.
5. If the application is to construct a new mobile service support structure, a construction plan which describes the proposed mobile service support structure and the equipment and network components, including antennas, transmitters, receivers, base stations, power supplies, cabling, and related equipment to be placed on or around the new mobile service support structure.
6. If an application is to construct a new mobile service support structure, an explanation as to why the applicant chose the proposed location and why the applicant did not choose

collocation, including a sworn statement from an individual who has responsibility over the placement of the mobile service support structure attesting that collocation within the applicant's search ring would not result in the same mobile service functionality, coverage, and capacity; is technically infeasible; or is economically burdensome to the mobile service provider.

The materials requested in 1-6 above have been submitted in the Statement of Compliance that has been submitted with this application

a. The application must also include a visual analysis, which may include an annotated photo montage, field mockup, or other technique prepared by or on behalf of the applicant which identifies the potential visual impacts, location, configuration, and the design capacity of the proposed facility to the satisfaction of the Plan Commission. Consideration shall be given to views from public areas as well as from private residences. The analysis shall assess the impacts of the proposed facility and other existing telecommunication facilities in the area, and shall identify and include all feasible mitigation measures consistent with the technological requirements of the proposed personal wireless services. All costs for the visual analysis, and applicable administrative costs, shall be borne by the applicant.

Please see enclosed photo-simulations.

(e) All service carriers and providers that offer or provide any telecommunications services for a fee directly to the public, either within the City or outside the corporate limits from telecommunications facilities within the City, and all communication tower owners, shall register and provide to the City, pursuant to this ordinance, on forms to be provided by the Building Inspector and shall provide with each conditional use application the following information below. It shall be unlawful for any personal wireless services carrier or provider who offers or provides services within the City, or any communication tower owner who owns or operates telecommunications facilities within the City, to fail to register and provide the information required within thirty (30) days of such a request by the City.

Understood.

1. The identity and legal status of the registrant, including any affiliates.
2. The name, address and telephone number of the officer, agent or employee responsible for the accuracy of the registration statement.

Please see site data sheet above.

3. A narrative and map description of registrant's existing telecommunications facilities within the City, adjacent cities, villages and townships.

Please see Sworn Statement of Need from AT&T

4. Such other information as the Building Inspector may reasonably require.

(f) Placement Requirements.

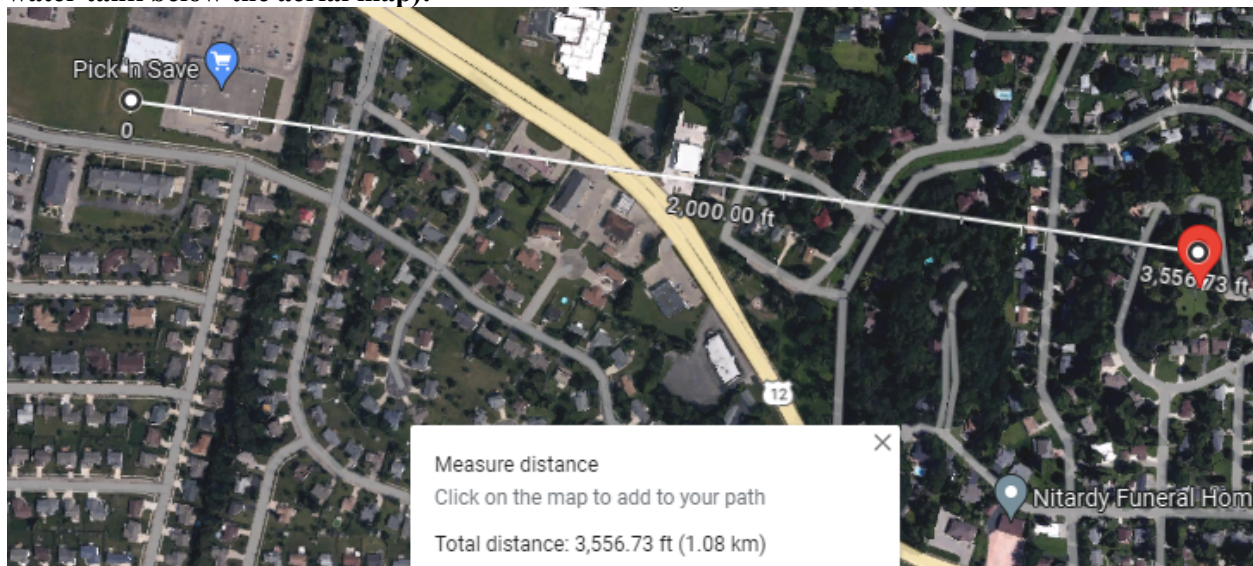
1. Towers and guyed wires shall be setback from any property line a minimum distance equal to 100% of the height of the communication tower.

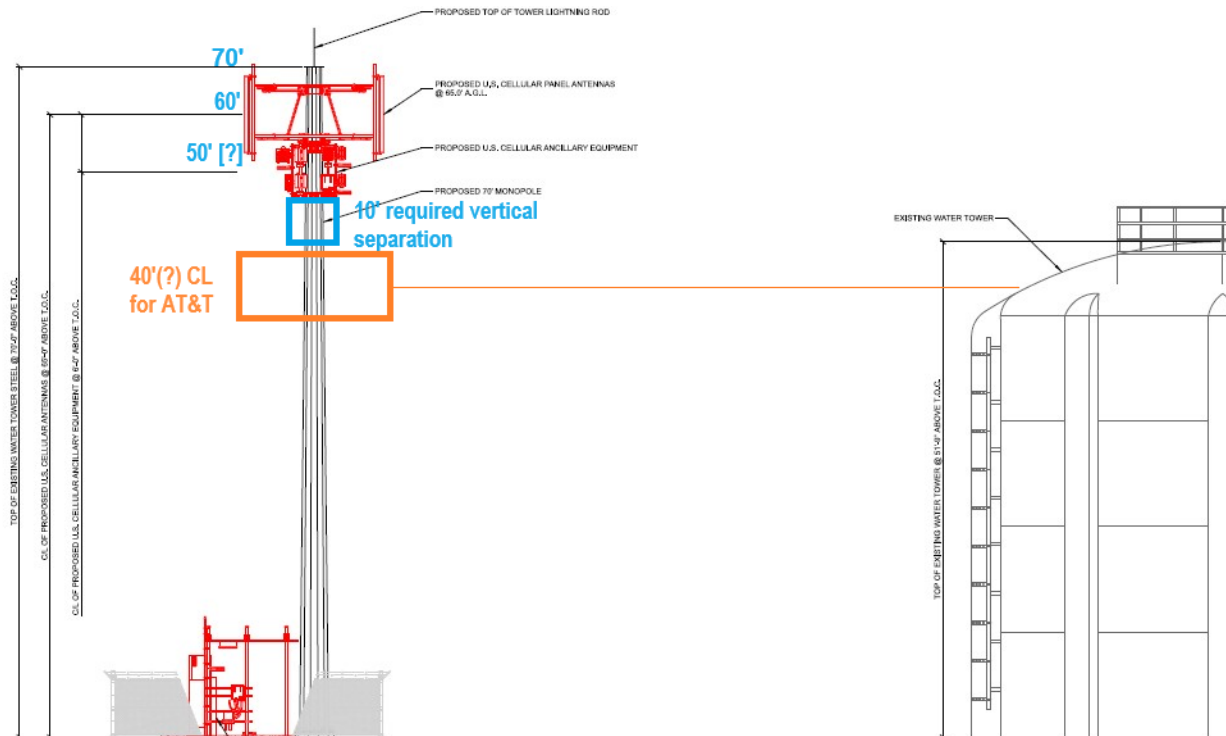
Per WI State Statute 66.0404 a Professional Engineer certified letter delimiting collapse area (fall zone) within parcel area will be submitted with any building permit application and assumes such a requirement would be a stated condition should this CUP be approved.

2. The placement of towers on the roof of existing buildings must maintain a setback from residential zones or properties the same as the building setback required for new buildings. NA

3. No communication tower shall be installed closer than one-quarter mile from another communication tower, measured from the base of the tower to the base of the proposed tower, unless it is a tower situated on a multi-tower zoning lot, or credible evidence to a reasonable degree of certainty acceptable to the Plan Commission is submitted showing a clear need for said new tower and the infeasibility of co-locating it on an existing site. For the purposes of this requirement, exempt telecommunications facilities unavailable for colocation shall not be included in the one-quarter mile computation.

Tower is not within one-quarter mile of any existing towers. The closest tower, built by USCellular, is located just north of the water tank at 711 Zaffke Road, over 3,500' from the proposed location (.67 miles). Although this tower is at a higher ground elevation, the available mounting height of approximately 40' is insufficient. The lower available height is due to USCellular stacking its "ancillary equipment" (remote radio units) below their antennas and industry standards of 10' minimum vertical separation between wireless carrier equipment due to interference issues. The available height of 40', versus the proposed 160', is wholly inadequate to fill in the coverage area between the three existing towers. There would be also significant possibility of the wireless signal being blocked due to close proximity to the metal water tank itself (see elevation of new tower and water tank below the aerial map):





(g) Structural Requirements.

1. Communication towers shall be constructed out of metal or other nonflammable material, unless specifically permitted by the City to be otherwise.

Proposed tower will be galvanized steel

2. Telecommunication support facilities see (i) Equipment Buildings below

3. The City shall have the authority to require reasonable special design (materials, architectural features and color) of the communication tower where findings of particular sensitivity are made (e.g. proximity to historic or aesthetically significant structures, views and/or community features).

Understood

4. Communication towers shall insure that sufficient anti-climbing measures have been incorporated into the facility, as needed, to reduce potential for trespass and injury.

Anti-climbing measures will be incorporated into the design of the tower.

5. Accessory communication antenna shall be designed to blend with its supporting structure. The color selected shall be one that in the opinion of the Plan Commission will minimize the visibility of the antennas to the greatest extent feasible.

Proposed tower is galvanized steel/"grey".

6. All new communication towers shall be structurally and electrically designed to

accommodate at least three (3) separate antenna arrays, unless credible evidence is presented that said construction is economically and technologically unfeasible or the Plan Commission determines that for reasons of aesthetics or to comply with the standards above, a communication tower of such height to accommodate three antenna arrays is unwarranted. Multi-user communication towers shall be designed to allow for future rearrangement of antennas and to accept antennas mounted at varying heights. Parking areas, access roads, and utility easements shall be shared by site users, at fair market rates as determined by customary industry standards, when in the determination of the Plan Commission this will minimize overall visual impact to the community.

Tower will be designed for three carriers and the turn-around parking spot next to compound is non-exclusive and to be shared by all users of tower.

(i) Equipment buildings. Equipment buildings, including cabinets, used in connection with commercial communication antennas will be subject to the following conditions:

1. Any location and impact of the equipment buildings shall be made as minimal as possible so as not to prevent the principal use of the property.

Compound will be fully landscaped at perimeter.

2. Exterior storage of ground-mounted equipment or materials shall not be permitted.

Understood.

3. Equipment buildings or structures may be mounted on the roof of a building provided that such building or structure is placed as unobtrusively as possible (e.g. integrated into the roof design) and/or is screened from view from adjacent roads and properties.

N/A

4. Any ground-mounted equipment building used for accessory equipment must either be screened from view from all adjacent residential and commercial uses and potentially incompatible municipal uses with a bufferyard with a minimum opacity of 0.40, or the equipment building must be constructed with similar materials, style, roof pitch, etc., to complement the architectural character of the surrounding neighborhood.

Compound will be fully landscaped at perimeter per enclosed construction drawing site plan.

5. All ground-mounted equipment buildings shall at a minimum meet the required setbacks of a principal structure for the underlying zoning district and shall meet all applicable building code requirements.

(j) Height Requirements.

1. Tower height shall be restricted to 200 feet. District height restrictions shall not apply to commercial communication towers.

Overall height is 193'.

2. Towers shall not encroach into airspace prescribed by FAR part 77 and the most current "Height Limitation Zoning Map, Fort Atkinson Municipal Airport, Fort Atkinson, Wisconsin." Exceptions to this requirement shall be administered by the City.

Tower will not be built without FAA final determination.

(k) Collocation. A proposed tower shall be structurally and electrically designed to accommodate the applicant's antenna and comparable antennas for two additional users. Towers shall be designed to allow for future rearrangement of antennas and to accept antennas mounted at varying heights.

Tower designed for 3 carriers.

(l) Advertising. No form of advertising or identification, or sign is allowed on the tower other than the customary manufacturer identification plate.

Understood.

(m) Lighting. Towers shall not be artificially illuminated unless required by the FAA or any other applicable authority.

Lighting is not anticipated as under 200' but will need to comply with FAA final determination.

(n) Fencing. A tower shall be enclosed by solid fencing not less than 6 feet in height or a bufferyard with a minimum opacity of 0.40 and secured so that it is not accessible by the general public. Fence design, materials and colors shall reflect the character of the surrounding area.

For security reasons tower is proposed to have barbed wire atop cyclone fence but screened behind landscaping; will abide with city recommendation.

(o) Color. The wireless communication tower and antennae shall be of a neutral color such as light gray or sky blue except as dictated by the Federal Aviation Administration (FAA) and be designed to minimize visibility and to blend into the surrounding environment. Towers with antennas shall be designed to withstand applicable wind load requirements as prescribed in the Uniform Building Code. Towers and/or antenna systems shall be constructed of, or treated with, corrosive resistant material. A regular maintenance schedule shall be followed.

Tower will be light grey in terms of galvanized steel.

(p) Abandonment.

1. The applicant shall provide a written agreement stating that if the tower or transmitters are unused for a period exceeding 365 days, the applicant shall remove the tower or transmitters upon request from the City.

Understood.

2. Within 30 days of the date on which the tower use ceases, the permit holder shall provide the commission written notice of the cessation of use.

Understood.

3. If unused facilities are not removed, the City may remove the items at the expense of the property owner.

Understood.

(q) Inventory and Tracking System. The zoning administrator shall compile a list of existing telecommunications facilities within the City's jurisdiction based upon information provided by personal wireless services providers and communication tower owners. The Zoning Administrator shall maintain, and update said list on a regular basis. The list shall also include the location of public facilities that may be available for co-location.

Please see AT&T statement of need and RF propagation maps enclosed herewith.

(r) Exempt Facilities.

1. Publicly owned and operated facilities required in the public interest to provide for and maintain a radio frequency telecommunication system, including digital, analog, wireless or electromagnetic waves, for police, fire and other municipal services.

(s) Applications and Fees.

1. All co-location applications must be processed within the timeframes set forth by the Federal Communications Commission. Any application for the co-location of small wireless facilities must be processed by the city within 60 days of receiving a completed application and any other co-location facility application must be processed within 90 days of receiving a completed application.

Understood

2. All fees associated with small wireless facilities must be a reasonable approximation of the objectively reasonable cost associated with maintaining infrastructure or processing an application in accordance with the maximum values set forth by the Federal Communications Commission.

Understood.

City of Fort Atkinson New Tower and Suburban Mixed Use (SMU) Regulations

Applicant responses to Section 15.10.32(8) in bold below.

a) Is in harmony with the Comprehensive Plan. **In the Fort Atkinson Comprehensive Plan - Amended 2.17.22 – there are only two mentions of telecommunications. On page 127 it notes: “Telecommunications and Power Distribution: Both AT&T and Charter Spectrum offer hard-wired telephone internet and cable services to the City of Fort Atkinson. Additionally, most major providers offer cell phone coverage in the area.” Furthermore, on page 131 the goal for telecommunications is to “explore bringing broadband fiber and high-speed internet to the city.: While a telecommunication tower facility is not fiber optic (although it is connected to the wireless network hubs via fiber optic), many residential and business users rely on their smart phones for such internet usage, inclusive of “hotspot” use of the smart phone. The proposed location is in a mixed-use area of town just southeast from an highway interchange, marked by such a variety of both business and residential uses, although the specific location is in a commercially developed and developing area. AT&T has identified this area as a coverage weak spot in their network coverage and thus the need for a new facility there. No existing structure within the identified coverage area is tall enough and thus the proposed location that afford the necessary upgrade to allow the business and residential users to enjoy maximum benefit of internet and telephony uses of their smart phones.**

(b) Would result in a substantial or undue adverse impact on nearby property, the character of the neighborhood, environmental factors, traffic factors, parking, public improvements, public property or rights-of-way, or other matters affecting the public health, safety, or general welfare. **The zoning code anticipates towers in mixed-use areas such as the general zoning district of the proposed subject parcel. The proposed facility will not require public sewer or water, nor generate any significant traffic besides an approximately one month visit by an operations tech. The galvanized tower will essentially be of the same aesthetic nature as high-tension power lines and wind turbine towers already in the area.**

(c) Maintains the desired consistency of land uses, land use intensities, and land use impacts as related to the environs of the subject property. **The subject parcel is small for a commercial lot and thus no larger undeveloped commercial parcel will be encumbered with a telecommunications facility in this business park area for future development – we believe a telecommunication use on this small parcel is thus ideal and will meet the internet and telephony needs of the currently underserved area.**

(d) The conditional use is located in an area that will be adequately served by, and will not impose an undue burden on, any of the improvements, facilities, utilities or services provided by public or private agencies serving the subject property. **The only utilities that will be brought into the site are commercial power and fiber optic; the access drive is for an operations tech to visit approximately once a month and park off-street on the site. As note above, the**

wireless coverage of this area is not adequately served and will be cured by this new facility.

(e) The potential public benefits outweigh any potential adverse impacts of the proposed conditional use, after taking into consideration the applicant's proposal and any requirements recommended by the applicant to ameliorate such impact. Optimal wireless coverage for smart phone use has become a defining feature of the 21st century and this site will offer just that to the currently underserved northwest area of Fort Atkinson. **The structure is like any other infrastructure in being unmanned and relying on no municipal services. At the streetview level we are committed to working with the City to ameliorate visual impact through landscaping and fence/gate design. The enclosed construction drawings propose such features but the applicant agrees to abide by the ultimate decisions of the city regarding that in the conditional use process.**

Additional requirements on the CUP application:

The Applicant shall submit one electronic copy of the application.

A map of the subject property to scale depicting:

- ☐ All lands for which the conditional use is proposed and all other lands within 100 feet of the boundaries of the subject property.
- ☐ Current zoning of the subject property and its environs, and the jurisdiction(s) which maintains that control.
- ☐ All lot dimensions of the subject property.
- ☐ A graphic scale and a north arrow.



☐ Written description of the proposed conditional use including the type of activities, buildings, structures, and off-street parking proposed for the subject property and their general locations, as well as the number of employees and the hours of operation. **Please Narrative Summary included herewith**

☐ A site plan of the subject property if proposed for development conforming to all requirements of Section 15.10.42 of the Fort Atkinson Zoning Code. If the proposed conditional use is a group or large development (per Section 15.06.02), a proposed preliminary plat or conceptual plat may be substituted for the required site plan, provided said plat contains all information required per Section 15.10.42. **Please see construction drawings included herewith**

☐ Written justification for the proposed conditional use, including evidence that the application is consistent with the Comprehensive Plan and meets any additional standards required in the applicable zoning district. See Section 15.10.32(8) for review criteria. **Please Narrative Summary included herewith**

☐ Written descriptions of anticipated daily traffic, types and weights of vehicles, and any provisions, intersection or road improvements or other measures proposed to accommodate increased traffic. A Traffic Impact Analysis (TIA) meeting Wisconsin Department of Transportation requirements for content and format may be required by the City if deemed necessary by the City Engineer. **Please see at the Narrative Summary included herewith, but**

to reiterate, operations personnel will park their vehicle off street on the parcel and will only visit one every one to two months adding negligible traffic to the local street.

☐ A listing of hazardous, toxic, or explosive materials stored on site, and any spill containment, safety, or pollution prevention measures taken. **No explosive items or other hazardous or toxic material will be stored on site beyond electronics for the propagation of radio waves.**

CUP Application



City of Fort Atkinson
City Manager's Office
101 N. Main Street
Fort Atkinson, WI 53538

City of Fort Atkinson Procedural Checklist for Conditional Use Permits Requirements per Section 15.10.32

This form is designed to be used by the Applicant as a guide to submitting a complete application for a conditional use and by the City to process the application.

Name, company, and client (if applicable): John Wallace, LCC Telecom, for Tillman Infrastructure, client

Anchor tenant on proposed tower is AT&T Wireless

Phone number: 312-961-0559 Email: jwallace@lcc telecom.com

Property address for proposed conditional use: COMMONWEALTH DR. (911 ADDRESS TO BE ASSIGNED)

FORT ATKINSON, WI 53538

Brief description of proposed conditional use: self-support tower for wireless communication
and associated ground equipment

I Application Packet Requirements

The Applicant shall submit one electronic copy of the application.

- ☒ A map of the subject property to scale depicting:
 - ☒ All lands for which the conditional use is proposed and all other lands within 100 feet of the boundaries of the subject property.
 - ☒ Current zoning of the subject property and its environs, and the jurisdiction(s) which maintains that control.
 - ☒ All lot dimensions of the subject property.
 - ☒ A graphic scale and a north arrow.
- ☒ Written description of the proposed conditional use including the type of activities, buildings, structures, and off-street parking proposed for the subject property and their general locations, as well as the number of employees and the hours of operation.
- ☒ A site plan of the subject property if proposed for development conforming to all requirements of Section 15.10.42 of the Fort Atkinson Zoning Code. If the proposed conditional use is a group or large development (per Section 15.06.02), a proposed preliminary plat or conceptual plat may be substituted for the required site plan, provided said plat contains all information required per Section 15.10.42.
- ☒ Written justification for the proposed conditional use, including evidence that the application is consistent with the Comprehensive Plan and meets any additional standards required in the applicable zoning district. See Section 15.10.32(8) for review criteria.
- ☒ Written descriptions of anticipated daily traffic, types and weights of vehicles, and any provisions, intersection or road improvements or other measures proposed to accommodate increased traffic. A Traffic Impact Analysis (TIA) meeting Wisconsin Department of Transportation requirements for content and format may be required by the City if deemed necessary by the City Engineer.
- ☒ A listing of hazardous, toxic, or explosive materials stored on site, and any spill containment,

WI State Statute 66.0404

<https://docs.legis.wisconsin.gov/statutes/statutes/66/iv/0404>

(2) NEW CONSTRUCTION OR SUBSTANTIAL MODIFICATION OF FACILITIES AND SUPPORT STRUCTURES.

(a) Subject to the provisions and limitations of this section, a political subdivision may enact a zoning ordinance under s. [59.69](#), [60.61](#), or [62.23](#) to regulate any of the following activities:

1. The siting and construction of a new mobile service support structure and facilities.
2. With regard to a class 1 collocation, the substantial modification of an existing support structure and mobile service facilities.

(b) If a political subdivision regulates an activity described under par. [\(a\)](#), the regulation shall prescribe the application process which a person must complete to engage in the siting, construction, or modification activities described in par. [\(a\)](#). The application shall be in writing and shall contain all of the following information:

1. The name and business address of, and the contact individual for, the applicant.
 2. The location of the proposed or affected support structure.
 3. The location of the proposed mobile service facility.
 4. If the application is to substantially modify an existing support structure, a construction plan which describes the proposed modifications to the support structure and the equipment and network components, including antennas, transmitters, receivers, base stations, power supplies, cabling, and related equipment associated with the proposed modifications.
 5. If the application is to construct a new mobile service support structure, a construction plan which describes the proposed mobile service support structure and the equipment and network components, including antennas, transmitters, receivers, base stations, power supplies, cabling, and related equipment to be placed on or around the new mobile service support structure.
 6. If an application is to construct a new mobile service support structure, an explanation as to why the applicant chose the proposed location and why the applicant did not choose collocation, including a sworn statement from an individual who has responsibility over the placement of the mobile service support structure attesting that collocation within the applicant's search ring would not result in the same mobile service functionality, coverage, and capacity; is technically infeasible; or is economically burdensome to the mobile service provider.
- (c)** If an applicant submits to a political subdivision an application for a permit to engage in an activity described under par. [\(a\)](#), which contains all of the information required under par. [\(b\)](#), the political subdivision shall consider the application complete. If the political subdivision does not believe that the application is complete, the political subdivision shall notify the applicant in writing, within 10 days of receiving the application, that the application is not complete. The written notification shall specify in detail the required information that was incomplete. An applicant may resubmit an application as often as necessary until it is complete.
- (d)** Within 90 days of its receipt of a complete application, a political subdivision shall complete all of the following or the applicant may consider the application approved, except that the applicant and the political subdivision may agree in writing to an extension of the 90 day period:
1. Review the application to determine whether it complies with all applicable aspects of the political subdivision's building code and, subject to the limitations in this section, zoning ordinances.
 2. Make a final decision whether to approve or disapprove the application.
 3. Notify the applicant, in writing, of its final decision.
 4. If the decision is to disapprove the application, include with the written notification substantial evidence which supports the decision.
- (e)** A political subdivision may disapprove an application if an applicant refuses to evaluate the feasibility of collocation within the applicant's search ring and provide the sworn statement described under par. [\(b\) 6](#).

- (f) A party who is aggrieved by the final decision of a political subdivision under par. (d) 2. may bring an action in the circuit court of the county in which the proposed activity, which is the subject of the application, is to be located.
- (g) If an applicant provides a political subdivision with an engineering certification showing that a mobile service support structure, or an existing structure, is designed to collapse within a smaller area than the setback or fall zone area required in a zoning ordinance, that zoning ordinance does not apply to such a structure unless the political subdivision provides the applicant with substantial evidence that the engineering certification is flawed.
- (h) A political subdivision may regulate the activities described under par. (a) only as provided in this section.
- (i) If a political subdivision has in effect on July 2, 2013, an ordinance that applies to the activities described under par. (a) and the ordinance is inconsistent with this section, the ordinance does not apply to, and may not be enforced against, the activity.

(4) LIMITATIONS. With regard to an activity described in sub. (2) (a) or a class 2 collocation, a political subdivision may not do any of the following:

- (a) Impose environmental testing, sampling, or monitoring requirements, or other compliance measures for radio frequency emissions, on mobile service facilities or mobile radio service providers.
- (b) Enact an ordinance imposing a moratorium on the permitting, construction, or approval of any such activities.
- (c) Enact an ordinance prohibiting the placement of a mobile service support structure in particular locations within the political subdivision.
- (d) Charge a mobile radio service provider a fee in excess of one of the following amounts:
 1. For a permit for a class 2 collocation, the lesser of \$500 or the amount charged by a political subdivision for a building permit for any other type of commercial development or land use development.
 2. For a permit for an activity described in sub. (2) (a), \$3,000.
- (e) Charge a mobile radio service provider any recurring fee for an activity described in sub. (2) (a) or a class 2 collocation.
- (f) Permit 3rd party consultants to charge the applicant for any travel expenses incurred in the consultant's review of mobile service permits or applications.
- (g) Disapprove an application to conduct an activity described under sub. (2) (a) based solely on aesthetic concerns.
- (gm) Disapprove an application to conduct a class 2 collocation on aesthetic concerns.
- (h) Enact or enforce an ordinance related to radio frequency signal strength or the adequacy of mobile service quality.
- (i) Impose a surety requirement, unless the requirement is competitively neutral, nondiscriminatory, and commensurate with the historical record for surety requirements for other facilities and structures in the political subdivision which fall into disuse. There is a rebuttable presumption that a surety requirement of \$20,000 or less complies with this paragraph.
- (j) Prohibit the placement of emergency power systems.
- (k) Require that a mobile service support structure be placed on property owned by the political subdivision.
- (L) Disapprove an application based solely on the height of the mobile service support structure or on whether the structure requires lighting.
- (m) Condition approval of such activities on the agreement of the structure or mobile service facility owner to provide space on or near the structure for the use of or by the political subdivision at less than the market rate, or to provide the political subdivision other services via the structure or facilities at less than the market rate.
- (n) Limit the duration of any permit that is granted.
- (o) Require an applicant to construct a distributed antenna system instead of either constructing a new mobile service support structure or engaging in collocation.
- (p) Disapprove an application based on an assessment by the political subdivision of the suitability of other locations for conducting the activity.

- (q)** Require that a mobile service support structure, existing structure, or mobile service facilities have or be connected to backup battery power.
- (r)** Impose a setback or fall zone requirement for a mobile service support structure that is different from a requirement that is imposed on other types of commercial structures.
- (s)** Consider an activity a substantial modification under sub. [\(1\)\(s\) 1.](#) or [2.](#) if a greater height is necessary to avoid interference with an existing antenna.
- (t)** Consider an activity a substantial modification under sub. [\(1\)\(s\) 3.](#) if a greater protrusion is necessary to shelter the antenna from inclement weather or to connect the antenna to the existing structure by cable.
- (u)** Limit the height of a mobile service support structure to under 200 feet.
- (v)** Condition the approval of an application on, or otherwise require, the applicant's agreement to indemnify or insure the political subdivision in connection with the political subdivision's exercise of its authority to approve the application.
- (w)** Condition the approval of an application on, or otherwise require, the applicant's agreement to permit the political subdivision to place at or collocate with the applicant's support structure any mobile service facilities provided or operated by, whether in whole or in part, a political subdivision or an entity in which a political subdivision has a governance, competitive, economic, financial or other interest.

Photosimulations



Red Circles is 500' radius from center of tower

WESTCHESTER SERVICES L.L.C. ♦ 604 FOX GLEN ♦ BARRINGTON, ILLINOIS 60010
847/277-0070 Main ♦ 847/277-0080 Facsimile ♦ e-mail: ae@westchesterservices.com

****This photo simulation is an artist's interpretation of the proposed project; actual construction may vary.**



LCC / Tillman – TI-OPP-29071
View 1 – Before



LCC / Tillman – TI-OPP-29071
View 1 – After



LCC / Tillman – TI-OPP-29071
View 2 – Before



LCC / Tillman – TI-OPP-29071
View 2 – After



LCC / Tillman – TI-OPP-29071
View 3 – Before



LCC / Tillman – TI-OPP-29071
View 3 – After



LCC / Tillman – TI-OPP-29071
View 4 – Before



LCC / Tillman – TI-OPP-29071
View 4 – After

Sworn Statement of Need

**AFFIDAVIT
SWORN STATEMENT OF NEED FOR A NEW MOBILE SERVICE SUPPORT
STRUCTURE IN SUPPORT OF NEW TOWER CONSTRUCTION**

STATE OF ILLINOIS

COUNTY OF DUPAGE

The undersigned, Andrew Flowers, being first duly sworn on oath, deposes and states as follows:

1. My name is Andrew Flowers and I am employed by AT&T Mobility dba New Cingular Wireless PCS, LLC as its Sr. Real Estate Manager. My job duties include, among other things, responsibility, and oversight of AT&T Mobility's wireless network new site build program. This includes oversight of the newly proposed mobile service support structure at the address of Commonwealth Avenue, Fort Atkinson, WI 60302, with a property parcel ID number of 226-0614-3242-011, and Lat/Long coordinates of 42.93933120, -88.86169927 (the "New Tower Location").

2. This Sworn Statement is made pursuant to Fort Atkinson, WI. AT&T Mobility WI0129 – 15815546.

3. I make and submit this Sworn Statement in support of the accompanying application and supplement documents for the request of zoning approval submitted by applicant LCC Telecom, LLC and pursuant to which Tillman Infrastructure, LLC proposes to develop and construct a 165' tall self-support tower, overall structure height 173' with lightning rod attachment, and related telecommunications equipment at the New Tower Location as described above and depicted on the site plans submitted along with the application.

4. Tillman Infrastructure, LLC is in the business of, among other things, developing, constructing, and operating mobile service support structures (a/k/a telecommunications towers or cell towers) and leasing space on those structures and facilities to wireless carriers such as AT&T Mobility's. Relevant to the present application, AT&T Mobility and Tillman Infrastructure, LLC desire that Tillman Infrastructure, LLC develop and build the referenced

tower and lease space thereupon to AT&T Mobility as part of improving AT&T Mobility's wireless telecommunications network in the area surrounding the New Tower Location.

5. AT&T Mobility is improving and upgrading its network's wireless coverage and capacity in the area surrounding New Tower Location to provide needed improvement to signal strength, in-building penetration, and reliable, high-speed wireless data capability. In order to accomplish these objectives, AT&T Mobility and Tillman Infrastructure, LLC are proposing the new mobile support structure tower and related telecommunications site at the New Tower Location.

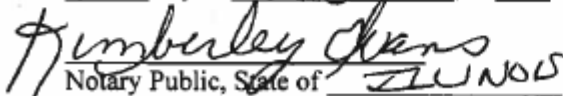
6. The proposed mobile service support structure at the New Tower Location is a necessary infrastructure addition and will become an integral part of AT&T Mobility's wireless network. The primary functions of the proposed site are to provide enhanced, reliable wireless coverage and additional capacity which will help ensure seamless wireless data capabilities and connectivity to AT&T Mobility's customers in the area. Without this site, the signal strength and data capacity in the area will not be adequate for a reliable network. As consumption of data services surge, the importance of this site also surges. AT&T Mobility has evaluated the existing structure locations in the surrounding area, and there are no existing towers or other tall structures that could accommodate AT&T Mobility's equipment to achieve substantially similar network functionality, coverage, and capacity. Consequently, because co-locating on no other existing structure would provide the required wireless coverage, signal strength, or data speeds to the coverage objective and intended areas, the proposed new mobile service support structure is necessary to provide the coverage and capacity required for a fully functioning wireless network.

Dated this 12 day of February, 2024.



Andrew T. Flowers
Sr. Real Estate Manager
AT&T Mobility

Subscribed and sworn before me this
12 day of Feb, 2024


Notary Public, State of ILLINOIS

My commission expires: 9-17-2024 (date)

(Affix notarial seal below)

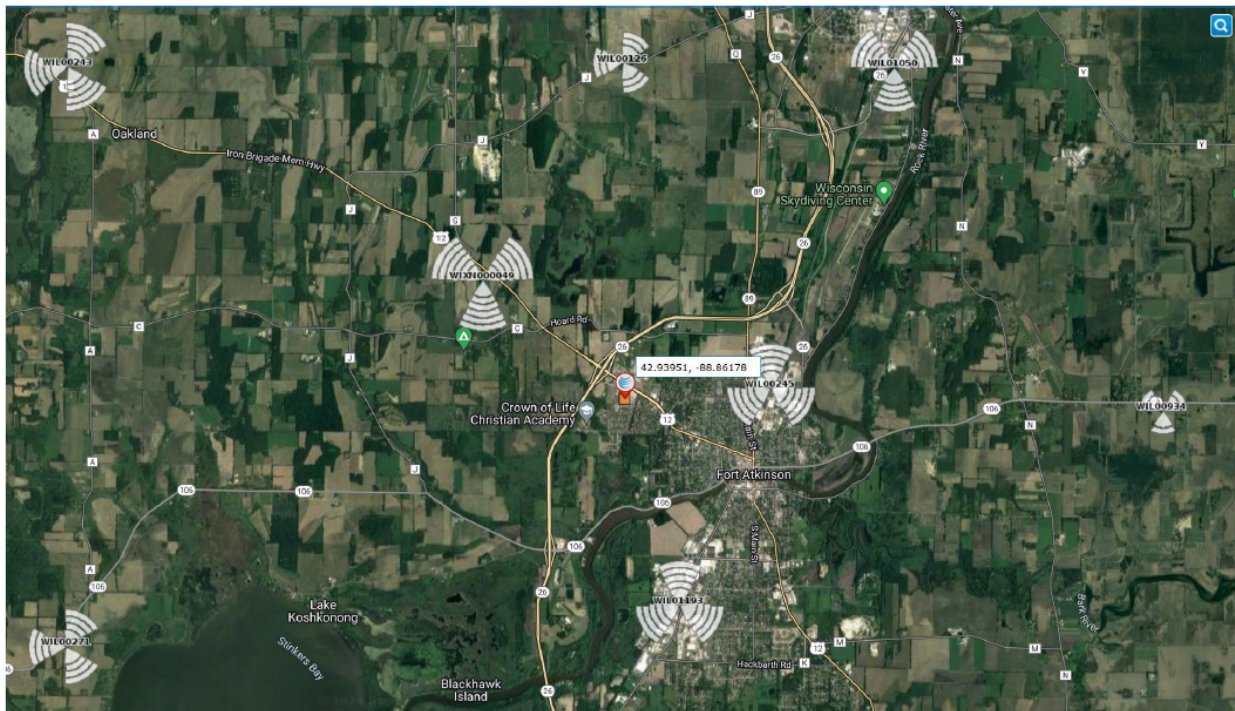
Official Seal
Kimberley Evans
Notary Public State of Illinois
My Commission Expires 09/17/2024

RF Statement and Propagation Maps

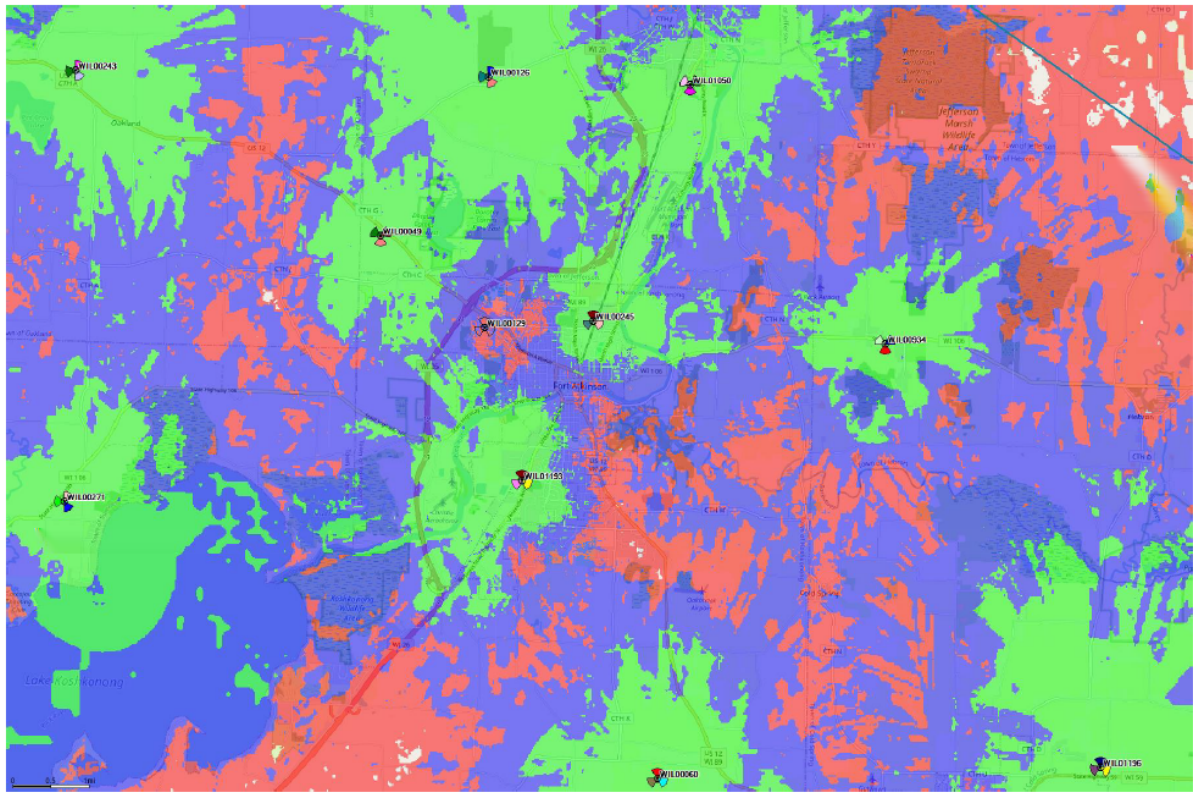
The proposed site falls approximately equidistantly between three existing sites as marked on the area aerial below and is an infill site to provide optimal coverage to users living and working in the area. The proposed site's location is necessarily limited by the need to maintain these distances to existing sites so as not to create overlap issues nor coverage gaps when the new site is integrated into the network.

Aerial View of Surrounding Area - WIL00129

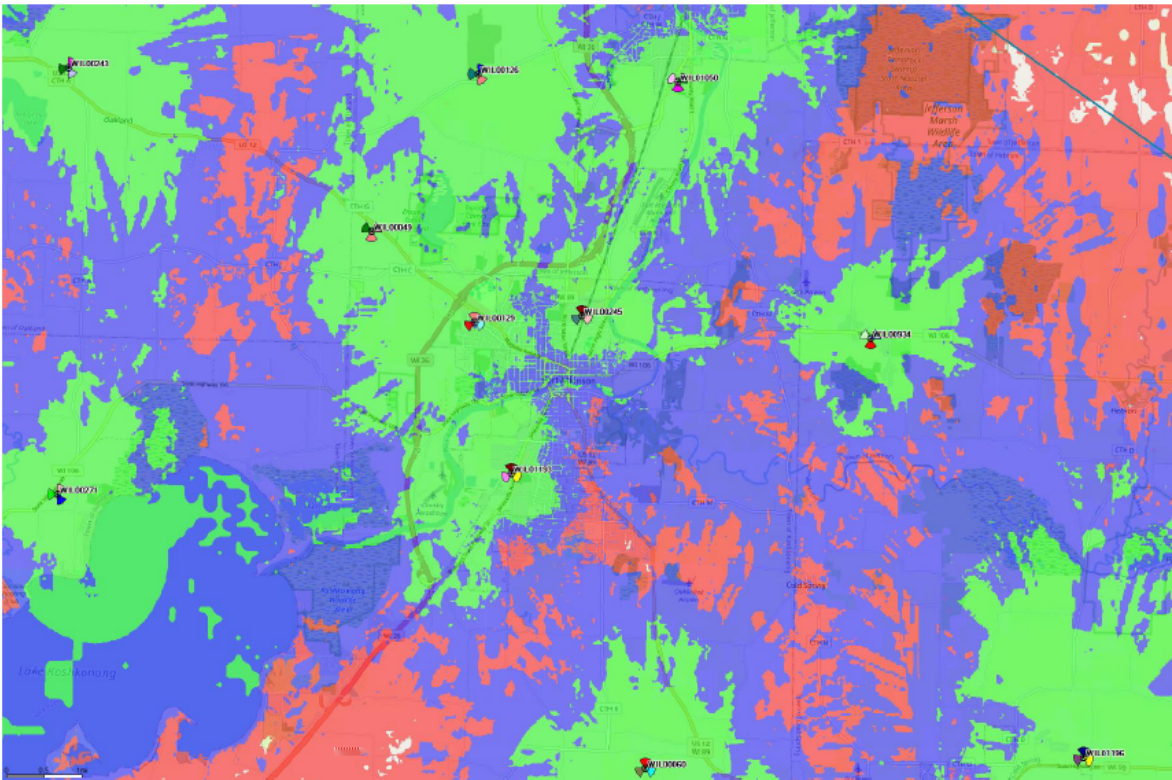
Lat/long (42.93951, -88.86178)



Existing coverage without WIL00129



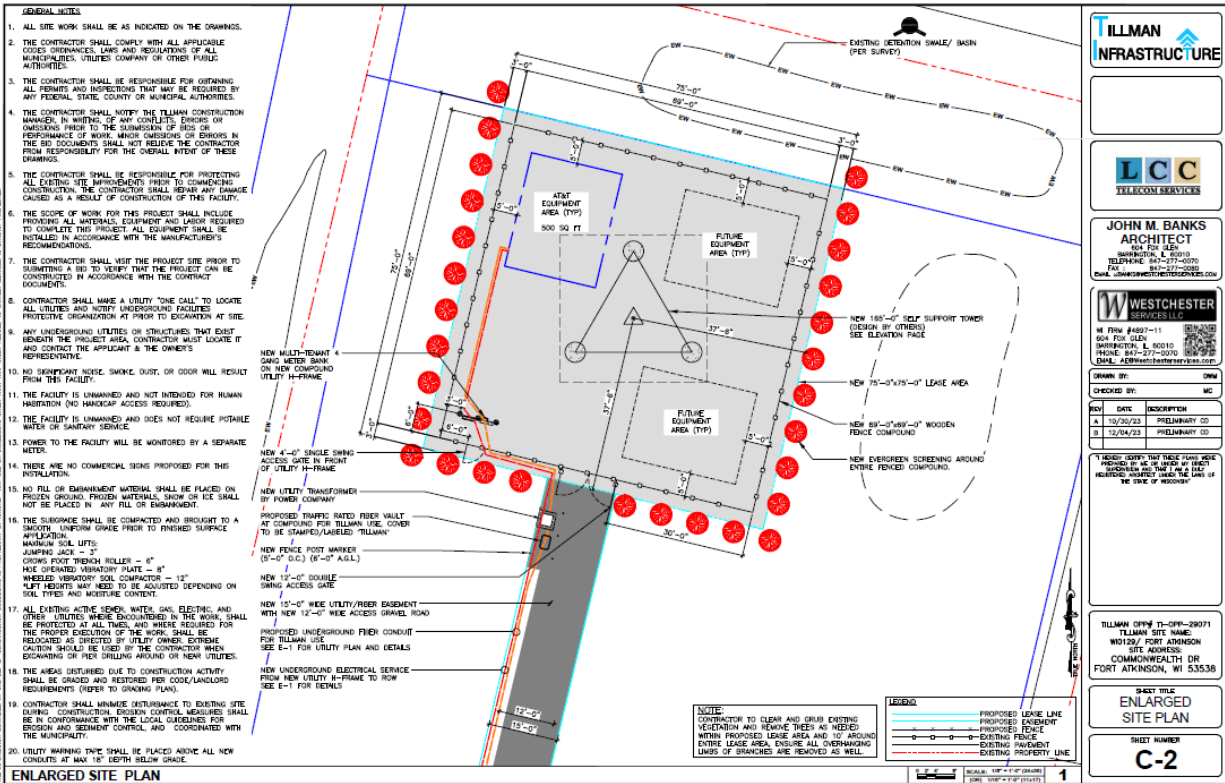
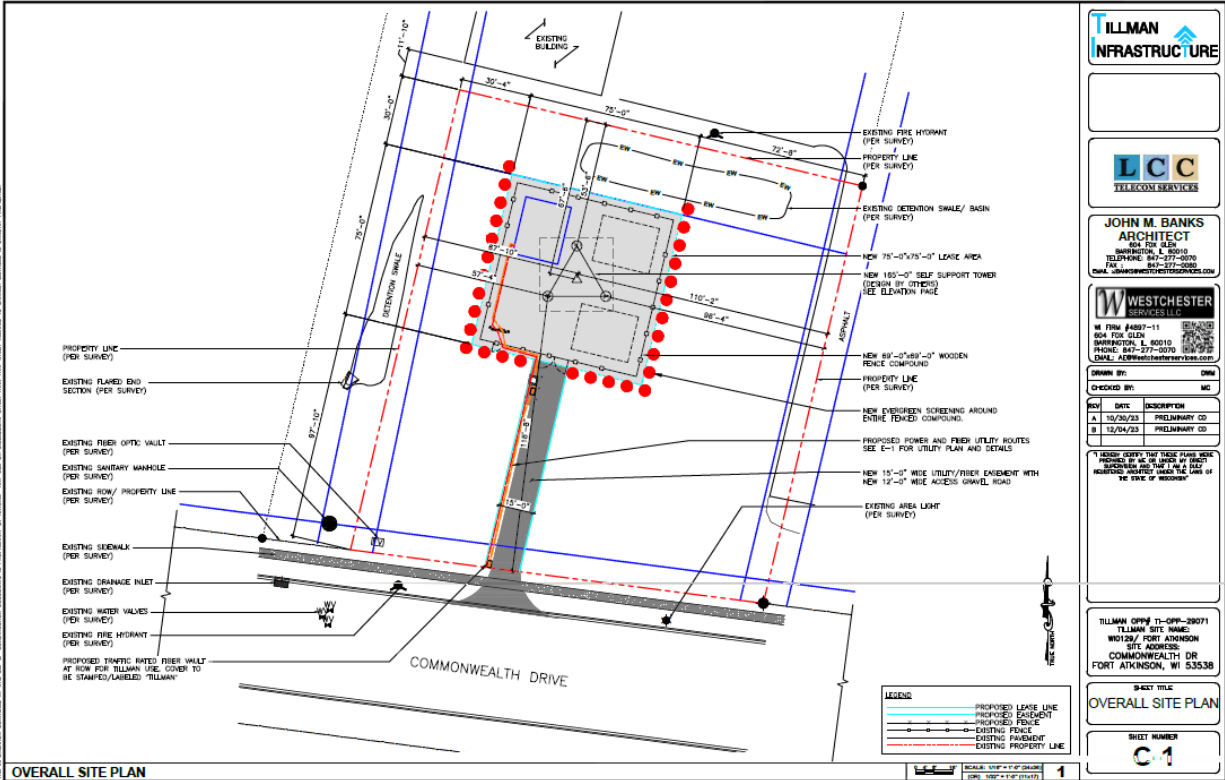
Coverage with WIL00129



- Best RSRP (RS EPRE) Level (dBm) >= -90
- Best RSRP (RS EPRE) Level (dBm) >= -103
- Best RSRP (RS EPRE) Level (dBm) >= -116



Page 50 of 95



TILLMAN INFRASTRUCTURE

LCC TELECOM SERVICES

JOHN M. BANKS ARCHITECT
 405 FOX GLEN
 WESTCHESTER, IL 60091
 TELEPHONE: 647-277-0000
 FAX: 647-277-0000
 EMAIL: JMBANKS@TILLMANINFRASTRUCTURE.COM

WESTCHESTER SERVICES LLC
 11 FIRM #4887-11
 504 FOX GLEN
 WESTCHESTER, IL 60091
 TELEPHONE: 647-277-0000
 FAX: 647-277-0000
 EMAIL: AEDWARDS@WESTCHESTERSERVICES.COM

OVERALL SITE PLAN

Sheet Number
C-1

TILLMAN INFRASTRUCTURE

LCC TELECOM SERVICES

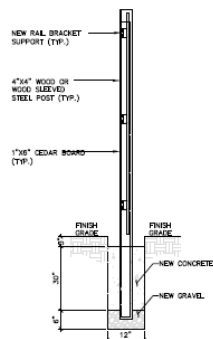
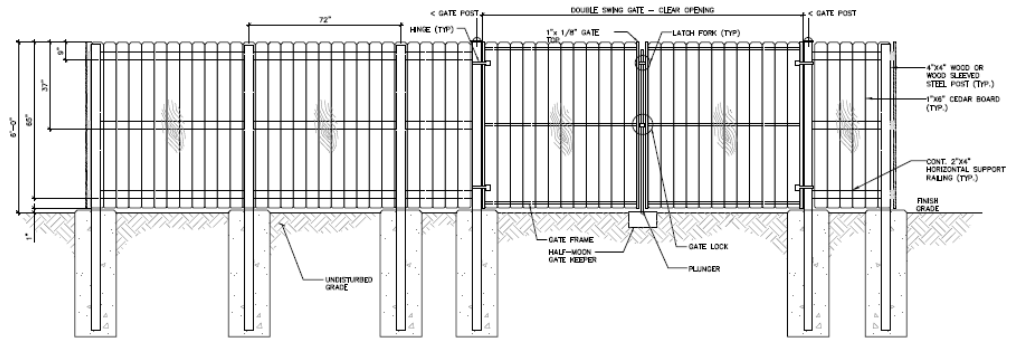
JOHN M. BANKS ARCHITECT
 405 FOX GLEN
 WESTCHESTER, IL 60091
 TELEPHONE: 647-277-0000
 FAX: 647-277-0000
 EMAIL: JMBANKS@TILLMANINFRASTRUCTURE.COM

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 504 FOX GLEN
 WESTCHESTER, IL 60091
 TELEPHONE: 647-277-0000
 FAX: 647-277-0000
 EMAIL: AEDWARDS@WESTCHESTERSERVICES.COM

ENLARGED SITE PLAN

Sheet Number
C-2

THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE BY INDICATED AND IS NOT TO BE RELEASED EXCEPT WHERE SHOWN OTHERWISE BY INDICATED AND IS NOT TO BE RELEASED EXCEPT WHERE SHOWN OTHERWISE BY INDICATED



NOTE
EXISTING COMPOUND CHAINLINK FENCE TO BE REMOVED AND REPLACED WITH WOOD FENCING. FENCE SHALL BE INSTALLED BY AT&T BUT SHALL BE MAINTAINED BY VERTICAL BRIDGE

- FENCE NOTES:**
1. FENCING MATERIAL SHALL BE OF PRESURF TREATED CEDAR, GRADE "A" MATERIAL.
 2. FENCE TO MATCH EXISTING FENCE IN APPEARANCE.
 3. ALL CONCRETE FOOTINGS SHALL BE 3000 PSI.
 4. ALL RAILS AND PICKETS TO BE ATTACHED W/BLUES OR STAINLESS HARDWARE.

JOHN M. BANKS
ARCHITECT
FOR ALL
WISCONSIN, L. 00010
TEL: 920-777-0000
FAX: 920-777-0000
EMAIL: john@banksarchitect.com

W. FIRM #4597-11
FOR FIRM #4597-11
WISCONSIN, L. 00010
TEL: 920-777-0000
FAX: 920-777-0000
EMAIL: admin@westchesterservices.com

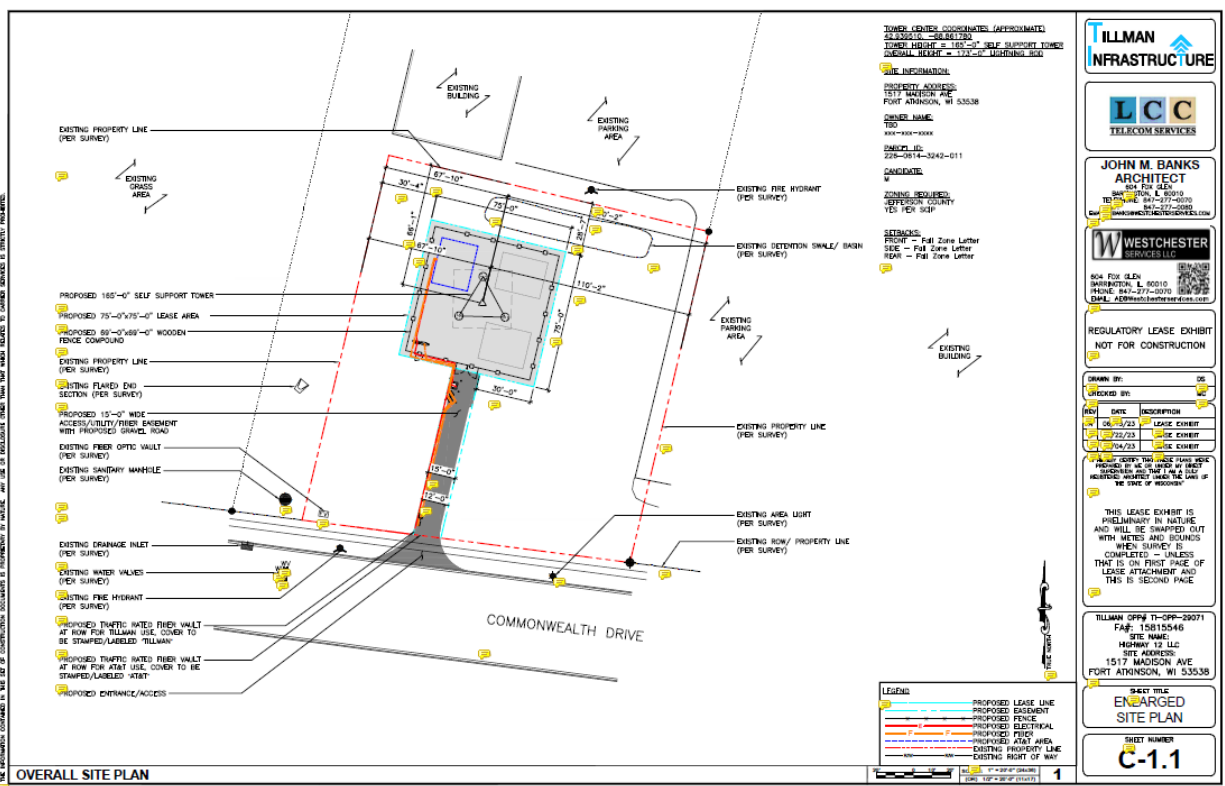
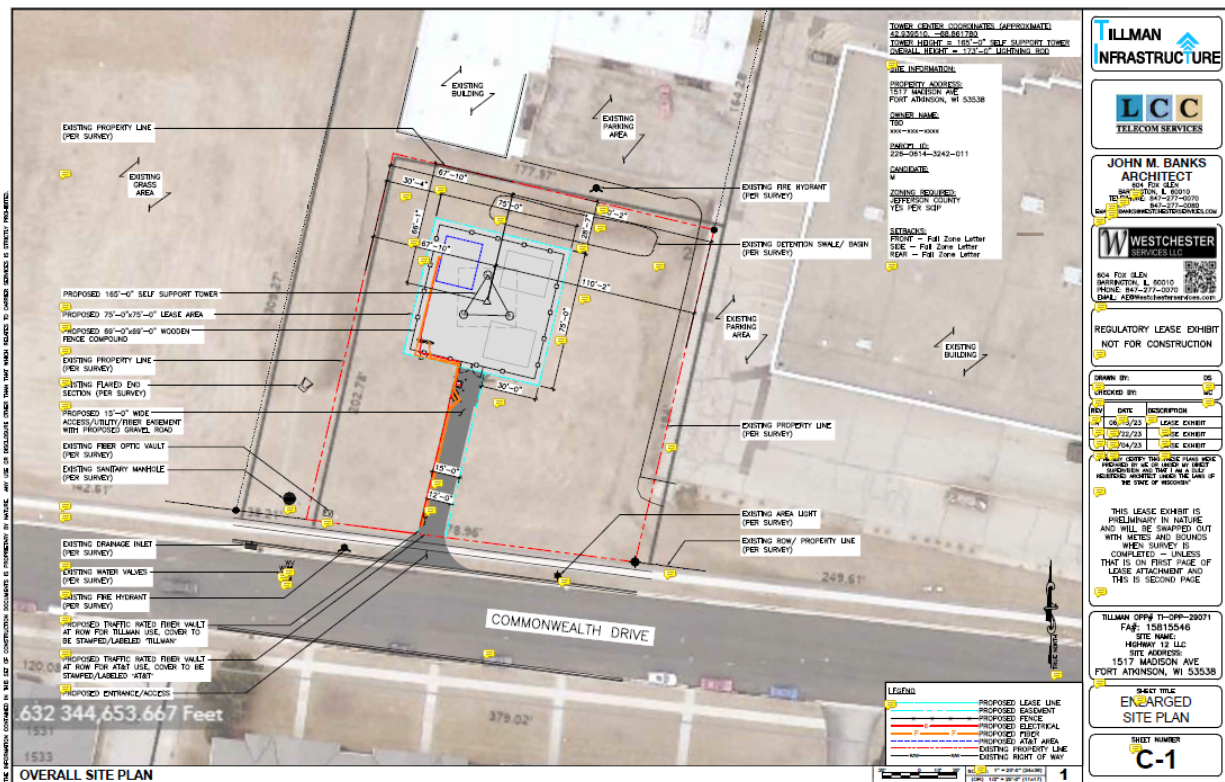
DESIGNED BY:	OWN	
CHECKED BY:	MC	
REV	DATE	DESCRIPTION
1	12/20/23	PRELIMINARY CD
2	12/24/23	PRELIMINARY CD

1. NOISE: OWNER HAS BEEN ADVISED THAT THE NOISE LEVELS AT THE SITE ARE HIGH. THE NOISE LEVELS AT THE SITE ARE HIGH. THE NOISE LEVELS AT THE SITE ARE HIGH.

TILLMAN OFFICE: 11-000-29071
TILLMAN SITE NAME:
WISCONSIN / FORT ATKINSON
SITE ADDRESS:
COMMONWEALTH DR
FORT ATKINSON, WI 53538

SHEET TITLE
FENCE
DETAILS

SHEET NUMBER
C-5



Cost Recovery Agreement



City of Fort Atkinson
City Manager's Office
101 N. Main Street
Fort Atkinson, WI 53538

CITY OF FORT ATKINSON COST RECOVERY AGREEMENT

The City of Fort Atkinson may retain the services of professional consultants (including planners, engineers, architects, attorneys, environmental specialists, recreation specialists, and/or other experts) to assist in the City's review of a development proposal that may be scheduled for review and action by the Plan Commission and/or City Council. The submittal of a development proposal or land use application by an Applicant shall be construed as an agreement to pay for such professional services applicable to the proposal or application. The City may apply reasonable charges for these services to the Applicant through invoices. The City may delay acceptance of the proposal or application as complete, or may delay final approval of the proposal, until the Applicant pays such fees. In the event invoices become delinquent, finance charges will accrue at 1% per month, 30 days after the due date. Review fees invoiced to the Applicant, which are not paid in a timely manner, may be assigned by the City as a special assessment to the subject property. The Applicant hereby waives any notice and hearing requirements provided in Wis. Stats. § 66.0701 or any additions or amendments to this section. The City will provide notice to the applicant of the need to hire a professional consultant.

The Applicant is required to provide the City with an executed copy of this Cost Recovery Agreement as part of the land use application process. Applications are not considered complete and will not be considered by the Plan Commission without this executed Agreement.

Applicant Name: Tillman Infrastructure

Project Name: TI-OPP-29701, WI0129

Project Address: Commonwealth Dr (911
address to be assigned)

Parcel Number: 226-0614-3242-011

Dated this 11 day of March, 2024.

Agreement signed and entered into by:

The City of Fort Atkinson

City Manager

Property Owner Information:

Applicant Information (if different):

Owner Name: Hwy 12 LLC

Applicant Name: Tillman Infrastructure

Owner Signature: _____

Applicant Signature: Gregg Bailey

Address: W6553 Roe Ln., Fort Atkinson, WI

Address: 162 W. 57th Street, 34th Floor, New York, NY 10019

Phone Number: 608-616-5660

Phone Number: 914-438-9328

Email Address: raveen@cascaderms.com

Email Address: gbailey@tillmaninfrastructure.com

CUP Application



City of Fort Atkinson
City Manager's Office
101 N. Main Street
Fort Atkinson, WI 53538

City of Fort Atkinson Procedural Checklist for Conditional Use Permits Requirements per Section 15.10.32

This form is designed to be used by the Applicant as a guide to submitting a complete application for a conditional use and by the City to process the application.

Name, company, and client (if applicable): John Wallace, LCC Telecom, for Tillman Infrastructure, client

Anchor tenant on proposed tower is AT&T Wireless

Phone number: 312-961-0559 Email: jwallace@lcc telecom.com

Property address for proposed conditional use: COMMONWEALTH DR. (911 ADDRESS TO BE ASSIGNED)

FORT ATKINSON, WI 53538

Brief description of proposed conditional use: self-support tower for wireless communication
and associated ground equipment

I Application Packet Requirements

The Applicant shall submit one electronic copy of the application.

- ☒ A map of the subject property to scale depicting:
 - ☒ All lands for which the conditional use is proposed and all other lands within 100 feet of the boundaries of the subject property.
 - ☒ Current zoning of the subject property and its environs, and the jurisdiction(s) which maintains that control.
 - ☒ All lot dimensions of the subject property.
 - ☒ A graphic scale and a north arrow.
- ☒ Written description of the proposed conditional use including the type of activities, buildings, structures, and off-street parking proposed for the subject property and their general locations, as well as the number of employees and the hours of operation.
- ☒ A site plan of the subject property if proposed for development conforming to all requirements of Section 15.10.42 of the Fort Atkinson Zoning Code. If the proposed conditional use is a group or large development (per Section 15.06.02), a proposed preliminary plat or conceptual plat may be substituted for the required site plan, provided said plat contains all information required per Section 15.10.42.
- ☒ Written justification for the proposed conditional use, including evidence that the application is consistent with the Comprehensive Plan and meets any additional standards required in the applicable zoning district. See Section 15.10.32(8) for review criteria.
- ☒ Written descriptions of anticipated daily traffic, types and weights of vehicles, and any provisions, intersection or road improvements or other measures proposed to accommodate increased traffic. A Traffic Impact Analysis (TIA) meeting Wisconsin Department of Transportation requirements for content and format may be required by the City if deemed necessary by the City Engineer.
- ☒ A listing of hazardous, toxic, or explosive materials stored on site, and any spill containment,



City of Fort Atkinson
City Manager's Office
101 N. Main Street
Fort Atkinson, WI 53538

March 28, 2024

AMENDED NOTICE TO THE PUBLIC

OFFICIAL NOTICE IS HEREBY GIVEN the Fort Atkinson Plan Commission will hold a public hearing to review a request for Conditional Use Permit relating to a new wireless telecommunications service facility located in the 1500 block of Commonwealth Drive.

Said public hearing has been rescheduled and will be held in person at the Fort Atkinson Municipal Building, 101 N. Main St. and via Zoom on Tuesday, April 23, 2024 at 4:00 p.m. at the City of Fort Atkinson Plan Commission meeting. Those interested in attending this meeting should follow the below link, or dial in for audio access.

<https://us02web.zoom.us/j/82214860406?pwd=TEVyUVdQM05VNFVzb0E2TUNTUjZlZz09>

Meeting ID: 822 1486 0406

Passcode: 53538

Dial by your location

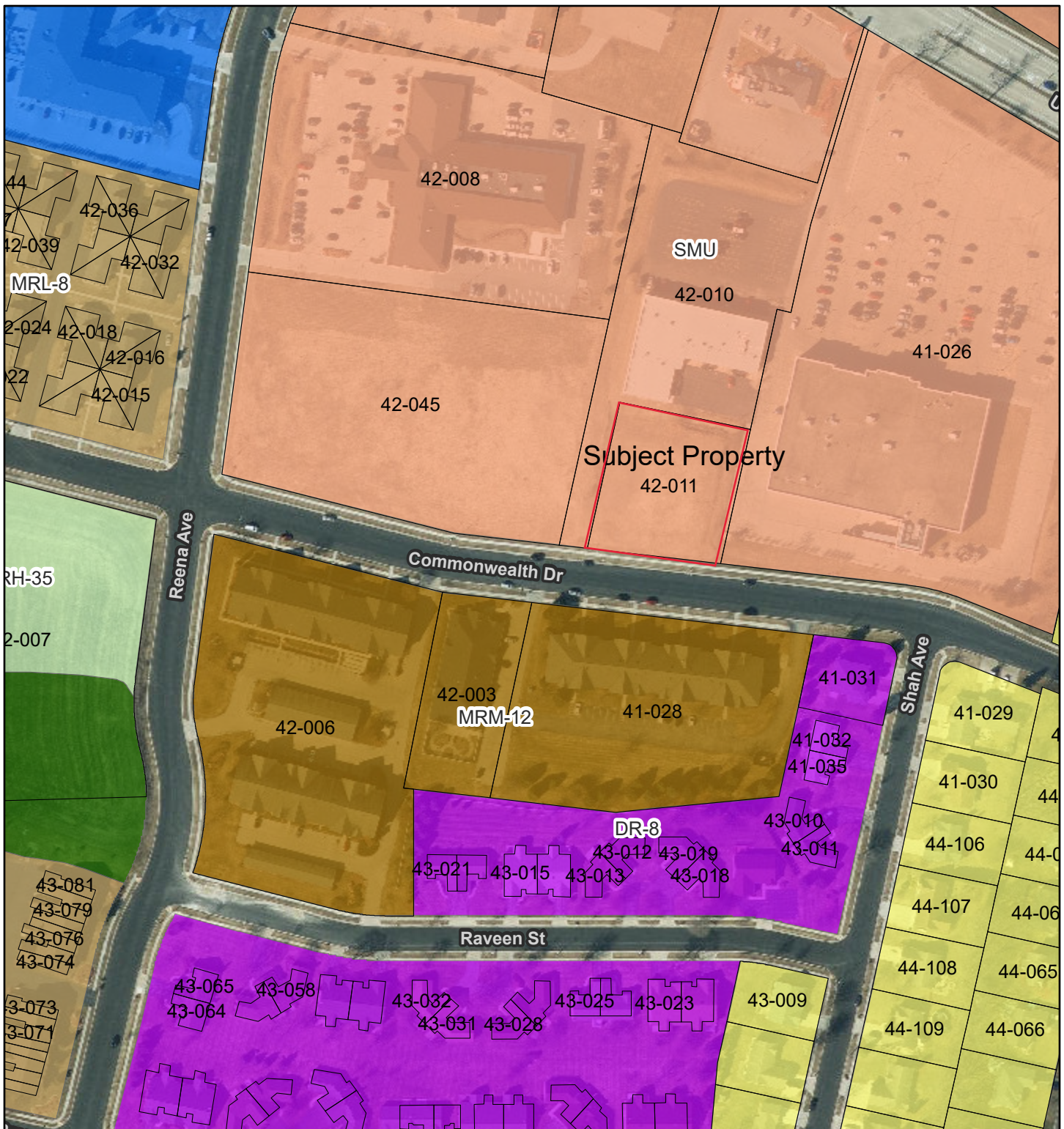
+1 312 626 6799

The Plan Commission will make a final decision on the Conditional Use Permit at its meeting on May 14, 2024. The Plan Commission is seeking input from the public. For more information, please contact Building and Zoning Administrator Jedidiah Draeger at jdraeger@fortatkinsonwi.gov or (920)-397-9901. You may attend the public hearing via Zoom or submit a letter or email expressing your thoughts to Jedidiah Draeger.

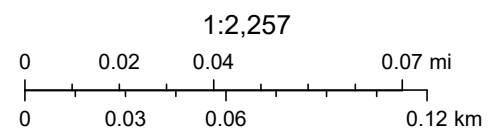
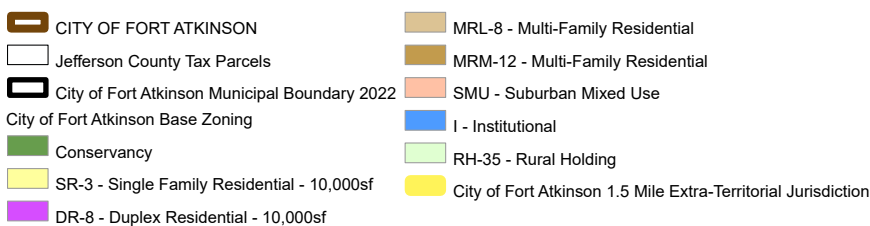
If you have special needs or circumstances which make communication or accessibility difficult at the meeting, please call (920)-397-9901 prior to the meeting date. Accommodations will, to the fullest extent possible, be made available on request to a person with a disability.

Jedidiah Draeger
Building/Zoning Administrator

Proposed CUP for Communications Facility



3/19/2024, 10:32:03 AM



THE INFORMATION CONTAINED IN THIS SET OF CONSTRUCTION DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO CARRIER SERVICES IS STRICTLY PROHIBITED.

TILLMAN

INFRASTRUCTURE

TILLMAN OPP NUMBER: TI-OPP-29071
TILLMAN SITE NAME: WI0129/ FORT ATKINSON
SITE ADDRESS: COMMONWEALTH DR
FORT ATKINSON, WI 53538
PARCEL ID: 226-0614-3242-011

CONSTRUCTION APPROVAL

TILLMAN SITE ACQUISITION MANAGER: _____ DATE: _____
TILLMAN CONSTRUCTION MANAGER: _____ DATE: _____
RF PROJECT MANAGER: _____ DATE: _____
PROJECT MANAGER: _____ DATE: _____



JOHN M. BANKS
ARCHITECT
604 FOX GLEN
BARRINGTON, IL 60010
TELEPHONE: 847-277-0070
FAX : 847-277-0080
EMAIL: JBANKS@WESTCHESTERSERVICES.COM



WI FIRM #4897-11
604 FOX GLEN
BARRINGTON, IL 60010
PHONE: 847-277-0070
EMAIL: AE@Westchesterservices.com

DRAWN BY: DWM

CHECKED BY: MC

REV	DATE	DESCRIPTION
A	10/30/23	PRELIMINARY CD
B	12/04/23	PRELIMINARY CD

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ARCHITECT UNDER THE LAWS OF THE STATE OF WISCONSIN

TILLMAN OPP# TI-OPP-29071
TILLMAN SITE NAME:
WI0129/ FORT ATKINSON
SITE ADDRESS:
COMMONWEALTH DR
FORT ATKINSON, WI 53538

SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1

SITE INFORMATION

SITE ADDRESS: COMMONWEALTH DR
FORT ATKINSON, WI 53538

LATITUDE (NAD 83): 42°56'21.5923" N (42.93933120)
LONGITUDE (NAD 83): -88°51'42.1174" W (-88.86169927)

GROUND ELEVATION: 830.3' (AMSL)

JURISDICTION: FORT ATKINSON, WI

JURISDICTION CONTACT: JED DRAEGER
JDRAEGER@FORTATKINSONWI.GOV
920-397-9901

PARCEL/MAP NUMBER: 226-0614-3242-011

LANDLORD OWNER: HIGHWAY 12 LLC (RAVEEN SHAH),
W6353 ROE LANE,
FORT ATKINSON WI 53538

TOWER OWNER: TILLMAN INFRASTRUCTURE
152 W. 57TH STREET
NEW YORK, NEW YORK 10019

STRUCTURE TYPE: SELF SUPPORT TOWER

STRUCTURE HEIGHT: 165'-0" (AGL)

POWER SUPPLIER: WE ENERGIS
PHONE NUMBER: TBD

FIBER SUPPLIER: TBD
PHONE NUMBER: TBD

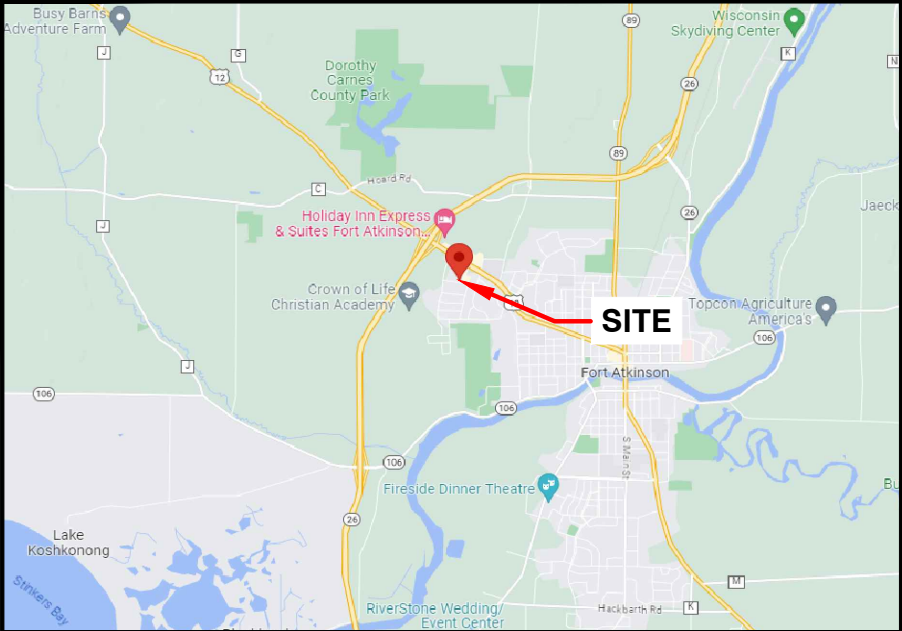
PROJECT TEAM

APPLICANT: TILLMAN INFRASTRUCTURE
152 W. 57TH STREET
NEW YORK, NEW YORK 10019

PROJECT MANAGEMENT FIRM: LCC TELECOM SERVICES
10700 HIGGINS ROAD, SUITE 240
ROSEMONT, IL 60018
(847) 608-6300

ARCHITECT ENGINEERING: JOHN M. BANKS
604 FOX GLEN
BARRINGTON, IL 60010
CONTACT: JOHN M. BANKS
PHONE: (847) 277-0070
EMAIL: JBANKS@WESTCHESTERSERVICES.COM

VICINITY MAP



DRIVING DIRECTIONS



CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING CODES.

- 2015 INTERNATIONAL BUILDING CODE
- 2014 NATIONAL ELECTRICAL CODE
- 2015 NFPA 101, LIFE SAFETY CODE
- 2015 INTERNATIONAL FIRE CODE
- AMERICAN CONCRETE INSTITUTE
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION
- MANUAL OF STEEL CONSTRUCTION 13TH EDITION
- ANSI/TIA-222-H
- TIA 607
- INSTITUTE FOR ELECTRICAL & ELECTRONICS ENGINEERING 81
- IEEE C2 NATIONAL ELECTRIC SAFETY CODE LATEST EDITION
- TELECORDIA GR-1275
- ANSI/T 311

DRAWING INDEX

- T-1 TITLE SHEET
- B-1 SITE SURVEY
- C-0 FLOOD & WETLAND MAP
- C-1 OVERALL SITE PLAN
- C-2 ENLARGED SITE PLAN
- C-3 ELEVATION
- C-4 CONSTRUCTION DETAILS
- C-5 FENCE DETAILS
- C-5.1 FENCE DETAILS
- C-6 SITE SIGNAGE
- C-7 GRADING PLAN
- C-8 EROSION CONTROL DETAILS
- C-9 LANDSCAPE PLAN
- E-1 UTILITY PLAN
- E-2 ENLARGED UTILITY PLAN
- E-3 ELECTRICAL DIAGRAM
- G-1 GROUNDING PLAN & DETAILS
- G-2 GROUNDING PLAN AND RISER DIAGRAM

DRAWING SCALE

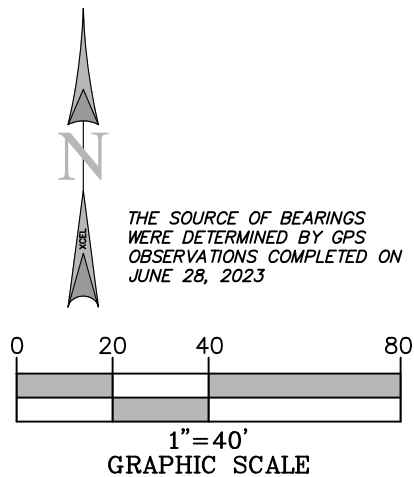
THESE DRAWINGS ARE SCALED TO FULL SIZE AT 22"X34" AND HALF SIZE AT 11"X17". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE DESIGNER / ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR MATERIAL ORDERS OR BE RESPONSIBLE FOR THE SAME. CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICE TO PREVENT STORM WATER POLLUTION DURING CONSTRUCTION.

SCOPE OF WORK

- THIS PROJECT CONSISTS OF :
- CONSTRUCTION OF A NEW UNMANNED TELECOMMUNICATIONS FACILITY
 - SITE WORK: NEW TOWER, UNMANNED EQUIPMENT CABINET ON PLATFORM, AND UTILITY INSTALLATIONS



VICINITY MAP
NOT TO SCALE



*** FAA COORDINATE POINT**

NAD 83
LATITUDE: 42°56'21.5923" (42.93933120)
LONGITUDE: -88°51'42.1174" (-88.86169927)
NAVD88
ELEVATIONS: 830.3'± AMSL

TEMPORARY BENCHMARK

LATITUDE: 42°56'20.2760" (42.93896556)
LONGITUDE: -88°51'40.9124" (-88.86136454)
ELEVATION: 826.03'
LOCATION: FOUND IRON ROD

GLOBAL POSITIONING SYSTEMS NOTE

1. RANDOM TRAVERSE CONTROL MONUMENTS WERE SET USING GPS METHODS. A PORTION OF THE TOPOGRAPHY AND FOUND BOUNDARY MONUMENTS WERE ALSO LOCATED USING GPS METHODS.
2. THE TYPE OF GPS UTILIZES AS NETWORK ADJUSTED REAL TIME KINEMATIC (TOPCON VRS NETWORK), NAD 83 WISCONSIN STATE PLANE (JEFFERSON COUNTY).
3. TOPCON HIPER SR RECEIVERS WERE USED TO PERFORM THE SURVEY.

GENERAL NOTES

NO SEARCH OF PUBLIC RECORDS HAS BEEN COMPLETED BY XCEL CONSULTANTS TO DETERMINE ANY DEFECTS AND/OR AMBIGUITIES IN THE TITLE OF THE PARENT PARCEL.

THIS SURVEY IS FOR THE PROPOSED LEASE AREA AND THE PROPOSED EASEMENTS ONLY, AND ONLY A PARTIAL BOUNDARY SURVEY OF THE PARENT PARCEL HAS BEEN PERFORMED.

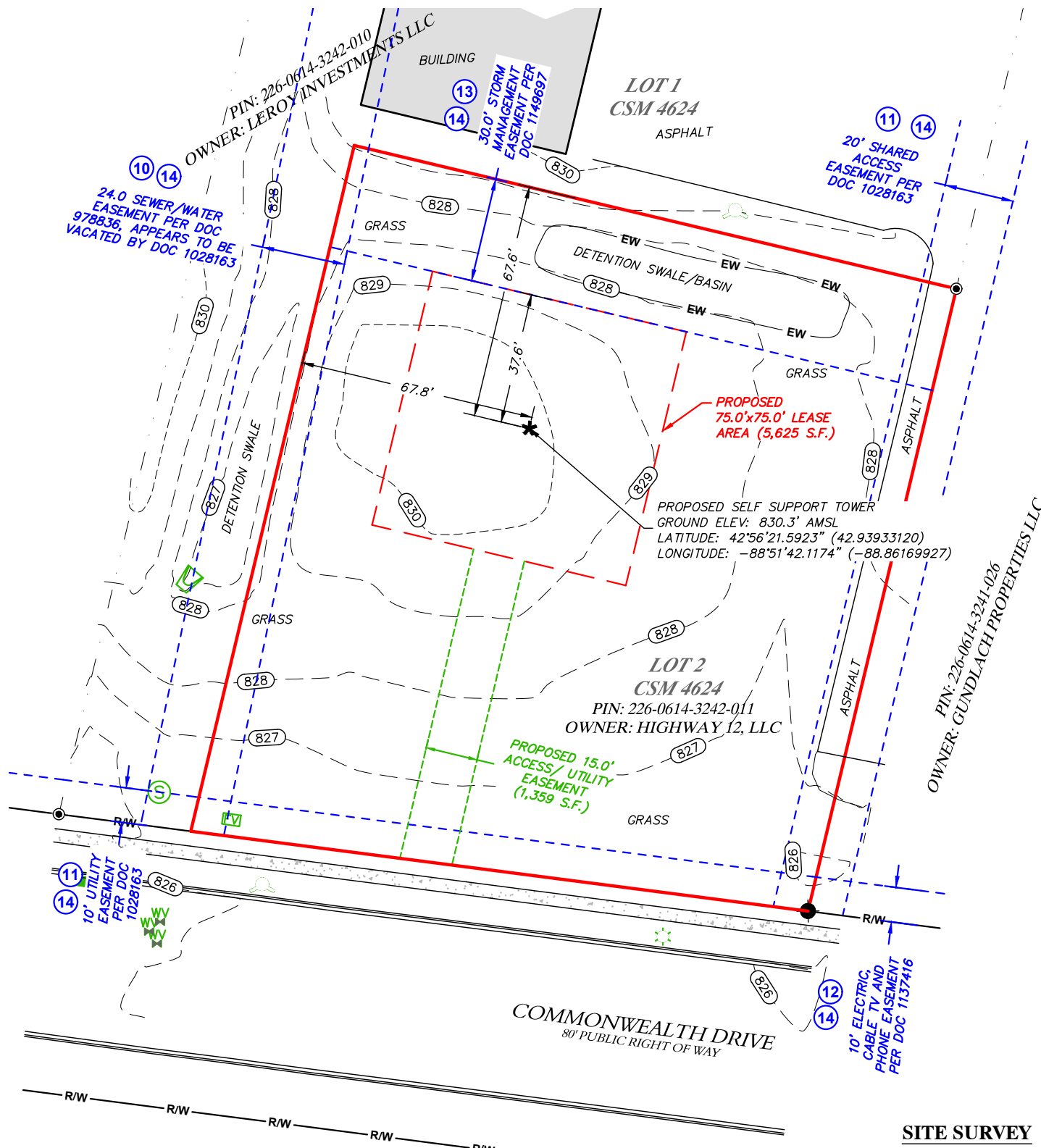
THIS PLAT IS NOT INTENDED FOR LAND TRANSFER.

THIS PROPERTY IS SUBJECT TO ANY RECORDED EASEMENTS AND/OR RIGHTS OF WAY SHOWN HEREON OR NOT.

THIS SURVEY WAS COMPLETED WITH THE AID OF TITLE WORK PREPARED BY WESTCOR LAND TITLE INSURANCE COMPANY, COMMITMENT DATE OF JUNE 7, 2023, BEING FILE/COMMITMENT NO. TIL-154716-C, FOR THE SUBJECT PROPERTY, TO DETERMINE THE IMPACTS OF EXISTING TITLE EXCEPTIONS.

LEGEND

	PROPERTY LINE
	ADJACENT PROPERTY LINE
	LEASE LINE
	ACCESS/UTILITY EASEMENT
	RIGHT OF WAY LINE
	EDGE OF WATER
	CONTOURS
	BUILDING
	BENCHMARK
	FOUND IRON ROD
	SANITARY MANHOLE
	FIRE HYDRANT
	WATER VALVE
	DRAINAGE INLET
	FLARED END SECTION
	AREA LIGHT
	FIBER OPTIC VAULT
	POINT OF BEGINNING
	POINT OF COMMENCEMENT
	CENTERLINE OF TOWER LOCATION
	MEASURED & RECORD
	SQUARE FEET



SITE SURVEY



I, DAN J. KUEHL, A WISCONSIN PROFESSIONAL LAND SURVEYOR, CERTIFY THAT THE INFORMATION SHOWN HEREON WAS COMPILED USING DATA FROM AN ACTUAL FIELD SURVEY MADE UNDER MY DIRECT SUPERVISION AND THAT THE FIELD SURVEY AND THE COMPILATION OF INFORMATION SHOWN HEREIN WERE CONDUCTED IN ACCORDANCE WITH THE WISCONSIN MINIMUM STANDARDS OF PRACTICE.

Dan J. Kuehl

NOVEMBER 15, 2023

DAN J. KUEHL
LICENSE NUMBER 3104-8
MY LICENSE RENEWAL DATE IS JANUARY 31, 2024
SHEETS COVERED BY THIS SEAL B-1, B-1.1, AND B-1.2

PREPARED FOR:

WESTCHESTER SERVICES LLC
604 FOX GLEN
BARRINGTON, IL 60010
TELEPHONE: 847.277.0070
FAX : 847.277.0080
ae@westchesterservices.com

PREPARED FOR:

TILLMAN INFRASTRUCTURE

SURVEYED BY:

XCEL Consultants
8300 42ND STREET WEST
ROCK ISLAND, IL 61201
(O) 309-787-9988
(F) 309-756-5540
(E) XCEL@XCELCONSULTANTSINC.COM

XCEL PROJECT NUMBER: 234726

SITE SURVEY

REV.	DATE	DESCRIPTION
A	10/11/23	ISSUED AS FINAL
B	10/13/23	UPDATE TOWER LOCATION AND FINAL
C	11/15/23	REVIEW COMMENTS

SITE INFORMATION:

WI0129 FORT ATKINSON
1517 MADISON AVENUE
FORT ATKINSON, WI 53538
JEFFERSON COUNTY

TAX PARCEL NUMBER:
226-0614-3242-011

PROPERTY OWNER:
HIGHWAY 12 LLC
(RAVEEN SHAH)
W6353 ROE LANE
FORT ATKINSON, WI 53538

JURISDICTION:
FORT ATKINSON, WI
JED DRAEGER
jdraeger@fortatkinsonwi.gov
920-397-9901

SITE NUMBER:
TI-OPP-29071

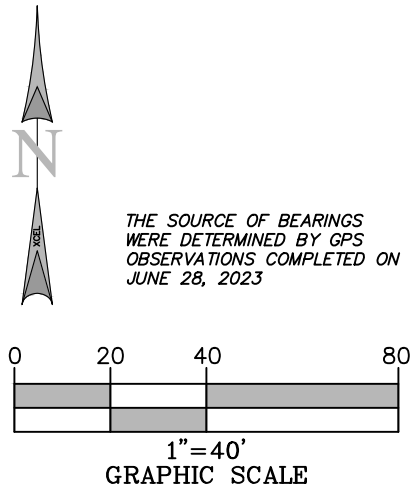
DRAWN BY: KJM
CHECKED BY: BCH
SURVEY DATE: 6/28/2023
PLAT DATE: 10/13/2023

SHEET TITLE:

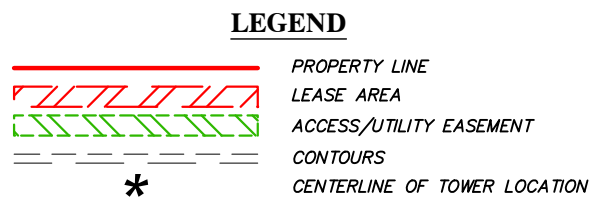
SITE SURVEY
THIS DOES NOT REPRESENT A
BOUNDARY SURVEY OF THE
PARENT PARCEL

SHEET NUMBER:

B-1



AERIAL PER MICROSOFT BING
MAPS ON JUNE 30, 2023



I, DAN J. KUEHL, A WISCONSIN PROFESSIONAL LAND SURVEYOR, CERTIFY
THAT THE INFORMATION SHOWN HEREON WAS COMPILED USING DATA FROM
AN ACTUAL FIELD SURVEY MADE UNDER MY DIRECT SUPERVISION AND THAT
THE FIELD SURVEY AND THE COMPILATION OF INFORMATION SHOWN HEREIN
WERE CONDUCTED IN ACCORDANCE WITH THE WISCONSIN MINIMUM STANDARDS
OF PRACTICE.

NOVEMBER 15, 2023

DAN J. KUEHL
LICENSE NUMBER 3104-8
MY LICENSE RENEWAL DATE IS JANUARY 31, 2024
SHEETS COVERED BY THIS SEAL B-1, B-1.1, AND B-1.2



AERIAL SURVEY

PREPARED FOR:
WESTCHESTER SERVICES LLC
604 FOX GLEN
BARRINGTON, IL 60010
TELEPHONE: 847.277.0070
FAX : 847.277.0080
ae@westchesterservices.com

PREPARED FOR:
TILLMAN INFRASTRUCTURE

SURVEYED BY:
XCEL Consultants
8300 42ND STREET WEST
ROCK ISLAND, IL 61201
(O) 309-787-9988
(F) 309-756-5540
(E) XCEL@XCELCONSULTANTSINC.COM

XCEL PROJECT NUMBER: 234726

SITE SURVEY		
REV.	DATE	DESCRIPTION
A	10/11/23	ISSUED AS FINAL
B	10/13/23	UPDATE TOWER LOCATION AND FINAL
C	11/15/23	REVIEW COMMENTS

SITE INFORMATION:
WI0129
FORT ATKINSON
1517 MADISON AVENUE
FORT ATKINSON, WI 53538
JEFFERSON COUNTY

TAX PARCEL NUMBER:
226-0614-3242-011

PROPERTY OWNER:
HIGHWAY 12 LLC
(RAVEEN SHAH)
W6353 ROE LANE
FORT ATKINSON, WI 53538

JURISDICTION:
FORT ATKINSON, WI
JED DRAEGER
jdraeger@fortatkinsonwi.gov
920-397-9901

SITE NUMBER:
TI-OPP-29071

DRAWN BY: KJM
CHECKED BY: BCH
SURVEY DATE: 6/28/2023
PLAT DATE: 10/13/2023

SHEET TITLE:
SITE SURVEY
THIS DOES NOT REPRESENT A
BOUNDARY SURVEY OF THE
PARENT PARCEL

SHEET NUMBER:
B-1.1

REPORT OF TITLE:

THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY XCEL CONSULTANTS, INC. AND AS SUCH WE ARE NOT RESPONSIBLE FOR THE INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENT OF RECORD, ENCUMBRANCES, RESTRICTIVE COVENANTS, OWNERSHIP TITLE EVIDENCE, UNRECORDED EASEMENT, AUGMENTING EASEMENT, IMPLIES OR PRESCRIPTIVE EASEMENTS, OR ANY OTHER FACTS THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.

THIS SURVEY WAS COMPLETED WITH THE AID OF TITLE WORK PREPARED BY WESTCOR LAND TITLE INSURANCE COMPANY, COMMITMENT DATE OF JUNE 7, 2023, BEING FILE/COMMITMENT NO. TIL-154716-C, FOR THE SUBJECT PROPERTY, TO DETERMINE THE IMPACTS OF EXISTING TITLE EXCEPTIONS.

SURVEY MATTERS OR EASEMENTS LISTED IN SCHEDULE 'B':

- 10. EASEMENT BETWEEN RAMESH SHAH; AND CITY OF FORT ATKINSON, WISCONSIN, DATED AUGUST 27, 1997 AND RECORDED SEPTEMBER 4, 1997 IN (BOOK) 1003 (PAGE) 693 (INSTRUMENT) 978836, IN JEFFERSON COUNTY, WISCONSIN. EASEMENT LIES ON PARENT TRACT – AS SHOWN. APPEARS TO BE VACATED BY DOC 1028163
- 11. ANY AND ALL MATTERS DISCLOSED ON THE MAP ENTITLED "CERTIFIED SURVEY MAP" DATED AUGUST 18, 1999 AND RECORDED AUGUST 20, 1999 IN (BOOK) 18 (PAGE) 224, (INSTRUMENT) 1028163 IN JEFFERSON COUNTY, WISCONSIN. EASEMENT LIES ON PROPERTY – AS SHOWN
- 12. DISTRIBUTION EASEMENT UNDERGROUND JOINT BETWEEN HIGHWAY 12, LLC, A WISCONSIN LIMITED LIABILITY COMPANY; AND WISCONSIN ELECTRIC POWER COMPANY, A WISCONSIN CORPORATION DOING BUSINESS AS WE ENERGIES, WISCONSIN BELL, INC., D.B.A. SBC WISCONSIN AND MARCUS CABLE PARTNERS, L.L.C., D.B.A. CHARTER COMMUNICATIONS, DATED SEPTEMBER 23, 2003 AND RECORDED OCTOBER 16, 2003 IN (INSTRUMENT) 1137416, IN JEFFERSON COUNTY, WISCONSIN. EASEMENT LIES ON PROPERTY – AS SHOWN
- 13. ANY AND ALL MATTERS DISCLOSED ON THE MAP ENTITLED "CERTIFIED SURVEY MAP" DATED MARCH 9, 2004 AND RECORDED APRIL 14, 2004 IN (BOOK) 23 (PAGE) 152, (INSTRUMENT) 1149697 IN JEFFERSON COUNTY, WISCONSIN. EASEMENT LIES ON PROPERTY – AS SHOWN
- 14. ANY AND ALL MATTERS DISCLOSED ON THE MAP ENTITLED "CERTIFIED SURVEY MAP" DATED MARCH 9, 2004 AND RECORDED JULY 28, 2004 IN (BOOK) 23 (PAGE) 281, (INSTRUMENT) 1157199 IN JEFFERSON COUNTY, WISCONSIN. EASEMENTS LIE ON PARENT TRACT – AS SHOWN

PARENT PARCEL, LEGAL DESCRIPTION (NOT FIELD SURVEYED) PER TITLE

SITUATED IN THE COUNTY OF JEFFERSON, STATE OF WISCONSIN:

LOT 2 OF CERTIFIED SURVEY MAP NO. 4624 RECORDED IN VOLUME 23 OF CERTIFIED SURVEYS ON PAGE 281 AS DOCUMENT NO. 1157199, BEING A PART OF THE NORTHWEST ¼ OF THE SOUTHEAST ¼ IN SECTION 32, TOWNSHIP 6 NORTH, RANGE 14 EAST, CITY OF FORT ATKINSON, JEFFERSON COUNTY, WISCONSIN.

PARCEL ID: 226-0614-3242-011

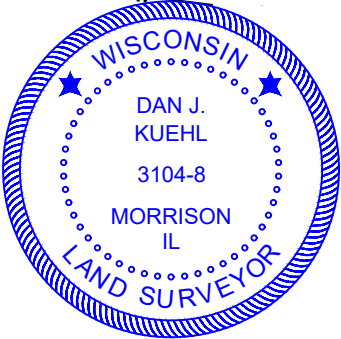
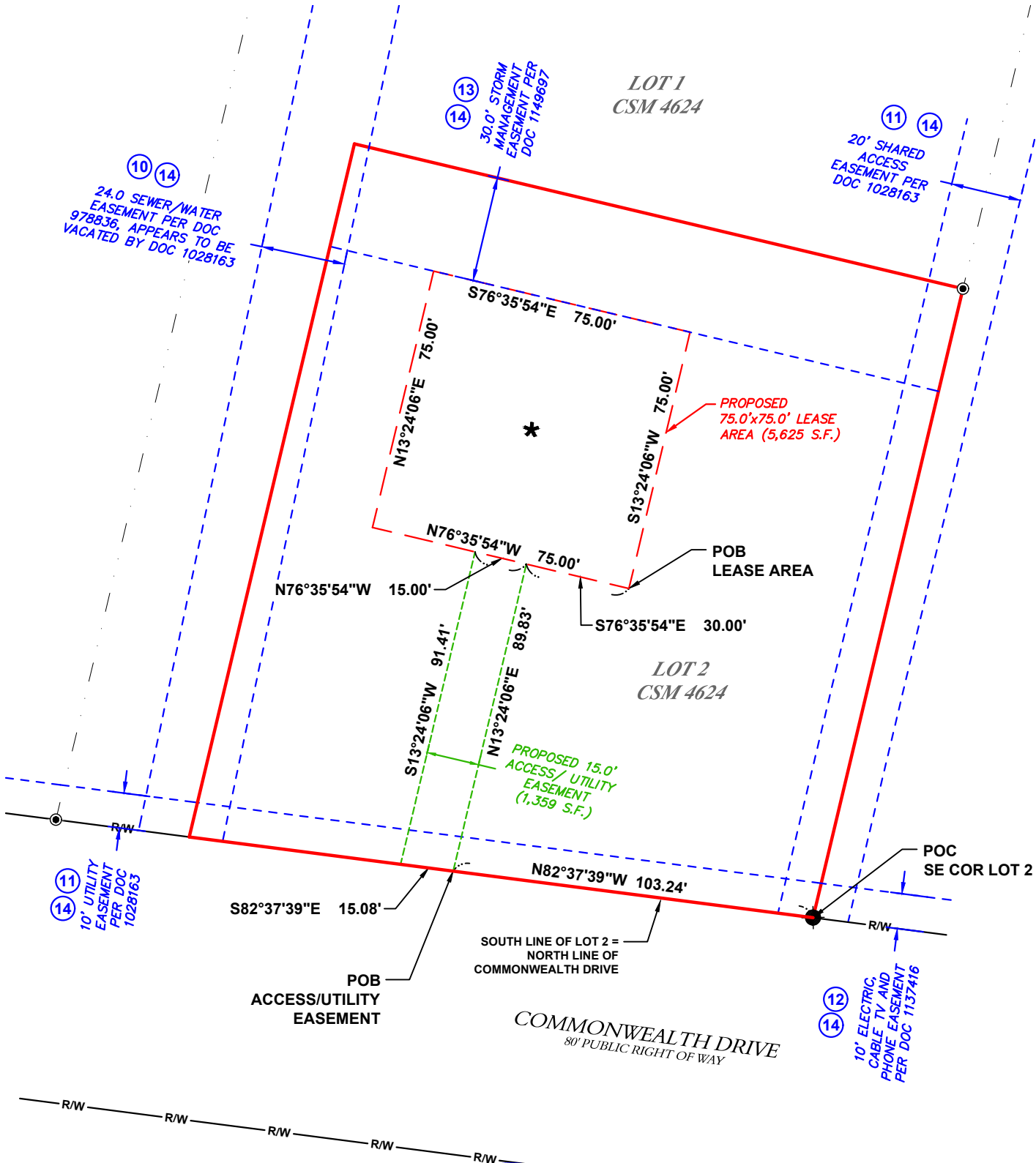
BEING A PORTION OF THE SAME PROPERTY CONVEYED TO HIGHWAY 12, LLC, A WISCONSIN LIMITED LIABILITY COMPANY IN QUIT CLAIM DEED FROM RAMESH SHAH & ILA SHAH DATED JULY 2, 2003 AND RECORDED JULY 18, 2003 IN INSTRUMENT NO. 1127599. DEED WAS RE-RECORDED AUGUST 11, 2003 IN INSTRUMENT NO. 1130338 TO CORRECT THE LEGAL DESCRIPTION.

PROPOSED LEASE AREA:

A PART OF LOT 2 OF CERTIFIED SURVEY MAP NO. 4624 RECORDED IN VOLUME 23 OF CERTIFIED SURVEYS ON PAGE 281 AS DOCUMENT NO. 1157199, BEING A PART OF THE NW¼ OF THE SE¼ OF SECTION 32, TOWNSHIP 6 NORTH, RANGE 14 EAST, CITY OF FORT ATKINSON, JEFFERSON COUNTY, WISCONSIN, MORE PARTICULARLY DESCRIBED AS COMMENCING AT THE SE CORNER OF SAID LOT 2; THENCE N82°37'39"W, ALONG THE SOUTH LINE OF SAID LOT 2, 103.24 FEET; THENCE N13°24'06"E, 89.83 FEET; THENCE S76°35'54"E, 30.00 FEET TO THE POINT OF BEGINNING FOR THE LEASE AREA HEREIN INTENDED TO BE DESCRIBED: THENCE N76°35'54"W, 75.00 FEET; THENCE N13°24'06"E, 75.00 FEET; THENCE S76°35'54"E, 75.00 FEET; THENCE S13°24'06"W, 75.00 FEET TO THE POINT OF BEGINNING, CONTAINING 5,625 SQUARE FEET.

PROPOSED ACCESS/UTILITY EASEMENT:

A PART OF LOT 2 OF CERTIFIED SURVEY MAP NO. 4624 RECORDED IN VOLUME 23 OF CERTIFIED SURVEYS ON PAGE 281 AS DOCUMENT NO. 1157199, BEING A PART OF THE NW¼ OF THE SE¼ OF SECTION 32, TOWNSHIP 6 NORTH, RANGE 14 EAST, CITY OF FORT ATKINSON, JEFFERSON COUNTY, WISCONSIN, MORE PARTICULARLY DESCRIBED AS COMMENCING AT THE SE CORNER OF SAID LOT 2; THENCE N82°37'39"W, ALONG THE SOUTH LINE OF SAID LOT 2, 103.24 FEET TO THE POINT OF BEGINNING FOR THE EASEMENT AREA HEREIN INTENDED TO BE DESCRIBED; THENCE N13°24'06"E, 89.83 FEET; THENCE N76°35'54"W, 15.00 FEET; THENCE S13°24'06"W, 91.41 FEET TO THE SAID SOUTH LINE OF LOT 2; THENCE S82°37'39"E, ALONG THE SAID SOUTH LINE OF LOT 2, 15.08 FEET TO THE POINT OF BEGINNING, CONTAINING 1,359 SQUARE FEET.



I, DAN J. KUEHL, A WISCONSIN PROFESSIONAL LAND SURVEYOR, CERTIFY THAT THE INFORMATION SHOWN HEREON WAS COMPILED USING DATA FROM AN ACTUAL FIELD SURVEY MADE UNDER MY DIRECT SUPERVISION AND THAT THE FIELD SURVEY AND THE COMPILATION OF INFORMATION SHOWN HEREIN WERE CONDUCTED IN ACCORDANCE WITH THE WISCONSIN MINIMUM STANDARDS OF PRACTICE.

Dan J. Kuehl
NOVEMBER 15, 2023

DAN J. KUEHL
LICENSE NUMBER 3104-8
MY LICENSE RENEWAL DATE IS JANUARY 31, 2024
SHEETS COVERED BY THIS SEAL B-1, B-1.1, AND B-1.2

PREPARED FOR:

WESTCHESTER

SERVICES LLC

604 FOX GLEN
BARRINGTON, IL 60010
TELEPHONE: 847.277.0070
FAX : 847.277.0080
ae@westchesterservices.com

PREPARED FOR:

TILLMAN

INFRASTRUCTURE

SURVEYED BY:

XCEL

Consultants

8300 42ND STREET WEST
ROCK ISLAND, IL 61201
(O) 309-787-9988
(F) 309-756-5540
(E) XCEL@XCELCONSULTANTSINC.COM

XCEL PROJECT NUMBER: 234726

SITE SURVEY		
REV.	DATE	DESCRIPTION
A	10/11/23	ISSUED AS FINAL
B	10/13/23	UPDATE TOWER LOCATION AND FINAL
C	11/15/23	REVIEW COMMENTS

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JURISDICTION:
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JED DRAEGER
jdraeger@fortatkinsonwi.gov
920-397-9901

SITE NUMBER:
TI-OPP-29071

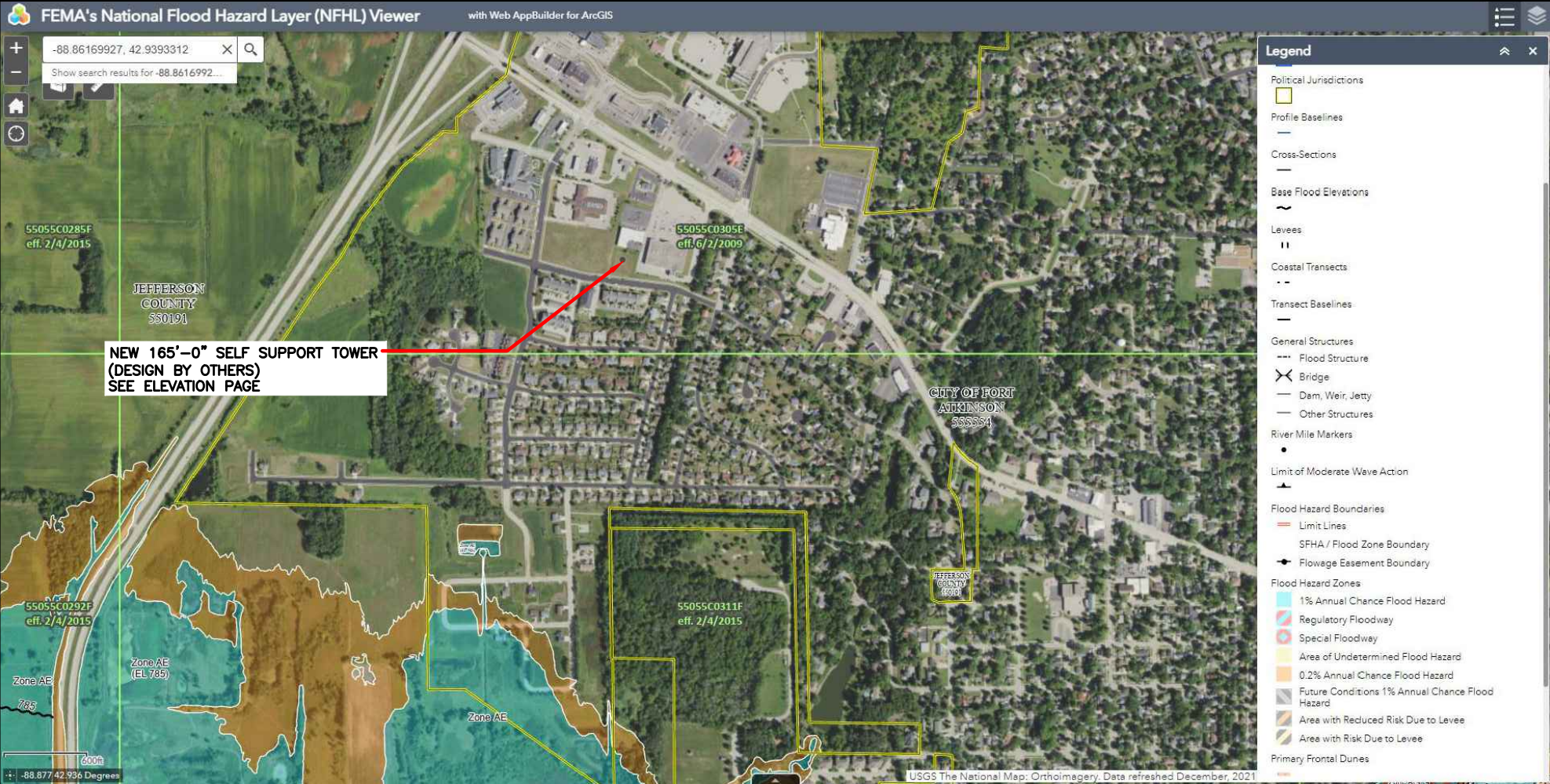
DRAWN BY: KJM
CHECKED BY: BCH
SURVEY DATE: 6/28/2023
PLAT DATE: 10/13/2023

SHEET TITLE:
SITE SURVEY
THIS DOES NOT REPRESENT A
BOUNDARY SURVEY OF THE
PARENT PARCEL

SHEET NUMBER:
B-1.2

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FEMA'S NATIONAL FLOOD HAZARD LAYER (NFHL) VIEWER



National Wetlands Inventory
surface waters and wetlands



NATIONAL WETLANDS INVENTORY
SURFACE WATERS AND WETLANDS

TILLMAN
INFRASTRUCTURE

LCC
TELECOM SERVICES

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WESTCHESTER
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WI FIRM #4897-11
604 FOX GLEN
BARRINGTON, IL 60010
PHONE: 847-277-0070
EMAIL: AE@Westchesterservices.com

DRAWN BY:		DWM
CHECKED BY:		MC
REV	DATE	DESCRIPTION
A	10/30/23	PRELIMINARY CD
B	12/04/23	PRELIMINARY CD

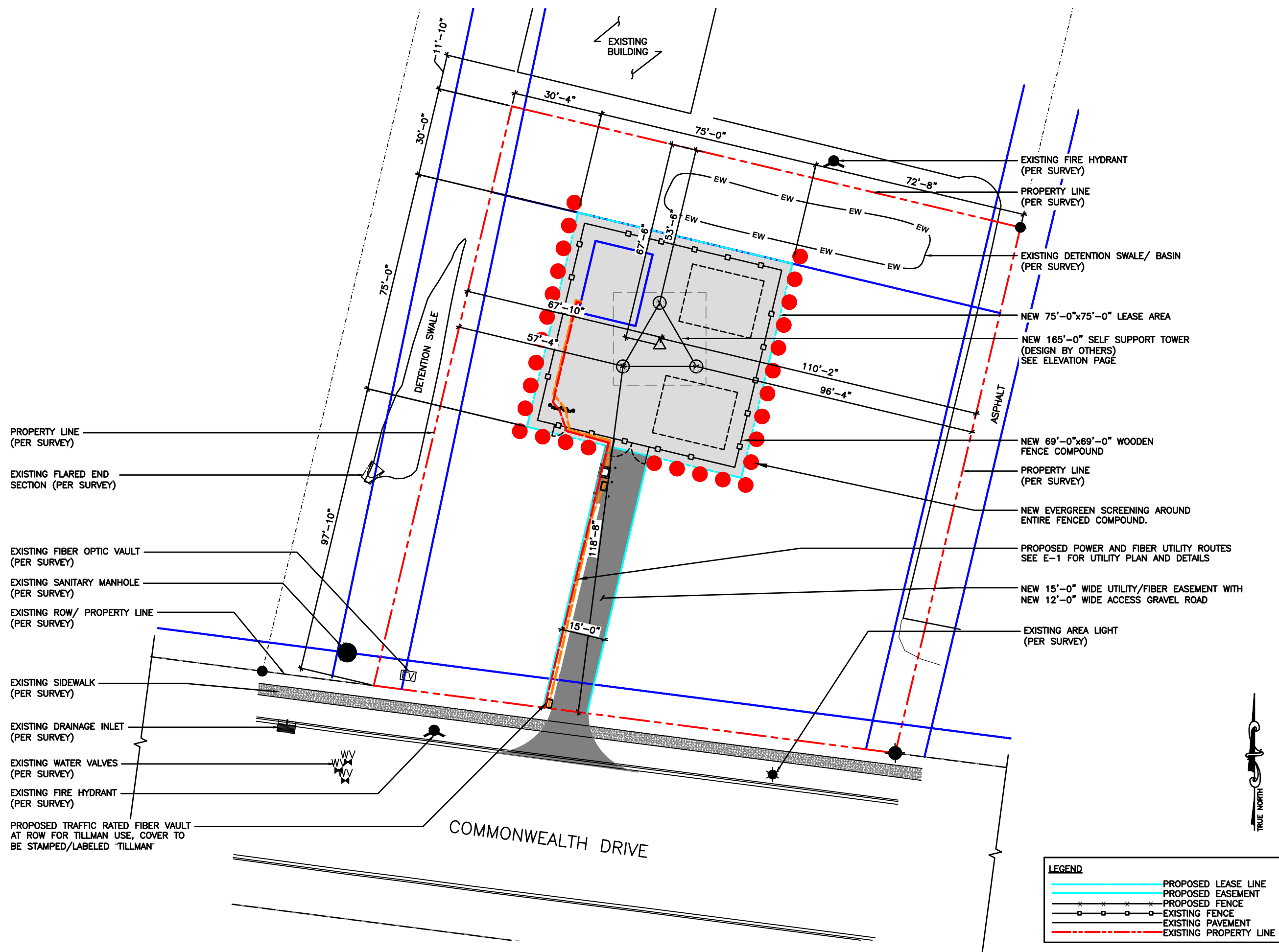
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ARCHITECT UNDER THE LAWS OF THE STATE OF WISCONSIN

TILLMAN OPP# TI-OPP-29071
TILLMAN SITE NAME:
W0129/ FORT ATKINSON
SITE ADDRESS:
COMMONWEALTH DR
FORT ATKINSON, WI 53538

SHEET TITLE
FLOOD HAZARD &
WETLAND MAPS

SHEET NUMBER
C-0

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OVERALL SITE PLAN



JOHN M. BANKS
ARCHITECT
604 FOX GLEN
BARRINGTON, IL 60010
TELEPHONE: 847-277-0070
FAX : 847-277-0080
EMAIL : JBANKS@WESTCHESTERSERVICES.COM

WESTCHESTER
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WI FIRM #4897-11
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BARRINGTON, IL 60010
PHONE: 847-277-0070
EMAIL: AE@Westchesterservices.com

DRAWN BY: DWM
CHECKED BY: MC

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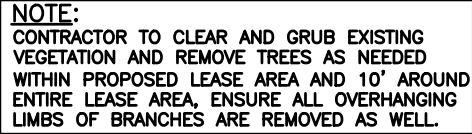
TILLMAN OPP# TI-OPP-29071
TILLMAN SITE NAME:
W0129/ FORT ATKINSON
SITE ADDRESS:
COMMONWEALTH DR
FORT ATKINSON, WI 53538

SHEET TITLE
OVERALL SITE PLAN

SHEET NUMBER
C-1

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- ## ENLARGED SITE PLAN



LEGEND

- PROPOSED LEASE LINE
- PROPOSED EASEMENT
- PROPOSED FENCE
- EXISTING FENCE
- EXISTING PAVEMENT
- EXISTING PROPERTY LINE

0 2' 4' 8'

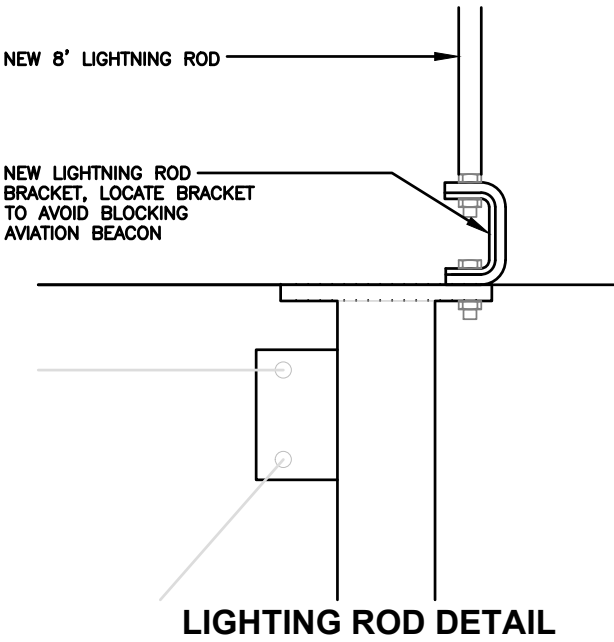
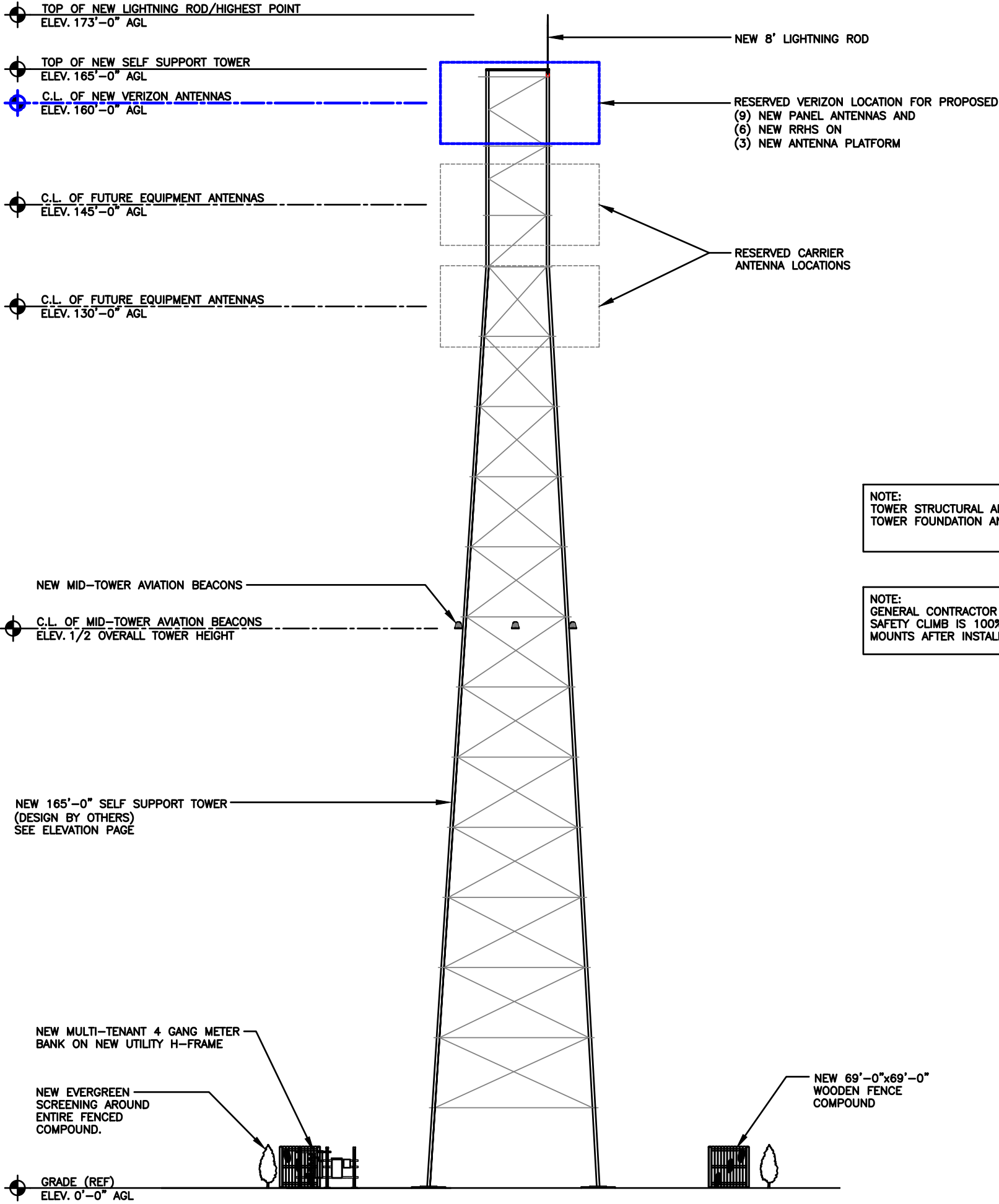
SCALE: 1/8" = 1'-0" (24x36)

(OR) 1/16" = 1'-0" (11x17)

TRUE NORTH

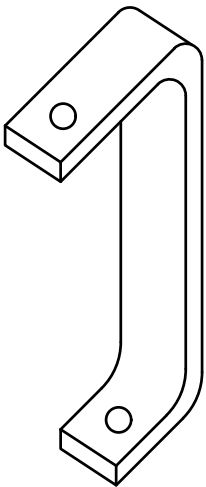
SHEET NUMBER
C-2

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NOTE:
TOWER STRUCTURAL ANALYSIS AND DESIGN BY OTHERS
TOWER FOUNDATION ANALYSIS AND DESIGN BY OTHERS

NOTE:
GENERAL CONTRACTOR SHALL MAKE SURE
SAFETY CLIMB IS 100% FREE OF CABLES AND
MOUNTS AFTER INSTALL IS COMPLETE.



LIGHTING ROD BRACKET

TILLMAN
INFRASTRUCTURE

JOHN M. BANKS
ARCHITECT
604 FOX GLEN
BARRINGTON, IL 60010
TELEPHONE: 847-277-0070
FAX : 847-277-0080
EMAIL: JBANKS@WESTCHESTERSERVICES.COM

WI FIRM #4897-11
604 FOX GLEN
BARRINGTON, IL 60010
PHONE: 847-277-0070
EMAIL: AE@Westchesterservices.com

DRAWN BY:		DWM
CHECKED BY:		MC
REV	DATE	DESCRIPTION
A	10/30/23	PRELIMINARY CD
B	12/04/23	PRELIMINARY CD

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ARCHITECT UNDER THE LAWS OF THE STATE OF WISCONSIN

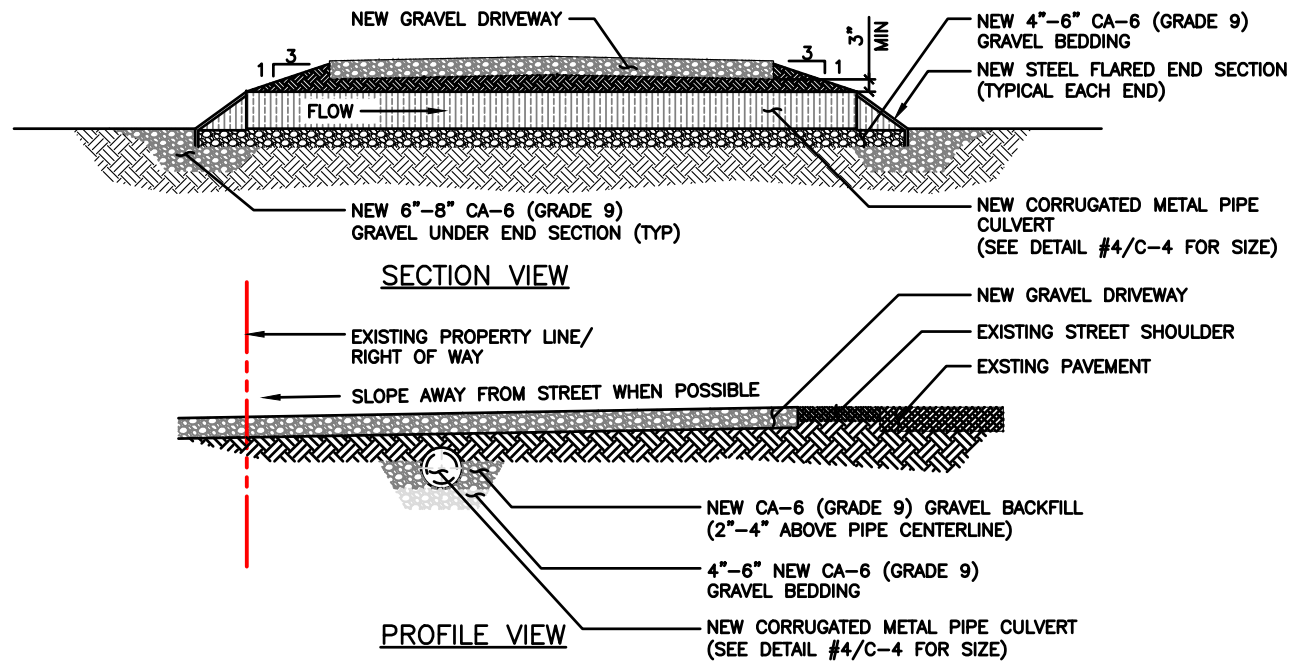
TILLMAN OPP# TI-OPP-29071
TILLMAN SITE NAME:
W0129/ FORT ATKINSON
SITE ADDRESS:
COMMONWEALTH DR
FORT ATKINSON, WI 53538

SHEET TITLE
ELEVATION

SHEET NUMBER
C-3

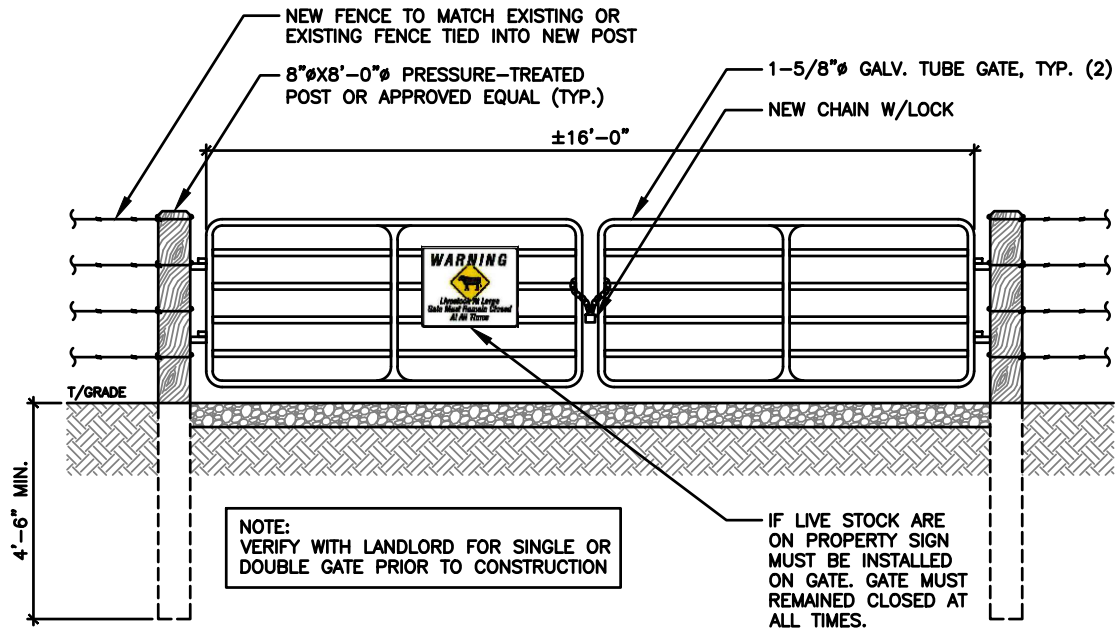
SCALE	1
N.T.S.	

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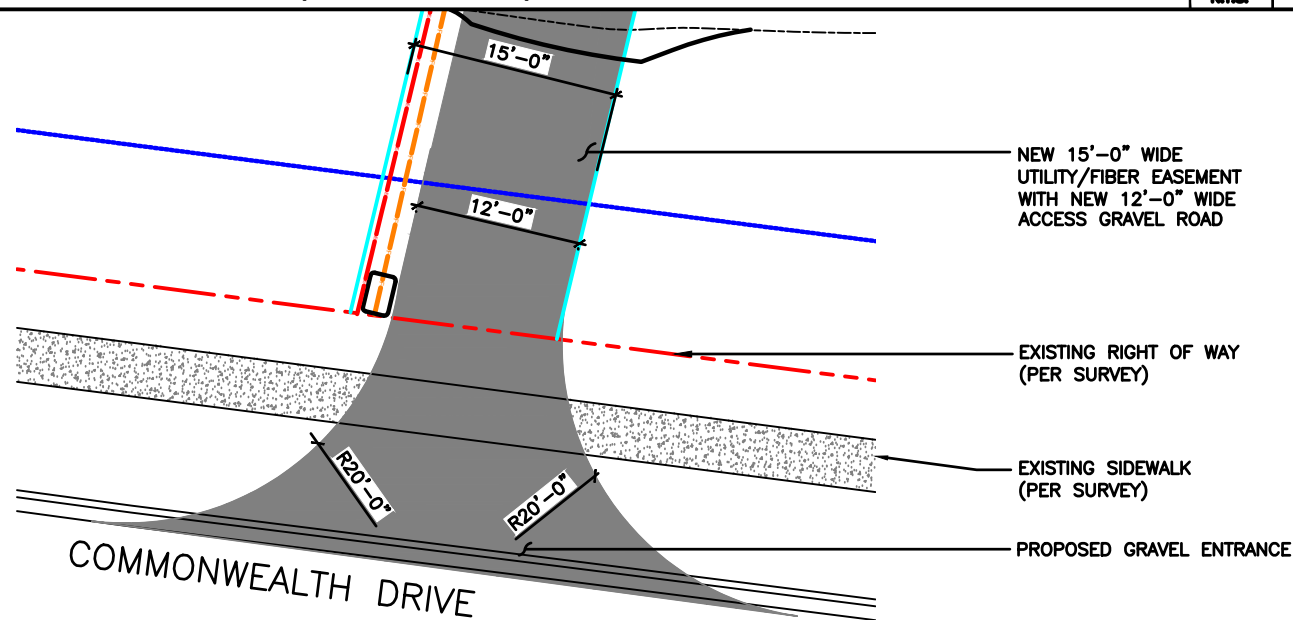
CULVERT DETAIL (IF REQUIRED)

SCALE
N.T.S. 6



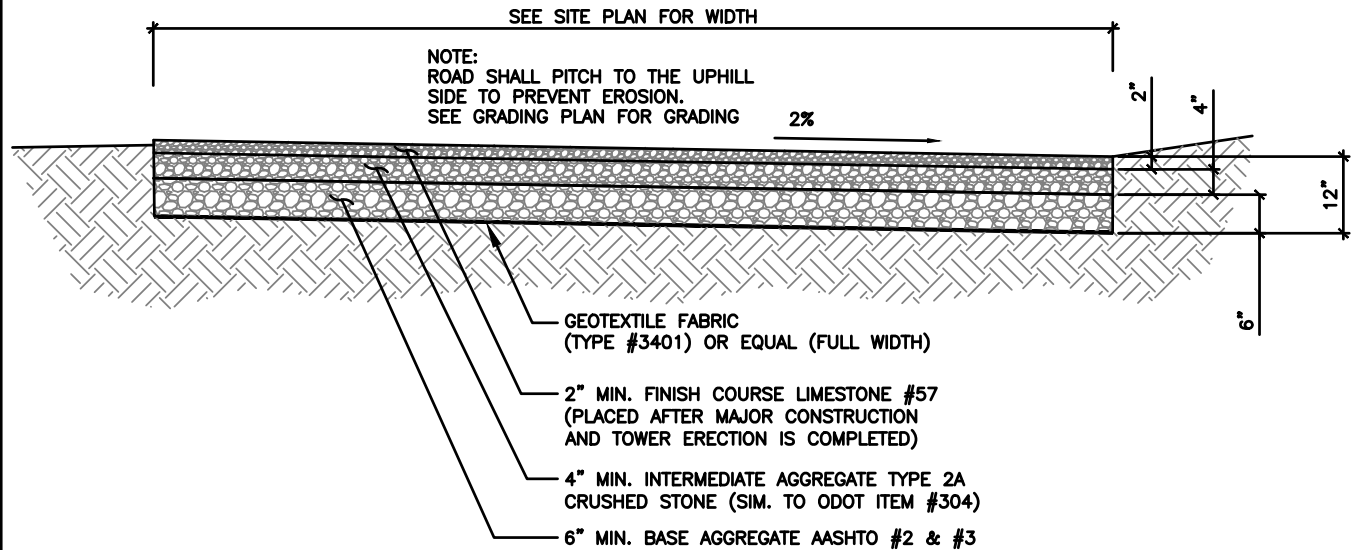
CATTLE/ STREET GATE DETAIL (IF REQUIRED)

SCALE
N.T.S. 5



ACCESS DRIVEWAY @ STREET DETAIL

SCALE
N.T.S. 4



ACCESS DRIVE DETAIL

SCALE
N.T.S. 3

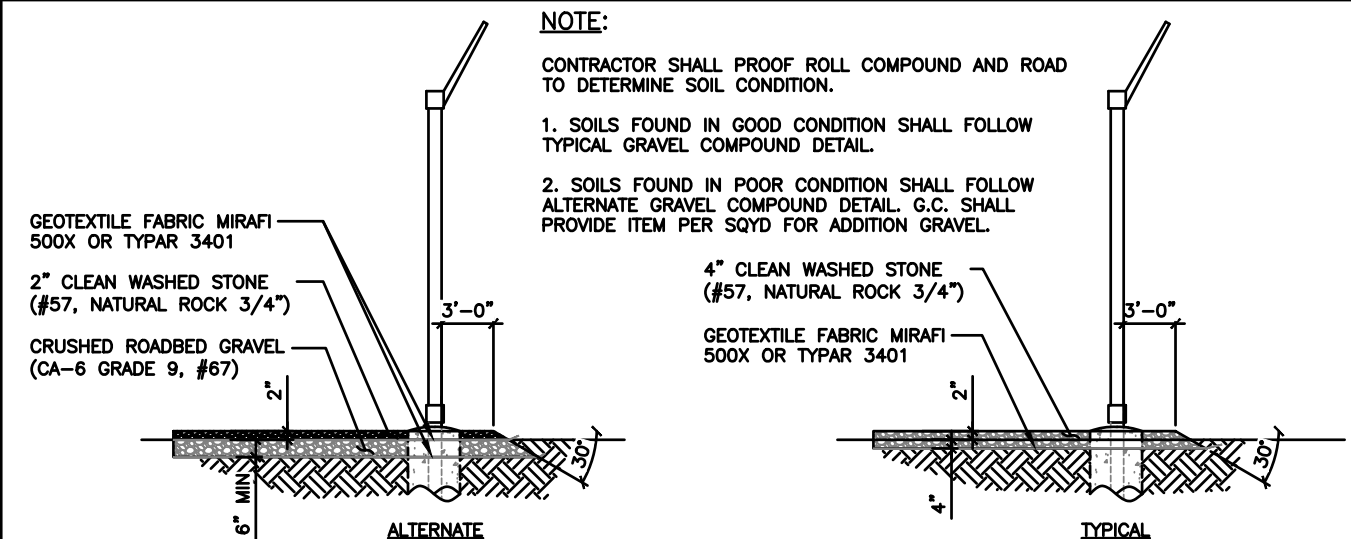
ASPHALT APRON- (IF REQUIRED)
8" OF 304 AGGREGATE STONE (2 LIFTS)
4" OF 404 BITUMINOUS ASPHALT (2 LIFTS)

CONCRETE APRON- (IF REQUIRED)
CLASS C CONCRETE IS REQUIRED FROM EDGE OF PAVEMENT TO R/W. THE SLAB MUST BE 5" THICK. ONE INCH EXPANSION MATERIAL REQUIRED AGAINST ANY EXISTING CONCRETE. NO MORE THAN 2% CALCIUM CHLORIDE ADDED TO MIX. NO MORE THAN 2 GALLONS OF WATER PER CUBIC YARD ADDED TO MIX AT THE BEGINNING OF LOAD. NO WATER SPRAY ON MIX AFTER MATERIAL IS PLACED IN FORMS. NO MORE THAN A 5" SLUMP IN THE CONCRETE MIX.

NOTE:
TILLMAN GC TO VERIFY WITH DRIVEWAY PERMIT/JURISDICTION

DRIVEWAY/ CULVERT NOTES

SCALE
N.T.S. 2



GRAVEL COMPOUND DETAIL

SCALE
N.T.S. 1

TILLMAN
INFRASTRUCTURE

LCC
TELECOM SERVICES

JOHN M. BANKS
ARCHITECT
604 FOX GLEN
BARRINGTON, IL 60010
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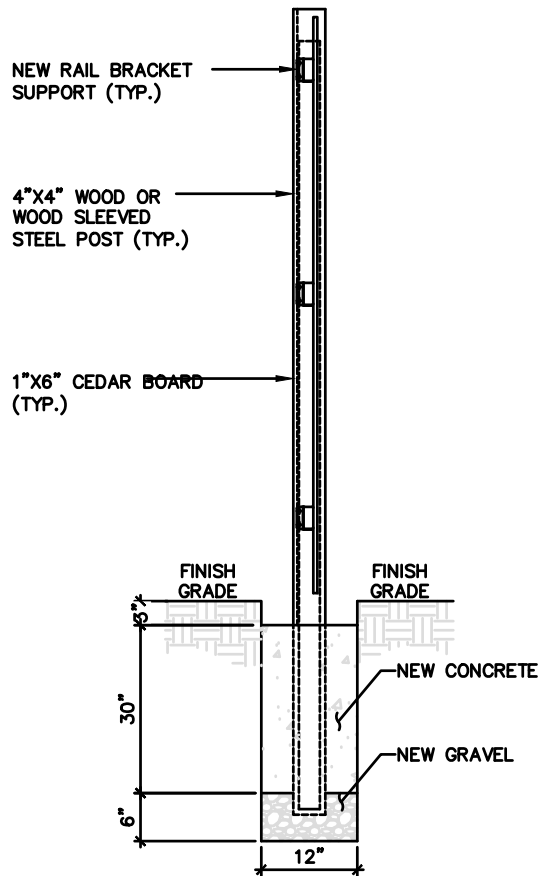
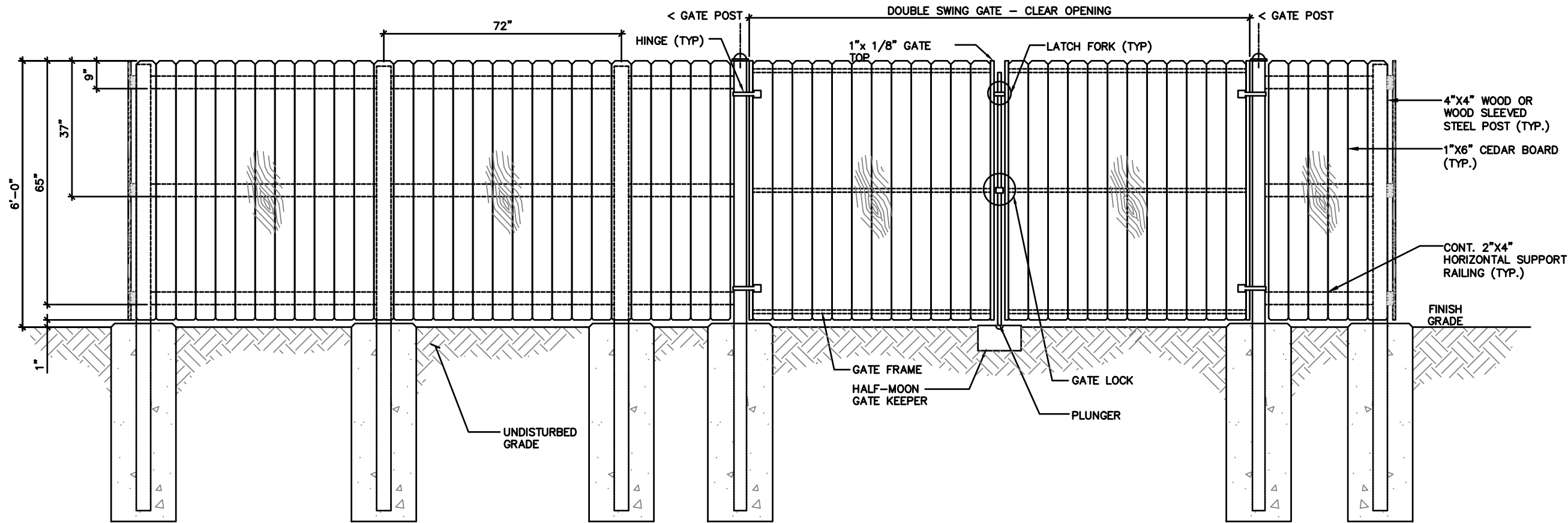
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TILLMAN OPP# TI-OPP-29071
TILLMAN SITE NAME:
W0129/ FORT ATKINSON
SITE ADDRESS:
COMMONWEALTH DR
FORT ATKINSON, WI 53538

SHEET TITLE
CONSTRUCTION
DETAILS

SHEET NUMBER
C-4

THE INFORMATION CONTAINED IN THIS SET OF CONSTRUCTION DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO CARRIER SERVICES IS STRICTLY PROHIBITED.



NOTE:

EXISTING COMPOUND CHAINLINK FENCE TO BE REMOVED AND REPLACED WITH WOOD FENCING.

FENCE SHALL BE INSTALLED BY AT&T BUT SHALL BE MAINTAINED BY VERTICAL BRIDGE

FENCE NOTES:

1. FENCING MATERIAL SHALL BE OF PRESSURE TREATED CEDAR, GRADE "A" MATERIAL
2. FENCE TO MATCH EXISTING FENCE IN APPEARANCE
3. ALL CONCRETE FOOTINGS SHALL BE 3000 PSI
4. ALL RAILS AND PICKETS TO BE ATTACHED W/GLUE OR STAINLESS HARDWARE



JOHN M. BANKS
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TILLMAN OPP# TI-OPP-29071
TILLMAN SITE NAME:
W0129/ FORT ATKINSON
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FORT ATKINSON, WI 53538

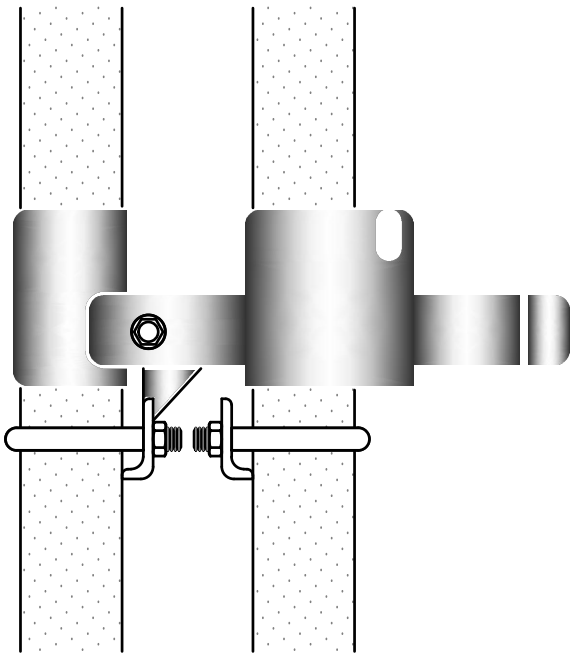
SHEET TITLE
FENCE
DETAILS

SHEET NUMBER
C-5

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NOTE:
GENERAL CONTRACTOR TO PROVIDE (2) NEW LOCKS
FOR MAIN GATE AND MAN GATE. COORDINATE
COMBINATION WITH TILLMAN CONSTRUCTION MANAGER.

TILLMAN STANDARD REQUIRES 9" OF 3/8" CHAIN
WELDED TO GATE LEAF WITH A SINGLE TILLMAN LOCK
ON EACH GATE.



STRONGHOLD LATCH DETAIL

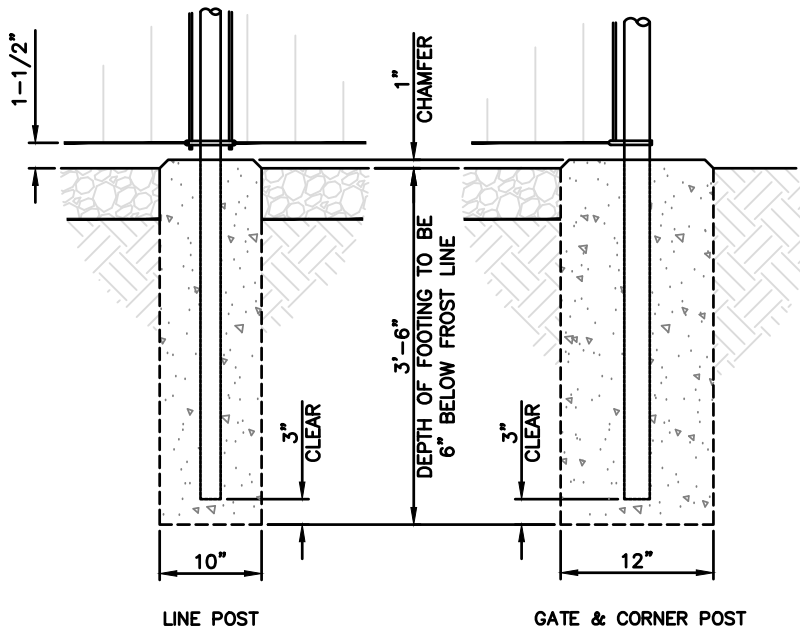
SCALE
N.T.S.

5

NOT USED

SCALE
N.T.S.

4



POST FOOTING DETAIL

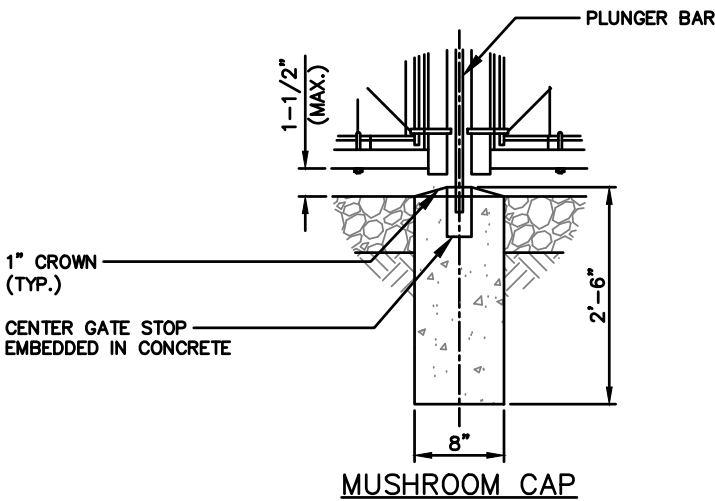
SCALE
N.T.S.

2

GATE STOP DETAILS

SCALE
N.T.S.

1



JOHN M. BANKS
ARCHITECT
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BARRINGTON, IL 60010
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FAX : 847-277-0080
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FORT ATKINSON, WI 53538

SHEET TITLE
FENCE
DETAILS

SHEET NUMBER

C-5.1

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TILLMAN
INFRASTRUCTURE

SITE NAME: SITE NAME
SITE NUMBER: TX-XXXX
SITE ADDRESS:
123 MAIN ST.
ANYTOWN, TX 12345
In case of Emergency, dial 911
NO TRESSPASSING
For Leasing Information:
For Operations & Access:
800-821-5825

FCC Tower Registration #
XXXXXXX

BLACK TEXT

WHITE
BACKGROUND

RED TEXT

WHITE BACKGROUND, RED/BLACK LETTERING
MOUNTING LOCATION: SHELTER OR TENANT IMPROVEMENT ROOM DOOR.
IF OUTDOOR CABINET SITE PLACE ON END CABINET CLOSEST TO SITE ACCESS POINT.
PLACE ON GENERATOR.
QUANTITY: 1 TO 2

SIGNAGE NOTES:

1. SIGNS SHALL BE FABRICATED FROM CORROSION RESISTANT PRESSED METAL & PAINTED WITH LONG LASTING UV RESISTANT COATING.
2. SIGNS (EXCEPT WHERE NOTED OTHERWISE) SHALL BE MOUNTED TO THE TOWER, GATE & FENCE USING A MINIMUM OF 9 GAUGE ALUMINUM WIRE, HOG RINGS (FENCE) OR BRACKETS, WHERE NECESSARY. BRACKETS SHALL BE OF SIMILAR METAL AS THE STRUCTURE TO AVOID GALVANIC CORROSION.
3. ADDITIONAL E911 ADDRESS & FCC REGISTRATION SIGNS SHALL BE MOUNTED AT EACH ACCESS ROAD GATE LEADING TO THE COMPOUND AS WELL AS THE COMPOUND GATE ITSELF.
4. SIGNS NEED NOT BE PLACED IF ACCURATE AND APPROPRIATE SIGNAGE ALREADY EXISTS.

8"

INFORMATION

Federal Communications Commission
Tower Registration Number
1 2 3 4 5 6 7
Posted in accordance with Federal Communications
Commission rules on antenna tower registration
47CFR 17.4(g).

WHITE TEXT

GREEN
BACKGROUND

WHITE
BACKGROUND

BLACK TEXT

8"

12"

WHITE/GREEN BACKGROUND, WHITE/BLACK LETTERING
MOUNTING LOCATION: GATE & BASE OF TOWER
QUANTITY: 2

8"

INFORMATION

ACTIVE ANTENNAS ARE MOUNTED
☐ ON THE OUTSIDE FACE OF THIS BUILDING
☐ BEHIND THIS PANEL
☐ ON THIS STRUCTURE
STAY BACK A MINIMUM OF 3 FEET
FROM THESE ANTENNAS
Contact AT&T Mobility at 800-638-2822
and follow their instructions prior to performing
any maintenance or repairs closer than 3 feet
from the antennas.
This is AT&T Mobility site USID#
IN-2A-AL-128

12"

BLACK TEXT

GREEN
BACKGROUND

BLACK TEXT

WHITE
BACKGROUND

AT&T
Mobility

WHITE/GREEN BACKGROUND, WHITE/BLACK LETTERING
MOUNTING LOCATION: GATE & BASE OF TOWER
QUANTITY: 2

PROPERTY OF TILLMAN INFRASTRUCTURE

SCALE
N.T.S.

7

FCC REGISTRATION SIGN

SCALE
N.T.S.

6

RF EXPOSURE INFORMATION SIGN

SCALE
N.T.S.

5

8"

INFORMATION

AT&T Mobility operates telecommunications antennas at this location.
Remain at least 3 feet away from any antenna and obey all posted
signs.
Contact the owner(s) of the antenna(s) before working
closer than 3 feet from the antenna(s).
Contact AT&T Mobility at 800-638-2822 prior to performing any
maintenance or repairs near AT&T Mobility antennas.
This is Site USID #
Contact the management office if this door/hatch/gate is found
unlocked.

12"

INFORMACION

En esta propiedad se ubican antenas de telecomunicaciones
operadas por AT&T Mobility. Favor mantener una distancia de no
menos de 3 pies y obedecer todos los avisos
Comuníquese con el propietario o los propietarios de las antes de
trabajar o caminar de menos de 3 pies de la antena
Comuníquese con AT&T Mobility 800-638-2822 antes de realizar
cualquier mantenimiento o reparaciones cerca de las antenas de
AT&T Mobility.
Esta es la estación base numero USID #
Favor comunicarse con la oficina de la administración del
edificio si esta puerta o compuerta se encuentra sin candado

IN-2A-AL-128

AT&T
Mobility

WHITE/GREEN BACKGROUND, WHITE/BLACK LETTERING
MOUNTING LOCATION: GATE & BASE OF TOWER
QUANTITY: 2

8"

NOTICE

Beyond This Point:
You are entering a RADIO FREQUENCY
(RF) EMISSIONS CONTROLLED AREA.
RF EMISSIONS exceed FCC
Uncontrolled General Population
exposure limits.
Follow all FCC/OSHA guidelines for working
in RF environments.

12"

WHITE/BLUE BACKGROUND, WHITE/BLACK LETTERING
MOUNTING LOCATION: GATE & BASE OF TOWER
QUANTITY: 1

8"

CAUTION

Beyond this point:
Radio frequency fields at this site
may exceed FCC rules for human
exposure.
For your safety, obey all posted signs and
site guidelines for working in radio
frequency environments.
In accordance with Federal Communications Commission rules on radio
frequency emissions 47 CFR 1.1307(b)

12"

WHITE/YELLOW BACKGROUND, WHITE/BLACK LETTERING
MOUNTING LOCATION: GATE & BASE OF TOWER
QUANTITY: 1

8"

WARNING

Beyond this Point you are
entering a controlled area
where radio frequency
emissions exceed the FCC
Controlled Exposure Limits.
Failure to obey all posted signs and site
guidelines could result in serious injury.

12"

WHITE/ORANGE BACKGROUND, WHITE/BLACK LETTERING
MOUNTING LOCATION: GATE & BASE OF TOWER
QUANTITY: 1

TILLMAN
INFRASTRUCTURE

LCC
TELECOM SERVICES

JOHN M. BANKS
ARCHITECT
604 FOX GLEN
BARRINGTON, IL 60010
TELEPHONE: 847-277-0070
FAX : 847-277-0080
EMAIL :JBANKS@WESTCHESTERSERVICES.COM

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SERVICES LLC
WI FIRM #4897-11
604 FOX GLEN
BARRINGTON, IL 60010
PHONE: 847-277-0070
EMAIL: AE@Westchesterservices.com

DRAWN BY: DWM

CHECKED BY: MC

REV	DATE	DESCRIPTION
A	10/30/23	PRELIMINARY CD
B	12/04/23	PRELIMINARY CD

I HEREBY CERTIFY THAT THESE PLANS WERE
PREPARED BY ME OR UNDER MY DIRECT
SUPERVISION AND THAT I AM A DULY
REGISTERED ARCHITECT UNDER THE LAWS OF
THE STATE OF WISCONSIN

TILLMAN OPP# TI-OPP-29071
TILLMAN SITE NAME:
W0129/ FORT ATKINSON
SITE ADDRESS:
COMMONWEALTH DR
FORT ATKINSON, WI 53538

SHEET TITLE

SITE SIGNAGE

SHEET NUMBER

C-6

RF EXPOSURE INFORMATION SIGN

SCALE
N.T.S.

4

RF EXPOSURE NOTICE SIGN

SCALE
N.T.S.

3

RF EXPOSURE CAUTION SIGN

SCALE
N.T.S.

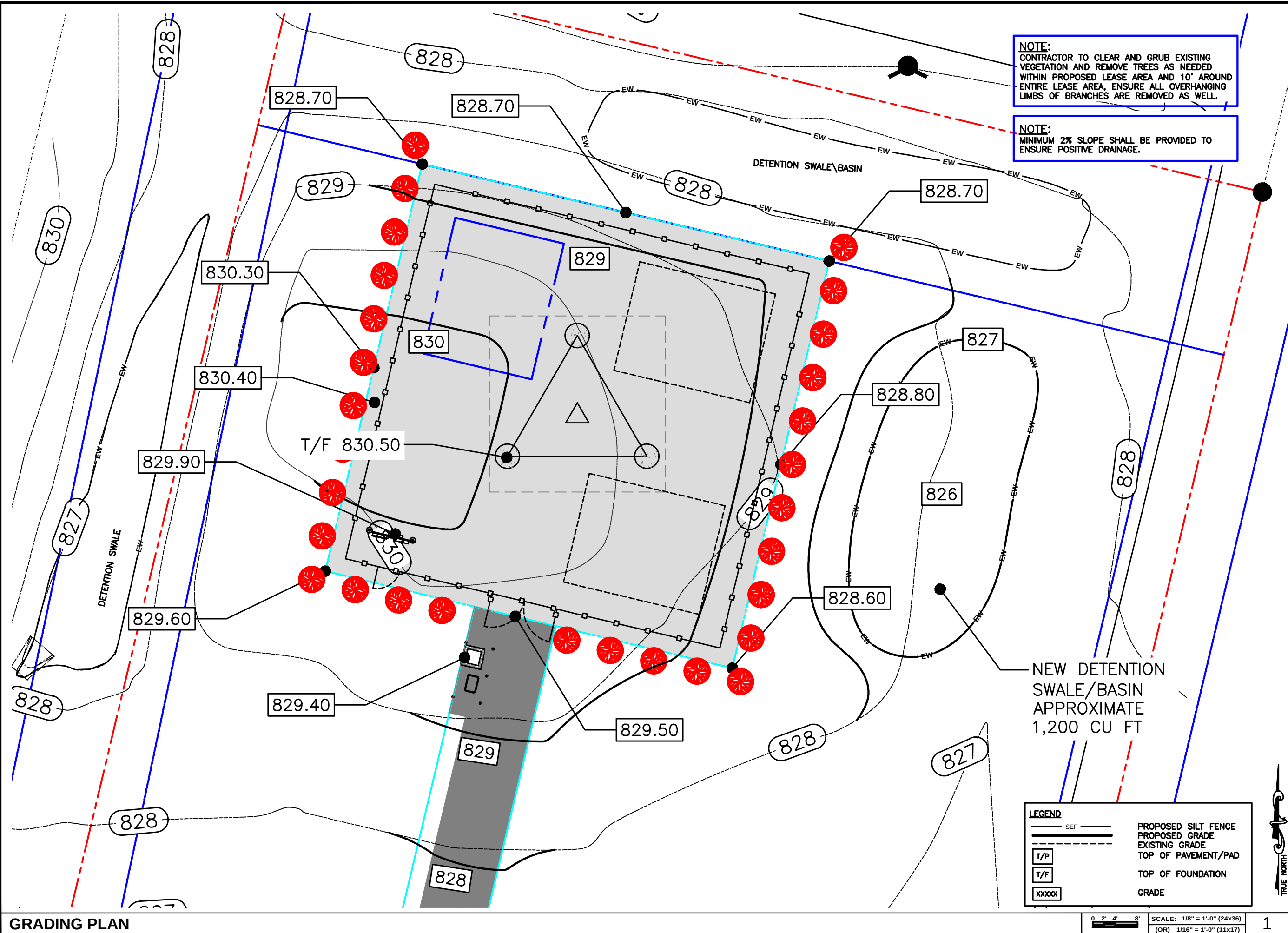
2

RF EXPOSURE WARNING SIGN

SCALE
N.T.S.

1

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TILLMAN
INFRASTRUCTURE

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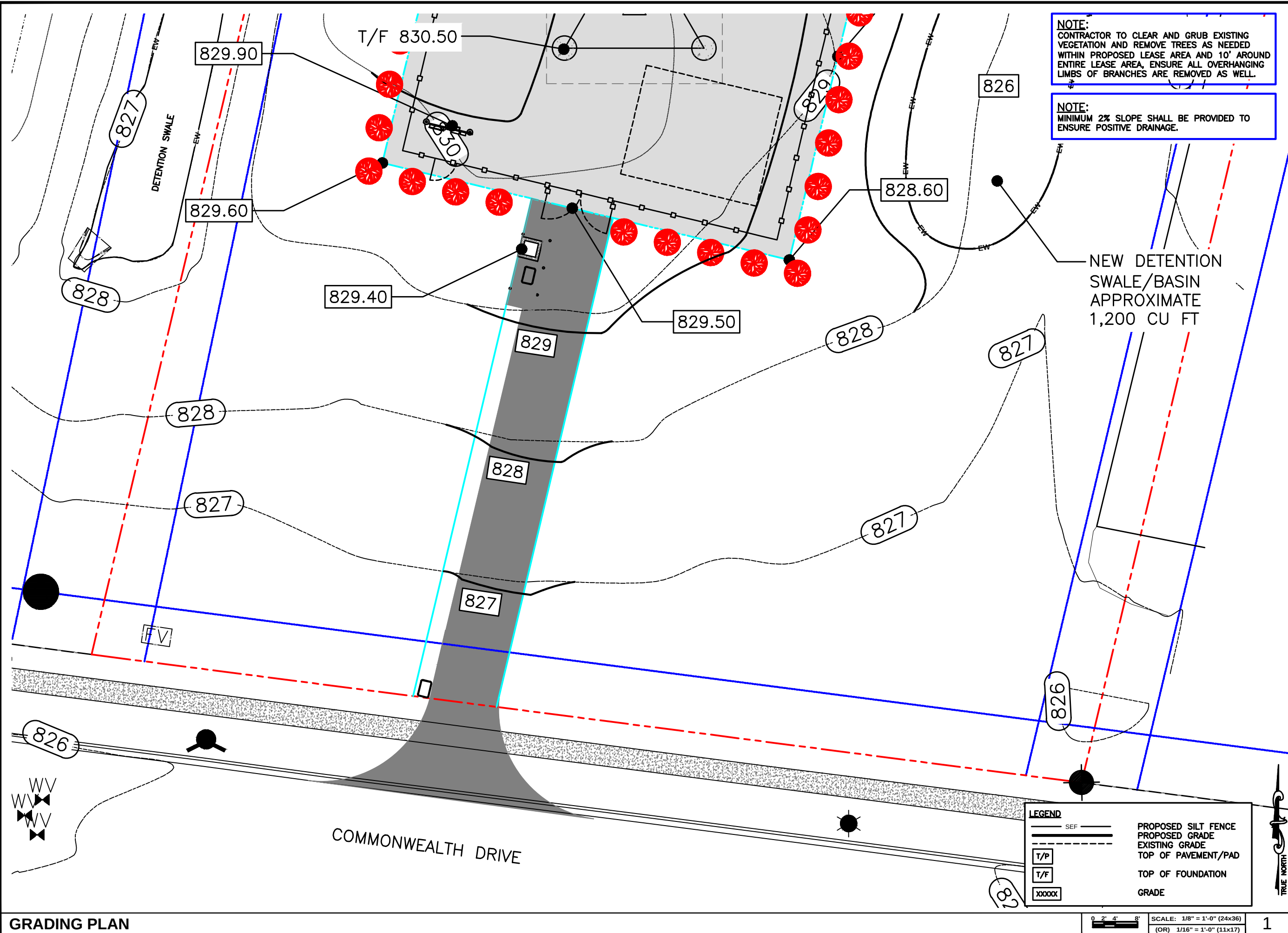
TILLMAN OPP# TI-OPP-29071
TILLMAN SITE NAME: W10129/ FORT ATKINSON
SITE ADDRESS: COMMONWEALTH DR
FORT ATKINSON, WI 53538

SHEET TITLE
GRADING
PLAN

SHEET NUMBER
C-7

GRADING PLAN

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SITE ADDRESS:
COMMONWEALTH DR
FORT ATKINSON, WI 53538

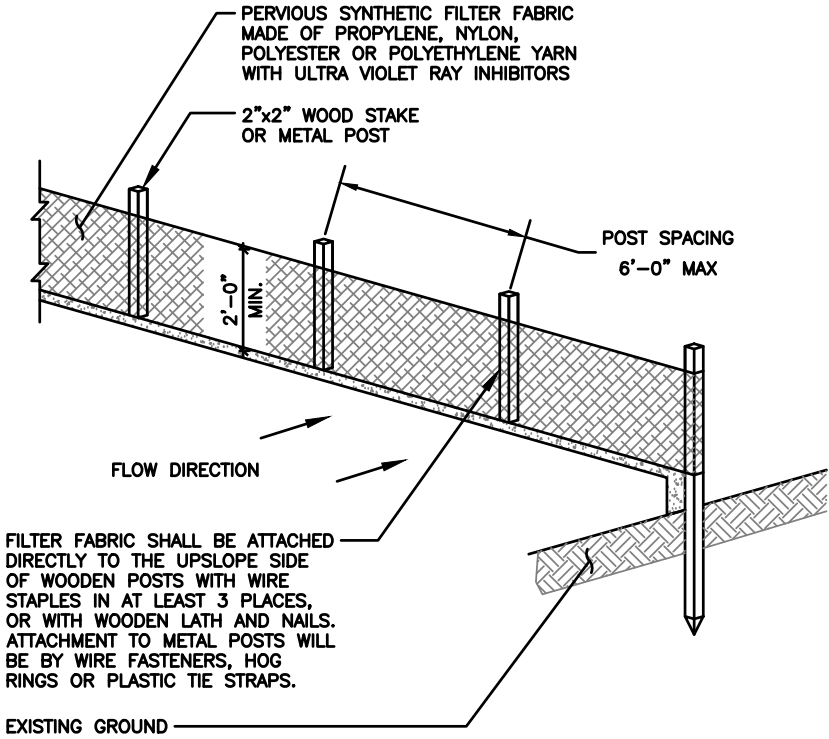
SHEET TITLE
GRADING
PLAN

SHEET NUMBER
C-7.1

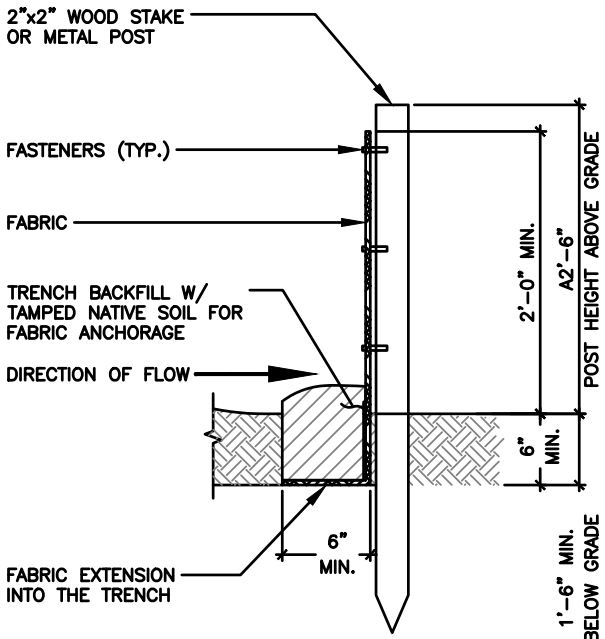
GRADING PLAN

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1. ALL VEGETATIVE AND STRUCTURAL EROSION CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE APPLICABLE STATE ADOPTED "PROCEDURES AND STANDARDS FOR URBAN SOIL EROSION AND SEDIMENTATION CONTROL" AND THE "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" OF THE STATE ENVIRONMENTAL PROTECTION AGENCY.
2. A SOIL EROSION CONTROL FENCE SHALL BE INSTALLED BEFORE DISTURBING THE GROUND AND SHALL BE PROVIDED AS SHOWN ON THE PLAN. THE CONDITION OF THE FENCE SHALL BE INSPECTED REGULARLY AND AFTER EVERY RAINSTORM THAT MIGHT PRODUCE RUNOFF. DAMAGED OR DETERIORATED ITEMS SHALL BE REPLACED AND MAINTAINED IN AN EFFECTIVE CONDITION
3. SOIL EROSION CONTROL MEASURES SHALL BE INCLUDED IN CONTRACTOR BID AND PRICING
4. THE ENTIRE SITE SHALL BE GRADED SO THAT NO STORM WATER RUNOFF AND LIKEWISE SOIL SEDIMENT CAN FLOW UNRESTRICTED FROM THE SITE
5. ALL INLETS, STRUCTURES, PIPES, SWALES, AND ROADS SHALL BE KEPT CLEAN AND FREE OF DIRT AND SILT
6. MAINTAIN SOIL EROSION CONTROL MEASURES THROUGH THE DURATION OF THIS PROJECT
7. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN REACHING ONE HALF THE HEIGHT OF THE BARRIER
8. ALL SOIL EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL ALL DISTURBED EARTH HAS BEEN PAVED OR VEGETATED
9. ANY EXCESS TOPSOIL THAT IS TO BE STOCKPILED FOR A PERIOD LONGER THAN 2 WEEKS SHALL BE PROTECTED BY EXCAVATING A TRENCH COMPLETELY AROUND THE STOCKPILE TO PREVENT THE ESCAPE OF SOIL MATERIAL THROUGH STORM WATER RUNOFF. STOCKPILES THAT ARE TO REMAIN LONGER THAN 14 DAYS SHALL BE SEEDED WITH AN APPROPRIATE GROUND COVER
10. TO PREVENT SOIL FROM LEAVING THE SITE ON CONSTRUCTION VEHICLE WHEELS, TEMPORARY GRAVEL ROADS AT WORK ENTRANCES SHALL BE CONSTRUCTED AND SHALL EXTEND INTO JOB SITE. THE EXISTING PAVEMENT SURFACES SHALL BE INSPECTED DAILY FOR SOIL DEBRIS AND SHALL BE CLEANED WHEN NECESSARY
11. FINAL RESTORATION SHALL BE COMPLETED PRIOR TO CLOSEOUT, PROVIDING 6" OF TOPSOIL RAKED TO A UNIFORM SURFACE.
12. SOIL EROSION CONTROL MEASURES SHALL BE REMOVED AND PROPERLY DISPOSED OF WHEN PROJECT IS COMPLETED



ISOMETRIC VIEW



SECTION VIEW

SOIL EROSION & SEDIMENT CONTROL NOTES

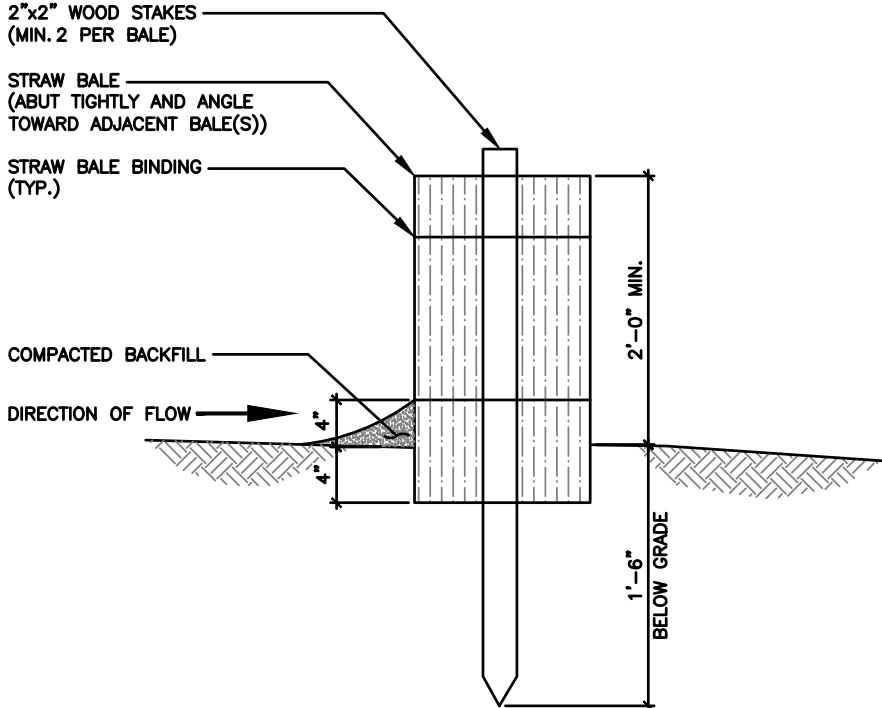
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N.T.S.

4

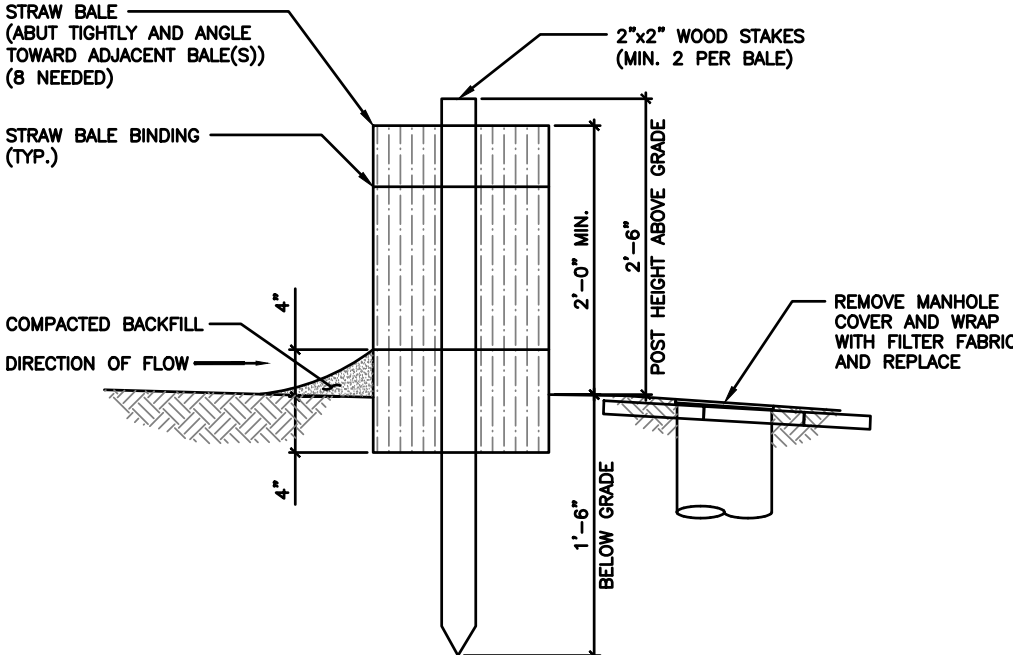
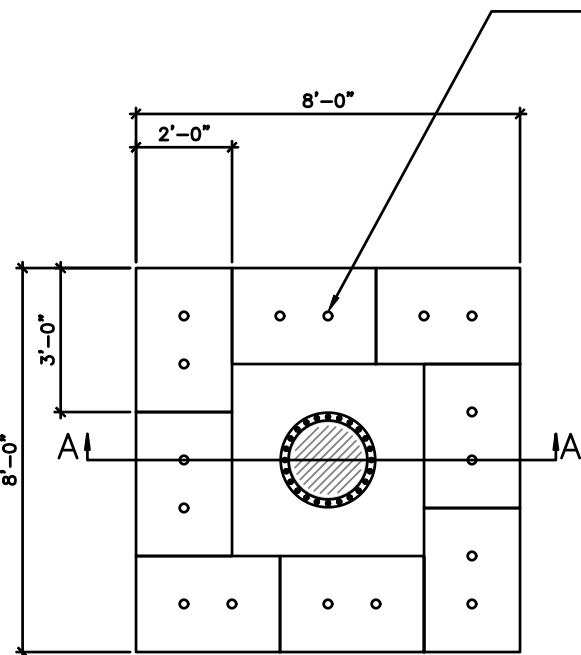
EROSION CONTROL - SILT FENCE

SCALE
N.T.S.

2



SECTION VIEW



SECTION VIEW A-A

EROSION CONTROL - STRAW BALE (OPTIONAL)

SCALE
N.T.S.

3

EROSION CONTROL - STRAW BALE AT STORM INLET MANHOLE (IF NEEDED SEE PLANS)

SCALE
N.T.S.

1

TILLMAN
INFRASTRUCTURE

LCC
TELECOM SERVICES

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TILLMAN SITE NAME:
W0129/ FORT ATKINSON
SITE ADDRESS:
COMMONWEALTH DR
FORT ATKINSON, WI 53538

SHEET TITLE
EROSION CONTROL
DETAILS

SHEET NUMBER
C-8

SHEET TITLE
UTILITY PLAN
SHEET NUMBER
E-1

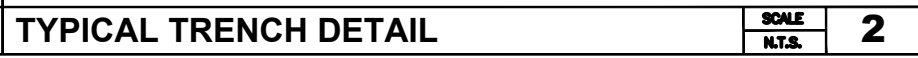
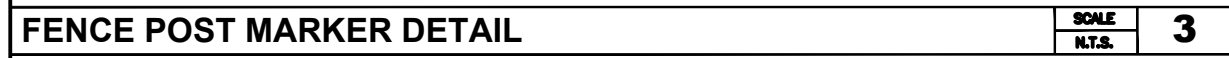
SCALE	2
N.T.S.	

UTILITY PLAN



1

1. SUBMITTAL OF BID INDICATES THAT THE CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
2. CONTRACTOR SHALL PERFORM ALL VERIFICATIONS, OBSERVATION TESTS, AND EXAMINATION WORK PRIOR TO ORDERING OF ANY EQUIPMENT AND THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE PROJECT MANAGER LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT AND DISCREPANCIES.
3. VERIFY HEIGHTS WITH PROJECT MANAGER PRIOR TO INSTALLATION.
4. THESE PLANS ARE DIAGRAMMATIC ONLY, FOLLOW AS CLOSELY AS POSSIBLE.
5. CONTRACTOR SHALL COORDINATE ALL WORK BETWEEN TRADES AND ALL OTHER SCHEDULING AND PROVISIONARY CIRCUMSTANCES SURROUNDING THE PROJECT.
6. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION CONSTRUCTION TOOLS, TRANSPORTATION, ETC., FOR COMPLETE AND FUNCTIONALLY OPERATING SYSTEMS ENERGIZED AND READY FOR USE THROUGHOUT AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
7. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. ELECTRICAL MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORIES AND SHALL BEAR THE INSPECTION LABEL "J" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF ALL GOVERNING BODIES HAVING JURISDICTION OVER THE CONSTRUCTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH ALL CURRENT APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA AND NBFU. ALL MATERIALS AND EQUIPMENT SHALL BE APPROVED FOR THEIR INTENDED USE AND LOCATION.
8. ALL WORK SHALL COMPLY WITH ALL APPLICABLE GOVERNING STATE, COUNTY AND CITY CODES AND OSHA, NFPA, NEC & ASHRAE REQUIREMENTS.
9. ENTIRE JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE. ALL WORK, MATERIAL AND EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE CONTRACTOR.
10. PROPERLY SEAL ALL PENETRATIONS. PROVIDE UL LISTED FIRE-STOPS WHERE PENETRATIONS ARE MADE THROUGH FIRE-RATED ASSEMBLIES. WATER-TIGHT USING SILICONE SEALANT.
11. DELIVER ALL BROCHURES, OPERATING MANUALS, CATALOGS AND SHOP DRAWINGS TO THE PROJECT MANAGER AT JOB COMPLETION. PROVIDE MAINTENANCE MANUALS FOR MECHANICAL EQUIPMENT. AFFIX MAINTENANCE LABELS TO MECHANICAL EQUIPMENT.
12. ALL CONDUCTORS SHALL BE COPPER. MINIMUM CONDUCTOR SIZE SHALL BE #12 AWG., UNLESS OTHERWISE NOTED. CONDUCTORS SHALL BE TYPE THHW, RATED IN ACCORDANCE WITH NEC 110-14(C).
13. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THE MAXIMUM INTERRUPTING CURRENT TO WHICH THEY MAY BE SUBJECTED.
14. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE; ARTICLES 250 & 810 AND THE UTILITY COMPANY STANDARDS.
15. CONDUIT:
 - A. RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH 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.
 - B. ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTINGS SHALL BE GLAND RING COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.
 - C. LIQUID-TIGHT FLEXIBLE METAL CONDUIT SHALL BE U.L. LISTED AND SHALL BE USED AT FINAL CONNECTIONS TO MECHANICAL EQUIPMENT & RECTIFIERS AND WHERE PERMITTED BY CODE. ALL CONDUIT IN EXCESS OF SIX FEET IN LENGTH SHALL CONTAIN A FULL-SIZE GROUND CONDUCTOR.
 - D. CONDUIT RUNS SHALL BE SURFACE MOUNTED ON CEILINGS OR WALLS UNLESS NOTED OTHERWISE. ALL CONDUIT SHALL RUN PARALLEL OR PERPENDICULAR TO WALLS, FLOOR, CEILING, OR BEAMS. VERIFY EXACT ROUTING OF ALL EXPOSED CONDUIT WITH THE PROJECT MANAGER PRIOR TO INSTALLING.
 - E. PVC CONDUIT MAY BE PROVIDED ONLY WHERE SHOWN, OR IN UNDERGROUND INSTALLATIONS. PROVIDE UV-RESISTANT CONDUIT WHERE EXPOSED TO THE ATMOSPHERE. PROVIDE GROUND CONDUCTOR IN ALL PVC RUNS; EXCEPT WHERE PERMITTED BY CODE TO OMIT.
17. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS. BACKGROUND SHALL BE BLACK WITH WHITE LETTERS; EXCEPT AS REQUIRED BY CODE TO FOLLOW A DIFFERENT SCHEME.
18. UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL OF POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. GROUNDING SYSTEM RESISTANCE SHALL NOT EXCEED 5 OHMS. IF THE RESISTANCE VALUE IS EXCEEDED, NOTIFY THE PROJECT MANAGER FOR FURTHER INSTRUCTION ON METHODS FOR REDUCING THE RESISTANCE VALUE.
19. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION. LEGALLY DISPOSE OF ALL REMOVED, UNUSED AND EXCESS MATERIAL GENERATED BY THE WORK OF THIS CONTRACT. DELIVER ITEMS INDICATED ON THE DRAWINGS TO THE OWNER IN GOOD CONDITION. OBTAIN SIGNED RECEIPT UPON DELIVERY.
20. COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS SHALL BE PAID BY THE CONTRACTOR.
21. VERIFY ALL EXISTING CIRCUITRY PRIOR TO REMOVAL AND NEW WORK. MAINTAIN POWER TO ALL OTHER AREAS & CIRCUITS NOT SCHEDULED FOR REMOVAL.
22. RED LINED AS-BUILT PLANS SHALL BE PROVIDED TO THE CONSTRUCTION MANAGER.



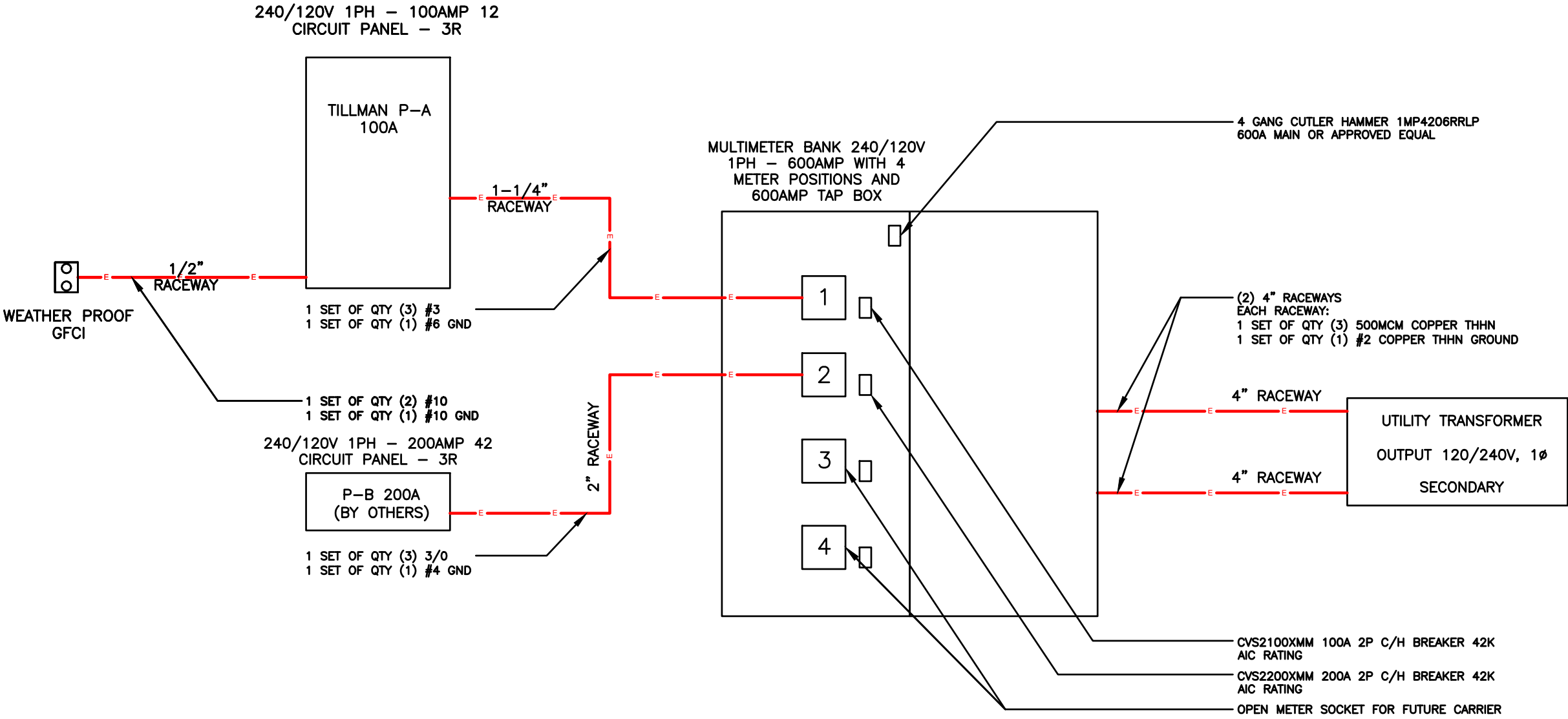
Page 76 of 95

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METER POSITION 1 – TILLMAN LOAD CENTER (P-A)																													
LOAD				LOAD PER PHASE (VA)				WIRE COLOR	LOADS CONTINUOUS	LOADS NON-CONTINUOUS	LOADS SUB-PANEL	WIRE SIZE	GROUNDING WIRE SIZE	TRIP	TRIP	GROUNDING WIRE SIZE	WIRE SIZE	LOADS SUB-PANEL	LOADS NON-CONTINUOUS	LOADS CONTINUOUS	WIRE COLOR	LOAD PER PHASE (VA)		LOAD					
DESCRIPTION	QTY.	UNIT V.A.	PHASE		PHASE		UNIT V.A.															QTY.	DESCRIPTION						
			A	B	A	B																							
1	GFCI RECEPTACLES	1	600	600		BLK		X		10	10	20									BLK				1	SPARE	2		
3	TOWER LIGHT	1	1600		1600	RED	X			8	10	20									RED				1	SPARE	4		
5	TOWER LIGHT	1	1600	1600		BLK	X			8	10	20									BLK				1	SPARE	6		
7	SPARE	1				RED															RED				1	SPARE	8		
9	SPARE	1				BLK															BLK				1	SPARE	10		
11	SPARE	1				RED															RED				1	SPARE	12		
		SUBTOTAL CONTINUOUS		1600	1600																			SUBTOTAL CONTINUOUS		TOTAL AMPS CONTINUOUS x 1.25	4000		
		SUBTOTAL NON-CONTINUOUS		600	-																	-	-	SUBTOTAL NON-CONTINUOUS				TOTAL AMPS NON-CONTINUOUS	600
																						-	-	SUBTOTAL SUB-PANEL				TOTAL AMPS SUB-PANEL	4600
PANEL DESIGNATION: ELECTRICAL PANEL (PA)																													
MAIN LUGS: N/A		MAIN BREAKER: 100 AMP																				BRANCH BREAKER TYPE: SIEMENS – BL					TOTAL KVA		4.60
VOLTAGE: 120/240		CYCLE: 60		PHASE: 1		WIRES: 3		MAIN COPPER BUS: 100 AMPS				NEUTRAL: 100 AMPS											TOTAL AMPS		19.16				

TILLMAN P - A PANEL SCHEDULE

2



ELECTRICAL SINGLE LINE DIAGRAM

1

TILLMAN
INFRASTRUCTURE

LCC
TELECOM SERVICES

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W0129/ FORT ATKINSON
SITE ADDRESS:
COMMONWEALTH DR
FORT ATKINSON, WI 53538

SHEET TITLE
ELECTRICAL
DIAGRAM

SHEET NUMBER
E-3

GROUNDING NOTES:

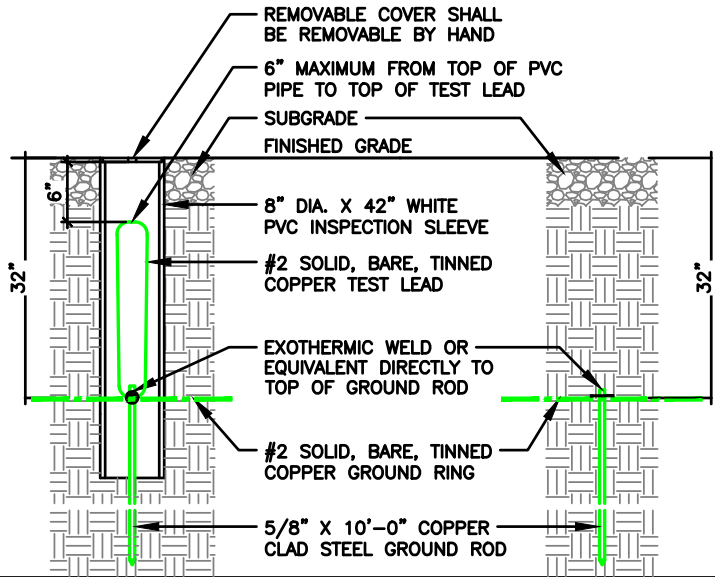
- GROUNDING SHALL COMPLY WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.
- ALL GROUNDING DEVICES SHALL BE U.L. APPROVED OR LISTED FOR THEIR INTENDED USE.
- ALL WIRES SHALL BE AWG THHN/THWN COPPER UNLESS NOTED OTHERWISE.
- GROUNDING CONNECTIONS TO GROUND RODS, GROUND RING WIRE, TOWER BASE AND FENCE POSTS SHALL BE EXOTHERMIC ("CADWELDS") UNLESS NOTED OTHERWISE. CLEAN SURFACES TO SHINY METAL. WHERE GROUND WIRES ARE CADWELDED TO GALVANIZED SURFACES, SPRAY CADWELD WITH GALVANIZING PAINT.
- GROUNDING CONNECTIONS TO GROUND BARS ARE TO BE TWO-HOLE BRASS MECHANICAL CONNECTORS WITH STAINLESS STEEL HARDWARE (INCLUDING SCREW SET) CLEAN GROUND BAR TO SHINY METAL. AFTER MECHANICAL CONNECTION, TREAT WITH PROTECTIVE ANTIOXIDANT COATING.
- GROUND COAXIAL CABLE SHIELDS AT BOTH ENDS WITH MANUFACTURER'S GROUNDING KITS.
- ROUTE GROUNDING CONDUCTORS THE SHORTEST AND STRAIGHTEST PATH POSSIBLE. BEND GROUNDING LEADS WITH A MINIMUM 12" RADIUS.
- INSTALL #2 AWG GREEN-INSULATED STRANDED WIRE FOR ABOVE GRADE GROUNDING AND #2 BARE TINNED COPPER WIRE FOR BELOW GRADE GROUNDING UNLESS OTHERWISE NOTED.
- REFER TO GROUNDING PLAN FOR GROUND BAR LOCATIONS. GROUNDING CONNECTIONS SHALL BE EXOTHERMIC TYPE ("CADWELDS") TO ANTENNA MOUNTS AND GROUND RING. REMAINING GROUNDING CONNECTIONS SHALL BE COMPRESSION FITTINGS. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO-HOLE LUGS.
- THE GROUND ELECTRODE SYSTEM SHALL CONSIST OF DRIVEN GROUND RODS POSITION ACCORDING TO GROUNDING PLAN. THE GROUND RODS SHALL BE 5/8"x10'-0" COPPER CLAD STEEL INTERCONNECTED WITH #2 BARE TINNED COPPER WIRE BURIED 36" BELOW GRADE. BURY GROUND RODS A MAXIMUM OF 15' APART, AND A MINIMUM OF 8' APART.
- IF ROCK IS ENCOUNTERED GROUND RODS SHALL BE PLACED AT AN OBLIQUE ANGLE NOT TO EXCEED 45°.
- EXOTHERMIC WELDS SHALL BE MADE IN ACCORDANCE WITH ERICO PRODUCTS BULLETIN A-AT.
- CONSTRUCTION OF GROUND RING AND CONNECTIONS TO EXISTING GROUND RING SYSTEM SHALL BE DOCUMENTED WITH PHOTOGRAPHS PRIOR TO BACKFILLING SITE. PROVIDE PHOTOS TO THE VERIZON WIRELESS CONSTRUCTION MANAGER.
- ALL GROUND LEADS EXCEPT THOSE TO THE EQUIPMENT ARE TO BE #2 BARE TINNED COPPER WIRE. ALL EXTERIOR GROUND BARS TINNED COPPER.
- PRIOR TO INSTALLING LUGS ON GROUND WIRES, APPLY THOMAS & BETTS KOPR-SHIELD (TM OF JET LUBE INC.). PRIOR TO BOLTING GROUND WIRE LUGS TO GROUND BARS, APPLY KOPR-SHIELD OR EQUAL.
- ENGAGE AN INDEPENDENT ELECTRICAL TESTING FIRM TO TEST AND VERIFY THAT IMPEDANCE DOES NOT EXCEED FIVE OHMS TO GROUND BY MEANS OF "FALL OF POTENTIAL TEST". TEST SHALL BE WITNESSED BY A METROPCS REPRESENTATIVE, AND RECORDED ON THE "GROUND RESISTANCE TEST" FORM.
- WHERE BARE COPPER GROUND WIRES ARE ROUTED FROM ANY CONNECTION ABOVE GRADE TO GROUND RING, INSTALL WIRE IN 3/4" PVC SLEEVE, FROM 6" ABOVE AND BELOW GRADE/ GRAVEL AND SEAL TOP WITH SILICONE MATERIAL.
- PREPARE ALL BONDING SURFACES FOR GROUNDING CONNECTIONS BY REMOVING ALL PAINT AND CORROSION DOWN TO SHINY METAL. FOLLOWING CONNECTION, APPLY APPROPRIATE ANTI-OXIDIZATION PAINT.
- ANY SITE WHERE THE EQUIPMENT (BTS, CABLE BRIDGE, PPC, GENERATOR, ETC.) IS LOCATED WITHIN 6 FEET OF METAL FENCING, THE GROUND RING SHALL BE BONDED TO THE NEAREST FENCE POST USING (3) RUNS OF #2 BARE TINNED COPPER WIRE.

GROUNDING NOTES

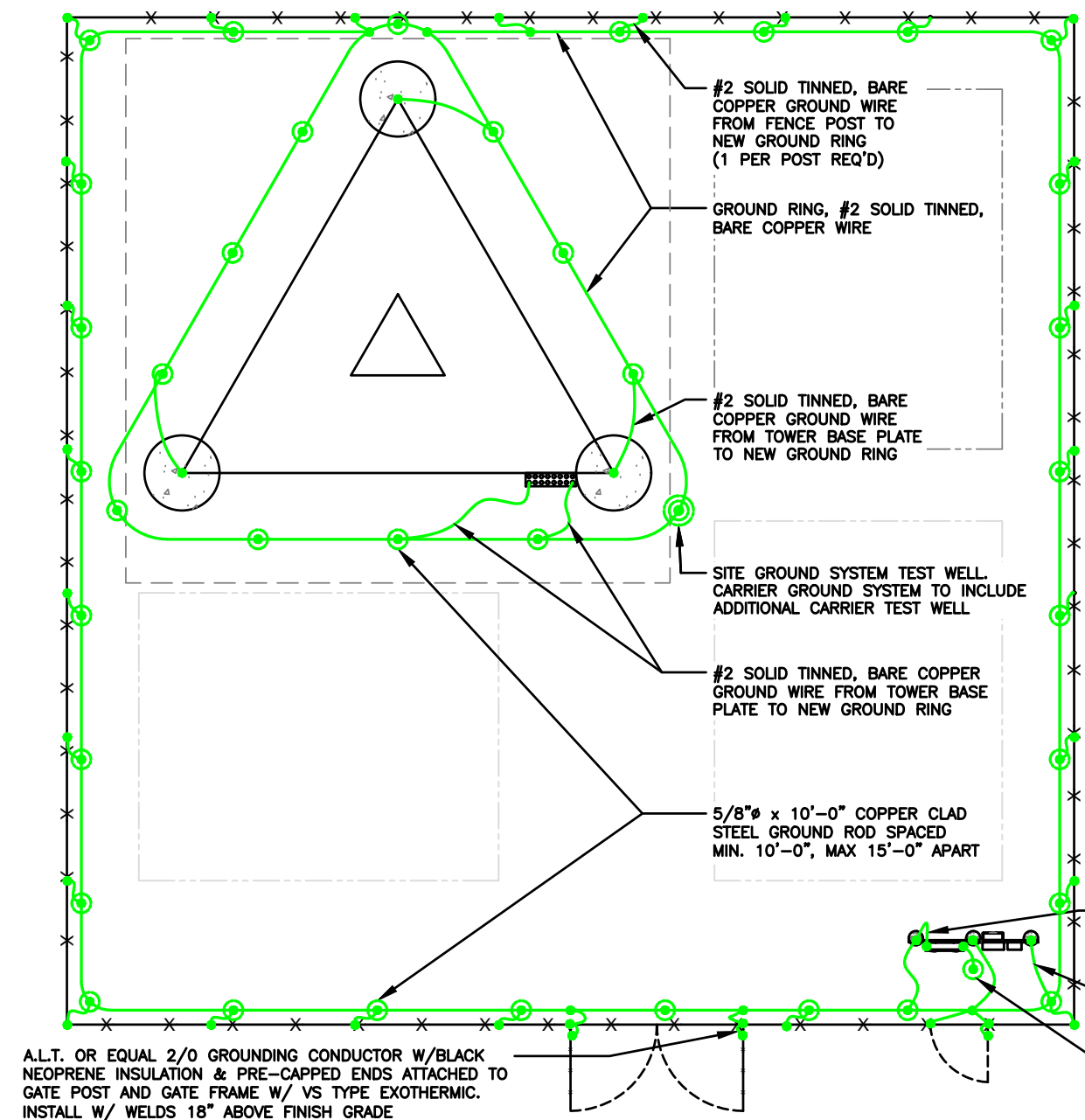
SCALE
N.T.S.

3

GROUNDING PLAN AND DETAILS



GROUND WELL, ROD, AND TEST WELL DETAIL



A.L.T. OR EQUAL 2/0 GROUNDING CONDUCTOR W/BLACK NEOPRENE INSULATION & PRE-CAPPED ENDS ATTACHED TO GATE POST AND GATE FRAME W/ VS TYPE EXOTHERMIC. INSTALL W/ WELDS 18" ABOVE FINISH GRADE

NOTE:
GROUNDING TO BE
INSTALLED WITHIN 2'-0"
OF FENCE LINE
WHENEVER POSSIBLE

GROUNDING LEGEND

- MECHANICAL CONNECTION
- COMPRESSION FITTING CONNECTION
- EXOTHERMIC WELD CONNECTION
- 5/8"x10' COPPER-CLAD STEEL GROUND ROD
- 5/8"x10' COPPER-CLAD STEEL GROUND ROD WITH INSPECTION WELL
- NEW GROUND WIRING
- EXISTING GROUND WIRING
- TINNED COPPER GROUND BAR 1/4"x4"x12" OR 1/4"x4"x20"
- COLLECTOR GROUND BAR
- MAIN GROUND BAR

NOTE:
SEE COMPOUND PLAN FOR COMPOUND ORIENTATION,
UTILITY H-FRAME, GATE AND TOWER LOCATION.

NOTE:
REFER TO SPECIFIC CARRIER EQUIPMENT GROUNDING
PLAN FOR NEW CARRIER EQUIPMENT GROUNDING.

NOTE:
OBJECTIVE:
• RING AROUND TOWER WITH ALL TOWER LEGS GROUNDED, MONOPOLE SHALL HAVE AT LEAST TWO GROUNDS TO EARTH.
• CONNECTION TO FENCE POSTS AT ALL CORNERS OR CHANGES IN FENCE DIRECTION GREATER THE 45°.
• CONNECTIONS TO EACH SIDE OF ANY GATE POSTS.
• CONNECTIONS TO UTILITY H-FRAME.
• INSTALL ENOUGH GROUND RODS TO ENSURE 5 OHMS OR LESS RESISTANCE.

NOTE:
A LARGER CONDUCTOR SHALL
BE REQUIRED IN AREAS HIGHLY
PRONE TO LIGHTNING AND/OR
AREAS W/HIGHLY ACIDIC SOIL

NOTE:
GROUND RODS MAY BE COPPER
CLAD STEEL OR SOLID COPPER

NOTE:
GROUND RODS SHALL HAVE A
RECOMMENDED SPACING TWICE
THE LENGTH OF THE ROD

NOTE:
SEE RESISTIVITY REPORT FOR
VERIFICATION AS AVAILABLE

NOTE:
GROUND RODS INSTALLED WITHIN
CLOSE PROXIMITY TO TOWER OR
WHEN SOIL IS AT OR BELOW
2,000 OHM-CM, SHALL BE
GALVANIZED TO PREVENT
GALVANIC CORROSION OF TOWER

SCALE
N.T.S.

2

TILLMAN
INFRASTRUCTURE

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TILLMAN OPP# TI-OPP-29071
TILLMAN SITE NAME:
W0129/ FORT ATKINSON
SITE ADDRESS:
COMMONWEALTH DR
FORT ATKINSON, WI 53538

SHEET TITLE
GROUNDING PLAN
& DETAILS

SHEET NUMBER
G-1

SCALE
N.T.S.

1

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SITE ADDRESS:
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FORT ATKINSON, WI 53538

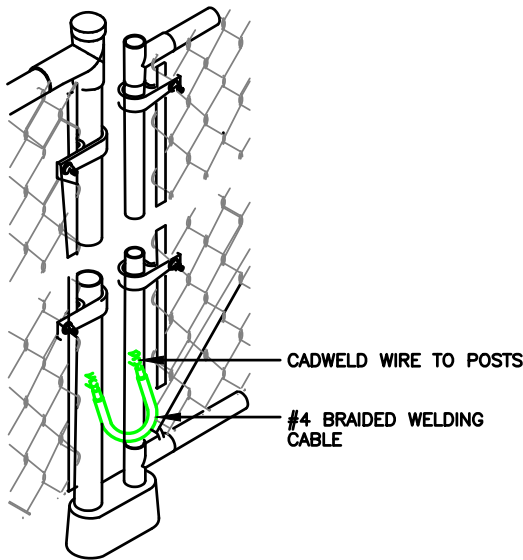
SHEET TITLE
GROUNDING PLAN
& RISER DIAGRAM

SHEET NUMBER
G-2

NOT USED

SCALE
N.T.S.

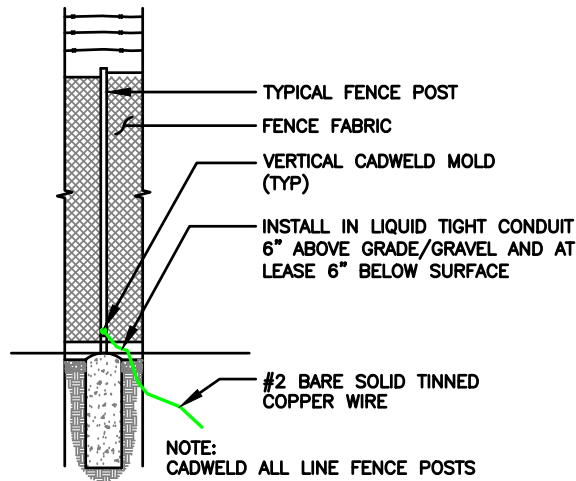
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GATE GROUNDING DETAIL

SCALE
N.T.S.

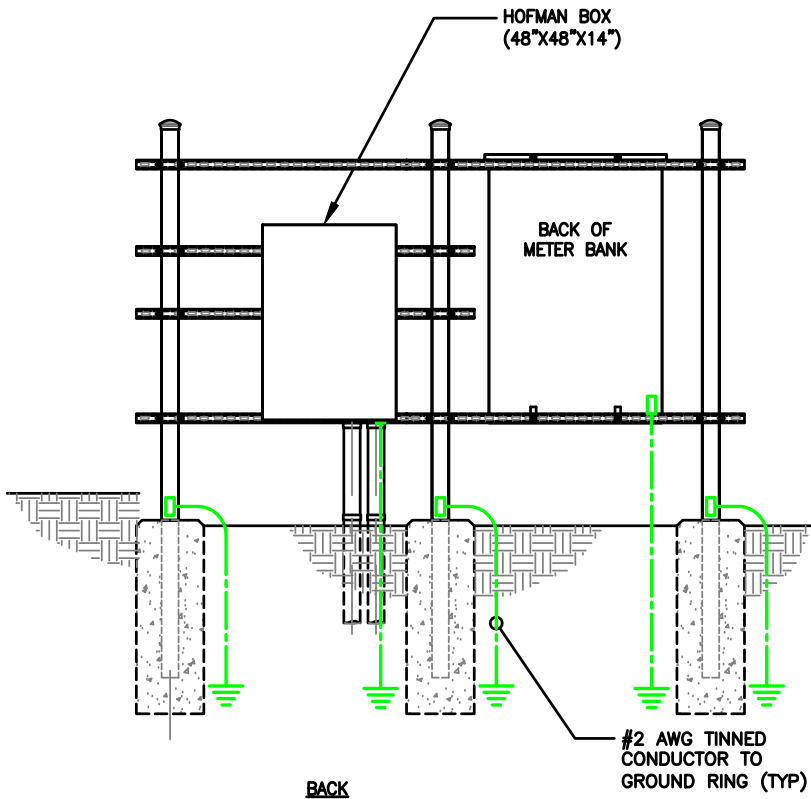
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TYPICAL FENCE POST GROUNDING

SCALE
N.T.S.

3



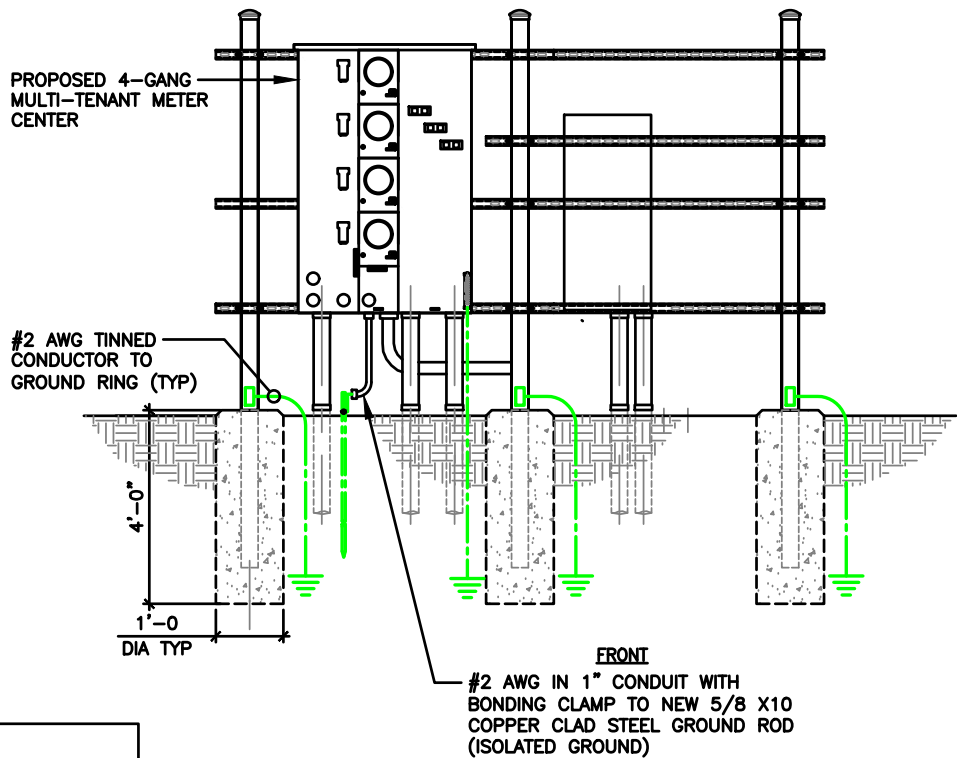
GROUNDING LEGEND

- | | | | |
|--|---|--|--|
| | MECHANICAL CONNECTION | | PROPOSED GROUND WIRING |
| | COMPRESSION FITTING CONNECTION | | EXISTING GROUND WIRING |
| | EXOTHERMIC WELD CONNECTION | | TINNED COPPER GROUND BAR
1/4"x4"x12" OR 1/4"x4"x20" |
| | 5/8"x10' COPPER-CLAD STEEL GROUND ROD | | COLLECTOR GROUND BAR |
| | 5/8"x10' COPPER-CLAD STEEL GROUND ROD
WITH INSPECTION WELL | | MAIN GROUND BAR |

H-FRAME GROUNDING

SCALE
N.T.S.

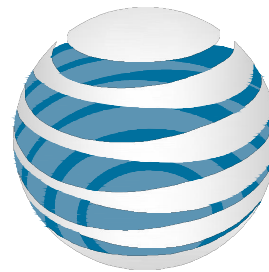
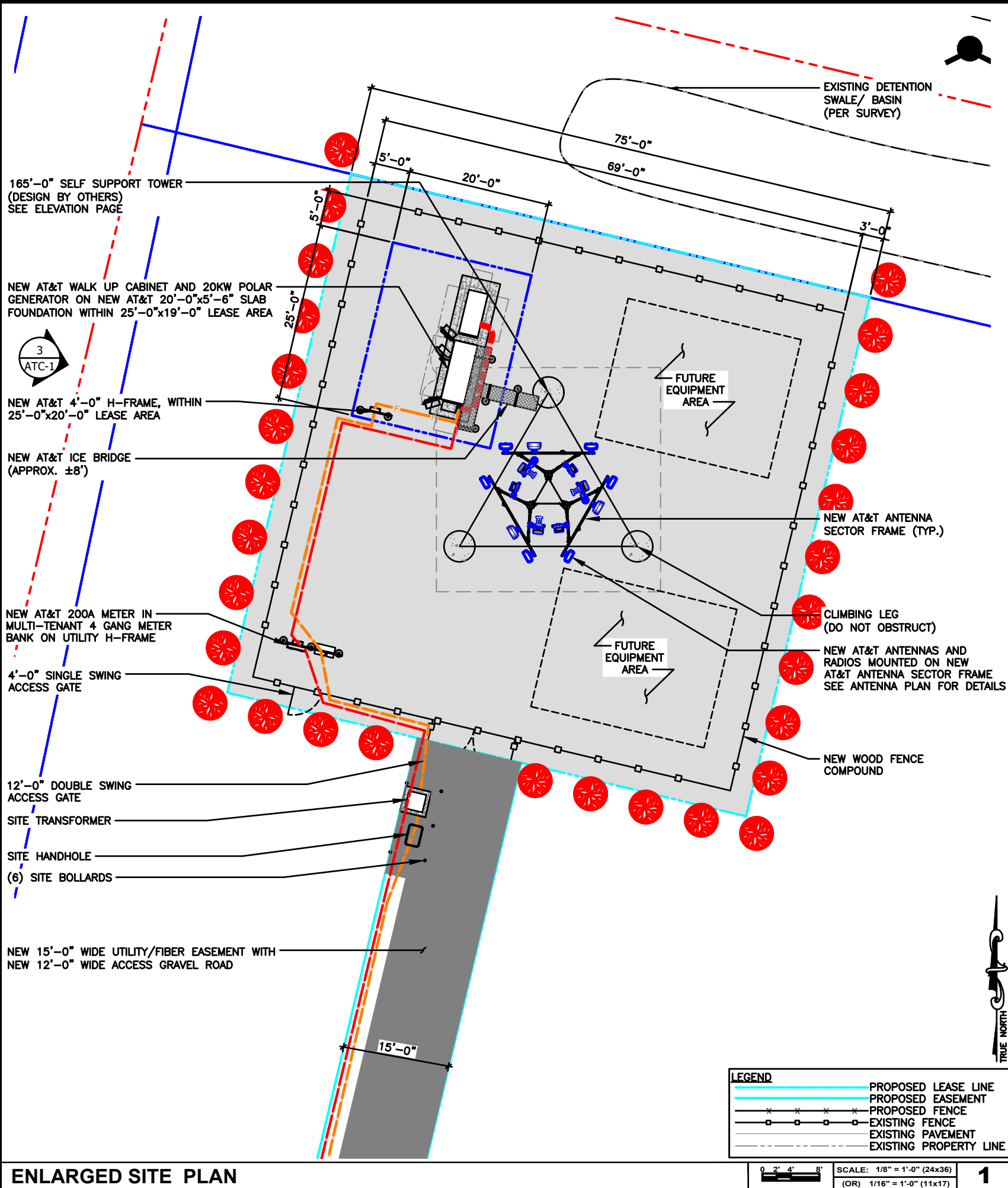
1



NOTE:

2 BOLT MECHANICAL LUG CONNECTION AT ALL EQUIPMENT
GROUND POINT: ADD NON OX COMPOUND

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AT&T

AT&T SITE NUMBER: TI-OPP-29071
AT&T SITE NAME: WI0129/ FORT ATKINSON
FA CODE: 15815546
SITE ADDRESS: COMMONWEALTH DR
FORT ATKINSON, WI 53538
TILLMAN SITE # TI-OPP-29071

SITE INFORMATION

SITE ADDRESS:	COMMONWEALTH DR FORT ATKINSON, WI 53538	LANDLORD OWNER:	HIGHWAY 12 LLC (RAVEEN SHAH), W6353 ROE LANE, FORT ATKINSON WI 53538
LATITUDE (NAD 83):	42°56'21.5923" N (42.93933120°)	TOWER OWNER:	TILLMAN INFRASTRUCTURE 152 W. 57TH STREET NEW YORK, NEW YORK 10019
LONGITUDE (NAD 83):	88°51'42.1174" W (-88.86169927°)	STRUCTURE TYPE:	SELF SUPPORT TOWER TOWER
GROUND ELEVATION:	830.3' (AMSL)	STRUCTURE HEIGHT:	165'-0" (AGL)
JURISDICTION:	FORT ATKINSON, WI	TILLMAN SITE #:	TI-OPP-29071
PARCEL/MAP NUMBER:	226-0614-3242-011		

PROJECT TEAM

APPLICANT:	TILLMAN INFRASTRUCTURE 152 W. 57TH STREET NEW YORK, NEW YORK 10019
PROJECT MANAGEMENT FIRM:	LCC TELECOM SERVICES 10700 HIGGINS ROAD, SUITE 240 ROSEMONT, IL 60018 (847) 608-6300
ARCHITECT ENGINEERING:	JOHN M. BANKS 604 FOX GLEN BARRINGTON, IL 60010 CONTACT: JOHN M. BANKS PHONE: (847) 277-0070 EMAIL: JBANKS@WESTCHESTERSERVICES.COM

DRAWING INDEX

AT-T-1	TITLE SHEET & OVERALL SITE PLAN
AT-C-1	ELEVATION, ANTENNA PLAN & SCHEDULE
AT-C-2	WALK UP CABINET PAD DETAILS
AT-C-2.1	WALK UP CABINET PAD DETAILS
AT-C-3	CONSTRUCTION DETAILS
AT-C-3.1	CONSTRUCTION DETAILS
AT-C-3.2	CONSTRUCTION DETAILS
AT-C-4	RRH, ANTENNA & EQUIPMENT SPECIFICATIONS
AT-E-1	ENLARGED UTILITY PLAN
AT-E-2	ELECTRICAL PANEL SCHEDULE, DIAGRAM & NOTES
AT-E-3	DC/FIBER SYSTEM DIAGRAM
AT-E-4	DC WIRING DIAGRAM
AT-G-1	GROUNDING PLAN & RISER DIAGRAM
AT-G-2	GROUNDING DETAILS & NOTES

CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING CODES.

- 2023 WISCONSIN STATE BUILDING CODE
- 2023 WISCONSIN STATE ELECTRICAL CODE
- 2023 WISCONSIN STATE MECHANICAL CODE
- 2023 WISCONSIN UNIFORM PLUMBING CODE
- 2023 WISCONSIN STATE FIRE CODE
- AMERICAN CONCRETE INSTITUTE
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION
- MANUAL OF STEEL CONSTRUCTION 13TH EDITION
- ANSI/TIA-222-H
- TIA 607
- INSTITUTE FOR ELECTRICAL & ELECTRONICS ENGINEERING 81
- IEEE C2 NATIONAL ELECTRIC SAFETY CODE
- LATEST EDITION
- TELECORDIA GR-1275

TILLMAN
INFRASTRUCTURE



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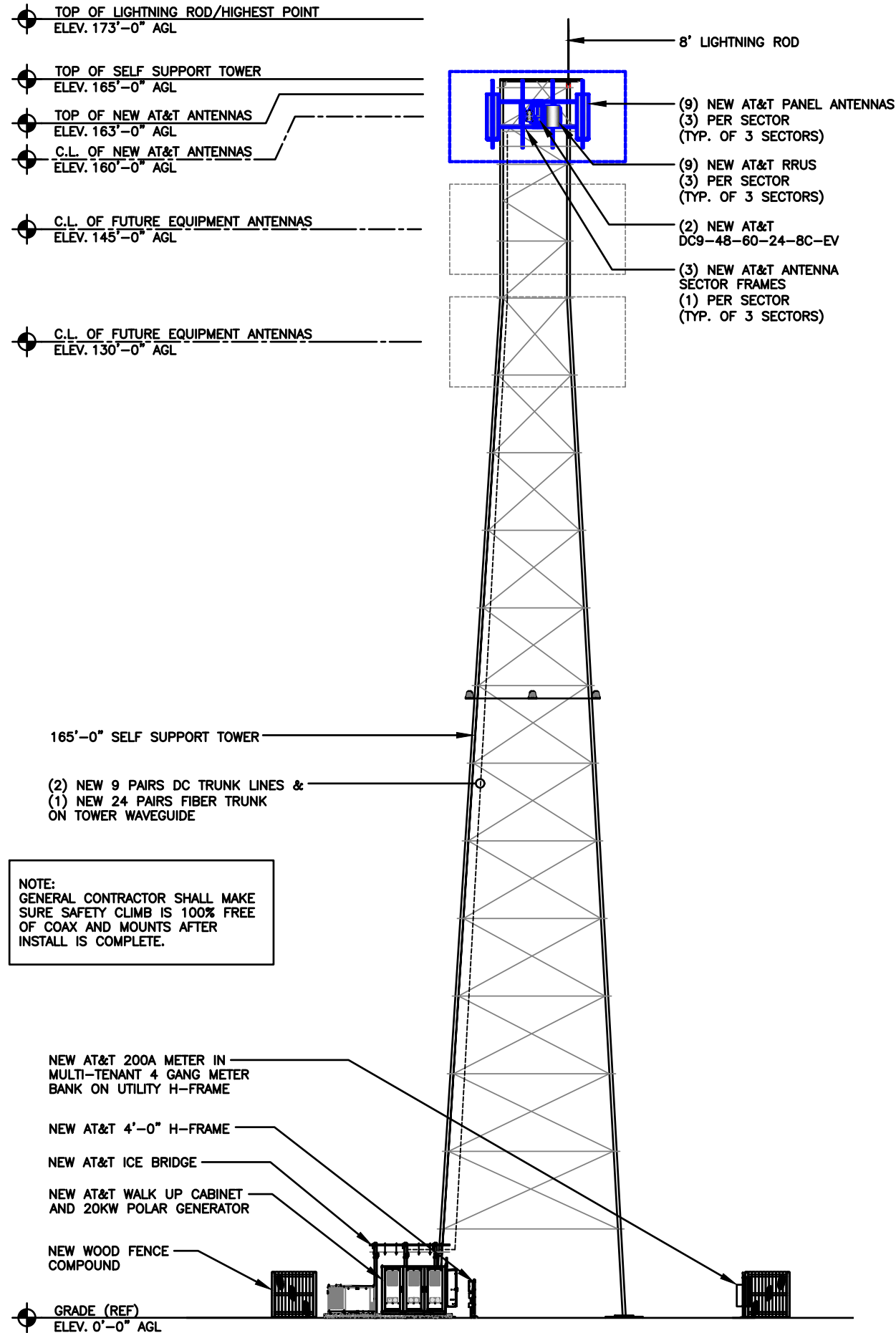
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FA # 15815546
SITE ADDRESS:
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FORT ATKINSON, WI 53538

SHEET TITLE
TITLE SHEET & OVERALL SITE PLAN

SHEET NUMBER
AT-T-1

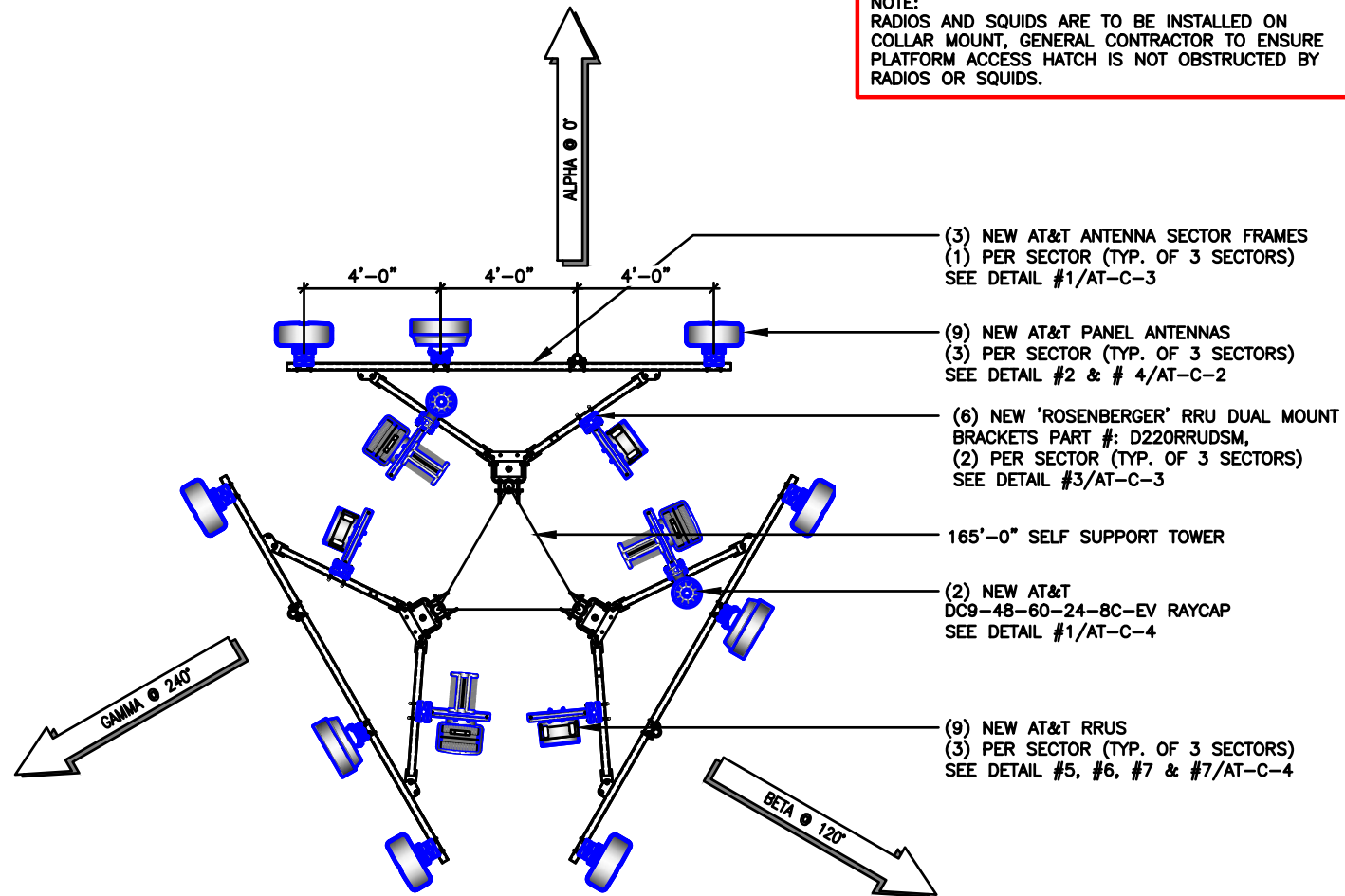
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ELEVATION

SCALE
N.T.S.

3



ANTENNA LAYOUT (SELF SUPPORT TOWER)

SCALE
N.T.S.

2

ANTENNA AND RRH SCHEDULE BASED ON AT&T RFDS DATED: 01/31/23						CABLE COUNT	
SECTOR	ANTENNA	TECH	ANTENNA H HEIGHT	AZIMUTH	RRU MODEL	QUANTITY	CABLE TYPE
ALPHA	COMMSCOPE ANTENNA NNH4-65B-R6H4	LTE 700/ 5G 850	160'-0"±	0°	RRUS 4490 B5/B12	2	4 CONDUCTOR (9 PR) 3/4" DC CABLE
	AIR6449 B77D	5G CBAND	160'-0"±	0°	-	1	36 FIBER (24 PR) 10MM FIBER
	-	-	-	-	-	2	DC9 SQUIDS
	COMMSCOPE ANTENNA NNH4-65B-R6H4	LTE 700 5G 1900/ LTE 1900 5G AWS/ LTE AWS	160'-0"±	0°	RRUS 4478 B14 RRUS 4890 B25/B66A		
BETA	COMMSCOPE ANTENNA NNH4-65B-R6H4	LTE 700/ 5G 850	160'-0"±	120°	RRUS 4490 B5/B12		
	AIR6449 B77D	5G CBAND	160'-0"±	120°	-		
	COMMSCOPE ANTENNA NNH4-65B-R6H4	LTE 700 5G 1900/ LTE 1900 5G AWS/ LTE AWS	160'-0"±	120°	RRUS 4478 B14 RRUS 4890 B25/B66A		
GAMMA	COMMSCOPE ANTENNA NNH4-65B-R6H4	LTE 700/ 5G 850	160'-0"±	240°	RRUS 4490 B5/B12		
	AIR6449 B77D	5G CBAND	160'-0"±	240°	-		
	COMMSCOPE ANTENNA NNH4-65B-R6H4	LTE 700 5G 1900/ LTE 1900 5G AWS/ LTE AWS	160'-0"±	240°	RRUS 4478 B14 RRUS 4890 B25/B66A		

SCALE
N.T.S.

1

ANTENNA AND RRH SCHEDULE

NOTE:
RADIOS AND SQUIDS ARE TO BE INSTALLED ON
COLLAR MOUNT, GENERAL CONTRACTOR TO ENSURE
PLATFORM ACCESS HATCH IS NOT OBSTRUCTED BY
RADIOS OR SQUIDS.

TILLMAN
INFRASTRUCTURE



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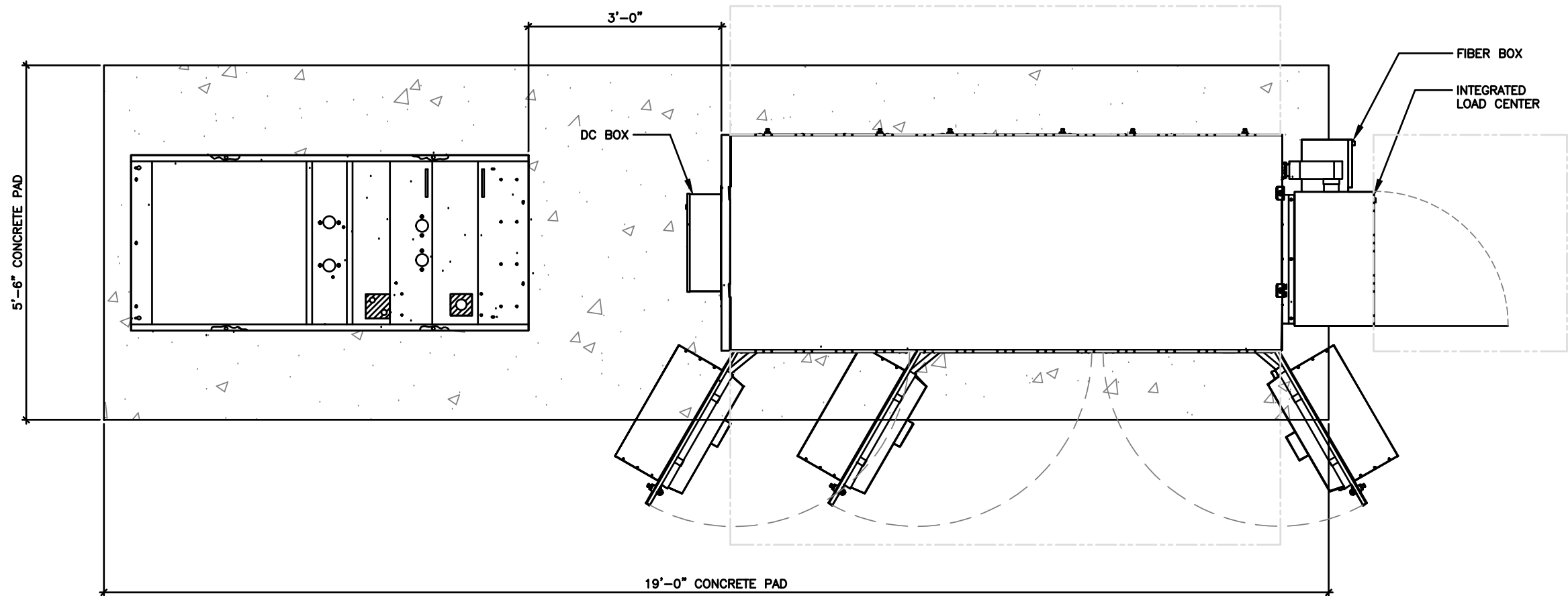
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ATKINSON
FA # 15815546
SITE ADDRESS:
COMMONWEALTH DR
FORT ATKINSON, WI 53538

SHEET TITLE
ELEVATION, ANT.
PLAN & SCHEDULE

SHEET NUMBER
AT-C-1

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AT&T EQUIPMENT LAYOUT

SCALE
N.T.S. 1



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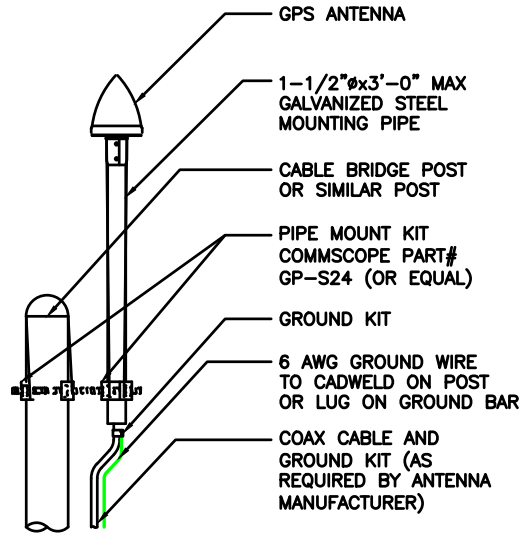
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FORT ATKINSON, WI 53538

SHEET TITLE
WALK UP CABINET
PAD DETAILS

SHEET NUMBER
AT-C-2

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GPS ANTENNA DETAIL

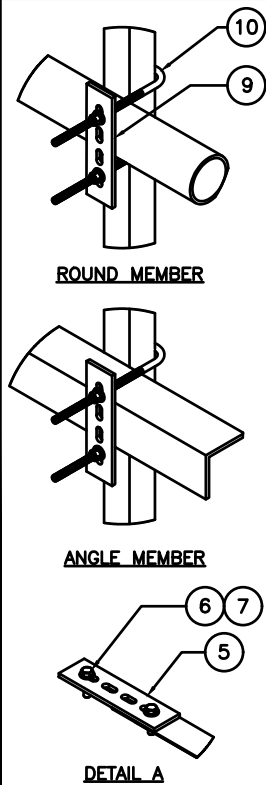
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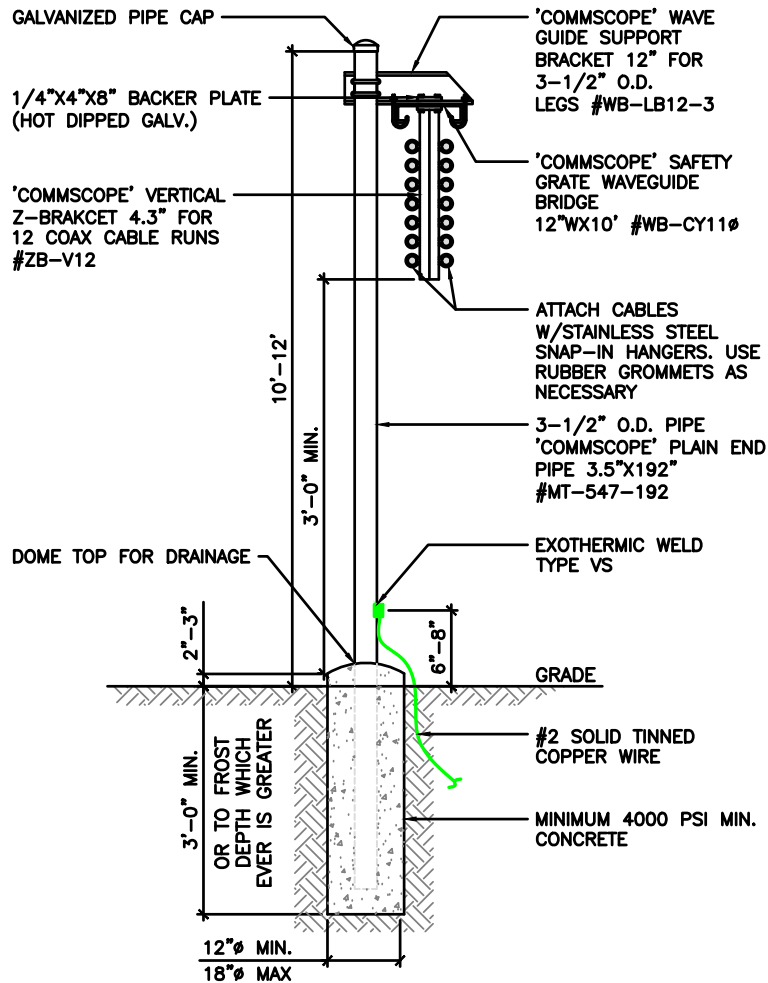
CABLE LADDER DETAIL

SCALE
N.T.S.

3



ITEM	PART NO.	DESCRIPTION	QTY.	WEIGHT
1	CL20.01	20" ANGLE SIDE RAIL	2	49.38 LBS
2	CL0620UH	HARDWARE KIT (ITEMS 3-10)	1	-
3	CL06R.01	20" LADDER RUNG	6	1.69 LBS
4	CL20H	HARDWARE KIT (ITEMS 5-7)	1	-
5	HKCLU.02	BACKING PLATE	2	0.95 LBS
6	GB-03145	3/8" X 1-1/2" GALV BOLT KIT	16	0.07 LBS
7	GW-03	3/8" GALV FLAT WASHER	4	0.01 LBS
8	HKCLU	LADDER HARDWARE KIT (ITEMS 9-10)	2	-
9	HKCLU.02	BACKING PLATE	4	0.95 LBS
10	JB-8K	8" GALV J-BOLT	8	0.36 LBS



ICE BRIDGE DETAIL

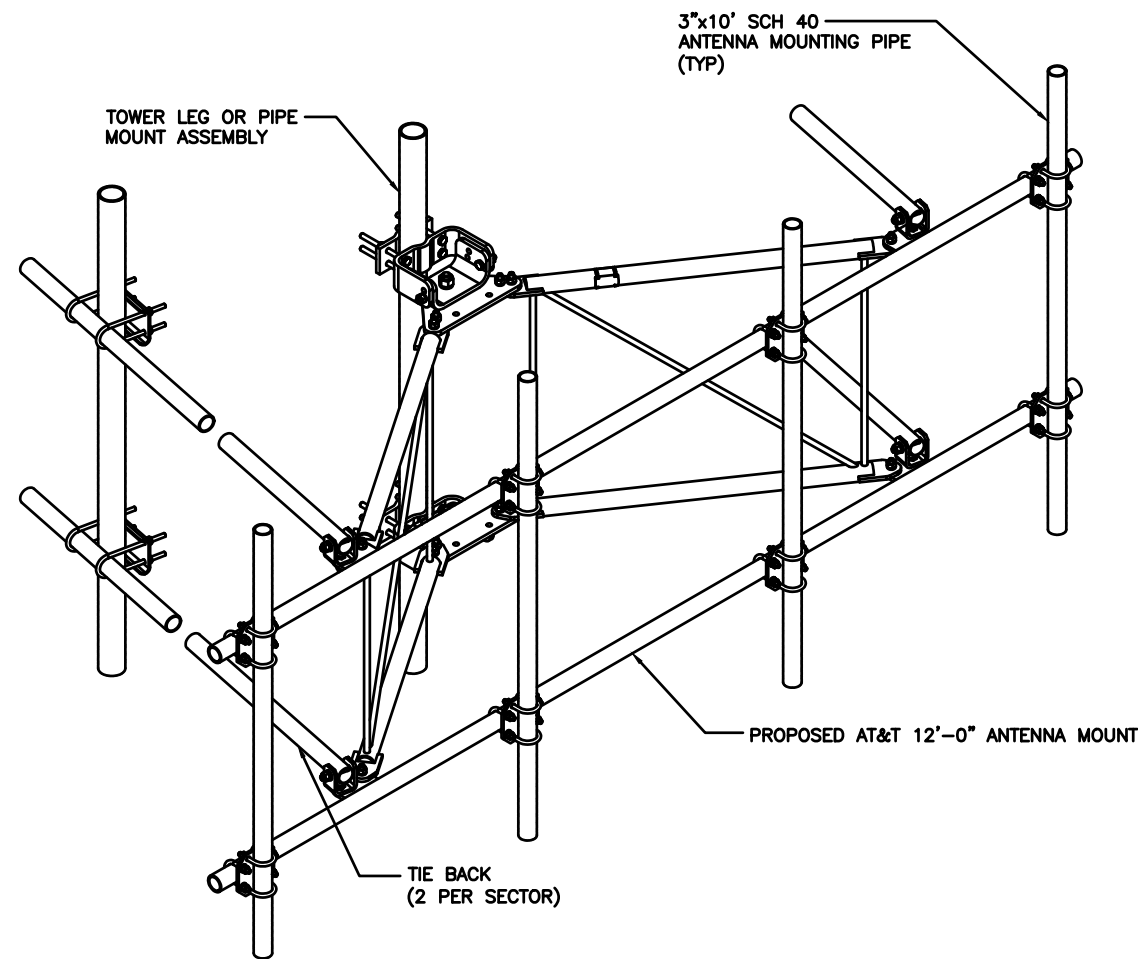
SCALE
N.T.S.

4

RRH MOUNTING DETAIL

SCALE
N.T.S.

2



ANTENNA FRAME DETAIL

SCALE
N.T.S.

1

APPROVED AT&T MOUNTS

MANUFACTURER	MODEL
ADVANCED TOWER	HEAVY WLL-3-NP
BETTER METAL	BVM-U12K-WLL-3
COMMSCOPE	SFG2CT-12-B3
CONNECT-IT WIRELESS	3-PVFM12-3-B
KENWOOD TELECOM	T1672KT12-3S
NEWAVE	ATV-312-3
ROHN PRODUCTS	(3) KY2016A12 (3) KY1995A
SABRE	C10857007C
VALMONT	VFA10-HD3T5NP

TILLMAN
INFRASTRUCTURE



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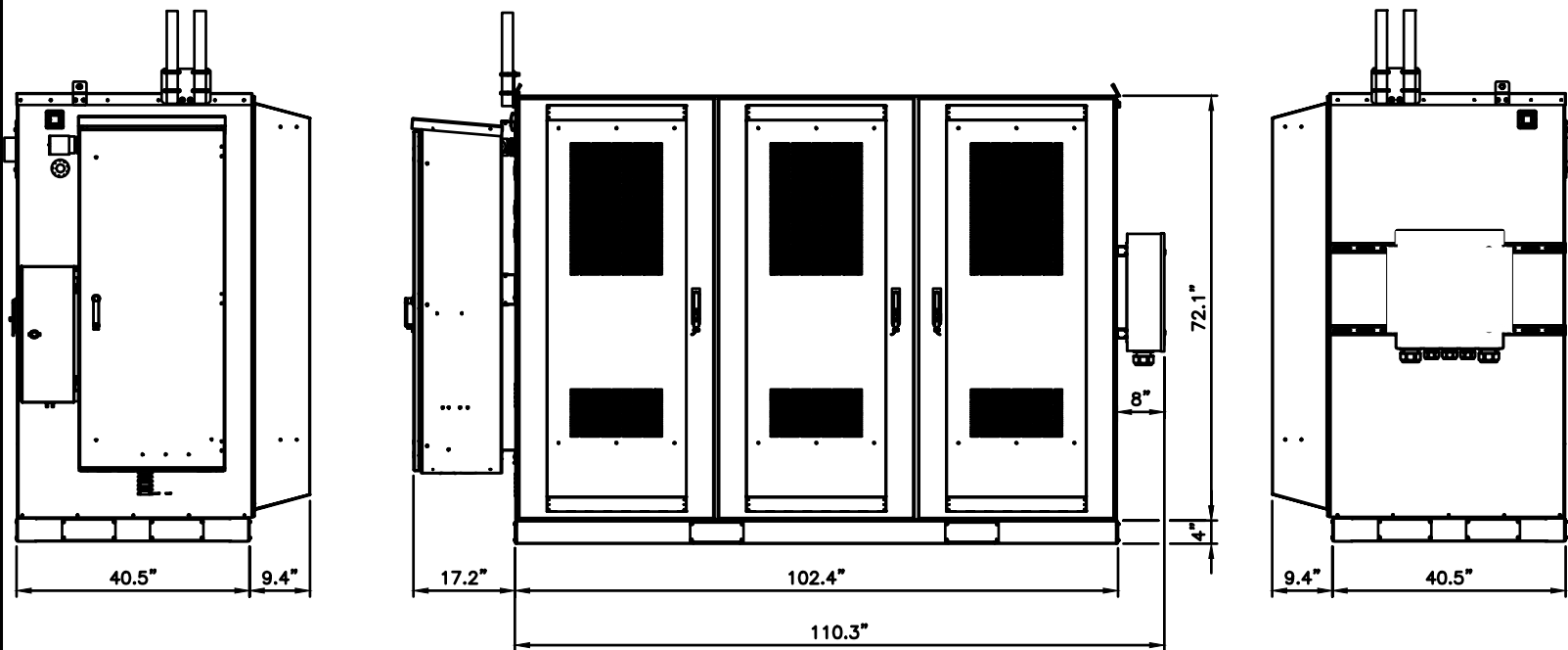
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SHEET TITLE
CONSTRUCTION
DETAILS

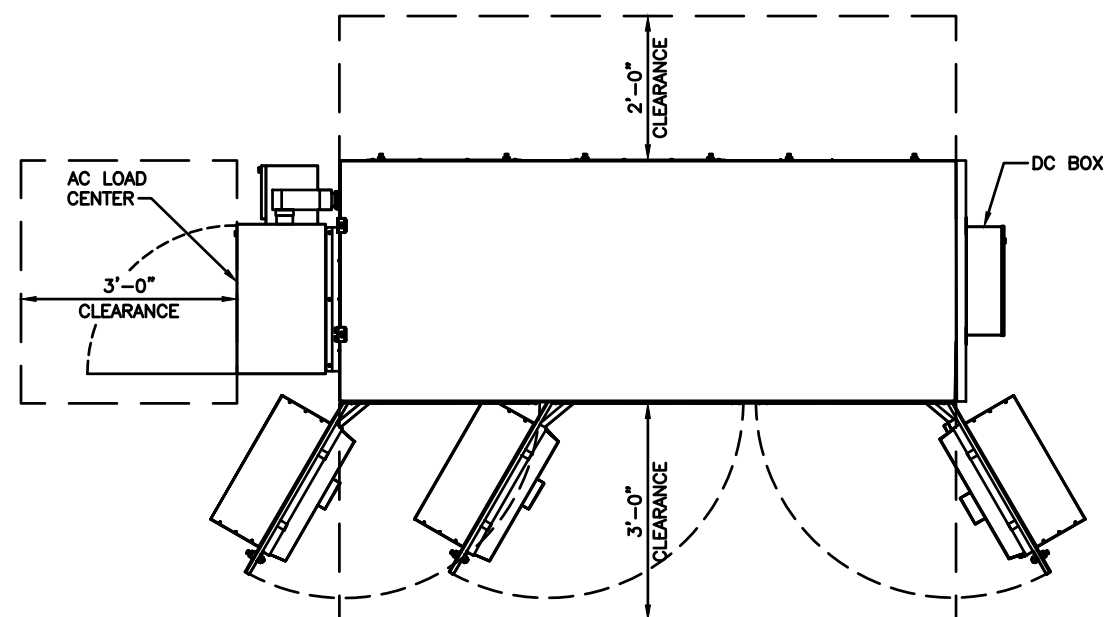
SHEET NUMBER
AT-C-3



LEFT VIEW

FRONT VIEW

RIGHT VIEW



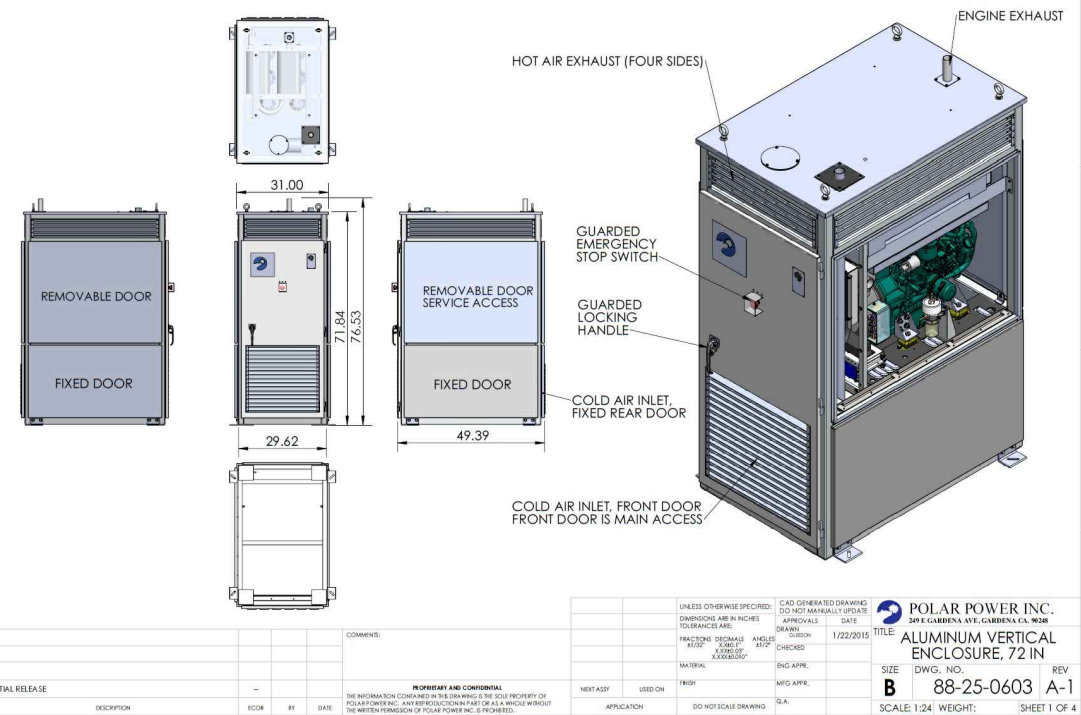
TOP VIEW

SPECIFICATIONS:

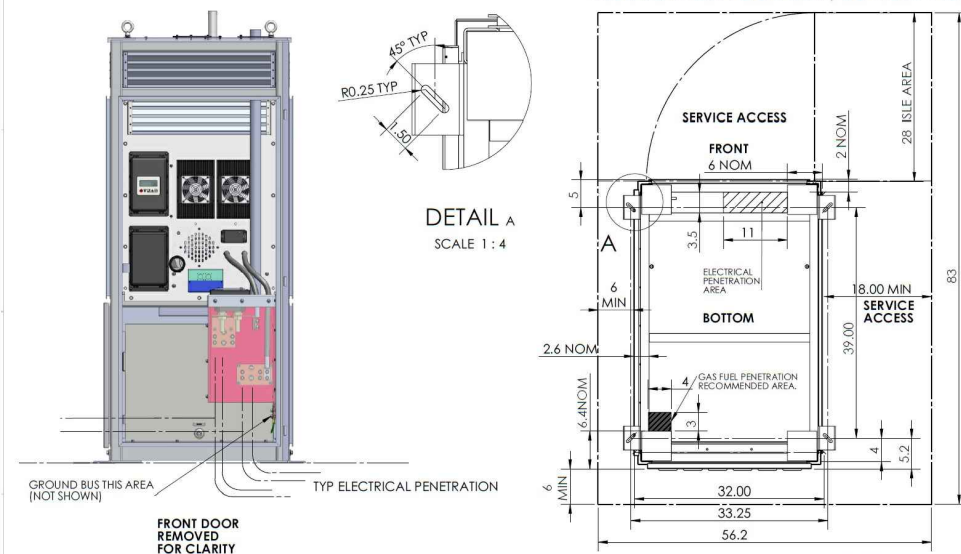
VENDOR:	DELTA
MODEL #:	ESOF030-HCU01
DIMENSIONS (HxWxD):	102.4" x 76.1" x 49.9"
WEIGHT:	2,270lbs
(EXCLUDING BATTERIES, POWER SUPPLY & LOAD EQUIPMENT)	

WALK UP CABINET (W.U.C.) DETAIL

SCALE	2
N.T.S.	



INSTALLATION FOOTPRINT, BOTTOM VIEW



DETAIL A
SCALE 1 : 4

20kW POLAR DC GENERATOR DETAIL

SCALE	1
N.T.S.	



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DRAWN BY: **DWM**

CHECKED BY: **MC**

REV	DATE	DESCRIPTION
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B	12/04/23	PRELIMINARY CD

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AT&T SITE NAME: W10129/ FORT
ATKINSON
FA # 15815546
SITE ADDRESS:
COMMONWEALTH DR
FORT ATKINSON, WI 53538

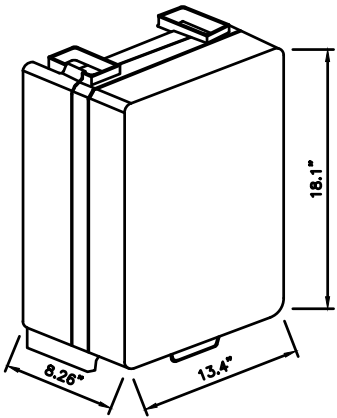
SHEET TITLE

CONSTRUCTION DETAILS

SHEET NUMBER
AT-C-3.1

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ERICSSON_RRH RRUS-4478 B14
DIMENSIONS, HXWXD: 18.1"x13.4"x8.26"
WEIGHT, WITHOUT MOUNTING: 59.4 LBS.
FREQ: 700
CONNECTORS: 4.3-10 FEMALE



ISOMETRIC VIEW

REMOTE RADIO HEAD DETAIL

7

ERICSSON_RRH RRUS-4490 B5/B12



Radio 4490

REMOTE RADIO HEAD DETAIL

6

ERICSSON_RRH RRUS-4890 B25/B66

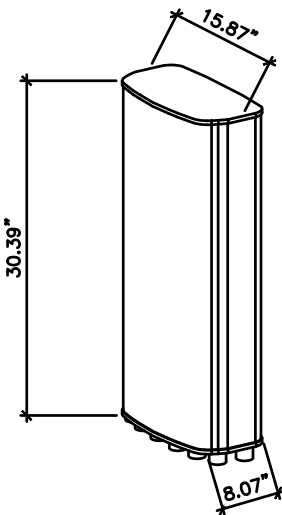


Radio 4890

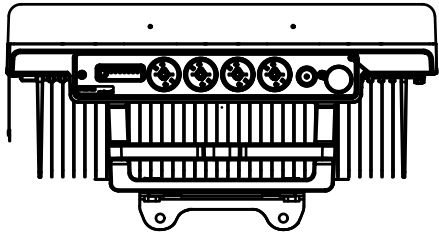
REMOTE RADIO HEAD DETAIL

5

MANUFACTURER: ERICSSON
MODEL NO.: AIR 6449
WEIGHT: 81.6 LBS
BAND: MULTI-BAND
POLARIZATION: DUAL
FREQUENCIES: 3700-3980MHz



ISOMETRIC VIEW



BOTTOM VIEW

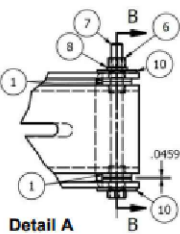
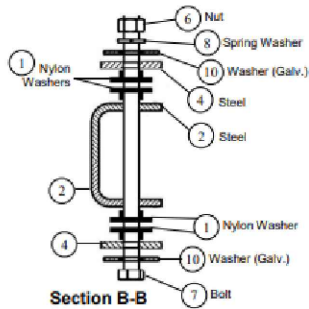
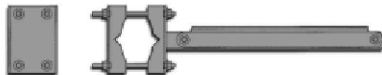
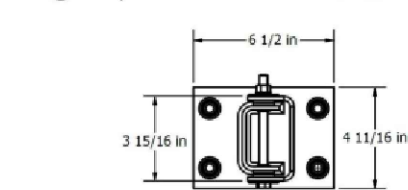
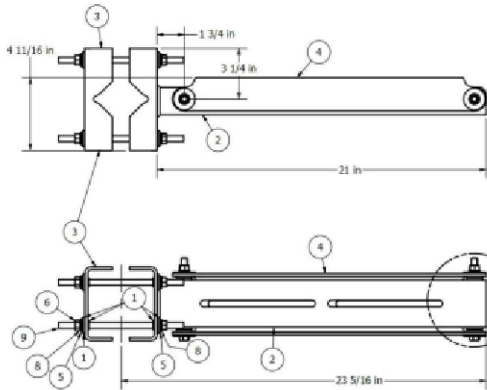
ANTENNA DETAIL

4

Product Installation

Rosenberger
Rosenberger Site Solutions, LLC

D220RRUDSM
DUAL RRU MOUNT



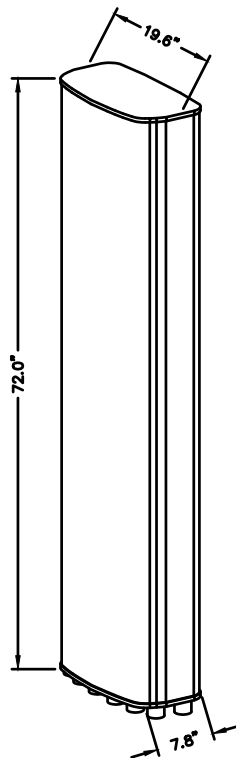
PARTS LIST			
ITEM	QUANTITY PER BRACKET	TOTAL QUANTITY REQUIRED *	DESCRIPTION
1	16	32	NYLON SHOULDER WASHER
2	1	2	MOUNTING ARM WELDMENT
3	1	2	BENT CLAMP PLATE
4	1	2	SWIVEL MOUNT PLATE
5	8	16	3/8" DIA. GALVANIZED WASHER
6	10	20	3/8" DIA. GALVANIZED NUT
7	2	4	3/8" DIA. X 5" LONG A-307 GRADE C GALVANIZED BOLT
8	10	20	3/8" DIA. GALVANIZED SPRING WASHER
9	4	8	3/8" DIA. X 8" LONG A-36 THREADED ROD
10	12	24	3/8" DIA. F436 GALVANIZED WASHER

* TWO BRACKETS ARE REQUIRED TO SUPPORT (2) RRU ASSEMBLIES

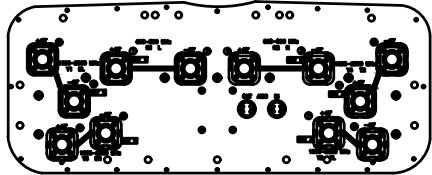
DUAL RRUS MOUNTING DETAIL

3

MANUFACTURER: COMMSCOPE
MODEL NO.: NNH4-65B-R6
WEIGHT: 82 LBS
BAND: MULTI-BAND
POLARIZATION: DUAL
FREQUENCIES: 698-896MHz
1695-2360MHz
CONNECTOR: 12 X 4.3-10 DIN-F



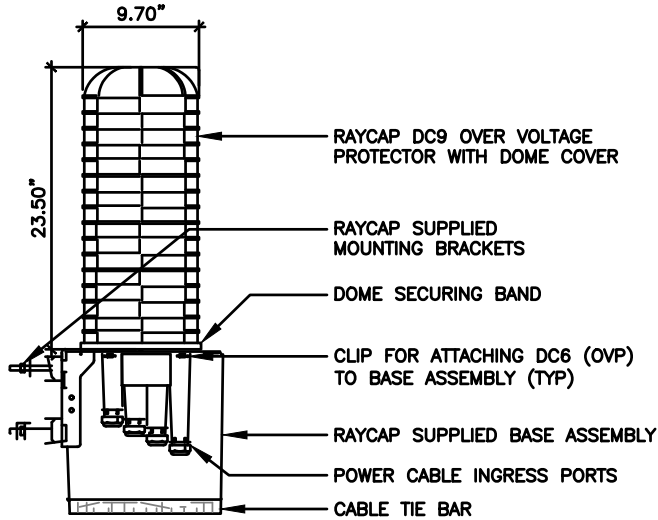
ISOMETRIC VIEW



BOTTOM VIEW

ANTENNA DETAIL

2



RAYCAP DC9-48-60-24-8C-EV (SQUID)

1

TILLMAN
INFRASTRUCTURE



LCC
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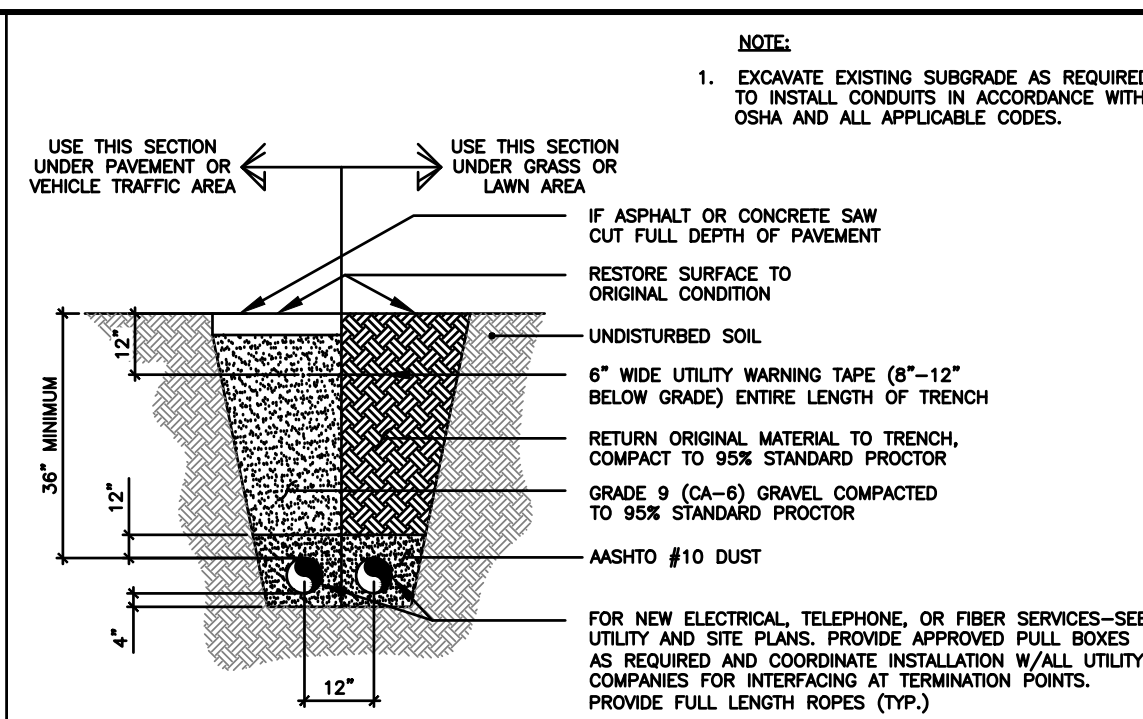
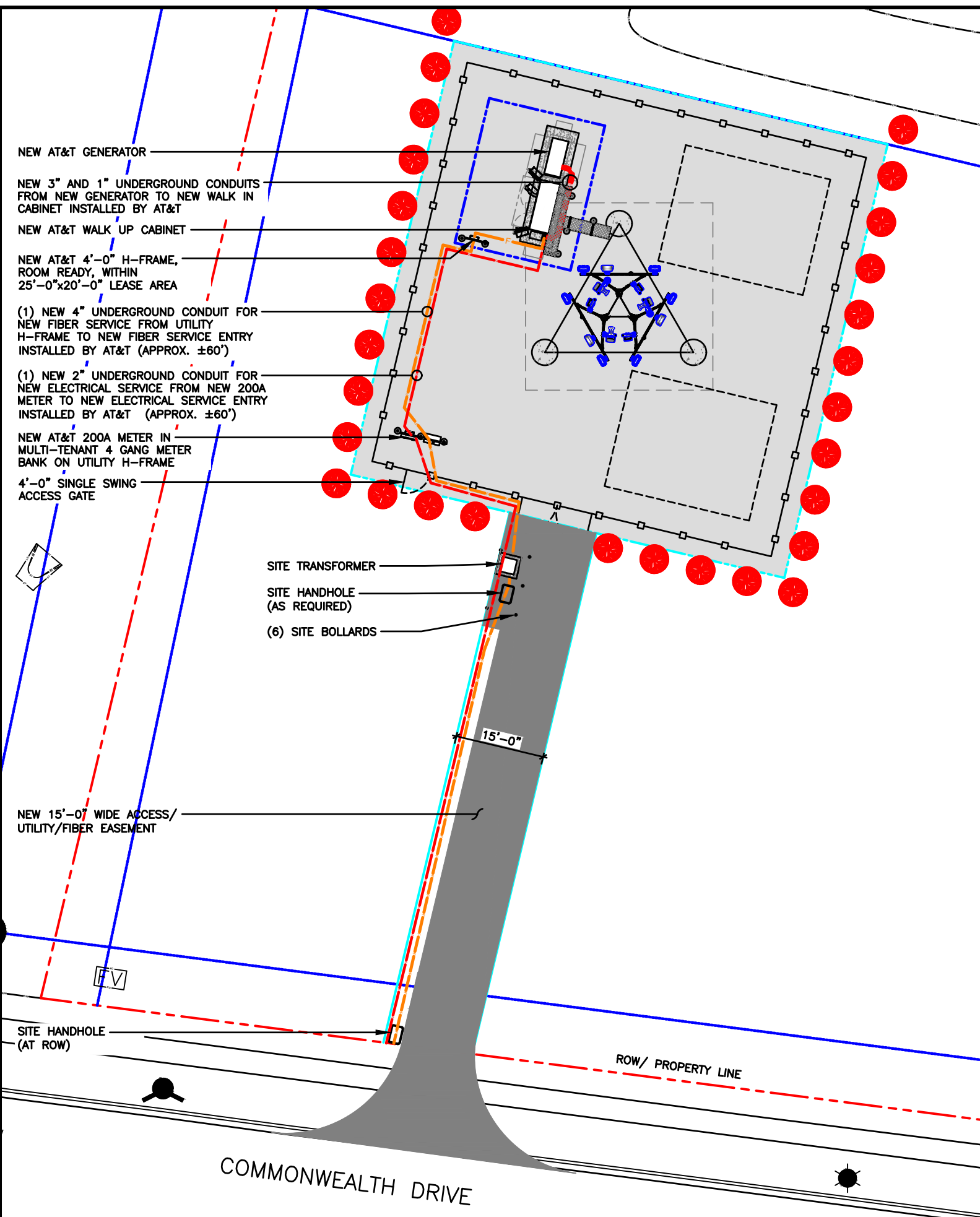
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AT&T SITE NAME: W0129/ FORT ATKINSON
FA # 15815546
SITE ADDRESS:
COMMONWEALTH DR
FORT ATKINSON, WI 53538

SHEET TITLE
RRH, ANTENNA &
EQUIPMENT SPECS.

SHEET NUMBER
AT-C-4

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TYPICAL TRENCH DETAIL

SCALE N.T.S. 2



Know what's below.
Call before you dig.

LEGEND

	PROPOSED LEASE LINE
	PROPOSED EASEMENT
	PROPOSED FENCE
	EXISTING FENCE
	EXISTING PAVEMENT
	EXISTING PROPERTY LINE

0 2' 4' 8' SCALE: 1/8" = 1'-0" (24x36)
(OR) 1/16" = 1'-0" (11x17)

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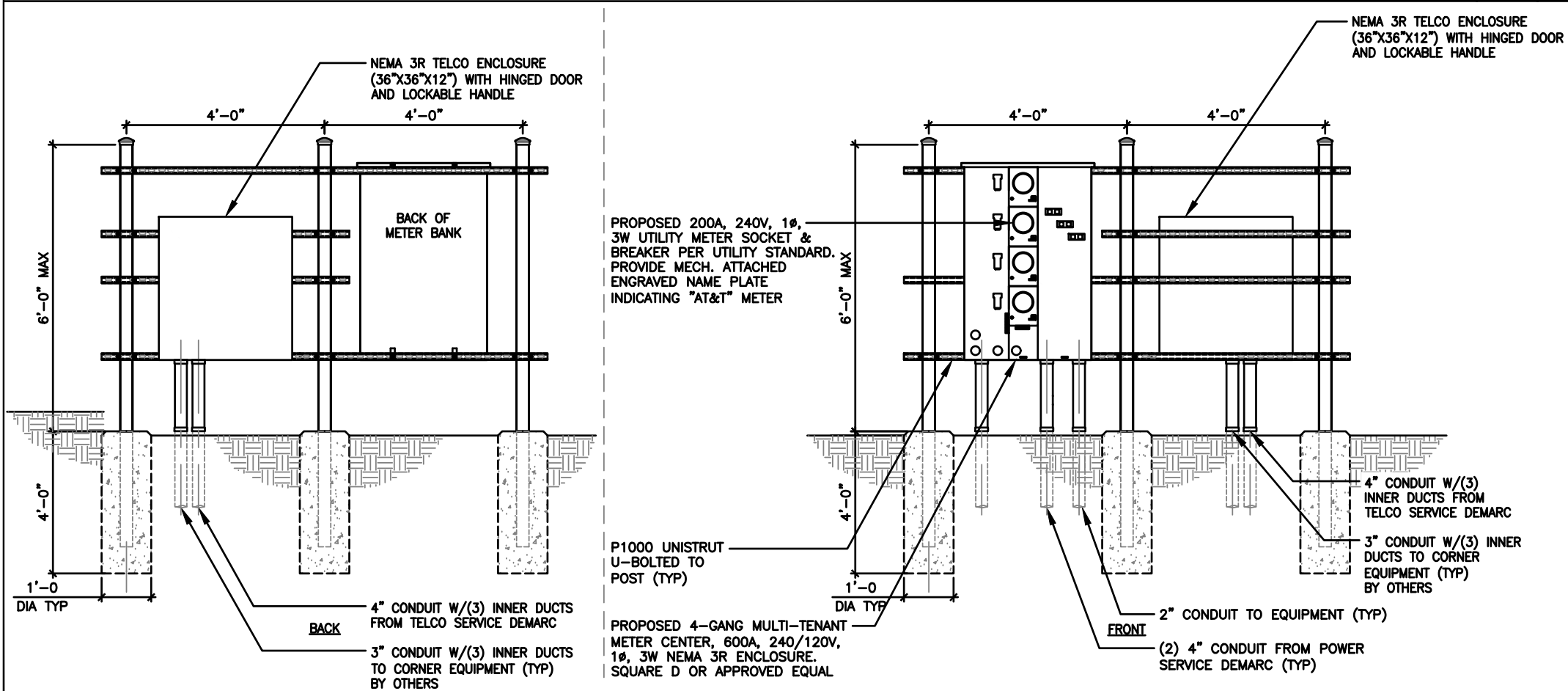
SHEET TITLE
ENLARGED
UTILITY PLAN

SHEET NUMBER
AT-E-1

1. SUBMITTAL OF BID INDICATES THAT THE CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
2. CONTRACTOR SHALL PERFORM ALL VERIFICATIONS, OBSERVATION TESTS, AND EXAMINATION WORK PRIOR TO ORDERING OF ANY EQUIPMENT AND THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE PROJECT MANAGER LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT AND DISCREPANCIES.
3. VERIFY HEIGHTS WITH PROJECT MANAGER PRIOR TO INSTALLATION.
4. THESE PLANS ARE DIAGRAMMATIC ONLY, FOLLOW AS CLOSELY AS POSSIBLE.
5. CONTRACTOR SHALL COORDINATE ALL WORK BETWEEN TRADES AND ALL OTHER SCHEDULING AND PROVISIONARY CIRCUMSTANCES SURROUNDING THE PROJECT.
6. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION CONSTRUCTION TOOLS, TRANSPORTATION, ETC., FOR COMPLETE AND FUNCTIONALLY OPERATING SYSTEMS ENERGIZED AND READY FOR USE THROUGHOUT AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
7. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. ELECTRICAL MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORIES AND SHALL BEAR THE INSPECTION LABEL "J" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF ALL GOVERNING BODIES HAVING JURISDICTION OVER THE CONSTRUCTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH ALL CURRENT APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA AND NBFU. ALL MATERIALS AND EQUIPMENT SHALL BE APPROVED FOR THEIR INTENDED USE AND LOCATION.
8. ALL WORK SHALL COMPLY WITH ALL APPLICABLE GOVERNING STATE, COUNTY AND CITY CODES AND OSHA, NFPA, NEC & ASHRAE REQUIREMENTS.
9. ENTIRE JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE. ALL WORK, MATERIAL AND EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE CONTRACTOR.
10. PROPERLY SEAL ALL PENETRATIONS. PROVIDE UL LISTED FIRE-STOPS WHERE PENETRATIONS ARE MADE THROUGH FIRE-RATED ASSEMBLIES. WATER-TIGHT USING SILICONE SEALANT.
11. DELIVER ALL BROCHURES, OPERATING MANUALS, CATALOGS AND SHOP DRAWINGS TO THE PROJECT MANAGER AT JOB COMPLETION. PROVIDE MAINTENANCE MANUALS FOR MECHANICAL EQUIPMENT. AFFIX MAINTENANCE LABELS TO MECHANICAL EQUIPMENT.
12. ALL CONDUCTORS SHALL BE COPPER. MINIMUM CONDUCTOR SIZE SHALL BE #12 AWG., UNLESS OTHERWISE NOTED. CONDUCTORS SHALL BE TYPE THHW, RATED IN ACCORDANCE WITH NEC 110-14(C).
13. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THAN THE MAXIMUM INTERRUPTING CURRENT TO WHICH THEY MAY BE SUBJECTED.
14. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE; ARTICLES 250 & 810 AND THE UTILITY COMPANY STANDARDS.
15. CONDUIT:
- A. RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH 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.
- B. ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTINGS SHALL BE GLAND RING COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.
- C. LIQUID-TIGHT FLEXIBLE METAL CONDUIT SHALL BE U.L. LISTED AND SHALL BE USED AT FINAL CONNECTIONS TO MECHANICAL EQUIPMENT & RECTIFIERS AND WHERE PERMITTED BY CODE. ALL CONDUIT IN EXCESS OF SIX FEET IN LENGTH SHALL CONTAIN A FULL-SIZE GROUND CONDUCTOR.
- D. CONDUIT RUNS SHALL BE SURFACE MOUNTED ON CEILINGS OR WALLS UNLESS NOTED OTHERWISE. ALL CONDUIT SHALL RUN PARALLEL OR PERPENDICULAR TO WALLS, FLOOR, CEILING, OR BEAMS. VERIFY EXACT ROUTING OF ALL EXPOSED CONDUIT WITH THE PROJECT MANAGER PRIOR TO INSTALLING.
- E. PVC CONDUIT MAY BE PROVIDED ONLY WHERE SHOWN, OR IN UNDERGROUND INSTALLATIONS. PROVIDE UV-RESISTANT CONDUIT WHERE EXPOSED TO THE ATMOSPHERE. PROVIDE GROUND CONDUCTOR IN ALL PVC RUNS; EXCEPT WHERE PERMITTED BY CODE TO OMIT.
17. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS. BACKGROUND SHALL BE BLACK WITH WHITE LETTERS; EXCEPT AS REQUIRED BY CODE TO FOLLOW A DIFFERENT SCHEME.
18. UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL OF POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. GROUNDING SYSTEM RESISTANCE SHALL NOT EXCEED 5 OHMS. IF THE RESISTANCE VALUE IS EXCEEDED, NOTIFY THE PROJECT MANAGER FOR FURTHER INSTRUCTION ON METHODS FOR REDUCING THE RESISTANCE VALUE.
19. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION. LEGALLY DISPOSE OF ALL REMOVED, UNUSED AND EXCESS MATERIAL GENERATED BY THE WORK OF THIS CONTRACT. DELIVER ITEMS INDICATED ON THE DRAWINGS TO THE OWNER IN GOOD CONDITION. OBTAIN SIGNED RECEIPT UPON DELIVERY.
20. COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS SHALL BE PAID BY THE CONTRACTOR.
21. VERIFY ALL EXISTING CIRCUITRY PRIOR TO REMOVAL AND NEW WORK. MAINTAIN POWER TO ALL OTHER AREAS & CIRCUITS NOT SCHEDULED FOR REMOVAL.
22. RED LINED AS-BUILT PLANS SHALL BE PROVIDED TO THE CONSTRUCTION MANAGER.

METER POSITION 2 – AT&T INTEGRATED LOAD CENTER																												
LOAD				LOAD PER PHASE (VA)														LOAD PER PHASE (VA)				LOAD						
DESCRIPTION		QTY.	UNIT V.A.	PHASE		WIRE COLOR	LOADS CONTINUOUS	LOADS NON-CONTINUOUS	LOADS SUB-PANEL	WIRE SIZE	GROUNDING WIRE SIZE	TRIP	TRIP	GROUNDING WIRE SIZE	WIRE SIZE	LOADS SUB-PANEL	LOADS NON-CONTINUOUS	LOADS CONTINUOUS	WIRE COLOR	PHASE		UNIT V.A.	QTY.	DESCRIPTION				
				A	B															A	B							
1	RECTIFIER #1	1	1400	1400		BLK	X			8	(10)	40		(10)	8			X	BLK	1400		1400	1	RECTIFIER #5	2			
3		1	1400		1400	RED												RED		1400	1400	1	4					
5	RECTIFIER #2	1	1400	1400		BLK	X			8	(10)	40		(10)	8			X	BLK	1400		1400	1	RECTIFIER #6	6			
7		1	1400		1400	RED												RED		1400	1400	1	8					
9	RECTIFIER #3	1	1400	1400		BLK	X			8	(10)	40		(10)	8			X	BLK	1400		1400	1	RECTIFIER #7	10			
11		1	1400		1400	RED												RED		1400	1400	1	12					
13	RECTIFIER #4	1	1400	1400		BLK	X			8	(10)	40		(10)	8			X	BLK	1400		1400	1	RECTIFIER #8	14			
15		1	1400		1400	RED												RED		1400	1400	1	16					
17						BLK													BLK						18			
19						RED	X			12	12	20							RED						20			
21	GFCI RECEPTACLES	1	180	360		BLK	X			12	(12)	20							BLK						22			
23	OPTIONAL FIBER BOX RECEPTACLE	1	180		180	RED	X			12	12	20							RED						24			
25	BATTERY CHARGER	1	240	240		BLK	X			12	12	20							BLK						26			
27	SPARE					RED	X			12	12	20							RED						28			
29	SPARE					BLK	X			12	12	20							BLK						30			
			SUBTOTAL CONTINUOUS	6200	5780															5,600	5,600	SUBTOTAL CONTINUOUS	TOTAL AMPS CONTINUOUS x 1.25	28975				
			SUBTOTAL NON-CONTINUOUS	-	-															-	-	SUBTOTAL NON-CONTINUOUS	TOTAL AMPS NON-CONTINUOUS	-				
			SUBTOTAL SUB-PANEL	-	-															-	-	SUBTOTAL SUB-PANEL						
PANEL DESIGNATION: ELECTRICAL PANEL (ITEM 2)																												
MAIN LUGS: N/A		MAIN BREAKER: 200 AMP												BRANCH BREAKER TYPE: SIEMENS – BL												TOTAL KVA		28.97
VOLTAGE: 120/240		CYCLE: 60		PHASE: 1		WIRES: 3		MAIN COPPER BUS: 200 AMPS				NEUTRAL: 200 AMPS								TOTAL AMPS		120.72						

AT&T P - B PANEL SCHEDULE



UTILITY FRAME DETAIL

ELECTRICAL NOTES

SCALE
N.T.S.

4

SCALE
N.T.S.

1

TILLMAN
INFRASTRUCTURE



LCC
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FA # 15815546
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FORT ATKINSON, WI 53538

SHEET TITLE
ELECTRICAL SCHD.,
DIA & NOTES

SHEET NUMBER
AT-E-2



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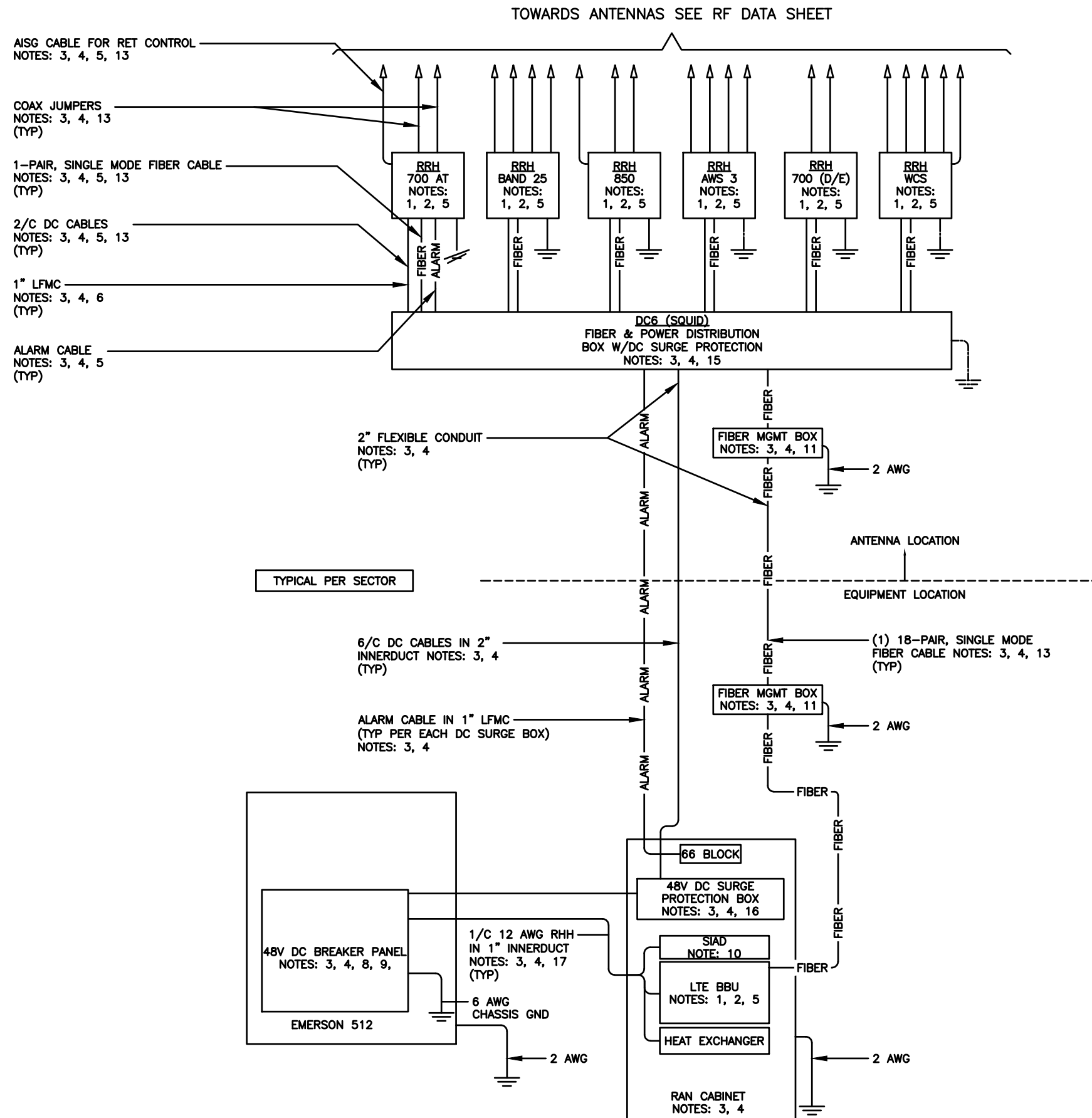
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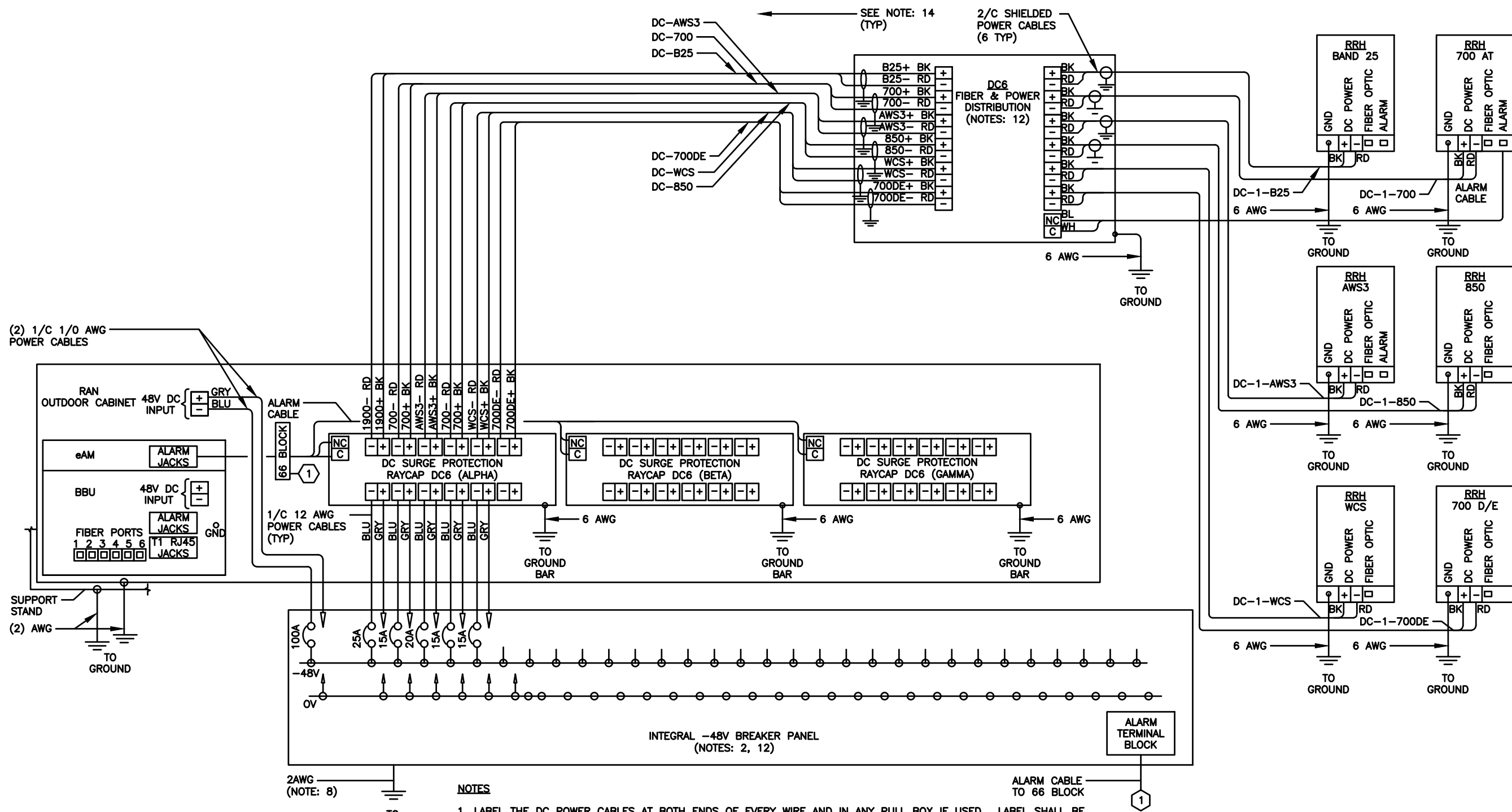
SHEET TITLE
C/FIBER SYSTEM
DIAGRAM

SHEET NUMBER
AT-E-3



NOTES:

1. FURNISHED BY OEM/AT&T.
2. INSTALLED BY OEM OR AS SCOPED BY MARKET.
3. FURNISHED BY OTHERS
4. INSTALLED BY OTHERS
5. FINAL CONNECTION BY OEM OR AS SCOPED BY MARKET.
6. OPEN END OF LFMC TO BE LEFT WEATHERPROOFED UNTIL TERMINATED.
7. DELETED.
8. BREAKERS SPECIFIED SOLD SEPERATELY.
9. BREAKERS TO BE TAGGED AND LOCKED OUT.
10. SIAD IS FURNISHED AND INSTALLED BY OTHERS AND INCLUDES POWER CONNECTIONS AND FIBER TO THE UNIT OR AS SCOPED BY MARKET. INSTALL 10 AWG CHASSIS GROUND, PROVIDE (2) 10A BREAKERS FROM A 24V DC POWER SOURCE OR (2) 5A BREAKERS FROM A 48V DC POWER SOURCE AND CONNECT USING MFR POWER CABLE WITH SPECIAL CONNECTOR.
11. FIBER MANAGEMENT BOX IS J-SOURCE MODEL 12126FM4SEC.
12. LEC TO FURNISH AND INSTALL NETWORK INTERFACE DEVICE.
13. LEAVE COILED AND PROTECTED UNTIL TERMINATED.
14. SEE DETAIL 1408 FOR DC POWER CABLE SIZES.
15. FIBER AND POWER DISTRIBUTION BOX 4/48V SURGE SHALL BE RAYCAP MODEL DC6-48-60-18-8F.
16. POWER DISTRIBUTION W/DC SURGE PROTECTION BOX SHALL BE RAYCAP MODEL DC6-48-60-0-18.
17. SINGLE-CONDUCTOR DC POWER CABLES SHALL BE TELCOFLEX OR KS24194, COPPER, UL LISTED RHH NON-HALOGEN, LOW SMOKE WITH BRAIDED COVER, TYPE TC (1/0 AND LARGER). UNLESS OTHERWISE NOTED, STRANDING SHALL BE CLASS B (TYPE III) FOR CABLES SIZES 14, 12 & 10 AWG AND CLASS 1 (TYPE IV) FOR SIZES 8 AWG AND LARGER. CABLES SHALL BE COLOR CODED RED FOR +24V, BLUE FOR -48V AND GRAY FOR 24V AND 48V RETURN CONDUCTORS. MULTI-CONDUCTOR DC POWER CABLES SHALL COPPER, CLASS B STRANDED WITH FLAME RETARDANT PVC JACKET, TYPE TC, UL LISTED FOR 90°C DRY/ 75°C WET INSTALLATION.
18. 10A FUSE FOR HEAT EXCHANGER FURNISHED AND INSTALLED BY OTHERS.
19. DELETED
20. GROUNDING WIRES SHALL BE COPPER, GREEN THHN/THWN UL LISTED FOR 90°C DRY/75°C WET INSTALLATION. MINIMUM SIZE IS 6 AWG UNLESS NOTED OTHERWISE.
21. RET CONTROL FROM THE RRR IS AN OPTIONAL METHOD OF CONNECTION. REFER TO RF DATA SHEET FOR APPLICABILITY.
22. DELETED.
23. FIBER AND POWER DISTRIBUTION BOX 4/48V SURGE SHALL BE RAYCAP MODEL DC6-48-60-0-1E.
24. FIBER MANAGEMENT BOX IS COMMSCOPE MODEL FB 18188.
25. FIBER AND POWER DISTRIBUTION BOX 4/48V SURGE SHALL BE RAYCAP MODEL DC12-48-60-0-25E.



- NOTES**
1. LABEL THE DC POWER CABLES AT BOTH ENDS OF EVERY WIRE AND IN ANY PULL BOX IF USED. LABEL SHALL BE DURABLE, SELF ADHESIVE, WRAPPED LONGITUDINALLY ALONG THE CABLE AND STATE THE SECTOR, FREQUENCY BAND AND POLARITY; I.E. "A-AWS+".
 2. INSTALL ON IN AUXILIARY EQUIPMENT CABINET.
 3. CABLE TERMINALS FOR +24V INPUT FEED A, FEED B AND REFERENCE GROUND SHALL BE 2-HOLE: 3/8" ON 1" CENTER.
 4. INSTALL CABLE TERMINALS FOR FEED A AND FEED B RETURN BACK-TO-BACK ON OPPOSITE SIDES OF PAD USING 1-HOLE 3/8" TERMINALS.
 5. CABLE TERMINALS FOR CHASSIS GROUND SHALL BE 2-HOLE, 1/4" ON 5/8" CENTER.
 6. WHEN DISTRIBUTION BOX IS NOT USED, INSTALL 3 RUNS OF (2) 2/C CABLES IN CONDUIT, 1 EACH FROM DC SURGE SHELF TO DC6s.
 7. A JUNCTION BOX IS REQUIRED WHEN FIBER OPTIC CABLES ARE INSTALLED IN CONDUIT AS SCOPED BY MARKET.
 8. CONVERTER REFERENCE GROUND IS NOT REQUIRED WHEN CONVERTER AND 24V DC POWER PLANT ARE ON THE SAME RACK OR ENCLOSURE.
 9. THE BARE GROUND WIRE OF EACH MULTI-CONDUCTOR CABLE AND DRAIN WIRE WHEN A SHIELDED CABLE IS USED, SHALL BE CONNECTED TO THE EQUIPMENT CABINET GROUND BAR.
 10. SEE ALARM BLOCK ASSIGNMENT DETAIL FOR ALARM CABLE CONNECTIONS.
 11. PROVIDE A JUNCTION BOX, AS SCOPED BY MARKET, TO COIL EXCESS DC POWER AND OPTICAL FIBER CABLES (FIBER CALES NOT SHOWN FOR CLARITY)
 12. NOTED EQUIPMENT MAY BE COMMON TO LTE AND UMTS SYSTEMS.
 13. CABLE GROUND WIRE AND SHIELD DRAIN WIRE TO BE LEFT UN-TERMINATED AT RRH.
 14. WHEN AN RRH IS USED INSTEAD OF AN AWS RRH CABLE, LABELS SHOULD REFLECT CORRECT FREQUENCY BAND.

TYPICAL PER SECTOR

DC WIRING DIAGRAM

SCALE
N.T.S.

1



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DRAWN BY: DWM
CHECKED BY: MC

REV	DATE	DESCRIPTION
A	10/30/23	PRELIMINARY CD
B	12/04/23	PRELIMINARY CD

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ARCHITECT UNDER THE LAWS OF THE STATE OF WISCONSIN

EXP DATE: 11/30/24

AT&T SITE# TI-OPP-29071
AT&T SITE NAME: W10129/ FORT ATKINSON
FA # 15815546
SITE ADDRESS:
COMMONWEALTH DR
FORT ATKINSON, WI 53538

SHEET TITLE
DC WIRING
DIAGRAM

SHEET NUMBER
AT-E-4

THE INFORMATION CONTAINED IN THIS SET OF CONSTRUCTION DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO CARRIER SERVICES IS STRICTLY PROHIBITED.

GROUNDING NOTES:

- GROUNDING SHALL COMPLY WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.
- ALL GROUNDING DEVICES SHALL BE U.L. APPROVED OR LISTED FOR THEIR INTENDED USE.
- ALL WIRES SHALL BE AWG THHN/THWN COPPER UNLESS NOTED OTHERWISE.
- GROUNDING CONNECTIONS TO GROUND RODS, GROUND RING WIRE, TOWER BASE AND FENCE POSTS SHALL BE EXOTHERMIC ("CADWELDS") UNLESS NOTED OTHERWISE. CLEAN SURFACES TO SHINY METAL. WHERE GROUND WIRES ARE CADWELDED TO GALVANIZED SURFACES, SPRAY CADWELD WITH GALVANIZING PAINT.
- GROUNDING CONNECTIONS TO GROUND BARS ARE TO BE TWO-HOLE BRASS MECHANICAL CONNECTORS WITH STAINLESS STEEL HARDWARE (INCLUDING SCREW SET) CLEAN GROUND BAR TO SHINY METAL. AFTER MECHANICAL CONNECTION, TREAT WITH PROTECTIVE ANTIOXIDANT COATING.
- GROUND COAXIAL CABLE SHIELDS AT BOTH ENDS WITH MANUFACTURER'S GROUNDING KITS.
- ROUTE GROUNDING CONDUCTORS THE SHORTEST AND STRAIGHTEST PATH POSSIBLE. BEND GROUNDING LEADS WITH A MINIMUM 12" RADIUS.
- INSTALL #2 AWG GREEN-INSULATED STRANDED WIRE FOR ABOVE GRADE GROUNDING AND #2 BARE TINNED COPPER WIRE FOR BELOW GRADE GROUNDING UNLESS OTHERWISE NOTED.
- REFER TO GROUNDING PLAN FOR GROUND BAR LOCATIONS. GROUNDING CONNECTIONS SHALL BE EXOTHERMIC TYPE ("CADWELDS") TO ANTENNA MOUNTS AND GROUND RING. REMAINING GROUNDING CONNECTIONS SHALL BE COMPRESSION FITTINGS. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO-HOLE LUGS.
- THE GROUND ELECTRODE SYSTEM SHALL CONSIST OF DRIVEN GROUND RODS POSITION ACCORDING TO GROUNDING PLAN. THE GROUND RODS SHALL BE 5/8"x10'-0" COPPER CLAD STEEL INTERCONNECTED WITH #2 BARE TINNED COPPER WIRE BURIED 36" BELOW GRADE. BURY GROUND RODS A MAXIMUM OF 15' APART, AND A MINIMUM OF 8' APART.
- IF ROCK IS ENCOUNTERED GROUND RODS SHALL BE PLACED AT AN OBLIQUE ANGLE NOT TO EXCEED 45°.
- EXOTHERMIC WELDS SHALL BE MADE IN ACCORDANCE WITH ERICO PRODUCTS BULLETIN A-AT.
- CONSTRUCTION OF GROUND RING AND CONNECTIONS TO EXISTING GROUND RING SYSTEM SHALL BE DOCUMENTED WITH PHOTOGRAPHS PRIOR TO BACKFILLING SITE. PROVIDE PHOTOS TO THE VERIZON WIRELESS CONSTRUCTION MANAGER.
- ALL GROUND LEADS EXCEPT THOSE TO THE EQUIPMENT ARE TO BE #2 BARE TINNED COPPER WIRE. ALL EXTERIOR GROUND BARS TINNED COPPER.
- PRIOR TO INSTALLING LUGS ON GROUND WIRES, APPLY THOMAS & BETTS KOPR-SHIELD (TM OF JET LUBE INC.). PRIOR TO BOLTING GROUND WIRE LUGS TO GROUND BARS, APPLY KOPR-SHIELD OR EQUAL.
- ENGAGE AN INDEPENDENT ELECTRICAL TESTING FIRM TO TEST AND VERIFY THAT IMPEDANCE DOES NOT EXCEED FIVE OHMS TO GROUND BY MEANS OF "FALL OF POTENTIAL TEST". TEST SHALL BE WITNESSED BY A METROPCS REPRESENTATIVE, AND RECORDED ON THE "GROUND RESISTANCE TEST" FORM.
- WHERE BARE COPPER GROUND WIRES ARE ROUTED FROM ANY CONNECTION ABOVE GRADE TO GROUND RING, INSTALL WIRE IN 3/4" PVC SLEEVE, FROM 1' BELOW GRADE AND SEAL TOP WITH SILICONE MATERIAL.
- PREPARE ALL BONDING SURFACES FOR GROUNDING CONNECTIONS BY REMOVING ALL PAINT AND CORROSION DOWN TO SHINY METAL. FOLLOWING CONNECTION, APPLY APPROPRIATE ANTI-OXIDIZATION PAINT.
- ANY SITE WHERE THE EQUIPMENT (BTS, CABLE BRIDGE, PPC, GENERATOR, ETC.) IS LOCATED WITHIN 6 FEET OF METAL FENCING, THE GROUND RING SHALL BE BONDED TO THE NEAREST FENCE POST USING (3) RUNS OF #2 BARE TINNED COPPER WIRE.

GROUNDING NOTES

SCALE
N.T.S.

5

CABLE COLOR CODING NOTES:

- SECTOR ORIENTATION/AZIMUTH WILL VARY FROM REGION AND IS SITE SPECIFIC. REFER TO RF REPORT FOR EACH SITE TO DETERMINE THE ANTENNA LOCATION AND FUNCTION OF EACH TOWER SECTOR FACE.
- THE ANTENNA SYSTEM CABLES SHALL BE LABELED WITH VINYL TAPE EXCEPT IN LOCATIONS WHERE ENVIRONMENTAL CONDITIONS CAUSE PHYSICAL DAMAGE, THEN PHYSICAL TAGS ARE PREFERRED.
- THE STANDARD IS BASED ON EIGHT COLORED TAPES - RED, BLUE, GREEN, YELLOW, ORANGE, BROWN, WHITE & VIOLET. THESE TAPES MUST BE 3/4" WIDE & UV RESISTANT SUCH AS SCOTCH 35 VINYL ELECTRICAL COLOR CODING TAPE AND SHOULD BE READILY AVAILABLE TO THE ELECTRICIAN OR SUBCONTRACTOR ON SITE.
- USING COLOR BANDS ON THE CABLES, MARK ALL RF CABLES BY SECTOR AND NUMBER AS SHOWN ON "CABLE MARKING COLOR CONVENTION TABLE".
- WHEN AN EXISTING COAXIAL LINE THAT IS INTENDED TO BE A SHARED LINE BETWEEN GSM/3G AND IS-136 TDMA IS ENCOUNTERED, THE SUBCONTRACTOR SHALL REMOVE THE EXISTING COLOR CODING SCHEME AND REPLACE IT WITH THE COLOR CODING AND TAGGING STANDARD THAT IS OUTLINED IN THE CURRENT VERSION OF ND-00027. IN THE ABSENCE OF AN EXISTING COLOR CODING TAGGING SCHEME, OR WHEN INSTALLING PROPOSED COAXIAL CABLES, THIS GUIDELINE SHALL BE IMPLEMENTED AT THAT SITE REGARDLESS OF TECHNOLOGY.
- ALL COLOR CODE TAPE SHALL BE 3M-35 AND SHALL BE A MINIMUM OF (3) WRAPS OF TAPE AND SHALL BE NEATLY TRIMMED AND SMOOTHED OUT SO AS TO AVOID UNRAVELING.
- ALL COLOR BANDS INSTALLED AT THE TOP OF TOWER SHALL BE A MINIMUM OF 3" WIDE AND SHALL HAVE A MINIMUM OF 3/4" OF SPACE IN BETWEEN EACH COLOR.
- ALL COLOR CODES SHALL BE INSTALLED AS TO ALIGN NEATLY WITH ONE ANOTHER FROM SIDE TO SIDE.
- IF EXISTING CABLES AT THE SITE ALREADY HAVE A COLOR CODING SCHEME AND THEY ARE NOT INTENDED TO BE REUSED OR SHARED WITH THE GSM TECHNOLOGY, THE EXISTING COLOR CODING SCHEME SHALL REMAIN UNTOUCHED.

CABLE MARKING TAGS:

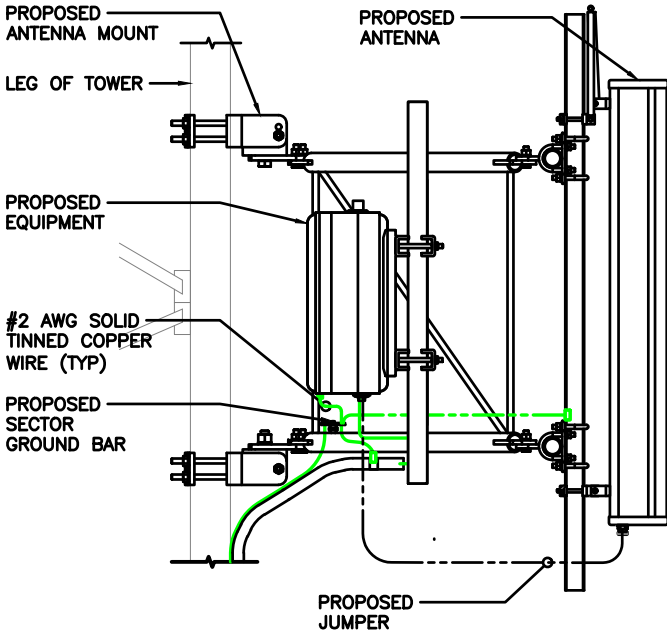
WHEN USING THE ALTERNATIVE LABELING METHOD, EACH RF CABLE SHALL BE IDENTIFIED WITH A METAL ID TAG MADE OF STAINLESS STEEL OR BRASS. THE TAG SHALL BE 1-1/2" IN DIAMETER WITH 1/4" STAMPED LETTERS AND NUMBERS INDICATING THE SECTOR, ANTENNA POSITION AND CABLE NUMBER. ID MARKING LOCATIONS SHOULD BE AS PER "CABLE MARKING LOCATIONS TABLE". THE TAG SHOULD BE ATTACHED WITH CORROSION PROOF WIRE AROUND THE CABLE AT THE SAME LOCATION AS DEFINED ABOVE. THE TAG SHOULD BE LABELED AS SHOWN ON THE "GSM AND UMTS LINE TAG" DETAIL.

CABLE MARKING LOCATIONS TABLE	
NO.	LOCATIONS
①	EACH JUMPER SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS.
②	EACH MAIN COAX SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS AT THE TOP JUMPER CONNECTION AND WITH (1) SET OF 3/4" WIDE COLOR BANDS PRIOR TO ENTERING THE BTS OR SHELTER.
③	CABLE ENTRY PORT ON THE INTERIOR OF SHELTER.
④	ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4" WIDE BANDS ON EACH END OF THE BOTTOM JUMPER.
⑤	ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4" WIDE BANDS ON EACH END OF THE BOTTOM JUMPER.

CABLE COLOR CODING NOTES

SCALE
N.T.S.

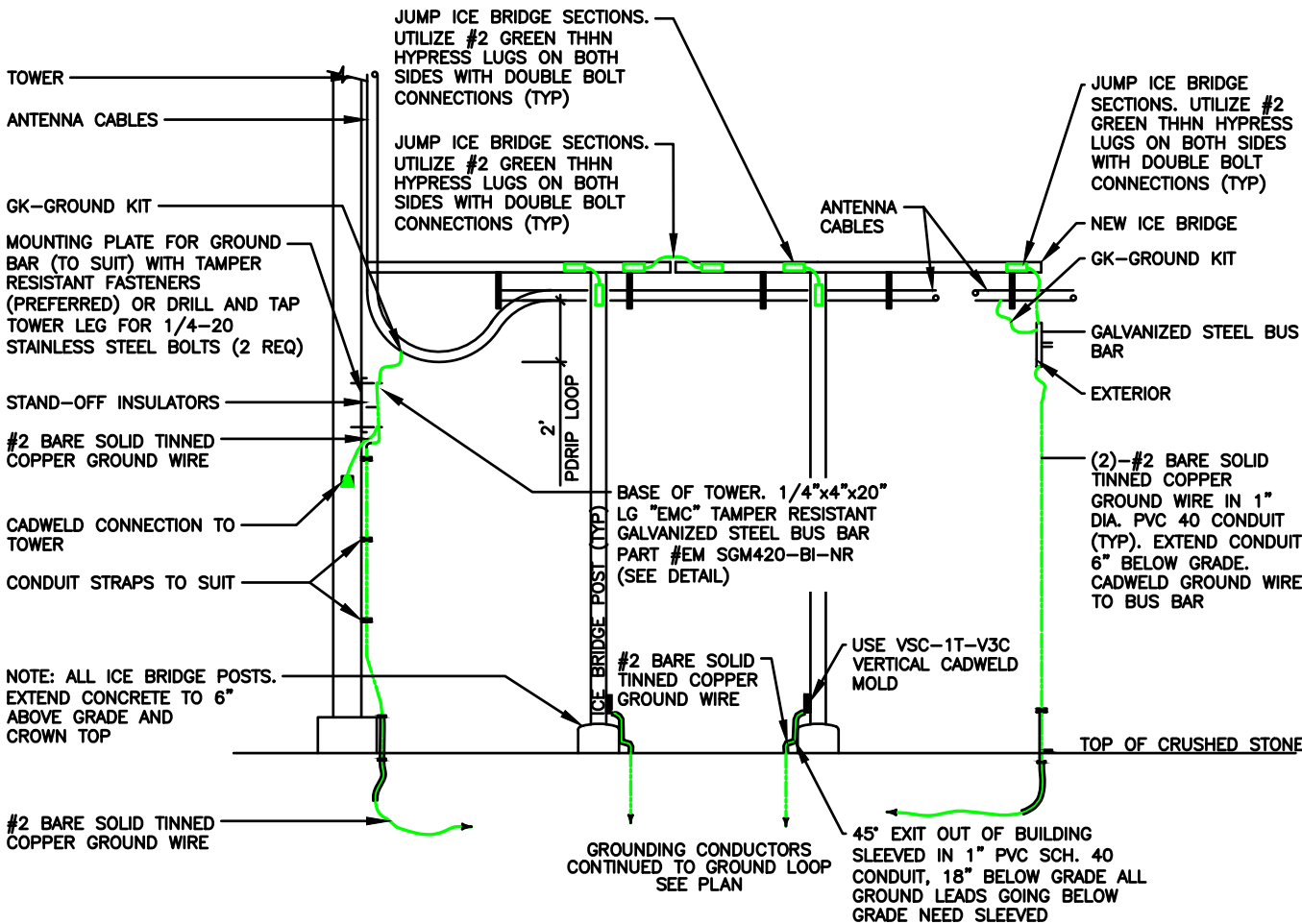
4



ANTENNA & CABLE GROUNDING

SCALE
N.T.S.

3



COAXIAL GROUNDING AT ICE BRIDGE

SCALE
N.T.S.

1

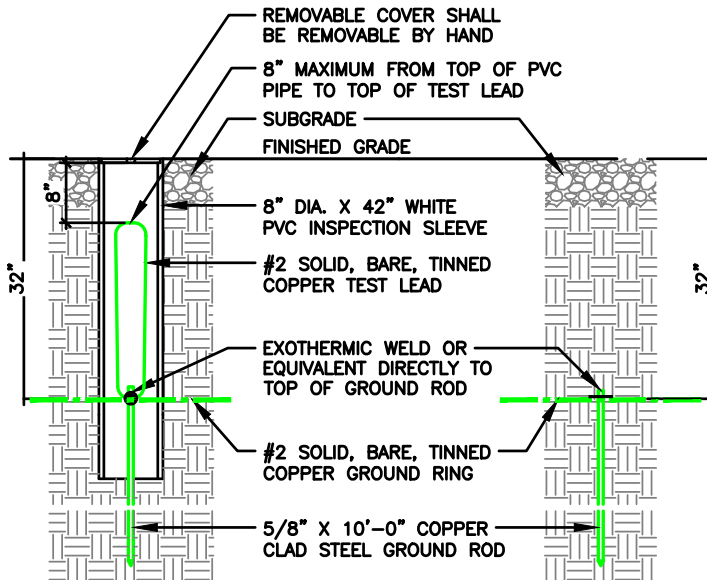
NOTE:
SEE RESISTIVITY REPORT FOR
VERIFICATION AS AVAILABLE

NOTE:
GROUND RODS MAY BE COPPER
CLAD STEEL OR SOLID COPPER

NOTE:
GROUND RODS SHALL HAVE A
RECOMMENDED SPACING TWICE
THE LENGTH OF THE ROD

NOTE:
A LARGER CONDUCTOR SHALL BE REQUIRED
IN AREAS HIGHLY PRONE TO LIGHTNING
AND/OR AREAS W/HIGHLY ACIDIC SOIL

NOTE:
GROUND RODS INSTALLED WITHIN CLOSE
PROXIMITY TO TOWER OR WHEN SOIL IS AT OR
BELOW 2,000 OHM-CM, SHALL BE GALVANIZED
TO PREVENT GALVANIC CORROSION OF TOWER



GROUND WELL, ROD, AND TEST WELL DETAIL

SCALE
N.T.S.

2

TILLMAN
INFRASTRUCTURE



LCC
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EMAIL: AE@Westchesterservices.com

DRAWN BY: DWM

CHECKED BY: MC

REV	DATE	DESCRIPTION
A	10/30/23	PRELIMINARY CD
B	12/04/23	PRELIMINARY CD

I HEREBY CERTIFY THAT THESE PLANS WERE
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THE STATE OF WISCONSIN

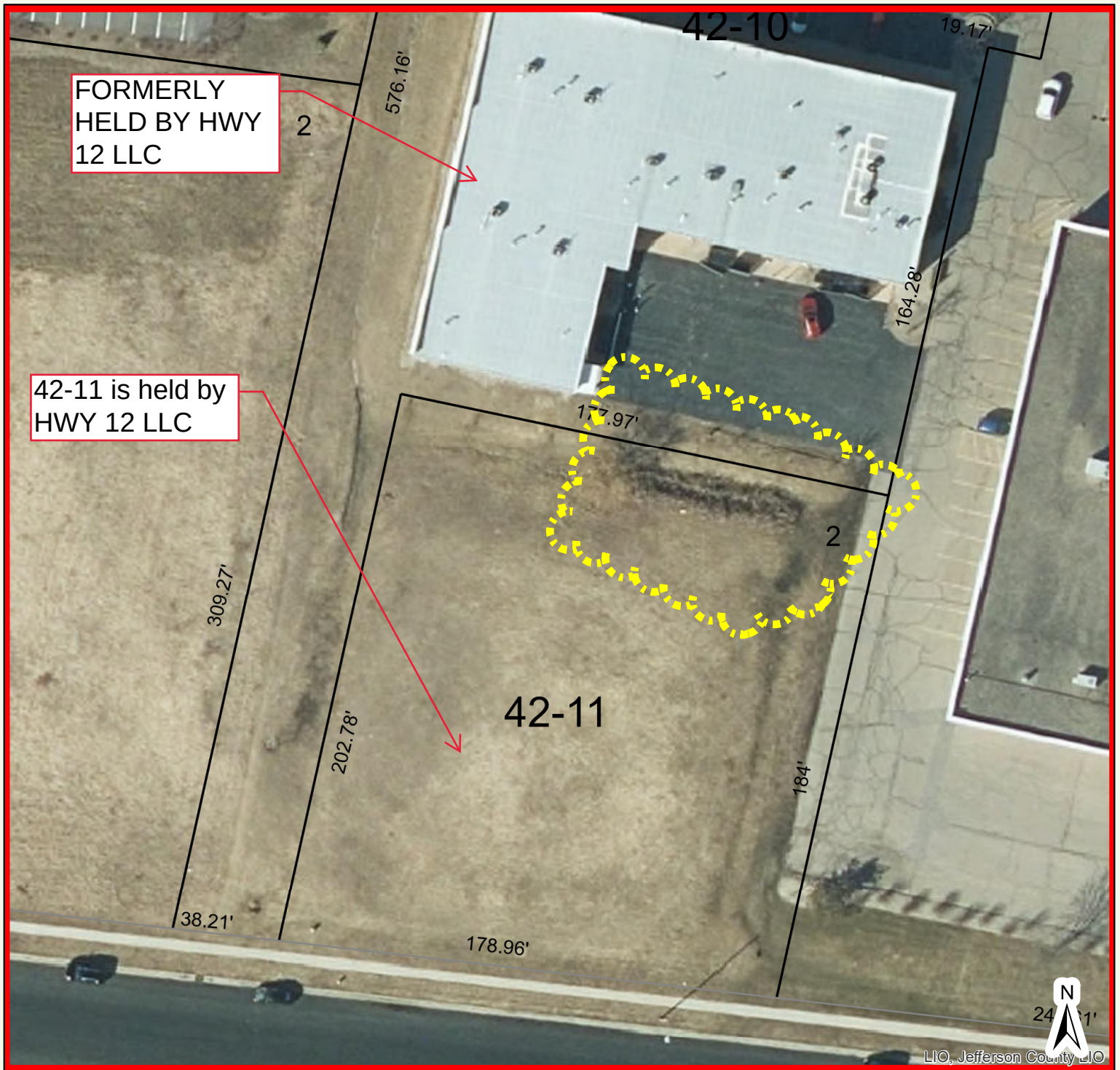
EXP DATE: 11/30/24

AT&T SITE# TI-OPP-29071
AT&T SITE NAME: W0129/ FORT
ATKINSON
FA # 15815546
SITE ADDRESS:
COMMONWEALTH DR
FORT ATKINSON, WI 53538

SHEET TITLE
GROUNDING
DETAILS & NOTES

SHEET NUMBER
AT-G-2

Jefferson County Land Information

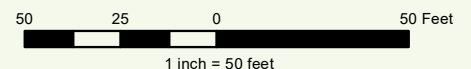


- | | |
|--|--|
|  Municipal Boundaries |  Road Right of Ways |
| Parcel Lines |  Section Lines |
|  Property Boundary |  Surface Water |
|  Old Lot/Meander Lines |  Map Hooks |
|  Rail Right of Ways |  Tax Parcel Information |



Jefferson County Geographic Information System

DISCLAIMER: This map is not a substitute for an actual field survey or onsite investigation. The accuracy of this map is limited to the quality of the records from which it was assembled. Other inherent inaccuracies occur during the compilation process. Jefferson County makes no warranty whatsoever concerning this information.



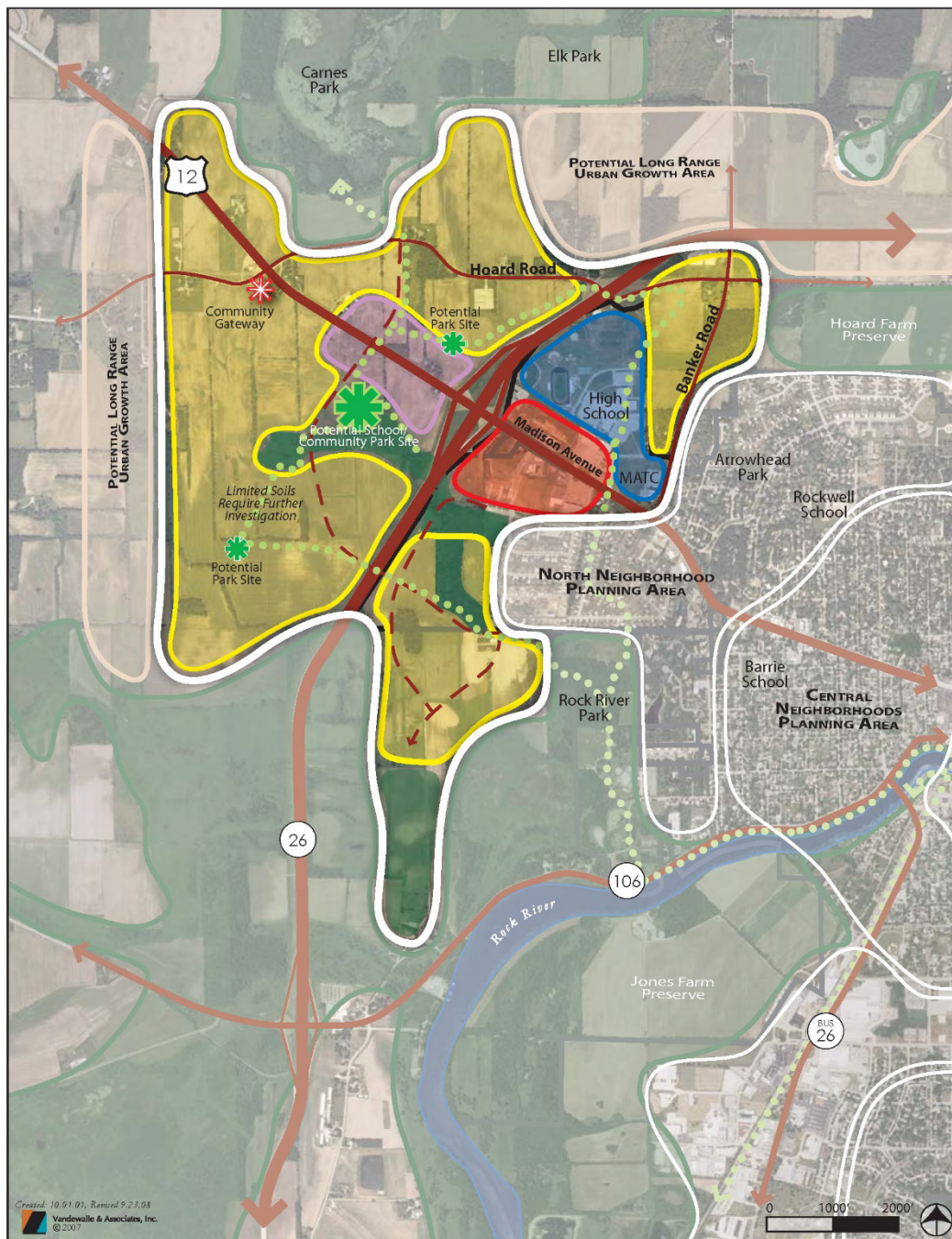
Printed on: October 26, 2023

Author: Public User

NORTHWEST QUADRANT PLANNING AREA

FIGURE: 2.12

CITY OF FORT ATKINSON
FUTURES OPEN HOUSE



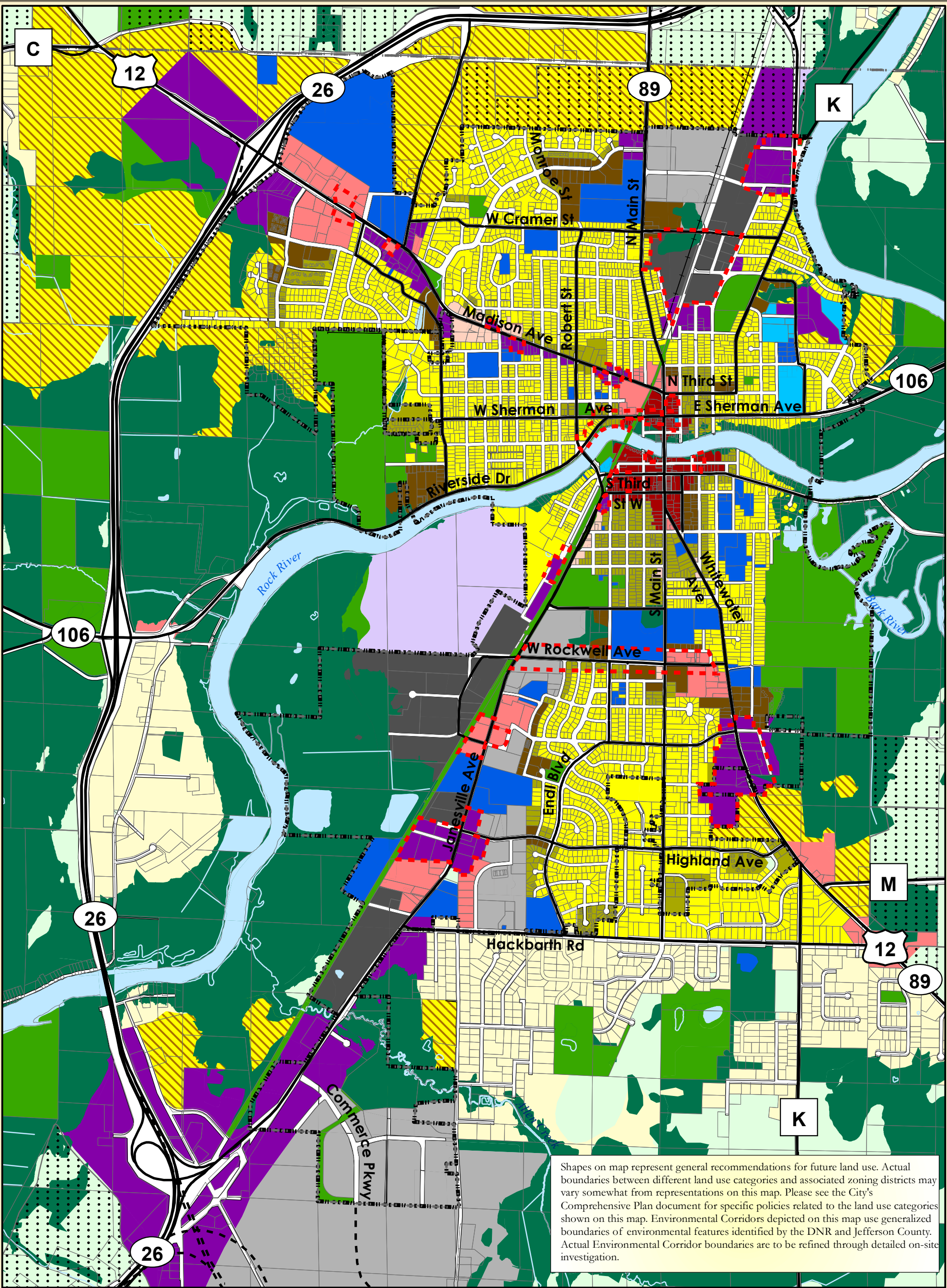
Opportunities

- Proximity to Madison enhances marketability
- Community gateway experience
- Traditional neighborhood & sustainable design
- Neighborhoods connected across Highway 26
- Capitalize on existing businesses & schools
- Urban mixed use development & redevelopment opportunities

Note: This map is not a Detailed Future Land Use Map or Future Transportation Map for zoning and other decision making. The purpose of this map is to show conceptual future growth options and facilitate public discussion.

Conceptual Land Uses

- Community Commercial
- Downtown
- Major Institutions
- Mixed-Use
- Neighborhood
- Employment
- Environmental Corridors
- Agriculture
- Existing Major Roads
- Potential Future Roads
- Main Trails (Existing & Proposed)



**City of Fort Atkinson
Comprehensive Plan**

Map 7: Future Land Use - City View

- City Boundaries
- Town Boundaries
- Parcels
- Right of Way
- Major Roads
- Previously Proposed Hwy 12 Bypass

- AG - Agriculture/Rural
- P - Parks
- EC - Environmental Corridor
- SF-U - Single Family Residential - Urban
- SF-E - Single Family Residential - Exurban
- TF - Two Family/Townhouse Residential
- MR - Manufactured Residential
- MF-R - Multi-Family Residential

- PN - Planned Neighborhood
- NC - Neighborhood Commerical
- CC - Community Commerical
- DT - Downtown
- LI - Light Industrial/Business Park
- GI - General Industrial
- CF - Community Facilities
- HF - Health Facilities
- PMU - Planned Mixed Use

- F-H - Farm-Historic
- UGA - Long Range Urban Growth Area
- Future Redevelopment Opportunity Area
- Surface Water

Sources: Jefferson County - County Land Use; Vandewalle and Associates - Fort Atkinson Land Use

0 0.125 0.25 0.5 0.75 Miles

VANDEWALLE & ASSOCIATES INC. 3/19/19 Amended: 6/6/23
Shaping places, shaping change