TELECOMMUNICATION FACILITIES PERMIT APPLICATION AND FILING REQUIREMENTS

A. Suggested Review - It is recommended that the applicant meet with appropriate city staff prior to submission of the formal application. This will allow the Planning, Building, Recreation & Public Works staff to review the request and provide input on potential concerns, including matters relating to zoning and height limitation, co-location requirements, and design criteria. This early review and input by staff could save the applicant possible delay and expensive plan revisions later in the process.

B. Application Process – Applications are due at least 4 weeks prior to the desired Plan Commission Meeting (see Plan Commission meeting schedule for application deadlines). This time frame assumes a complete application; if an incomplete application is submitted the Plan Commission date will be adjusted.

C. Submittal Requirements – The following information shall be provided at the time at which the permit application is filed; the information is considered to be the minimum information required for submission, and the City may require additional information for its review. Provide three (3) copies of each required document and submit 1 pdf document of the entire submittal to planning@fitchburgwi.gov. Below is a summary of required submittals; all items must be included with the application. If you believe a specific item does not apply to your application, please provide a detailed explanation. For specific ordinance requirements see Chapter 64 of the Fitchburg Municipal Code. All documents are also required to be combined into one electronic pdf copy and sent to planning@fitchburgwi.gov.

- ☐ 1. Completed Telecommunications Facility Permit Application Form and Filing Fee.
- ☐ 2. Property Ownership. Provide evidence of ownership (i.e. Title Report) of the real property on which the proposed telecommunications facility will be located. If the applicant does not own the real property, evidence of authorization from the real property owner shall be provided.
- ☐ 3. Justification Statement. Include as part of the permit application form a brief narrative, accompanied by written documentation where appropriate, which explains the purpose of the facility and validates the applicant's efforts to comply with the design, location and co-location requirements of Chapter 64 of the City of Fitchburg Municipal Code.
- ☐ 4. Plans. Provide 9 sets of plans consisting of site plans, roof plans, and elevations (and floor plans, if applicable to project) drawn to scale and dimensioned. At least Six (6) of the nine (9) copies shall no larger than 11" x 17".
- ☐ 5. Propagation map(s). Provide propagation maps showing the geographic area to be served by the facility.
- ☐ 6. Engineers Report. A report from a qualified and Wisconsin licensed professional engineer, which describes the tower placement, height, design and capacity.
- ☐ 7. Visual Analysis. The analysis should include views of the tower and equipment from public areas as well as nearby private residences, shall document the floor plan with all dimensions of the equipment building, provide elevations of all four sides of the equipment building and include a landscaping plan for the proposed site.
- ☐ 8. Stormwater Analysis. A complete stormwater analysis for the proposed site.
- ☐ 9. Generator Data. All technical specifications for the back-up generator, including all noise data.
- ☐ 10. Co-location letter. A letter of intent committing the tower owner and his or her successors to allow the co-location of other users on the tower if additional users agree in writing to meet reasonable terms and conditions for co-location.
- ☐ 11. Forestry Plan. On wooded or partially wooded land area, document a forestry and restoration plan describing removal of trees, understory and wood floor species, effect on the rootzones of any heritage, specimen trees, and activities to prevent introduction of invasive species or species not suited to the environment.
- ☐ 12. Supporting Materials. Additional supporting materials as deemed necessary by the review department to complete review of the proposed project.
- ☐ 13. Petition for Waiver, if applicable. (see waiver form for more details)

City of Fitchburg
Planning/Zoning Department
5520 Lacy Road
Fitchburg, WI 53711
(608-270-4200)

Telecommunication Facilities Permit

Applicant/Contact Person: Central States Tower, IV LLC, Verizon Wireless and DISH Network by: Nathan Ward

Address: 1200 Riva Ridge **Phone Number of Contact Person:** 414.788.1327

City, State, Zip Code: Racine, WI 53402 **Email of Contact Person:** nward@buellconsulting.com

Project Address: 2861 Dellvue Drive **Lot:** _____ **Subdivision:** _____

Parcel ID # 0609-09706-02

Project Description:

Construction of a communications monopole with associated radio equipment and back-up generator.

Application Details:

1. All required documentation, as indicated on the application checklist.
2. Application shall be accompanied by three (3) sets of full-size plans. Two (2) of the three (3) sets ofplans shall be no larger than 11"x17".
3. One electronic pdf copy of your application and all supplemental files is also required to be sent to **planning@fitchburgwi.gov**.

The preceding information is considered to be the minimum information for submission, and the City may require additional information for its review. It is the responsibility of the owner/applicant to insure compliance with all local and state requirements. The below signed applicant acknowledges the above information and hereby submits the attached information for the City's Telecommunications Facilities Permit. Any interpretations provided by city officials as the result of submitting the attached information are based on the submitted plans, and any plan changes may affect the interpretations.

Signed: Nathan Ward Digitally signed by Nathan Ward DN: cn=Nathan Ward, o=Buell, ou, email=nward@buellconsulting.com, c=US Date: 2020.07.01 17:0[illegible]5'00' **Date:** _____

Applicant or Authorized Agent

** Applications are due at least 4 weeks prior to the desired Plan Commission Meeting. This time frame assumes a complete application; if the application is incomplete the Plan Commission date will be adjusted

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FOR CITY USE ONLY

Date Received: _____ **Meeting Date:** _____

Fee Paid: _____ **Request No.:** _____

City of Fitchburg
Planning/Zoning Department
5520 Lacy Road
Fitchburg, WI 53711
(608) 270-4200

Telecommunication Facilities Permit Petition for Waiver

Applicant/Contact Person: Central States Tower, IV LLC, Verizon Wireless and DISH by: Nathan Ward Network

Address: 1200 Riva Ridge Phone: 414.788.1327

City/State/Zip: Racine, WI 53402 Email: nathan.2014@att.net

Project Address: 2861 Dellvue Drive Lot: Subdivision:

Parcel ID # 0609-09706-02

Petition Details:

1. Petition for Waiver shall be submitted concurrent with an application for a telecommunication facilities permit.
2. All documentation that the applicant wishes to be considered in support of their petition should be submitted with this application (narrative of waiver request, plans, etc.)
3. Petition for Waiver shall be accompanied by three (3) copies of all submitted documents.
4. At cost of applicant, an analysis must be prepared by or on behalf of the City that identified all reasonable, technically feasible alternative to the provision of the Telecommunications Facilities & Antennas Ordinance(Chapter 64) for which the applicant is seeking a ruling.
5. One electronic pdf copy of your combined application and all supplemental files is also required to be sent to planning@fitchburgwi.gov.

Waiver Information:

Please indicate what specific waiver(s) are being petitioned for and describe the basis for such waiver. Please see 64-77 for the standards used for granting such waivers

Section 64-76: Co-location Requirements

(a) Use existing telecommunication sites unless the location is a concealed site.

(b) Be located on City-owned sites unless the location is a concealed site.

Basis for Waiver (additional pages may be added):

(a)There are no viable approved towers or buildings within the project search radius. Please reference the RF Sworn Statement included as Exhibit F for further detail.(b)CST/VZW had proposed a new tower installation at McKee Farms Park.Please refer to email correspondence included as Exhibit E from the City of Fitchburg dated February 14, 2017 declining to further pursue the proposal.

Section 64-122: Design Requirements (For City-owned sites)

(a) Any new proposed tower shall have a single equipment building designed and constructed to securely and separately house all necessary equipment for all potential users of the tower.

(b) Any new proposed site shall have a single back-up generator capable of providing back-up power to all potential users of the site. The generator shall comply with all applicable noise and sound regulations, and may be required, by the Plan Commission, to incorporate additional noise abatement measures.

(u) Telecommunication facilities in agricultural districts (A-X, A-T, R-D) shall not be located on land tilled in or after 1980.

(v) Telecommunication facilities in agricultural districts (A-X, A-T, R-D) shall not be located further than 200 feet from a public roadway

Basis for Waiver (additional pages may be added):

(a)VZW equipment is outdoor cabinet design; building not required.(b)Each carrier will require to control their own backup power generator due to network integrity requirements. Not all carriers deploy backup power.

Section 64-122: Design Requirements (For non City-owned sites)

(u) Telecommunication facilities in agricultural districts (A-X, A-T, R-D) shall not be located on land tilled in or after 1980.

(v) Telecommunication facilities in agricultural districts (A-X, A-T, R-D) shall not be located further than 200 feet from a public roadway.

Basis For Waiver (additional pages may be added):

The preceding information is considered to be the minimum information for submission, and the City may require additional information for its review. It is the responsibility of the owner/applicant to insure compliance with all local and state requirements. The below signed applicant acknowledges the above information and hereby submits the attached information for the City's Telecommunications Facilities Permit Petition for Waiver. Any interpretations provided by city officials as the result of submitting the attached information are based on the submitted plans, and any plan changes may affect the interpretations.

Signature: Nathan Ward Digitally signed by Nathan Ward DN: cn=Nathan Ward, o=Buell, ou, email=nward@buellconsulting.com, c=US Date: 2020.07.01 17:08:34 -05'00' **Date:**

** Applications are due at least 4 weeks prior to the desired Plan Commission Meeting. This time frame assumes a complete application; if the application is incomplete the Plan Commission date will be adjusted.

FOR CITY USE ONLY

Date Received:_____ Meeting Date:_____

Telecomm Permit Request No.:_____

BUELL
Quality Saves Money

September 21, 2021

Ms. Sonja Kruesel
City Planner / Zoning Administrator
City of Fitchburg
5520 Lacy Road
Fitchburg, WI 53711

Re: Application for Telecommunication Facilities Permit and Petition for Waiver
Property Address: 2861 Dellvue Drive, Fitchburg, WI 53711
Applicants: Central States Tower IV, LLC, Cellco Partnership d/b/a Verizon Wireless, and DISH Wireless L.L.C.
Parcel Owner: Robert S. Parnell Revocable Living Trust

Dear Ms. Kruesel:

Enclosed for consideration please find Central States Tower IV, LLC ("**CST**"), Cellco Partnership d/b/a Verizon Wireless ("**Verizon Wireless**"), and DISH Wireless L.L.C.'s ("**DISH**") (CST, Verizon Wireless, and DISH, collectively, the "**Applicants**") Plan Commission Application (the "**Application**") to construct a multi-carrier wireless communications facility. I serve as agent for Applicants.

The Wireless Communications Facility has been designed to accommodate additional providers (carriers, wireless internet providers and E911) interested in improving service within the greater Fitchburg area. CST actively markets its tower sites for collocation to all communications users and offers competitive business terms, which are attractive to its customers. We have approached this project thoughtfully, with an emphasis on blending the needs of the local citizenry with the goals of the Applicants.

The proposed facility meets the guidelines in Wis. Stat. § 66.0404 (the "**Wireless Siting Law**").[1] It includes a 120-foot monopole, with a 5-foot lightning rod, for an overall structure height of 105 feet (the "**Monopole**").

[1] The Wireless Siting Law provides that a political subdivision may regulate the siting and construction of a new mobile service support structure and facilities only as provided in Wis. Stat. § 66.0404 and further provides that any ordinances in effect that are inconsistent with Wis. Stat. § 66.0404 may not be applied to, or enforced against, the activity. Wis. Stat. § 66.0404(h) & (i).

WIRELESS SITING LAW

The Wireless Siting Law sets forth six (6) requirements which must be included in an application to construct a new tower.[2] Those requirements, and the Applicants' responses to those requirements, follow. It is my belief that this information and related enclosures fulfill the requirements of the Wireless Siting Law.

1. **The name and business address of, and the contact individual of, the applicant.**

Applicants:	Contact Individual:
Central States Tower IV, LLC 323 S Hale Street, Suite #100 Wheaton, IL 60187	Nathan Ward/Buell Consulting 1200 Riva Ridge Racine, WI 53402 414-788-1327
Cellco Partnership d/b/a Verizon Wireless 1701 Golf Road, Tower 2, Suite 400 Rolling Meadows, IL 60008	Nathan Ward/Buell Consulting 1200 Riva Ridge Racine, WI 53402 414-788-1327
DISH Wireless L.L.C. 8040 Excelsior Drive, Suite 400 Madison, WI 53717	Nathan Ward/Buell Consulting 1200 Riva Ridge Racine, WI 53402 414-788-1327

2. **The location of the proposed or affected support structure.**

Applicants propose to construct a mobile service facility and related mobile support service structure, as defined by the Wireless Siting Law, at 2861 Dellvue Drive, Fitchburg, which bears Parcel ID # 0609-09706-02 (the "**Property**").

The Monopole will be constructed by CST and located within a 39' x 49' leased area, with a 39' x 49'-foot compound (the "**Leased Premises**"), of which 35' x 45' will be fenced, and located in the north central portion of the Property and as depicted in the enclosed survey and construction drawings (the "**Construction Drawings**").

[2] The six requirements are found at Wis. Stat. § 66.0404(2)(b).

3. **The location of the proposed mobile service facility.**

The Wireless Siting Law defines "mobile service facility" as:

> the set of equipment and network components, including antennas, transmitters, receivers, base stations, power supplies, cabling, and associated equipment, that is necessary to provide mobile service to a discrete geographic area, but does not include the underlying support structure.[3]

The Construction Drawings depict where the mobile service facility will be located on the Property (the mobile service facility and the Monopole, collectively, the "**Installation**"). As noted on the enclosed Construction Drawings, sheet VZW A-1, DISH will attach its equipment on the Monopole at the 115-foot centerline. Verizon Wireless will attach its equipment on the Monopole at the 95-foot centerline. Both carriers will route their coax/cabling through the interior of the Monopole, and install their respective equipment near the base of the Monopole within a fenced compound within the Leased Premises. The Installation is designed to accommodate one (1) additional wireless provider besides Verizon and DISH.

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.**

The application proposes installation of a new monopole; therefore, the requirements of this section are not applicable.

5. **If the application is to construct a new mobile service support structure, a construction plan which describes the proposed mobile services 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.**

The Construction Drawings set forth this information.

[3] Wis. Stat. § 66.0404(1)(L).

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.**

Enclosed is a sworn statement prepared by a Verizon Wireless radio frequency engineer (the "**Verizon Sworn Statement**"). The Verizon Sworn Statement includes the search ring which defines the precise geographic area where an additional cell site is needed to expand network coverage or capacity. Contributing factors for search ring placement and shape include the surrounding topography, the demographics and even whether the surrounding areas are urban, suburbs or open land.

The Verizon Sworn Statement outlines why the proposed location was selected and attests there are no existing structures of sufficient height available for collocation within the search ring, making collocation technically infeasible.

DISH is in the process of preparing a sworn statement, which will be submitted upon receipt. The proposed location for the Installation is the best candidate due to Verizon Wireless and DISH's network design needs, the nature of the surrounding area, and current use of the Property.

SETBACK

The Wireless Siting Law provides that if an applicant furnishes an engineering certification showing that a mobile service support structure is designed to collapse within an area smaller than the setback or fall zone area required in a zoning ordinance, that zoning ordinance does not apply unless the political subdivision provides the applicant with substantial evidence that the engineering certification is flawed.[4] Enclosed is such an engineering certification, authored by Sabre Industries, the Monopole manufacturer (the "**Fall Zone Certification**"). The Fall Zone Certification indicates the Monopole has a fall radius of zero (0) feet. The Monopole is set 55.2 feet from the nearest (east) property line and all improvements meet the R-D Rural Development Zoning District setbacks (in the unlikely event of failure) entirely on the Property.

[4] *See* Wis. Stat. § 66.0404(2)(g).

ADDITIONAL DISCUSSION

CST is a national owner and operator of wireless communications infrastructure. CST proposes to operate the Installation within the Leased Premises and will own the Monopole. Verizon Wireless and DISH will install their equipment on the Monopole and place ground equipment within the Leased Premises. It is not uncommon for wireless telecommunications service providers to partner with companies like CST in site development projects.

The proposed Installation results from the needs of both Verizon Wireless and DISH. The fact that two carriers have identified a coverage deficit within the immediate area of the proposed Monopole demonstrates the need for the communications facility. Verizon has determined it has a deficit in its service within the vicinity of the proposed Monopole. In 2020, DISH became a nationwide U.S. wireless carrier through the acquisition of Boost Mobile. DISH is building the nation's first virtualized, standalone 5G broadband network, and has also determined a need for coverage within the immediate area.

The Installation will include a 30-foot wide access and utility easement from the Dellvue Drive public right-of-way. The access and utility easement will require only minimal improvement.

The Installation will provide a great benefit in providing high quality, technologically advanced wireless communication services to the area. The Installation will conform to all applicable laws and regulations, including the national standard's seventh revision for Steel Antenna Towers and Antenna Supporting Structures published by the Telecommunications Industry Association (ANSI/TIA 222-G), Federal Communications Commission, and Federal Aviation Administration ("**FAA**"). Enclosed is the FAA Determination of No Hazard, which further negates any risk posed by the Monopole.

The Installation will fill the void for wireless coverage within the immediate geographic area of the site. Once constructed, the Installation will negate requests for additional towers in the area.

The Property is in the R-D Rural Development Zoning District (the "**R-D District**"), which is described in § 22.343 of the Fitchburg Code of Ordinances as being designated "to accommodate certain commercial uses that have developed in rural areas, including those commercial uses that support agricultural production and provide a holding zone for areas that are intended for future urban development." The Leased Premises has been positioned upon the Property in a location to best fit with the current uses of the Property. The Installation will

require no public financial contribution or result in any additional expenses public facilities and services.

The communication services offered by both DISH and Verizon Wireless are expected to be used by the general public, providing an economic asset to the community. The Installation will enhance E-911 services, further protecting public health, safety, and welfare within Waunakee. Besides strengthening coverage, the Monopole will facilitate deployment of next generation technology.

The Installation will be unmanned. No parking or employee facilities are required. DISH and Verizon Wireless' technicians will visit the site periodically, typically a couple hours once per month, for the security monitoring, testing, monitoring, and maintenance of its equipment. CST will also visit the site periodically to monitor the maintenance and security of the facility. The facility will not generate recognizable traffic. Noise level is limited to periodic generator operation.

FITCHBURG CODE

The City of Fitchburg regulates wireless siting via Chapter 64 of its Municipal Code of Ordinances (the "**Fitchburg Wireless Ordinance**" or the "**Ordinance**"). We note it appears the majority, if not all, of the Fitchburg Wireless Ordinance was enacted in 2009—before the Wireless Siting Law. Hence, the Wireless Siting Law has preempted a number of provisions in the Fitchburg Wireless Ordinance. The Application meets the applicable provisions of the Fitchburg Wireless Ordinance, when read in conjunction with the Wireless Siting Law.

The requirements of the Fitchburg Wireless Ordinance, and the Applicants' responses to those requirements, follow. This information and related enclosures fulfill the applicable requirements of the Fitchburg Wireless Ordinance. We have also noted, where appropriate, those instances where the Wireless Siting Law has preempted the Fitchburg Wireless Ordinance.

- Sections 64-1 to 64-18 of the Fitchburg Wireless Ordinance are reserved for future ordinance provisions, and hence, comments about compliance with those provisions is are unnecessary.
- Section 64-19 of the Fitchburg Wireless Ordinance sets forth relevant definitions, and hence, comments about compliance with those provisions is are unnecessary.

- Section 64-20 of the Fitchburg Wireless Ordinance sets forth penalties for violation of the Ordinance, and hence, comments about compliance with those provisions is are unnecessary.
- Section 64-21 of the Fitchburg Wireless Ordinance sets the purpose of the Ordinance. The Applicants have met the intent and purpose of the Ordinance, and the Wireless Siting Law.
- Section 64-22 of the Fitchburg Wireless Ordinance identifies facilities exempt from the Ordinance. Applicants do not propose a facility exempt from the Fitchburg Wireless Ordinance.
- Sections 64-23 to 64-47 of the Fitchburg Wireless Ordinance are reserved for future ordinance provisions, and hence, comments about compliance with those provisions is are unnecessary.
- Section 64-48 of the Fitchburg Wireless Ordinance identifies the fee schedule and application process for the Monopole. The Applicants agree to adhere to the fee schedule and application process.
- Section 64-49 of the Fitchburg Wireless Ordinance addresses requirements for telecommunications facilities in existence as of August 26, 2008, and hence, comments about this section of the Ordinance are unnecessary.
- Section 64-50 of the Fitchburg Wireless Ordinance addresses requirements for alterations of antennas affixed to an existing telecommunications facility, and hence, comments about this section of the Ordinance are unnecessary.
- Sec. 64-51 of the Fitchburg Wireless Ordinance addresses various tower submittal requirements. That provision, and Applicants' response, is:

Sec. 64-51. – Additional submittal requirements.

In addition to the information required elsewhere in this Code, development applications for towers shall include the following supplemental information:

(1) A report from a qualified and state-licensed professional engineer which:

a. Describes the tower placement, height, and design including a cross section and elevation.

b. Documents the height above grade for all potential mounting positions for collocated antennas and the minimum separation distances between antennas.

c. Describes the tower's capacity, including the number and type of antennas that it can accommodate.

Applicants' Response: The Construction Drawings satisfy 65-51(1) a, b and c.

d. Assesses the impacts of the proposed site to existing telecommunications facilities or other facilities which may be impacted.

e. Identifies all potential mitigation measures which may be necessary to eliminate the impacts to other facilities.

Applicants' Response: There are no adverse impacts from the Application to existing telecommunications or other facilities under 65-51(1) d-e.

f. Describes the area affected in the event of a tower failure or collapse.

Applicants' Response: The Fall Zone Certification indicates the Monopole will remain on the Leased Premises in the event of failure or collapse.

(2) It is preferred that equipment be placed in underground vaults. For all aboveground equipment and towers, a visual analysis shall be prepared by or on behalf of the applicant which identifies the potential visual impacts to the satisfaction of the planning department. The analysis should include views from public areas as well as from nearby private residences. In addition, the analysis shall:

a. Document the floor plan with all dimensions of the equipment building.

b. Provide elevations of all four sides of the equipment building.

c. Include a landscaping plan for the proposed site.

Applicants' Response: 64-51(2) is contrary to the Wireless Siting Law. Verizon Wireless cannot feasibly deploy the Installation via an underground vault. While a visual analysis is outside the scope of the Wireless Siting Law, the Construction Drawings include details of the complete Installation. Visibility of the site will be limited due to its proposed location, galvanized metal finish, existing tree cover and the existing fencing. No equipment building is being proposed. No additional landscaping is proposed due to the limited offsite views.

(3) A complete stormwater analysis for the proposed site.

Applicants' Response: The Application proposes to disturb less than 4,000 square feet, and hence the Application is not subject to erosion control or stormwater management ("**ECSWM**") as defined in Fitchburg Ordinances, Chapter 30, Article II. The ECSWM Permit Process Information and Applicability form is enclosed. Please also refer to sheet C-5 of the Construction Drawings, which references the Fitchburg ESCSWM code and indicates site disturbance at 3,500 square feet.

(4) All technical specifications for the backup generator, including all noise data.

Applicants' Response: The proposed generator is a Generac model SD03, and its specification sheets are enclosed. The generator is installed as a safety precaution and will only be utilized during long-term power disruption. It will be cycled for routine maintenance for a roughly ten (10) minute duration on a monthly basis.

(5) For all wireless telecommunications service towers, a letter of intent committing the tower owner and his/her successors to allow the collocation of other users on the tower if additional users agree in writing to meet reasonable terms and conditions for collocation.

Applicants' Response: With this letter, CST acknowledges that the Installation is designed for multiple carriers and agrees to allow collocation by future carriers under reasonable terms and conditions.

(6) Before the issuance of a building permit, the following supplemental information shall be submitted:

a. Affirmation that the proposed tower will comply with any applicable regulations administered by the Federal Aviation Administration;

Applicants' Response: The Applicants affirm that the Monopole will comply with the applicable regulations of the FAA.

b. A report from a qualified and licensed professional engineer which demonstrates the tower's compliance with the aforementioned structural, electrical, and radio frequency standards;

Applicants' Response: The Applicants affirm that the Monopole will comply with all applicable laws. Upon receipt of zoning approvals, geotechnical, tower and foundation drawings will be completed, and the requisite certifications provided following approval of the Application. We suggest the City mandate that compliance is a condition of the Application's approval.

c. A performance bond guaranteeing to the city the full cost, at the time of removal:

1. To remove the tower;
2. Its accessory buildings;
3. Generators; and
4. All other infrastructure;

if the owner of the site is financially unable to remove the tower and associated facilities; and

Applicants' Response: Upon approval of the Application and before the issuance of the building permit, a performance bond for $10,000 to assure the proper removal of the Monopole and any associated ground equipment will be provided to the City.

d. Three sets of plans approved by the state department of commerce, safety and buildings division for any proposed tower.

Applicants' Response: Three sets of plans have been submitted stamped by a Wisconsin engineer. The Wisconsin Department of Commerce no longer reviews tower plans.

(7) Other information necessary to evaluate the request.

(8) On wooded or partially wooded land area, document a forestry and restoration plan:

a. Describing removal of trees and related understory woody and herbaceous plants;

b. Effect on the root zones and crowns of any heritage or specimen trees; and

c. Activities to prevent introduction of invasive species or species not suited to the environment.

Applicants' Response: Not applicable, as this is not a wooded or partially wooded area.

- Sections 64-52 to 64-75 of the Fitchburg Wireless Ordinance are reserved for future ordinance provisions, and hence, comments about compliance with those provisions is are unnecessary.

- Section. 64-76 of the Fitchburg Wireless Ordinance provides requirements about collocation and locating on existing City-owned sites. That section of the Ordinance, and the Applicants' response, is:

Sec. 64-76. - Collocation requirements.

Unless a waiver is granted, new telecommunications facilities shall:

(1) Use existing telecommunications sites unless the location is a concealed site.
(2) Be located on city-owned sites unless the location is a concealed site.

Applicants' Response: The requirement about locating on City owned properties is prohibited by the Wireless Siting Law. The Applicants had proposed a new tower installation at McKee Farms Park, which is in the vicinity of the Property.

As the enclosed February 14, 2017 communication from the City indicates, the City was not interested entertaining location of a tower at McKee Farms Park.

- Section. 64-77 of the Fitchburg Wireless Ordinance provides a waiver of the underground and City-site collocation requirements in § 64-76 in certain instances. That Section, and the Applicants' response, is:

Sec. 64-77. - Waiver of requirements.

(a) The plan commission may grant a waiver from the collocation requirement in section 64-76 only if it finds that one or more of the following conditions exist:

(1) The planned equipment would exceed the structural capacity of all existing or approved towers or buildings, as documented by a qualified and licensed professional engineer, and the existing or approved tower cannot be reinforced or modified to accommodate planned or equivalent equipment.

(2) The planned equipment would cause interference materially impacting the usability of other existing or planned equipment at all available towers or buildings, as documented by a qualified professional, and the interference cannot be prevented.

(3) Existing or approved towers and buildings within a search radius of one mile cannot accommodate the planned equipment at a height necessary to function reasonably as documented by a professional engineer.

(4) In spite of its best efforts, within 180 days, the applicant was unable to obtain approval to collocate on an existing or approved tower or building. In this case, the city shall have 90 days to assist in negotiating a lease before granting a waiver from section 64-76.

(5) Other reasons that make it impractical to locate the planned telecommunications equipment upon an existing or approved tower or building, or to place the facility in a location as described in this article.

(b) The cost of collocating on an existing facility according to the provisions of this article or the cost of mitigating subsection (a)(1) or (2) of this section cannot be the sole factor in granting a waiver.

Applicants' Response: Section 64-77 conflict with the Wireless Siting Law. The City was not interested in engaging upon the Applicants' inquiry to install a tower at McKee Farms Park. The one-mile radius is not relevant for Verizon Wireless' proposed Installation. As noted in the Wireless Siting Law, the Verizon Sworn Statement indicates there are no viable structures within the search ring for the proposed Installation.

(c) The plan commission may grant a waiver from the requirements of section 64-122(1), (2), (21) and (22) for city-owned sites.

(d) The plan commission may grant a waiver, for non-city-owned sites, from the requirement of section 64-122(21), tillage history, for A-X, A-T, and R-D zoning districts, if the applicant can show, to the satisfaction of the plan commission, that:

(1) No other potential telecommunications site within the proposed service territory, as decided by the plan commission based on input from the city's telecommunications consultant, can meet the tillage requirement and still provide a reasonable level of service.

(2) The proposed telecommunications site is as close as practical to a fence line or nontilled land and located so as not to disrupt farming operations.

(3) The telecommunications site is designed with the least disruption to land with a tillage history.

(e) The plan commission may grant a waiver, for non city-owned sites, from the requirements of section 64-122(22), distance from a public roadway, for A-X, A-T, and R-D zoning districts if the applicant can show, to the satisfaction of the plan commission, the following:

(1) Meeting the 200-foot distance from a public roadway will cause the use of more land with a tillage history than a site exceeding the 200-foot requirement.

(2) An existing driveway, fire lane, or other means of appropriate access effectively serves the proposed telecommunications site.

(3) Where no driveway exists to the proposed telecommunications site, the applicant shall show that there is no other feasible location that can be provided within 200 feet of a public roadway, or on an existing public access, and not cause disruption of land with a tillage history or to wooded or partially wooded lands.

Applicants' Response: Section 64-77 (c)-(e) is not applicable, as there is no history of tillage on the Property.

- Section 64-78 addresses the mechanism for appealing for a waiver of the requirements under § 64-77. Because § 64-77 does not apply to the Applicants, no waiver is being requested, and § 64-78 is not applicable to the Application.
- Sections 64-79 to 64-99 of the Fitchburg Wireless Ordinance are reserved for future ordinance provisions, and hence, comments about compliance with those provisions is are unnecessary.
- Sections 64-100 to 104 of the Fitchburg Wireless Ordinance addresses requirements associated with location of telecommunications facilities on City-owned sites. The Application does not propose installation on a City-owned site, and hence, these sections of the Ordinance are not applicable to the Application.
- Sections 64-105 to 64-121 of the Fitchburg Wireless Ordinance are reserved for future ordinance provisions, and hence, comments about compliance with those provisions is are unnecessary.

- Section 64-122 of the Fitchburg Wireless Ordinance addresses design requirements and use restrictions for telecommunications installations. That Section, and the Applicants' response, is:

Sec. 64-122. - Tower and antenna design requirements.
Proposed or modified towers and antennas shall meet the following design requirements:

(1) Any new proposed tower shall have a single equipment building designed and constructed to securely and separately house all necessary equipment for all potential users of the tower.

Applicants' Response: Equipment housing standards in the telecommunications industry have evolved since this Section of the Ordinance was enacted in 2009. The provision is contrary to the Wireless Siting Law. No equipment building is proposed for the proposed Installation, as Verizon Wireless and many other carriers utilize outdoor equipment cabinet faculties, which are smaller and less visually intrusive than equipment buildings. Leased Premises size is limited and is planned as a two (2) carrier site. If this would constitute a waiver, please consider this our waiver request.

(2) Any new proposed site shall have a single backup generator capable of providing backup power to all potential users of the site. The generator shall comply with all applicable noise and sound regulations, and may be required, by the plan commission, to incorporate additional noise abatement measures.

Applicants' Response: Generator detail is enclosed. The requirement of a single generator serving the Leased Premises is contrary to the Wireless Siting Law. At this time, only one generator is proposed; however, an additional carrier at the site may request an additional generator. Carriers do not utilize joint generators, as the ability to exercise control over the maintenance and capabilities of the generator is essential to each carrier's commitment to network reliability.

(3) Towers and antennas shall be designed to blend into the surrounding environment through the use of color and design, except in instances where the color is dictated by federal or state authorities such as the Federal Aviation Administration.

Applicants' Response: The Monopole will be galvanized metal finish and antennas generally of a neutral grey or off-white.

(4) The size of the structure shall be in proportion with the neighborhood and shall not unreasonably disrupt the aesthetic character of the neighborhood.

Applicants' Response: The Monopole height is well within the 200 foot height limitation specified in § 66.0404(4)(u) of the Wireless Siting Law.

(5) Telecommunications towers shall be of a monopole design unless the plan commission determines that an alternative design is preferred in cases where structural or design considerations, neighborhood compatibility, location availability or the number of potential collocations warrants this consideration.

Applicants' Response: The Monopole's design complies with this requirement.

(6) All towers shall be designed so that the tower site and setbacks will contain guyed wires, debris, and the tower in the event of a collapse.

Applicants' Response: The Fall Zone Certification confirms that the Monopole complies with this requirement.

(7) Any proposed new wireless telecommunications facility, unless a concealed site, shall be designed, in all respects, to accommodate at least four users.

Applicants' Response: This provision is contrary to the Wireless Siting Law. CST has a vested interest in maximizing additional carriers at its communications sites. However, the ground space at the Property does not feasibly allow over two carriers to locate within the Leased Premises. If this would constitute a waiver, please consider this our waiver request.

(8) No part of any communications antenna or tower, equipment, guyed wires, or braces shall at any time extend across or over any part of the public right-of-way, public street, highway, sidewalk, or recreation trail.

Applicants' Response: The Application complies with this requirement.

(9) Towers constructed within residential zoning districts shall meet the underlying zoning setbacks in addition to a setback equal to the height of the tower plus ten feet from any lot line.

Applicants' Response: The Application does not propose locating the Monopole in a residential zoning district. (Further, this provision is contrary to the Wireless Siting Law.)

(10) Telecommunications facilities shall meet all standard setback and other requirements for the underlying zoning.

Applicants' Response: The Monopole is proposed to be constructed in the R-D District. Although this provision is contrary to the Wireless Siting Law, the Monopole meets the R-D District setback requirements.

(10)Towers shall not be located between a principal structure and a public street, unless the tower is located within an industrial zoning district and the placement meets all setbacks and other requirements of the underlying zoning district.

Applicants' Response: This Section does not apply to the Application.

(11)If the parcel has no principal structure, the plan commission shall not approve a tower unless it determines that the construction of the tower shall not interfere with a typical principal structure consistent with the zoning and will not conflict with the provisions of this article if the structure were built.

Applicants' Response: This Section does not apply to the Application, as the Property has a principal structure.

(12)The setback shall be measured between the base of the tower located nearest the property line and the actual property line. Equipment structures shall be measured in a manner common to zoning code standards.

Applicants' Response: The Monopole meets the setback requirements of the Wisconsin Zoning Law, and the more stringent setback requirements of the Fitchburg Wireless Ordinance.

(13)A tower's setback, as required by this article, may be reduced or its location in relation to a public street varied, at the discretion of the plan commission, to allow the integration of a tower into an existing or proposed structure such as a church steeple, building cupola, silo, light standard, power line support device or similar structure. Facilities shall comply with underlying zoning.

Applicants' Response: The Monopole meets the setback requirements of the Wisconsin Zoning Law, and the more stringent setback requirements of the Fitchburg Wireless Ordinance.

(14)The height of a telecommunications tower shall not exceed 150 feet.

Applicants' Response: The Monopole meets the permissible height restrictions of the Wisconsin Zoning Law, and the more stringent height requirements of the Fitchburg Wireless Ordinance.

(15)Multiuser towers may exceed the height requirements as stated in subsection (15) of this section by up to an additional 50 feet provided that a minimum of six users are

being accommodated in the design, including the design of the equipment building and the backup generator.

Applicants' Response: The Monopole meets the permissible height restrictions of the Wisconsin Zoning Law, and the more stringent height requirements of the Fitchburg Wireless Ordinance.

(16) The plan commission may approve a tower in excess of the height limits in subsection (15) of this section if it rules that the additional height is in the public interest and does not pose a public safety concern in the area for which it is proposed.

Applicants' Response: The Applicants are not making a request that would invoke this Section.

(17) Towers shall be constructed out of metal or other nonflammable material, unless specifically permitted by the plan commission to be otherwise.

Applicants' Response: The Monopole will be constructed of galvanized metal.

(18) Telecommunications facilities shall ensure that sufficient anticlimbing measures have been incorporated into the facility to reduce the potential for trespass and injury.

Applicants' Response: The Leased Premises will be fenced to deter trespassing.

(19) Every telecommunications facility shall be designed and constructed so as to comply with the requirements of Wis. Admin. Code chs. COMM 60 through 66, as amended from time to time.

Applicants' Response: The facility is designed in accordance with all applicable laws, including the Wireless Siting Statue.

(20) Telecommunications facilities in agricultural districts A-X, A-T and R-D shall not be located on land tilled in or after 1980.

Applicants' Response: This Section does not apply to the Application.

(21) Telecommunications facilities in agricultural districts A-X, A-T and R-D shall not be located further than 200 feet from a public roadway.

Applicants' Response: This Section does not apply to the Application.

- Section 64-123 of the Fitchburg Wireless Ordinance addresses lighting of the Monopole. The Applicants agree to abide by the requirements of § 64-126.

- Section 64-124 of the Fitchburg Wireless Ordinance addresses prohibits placement of signage, other than for warning or equipment information, at the Property. The Applicants agree to abide by the requirements of § 64-124.
- Section 64-125 of the Fitchburg Wireless Ordinance addresses screening of ground equipment. The ground equipment will be screened by its location on the Property and opaque fencing along Dellvue Drive.
- Section 64-126 of the Fitchburg Wireless Ordinance addresses removal of unused telecommunications facilities and related permit expiration. The Applicants agree to abide by the requirements of § 64-126.
- Section 64-127 of the Fitchburg Wireless Ordinance requires that the proposed Installation will not interfere with public safety telecommunications. The Applicants agree to abide by this requirement.

CONCLUSION

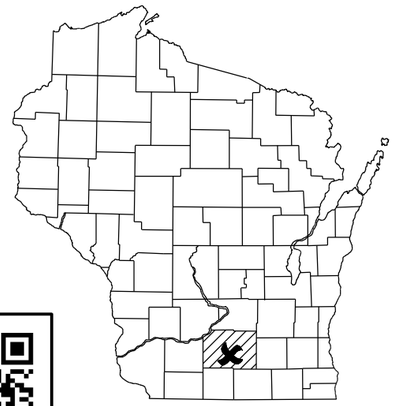
We look forward to working with you to help advance wireless communications to the residents, guests, and workforce in Fitchburg. Please contact me at 414-788-1327 or by e-mail at nward@buellconsulting.com if you have questions, or require additional information.

Very truly yours,

BUELL CONSULTING INC.

By: */s/ Nathan Ward*
Nathan Ward
Agent for Central States Tower IV, LLC & Cellco Partnership d/b/a Verizon Wireless

Enclosures
cc: Attorney Rodney Carter, Husch Blackwell LLP (legal counsel for Applicants)

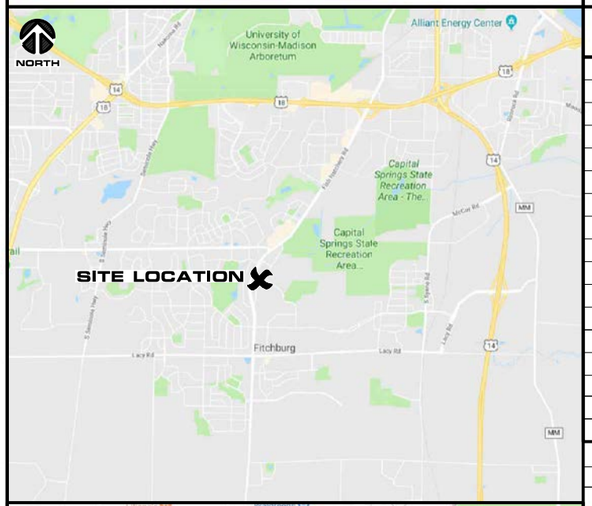


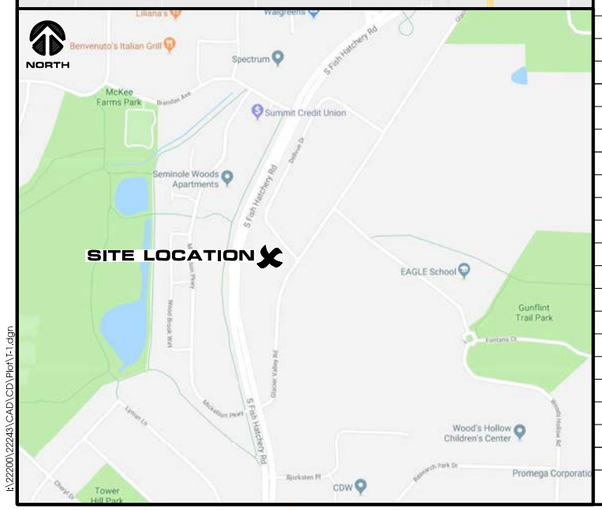
verizon

CST

NORTH FITCHBURG (266596)
FITCHBURG, WISCONSIN
120' MONOPOLE TOWER

SITE LOCATION MAPS





SHEET INDEX

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C-1	SITE PLAN
C-2	COMPOUND PLAN
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C-5	SITE GRADING PLAN
A-1	TOWER ELEVATION
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G-1	GROUNDING PLAN
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1-3	SURVEY *
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VZW S-1	EQUIPMENT DETAILS
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VZW G-2	GROUNDING DETAILS
VZW G-3	GROUNDING DETAILS

* COMPLETED BY OTHERS

DIRECTORY

CLIENT:
VERIZON WIRELESS PERSONAL COMMUNICATIONS LP
d/b/a VERIZON WIRELESS
1701 GOLF ROAD
TOWER 2, SUITE 400
ROLLING MEADOW, IL 60008
NON-EMPL-CONSULTANT-VENDOR MGMT
NET ENGINEERING
CONTACT: ALLEN WAITES
PHONE: 630.291.7845

ENGINEERING COMPANY:
EDGE CONSULTING ENGINEERS, INC.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
CONTACT: PAUL MOLITOR
PHONE: 608.644.1449

SITE ACQUISITION:
BUELL CONSULTING, INC.
1360 ENERGY PARK DRIVE
SUITE 210
ST. PAUL, MN 55108
CONTACT: NATHAN WARD
PHONE: 414.788.1327

SURVEYOR:
MERIDIAN SURVEYING, LLC.
N9637 FRIENDSHIP DRIVE
KAUKAUNA, WI 54130
CONTACT: CRAIG KEACH
PHONE: 920.993.0881

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS/CONDITIONS ON SITE. IMMEDIATELY NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO PERFORMING ANY WORK OR BE RESPONSIBLE FOR THE SAME.

PROJECT INFO

SITE LOCATION:
E911 ADDRESS TO BE DETERMINED
2861 DELLVUE DRIVE
FITCHBURG, WI 53711

PROPERTY OWNER:
ROBERT S. PARNELL
REVOCABLE LIVING TRUST
2861 DELLVUE DRIVE
FITCHBURG, WI 53711

TOWER OWNER:
CENTRAL STATES TOWERS IV, LLC
323 S. HALE STREET, SUITE 100
WHEATON, IL 60187
CONTACT: MICHELLE ROJAS
PHONE: 630.221.8500
SITE NAME: NORTH FITCHBURG
SITE #: WI-00-1458

1A INFORMATION (NAD 1983/2011)
-TOWER BASE-
LAT: 43°-00'-40.13"
LONG: 89°-25'-40.25"
GROUND ELEVATION (NAVD 88):
939.6'

PLSS INFORMATION:
A PART OF LOT 6, ASSESSOR'S PLAT 2
LOCATED IN THE SE1/4 OF THE NE1/4,
SECTION 9, T.6N, R.9E,
CITY OF FITCHBURG,
DANE COUNTY
WISCONSIN

TAX PARCEL NUMBER:
060909170602

ZONED: R-D (RURAL DEVELOPMENT)

SCOPE OF WORK

PROJECT DESCRIPTION:

PROJECT TYPE:	120' MONOPOLE TOWER
EQUIPMENT:	8'-0" x 10'-0" CONCRETE EQUIP. PAD
GENERATOR:	EXTERIOR DIESEL GENERATOR

RF DESCRIPTION (VERIFY WITH RFDS):

PRO: ANTENNA C/L:	95' ABOVE T.O.C.
ANTENNAS:	(6) PRO. PANEL ANTENNAS
	(3) PRO. AIR6449 ANTENNA/ RADIO(S)
CABLES:	(1) PRO. HYBRID LINE
EQUIPMENT:	(1) PRO. SURGE PROTECTOR
	(6) PRO. REMOTE RADIO UNITS

UTILITY INFO

ELECTRIC PROVIDER:
NAME: MADISON GAS & ELECTRIC
CONTACT: ROSS GREANLEAF
PHONE: 608.252.4743

FIBER OPTIC PROVIDER:
NAME: ONE FIBER
CONTACT: STEVE KLICKER
EMAIL: steven.klicker@verizon.com

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN, CALL DIGGER'S HOTLINE

TOLL FREE
1-800-242-8511
FAX A LOCATE 1-800-338-3860

WI STATUTE 182.0175 (1974) REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE

ENGINEER SEAL:

WISCONSIN
DUSTIN A. BROOKS
47220-6
MADISON, WI
09-21-21
PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THIS PLAN SET WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION OTHER THAN THE EXCEPTIONS NOTED IN THE SHEET INDEX, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WISCONSIN.

Signature:

Date: 09-21-21

Edge
Consulting Engineers, Inc.
624 Water Street
Prairie du Sac, WI 53578
608.644.1449 voice
608.644.1549 fax
www.edgeconsult.com

SHEET TITLE:
TITLE SHEET
NORTH FITCHBURG (266596)
FITCHBURG, WISCONSIN

PRELIMINARY DWGS:	INI:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH

STAMPED PERMIT DWGS:	

STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN

CHECKED BY: PCM
PLOT DATE: 9/21/2021
PROJECT #: 22243
FILE NAME: T-1.dgn

SHEET NUMBER:
T-1

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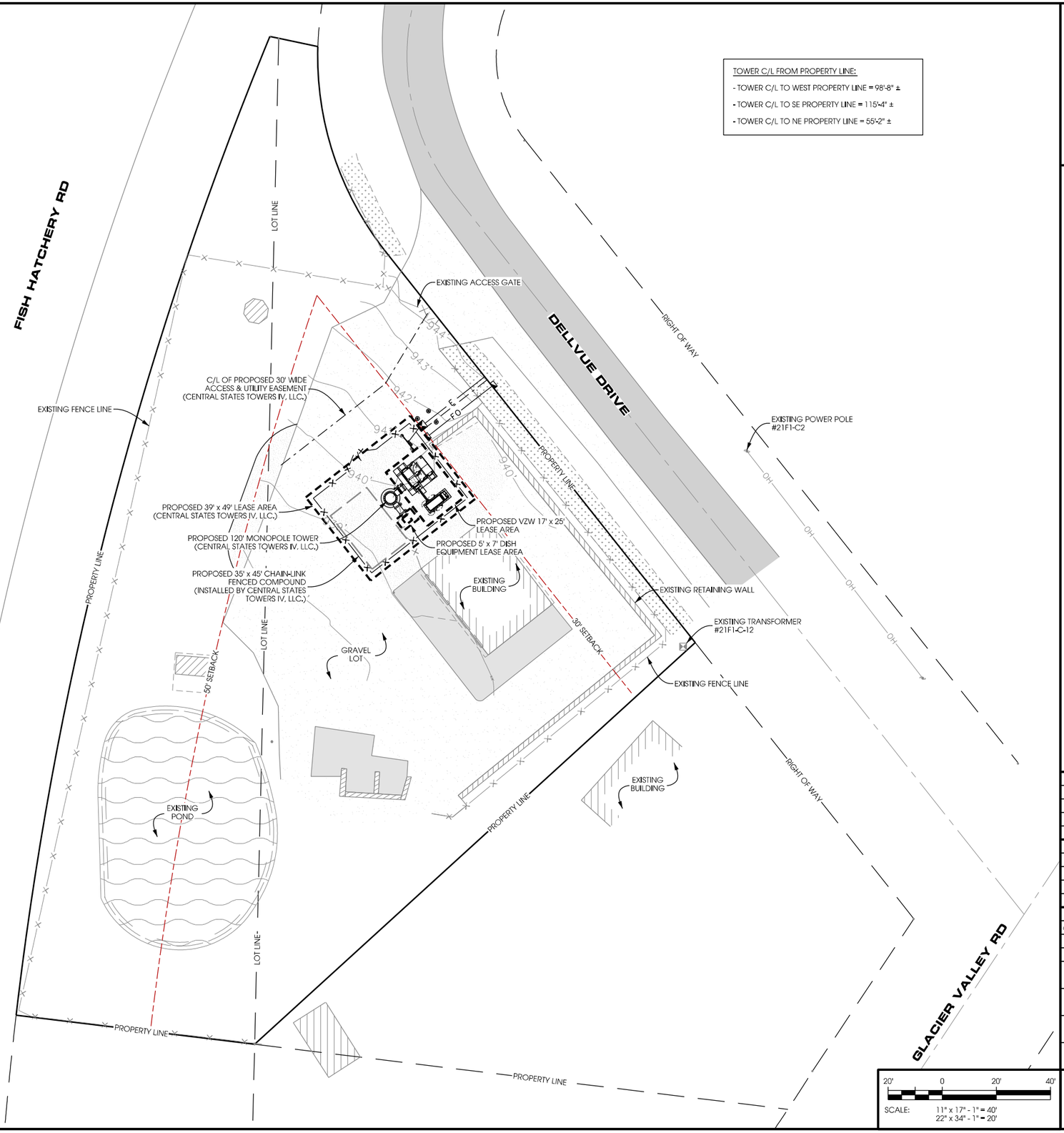
NORTH



AERIAL OVERVIEW OF SITE

Edge
Consulting Engineers, Inc.
624 Water Street
Prairie du Sac, WI 53578
608.644.1449 voice
608.644.1549 fax
www.edgeconsult.com

SITE PLAN

NORTH FITCHBURG (2666596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN

CHECKED BY: PCM

PLOT DATE: 9/21/2021

PROJECT #: 22243

FILE NAME: C-1.dgn

20' 0 20' 40'

SCALE: 11" x 17" - 1" = 40'
22" x 34" - 1" = 20'

SHEET NUMBER: **C-1**

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SITE OVERVIEW (LOOKING SE)

NORTH

LOT LINE

50' SETBACK

30' SETBACK

C/L OF PROPOSED 30' WIDE ACCESS & UTILITY EASEMENT (CENTRAL STATES TOWERS IV, LLC.)

C/L OF PROPOSED 20' WIDE UTILITY EASEMENT (CENTRAL STATES TOWERS IV, LLC.)

PROPOSED BURIED UTILITY CONDUITS; SOURCE TO BE DETERMINED

EXISTING FENCE SECTION

PROPOSED VZW FIBER VAULT

EXISTING LANDSCAPING

PROPERTY LINE

EXISTING RETAINING WALL

PROPOSED BOLLARD; TYP. OF 3

PROPOSED TRANSFORMER

PROPOSED VZW FIBER VAULT

PRO. UTILITY RACK (INSTALLED BY CENTRAL STATES TOWERS IV, LLC.)

PROPOSED 14' WIDE ACCESS GATE (INSTALLED BY CENTRAL STATES TOWERS IV, LLC.)

PRO. 14'-0" ACCESS GATE

PROPOSED 39' x 49' LEASE AREA (INSTALLED BY CENTRAL STATES TOWERS IV, LLC.)

PROPOSED VZW 17' x 25' LEASE AREA

PROPOSED 120' MONOPOLE (INSTALLED BY CENTRAL STATES TOWERS IV, LLC.)

PROPOSED 35' x 45' FENCED COMPOUND

PROPOSED GRAVEL DRIVE DRIVE EXTENSION IF NEEDED

14'-11" ±

10'-0" ±

22'-6"

2'-0"

PROPOSED 5' x 7' DISH EQUIPMENT LEASE AREA

17'-6"

PROPOSED 32" x 32" DISH CHARLES HEX CUBE

FUTURE CARRIER LEASE AREA

EXISTING FENCE SECTION & GATE TO BE REMOVED

PROPOSED CST 35'-0" FENCED COMPOUND

PROPOSED 39'-0" LEASE AREA (CST)

PROPOSED CST 45'-0" FENCED COMPOUND

PROPOSED 49'-0" LEASE AREA (CST)

ACCESS DOOR

EXISTING BUILDING

OVERHEAD DOOR

CONCRETE

GRAVEL LOT

941'

942'

940'

938'

PROPOSED LEASE AREA (LOOKING WEST)

5' 0 5' 10'

SCALE: 11" x 17" - 1" = 10'
22" x 34" - 1" = 5'

Edge
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COMPOUND PLAN
NORTH FITCHBURG (2666596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN
CHECKED BY: PCM	
PLOT DATE: 9/21/2021	
PROJECT #: 22243	
FILE NAME: C-2.dgn	

SHEET NUMBER:

C-2

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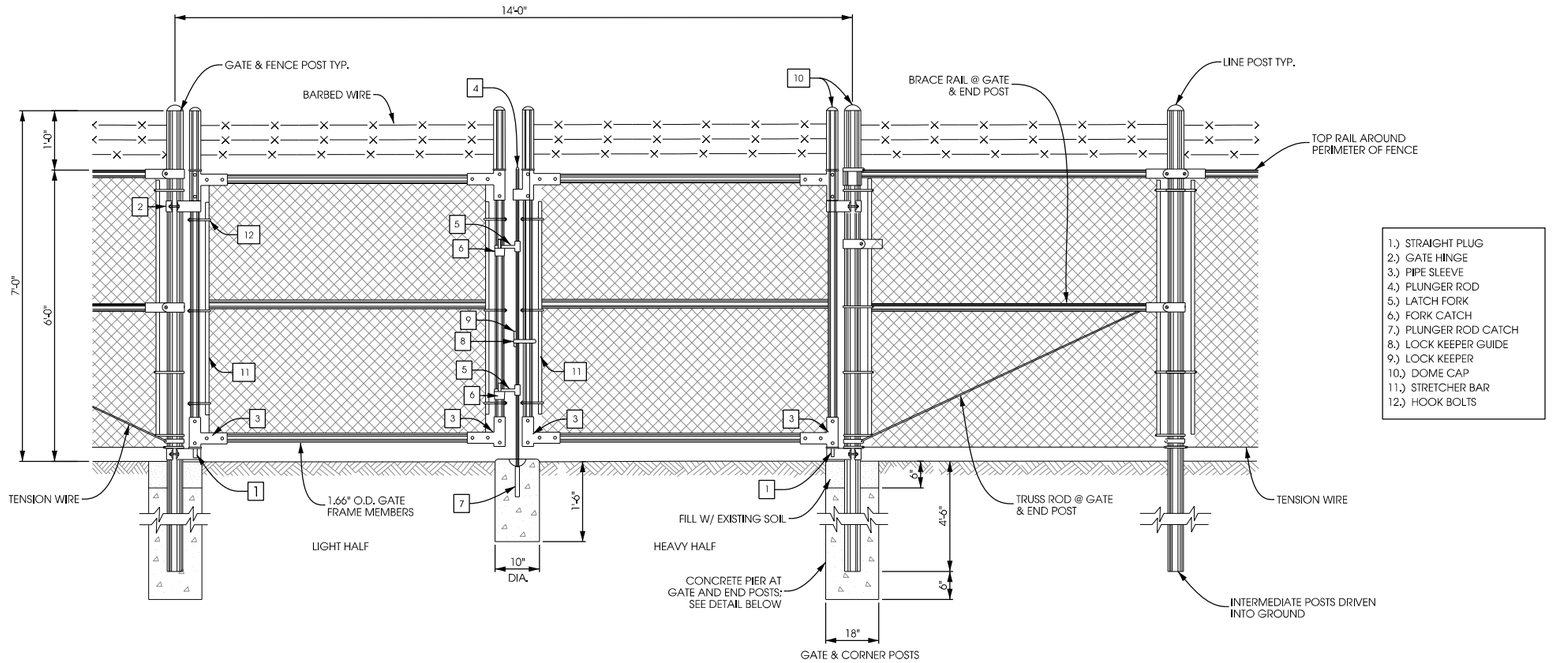


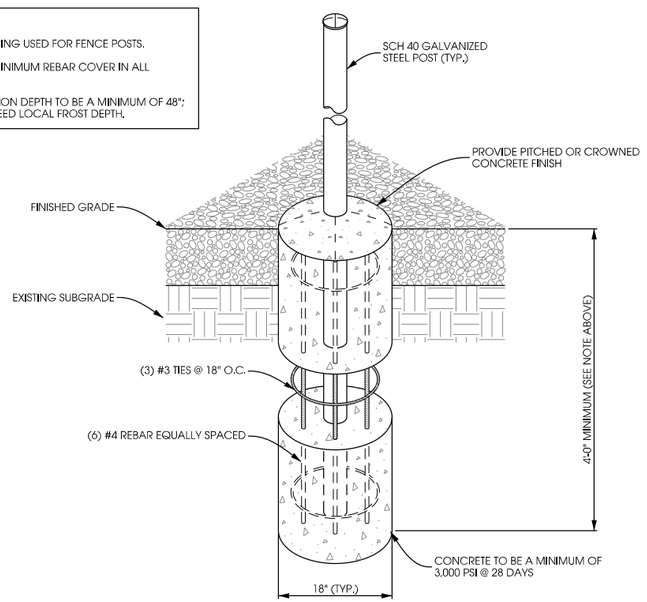
A **VEHICLE GATE**
SCALE : NTS

NOTES:

PIER REINFORCING USED FOR FENCE POSTS.

MAINTAIN 3" MINIMUM REBAR COVER IN ALL DIRECTIONS.

PIER FOUNDATION DEPTH TO BE A MINIMUM OF 48"; DEPTH TO EXCEED LOCAL FROST DEPTH.



B **FENCE PIER FOUNDATION DETAIL**
SCALE: 11" x 17" - 1/2" = 1'-0"
22" x 34" - 1" = 1'-0"

FENCING NOTES
(IF DIFFERENT SPECIFICATION THAN PAGES (SP-1 AND SP-2) THESE NOTES WILL SUPERCEDE)

ALL FENCING USED BY THE GC MUST MEET OR EXCEED THE FOLLOWING:

HARDWARE SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED. 9 GAUGE 2 INCH OR SMALLER MESH.

ALL POSTS AND BRACING MUST BE SCHEDULE 40

AROUND THE COMPOUND PERIMETER, THE GC SHALL INSTALL A COMMERCIAL-GRADE GALVANIZED 7' HIGH CHAIN LINK FENCE WITH A TOP RAIL THREE STRANDS OF BARBED WIRE FACING OUT AT THE TOP, AND A CONTINUOUS STRETCH WIRE AT THE BOTTOM. THE GC SHALL REFER TO SITE PLAN FOR DIMENSIONS.

ON COLLOCATIONS THE NEW FENCING MUST MATCH EXISTING FENCING.

THE GC SHALL PROVIDE 14' WIDE ENTRANCE (REFER TO DRAWINGS FOR SITE SPECIFIC DETAILS). THE GC SHALL BOND GATE TO FENCE WITH FLEXIBLE BOND STRAPS. THE TOP RAIL OF THE FENCE WILL BE ELECTRICALLY BONDED AT ALL CORNERS (4) AND AT ALL JOINTS BY THE GC.

THE FENCE IS TO BE CADWELDED BY THE GC TO THE TOWER GROUND RING.

** IN ADDITION TO ALL OTHER NECESSARY SAFETY AND CUSTOMARY PRECAUTIONS, THE GC IS OBLIGATED TO TAKE; THE GC SHALL INSTALL ORANGE TEMPORARY FENCING AROUND THE PERIMETER, WHICH IS OF SUFFICIENT HEIGHT AND STRUCTURAL INTEGRITY TO PREVENT ACCESS TO THE SITE WHEN THE GC IS NOT PRESENT AT THE PROJECT SITE.

Edge
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Prairie du Sac, WI 53578
608.644.1449 voice
608.644.1549 fax
www.edgeconsult.com

FENCE DETAILS
NORTH FITCHBURG (266596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
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STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN

CHECKED BY: PCM

PLOT DATE: 9/21/2021

PROJECT #: 22243

FILE NAME: C-3.dgn

SHEET NUMBER: **C-3**

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NOTES:

REMOVE ALL TOPSOIL, ORGANIC MATERIAL AND WET OR POOR SOILS ALONG ACCESS DRIVE. CONTRACTOR TO REVIEW SITE CONDITIONS AND CONSULT GEOTECHNICAL REPORT FOR ANTICIPATED DEPTH OF SOILS THAT WILL REQUIRE REMOVAL. IF POOR SOILS ARE ENCOUNTERED AT A DEPTH OF MORE THAN 12", CONTACT CONSTRUCTION MANAGER FOR GUIDANCE.

SUBGRADE TO BE COMPACTED TO 95% MODIFIED PROCTOR AND VERIFIED BY PROOF-ROLL OR GEOTECHNICAL RECOMMENDATIONS.

CONSULT GRADING PLAN OR SITE PLAN FOR FINAL SITE GRADES.

RESTORATION:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR GRAVEL ACCESS DRIVE REPAIR AND RESTORATION FOLLOWING CONSTRUCTION COMPLETION. ANY DISTURBED OR DAMAGED AREAS SHALL BE RESTORED TO THEIR ORIGINAL OR BETTER CONDITION UPON COMPLETION OF WORK.

GRAVEL DRIVE REQUIREMENTS:

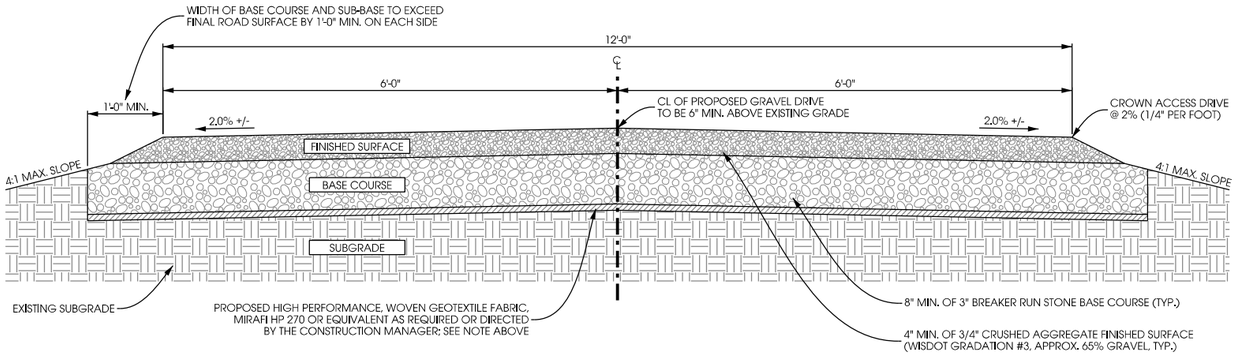
THICKNESS OF GRAVEL ACCESS DRIVE BASE COURSE TO BE DETERMINED BASED ON THE EXISTING SOIL BEARING CAPACITY (PER UFC DESIGN RECOMMENDATIONS):

BEARING CAPACITY	REQ'D AGGREGATE THICKNESS
1000 PSF	* 16" MIN.
1500 PSF	12" MIN.
≥ 2000 PSF	8" MIN. (SEE DETAIL)

IF POOR OR WET SOILS ARE PRESENT BELOW BASE COURSE, CONTRACTOR TO INSTALL 6" MIN. WELL-GRADED GRAVEL/SAND SUB-BASE TO FACILITATE ADEQUATE DRAINAGE AND STABILITY.

FOR ACCESS DRIVE SLOPES GREATER THAN 10%, CONTRACTOR TO USE MIRAFI HP 270 OR EQUIVALENT GEOTEXTILE FABRIC.

CONSULT GEOTECHNICAL REPORT FOR ANTICIPATED SOIL CONDITIONS.



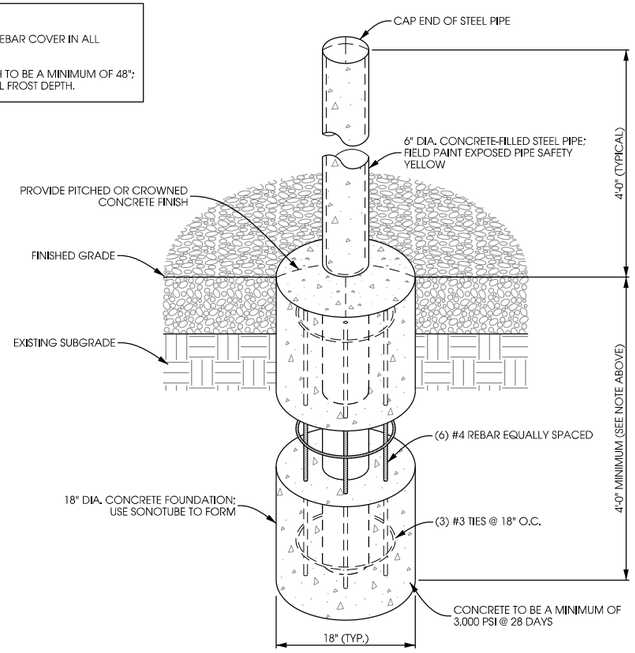
A **GRAVEL DRIVE CROSS SECTION**

SCALE: NTS

NOTES:

MAINTAIN 3" MINIMUM REBAR COVER IN ALL DIRECTIONS.

PIER FOUNDATION DEPTH TO BE A MINIMUM OF 48"; DEPTH TO EXCEED LOCAL FROST DEPTH.



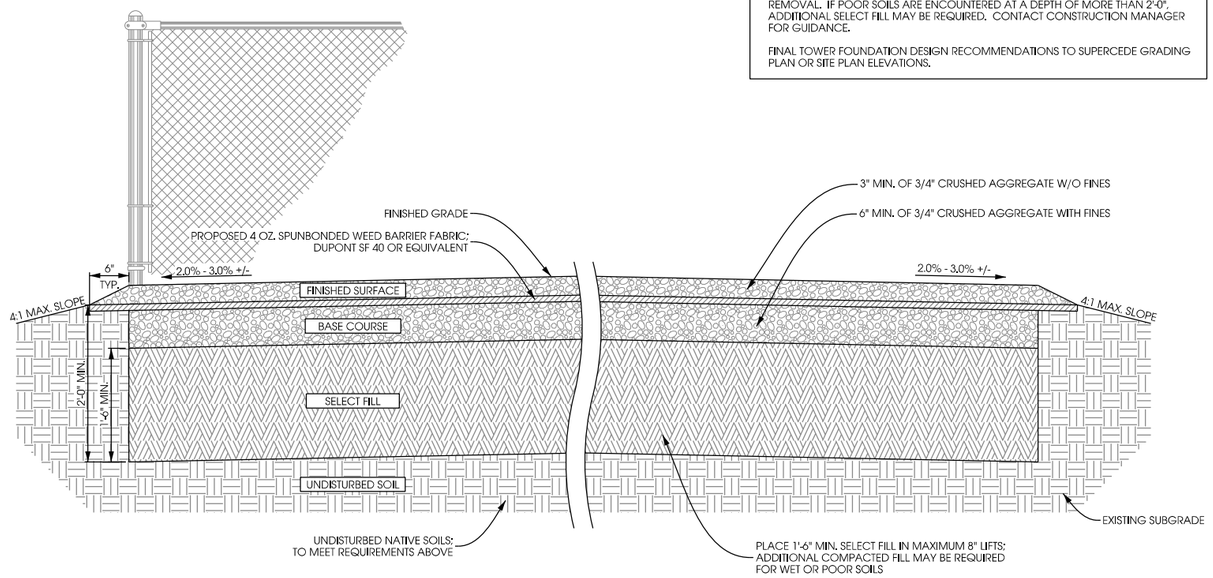
B **PIPE BOLLARD DETAIL**

SCALE: NTS

NOTES:

REMOVE ALL TOPSOIL, ORGANIC MATERIAL AND WET OR POOR SOILS WITHIN COMPOUND AREA. CONTRACTOR TO REVIEW SITE CONDITIONS AND CONSULT GEOTECHNICAL REPORT FOR ANTICIPATED DEPTH OF SOILS THAT WILL REQUIRE REMOVAL. IF POOR SOILS ARE ENCOUNTERED AT A DEPTH OF MORE THAN 2'-0", ADDITIONAL SELECT FILL MAY BE REQUIRED. CONTACT CONSTRUCTION MANAGER FOR GUIDANCE.

FINAL TOWER FOUNDATION DESIGN RECOMMENDATIONS TO SUPERCEDE GRADING PLAN OR SITE PLAN ELEVATIONS.



C **COMPOUND CROSS SECTION**

SCALE: NTS

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SHEET TITLE:

CONSTRUCTION DETAILS

NORTH FITCHBURG (266596)

FITCHBURG, WISCONSIN

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN

CHECKED BY: PCM

PLOT DATE: 9/21/2021

PROJECT #: 22243

FILE NAME: C-4.dgn

SHEET NUMBER:

C-4

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GRADING PLAN & RESTORATION NOTES

1. IN ACCORDANCE WITH WISCONSIN STATUTE 182.0175, DAMAGE TO TRANSMISSION FACILITIES, EXCAVATOR SHALL BE SOLELY RESPONSIBLE TO PROVIDE ADVANCE NOTICE TO THE DESIGNATED "ONE CALL SYSTEM" NOT LESS THEN THREE WORKING DAYS PRIOR TO COMMENCEMENT OF ANY EXCAVATION REQUIRED TO PERFORM WORK CONTAINED ON THIS DRAWING. EXCAVATION SHALL COMPLY WITH ALL OTHER REQUIREMENTS OF THIS STATUTE RELATIVE TO EXCAVATOR'S WORK.
2. EXISTING CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR AND DISCREPANCIES REPORTED TO ENGINEER PRIOR TO STARTING OF WORK.
3. FINISHED SITE TO BE GRADED TO MAINTAIN POSITIVE DRAINAGE IN ALL AREAS.
4. NO PROPOSED EARTHWORK SHALL HAVE A GREATER SLOPE THAN 10:1.
5. ALL DISTURBED GRASS/TURF AREAS SHALL BE RESTORED WITH TOPSOIL, SEED AND EROSION MAT (CLASS 1, TYPE B). TOPSOIL TO BE 6-INCHES MINIMUM. SEED TO BE WDOT NO. 40 MIX. SEEDING TO BE COMPLETED BY SEPTEMBER 15th, OR OCTOBER 15th FOR TEMPORARY SEEDING. EROSION CONTROL MEASURES TO BE MAINTAINED UNTIL FINAL SITE RESTORATION.
6. WATER AND MAINTAIN RESTORED AREAS FOR A MINIMUM OF 2 WEEKS OR WHEN GRASS IS OVER 3-INCHES IN HEIGHT. COMPLETE TURF GROWTH IN ALL AREAS IS REQUIRED PRIOR TO FINAL ACCEPTANCE.

NORTH

LOT LINE

EXISTING FENCE SECTION

PROPOSED BURIED UTILITY CONDUITS; SOURCE TO BE DETERMINED

C/L OF PROPOSED 30' WIDE ACCESS & UTILITY EASEMENT (CENTRAL STATES TOWERS IV, LLC.)

C/L OF PROPOSED 20' WIDE UTILITY EASEMENT (CENTRAL STATES TOWERS IV, LLC.)

PROPOSED BOLLARD; TYP. OF 3

EXISTING LANDSCAPING

PROPERTY LINE

PROPOSED TRANSFORMER

P: 941.25
E: 941.38

P: 940.85
E: 940.85

EXISTING RETAINING WALL

PROVIDE ADDITIONAL GRAVEL TO RAISE THE GRADES AT THE BASE OF THE RETAINING WALL TO PROVIDE POSITIVE DRAINAGE TO THE SOUTH

PRO. UTILITY RACK

PROPOSED VZW FIBER VAULT

P: 940.78
E: 940.09

PROPOSED 14' WIDE ACCESS GATE

EXISTING FENCE SECTION

P: 940.04
E: 940.04

PROPOSED GRAVEL DRIVE DRIVE EXTENSION (IF NEEDED). MATCH EXISTING GROUND ELEVATIONS AND DRAINAGE PATTERNS DURING INSTALLATION OF GRAVEL DRIVE

GRADING EXTENTS (TYP.)

GRADE AREA TO DRAIN SOUTHWEST THROUGH CORRIDOR BETWEEN NEW COMPOUND AND EXISTING BUILDING

PROPOSED 120' MONOPOLE

P: 939.23
E: 939.23

PROPOSED FENCED COMPOUND

P: 939.71
E: 939.71

TOC: 940.50
P: 939.85
E: 939.71

NOTE:
IMPERVIOUS SURFACE RATIO = 39.3%

DISTURBED AREA NOTES:
1. THE GRADING AREA SHOWN ON THIS SHEET IS APPROXIMATELY 3,500 SQ.FT. WHICH INCLUDES THE GRADING FOR THE COMPOUND AREA, THE NEW GRAVEL DRIVE, AND UTILITY INSTALLATION.
2. THE INTENT OF THIS PROJECT IS TO STAY UNDER 4,000 SQ.FT. OF DISTURBED AREA SO AS NOT TO TRIGGER CITY OF FITCHBURG EROSION CONTROL AND STORMWATER MANAGEMENT PERMITTING.
3. IF CONTRACTOR'S OPERATIONS RESULT IN THE TOTAL DISTURBED AREA EXCEEDING 4,000 SQ.FT., CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING, APPLYING FOR, PAYING APPLICABLE FEES, AND OBTAINING ALL NECESSARY EROSION CONTROL AND STORMWATER MANAGEMENT PERMITS. CONTRACTOR SHALL THEN ALSO BE RESPONSIBLE FOR IMPLEMENTING ON-SITE ALL REQUIREMENTS OF THE EROSION CONTROL AND STORMWATER MANAGEMENT PERMITS.

P: 939.74
E: 939.74

ACCESS DOOR

P: 939.50
E: 939.46

P: 939.55
E: 939.55

P: 938.78
E: 938.78

MATCH INTO EXISTING EDGE OF CONCRETE

OVERHEAD DOOR

EXISTING BUILDING

P: 939.05
E: 939.05

GRAVEL LOT

CONCRETE

OVERHEAD DOOR

LOT LINE

941'
942'
943'
940'
939'
938'

GRADING LEGEND

963	= EXIST. CONTOURS
963'	= PRO. CONTOURS
✖	= PRO. SPOT ELEV'S
→	= DRAINAGE PATH
P:	= PRO. FINISH GRADE ELEV.
E:	= EX. GROUND ELEV.
TOC:	= TOP OF CONCRETE ELEV.

5' 0 5' 10'

SCALE: 11" x 17" - 1" = 10'
22" x 34" - 1" = 5'

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SITE GRADING PLAN
NORTH FITCHBURG (2666596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN
CHECKED BY: PCM	
PLOT DATE: 9/21/2021	
PROJECT #: 22243	
FILE NAME: C-5.dgn	

SHEET NUMBER:

C-5

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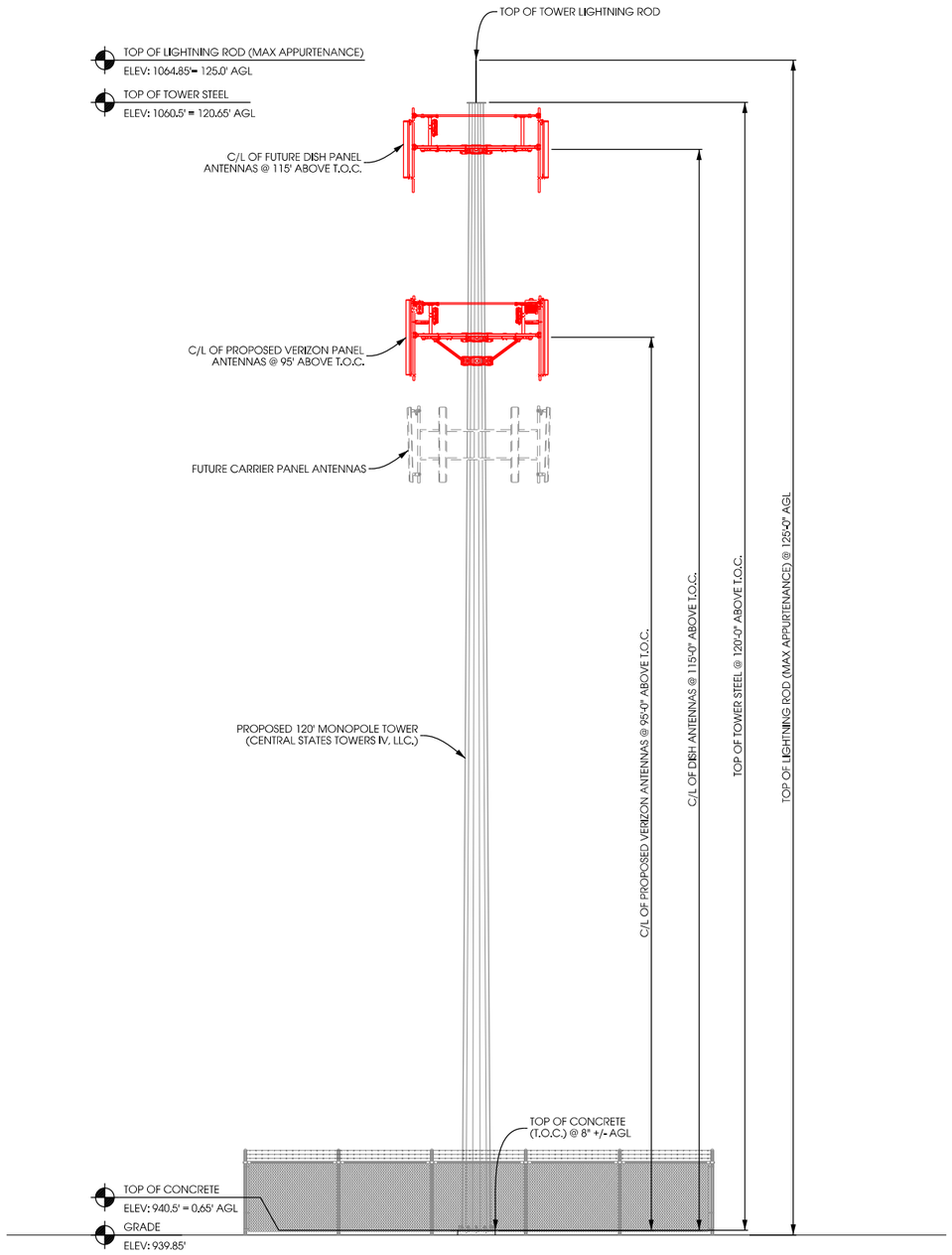
NOTES:

1.) CONTRACTOR TO VERIFY HEIGHT AND DIRECTION OF ANTENNA WITH PROJECT MANAGER & FINAL RF DESIGN.

2.) HYBRID CABLE LENGTH NOT TO EXCEED 367'.

3.) HYBRID JUMPER CABLE LENGTH NOT TO EXCEED 30'.

4.) IF CABLING LENGTH EXCEEDS MAXIMUM ALLOWED CONTRACTOR SHALL CONTACT CLIENT AND ENGINEER TO RESOLVE PRIOR TO CONSTRUCTION.



A TOWER PROFILE (NORTH ELEVATION)

SCALE: 11" x 17" - 1" = 16'-0"
22" x 34" - 1" = 8'-0"

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TOWER ELEVATION
NORTH FITCHBURG (266596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN

CHECKED BY: PCM

PLOT DATE: 9/21/2021

PROJECT #: 22243

FILE NAME: A-1.dgn

SHEET NUMBER: **A-1**

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UTILITY PROVIDER INFO:

ELECTRIC PROVIDER:	MADISON GAS & ELECTRIC
CONTACT:	ROSS GREANLEAF
PHONE:	608.252.4743
WORK ORDER #:	TBD
FIBER OPTIC PROVIDER:	ONE FIBER
CONTACT:	STEVE KLICKER
EMAIL:	steven.klicker@verizon.com

NORTH

30' SETBACK

50' SETBACK

C/L OF PROPOSED 30' WIDE ACCESS & UTILITY EASEMENT (CENTRAL STATES TOWERS IV, LLC.)

PROPOSED 14' WIDE ACCESS GATE (INSTALLED BY CENTRAL STATES TOWERS IV, LLC.)

PROPOSED 39' x 49' LEASE AREA (INSTALLED BY CENTRAL STATES TOWERS IV, LLC.)

PROPOSED 35' x 45' FENCED COMPOUND

PROPOSED 120' MONOPOLE (INSTALLED BY CENTRAL STATES TOWERS IV, LLC.)

PROPOSED VZW 17' x 25' LEASE AREA

PROPOSED 5' x 7' DISH EQUIPMENT LEASE AREA

PROPOSED 32" x 32" DISH CHARLES HEX CUBE

FUTURE CARRIER LEASE AREA

GRAVEL LOT

EXISTING FENCE SECTION

PROPOSED BURIED ELECTRIC; APPROX. 30' FROM R.O.W. TO COMPOUND; TO BE FURNISHED & INSTALLED BY MADISON GAS & ELETRIC

C/L OF PROPOSED 20' WIDE UTILITY EASEMENT (CENTRAL STATES TOWERS IV, LLC.)

PROPOSED CONCRETE FILLED BOLLARD (TYP. OF 3)-SEE DETAIL B/C-4. TO BE INSTALLED BY CST CONTRACTOR

PROPOSED TRANSFORMER; TO BE FURNISHED & INSTALLED BY MADISON GAS & ELECTRIC

(2) PROPOSED 4" SCH 40 BURIED CONDUITS W/ PULL STRINGS FOR ELECTRIC BETWEEN TRANSFORMER AND UTILITY RACK, APPROX. 6'-6"± IN LENGTH. SCH 80 CONDUITS REQUIRED ABOVE GRADE AT UTILITY RACK; UTILITY PROVIDER TO FURNISH AND INSTALL ALL SECONDARY CONDUCTORS

PROPOSED UTILITY RACK; SEE PAGE E-2 FOR DETAILS

PROPOSED VZW FIBER VAULT; TO BE FURNISHED & INSTALLED BY CST CONTRACTOR

PROPOSED VZW FIBER VAULT; TO BE FURNISHED & INSTALLED BY CST CONTRACTOR

EXISTING LANDSCAPING

(2) ORANGE OR BLACK 4" DIA. HDPE, SDR 13.5 SMOOTH WALL CONTINUOUS CONDUITS W/ (2) 1-1/4" INNER DUCTS FOR FIBER OPTIC LINE; APPROX. 30'± FROM R.O.W. TO COMPOUND (SOURCE TO BE DETERMINED)

EXISTING RETAINING WALL

EXISTING RETAINING WALL

PROPERTY LINE

EXISTING FENCE SECTION

ACCESS DOOR

30' SETBACK

EXISTING BUILDING

OVERHEAD DOOR

CONCRETE

OVERHEAD DOOR

941'

940'

939'

938'

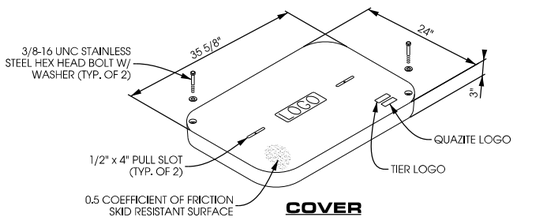
SPLICE / PULL BOX NOTES:

PG STYLE POLYMER CONCRETE (STACKABLE) ASSEMBLY

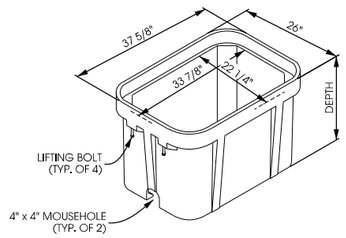
FOR SPLICE BOX LOCATIONS USE 24" x 36" x 36" DEEP BOX QUAZITE PART # PG2436BA36 OR APPROVED EQUIVALENT

FOR PULL BOX LOCATIONS USE 24" x 36" x 24" DEEP BOX QUAZITE PART # PG2436BA24 OR APPROVED EQUIVALENT

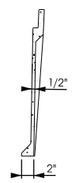
FOR COVERS FOR BOTH SPLICE AND PULL BOX LOCATIONS USE QUAZITE PART # PG2436KK00 OR APPROVED EQUIVALENT



COVER



BOX



BOX WALL

A SPLICE/PULL BOX DETAIL

SCALE: NTS

5' 0 5' 10'

SCALE: 11" x 17" - 1" = 10'
22" x 34" - 1" = 5'

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UTILITY PLAN
NORTH FITCHBURG (266596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN
CHECKED BY: PCM	
PLOT DATE: 9/21/2021	
PROJECT #: 22243	
FILE NAME: E-1.dgn	

SHEET NUMBER:

E-1

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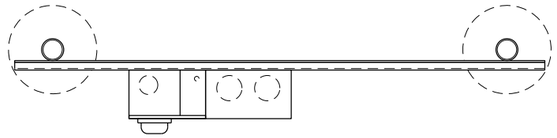
NOTE:

- AT MULTI GANGED METER INSTALLATIONS ROUTE A 3/0 GREEN THWN STRANDED COPPER CONDUCTER FROM THE N-G CONNECTION POINT TO JUST ABOVE THE EARTH SURFACE. THIS CONDUCTOR SHALL BE ROUTED THRUOGH PVC ABOVE FINISHED GRADE TO AVOID THEFT AND BARE UPON ENTRY INTO EARTH & BONDED TO AN APPROVED DRIVEN GROUND ROD.

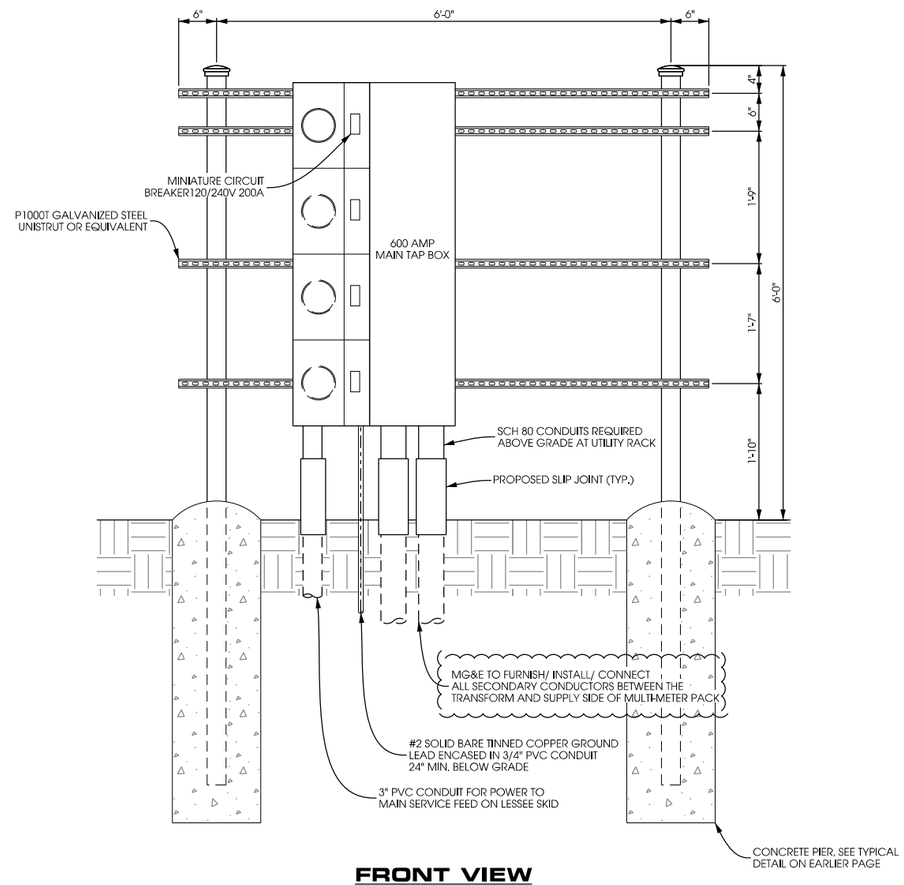
CABINET MOUNT NOTE:

- ATTACH CABINETS W/ SPRING-LOADED WASHERS TO UNISTRUTS

UTILITY RACK LAYOUT HAS BEEN REVIEWED BY ELECTRIC PROVIDER; ALL DEVIATIONS FROM UTILITY RACK DETAIL TO BE APPROVED BY ROSS GREANLEAF FROM MADISON GAS & ELECTRIC



PLAN VIEW



FRONT VIEW

A **MULTI-METER UTILITY RACK**

SCALE: 11" x 17" - 1/2" = 1'-0"
22" x 34" - 1" = 1'-0"

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UTILITY RACK
NORTH FITCHBURG (2666596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN

CHECKED BY: PCM

PLOT DATE: 9/21/2021

PROJECT #: 22243

FILE NAME: E-2.dgn

SHEET NUMBER: **E-2**

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LEGEND

- INSPECTION WELL
- 5/8" DIA. x 10'-0" LONG, STEEL CLAD W/ A PURE COPPER JACKET (10' MAX SEPARATION)
- EXOTHERMIC CONNECTION (CADWELD OR EQUIVALENT)
- MECHANICAL CONNECTION (BURNDY OR EQUIVALENT)
- #2 SOLID BARE TINNED COPPER GROUND LEAD
- 18" X 18" X .032" THK COPPER PLATE (10' MAX SEPARATION)

KEYED GROUNDING NOTES:

1. TOWER GROUND RING, #2 SOLID BARE-TINNED COPPER GROUND LEAD MIN. 4'-6" BURY (TYP.)OR 6" BELOW FROST WHICH EVER IS GREATER. GROUND RODS SPACED @ 8' O.C.
2. 5/8" DIAMETER x 10'-0" LONG COPPER CLAD GROUND ROD WITH EXOTHERMIC CONNECTION, 8' SPACING, TYP.
3. INSPECTION WELL (TYP.): SEE PAGE G-2 FOR DETAIL
4. (4) GROUND LEADS FROM TOWER STEEL TO GROUND RING (USE GROUNDING TABS WHEN AVAILABLE)
5. GATE GROUND LEAD, #2 SOLID BARE TINNED COPPER GROUND LEADS TO GATE POST, & BRAIDED STRAP CONNECTION FROM POST TO GATE
6. GROUND ELECTRIC METER TO (2) INDEPENDENT GROUND RODS, SPACED 10' O.C. WITH #2 SOLID BARE TINNED COPPER
7. GROUND MULTI-METER CABINETS
8. PERIPHERAL GROUND RING SHOULD BE INSTALLED 1' TO 2' INSIDE THE FENCED LINE; THE TOWER GROUND RING SHOULD BE INSTALLED A MINIMUM OF 2' OFF ANY STRUCTURE
9. FENCE CORNER GROUND LEAD, #2 SOLID BARE TINNED COPPER, CADWELD CONNECTION. GROUND FENCE POSTS WITHIN 6-FEET OF EQUIPMENT SKID AND 25-FEET OF TOWER
10. GROUND TOWER FOUNDATION REBAR

NOTE:

- THE GROUNDING SHALL BE TESTED PRIOR TO FINAL BACKFILLING. DOCUMENTATION OF 5 OHM OR LESS RESISTANCE TO BE PROVIDED TO PROJECT MANAGER.
- ALL NON-INSULATED GROUND LEADS EXTENDING ABOVE GROUND LEVEL SHALL BE ENCASED IN 3/4" PVC & SEALED WITH SILICONE. PVC SHALL BE MIN. 16" INTO EARTH & EXTEND MIN. 6" ABOVE GROUND.
- INSTALL 18" X 18" COPPER PLATES IN LIEU OF GROUND RODS WHEN INSTALLING OVER TOWER FOUNDATION OR WHERE DRIVING GROUND RODS IS NOT FEASIBLE.

NORTH

941'
940'
939'

GROUNDING NOTE:

THIS GROUNDING PLAN WAS PREPARED PRIOR TO THE COMPLETION OF THE GEOTECHNICAL REPORT AND RECEIPT OF THE TOWER FOUNDATION DESIGN. THE LAYOUT OF RADIALS AND GROUND RODS ARE APPROXIMATE IN NATURE AND MAY NEED TO BE ADJUSTED IN THE FIELD. GROUND RODS SHOULD NOT EXTEND THROUGH THE TOWER FOUNDATION OR OTHER STRUCTURAL ELEMENTS WITHOUT PRIOR APPROVAL FROM THE DESIGN ENGINEER. IN ADDITION, SOME ADJUSTMENT TO THE GROUND METHOD MAY BE REQUIRED IN INSTANCES WHERE SHALLOW BEDROCK OR OTHER UNIQUE CIRCUMSTANCES ARE ENCOUNTERED. CONTRACTOR SHALL CONSULT GEOTECHNICAL REPORT FOR FURTHER DESIGN AND CONSTRUCTION RECOMMENDATIONS.

NOTE:

- TOP OF EACH GROUND ROD SHALL EXTEND NO MORE THAN 6" ABOVE BOTTOM OF TRENCH

NOTE:

ANY CONDUCTIVE UTILITY JUNCTION BOX OR ENCLOSURE SHALL BE BONDED TO THE EARTH GROUND SYSTEM W/ A #2 SOLID BARE TINNED COPPER GROUND LEAD

GROUNDING ELECTRODE SYSTEM NOTES:

1. CONNECTIONS:
   ALL CONNECTIONS SHALL BE EXOTHERMICALLY CONNECTED UNLESS NOTED OTHERWISE. CONTRACTOR TO FOLLOW ALL MANUFACTURER'S GUIDELINES & RECOMMENDATIONS.
2. ALL ELECTRICAL AND MECHANICAL GROUND CONNECTIONS SHALL HAVE ANTI-OXIDANT COMPOUND APPLIED TO CONNECTION.
3. FENCE/GATE:
   GROUND FENCE POSTS WITHIN 6-FEET OF ENCLOSURE AND 25-FEET OF TOWER. GROUND EACH GATE POST AND CORNER POST. GROUND CONNECTIONS TO FENCE POSTS SHALL BE MADE BY THE EXOTHERMIC PROCESS AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND PROCEDURES.
4. CONTRACTOR SHALL SUBMIT THE GROUND RESISTANCE TEST REPORT AS FOLLOWS:
   A. ONE (1) COPY TO THE OWNER REPRESENTATIVE
   B. ONE (1) COPY TO THE ENGINEER
   C. ONE (1) COPY TO KEEP INSIDE EQUIPMENT ENCLOSURE

3' 0 3' 6'

SCALE: 11" x 17" - 1" = 6'
22" x 34" - 1" = 3'

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GROUNDING PLAN
NORTH FITCHBURG (266596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN

CHECKED BY: PCM

PLOT DATE: 9/21/2021

PROJECT #: 22243

FILE NAME: G-1.dgn

SHEET NUMBER: G-1

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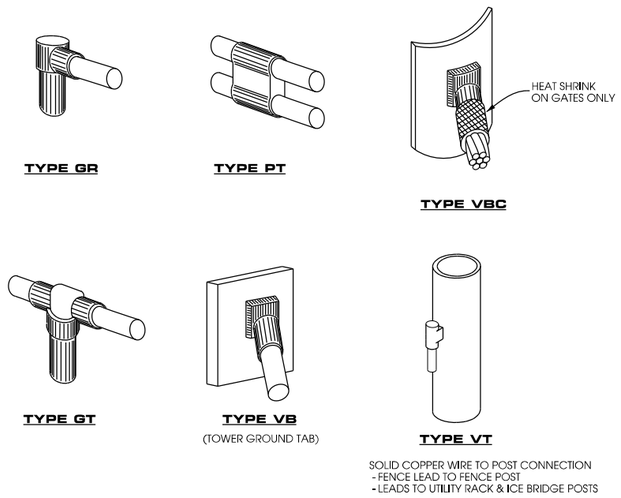


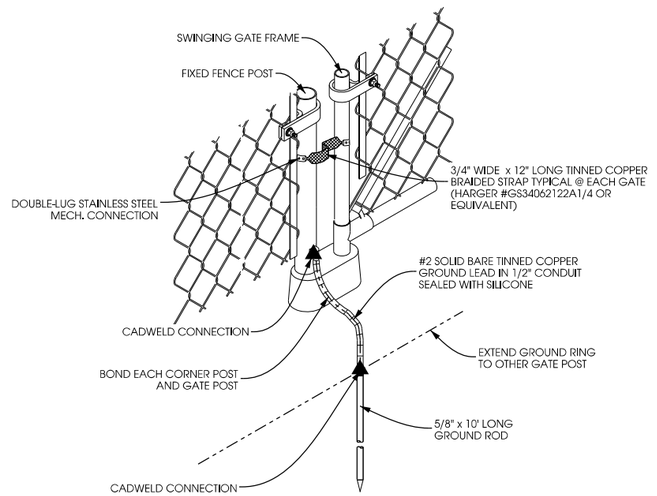
NOTE:

CADWELD "TYPES" SHOWN ARE EXAMPLES. CONSULT WITH PROJECT MANAGER FOR OTHER POSSIBLE TYPES OF CADWELDS THAT CAN BE USED IN STANDARD OR SPECIALLY DESIGNED GROUNDING PLANS.

CONTRACTOR TO PROVIDE ALL REQUIRED CADWELD CONNECTIONS.

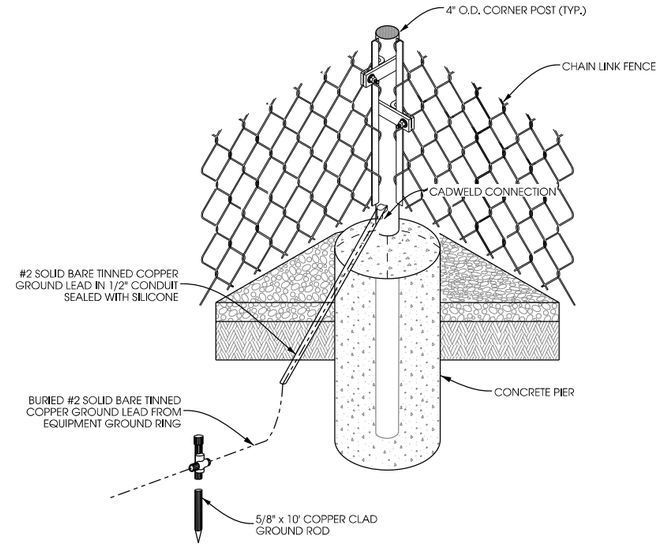
A CADWELD DETAILS

SCALE: NTS



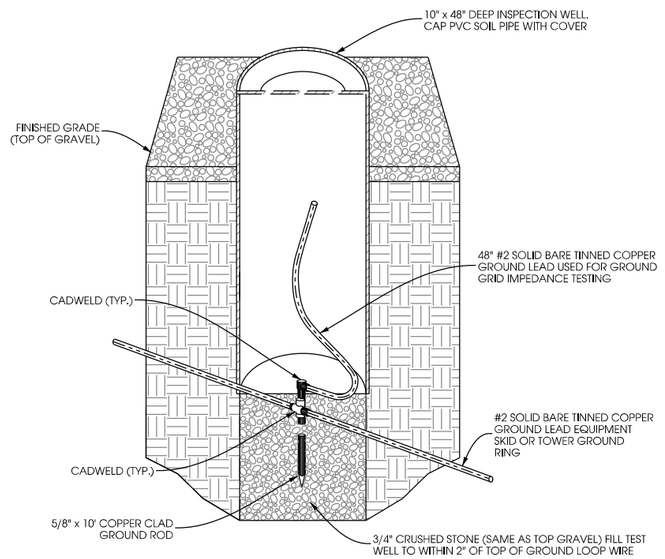
B GATE GROUNDING DETAIL

SCALE: NTS



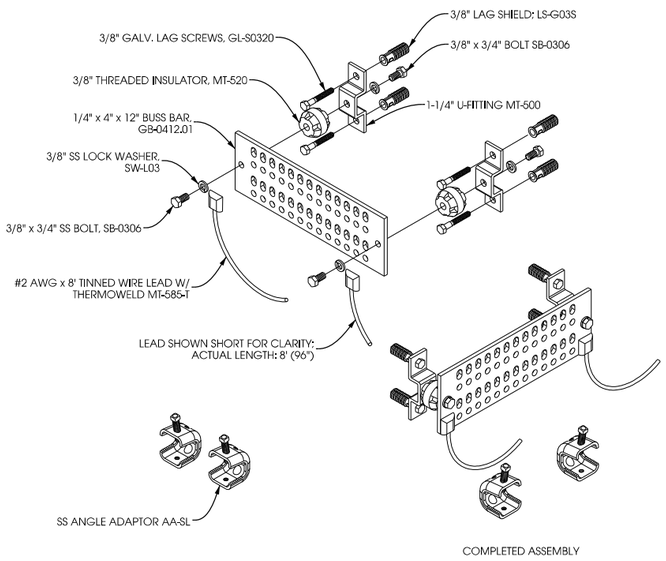
C FENCE POST GROUNDING DETAIL

SCALE: NTS



D INSPECTION WELL DETAIL

SCALE: NTS

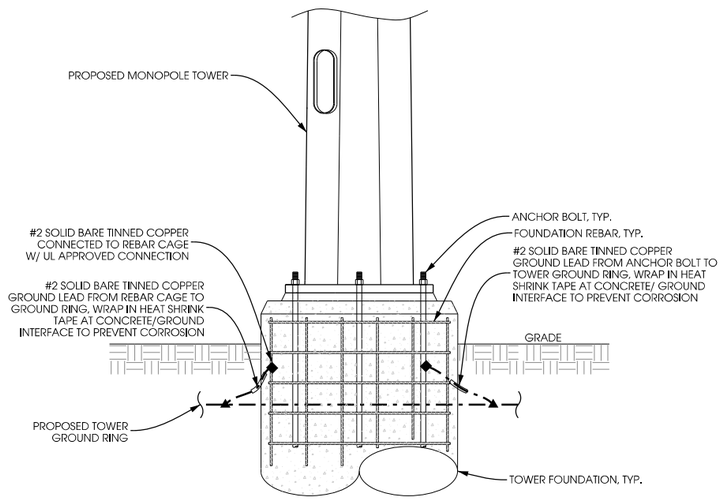


E GROUND AND BUSS BAR DETAIL

SCALE: NTS

NOTES:

- FOUNDATION GROUNDING PER NEC 250.52(3)(A)
- FOUNDATION GROUNDING CONNECTIONS TO BE COVERED BY A MINIMUM OF 3" OF CONCRETE.
- REBAR GROUNDING SHALL BE MADE TO A MIN. 20' CONTINUOUS REBAR, IF POSSIBLE.



F TOWER FOUNDATION GROUNDING

SCALE: NTS

Edge
Consulting Engineers, Inc.
624 Water Street
Prairie du Sac, WI 53578
608.644.1449 voice
608.644.1549 fax
www.edgeconsult.com

GROUNDING DETAILS
NORTH FITCHBURG (2666596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN

CHECKED BY: PCM

PLOT DATE: 9/21/2021

PROJECT #: 22243

FILE NAME: G-2.dgn

SHEET NUMBER: G-2

I:\22200\22243\CAD\CD\Plot\G-2.dgn

GENERAL

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

DIVISION 1: GENERAL REQUIREMENTS

SECTION 01700 - PROJECT CLOSEOUT

PART 1 - GENERAL

A. OBTAIN AND SUBMIT RELEASES ENABLING THE OWNER UNRESTRICTED USE OF THE WORK AND ACCESS TO SERVICES AND UTILITIES. INCLUDE OCCUPANCY PERMITS, OPERATING CERTIFICATES, AND SIMILAR RELEASES.

B. SUBMIT RECORD DRAWINGS, DAMAGE, OR SETTLEMENT SURVEY, PROPERTY SURVEY, AND SIMILAR FINAL RECORD INFORMATION.

C. COMPLETE FINAL CLEAN-UP REQUIREMENTS, INCLUDING TOUCH-UP PAINTING. TOUCH-UP AND OTHERWISE REPAIR AND RESTORED MARRED EXPOSED FINISHES.

PART 2 - FINAL CLEANING/PROJECT CLOSEOUT

1. COMPLETE THE FOLLOWING OPERATIONS BEFORE REQUESTING INSPECTION FOR CERTIFICATE OF COMPLETION:

   A. CLEAN THE PROJECT SITE, YARD AND GROUNDS IN AREAS DISTURBED BY CONSTRUCTION ACTIVITIES, INCLUDING LANDSCAPE DEVELOPMENT, AREAS OF RUBBISH, WASTE MATERIALS, LITTER AND FOREIGN SUBSTANCES. SWEEP PAVED AREAS BROOM CLEAN. REMOVE PETRO-CHEMICAL SPILLS, STAINS AND OTHER FOREIGN DEPOSITS. RAKE GROUNDS THAT ARE NEITHER PLANTED NOR PAVED TO A SMOOTH, EVEN-TEXTURED SURFACE.

   B. REMOVE TOOLS, CONSTRUCTION EQUIPMENT, MACHINERY, AND SURPLUS MATERIAL FROM THE SITE.

   C. REMOVE SNOW AND ICE TO PROVIDE SAFE ACCESS TO THE SITE AND EQUIPMENT BUILDING.

   D. CLEAN EXPOSED EXTERIOR AND INTERIOR HARD-SURFACED FINISHES TO A DIRT-FREE CONDITION, FREE OF STAINS, FILMS AND SIMILAR FOREIGN SUBSTANCES. AVOID DISTURBING NATURAL WEATHERING OF EXTERIOR SURFACES.

   E. REMOVE DEBRIS FROM UNITED ACCESS SPACES, INCLUDING ROOFS, EQUIPMENT BUILDING, MANHOLES AND SIMILAR SPACES.

   F. REMOVE LABELS THAT ARE NOT PERMANENT LABELS.

   G. TOUCH-UP AND OTHERWISE REPAIR AND RESTORE MARRED EXPOSED FINISHES AND SURFACES. REPLACE FINISHES AND SURFACES THAT CAN NOT BE SATISFACTORILY BE REPAIRED OR RESTORED, OR THAT SHOW EVIDENCE OF REPAIR OR RESTORATION. DO NO PAINT OVER "UL" AND SIMILAR LABELS, INCLUDING ELECTRICAL NAME PLATES.

   H. LEAVE THE PROJECT CLEAN AND READY FOR OCCUPANCY.

   I. DUST OFF ALL EQUIPMENT, INCLUDING BATTERY PACKS, WITHIN EQUIPMENT BUILDING.

   J. GENERAL CONTRACTOR TO CLEAN AND APPLY STATIC-FREE WAX TO THE FLOORS ONCE FINAL SHELTER EQUIPMENT AND ACCESSORIES ARE COMPLETED.

2. REMOVAL OF PROTECTION

   REMOVE TEMPORARY PROTECTION AND FACILITIES INSTALLED DURING CONSTRUCTION TO PROTECT PREVIOUSLY COMPLETED INSTALLATIONS DURING THE REMAINDER OF THE CONSTRUCTION PERIOD.

DIVISION 2: SITE WORK

SECTION 02200 - EARTHWORK AND DRAINAGE

PART 1 - GENERAL

1. WORK INCLUDED - SEE SITE PLAN

2. DESCRIPTIONS

   ACCESS DRIVE WITH TURN-AROUND AREA, LEASE AREA, AND, IF APPLICABLE, UNDERGROUND UTILITY EASEMENTS ARE TO BE CONSTRUCTED TO PROVIDE A WELL-DRAINED, EASILY MAINTAINED, EVEN SURFACE FOR MATERIAL AND EQUIPMENT DELIVERIES AND MAINTENANCE PERSONNEL ACCESS.

3. QUALITY ASSURANCE

   A. APPLY SOIL STERILIZER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS (AS NEEDED).

   B. APPLY AND MAINTAIN GRASS SEED AS RECOMMENDED BY THE SEED PRODUCER (AS NEEDED).

   C. PLACE AND MAINTAIN VEGETATION LANDSCAPING, IF INCLUDED WITHIN THE CONTRACT, AS RECOMMENDED BY NURSERY INDUSTRY STANDARDS.

4. SEQUENCING

   A. CONFIRM SURVEY STAKES AND SET ELEVATIONS STAKES PRIOR TO ANY CONSTRUCTION.

   B. COMPLETELY GRUB THE ACCESS DRIVE WITH TURN-AROUND, UNDERGROUND UTILITY EASEMENTS (IF APPLICABLE), AND LEASE AREA PRIOR TO FOUNDATION CONSTRUCTION, PLACEMENT OF BACKFILL AND SUB-BASE MATERIAL.

   C. CONSTRUCT TEMPORARY CONSTRUCTION AREA ALONG ACCESS DRIVE.

   D. BRING THE LEASE AREA AND ACCESS DRIVE WITH TURN-AROUND TO BASE COURSE ELEVATION PRIOR TO INSTALLING FOUNDATION.

   E. APPLY SOIL STERILIZER PRIOR TO PLACING BASE MATERIALS SUCH THAT THE STERILIZER ONLY COMES IN CONTACT WITH PROPOSED GRAVEL SURFACES

   F. GRADE, SEED, FERTILIZE, AND MULCH ALL AREAS DISTURBED BY CONSTRUCTION (INCLUDING UNDERGROUND UTILITY EASEMENTS) IMMEDIATELY AFTER BRINGING LEASE AND ACCESS DRIVE WITH TURN-AROUND TO BASE COURSE ELEVATION. WATER TO ENSURE GROWTH.

   G. REMOVE GRAVEL FROM TEMPORARY CONSTRUCTION ZONE TO AN AUTHORIZED AREA OR AS DIRECTED BY THE PROJECT MANAGER.

   H. AFTER APPLICATIONS OF FINAL SURFACES, APPLY SOIL STERILIZER TO STONE SURFACES.

5. SUBMITTALS

   A. BEFORE CONSTRUCTION
   IF LANDSCAPING IS APPLICABLE TO THE CONTRACT, SUBMIT TWO (2) COPIES OF THE LANDSCAPE PLAN UNDER NURSERY LETTERHEAD. IF LANDSCAPE ALLOWANCE WAS INCLUDED IN THE CONTRACT, PROVIDE AN ITEMIZED LISTING OF PROPOSED COSTS ON NURSERY LETTERHEAD, REFER TO PLANS FOR LANDSCAPING REQUIREMENTS.

   G. PLACE FILL OR STONE IN SIX (6) INCH MAXIMUM LIFTS, AND COMPACT BEFORE PLACING NEXT LIFT.

   B. AFTER CONSTRUCTION

      1. MANUFACTURER'S DESCRIPTION OF PRODUCT AND WARRANTY STATEMENT ON SOIL STERILIZED.

      2. MANUFACTURER'S DESCRIPTION OF PRODUCT ON GRASS SEED AND FERTILIZER.

      3. LANDSCAPING WARRANTY STATEMENT.

6. WARRANTY

   A. IN ADDITION TO THE WARRANTY ON ALL CONSTRUCTION COVERED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL REPAIR ALL DAMAGE AND RESTORE AREA AS CLOSE TO ORIGINAL CONDITION AS POSSIBLE AT SITE AND SURROUNDINGS.

   B. SOIL STERILIZATION APPLICATION TO GUARANTEE VEGETATION FREE ROAD AND SITE AREAS FOR ONE YEAR FOM DATE OF FINAL INSPECTION.

   C. DISTURBED AREAS WILL REFLECT GROWTH OF NEW GRASS PRIOR TO FINAL INSPECTION.

   D. LANDSCAPING, IF INCLUDED WITHIN THE SCOPE OF THE CONTRACT, WILL BE GUARANTEED FOR ONE YEAR FROM THE DATE OF FINAL INSPECTION.

PART 2 - PRODUCTS

1. MATERIALS

   A. SOIL STERILIZER SHALL BE AN EPA REGISTERED, PRE-EMERGENCE LIQUID:
   TOTAL KILL — PHASAR CORPORATION
   PRODUCT 910 — P.O. BOX 5123
   EPA 10292-7 — DEARBORN, MI 48128
   313.563.8000

   AMBUSH HERBICIDE — FRAMAR INDUSTRIAL PRODUCTS
   EPA REGISTERED — 1435 MORRIS AVENUE
   UNION, NJ 07083
   800.526.4924

   B. ROAD AND SITE MATERIALS SHALL CONFORM TO DOT SPECIFICATIONS (UNLESS OTHERWISE NOTED). ACCEPTABLE SELECT FILL SHALL BE IN ACCORDANCE WITH STATE DEPARTMENT OF HIGHWAY AND TRANSPORTATION STANDARD SPECIFICATIONS.

   C. SOIL STABILIZED FABRIC SHALL BE MIRAFI - 500X.

PART 3 - EXECUTION

1. INSPECTIONS

   LOCAL BUILDING INSPECTORS SHALL BE NOTIFIED NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS, UNLESS OTHERWISE SPECIFIED BY THE LOCAL JURISDICTION.

2. PREPARATION

   A. CLEAR TREES, BRUSH AND DEBRIS FROM LEASE AREA, ACCESS DRIVE WITH TURN-AROUND, AND UNDERGROUND UTILITY EASEMENTS AS REQUIRED FOR CONSTRUCTION.

   B. PRIOR TO OTHER EXCAVATION AND CONSTRUCTION, GRUB ORGANIC MATERIAL TO A MINIMUM OF SIX (6) INCHES BELOW GRADE.

   C. UNLESS OTHERWISE INSTRUCTED BY LEASEE, TRANSPORT ALL REMOVED TREES, BRUSH AND DEBRIS FROM THE PROPERTY TO AN AUTHORIZED LANDFILL.

   D. PRIOR TO PLACEMENT OF FILL OR BASE MATERIALS, ROLL THE SOIL.

   E. WHERE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, LINE THE AREAS WITH A STABILIZED MAT PRIOR TO PLACEMENT OF FILL OR BASE MATERIAL.

   F. PRIOR TO PLACEMENT OF FILL OR BASE MATERIALS, REMOVE SOFT SPOTS, PLACE SELECT FILL, AND COMPACT TO 95% MODIFIED PROCTOR.

3. INSTALLATION

   A. GRADE OR FILL THE LEASE AREA AND ACCESS DRIVE WITH TURN-AROUND AS REQUIRED IN ORDER THAT UPON DISTRIBUTION OF SPOILS RESULTING FROM EXCAVATIONS, THE RESULTING GRADE WILL CORRESPOND WITH SAID SUB-BASE COURSE. ELEVATIONS ARE TO BE CALCULATED FROM BENCHMARK, FINISHED GRADES, OR INDICATED SLOPES.

   B. CLEAR EXCESS SPOILS, IF ANY, FROM JOB SITE AND DO NOT SPREAD BEYOND THE LIMITS OF PROJECT AREA UNLESS AUTHORIZED BY PROJECT MANAGER AND AGREED TO BY LANDOWNER.

   C. BRING THE ACCESS DRIVE WITH TURN-AROUND TO BASE COURSE ELEVATION TO FACILITATE CONSTRUCTION AND OBSERVATION DURING CONSTRUCTION OF THE SITE.

   D. AVOID CREATING DEPRESSIONS WHERE WATER MAY POND.

   E. THE CONTRACT SHALL INCLUDE GRADING, BANKING, AND DITCHING, UNLESS OTHERWISE NOTED.

   F. WHEN IMPROVING AN EXISTING ACCESS DRIVE, GRADE THE EXISTING DRIVE TO REMOVE ANY ORGANIC MATTER AND SMOOTH THE SURFACE BEFORE PLACING FILL OR STONE.

   H. THE TOP SURFACE COURSE SHALL EXTEND A MINIMUM OF ONE (1) FOOT BEYOND THE SITE FENCE, UNLESS OTHERWISE NOTED, AND SHALL COVER THE AREA AS INDICATED.

   I. NO SLOPES ARE TO BE GREATER THAN 3:1.

   J. APPLY RIP-RAP TO THE SIDES OF DITCHES AND DRAINAGE SWALES WHERE INDICATED ON THE DRAWINGS.

   K. RIP-RAP ENTIRE DITCH FOR SIX (6) FEET IN ALL DIRECTIONS AT CULVERT OPENINGS. (WHEN APPLICABLE)

   L. APPLY SEED, FERTILIZER, AND STRAW COVER TO ALL OTHER DISTURBED AREAS, DITCHES, AND DRAINAGE SWALES, NOT OTHERWISE RIP-RAPPED.

   M. UNDER NO CIRCUMSTANCES WILL DITCHES, SWALES, OR CULVERTS BE PLACED SO THAT THEY DIRECT WATER TOWARDS, OR PERMIT STANDING WATER IMMEDIATELY ADJACENT TO SHELTER OR EQUIPMENT. IF DESIGNS OR ELEVATIONS ARE IN CONFLICT WITH THIS, ADVISE CONSTRUCTION MANAGER IMMEDIATELY.

   N. IN DITCHES WITH SLOPES GREATER THAN 10%, MOUND DIVERSIONARY HEADWALLS IN THE DITCH AT AN ANGLE NO GREATER THAN 60° OFF THE DITCH LINE. RIP-RAP THE UPSTREAM SIDE OF THE HEADWALL AS WELL AS THE DITCH FOR SIX (6) FEET ABOVE THE CULVERT ENTRANCE.

   O. APPLY SEED AND FERTILIZER TO SURFACE CONDITIONS WHICH WILL ENCOURAGE ROOTING. RAKE AREAS TO BE SEEDED TO EVEN THE SURFACE AND LOOSEN THE SOIL.

   P. SOW SEED IN TWO DIRECTIONS IN TWICE THE QUANTITY RECOMMENDED BY THE SEED PRODUCER.

   Q. ENSURE GROWTH OF SEEDED AND LANDSCAPED AREAS BY WATERING UP TO THE POINT OF RELEASE FROM THE CONTRACT. CONTINUE TO REWORK THE BARE AREAS UNTIL COMPLETE COVERAGE IS OBTAINED.

4. FIELD QUALITY CONTROL

   COMPACT SOILS TO MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D-1557. AREAS OF SETTLEMENT WILL BE EXCAVATED AND REFILLED AT CONTRACTOR'S EXPENSE. INDICATE PERCENTAGE OF COMPACTION ACHIEVED ON AS-BUILT DRAWINGS.

5. PROTECTION

   A. PROTECT SEEDED AREAS FROM EROSION BY SPREADING STRAW TO A UNIFORM LOOSE DEPTH OF 1-2 INCHES. STAKE AND TIE DOWN AS REQUIRED. USE OF EROSION CONTROL MESH OR MULCH NET WILL BE AN ACCEPTABLE ALTERNATE.

   B. ALL TREES PLACED IN CONJUNCTION WITH A LANDSCAPE CONTRACT WILL BE WRAPPED, TIED WITH HOSE PROTECTED WIRE, AND SECURED TO 2" x 2" x 4'-0" WOODEN STAKES EXTENDING TWO-FEET INTO THE GROUND ON FOUR SIDES OF THE TREE.

   C. PROTECT ALL EXPOSED AREAS AGAINST WASHOUTS AND SOIL EROSION. ALL EROSION CONTROL METHODS SHALL CONFORM TO APPLICABLE BUILDING CODE REQUIREMENTS.

SECTION 02830 - CHAIN-LINK FENCING AND GATE(S)

PART 1 - GENERAL

1. WORK INCLUDED

   SEE PLAN FOR SITE AND LOCATION OF FENCE AND GATE(S).

2. QUALITY ASSURANCE

   ALL STEEL MATERIALS UTILIZED IN CONJUNCTION WITH THIS SPECIFICATION WILL BE GALVANIZED OR STAINLESS STEEL. WEIGHT OF ZINC COATING ON THE FABRIC SHALL NOT BE LESS THAN TWELVE (12) OUNCES PER SQUARE FOOT OF MATERIAL COVERED. POSTS SHALL BE HOT-DIPPED IN GRADE 'E' ZINC, EIGHTEEN (18) OUNCES PER SQUARE FOOT.

3. SEQUENCING

   IF THE SITE AREA HAS BEEN BROUGHT UP TO SURFACE COURSE ELEVATION (PRIOR TO THE FENCE CONSTRUCTION), FENCE POST EXCAVATION SPOILS MUST BE CONTROLLED TO PRECLUDE CONTAMINATION OF SAID SURFACE COURSE.

4. SUBMITTALS

   A. MANUFACTURER'S DESCRIPTIVE LITERATURE.

   B. CERTIFICATE OR STATEMENT OF COMPLIANCE WITH THE SPECIFICATIONS.

PART 2 - PRODUCTS

1. FENCE MATERIAL

   A. ALL FABRIC WIRE, RAILS, HARDWARE, AND OTHER STEEL MATERIALS SHALL BE HOT-DIPPED GALVANIZED.

   B. FABRIC SHALL BE 9 GAUGE. THE FABRIC SHALL HAVE A KNUCKLED FINISH FOR THE TOP SELVAGES. FABRIC SHALL CONFORM TO THE SPECIFICATIONS OF ASTM A-392 CLASS 1.

   C. BARBED WIRE SHALL BE DOUBLE-STRAND, 12-1/2 GAUGE TWISTED WIRE, WITH 14-GAUGE, 4-POINT ROUND BARBS SPACED ON FIVE (5) INCH CENTERS.

   D. ALL POSTS SHALL BE SCHEDULE - 40 MECHANICAL SERVICE PIPE AND SHALL BE PER ASTM-F1083 AND OF THE FOLLOWING ACTUAL OUTER DIAMETERS:

   LINE: 2.375" O.D. SCHEDULE 40

   CORNER: 2.875" O.D., SCHEDULE 40 (FOR FENCE FABRIC HEIGHT OF 6' OR LESS)
   3.5" O.D. SCHEDULE 40 (FOR FENCE FABRIC HEIGHT OF 8' OR LESS)

   GATE: 4" O.D. SCHEDULE 40

   E. GATE POSTS SHALL BE EXTENDED TWELVE (12) INCHES, INCLUDING DOME CAP, TO PROVIDE FOR ATTACHMENT OF BARBED WIRE.

   F. ALL TOP AND BRACE RAILS SHALL BE 1.66" O.D. SCHEDULE - 40 MECHANICAL- SERVICE PIPE.

   G. GATE FRAMES AND BRACES SHALL BE 1.9" O.D. SCHEDULE 40 MECHANICAL-SERVICE PIPE. FRAMES SHALL HAVE WELDED CORNERS.

   H. GATE FRAMES SHALL HAVE A FULL-HEIGHT VERTICAL BRACE, AND A FULL-WIDTH HORIZONTAL BRACE, SECURED IN PLACE BY USE OF GATE BRACE CLAMPS.

   I. GATE HINGES SHALL BE MERCHANTS METAL MODEL 64386 HINGE ADAPTER WITH MODEL 6409, 180-DEGREE ATTACHMENT.

   J. THE GUIDE (LATCH ASSEMBLY) SHALL BE HEAVY INDUSTRIAL DOUBLE GATE LATCH. SEE DETAIL(S).

   K. LATCHES AND STOPS SHALL BE PROVIDED FOR ALL GATES.

   L. PLUNGER ROD COMPLETE WITH RECEPTOR TO BE PROVIDED AT THE INACTIVE LEAF OF ALL DOUBLE GATE INSTALLATIONS.

   M. ALL STOPS SHALL HAVE KEEPERS CAPABLE OF HOLDING THE GATE LEAF IN THE OPEN POSITION.

   N. A 9 GAUGE ALUMINUM TENSION WIRE SHALL BE USED AT THE BOTTOM OF THE FABRIC, TERMINATED WITH BAND CLIPS AT CORNER AND GATE POSTS.

   O. A SIX (6) INCH BY 1/2 INCH DIAMETER EYEBOLT TO HOLD TENSION WIRE SHALL BE PLACED AT LINE POSTS. (WHEN APPLICABLE)

   P. STRETCHER BARS SHALL BE 3/16 INCH BY 3/4 INCH OR HAVE EQUIVALENT CROSS-SECTIONAL AREA.

   Q. ALL CORNER GATE AND PANELS SHALL HAVE A 3/8 INCH TRUSS ROD WITH TURNBUCKLES.

   R. ALL POSTS EXCEPT GATE POSTS SHALL HAVE A COMBINATION CAP AND BARBED WIRE SUPPORTING ARM. GATE POSTS SHALL HAVE A DOME CAP.

   S. OTHER HARDWARE INCLUDES, BUT MAY NOT BE LIMITED TO, TIE CLIPS, BAND CLIPS AND TENSION BAND CLIPS.

   T. BARBED WIRE GATE GUARDS SHALL BE FITTED WITH DOME CAPS.

   U. BARBED WIRE SUPPORT ARMS SHALL BE PRESSED STEEL COMPLETE WITH SET BOLT AND LOCK WIRE IN THE ARM.

   V. ALL CAPS SHALL BE MALLEABLE IRON, DOME OR ACORN SHAPED AS REQUIRED BY PIPE SIZE.

   W. WHERE THE USE OF CONCERTINA HAS BEEN SPECIFIED, 24-INCH DIAMETERS COIL, BARBED TAPE, STAINLESS STEEL, CYCLONE FENCE MODEL G8P TO TYPE III SHALL BE FURNISHED. IT SHALL BE SUPPORTED ABOVE THE TOP RAIL BY USE OF SIX (6) WIRE BARBED WIRE ARMS POSITIONED ATOP EACH LINE/CORNER POST.

PART 3 - EXECUTION

1. INSPECTION

   TO CONFIRM PROPER DEPTH AND DIAMETER OF POST HOLE EXCAVATIONS. ALL POST HOLES WILL BE EXCAVATED AS PER CONSTRUCTION DOCUMENTS.

2. INSTALLATION

   A. FOUNDATIONS SHALL HAVE A MINIMUM SIX (6) INCH CONCRETE COVER UNDER POST.

   B. ALL FENCE POSTS SHALL BE VERTICALLY PLUMB WITHIN ONE QUARTER (1/4) INCH.

   C. FABRIC SHALL BE TENSIONED PER MANUFACTURER'S RECOMMENDATIONS TO PRESENT A NEAT APPEARANCE.

   D. AT CORNER POSTS, GATE POSTS, AND SIDES OF GATE FRAME, FABRIC SHALL BE ATTACHED WITH STRETCHER AND TENSION BAND-CLIPS AT FIFTEEN (15) INCH INTERVALS.

   E. AT LINE POSTS, FABRIC SHALL BE ATTACHED WITH BAND-CLIPS AT FIFTEEN (15) INCH INTERVALS.

   F. FABRIC SHALL BE ATTACHED TO BRACE RAILS, TENSION WIRE AND TRUSS RODS WITH TIE-CLIPS AT TWO (2) FOOT INTERVALS.

   G. A MAXIMUM GAP OF ONE (1) INCH WILL BE PERMITTED BETWEEN TIE CHAIN LINE FABRIC AND THE FINAL GRADE.

   H. GATE SHALL BE INSTALLED SO LOCKS ARE ACCESSIBLE FROM BOTH SIDES.

   I. GATE HINGE BOLTS SHALL HAVE THEIR THREADS PEENED OR WELDED TO PREVENT UNAUTHORIZED REMOVAL.

   J. GATE POSTS SHALL NOT BE SHARED AS A CORNER POST.

   K. CONCRETE TO BE A MINIMUM OF 3,000 PSI AT 28 DAYS. CEMENT SHALL EXCEED ASTM C150, TYPE IIIA.

3. PROTECTION

   UPON COMPLETION OF ERECTION, INSPECT FENCE MATERIAL AND PAINT FIELD CUTS OR GALVANIZING BREAKS WITH ZINC-BASED PAINT, COLOR TO MATCH THE GALVANIZED METAL.

   APPLICABLE STANDARDS:

   ASTM-A53 SPECIFICATION FOR PIPE, STEEL BLACK AND HOT-DIPPED ZINC COATED (GALVANIZED) WELDED AND SEAMLESS. FOR ORDINARY USES.

   ASTM-A123 ZINC (HOT-DIP GALVANIZED) COATING ON IRON AND STEEL PRODUCTS.

   ASTM-A153 STANDARD SPECIFICATION FOR ZINC COATING (HOT-DIP) ON IRON AND STEEL HARDWARE.

   ASTM-A392 SPECIFICATION FOR ZINC-COATED STEEL CHAIN LINK FENCE FABRIC.

   ASTM-A491 SPECIFICATION FOR ALUMINUM-COATED STEEL CHAIN LINK FENCE FABRIC

   ASTM-A525 STANDARD SPECIFICATION FOR STEEL SHEET ZINC COATED (GALVANIZED) BY THE HOT-DIPPED PROCESS.

   ASTM-A570 SPECIFICATION FOR HOT-ROLLED CARBON STEEL SHEET AND STRIP, STRUCTURAL QUALITY.

   ASTM-A535 SPECIFICATION FOR ALUMINUM COATED STEEL BARBED WIRE, FEDERAL SPECIFICATION RR-F-191- FENCING, WIRE AND POST METAL AND GATES, CHAIN LINK FENCE FABRIC, AND ACCESSORIES.

   ASTM-F1083 SPECIFICATION FOR PIPE, STEEL HOT-DIPPED ZINC-COATED (GALVANIZED) WELDED, FOR FENCE STRUCTURES.

DIVISION 3: CONCRETE

SECTION 03000 - BASIC CONCRETE MATERIALS AND METHODS

PART 1 - GENERAL

1. WORK INCLUDED

   FORMWORK, REINFORCEMENT, ACCESSORIES, CAST-IN-PLACE CONCRETE, FINISHING, AND CURING.

2. INSPECTIONS

   A. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING BUILDING DEPARTMENT INSPECTIONS REQUIRED FOR HIS SCOPE OF WORK.

   B. ALL REINFORCING STEEL SHALL BE INSPECTED AND APPROVED BY THE LESSEE CONSTRUCTION MANAGER PRIOR TO PLACEMENT OF CONCRETE.

   C. THE LESSEE CONSTRUCTION MANAGER SHALL BE NOTIFIED NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS.

3. QUALITY ASSURANCE

   A. CONSTRUCT AND ERECT CONCRETE FORMWORK IN ACCORDANCE WITH ACI 301 AND ACI 318.

   B. PERFORM CONCRETE REINFORCING WORK IN ACCORDANCE WITH ACI 301, ACI 318, AND ASTM A184.

   C. PERFORM CAST-IN-PLACE CONCRETE WORK IN ACCORDANCE WITH ACI 301, ACI 318, AND ACI 117-90.

   D. OPEN FOUNDATION TRENCHES SHALL BE INSPECTED PRIOR TO CONCRETE INSTALLATION.

4. SUBMITTALS

   SUBMIT CONCRETE MIX AND REINFORCING STEEL SHOP DRAWINGS FOR APPROVAL BY LESSEE CONSTRUCTION MANAGER/ENGINEER. THE SHOP DRAWINGS SHALL BE SUBMITTED IN THE FORM OF TWO (2) CONCRETE MIX DESIGN INFORMATION SHEETS AND TWO (2) BLUELINE DRAWINGS FOR REINFORCING STEEL.

PART 2 - PRODUCTS

1. REINFORCEMENT MATERIALS

   A. REINFORCEMENT STEEL: ASTM A615, 60 KSI YIELD GRADE, DEFORMED BILLET STEEL BARS, PLAIN FINISH.

   B. WELDED STEEL WIRE FABRIC: ASTM A185 PLAIN TYPE, IN FLAT SHEETS, PLAIN FINISH.

   C. CHAIRS, BOLSTERS, BAR SUPPORTS, SPACERS. SIZED AND SHAPED TO SUPPORT REINFORCING.

   D. FABRICATE CONCRETE REINFORCING IN ACCORDANCE WITH ACI 315, ACI 318, ASTM A184.

2. CONCRETE MATERIALS

   A. CEMENT: ASTM C150, PORTLAND TYPE

   B. FINE AND COURSE AGGREGATES: ASTM C33 - MAXIMUM SIZE OF CONCRETE AGGREGATE SHALL NOT EXCEED ONE (1) INCH SIZE SUITABLE FOR INSTALLATION METHOD UTILIZED OR ONE-THIRD (1/3) CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING.

   C. WATER: CLEAN AND NOT DETRIMENTAL TO CONCRETE.

   D. AIR ENTRAINING ADMIXTURE: ASTM C260.

   E. BONDING AGENT: LATEX EMULSION FOR BONDING NEW TO OLD CONCRETE AS MANUFACTURED BY DAYTON SUPERIOR.

   F. NON-SHRINK GROUT: PREMIXED COMPOUND CONSISTING OF NONMETALLIC AGGREGATE, CEMENT, WATER REDUCING AND PLASTICISING AGENTS.

3. CONCRETE MIX

   A. CONCRETE MATERIALS SHALL CONFORM TO THE APPROPRIATE A.C.I. REQUIREMENTS FOR EXPOSED STRUCTURAL CONCRETE.

   B. MIX AND DELIVER CONCRETE IN ACCORDANCE WITH ASTM C94, ALT. 3.

   C. PROPORTIONS OF CONCRETE MATERIALS SHALL BE SUITABLE FOR THE INSTALLATION METHOD UTILIZED AND SHALL RESULT IN DURABLE CONCRETE FOR LOCAL ANTICIPATED AGGRESSIVE ACTIONS. THE DURABILITY REQUIREMENTS OF ACI 318 CHAPTER 4 SHALL BE SATISFIED BASED ON THE CONDITIONS EXPECTED AT THE SITE. PROVIDE CONCRETE AS FOLLOWS:

      1. COMPRESSIVE STRENGTH: 3000 PSI AT 28 DAYS,
      (MIN. OR AS SPECIFIED IN STRUCTURAL DRAWINGS)

      2. SLUMP: 4 INCHES

      3. AIR ENTRAINMENT: 6%

PART 3 - EXECUTION

1. INSERTS, EMBEDDED COMPONENTS AND OPENINGS

   A. THE CONTRACTOR SHALL COORDINATE AND CROSS-CHECK ARCHITECTURAL, BUILDING & ELECTRICAL DRAWINGS FOR OPENINGS, SLEEVES, ANCHORS, HANGERS, AND OTHER ITEMS RELATED TO CONCRETE WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THE PROPER LOCATION BEFORE PLACING CONCRETE.

   B. PROVIDE FORMED OPENINGS WHERE REQUIRED FOR WORK TO BE EMBEDDED IN AND PASSING THROUGH CONCRETE MEMBERS.

   C. COORDINATE WORK OF OTHER SECTIONS IN FORMING AND SETTING OPENING, SLOTS, RECESSES, CHASES, SLEEVES, BOLTS, ANCHORS, AND OTHER INSERTS.

   D. INSTALL CONCRETE ACCESSORIES STRAIGHT, LEVEL AND PLUMB.

2. REINFORCEMENT PLACEMENT

   A. PLACE REINFORCEMENT, SUPPORTED AND SECURED AGAINST DISPLACEMENT.

   B. ENSURE REINFORCING IS CLEAN, FREE OF LOOSE SCALE, DIRT, OR OTHER FOREIGN COATINGS.

   C. WELDING IS PROHIBITED ON REINFORCING STEEL AND EMBEDMENTS.

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SPECIFICATIONS
NORTH FITCHBURG (2666596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
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CD 100 (PENDING FO) - 8/4/21	CV
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SHEET NUMBER:

SP-1

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D. MINIMUM CONCRETE COVER FOR REINFORCING SHALL BE THREE (3) INCHES UNLESS OTHERWISE NOTED.

E. CONCRETE COVER FROM TOP OF FOUNDATION TO ENDS OF VERTICAL REINFORCEMENT SHALL NOT EXCEED THREE (3) INCHES NOR BE LESS THAN TWO (2) INCHES.

3. PLACING CONCRETE

A. VIBRATE ALL CONCRETE.

B. ALL CONCRETE WORK SHALL ADHERE TO THE LATEST A.C.I. STANDARDS FOR WINTER POURING AND CURING PROCEDURES IF SEASONAL CONDITIONS APPLY.

4. CURING

A. AFTER PLACEMENT, PROTECT CONCRETE FROM PREMATURE DRYING.

B. MAINTAIN CONCRETE WITH MINIMAL MOISTURE LOSS AT RELATIVELY CONSTANT TEMPERATURE FOR A PERIOD NECESSARY FOR HYDRATION OF CEMENT AND HARDENING OF CONCRETE.

5. PROVIDE HAND RUBBED SMOOTH FINISH TO ALL EXPOSED VERTICAL FORMED CONCRETE SURFACES.

6. FIELD QUALITY CONTROL

A. SUBMIT THREE (3) CONCRETE TEST CYLINDERS - TAKEN FOR EVERY FIFTEEN (15) CUBIC YARD OR LESS. SUBMIT CONCRETE TESTS TO THE PROJECT MANAGER IN ACCORDANCE WITH ASTM , C-31 AND C-39.

B. SUBMIT ONE (1) ADDITIONAL TEST CYLINDER - TAKEN DURING COLD WEATHER POURS, AND CURED ON JOB SITE UNDER SAME CONDITIONS AS CONCRETE IT REPRESENTS.

C. SUBMIT ONE (1) SLUMP TEST - TAKEN FOR EACH SET OF TEST CYLINDERS TAKEN.

7. DEFECTIVE CONCRETE

MODIFY OR REPLACE CONCRETE NOT CONFORMING TO REQUIRED LINES, DETAILS OR ELEVATIONS AT COST OF GC, AS DIRECTED BY ARCHITECT/ENGINEER.

DIVISION 5: METALS

SECTION 05000 - METALS

PART 1 - GENERAL

1. SECTION INCLUDES

STRUCTURAL STEEL FRAMING MEMBERS, BASE PLATES, PLATES, BARS AND GROUTING UNDER BASE PLATES.

2. SUBMITTALS

SHOP DRAWINGS: INDICATE SIZES, SPACING, AND LOCATIONS OF STRUCTURAL MEMBERS, OPENINGS, CONNECTIONS, CAMBERS,

3. QUALITY ASSURANCE

A. FABRICATE STRUCTURAL STEEL MEMBERS IN ACCORDANCE WITH AISC SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.

B. PERFORM DESIGN UNDER DIRECT SUPERVISION OF A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE.

PART 2 - PRODUCTS

1. MATERIALS:

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

I. TOUCH-UP PRIMER FOR GALV. SURFACES: ZINC RICH TYPE

2. FABRICATION: CONTINUOUSLY SEAL JOINTED MEMBERS BY CONTINUOUS WELDS. GRIND EXPOSED WELDS SMOOTH.

3. FINISH

A. PREPARE STRUCTURAL COMPONENT SURFACES IN ACCORDANCE WITH SSPC SP-1 TO SP-10 PROCEDURES.

B. STRUCTURAL STEEL MEMBERS SHALL BE HOT DIPPED GALVANIZED.

PART 3 - EXECUTION

1. EXAMINATION AND PREPARATION

VERIFY THAT THE FIELD CONDITIONS ARE ACCEPTABLE.

2. ERECTION:

A. ALLOW FOR ERECTION LOADS. PROVIDE TEMPORARY BRACING TO MAINTAIN FRAMING IN ALIGNMENT UNTIL COMPLETION OF ERECTION AND INSTALLATION OF PERMANENT BRIDGING AND BRACING.

B. FIELD WELD COMPONENTS INDICATED ON SHOP DRAWINGS.

C. DO NOT FIELD CUT OR ALTER STRUCTURAL MEMBERS WITHOUT APPROVAL OF THE ARCHITECT/ENGINEER.

D. AFTER ERECTION, TOUCH-UP WELDS, ABRASIONS, AND SURFACES NOT SHOP PRIMED OR GALVANIZED WITH TOUCH-UP PRIMERS AS SPECIFIED UNDER SECTION 05000 - METALS, PART 2 - PRODUCTS, H & I. SURFACES TO BE IN CONTACT WITH CONCRETE NOT INCLUDED.

3. FIELD QUALITY CONTROL

FIELD INSPECTION OF MEMBERS, CONNECTIONS, WELDS AND TORQUING.

DIVISION 16: ELECTRICAL

SECTION 16050 - BASIC ELECTRICAL MATERIALS AND METHODS

1. CONTRACTOR SHALL REVIEW THE CONTRACT DOCUMENTS PRIOR TO ORDERING THE ELECTRICAL EQUIPMENT AND STARTING THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE ARCHITECT/ENGINEER LISTING ANY DISCREPANCIES OR CONFLICTING INFORMATION.

2. ELECTRICAL PLANS, DETAILS AND DIAGRAMS ARE DIAGRAMMATIC ONLY. VERIFY EXACT LOCATIONS AND MOUNTING HEIGHTS OF ELECTRICAL EQUIPMENT WITH OWNER PRIOR TO INSTALLATION.

3. EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANELBOARD, PULLBOX, JUNCTION BOX, SWITCH BOX, ETC. THE TYPE OF TAGGING METHODS SHALL BE IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (O.S.H.A.).

4. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN GOOD WORKING CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED "J" WHERE APPLICABLE. MATERIALS SHALL MEET WITH APPROVAL OF ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA, NBFU AND "UL" LISTED.

5. ALL CONDUIT SHALL HAVE A PULL CORD.

6. PROVIDE PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS, AND CIRCUITS.

7. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C.

8. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY UBC, NEC AND ALL APPLICABLE CODES.

9. PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.

10. PLASTIC PLATES FOR ALL SWITCHES, RECEPTACLES, TELEPHONE AND BLANKED OUTLETS SHALL HAVE ENGRAVED LETTERING WHERE INDICATED ON THE DRAWINGS. WEATHERPROOF RECEPTACLES SHALL HAVE SIERRA #WPD-8 LIFT COVERPLATES.

SECTION 16400 - SERVICE AND DISTRIBUTION

1. WIRE AND CABLE CONDUCTORS SHALL BE COPPER, 600V, TYPE THHN OR THWN, WITH A MIN. SIZE OF #12 AWG, COLOR CODED. ALL RECTIFIER DROPS SHALL BE STRANDED TO ACCEPT CRIMP CONNECTORS.

2. ALL CHEMICAL GROUND RODS SHALL BE "UL" APPROVED.

3. METER SOCKET AMPERES, VOLTAGE, NUMBER OF PHASES SHALL BE AS NOTED ON THE DRAWINGS. MANUFACTURED BY MILBANK

4. CONDUIT

A. RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH GALVANIZED ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR. RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.

B. ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL. FITTING SHALL BE GLAND RING COMPRESSION TYPE.

C. FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "JAKE" OR "SQUEEZE" TYPE. ALL FLEXIBLE CONDUITS SHALL HAVE FULL LENGTH GROUND WIRE.

D. ALL UNDERGROUND CONDUIT SHALL BE AS NOTED ON THE DRAWINGS AT A MINIMUM DEPTH OF 42" BELOW GRADE. IT IS REQUIRED AND WILL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO NOTIFY THE STATE "ONE-CALL" SYSTEM AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO DIGGING OR AS REQUIRED BY LOCATOR.

5. CONTRACTOR TO COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. ALL COSTS TO BE PAID BY THE CONTRACTOR.

6. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS WITH WHITE ON BLUE BACKGROUND LETTERING (MINIMUM LETTER HEIGHT SHALL BE 1/4-INCH). NAMEPLATES SHALL BE FASTENED WITH STAINLESS STEEL SCREWS, NOT ADHESIVE.

7. UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL POTENTIAL GROUNDING TESTS BY AN INDEPENDENT TESTING SERVICE ENGAGED BY THE CONTRACTOR. SUBMIT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.

8. GROUNDING ELECTRODE SYSTEM

A. PREPARATION

1. SURFACE PREPARATION ALL CONNECTIONS SHALL BE MADE TO BARE METAL. ALL PAINTED SURFACES SHALL BE FIELD INSPECTED AND MODIFIED TO ENSURE PROPER CONTACT. NO WASHERS ARE ALLOWED BETWEEN THE ITEMS BEING GROUNDED. ALL CONNECTIONS ARE TO HAVE A AGENT APPLIED PRIOR TO INSTALLATION.

2. GROUND BAR PREPARATION ALL COPPER GROUND BARS SHALL BE CLEANED, POLISHED AND A NON-OXIDIZING AGENT APPLIED. NO FINGERPRINTS OR DISCOLORED COPPER WILL BE PERMITTED.

3. SLEEVES ALL GROUNDING CONDUCTORS SHALL RUN THROUGH PVC SLEEVES WHEREVER CONDUCTORS RUN THROUGH WALLS, FLOORS THROUGH EMT, BOTH ENDS OF CONDUIT SHALL BE GROUNDED. SEAL BOTH ENDS OF CONDUIT WITH SILICONE CAULK.

B. GROUND BARS

1. ALL GROUND BARS SHALL BE 1/4-INCH THICK TINNED COPPER PLATE AND OF SIZE INDICATED ON DRAWINGS.
2. ALL CONNECTIONS TO THE GROUND BAR SHALL OBSERVE THE FOLLOWING SEQUENCE
   A. BOLTHEAD
   B. 2-HOLE LUG
   C. TINNED COPPER BUSS BAR
   D. STAR WASHER
   E. NUT

C. EXTERNAL CONNECTIONS

1. ALL BURIED GROUNDING CONNECTIONS SHALL BE MADE BY THE EXOTHERMIC WELD PROCESS. CONNECTIONS SHALL INCLUDE ALL CABLE TO CABLE, SPLICES, TEES, CROSSES, ETC. ALL CABLE TO GROUND RODS, GROUND ROD SPLICES AND LIGHTNING PROTECTION SYSTEMS ARE TO BE AS INDICATED. ALL MATERIALS USED (MOLDS, WELDING METAL, TOOLS, ETC.) SHALL BE BY "CADWELD" AND INSTALLED PER MANUFACTURER'S RECOMMENDED PROCEDURES.

2. ALL ABOVE GRADE GROUNDING AND BONDING CONDUCTORS SHALL BE CONNECTED BY TWO HOLE CRIMP TYPE (COMPRESSION) CONNECTIONS (EXCEPT FOR THE ACEG AND GROUND ROD) MECHANICAL CONNECTIONS. FITTINGS OR CONNECTIONS THAT DEPEND SOLELY ON SOLDER SHALL NOT BE USED. ALL CABLE TO CABLE CONNECTIONS SHALL BE HIGH PRESSURE DOUBLE CRIMP TYPE CONNECTIONS.

D. GROUND RODS ALL GROUND RODS SHALL BE 5/8-INCH DIAMETER x 10'-0" LONG "COPPERWELD" OR APPROVED EQUAL, OF THE NUMBER AND LOCATIONS INDICATED. GROUND RODS SHALL BE DRIVEN FULL LENGTH VERTICAL IN UNDISTURBED EARTH.

E. GROUND CONDUCTORS

ALL GROUND CONDUCTORS SHALL BE STANDARD TINNED SOLID BARE COPPER ANNEALED, AND OF SIZE INDICATED ON DRAWINGS UNLESS NOTED OTHERWISE.

F. LUGS

1. LUGS SHALL BE 2-HOLE, LONG BARREL, STRAND COPPER UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS. LUGS SHALL BE THOMAS AND BETTS SERIES #548 OR EQUIVALENT
   BENDING.

A.	535 MCM DLO	54880BE
B.	262 MCM DLO	54872BE
C.	#1/0 DLO	54862BE
D.	#4/0 THWN AND BARE	54866BE
E.	#2/0 THWN	54862BE
F.	#2 THHN	54207BE
G.	#6 DLO	54205BE

2. WHEN THE DIRECTION OF THE CONDUCTOR MUST CHANGE, IT SHALL BE DONE GRADUALLY. THE CURVATURE OF THE TURN SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING CHART:

GROUNDING CONDUCTOR SIZE RADIUS TO INSIDE EDGE

NO. 6 AWG TO NO. 4 AWG	6 INCHES
NO. 2 AWG TO NO. 1/0 AWG	8 INCHES
NO. 2/0 AWG TO 4/0 MCM	12 INCHES
250 MCM TO 750 MCM	24 INCHES

G. GROUND RING

1. THE EXTERNAL GROUND RING ENCIRCLING THE TOWER (IF APPLICABLE) AND THE EQUIPMENT SHELTER OR PLATFORM/SKID SHALL BE MINIMUM NO. 2 A.W.G. SOLID TINNED BARE COPPER CONDUCTOR IN DIRECT CONTACT WITH THE EARTH AT THE DEPTH INDICATED ON THE DRAWINGS. CONDUCTOR BENDS SHALL HAVE A MINIMUM BENDING RADIUS OF EIGHT (8) INCHES.

2. ALL EXTERNAL GROUND RINGS ARE TO BE JOINED TOGETHER AND ALL CONNECTIONS MUST BE CADWELDED. NO LUGS OR CLAMPS WILL BE ACCEPTED.

H. FENCE/GATE

GROUND EACH GATE POST, CORNER POST AND GATE AS INDICATED ON THE DRAWINGS. GROUND CONNECTIONS TO FENCE POSTS AND ALL OTHER CONNECTIONS FOR THE GROUND GRID SYSTEM SHALL BE MADE BY EXOTHERMIC WELD PROCESS, AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND PROCEDURES, AND SPRAYED WITH COLD-GALVANIZED PAINT.

9. I.E.E.E. FALL POTENTIAL TESTS

A. FOR RAW LAND SITE

1. GROUND TESTS SHALL BE PERFORMED AS INDICATED ON DRAWINGS. A BIDDLE GROUND OHMER OR THE METHOD OF USING TWO AUXILIARY GROUND RODS (AS DESCRIBED IN I.E.E.E. STANDARDS NO. 81-1983, PART 1) MAY BE USED. THE I.E.E.E. METHOD REQUIRES THE USE OF AN A.C. TEST CURRENT. THE AUXILIARY TEST RODS MUST BE SUFFICIENTLY FAR AWAY FROM THE ROD UNDER TEST SO THAT THE REGIONS IN WHICH THEIR RESISTANCE IS LOCALIZED DO NOT OVERLAP. THE TEST POINT WILL BE THE GROUND ROD AND WILL CONSIST OF THE THREE POINT FALL OF POTENTIAL MEGGER TEST METHOD, USING THE BIDDLE NULL-BALANCE EARTH TESTER (MEGGER #250220-2, OR EQUIVALENT)

2. CONTRACTOR TO CONDUCT GROUND RESISTANCE TEST IN THE FORMAT AS FOLLOWS:

B. EQUIPMENT PAD

1. FIRST TEST - SHALL BE WITH FOUR (4) GROUND RODS INSTALLED, ONE AT EACH CORNER OF THE PAD BUT NOT CONNECTED TO THE MAIN GROUNDING BUS. FURNISH WIRE TO CONNECT (TEMPORARY CLAMP) ALL FOUR (4) GROUND RODS TOGETHER TO MAKE A SYSTEM TEST AFTER EACH ROD IS INDIVIDUALLY TESTED. IF ANY INDIVIDUAL ROD TESTS 25 OHMS OR MORE, THE ELECTRICAL CONTRACTOR AND OWNER'S REPRESENTATIVE SHOULD BE NOTIFIED SO THAT THE ROD CAN BE DRIVEN DEEPER UNTIL ALL FOUR (4) RODS HAVE A RESISTANCE OF 10 OHMS OR LESS ON A DRY DAY.

2. SECOND TEST - SHALL BE WITH THE GROUND RODS CONNECTED, WITH DRY SOIL AND WHEN NO STANDING WATER HAS BEEN PRESENT FOR THE PAST TEN (10) DAYS. THE MAXIMUM ALLOWABLE READING IS 5 OHMS TO GROUND. IF THE RESISTANCE OF THE ENTIRE SYSTEM EXCEEDS 5 OHMS, NOTIFY THE CONTRACTOR AND OWNER'S REPRESENTATIVE SO THAT ADDITIONAL AND/OR DEEPER RODS CAN BE INSTALLED.

C. TOWER

1. FIRST TEST - SHALL BE WITH THREE (3) GROUND RODS INSTALLED (MINIMUM), EQUALLY SPACED AROUND THE TOWER FOUNDATION, BUT NOT CONNECTED TO THE SHELTER/PLATFORM/SKID PAD EXTERNAL GROUND RING. FURNISH WIRE TO CONNECT (TEMPORARY CLAMP) ALL THREE (3) GROUND RODS TOGETHER TO MAKE A SYSTEM TEST AFTER EACH ROD IS INDIVIDUALLY TESTED. IF ANY INDIVIDUAL ROD TESTS 25 OHMS OR MORE, NOTIFY THE CONTRACTOR AND OWNER'S REPRESENTATIVE SO THAT THE ROD CAN BE DRIVEN DEEPER UNTIL ALL THREE (3) RODS HAVE A RESISTANCE OF 10 OHMS OR LESS ON A DRY DAY.

2. SECOND TEST - SHALL BE WITH THE GROUND RODS CONNECTED, WITH DRY SOIL AND WHEN NO STANDING WATER HAS BEEN PRESENT FOR THE PAST TEN (10) DAYS. THE MAXIMUM ALLOWABLE READING IS 5 OHMS TO GROUND. IF THE RESISTANCE OF THE ENTIRE SYSTEM EXCEEDS 5 OHMS, THE ELECTRICAL CONTRACTOR AND OWNER'S REPRESENTATIVE SHOULD BE NOTIFIED SO THAT EITHER ADDITIONAL AND/OR DEEPER RODS CAN BE INSTALLED.

D. EQUIPMENT PAD AND TOWER

1. AFTER THE EQUIPMENT PAD AND TOWER GROUND RESISTANCE TEST IS COMPLETED, CONTRACTOR SHALL TIE EQUIPMENT PAD EXTERNAL GROUND RING AND TOWER EXTERNAL GROUND RING TOGETHER. AFTER FIRST AND SECOND TEST ALL CONNECTIONS MUST BE MADE USING EXOTHERMIC WELD. NO LUGS OR CLAMPS WILL BE ACCEPTED.

2. AFTER ALL THE EXTERNAL GROUND RINGS ARE TIED TOGETHER, COMPLETE A MEGGER CHECK OF THE GROUND SYSTEM. THE MAXIMUM ALLOWABLE READING IS 5 OHMS TO GROUND.

10. GROUNDING RESISTANCE TEST REPORT

UPON COMPLETION OF THE TESTING FOR EACH SITE, A TEST REPORT SHOWING RESISTANCE IN OHMS WITH AUXILIARY POTENTIAL ELECTRODES AT 5 FEET AND 10 FEET INTERVALS UNTIL THE AVERAGE RESISTANCE STARTS INCREASING AND ALSO NOTE THAT 10-15 PHOTOS MUST BE TAKEN TO PROOF ENTIRE EXTERNAL GROUND RING SYSTEM BEFORE BACKFILL. TWO (2) SETS OF TEST DOCUMENTS ARE OF THE INDEPENDENT TESTING SERVICE TO BE BOUND AND SUBMITTED WITHIN ONE (1) WEEK OF WORK COMPLETION.

SECTION 16503 - POLES, POSTS, AND STANDARDS

1. GENERAL

A. LIGHTNING ROD AND EXTENSION PIPE INCLUDING ALL APPURTENANCES, TO BE FURNISHED BY OWNER, IF REQUIRED.

B. PROVIDE TEMPORARY LIGHTING FOR TOWER AS PER FAA REGULATIONS DURING CONSTRUCTION, IF REQUIRED.

C. GROUNDING

GROUND TOWER WITH A MINIMUM OF #2 AWG TINNED SOLID BARE COPPER CONDUCTOR CADWELDED TO TABS (IF PRESENT). TWO (2) GROUNDING LEADS PER TOWER. NO EXOTHERMIC WELDS SHALL BE ATTACHED DIRECTLY TO THE TOWER STEEL.

SECTION 16745 - TELECOMMUNICATIONS WIRING COMPONENTS (COAXIAL ANTENNA CABLE)

1. GENERAL

A. ALL MATERIALS, PRODUCTS OR PROCEDURES INCORPORATED INTO WORK SHALL BE NEW AND OF STANDARD COMMERCIAL QUALITY.

B. CERTAIN MATERIALS AND PRODUCTS WILL BE SUPPLIED BY THE OWNER (REFER TO GENERAL CONDITIONS FOR THE LIST OF OWNER FURNISHED EQUIPMENT, MATERIALS AND SUPPLIES FOR THESE ITEMS). THE CONTRACTOR IS RESPONSIBLE FOR PICKUP AND DELIVERY OF ALL SUCH MATERIALS.

C. ALL OTHER MATERIALS AND PRODUCTS SPECIFIED IN THE CONTRACT DOCUMENTS SHALL BE SUPPLIED BY THE CONTRACTOR.

2. MATERIALS:

A. COAXIAL CABLE:
1. INSTALL COAXIAL CABLE AND TERMINATIONS BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS WITH COAXIAL CABLES SUPPORTED AT NO MORE THAN 3'-0" O.C. WEATHERPROOF ALL CONNECTORS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURERS' REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF EQUIPMENT LOCATION UNLESS OTHERWISE STATED.
2. ALL COAX RUNS SHALL BE 1-5/8" UNLESS OTHERWISE INDICATED.

3. ANTENNA AND COAXIAL CABLE GROUNDING
A. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS)

4. COAXIAL CABLE IDENTIFICATION
A. TO PROVIDE EASY IDENTIFICATION AND UNIFORM MARKING OF ANTENNA CABLING, MARK CABLE:
1. FIRST LOCATION IS AT THE END OF THE COAX NEAREST THE ANTENNA (WHERE THE COAXIAL CABLE AND JUMPER ARE CONNECTED).

2. SECOND LOCATION IS INSIDE THE EQUIPMENT SHELTER NEAR THE WAVEGUIDE ENTRY PORT OR BEFORE TERMINATION ON EXTERIOR SITES.

5. TESTING

IF REQUESTED BY CONSTRUCTION MANAGER, LESSEE SHALL PROVIDE AN INDEPENDENT TESTING AGENCY TO PERFORM THE COAXIAL SWEEP TEST & REPORT. THE CONTRACTOR SHALL PROVIDE ONE CLIMBER / QUALIFIED PERSONNEL TO ASSIST IN ANY REPAIRS AND WEATHERPROOFING ONCE THE TEST IS COMPLETE. THE CONTRACTOR SHALL PROVIDE LESSEE WITH A MINIMUM OF FORTY-EIGHT (48) HOURS NOTICE PRIOR TO THE TIME OF THE SWEEP TEST.

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SPECIFICATIONS
NORTH FITCHBURG (266596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN

CHECKED BY: PCM

PLOT DATE: 9/21/2021

PROJECT #: 22243

FILE NAME: SP-2.dgn

SHEET NUMBER:

SP-2

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SITE OVERVIEW
LOOKING NORTH

PROPOSED CST LEASE AREA
LOOKING WEST

GRAVEL ACCESS DRIVE
LOOKING SOUTHWEST

GRAVEL ACCESS DRIVE
LOOKING NORTHEAST TOWARDS DELLVUE DRIVE

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SITE PHOTOS
NORTH FITCHBURG (2666596)
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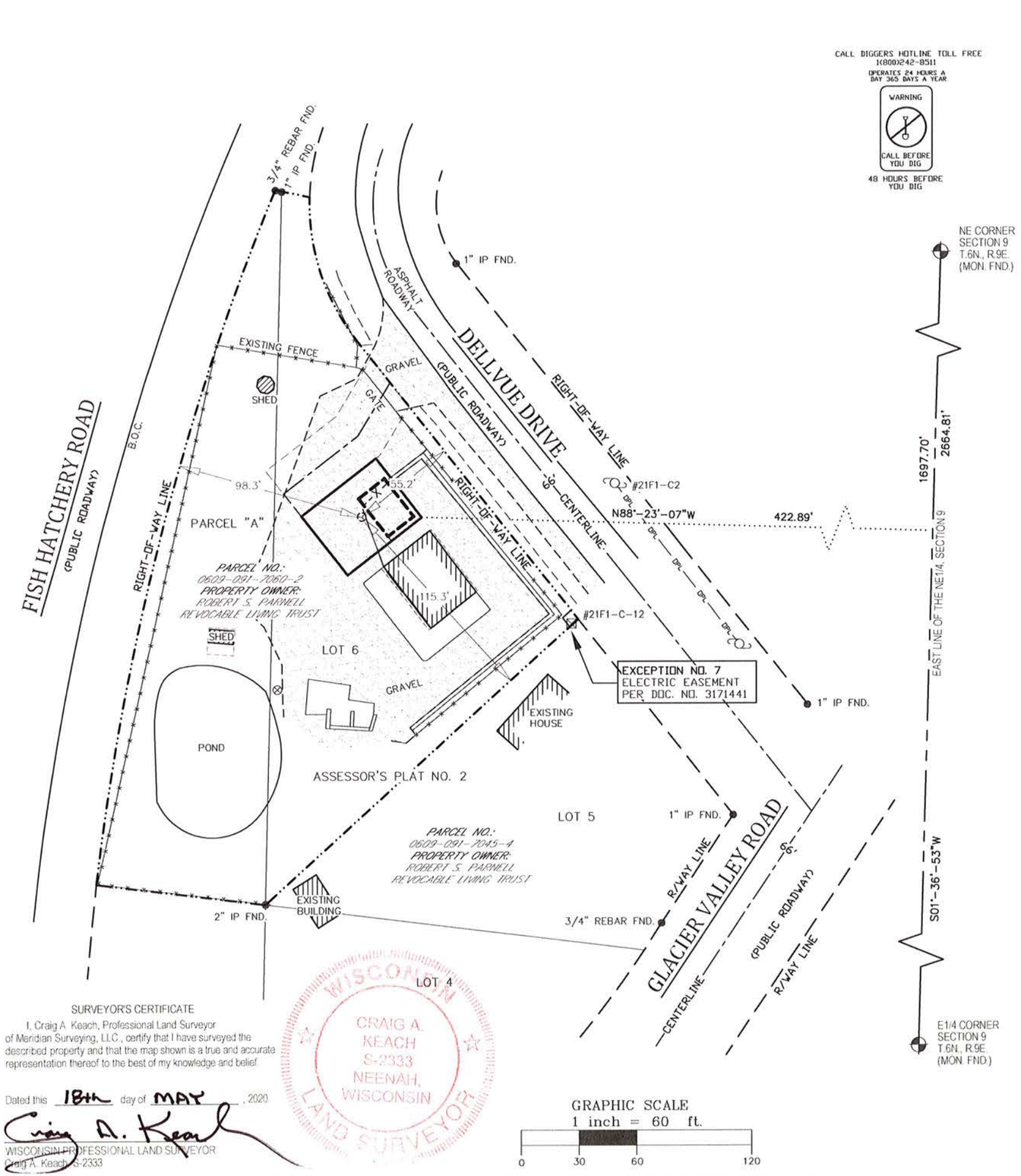


SURVEYOR'S CERTIFICATE

I, Craig A. Keach, Professional Land Surveyor of Meridian Surveying, LLC, certify that I have surveyed the described property and that the map shown is a true and accurate representation thereof to the best of my knowledge and belief.

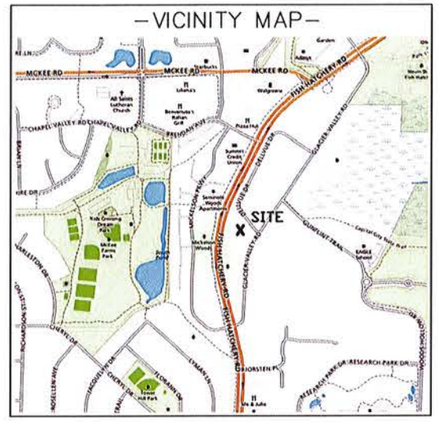
Dated this 18th day of MAY, 2020

Craig A. Keach

WISCONSIN PROFESSIONAL LAND SURVEYOR
Craig A. Keach, S-2333

WISCONSIN
CRAIG A. KEACH
S-2333
NEENAH, WISCONSIN
LAND SURVEYOR

—VICINITY MAP—



PROPOSED TOWER BASE

(CENTRAL STATES TOWER III, LLC.)

LATITUDE: 43°-00'-40.13"
LONGITUDE: 89°-25'-40.25"
(Per North American Datum of 83/2011)

Ground Elevation: 939.6'
(Per North American Vertical Datum of 1988)

—LEGEND—

- ○ = 1" X 18" IRON PIPE SET
- □ = 6" NAIL SET
- ● = 1" IRON PIPE FOUND
- ⊕ = COUNTY MONUMENT FOUND
- ⊗ = WATER VALVE
- ⊠ = ELECTRIC TRANSFORMER
- = EXISTING POWER POLE
- B.O.C. = BACK OF CURB
- — OPL — OPL — = OVERHEAD ELECTRIC
- ——X—— = CHAINLINK FENCE LINE
- = EDGE OF BRUSH/WOODS
- = PROPERTY LINE

SURVEY NOTES:

- THE LOCATION OF THE EXISTING UTILITIES, AS SHOWN ON THIS PLAN, ARE APPROXIMATE ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ACTUAL LOCATION AND DEPTH OF ALL EXISTING UTILITIES. THE OWNER AND THE SURVEYOR SHALL NOT BE RESPONSIBLE FOR ANY OMISSION OR VARIATION FROM THE LOCATION SHOWN.
- DIGGERS HOTLINE TICKET NO. 20191303202.
- PRIVATE UTILITIES MARKED ON 4-1-2019.
- THIS IS NOT A BOUNDARY SURVEY OF THE PARENT PARCEL. THIS SURVEY REPRESENTS THE LEASE AREA AND EASEMENTS ONLY.
- ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD MAPS, THE EXISTING TELECOMMUNICATIONS SITE IS LOCATED IN ZONE "X", FIRM PANEL NO. 55025C0418G, DATED JANUARY 2 2009, AND IS NOT IN A SPECIAL FLOOD HAZARD AREA. ZONE "X" IS DESIGNATED AS: "AREA OF MINIMAL FLOOD HAZARD".

WETLAND NOTE:
- THE PRESENCE AND LOCATION OF WETLANDS HAS NOT BEEN DETERMINED ON THIS PROPERTY. WETLANDS SHOULD ONLY BE DETERMINED BY ACTUAL FIELD DELINEATION PERFORMED BY A QUALIFIED WETLAND SPECIALIST.

SURVEYED FOR:

Edge
Consulting Engineers, Inc.
624 Water Street
Prairie du Sac, WI 53578
608.644.1449 voice
608.644.1549 fax
www.edgeconsult.com

SURVEYED FOR:

verizon

1515 WOODFIELD ROAD
SUITE 1400
SCHAUMBURG, IL 60173

MERIDIAN
SURVEYING, LLC
N9637 Friendship Drive Office: 920-993-0881
Kaukauna, WI 54130 Fax: 920-273-6037

SITE NAME:
NORTH FITCHBURG

SITE NUMBER:
266596

SITE ADDRESS:
2861 DELLVUE DRIVE
FITCHBURG, WI 53711

PROPERTY OWNER:
ROBERT S. PARNELL
REVOCABLE LIVING TRUST
2861 DELLVUE DRIVE
FITCHBURG, WI 53711

PARCEL NO.: 060909170602

ZONED: R-D (RURAL DEVELOPMENT)

DEED REFERENCE: DOC. NO. 5466447

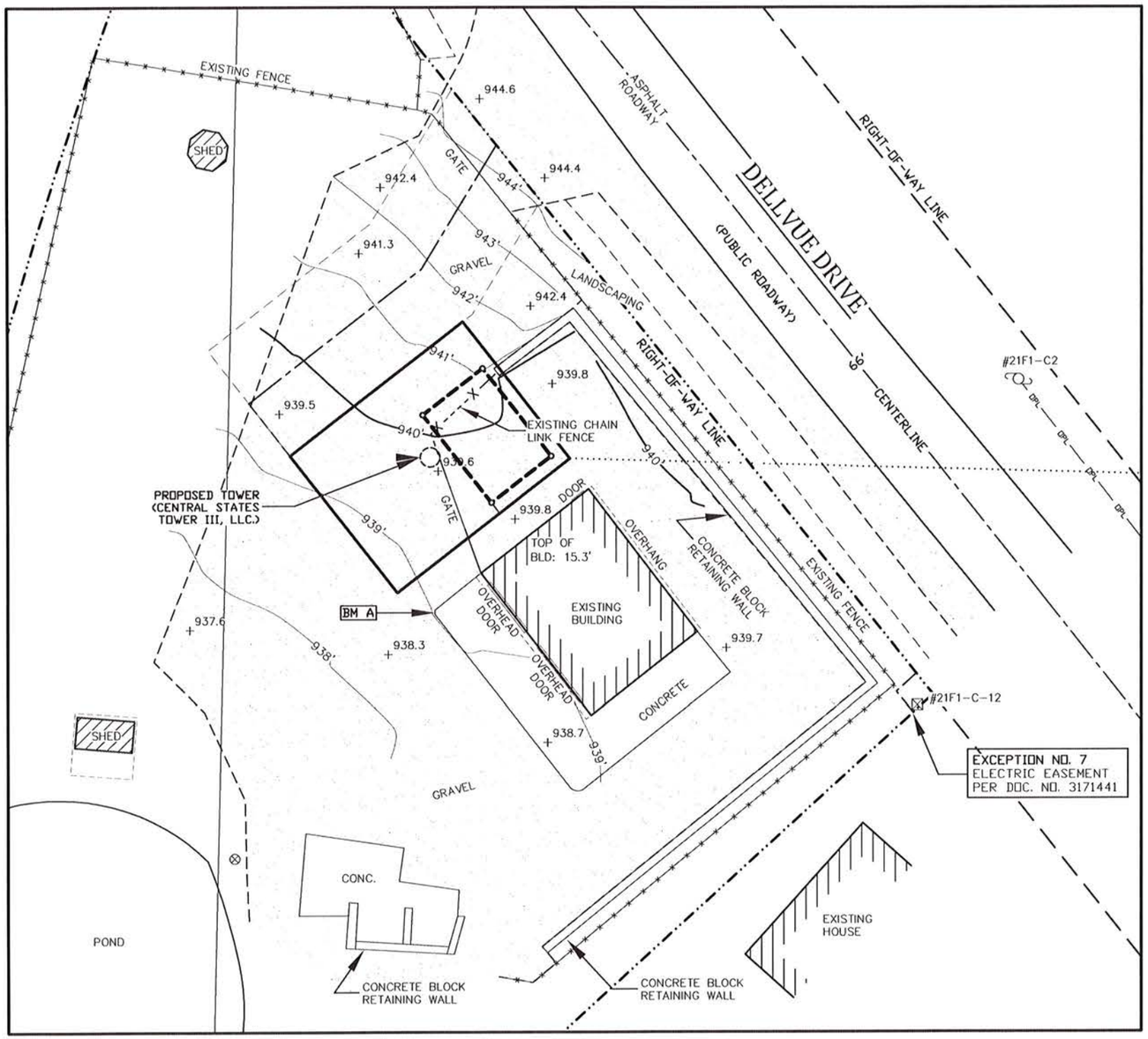
LEASE EXHIBIT

FOR
VERIZON WIRELESS PERSONAL COMMUNICATIONS LP d/b/a VERIZON WIRELESS

BEING A PART OF LOT 6, ASSESSOR'S PLAT 2, LOCATED IN THE SE1/4 OF THE NE1/4, SECTION 9, T.6N., R.9E., CITY OF FITCHBURG, DANE COUNTY, WISCONSIN

NO.	DATE	DESCRIPTION	BY
2	5-18-20	Added Title Report	JD
1	7-11-19	Preliminary Survey	JB

DRAWN BY: J.D.		FIELD WORK DATE: 4-01-19	
CHECKED BY: C.A.K.		FIELD BOOK: M-53, PG. 15	
JOB NO.: 11016		SHEET 1 OF 3	



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- ● = 1" IRON PIPE FOUND
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- ⊗ = WATER VALVE
- ⊠ = ELECTRIC TRANSFORMER
- = EXISTING POWER POLE
- B.O.C. = BACK OF CURB
- — OPL — OPL — = OVERHEAD ELECTRIC
- —— X —— = CHAINLINK FENCE LINE
- = EDGE OF BRUSH/WOODS
- = PROPERTY LINE

GRAPHIC SCALE
1 inch = 30 ft.

0 15 30 60

SURVEYOR'S CERTIFICATE

I, Craig A. Keach, Professional Land Surveyor of Meridian Surveying, LLC., certify that I have surveyed the described property and that the map shown is a true and accurate representation thereof to the best of my knowledge and belief.

Dated this 18th day of MAY, 2020.

Craig A. Keach

WISCONSIN PROFESSIONAL LAND SURVEYOR
Craig A. Keach, S-2333

WISCONSIN CRAIG A. KEACH S-2333 NEENAH, WISCONSIN LAND SURVEYOR

BENCHMARK INFORMATION
SITE BENCHMARK: (BM A)
TOP OF NW CORNER OF CONCRETE PAD NEXT TO GARAGE
ELEVATION: 939.42'

BEARINGS REFERENCED TO THE DANE COUNTY COORDINATE SYSTEM AND THE EAST LINE OF THE NE1/4, SECTION 9, T.6N., R.9E., WHICH BEARS: N01°-36'-53"E

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SITE NAME:
NORTH FITCHBURG

SITE NUMBER:
266596

SITE ADDRESS:
2861 DELLVUE DRIVE
FITCHBURG, WI 53711

PROPERTY OWNER:
ROBERT S. PARNELL
REVOCABLE LIVING TRUST
2861 DELLVUE DRIVE
FITCHBURG, WI 53711

PARCEL NO.: 060909170602

ZONED: R-D (RURAL DEVELOPMENT)

DEED REFERENCE: DOC. NO. 5466447

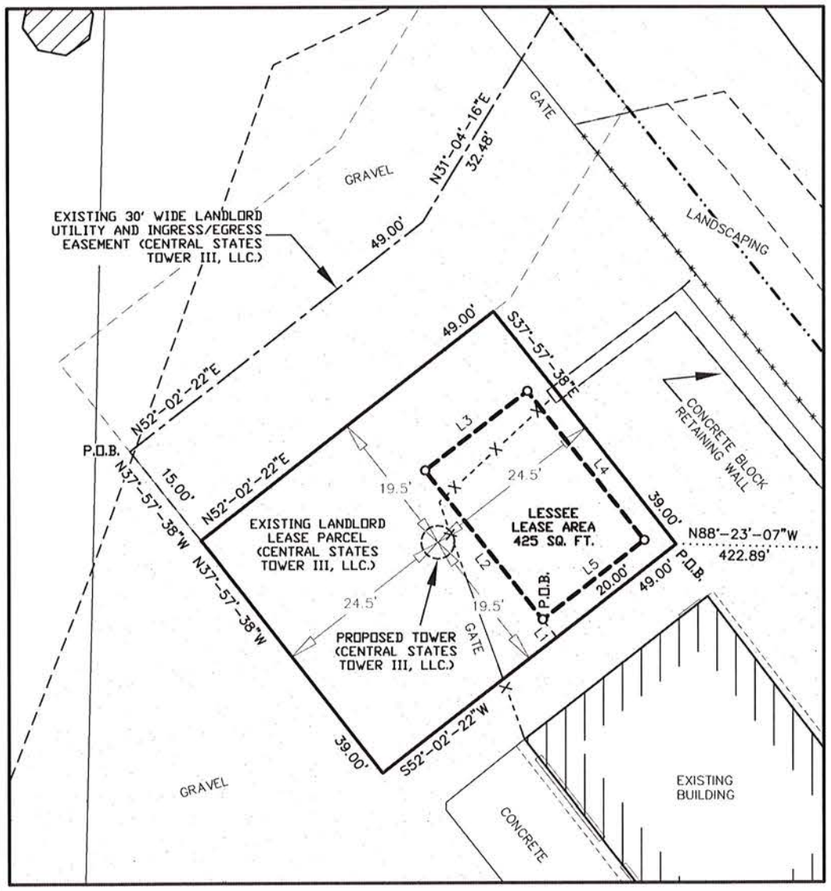
LEASE EXHIBIT

FOR
VERIZON WIRELESS PERSONAL COMMUNICATIONS LP d/b/a VERIZON WIRELESS

BEING A PART OF LOT 6, ASSESSOR'S PLAT 2, LOCATED IN THE SE1/4 OF THE NE1/4, SECTION 9, T.6N., R.9E., CITY OF FITCHBURG, DANE COUNTY, WISCONSIN

NO.	DATE	DESCRIPTION	BY
2	5-18-20	Added Title Report	JD
1	7-11-19	Preliminary Survey	JB

DRAWN BY: J.D.	FIELD WORK DATE: 4-01-19
CHECKED BY: C.A.K.	FIELD BOOK: M-53, PG. 15
JOB NO.: 11016	SHEET 2 OF 3



GRAPHIC SCALE
1 inch = 20 ft.
0 10 20 40

LINE TABLE		
Line #	Direction	Length
L1	N37°57'38"W	3.00'
L2	N37°57'38"W	25.00'
L3	N52°02'22"E	17.00'
L4	S37°57'38"E	25.00'
L5	S52°02'22"W	17.00'

—LEGEND—

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- ⊕ = COUNTY MONUMENT FOUND
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Dated this 18th day of MAY, 2020

Craig A. Keach

WISCONSIN PROFESSIONAL LAND SURVEYOR
Craig A. Keach, S-2333

WISCONSIN CRAIG A KEACH S-2333 NEENAH, WISCONSIN LAND SURVEYOR

BEARINGS REFERENCED TO THE DANE COUNTY COORDINATE SYSTEM AND THE EAST LINE OF THE NE1/4, SECTION 9, T.6N., R.9E., WHICH BEARS: N01°-36'-53"E

N

LESSEE LEASE PARCEL

PART OF LOT SIX (6), ASSESSOR'S PLAT TWO (2), BEING LOCATED IN THE SOUTHEAST QUARTER (SE1/4) OF THE NORTHEAST QUARTER (NE1/4) OF SECTION NINE (9), TOWNSHIP SIX (6) NORTH, RANGE NINE (9) EAST, CITY OF FITCHBURG, DANE COUNTY, WISCONSIN CONTAINING 425 SQUARE FEET (0.010 ACRES) OF LAND AND BEING DESCRIBED BY:

COMMENCING AT THE NORTHEAST CORNER OF SAID SECTION 9; THENCE S01°-36'-53"W 1597.70 FEET ALONG THE EAST LINE OF THE NE1/4 OF SAID SECTION 9; THENCE N88°-23'-07"W 422.89 FEET; THENCE S52°-02'-22"W 20.00 FEET; THENCE N37°-57'-38"W 3.00 FEET TO THE POINT OF BEGINNING; THENCE N37°-57'-38"W 25.00 FEET; THENCE N52°-02'-22"E 17.00 FEET; THENCE S37°-57'-38"E 25.00 FEET; THENCE S52°-02'-22"W 17.00 FEET TO THE POINT OF BEGINNING. BEING SUBJECT TO ANY AND ALL EASEMENTS AND RESTRICTIONS OF RECORDS.

LEASE PARCEL

PART OF LOT SIX (6), ASSESSOR'S PLAT TWO (2), BEING LOCATED IN THE SOUTHEAST QUARTER (SE1/4) OF THE NORTHEAST QUARTER (NE1/4) OF SECTION NINE (9), TOWNSHIP SIX (6) NORTH, RANGE NINE (9) EAST, CITY OF FITCHBURG, DANE COUNTY, WISCONSIN CONTAINING 1,911 SQUARE FEET (0.044 ACRES) OF LAND AND BEING DESCRIBED BY:

COMMENCING AT THE NORTHEAST CORNER OF SAID SECTION 9; THENCE S01°-36'-53"W 1597.70 FEET ALONG THE EAST LINE OF THE NE1/4 OF SAID SECTION 9; THENCE N88°-23'-07"W 422.89 FEET TO THE POINT OF BEGINNING; THENCE S52°-02'-22"W 49.00 FEET; THENCE N37°-57'-38"W 39.00 FEET; THENCE N52°-02'-22"E 49.00 FEET; THENCE S37°-57'-38"E 39.00 FEET TO THE POINT OF BEGINNING. BEING SUBJECT TO ANY AND ALL EASEMENTS AND RESTRICTIONS OF RECORDS.

30' WIDE UTILITY & INGRESS/EGRESS EASEMENT

PART OF LOT SIX (6), ASSESSOR'S PLAT TWO (2), BEING LOCATED IN THE SOUTHEAST QUARTER (SE1/4) OF THE NORTHEAST QUARTER (NE1/4) OF SECTION NINE (9), TOWNSHIP SIX (6) NORTH, RANGE NINE (9) EAST, CITY OF FITCHBURG, DANE COUNTY, WISCONSIN CONTAINING 2,444 SQUARE FEET (0.056 ACRES) OF LAND AND BEING FIFTEEN (15) FEET EACH SIDE OF AND PARALLEL WITH THE FOLLOWING DESCRIBED LINE:

COMMENCING AT THE NORTHEAST CORNER OF SAID SECTION 9; THENCE S01°-36'-53"W 1597.70 FEET ALONG THE EAST LINE OF THE NE1/4 OF SAID SECTION 9; THENCE N88°-23'-07"W 422.89 FEET; THENCE S52°-02'-22"W 49.00 FEET; THENCE N37°-57'-38"W 54.00 FEET TO THE POINT OF BEGINNING; THENCE N52°-02'-22"E 49.00 FEET; THENCE N31°-04'-16"E 32.48 FEET TO A POINT ON THE SOUTHWEST LINE OF DELLVUE DRIVE AND THE POINT OF TERMINATION. THE SIDE LOT LINES OF SAID EASEMENT ARE TO BE SHORTENED OR LENGTHENED TO TERMINATE ON SAID SOUTHWEST LINE OF DELLVUE DRIVE.

PARENT PARCEL

ASSESSOR'S PLAT 2, LOT 6, AND ALSO THAT PART OF THE SURPLUS ROAD RIGHT-OF-WAY DESCRIBED IN DOC. 4767975 AS SECTION 09-06-09, PART OF THE SE 1/4 OF THE NE 1/4, BEGINNING AT THE SOUTHERLY CORNER OF SAID LOT 6, THENCE NORTH 83°44'21" WEST 88.81 FEET TO A POINT ON A CURVE PARALLEL AND 70 FEET EAST OF THE CENTER LINE OF FISH HATCHERY ROAD, THENCE ALONG A CURVE TO THE RIGHT RADIUS 1,362.39 FEET, LONG CHORD NORTH 13°51'09" EAST 373.56 FEET, THENCE SOUTH 78°53'38" EAST 3.34 FEET TO THE NORTHWESTERLY CORNER OF SAID LOT 6, THENCE ALONG THE WESTERLY LINE OF SAID LOT 6 SOUTH 00°41'00" WEST 371.77 FEET TO THE POINT OF BEGINNING, CITY OF FITCHBURG, DANE COUNTY, WISCONSIN.

TITLE REPORT REVIEW

TITLE REPORT: US Title Solutions COMMITMENT NO. 63547-W11906-5030 EFFECTIVE DATE: July 2, 2019

FEE SIMPLE TITLE VESTED IN: Robert S. Parnell, Trustee of the Robert S. Parnell Revocable Living Trust dated January 15, 2019

NOTE: THE STATEMENT OF APPLICABILITY REFERS TO THE LEASE SITE AND ANY EASEMENTS PERTINENT THEREUNTO WHERE SPECIFIC ENCUMBRANCES AFFECT THE LEASE SITE AND/OR A PERTINENT EASEMENT, THEY ARE IDENTIFIED AS SUCH.

SCHEDULE B-II

(1-5) THESE ARE GENERAL STATEMENTS AND NOT SPECIFIC ENCUMBRANCES.

(6) RESTRICTIONS BETWEEN ROBERT G. PARNELL AND SUSAN A. PARNELL DATE AS OF 2/8/1980 RECORDED 2/11/1980 IN BOOK 1648 PAGE 1 IN INSTRUMENT NO. 1657236. **THIS IS NOT A SURVEY RELATED ITEM.**

(7) RIGHT-OF-WAY GRANT UNDERGROUND ELECTRIC BY ROBERT S. PARNELL AND TERI L. PARNELL A/K/A TERRY L. PARNELL TO MADISON GAS AND ELECTRIC COMPANY, DATED 3/4/1999 RECORDED 11/12/1999 IN INSTRUMENT NO :3171441. NOTES: ELECTRIC PURPOSES. **APPLIES TO PARENT PARCEL AND IS PLOTTED AND SHOWN.**

(8) ASSESSOR'S PLAT NO. 2, TOWNSHIP OF FITCHBURG RECORDED 12/28/1956 IN VOLUME 20 PAGE 1 IN INSTRUMENT NO. 931216. **ALL MATTERS DISCLOSED ON THE ASSESSORS PLAT HAVE BEEN PLOTTED AND SHOWN.**

(9) AFFIDAVIT AS TO JUDGMENTS AND LIENS BETWEEN ROBERT S. PARNELL AND STATE OF WISCONSIN, DANE COUNTY. **THIS IS NOT A SURVEY RELATED ITEM.**

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PARCEL NO.: 060909170602

ZONED: R-D (RURAL DEVELOPMENT)

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DRAWN BY: J.D.		FIELD WORK DATE: 4-01-19	
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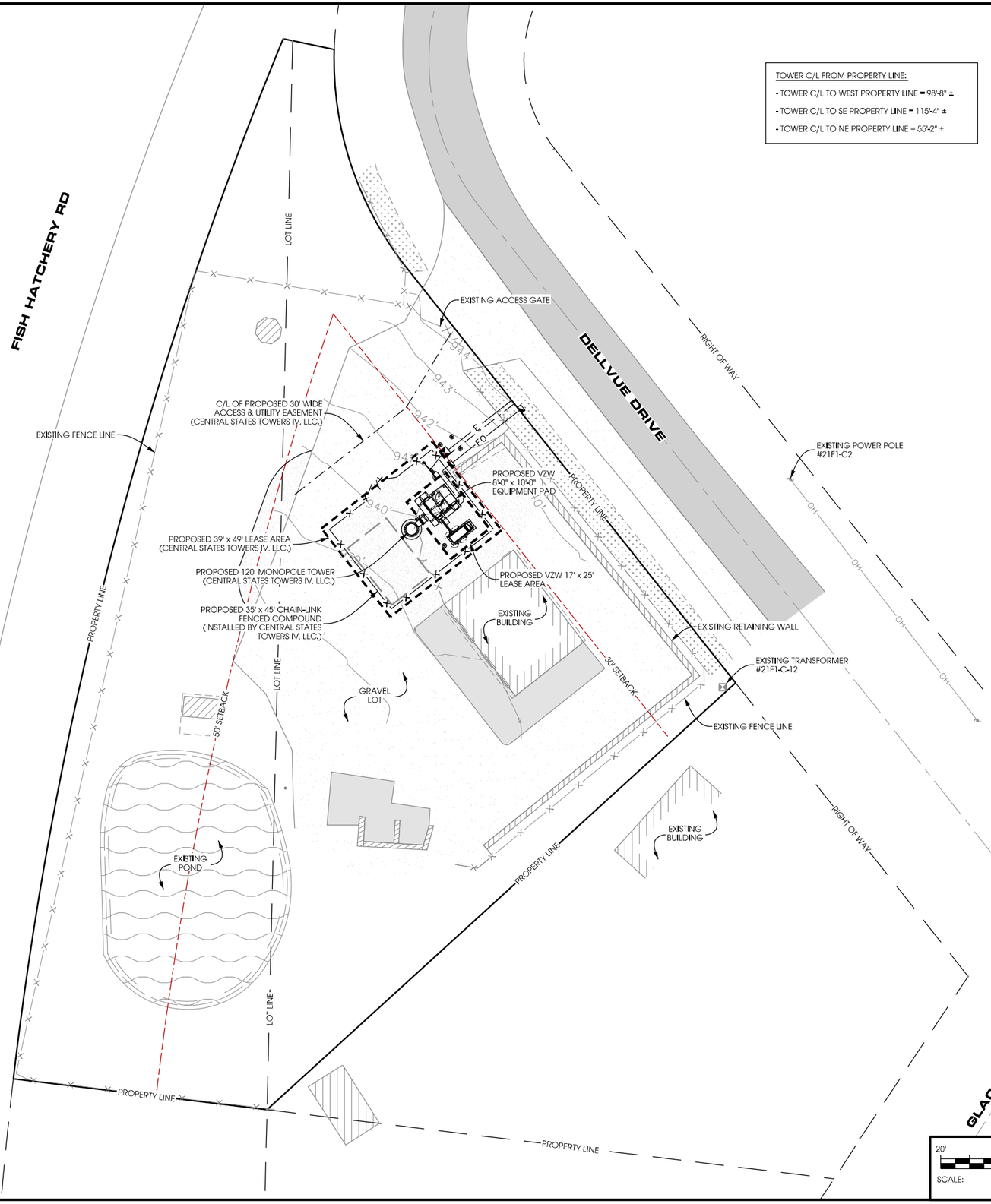
JOB NO.: 11016		SHEET 3 OF 3	

NORTH



AERIAL OVERVIEW OF SITE

k:\22200\22243\CAD\CD Plan\VZW C-1.dgn

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SITE PLAN

NORTH FITCHBURG (2666596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN

CHECKED BY: PCM

PLOT DATE: 9/21/2021

PROJECT #: 22243

FILE NAME: VZW C-1.dgn

20' 0 20' 40'
SCALE: 11" x 17" - 1" = 40'
22" x 34" - 1" = 20'

SHEET NUMBER:
VZW C-1

SITE OVERVIEW (LOOKING SE)

NORTH

LOT LINE

50' SETBACK

30' SETBACK

C/L OF PROPOSED 30' WIDE ACCESS & UTILITY EASEMENT (CENTRAL STATES TOWERS IV, LLC.)

C/L OF PROPOSED 20' WIDE UTILITY EASEMENT (CENTRAL STATES TOWERS IV, LLC.)

PROPOSED BURIED UTILITY CONDUITS; SOURCE TO BE DETERMINED

EXISTING FENCE SECTION

PROPOSED VZW FIBER VAULT (INSTALLED BY CST)

EXISTING LANDSCAPING

PROPERTY LINE

EXISTING RETAINING WALL

PROPOSED VZW FIBER VAULT (INSTALLED BY CST)

PROPOSED 39' x 49' LEASE AREA (CENTRAL STATES TOWERS IV, LLC.)

PROPOSED 8'-0" x 10'-0" VZW CONCRETE PAD

PROPOSED VZW 17' x 25' LEASE AREA

PROPOSED VZW DIESEL GENERATOR ON 4' x 10' CONCRETE PAD

PROPOSED 120' MONOPOLE

PROPOSED 35' x 45' FENCED COMPOUND

FUTURE CARRIER LEASE AREA

ACCESS DOOR

EXISTING BUILDING

OVERHEAD DOOR

GRAVEL LOT

CONCRETE

OVERHEAD DOOR

942'

941'

940'

939'

938'

PROPOSED LEASE AREA (LOOKING WEST)

5' 0 5' 10'

SCALE: 11" x 17" - 1" = 10'
22" x 34" - 1" = 5'

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COMPOUND PLAN
NORTH FITCHBURG (2666596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN

CHECKED BY: PCM

PLOT DATE: 9/21/2021

PROJECT #: 22243

FILE NAME: VZW C-2.dgn

SHEET NUMBER:

VZW C-2

I:\22200\22243\CAD\CD\Plot\VZW C-2.dgn

NORTH

PROPOSED 39' x 49' LEASE AREA
(CENTRAL STATES TOWERS IV, LLC.)

PROPOSED 35' x 45' CHAIN-LINK
FENCED COMPOUND (INSTALLED BY
CENTRAL STATES TOWERS IV, LLC.)

PROPOSED VZW GPS ANTENNAS
MOUNTED TO ICE BRIDGE POST

PROPOSED 120' MONOPOLE TOWER
(CENTRAL STATES TOWERS IV, LLC.)

PROPOSED CONCRETE BOLLARD,
SEE DETAIL ON SHEET B/C-4

FUTURE CARRIER
LEASE AREA

EXISTING CONCRETE
RETAINING WALL

PRO. 10'-0" CONCRETE PAD

PROPOSED VZW
EQUIP. CABINETS ON
8'-0" x 10'-0" PAD

PRO. CHARLES CUBE

PRO. ILC

PRO. 8'-0" CONCRETE PAD

PROPOSED VZW 26'-0" LEASE AREA

PROPOSED DIESEL
GENERATOR ON
4' x 10' PAD

PRO. 10'-0" CONCRETE PAD

PROPOSED VZW 17'-0" LEASE AREA

EXISTING ACCESS DOOR

4'-2"
2'-10"
3'-0"
7'-0"
4'-0"
3'-0"
1'-0"
5'-4"
3'-6"
3'-6"
1'-0"

2'-5" 0 2'-5" 5'-0"

SCALE: 11" x 17" - 1" = 5'-0"
22" x 34" - 1" = 2'-6"

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SHEET TITLE:

ENLARGED COMPOUND PLAN

NORTH FITCHBURG (266596)

FITCHBURG, WISCONSIN

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
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STAMPED PERMIT DWGS:	
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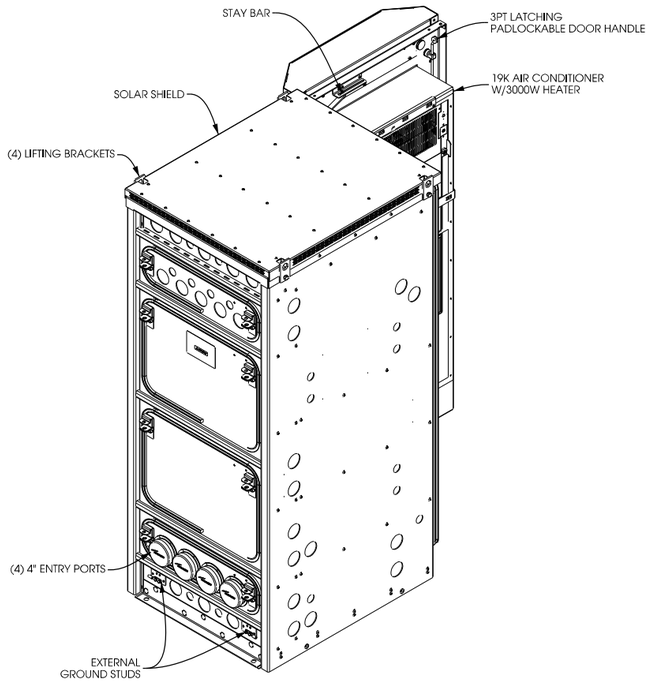
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN
CHECKED BY: PCM	
PLOT DATE: 9/21/2021	
PROJECT #: 22243	
FILE NAME: VZW C-3.dgn	

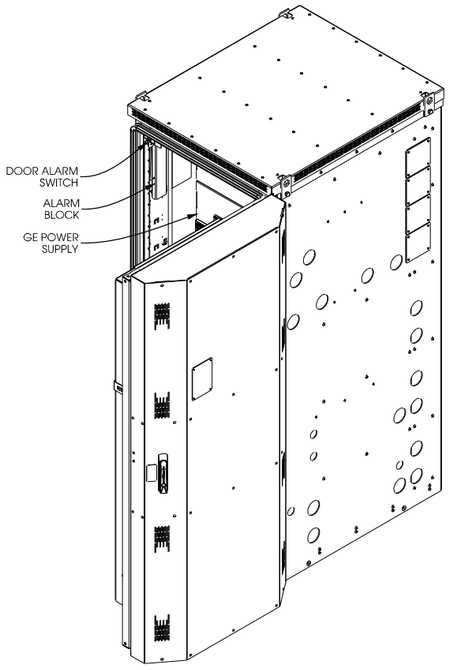
SHEET NUMBER:

VZW C-3

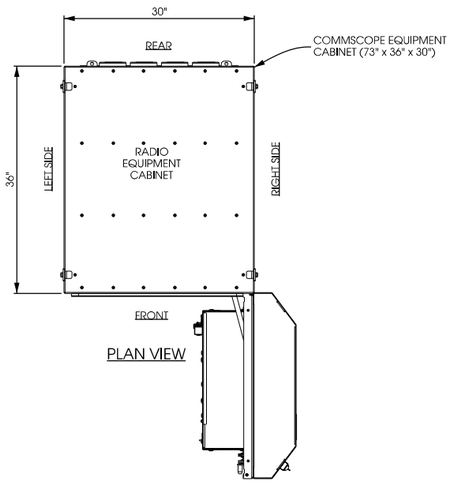
P:\22200\22243\CAD\CD\Plot\VZW C-3.dgn



REAR ISOMETRIC VIEW

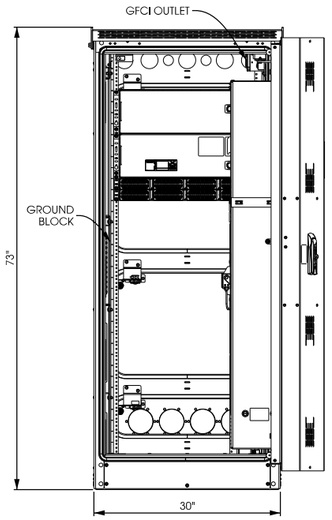


FRONT ISOMETRIC VIEW



PLAN VIEW

CATEGORY	
DIMENSIONS AND WEIGHT	72 H X 30 W X 36 D 650 LBS AS SHIPPED
23" AND 19" EQUIPMENT RACK SPACE	70" (40RU) SPACING
COLOR	GRAY
MATERIAL	.125" WELDED ALUMINUM
MAXIMUM HEAT DISSIPATION	2900W
19000 BTU AIR CONDITIONER WITH 3000W HEATER	PENTAIR #T531426G150P
ELECTRICAL OUTLET	ONE GFCI OUTLET
-48VDC POWER SYSTEM WITH CONTROLLER	GE INFINITY S: NES4824-23-AC5-PS-DC2E
BONDING AND GROUNDING	2GA OUTSIDE ENCLOSURE
CABLE ENTRANCE	REAR
OPERATING TEMP. RANGE, INSIDE ENCLOSURE	50F/10C -79F/26C
OPERATING TEMP. RANGE, OUTSIDE ENCLOSURE	-40F/-40C -131F/55C



FRONT ELEVATION VIEW

A **COMMSCOPE RBA72-30**

SCALE: NTS

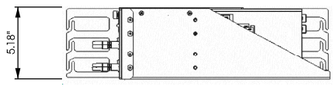
DC SURGE PROTECTOR:

RAYCAP PART # RCMDC-4520-RM-48

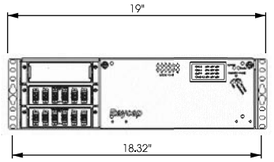
RACK MOUNTED DISTRIBUTION SURGE PROTECTION FOR 12 RRH DC CIRCUITS

DIMENSIONS: 5.18" x 18.32" x 15.80" (H x W x D)

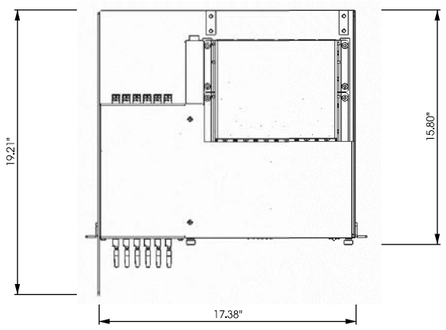
WEIGHT: 22.10 LBS



SIDE VIEW



FRONT VIEW



PLAN VIEW

B **RACK MOUNTED SURGE PROTECTOR**

SCALE: NTS

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624 Water Street
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608.644.1449 voice
608.644.1549 fax
www.edgeconsult.com

EQUIPMENT DETAILS
NORTH FITCHBURG (266596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN

CHECKED BY: PCM

PLOT DATE: 9/21/2021

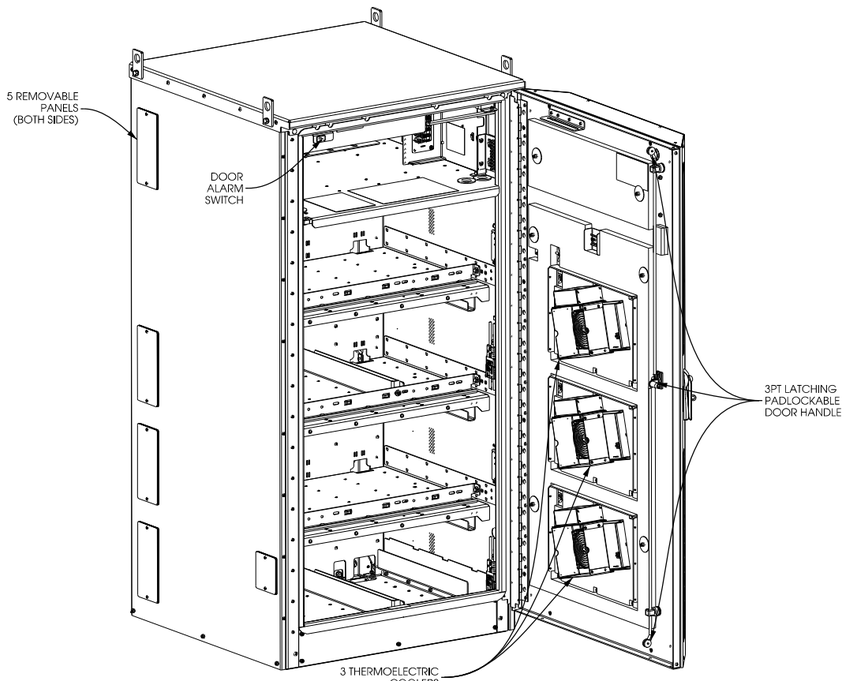
PROJECT #: 22243

FILE NAME: VZW S-1.dgn

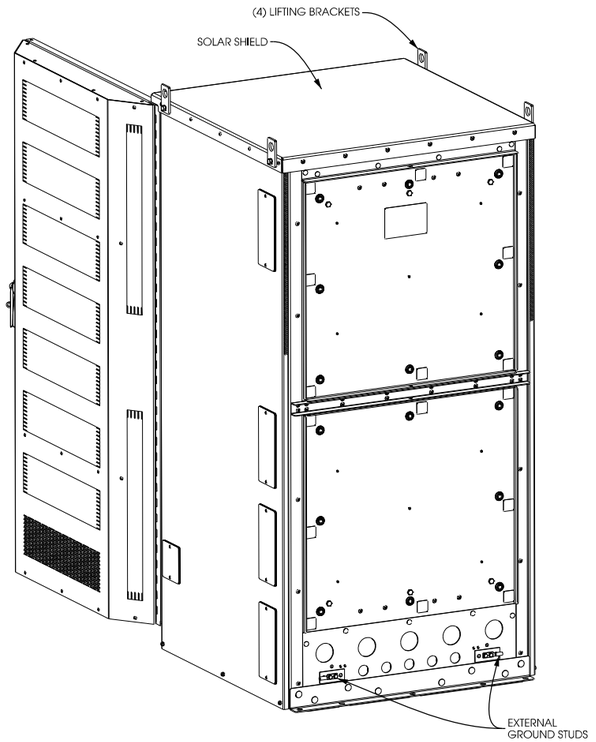
SHEET NUMBER:

VZW S-1

I:\22201\22243\CAD\CD\Plot\VZW S-1.dgn

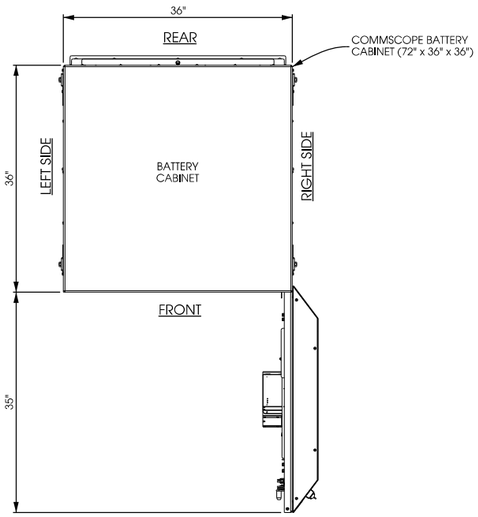


FRONT ISOMETRIC VIEW

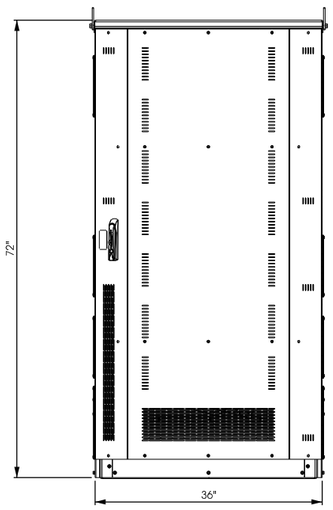


REAR ISOMETRIC VIEW

COMMSCOPE RBA72-36	
DIMENSIONS & WEIGHT	72 H X 36 W X 36 D 765 LBS AS SHIPPED 3900 LBS W/ BATTERIES
COLOR	GRAY
MATERIAL	.125 WELDED ALUMINUM
ELECTRICAL OUTLET	ONE GFCI OUTLET



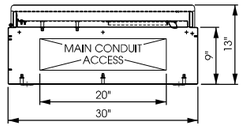
PLAN VIEW



FRONT ELEVATION VIEW

A **COMMSCOPE RBA72-36**
SCALE: NTS

FRONT VIEW



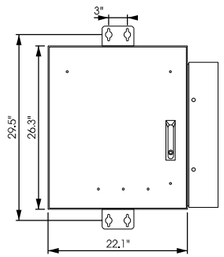
BOTTOM VIEW

ILC RATED AMPS	VOLTAGE	PHASE	ENCLOSURE HEIGHT	ENCLOSURE WIDTH	ENCLOSURE DEPTH	WEIGHT (LBS)
200	120/240	1	60"	30"	10"	350
200	120/208	3	60"	30"	10"	350

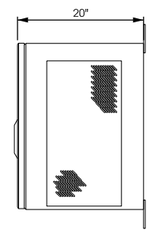
B **INTEGRATED LOAD CENTER**
SCALE: NTS

FIBER ENCLOSURE
CHARLES UNIVERSAL BROADBAND ENCLOSURES (CUBE) PART # RL1003

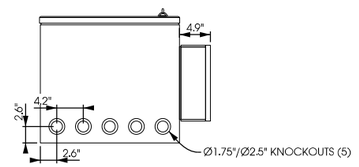
-ACCESSORIES:
POLE MOUNT KIT, PART # 97-CABPMTKIT
H-FRAME HARDWARE KIT, PART # 97-001971-A
SLIDE OUT TRAY, PART # 97-001900-A
10" PLINTH KIT; PART # 97-002127-A



FRONT VIEW



SIDE VIEW



BOTTOM VIEW

C **CHARLES UNIVERSAL ENCLOSURE**
SCALE: NTS

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608.644.1449 voice
608.644.1549 fax
www.edgeconsult.com

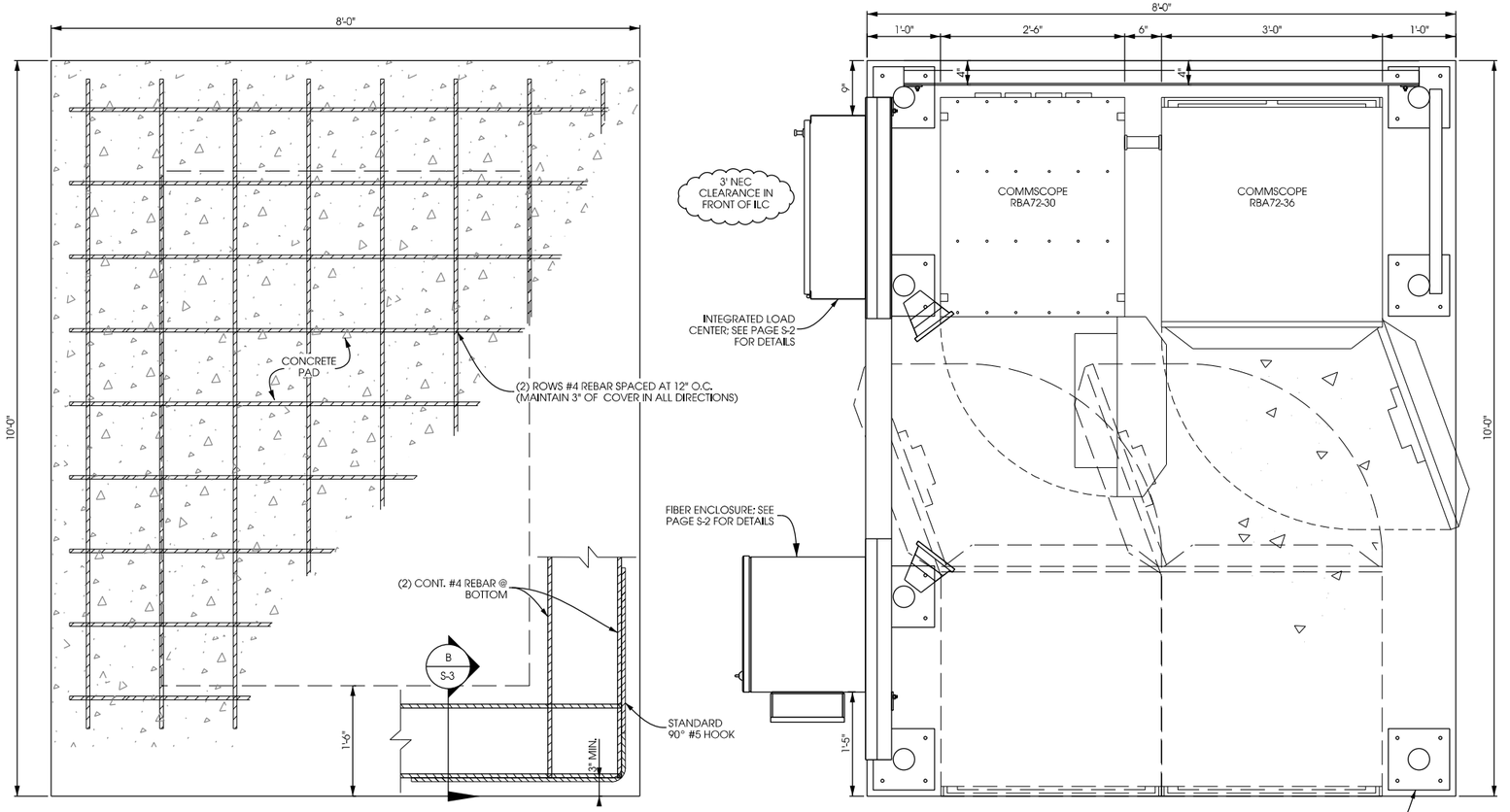
EQUIPMENT DETAILS
NORTH FITCHBURG (266596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN

CHECKED BY: PCM
PLOT DATE: 9/21/2021
PROJECT #: 22243
FILE NAME: VZW S-2.dgn
SHEET NUMBER: **VZW S-2**

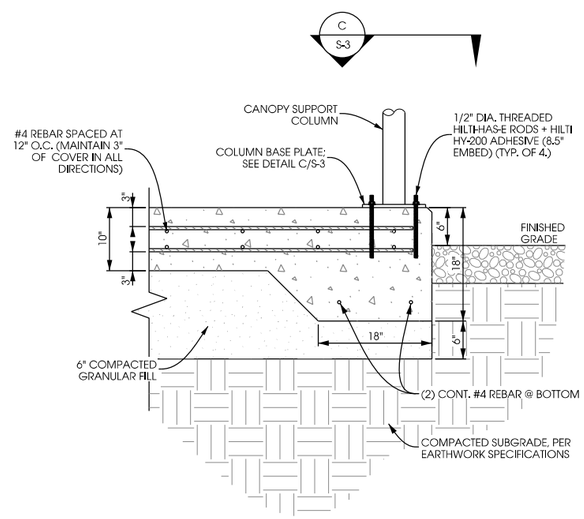
I:\22201\22243\CAD\CD\Plot\VZW S-2.dgn



A EQUIPMENT PAD PLAN

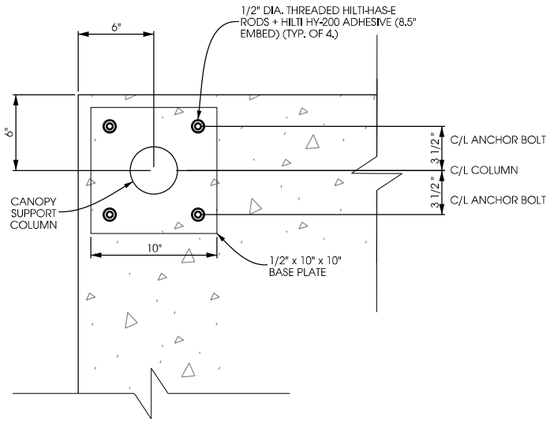
SCALE: NTS

NOTE:
3" MINIMUM CONCRETE COVER OVER BAR AND WIRE



B THICKENED SLAB FOUNDATION

SCALE: NTS



C COLUMN BASE PLATE DETAILS

SCALE: NTS

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CONCRETE AND REINFORCING NOTES:

1.) ALL CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS AND MOST CURRENT VERSION OF ACI STANDARDS.

2.) ALL EXPOSED CONCRETE SURFACES EXPOSED TO VIEW SHALL HAVE A SURFACE FINISH SF-2.0 IN ACCORDANCE WITH ACI 301.

3.) ALL CONCRETE UNLESS SPECIFICALLY NOTED SHALL BE NORMAL WEIGHT (145 PCF) AND SHALL ACHIEVE A 28-DAY COMPRESSIVE STRENGTH (f'c) OF 3,000 PSI. EXPOSED EXTERIOR CONCRETE TO BE AIR ENTRAINED WITH 6% AIR CONTENT. CONTRACTOR TO PERFORM CONCRETE SLUMP TEST (4" MAX SLUMP). NO WATER TO BE ADDED AFTER SLUMP HAS BEEN MEASURED.

4.) ALL CONCRETE REINFORCING SHALL BE ASTM A615 GRADE 60 AND PLACED IN ACCORDANCE WITH ACI STANDARDS W/ 3" MIN COVERAGE IF CAST AGAINST EARTH AND 2" MIN COVERAGE OTHERWISE.

5.) REMOVE ALL ORGANIC MATERIAL, SOFT AREAS, AND POOR SOILS BENEATH FOUNDATION TO A DEPTH OF AT LEAST 2'-0" BELOW FOUNDATION.

6.) CONTRACTOR TO REVIEW & FOLLOW RECOMMENDATIONS CONTAINED IN GEOTECHNICAL REPORT.

7.) SLAB NOT SUITABLE AT SITES WITH ORGANIC SOIL, UNCOMPACTED FILL, EXPANSIVE SOIL, OR SOILS SUSCEPTIBLE TO FROST HEAVE.

8.) CONTRACTOR TO ENSURE POSITIVE DRAINAGE FROM ALL FOUNDATIONS.

9.) FOUNDATION DESIGN BASED ON INFORMATION PROVIDED BY FIBREBOND DATED 10/6/16. DESIGN LOADS ARE IN ACCORDANCE WITH FIBREBOND DESIGN WITH THE EXCEPTION THAT THE SEISMIC LOAD IS REDUCED . THE FOUNDATION DESIGN IS DESIGNED FOR A SPECTRAL RESPONSE COEFFICIENT (SDS) = 0.395 AND SEISMIC IMPORTANCE FACTOR (IE) = 1.00 WHICH CORRESPONDS A REDUCED SEISMIC RESPONSE COEFFIENT (CS) = 0.113. THE PROVIDED SEISMIC LOADS WERE MULTIPLIED BY 0.263. THE RATIO OF THE NEW CS TO ORIGINAL CS. THIS SEISMIC LOAD CORRESPONDS WITH APPROXIMATELY THE NORTHERN END OF FAYETTE COUNTY, IL. CONTRACTOR TO VERIFY EXACT PLATFORM/SKID SIZE AND TYPE.

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FOUNDATION DETAILS
NORTH FITCHBURG (266596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN

CHECKED BY: PCM

PLOT DATE: 9/21/2021

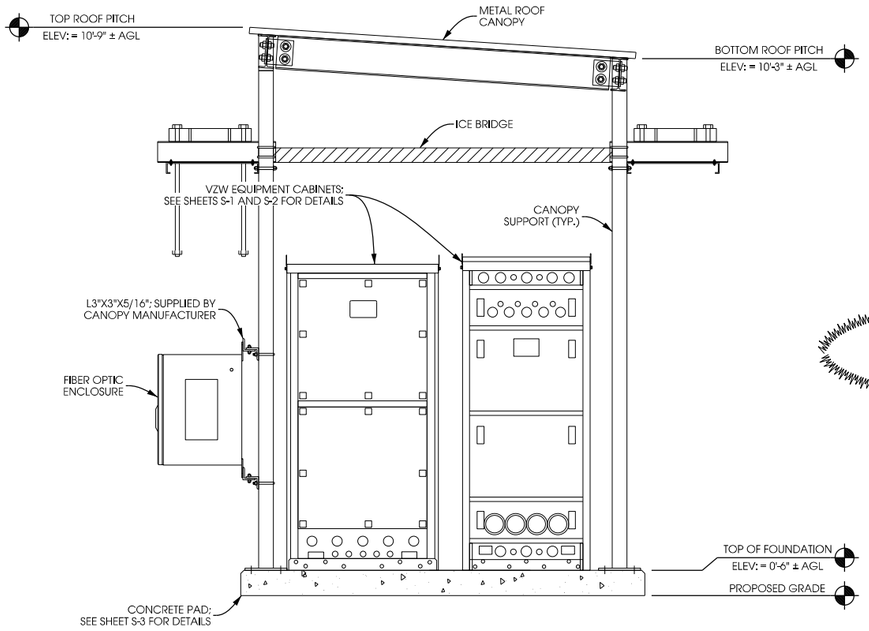
PROJECT #: 22243

FILE NAME: VZW S-3.dgn

SHEET NUMBER:

VZW S-3

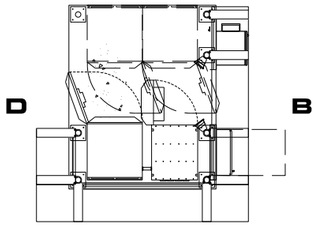
I:\22200\22243\CAD\CD Plot\VZW S-3.dgn

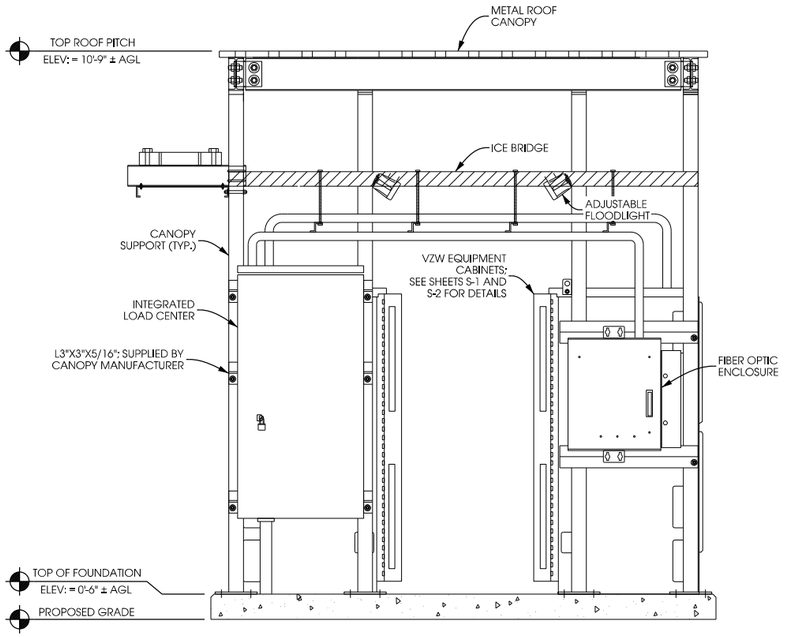


ELEVATION A

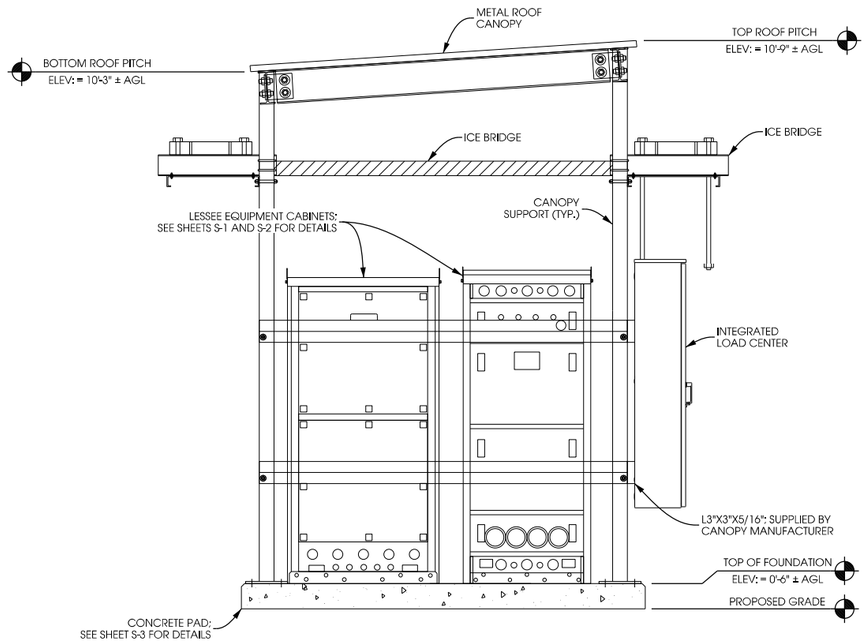
CANOPY NOTE:

ELEVATIONS PROVIDED FOR CONVENIENCE.
CANOPY PROVIDED AS KIT BY SABRE.
MODEL # LISTED AT BOTTOM OF PAGE. VERIZON
WIRELESS CONTRACTOR IS TO SUPPLY CANOPY

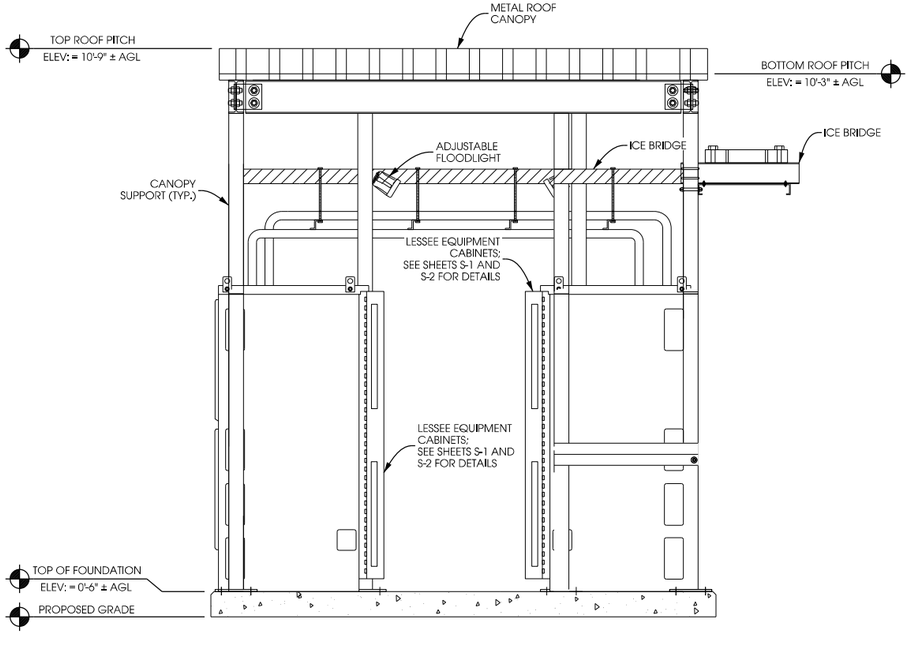




ELEVATION B



ELEVATION C



ELEVATION D

A **EQUIPMENT CANOPY ELEVATIONS**

SCALE: 11" x 17" - 1/3" = 1'-0"
22" x 34" - 2/3" = 1'-0"

SABRE DRAWING #: Z30199033

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624 Water Street
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EQUIPMENT ELEVATIONS
NORTH FITCHBURG (2666596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN
CHECKED BY: PCM	
PLOT DATE: 9/21/2021	
PROJECT #: 22243	
FILE NAME: VZW S-4.dgn	

SHEET NUMBER:

VZW S-4

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NOTES:

1.) CONTRACTOR TO VERIFY HEIGHT AND DIRECTION OF ANTENNA WITH PROJECT MANAGER & FINAL RF DESIGN.

2.) HYBRID CABLE LENGTH NOT TO EXCEED 367'.

3.) HYBRID JUMPER CABLE LENGTH NOT TO EXCEED 30'.

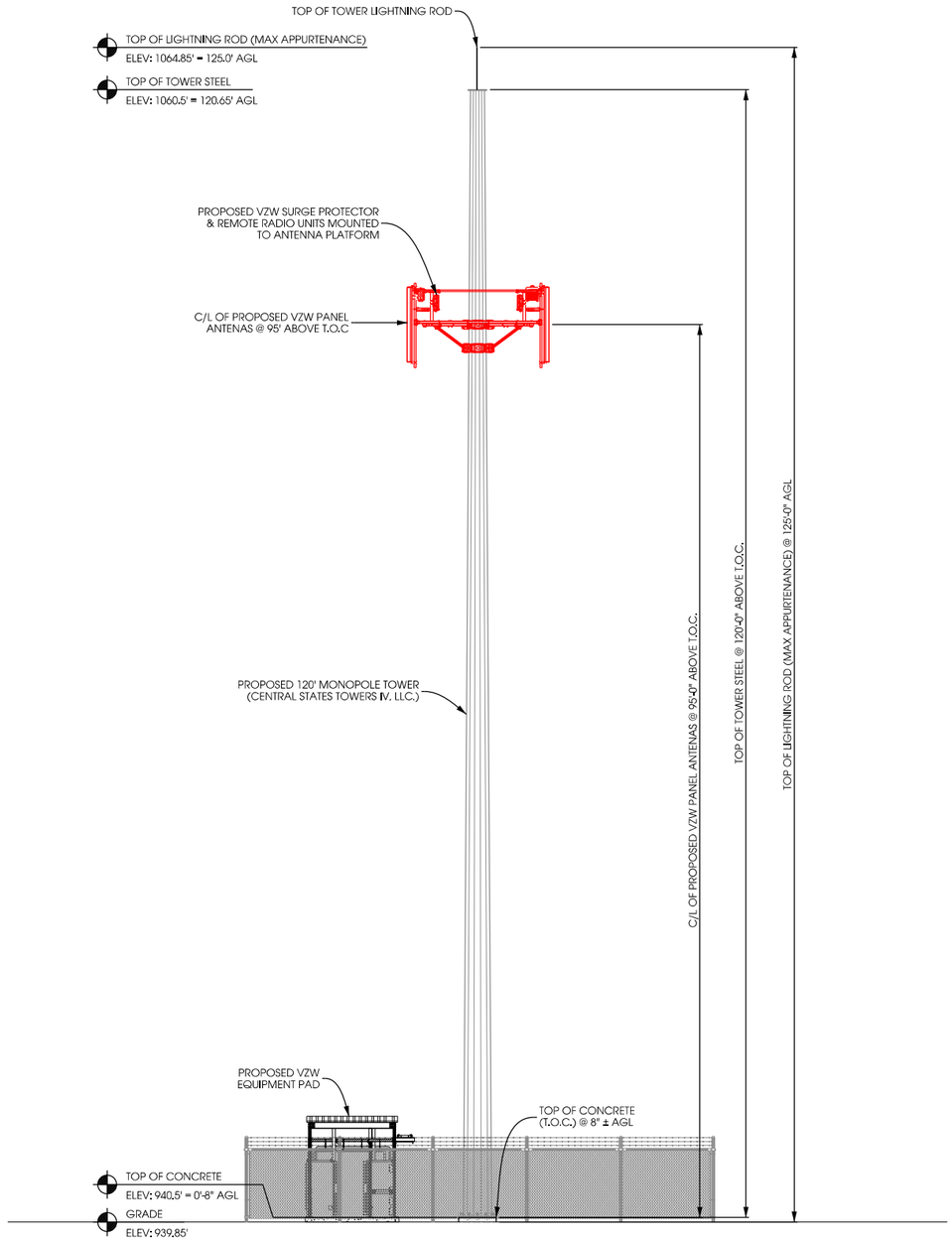
4.) IF CABLING LENGTH EXCEEDS MAXIMUM ALLOWED CONTRACTOR SHALL CONTACT CLIENT AND ENGINEER TO RESOLVE PRIOR TO CONSTRUCTION.

RF EMMISIONS REPORT REQUIRED

☐ YES ☒ NO

Date: _____

HYBRID CABLE INFO	
QUANTITY	1
LENGTH FROM GROUND SURGE PROTECTOR TO TOWER	15'±
LENGTH FROM T.O.C. TO TOWER SURGE PROTECTOR C/L	95'±
TOTAL HYBRID CABLE LENGTH	110'±



A **TOWER PROFILE (NORTH ELEVATION)**

SCALE: 11" x 17" - 1" = 16'-0"
22" x 34" - 1" = 8'-0"

LEGEND:

- PROPOSED PANEL ANTENNA
- PROPOSED AIR6449 ANTENNA/RADIO
- PROPOSED 4408 RADIO/ANTENNA
- PROPOSED DISTRIBUTION SURGE PROTECTOR
- PROPOSED RRU 4449 REMOTE RADIO UNIT
- PROPOSED RRU 8843 REMOTE RADIO UNIT

NOTES:

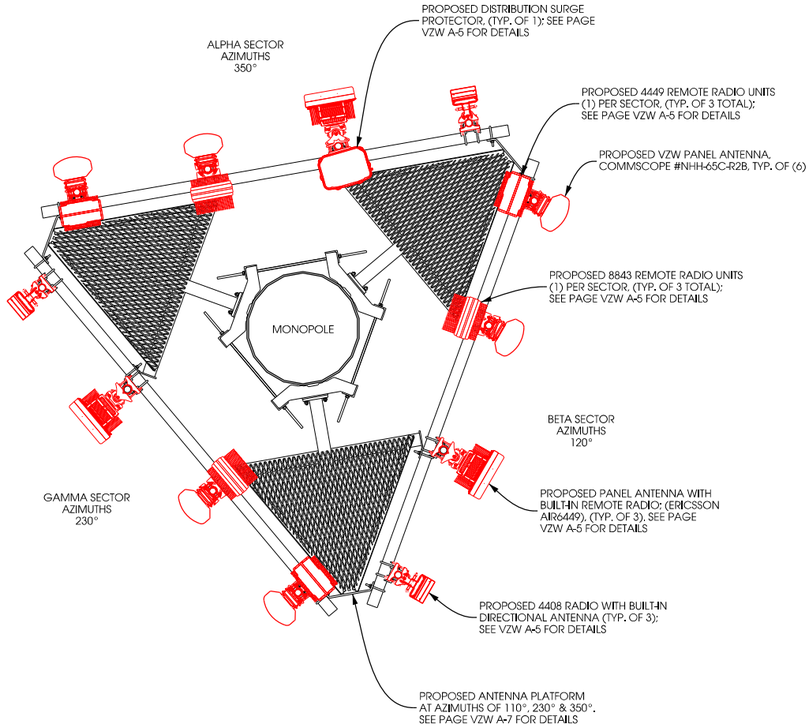
1.) ALL ANTENNA AZIMUTHS REFERENCED FROM TRUE NORTH.

2.) SEE PAGE A-5 FOR INSTALLATION REQUIREMENTS OF ANTENNAS AND EQUIPMENT.

NORTH

NOTE:
PLATFORM UPPER RAILING NOT SHOWN FOR CLARITY.

NOTE:
EQUIPMENT TO AVOID SAFETY CLIMB



B **ANTENNA & EQUIPMENT ORIENTATION**

SCALE: NTS

Edge
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Prairie du Sac, WI 53578
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TOWER ELEVATION
NORTH FITCHBURG (2666596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN

CHECKED BY: PCM

PLOT DATE: 9/21/2021

PROJECT #: 22243

FILE NAME: VZW A-1.dgn

SHEET NUMBER:

VZW A-1

I:\22200\22243\CAD\CD\Plot\VZW A-1.dgn

verizon fuze | RFDS

WEST > Upper Midwest > Illinois/Wisconsin > Wisconsin > North Fitchburg - C

Parikh, Hemal - hemal.parikh@verizonwireless.com - 6/18/2021 16:17:51

Antenna Summary

Added

700	1900	AWS	AWS3	CBRS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity
LTE	LTE 5G	LTE	LTE			COMMSCOPE	NHH-65C-R2B	95	99	120(0002) 120(02) 230(0003) 230(03) 350(0001) 350(01)	false	false	PHYSICAL	6
				LTE		ERICSSON	KRE105281/1	95	95.3	120(20) 230(21) 350(19)	false	false	PHYSICAL	3
					5G	Ericsson	AIR6449	95	96.3	120(0002) 230(0003) 350(0001)	false	false	PHYSICAL	3

Removed

700	1900	AWS	AWS3	CBRS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity

No data available.

Retained

700	1900	AWS	AWS3	CBRS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity

No data available.

Added: 12 **Removed:** 0 **Retained:** 0

Equipment Summary

Added

Equipment Type	Location	700	1900	AWS	AWS3	CBRS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity
RRU	Tower					LTE		Ericsson	4408 B48 DC			PHYSICAL	3
RRU	Tower	LTE						Ericsson	4449			PHYSICAL	3
RRU	Tower		LTE 5G	LTE	LTE			Ericsson	8843			PHYSICAL	3
RRU	Tower						5G	Ericsson	AIR6449			PHYSICAL	3
Hybrid Cable	Tower	LTE	LTE	LTE				HYBRID	HYBRID	150	2	PHYSICAL	1
OVP Box	Tower	LTE	LTE	LTE				RAYCAP	6600			PHYSICAL	1

Removed

Equipment Type	Location	700	1900	AWS	AWS3	CBRS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity

No data available.

Retained

Equipment Type	Location	700	1900	AWS	AWS3	CBRS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity

No data available.

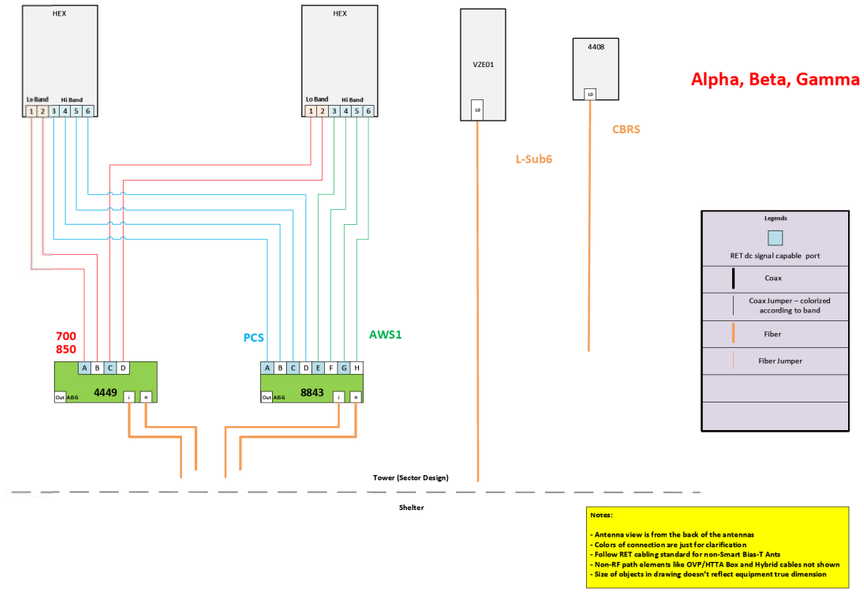
Raycap Layout - (1) 6627 or (1) 4520

POWER

6	G - HB	12	G - C-Band/CBRS/Spare
5	G - LB	11	G - HB/FD-MIMO/C-Band
4	B - HB	10	B - C-Band/CBRS/Spare
3	B - LB	9	B - HB/FD-MIMO/C-Band
2	A - HB	8	A - C-Band/CBRS/Spare
1	A - LB	7	A - HB/FD-MIMO/C-Band

FIBER

1	2	3	4	5	6
A - LB	A - HB	B - LB	B - HB	G - LB	G - HB
7	8	9	10	11	12
A - Spare	A - Spare	B - Spare	B - Spare	G -Spare	G -Spare
13	14	15	16	17	18
A - HB/FD-MIMO/CBRS	A - C-Band (3)	B - HB/FD-MIMO/CBRS	B - C-Band (3)	G - HB/FD-MIMO/CBRS	G - C-Band (3)
19	20	21	22	23	24
A - C-Band (1)	A - C-Band (2)	B - C-Band (1)	B - C-Band (2)	G - C-Band (1)	G - C-Band (2)



Notes:

- Antenna view is from the back of the antennas
- Colors of connection are just for clarification
- Follow RET cabling standard for non-Smart Bias-T Ants
- Non-RF path elements like OVP/HTTA Box and Hybrid cables not shown
- Size of objects in drawing doesn't reflect equipment true dimension

NOTES:

RF DESIGN AND DETAIL ON THIS PAGE PROVIDED BY VERIZON AND ARE INCLUDED FOR CONVENIENCE. FINAL RF DESIGN TO BE VERIFIED WITH VERIZON. IF SIGNIFICANT CHANGES OR DISCREPENCIES ARE IDENTIFIED, CONTACT ENGINEER PRIOR TO INSTALLATION.

Edge
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ANTENNA CONFIGURATION
NORTH FITCHBURG [2666596]
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN
CHECKED BY: PCM	
PLOT DATE: 9/21/2021	
PROJECT #: 22243	
FILE NAME: VZW A-2.dgn	

SHEET NUMBER:

VZW A-2

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Service Info

700 MHz LTE

Sector	01	02	03
Azimuth	350	128	230
Cell / ENode B ID	209784	209784	209784
Antenna Model	NHH-65C-R2B	NHH-65C-R2B	NHH-65C-R2B
Antenna Make	COMMSCOPE	COMMSCOPE	COMMSCOPE
Antenna Centerline(Ft)	95	95	95
Mechanical Down-Tilt(Deg.)	0	0	0
Electrical Down-Tilt	1	3	1
Tip Height	99	99	99
Regulatory Power	95.45	98.12	95.45
Total ERP (W)			
TMA Make			
TMA Model			
RRU Make	Ericsson	Ericsson	Ericsson
RRU Model	4449	4449	4449
Number of Tx, Rx Lines	4,4	4,4	4,4
Position			
Transmitter Id	10428604	10428609	10428614
Source	ATOLL_API	ATOLL_API	ATOLL_API

1900 MHz LTE

Sector	01	01	02
Azimuth	350	350	120
Cell / ENode B ID	209784	209784	209784
Antenna Model	NHH-65C-R2B	NHH-65C-R2B	NHH-65C-R2B
Antenna Make	COMMSCOPE	COMMSCOPE	COMMSCOPE
Antenna Centerline(Ft)	95	95	95
Mechanical Down-Tilt(Deg.)	0	0	0
Electrical Down-Tilt	1	1	1
Tip Height	99	99	99
Regulatory Power	379.98	502.1	379.98
Total ERP (W)			
TMA Make			
TMA Model			
RRU Make	Ericsson	Ericsson	Ericsson
RRU Model	8843	8843	8843
Number of Tx, Rx Lines	4,4	4,4	4,4
Position			
Transmitter Id	10428605	10428606	10428610
Source	ATOLL_API	ATOLL_API	ATOLL_API

Sector	02	03	03
Azimuth	120	230	230
Cell / ENode B ID	209784	209784	209784
Antenna Model	NHH-65C-R2B	NHH-65C-R2B	NHH-65C-R2B
Antenna Make	COMMSCOPE	COMMSCOPE	COMMSCOPE
Antenna Centerline(Ft)	95	95	95
Mechanical Down-Tilt(Deg.)	0	0	0
Electrical Down-Tilt	1	1	1
Tip Height	99	99	99
Regulatory Power	502.1	379.98	502.1
Total ERP (W)			
TMA Make			
TMA Model			
RRU Make	Ericsson	Ericsson	Ericsson
RRU Model	8843	8843	8843
Number of Tx, Rx Lines	4,4	4,4	4,4
Position			
Transmitter Id	10428611	10428615	10428616
Source	ATOLL_API	ATOLL_API	ATOLL_API

1900 MHz 5GNR

Sector	0001	00C2	0003
Azimuth	350	128	230
Cell / ENode B ID	2099784	2099784	2099784
Antenna Model	NHH-65C-R2B	NHH-65C-R2B	NHH-65C-R2B
Antenna Make	COMMSCOPE	COMMSCOPE	COMMSCOPE
Antenna Centerline(Ft)	95	95	95
Mechanical Down-Tilt(Deg.)	0	0	0
Electrical Down-Tilt	1	1	1
Tip Height	99	99	99
Regulatory Power	379.98	379.98	379.98
Total ERP (W)			
TMA Make			
TMA Model			
RRU Make	Ericsson	Ericsson	Ericsson
RRU Model	8843	8843	8843
Number of Tx, Rx Lines	4,4	4,4	4,4
Position			
Transmitter Id	10428605	10428610	10428615
Source	ATOLL_API	ATOLL_API	ATOLL_API

2100 MHz LTE

Sector	01	02	03
Azimuth	350	120	230
Cell / ENode B ID	209784	209784	209784
Antenna Model	NHH-65C-R2B	NHH-65C-R2B	NHH-65C-R2B
Antenna Make	COMMSCOPE	COMMSCOPE	COMMSCOPE
Antenna Centerline(Ft)	95	95	95
Mechanical Down-Tilt(Deg.)	0	0	0
Electrical Down-Tilt	1	1	1
Tip Height	99	99	99
Regulatory Power	425.95	425.95	425.95
Total ERP (W)			
TMA Make			
TMA Model			
RRU Make	Ericsson	Ericsson	Ericsson
RRU Model	8843	8843	8843
Number of Tx, Rx Lines	4,4	4,4	4,4
Position			
Transmitter Id	10428607	10428612	10428617
Source	ATOLL_API	ATOLL_API	ATOLL_API

AWS3 LTE

Sector	01	02	03
Azimuth	350	120	230
Cell / ENode B ID	209784	209784	209784
Antenna Model	NHH-65C-R2B	NHH-65C-R2B	NHH-65C-R2B
Antenna Make	COMMSCOPE	COMMSCOPE	COMMSCOPE
Antenna Centerline(Ft)	95	95	95
Mechanical Down-Tilt(Deg.)	0	0	0
Electrical Down-Tilt	1	1	1
Tip Height	99	99	99
Regulatory Power	425.95	425.95	425.95
Total ERP (W)			
TMA Make			
TMA Model			
RRU Make	Ericsson	Ericsson	Ericsson
RRU Model	8843	8843	8843
Number of Tx, Rx Lines	4,4	4,4	4,4
Position			
Transmitter Id	10428608	10428613	10428618
Source	ATOLL_API	ATOLL_API	ATOLL_API

CBRS 3.5 GHz

Sector	19	19	19
Azimuth	350	350	350
Cell / ENode B ID	209784	209784	209784
Antenna Model	KRE105281/1	KRE105281/1	KRE105281/1
Antenna Make	ERICSSON	ERICSSON	ERICSSON
Antenna Centerline(Ft)	95	95	95
Mechanical Down-Tilt(Deg.)	0	0	0
Electrical Down-Tilt	8	8	8
Tip Height	95.3	95.3	95.3
Regulatory Power	28.03	28.03	28.03
Total ERP (W)			
TMA Make			
TMA Model			
RRU Make	Ericsson	Ericsson	Ericsson
RRU Model	4408 B48 DC	4408 B48 DC	4408 B48 DC
Number of Tx, Rx Lines	4,4	4,4	4,4
Position			
Transmitter Id	10428849	10428852	10428855
Source	ATOLL_API	ATOLL_API	ATOLL_API

Sector	20	20	20
Azimuth	120	120	120
Cell / ENode B ID	209784	209784	209784
Antenna Model	KRE105281/1	KRE105281/1	KRE105281/1
Antenna Make	ERICSSON	ERICSSON	ERICSSON
Antenna Centerline(Ft)	95	95	95
Mechanical Down-Tilt(Deg.)	0	0	0
Electrical Down-Tilt	8	8	8
Tip Height	95.3	95.3	95.3
Regulatory Power	28.03	28.03	28.03
Total ERP (W)			
TMA Make			
TMA Model			
RRU Make	Ericsson	Ericsson	Ericsson
RRU Model	4408 B48 DC	4408 B48 DC	4408 B48 DC
Number of Tx, Rx Lines	4,4	4,4	4,4
Position			
Transmitter Id	10428850	10428853	10428856
Source	ATOLL_API	ATOLL_API	ATOLL_API

Sector	21	21	21
Azimuth	230	230	230
Cell / ENode B ID	209784	209784	209784
Antenna Model	KRE105281/1	KRE105281/1	KRE105281/1
Antenna Make	ERICSSON	ERICSSON	ERICSSON
Antenna Centerline(Ft)	95	95	95
Mechanical Down-Tilt(Deg.)	0	0	0
Electrical Down-Tilt	8	8	8
Tip Height	95.3	95.3	95.3
Regulatory Power	28.03	28.03	28.03
Total ERP (W)			
TMA Make			
TMA Model			
RRU Make	Ericsson	Ericsson	Ericsson
RRU Model	4408 B48 DC	4408 B48 DC	4408 B48 DC
Number of Tx, Rx Lines	4,4	4,4	4,4
Position			
Transmitter Id	10428851	10428854	10428857
Source	ATOLL_API	ATOLL_API	ATOLL_API

nL-Sub6

Sector	0001	0002	0003
Azimuth	350	120	230
Cell / ENode B ID	2097784	2097784	2097784
Antenna Model	AIR6449	AIR6449	AIR6449
Antenna Make	Ericsson	Ericsson	Ericsson
Antenna Centerline(Ft)	95	95	95
Mechanical Down-Tilt(Deg.)	0	0	0
Electrical Down-Tilt	6	6	6
Tip Height	96.3	96.3	96.3
Regulatory Power	1683.39	1683.39	1683.39
Total ERP (W)			
TMA Make			
TMA Model			
RRU Make	Ericsson	Ericsson	Ericsson
RRU Model	AIR6449	AIR6449	AIR6449
Number of Tx, Rx Lines	4,4	4,4	4,4
Position			
Transmitter Id	10428810	10428811	10428812
Source	ATOLL_API	ATOLL_API	ATOLL_API

NOTES:

RF DESIGN AND DETAIL ON THIS PAGE PROVIDED BY VERIZON AND ARE INCLUDED FOR CONVENIENCE. FINAL RF DESIGN TO BE VERIFIED WITH VERIZON. IF SIGNIFICANT CHANGES OR DISCREPENCIES ARE IDENTIFIED, CONTACT ENGINEER PRIOR TO INSTALLATION.

Edge
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SHEET TITLE:

ANTENNA CONFIGURATION

NORTH FITCHBURG (2666596)

FITCHBURG, WISCONSIN

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN

CHECKED BY:
PCM

PLOT DATE:
9/21/2021

PROJECT #:
22243

FILE NAME:
VZW A-3.dgn

SHEET NUMBER:

VZW A-3

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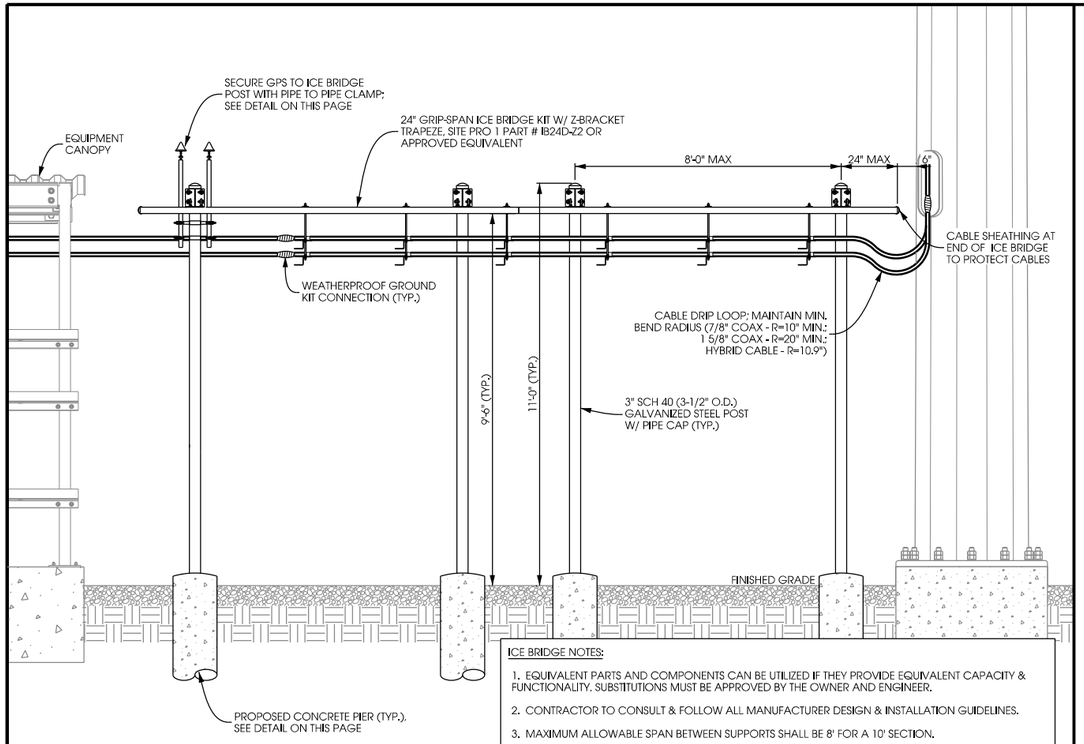
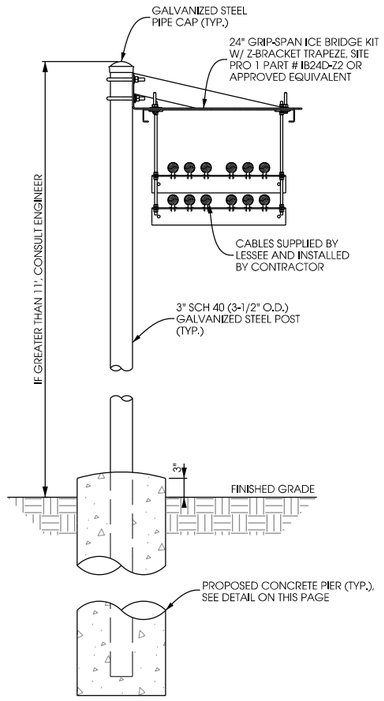


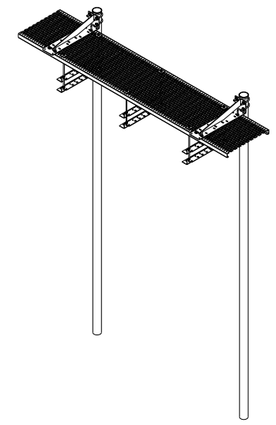
ICE BRIDGE NOTES:

1. EQUIVALENT PARTS AND COMPONENTS CAN BE UTILIZED IF THEY PROVIDE EQUIVALENT CAPACITY & FUNCTIONALITY. SUBSTITUTIONS MUST BE APPROVED BY THE OWNER AND ENGINEER.
2. CONTRACTOR TO CONSULT & FOLLOW ALL MANUFACTURER DESIGN & INSTALLATION GUIDELINES.
3. MAXIMUM ALLOWABLE SPAN BETWEEN SUPPORTS SHALL BE 8' FOR A 10' SECTION.
4. FOLLOW MANUFACTURERS RECOMMENDATIONS REGARDING SPLICES OR CANTILEVERS. HOWEVER, CHANNEL SHOULD TYPICALLY NOT CANTILEVER MORE THAN 2' BEYOND SUPPORT & SPLICING SHOULD OCCUR AT OR NEAR SUPPORT.
5. CUT ICE BRIDGE CHANNELS SHOULD HAVE ALL SHARP EDGES GROUND. IN ADDITION, A FIELD SPRAY GALVANIZING COMPOUND SHOULD BE APPLIED TO ALL EXPOSED METAL.

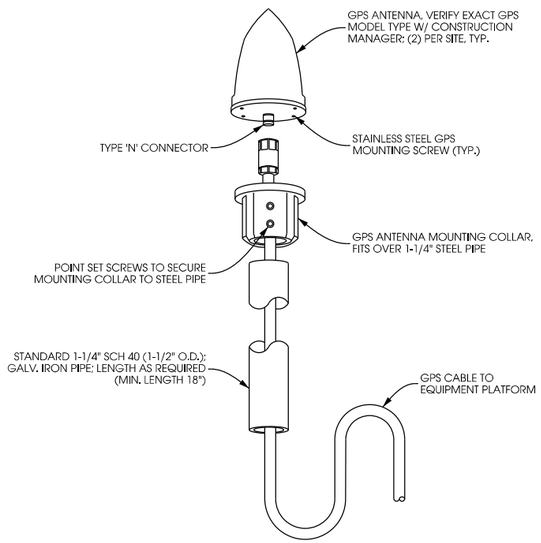
A **TYP. ICE BRIDGE DETAIL**
SCALE: NTS



B **ICE BRIDGE DETAIL**
SCALE: NTS



ISOMETRIC VIEW



C **GPS ANTENNA**
SCALE: NTS

NOTES:

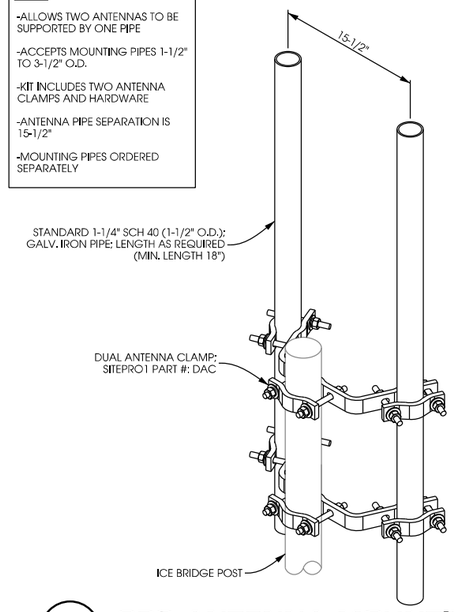
-ALLOWS TWO ANTENNAS TO BE SUPPORTED BY ONE PIPE

-ACCEPTS MOUNTING PIPES 1-1/2" TO 3-1/2" O.D.

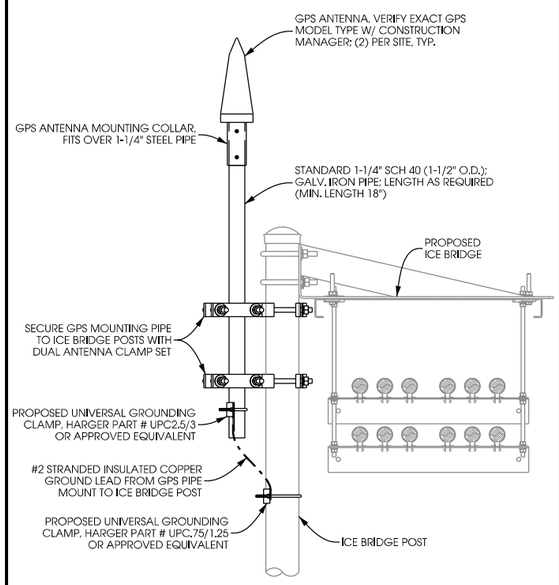
-KIT INCLUDES TWO ANTENNA CLAMPS AND HARDWARE

-ANTENNA PIPE SEPARATION IS 15-1/2"

-MOUNTING PIPES ORDERED SEPARATELY



D **GPS ANTENNA MOUNTING**
SCALE: NTS



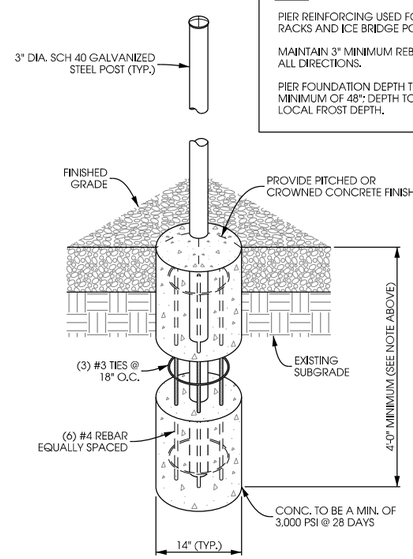
E **GPS ICE BRIDGE POST MOUNT**
SCALE: NTS

NOTES:

PIER REINFORCING USED FOR UTILITY RACKS AND ICE BRIDGE POSTS.

MAINTAIN 3" MINIMUM REBAR COVER IN ALL DIRECTIONS.

PIER FOUNDATION DEPTH TO BE A MINIMUM OF 48"; DEPTH TO EXCEED LOCAL FROST DEPTH.



F **PIER FND. DETAIL**
SCALE: NTS

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ICE BRIDGE DETAILS
NORTH FITCHBURG (2666596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN
CHECKED BY: PCM	
PLOT DATE: 9/21/2021	
PROJECT #: 22243	
FILE NAME: VZW A-4.dgn	

SHEET NUMBER:
VZW A-4

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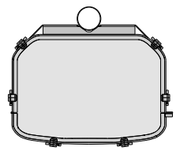
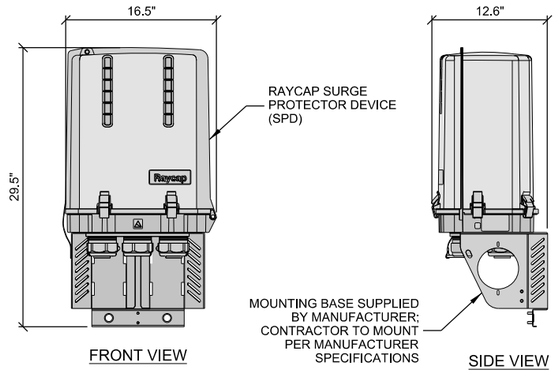
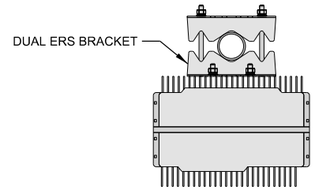
MANUFACTURER: RAYCAP
MODEL: RCMDC-6600-PF-48
DIMENSIONS: 29.5" x 16.5" x 12.6" (H x W x D)
WEIGHT: 31.5 LBS

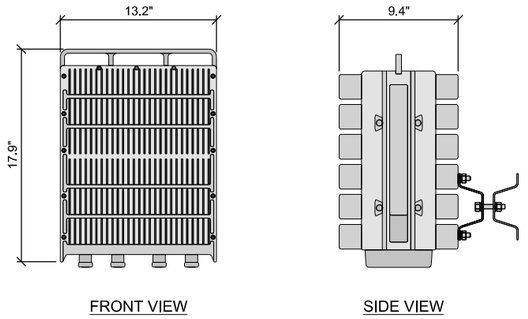




A RAYCAP SURGE PROTECTOR DEVICE (SPD)

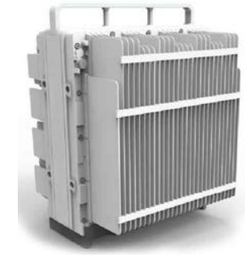
MANUFACTURER: ERICSSON
MODEL: RADIO 4449
DIMENSIONS: 17.9" x 13.2" x 9.4" (H x W x D)
WEIGHT: 70.5 LBS

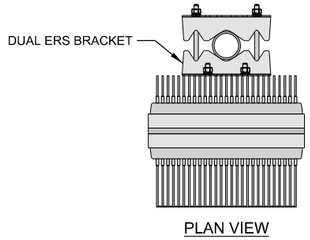


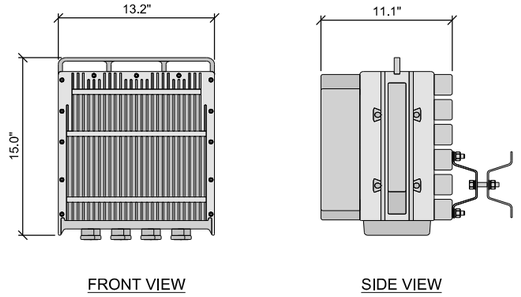


B ERICSSON RADIO 4449

MANUFACTURER: ERICSSON
MODEL: RADIO 8843
DIMENSIONS: 15.0" x 13.2" x 11.1" (H x W x D)
WEIGHT: 75 LBS.

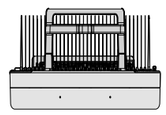


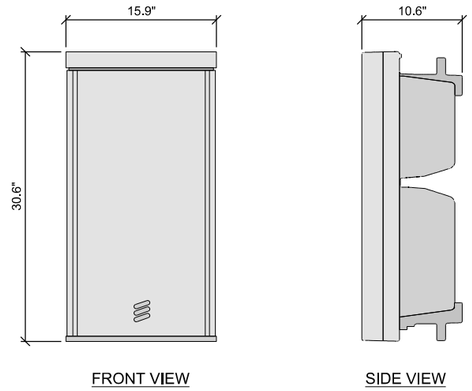




C ERICSSON RADIO 8843

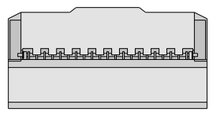
MANUFACTURER: ERICSSON
MODEL: AIR6449
DIMENSIONS: 30.6" x 15.9" x 10.6" (H x W x D)
WEIGHT: 82.7 LBS.

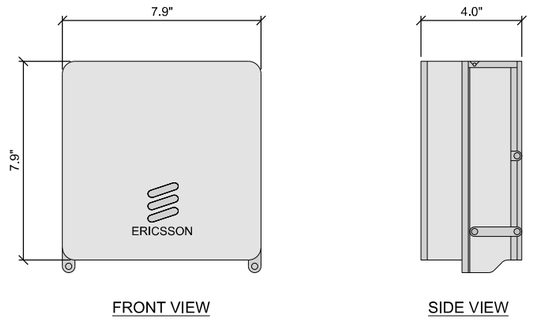




D ERICSSON AIR6449

MANUFACTURER: ERICSSON
MODEL: RADIO 4408
DIMENSIONS: 7.9" x 7.9" x 4.0" (H x W x D)
WEIGHT: 11.0 LBS.





E ERICSSON RADIO 4408

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EQUIP. SPECIFICATIONS
NORTH FITCHBURG (266596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN

CHECKED BY:
PCM

PLOT DATE:
9/21/2021

PROJECT #:
22243

FILE NAME:
VZW A-5.dgn

SHEET NUMBER:
VZW A-5

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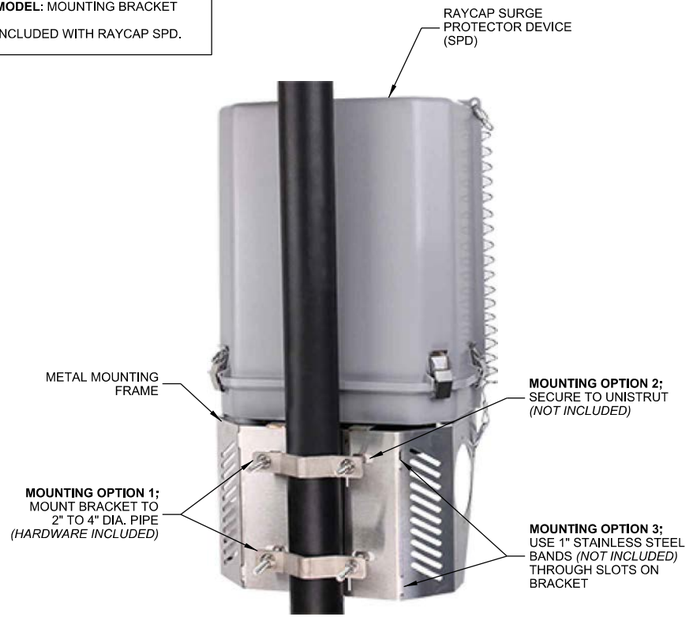
MANUFACTURER: RAYCAP
MODEL: MOUNTING BRACKET

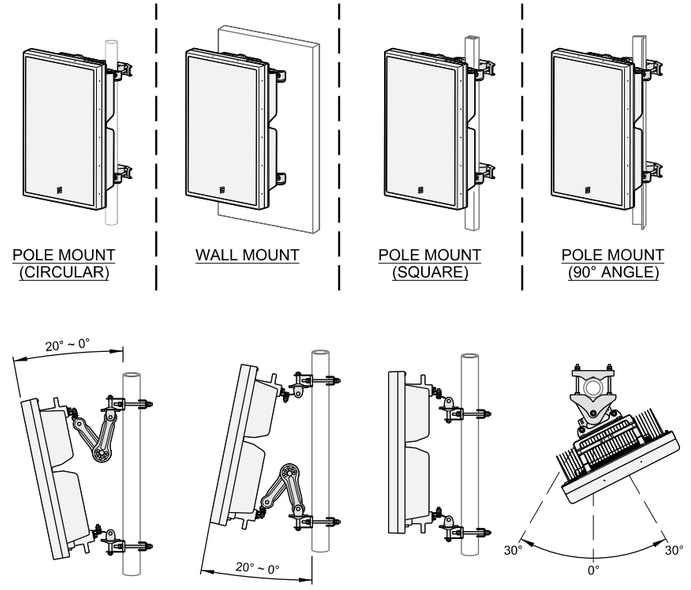
INCLUDED WITH RAYCAP SPD.



A **RAYCAP SURGE PROTECTOR DEVICE (SPD) MOUNT**

MANUFACTURER: ERICSSON
MODEL: SXK 109 2064/1 (SWIVEL ANGLE)
SXK 109 2065/1 (SWIVEL ANGLE AND TILT ANGLE)
WEIGHT: 9.7 LBS. (SWIVEL ANGLE)
13.0 LBS. (SWIVEL ANGLE AND TILT ANGLE)

POLE	CICULAR	SQUARE	90° ANGLE
MIN. OUTER DIMENSION	3" DIA.	2" x 2"	2" x 2"
MAX. OUTER DIMENSION	4.5" DIA.	3.15" x 3.15"	3.15" x 3.15"



B **ERICSSON SWIVEL MOUNT KIT**

MANUFACTURER: ERICSSON
MODEL: SXK 109 1973/2
WEIGHT: 3.75 LBS

BRACKET FOR ATTACHING TWO STANDARD OR HEAVY ERS UNITS WITH A HOLE PATTERN OF CC 30 MM AND/OR CC 80 MM., EITHER TO A POLE, WALL, ANGLE TOWER OR SQUARE TUBE.

BOLTS FOR ATTACHING TWO ERS UNITS ARE SUPPLIED IN THE PACKAGE.

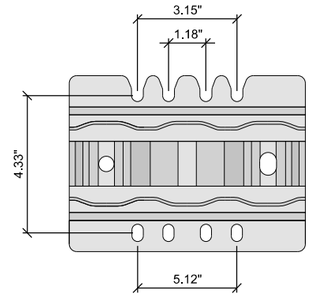
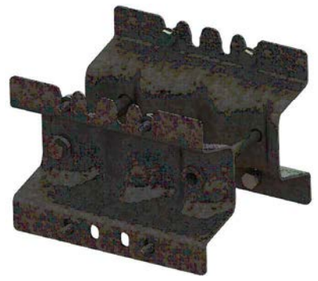


PLATE MOUNTING PATTERN

DUAL RADIO ATTACHMENT



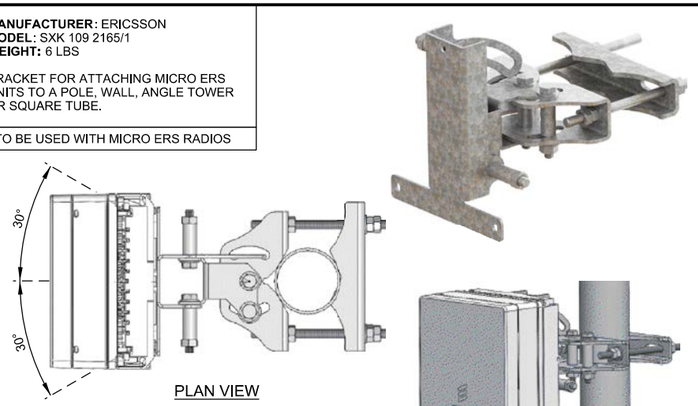
ISOMETRIC VIEW

C **DUAL ERS BRACKET**

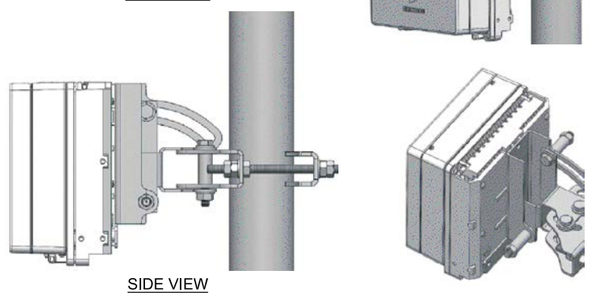
MANUFACTURER: ERICSSON
MODEL: SXK 109 2165/1
WEIGHT: 6 LBS

BRACKET FOR ATTACHING MICRO ERS UNITS TO A POLE, WALL, ANGLE TOWER OR SQUARE TUBE.

TO BE USED WITH MICRO ERS RADIOS



PLAN VIEW



SIDE VIEW

D **MICRO ERS TILT BRACKET**

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608.644.1449 voice
608.644.1549 fax
www.edgeconsult.com

EQUIPMENT MOUNTING
NORTH FITCHBURG (266596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INIT.
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN

CHECKED BY:
PCM

PLOT DATE:
9/21/2021

PROJECT #:
22243

FILE NAME:
VZW A-6.dgn

SHEET NUMBER:
VZW A-6

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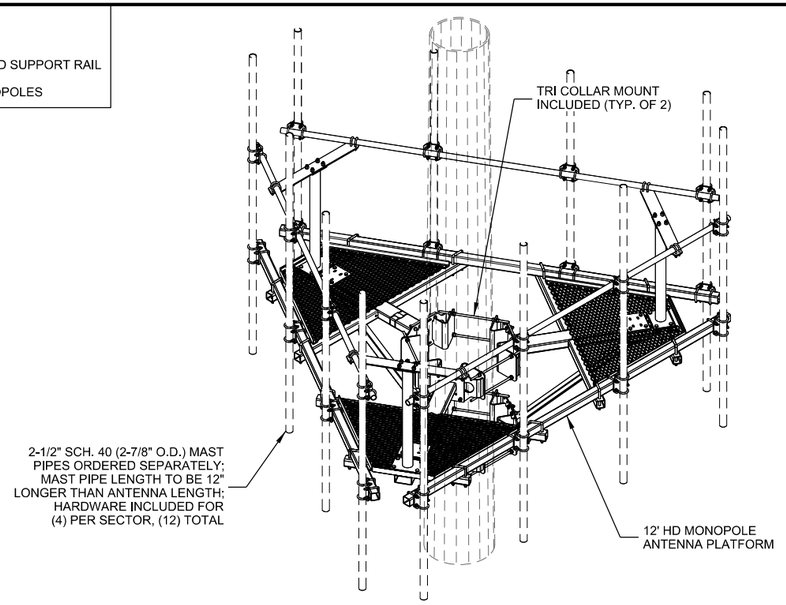
MANUFACTURER: SABRE
MODEL: C10-855-667C

12' HD PLATFORM & ENHANCED SUPPORT RAIL

FITS 10" DIA. TO 40" DIA. MONOPOLES

MOUNT CLASSIFICATION

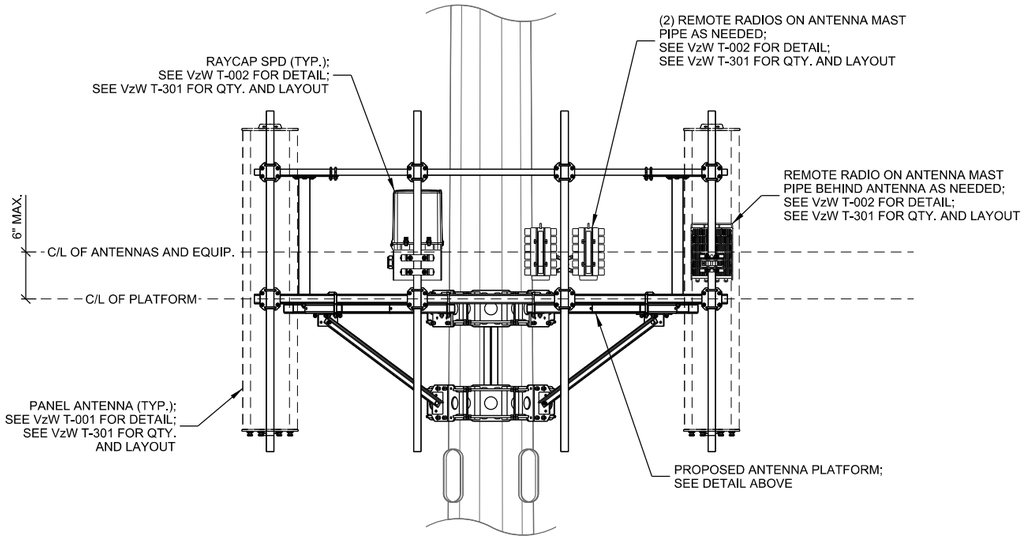
M2050R(1400)-4[6] PER SABRE INDUSTRIES



NOTE:

1. CONTRACTOR TO VERIFY POLE DIAMETER AND SUITABILITY OF PROPOSED MOUNT FOR SITUATION. IF AN ALTERNATIVE SOLUTION IS PROPOSED, NOTIFY ENGINEER AND OWNER PRIOR TO PROCEEDING.

A **MONOPOLE ANTENNA PLATFORM**



NOTE:

1. THIS DETAIL IS A GENERAL SCHEMATIC, SEE ANTENNA CONFIG. FOR ACTUAL TOWER ORIENTATION AND EQUIPMENT QUANTITIES.
2. CONTRACTOR TO VERIFY EXISTING AIR TERMINAL EXTENDS 2' MIN. ABOVE ALL ANTENNAS AND EQUIPMENT; CONTRACTOR TO RAISE IF NECESSARY.
3. CONTRACTOR TO INSTALL RAYCAP SPD AND REMOTE RADIO MOUNTS TO AVOID PEGS/SAFETY CLIMB AS NECESSARY.
4. PER TIA STANDARDS: FALL PROTECTION ANCHORAGES SHALL BE AVAILABLE AT A MAXIMUM SPACING OF FOUR (4) FEET OVER THE HEIGHT NOT EQUIPPED WITH A SAFETY CLIMB SYSTEM OR OVER THE LENGTH OF THE OBSTRUCTION TO THE CLIMBING FACILITY.

B **ANTENNA AND EQUIPMENT MOUNTING**

Edge
Consulting Engineers, Inc.

NSTD-445 Annex1 Procurement Worksheet

Project Name: North Fitchburg
Fitchburg, WI
Edge #: 22242

Verizon Site ID Information:

Date:	8/4/2021
Verizon Site Code:	266596
Verizon Site Name:	North Fitchburg
Verizon RF Design:	See RFDS in CDs
Version #:	Unknown
Dated:	6/18/2021

RMC Reserve Capacity:

Initial Reserve Capacity :	10%
Change in Reserve Capacity:	0%
Total Required Reserve Capacity:	10%

Resulting Classification:

Minimum Required Mount Classification (RMC):	M750R(900)-4[6]
Maximum Required Factored Vertical Load:	900 lbs
Selected Required Mount Classification (RMC):	**M750R(900)-4[6]**
Selected By:	DAB
Approved By:	

Notes: Maximum allowable vertical offset of loading from mount centerline is 6".

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MOUNT CLASSIFICATION
NORTH FITCHBURG (266596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INI:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN

CHECKED BY: PCM
PLOT DATE: 9/21/2021
PROJECT #: 22243
FILE NAME: VZW A-7.dgn

SHEET NUMBER:
VZW A-7

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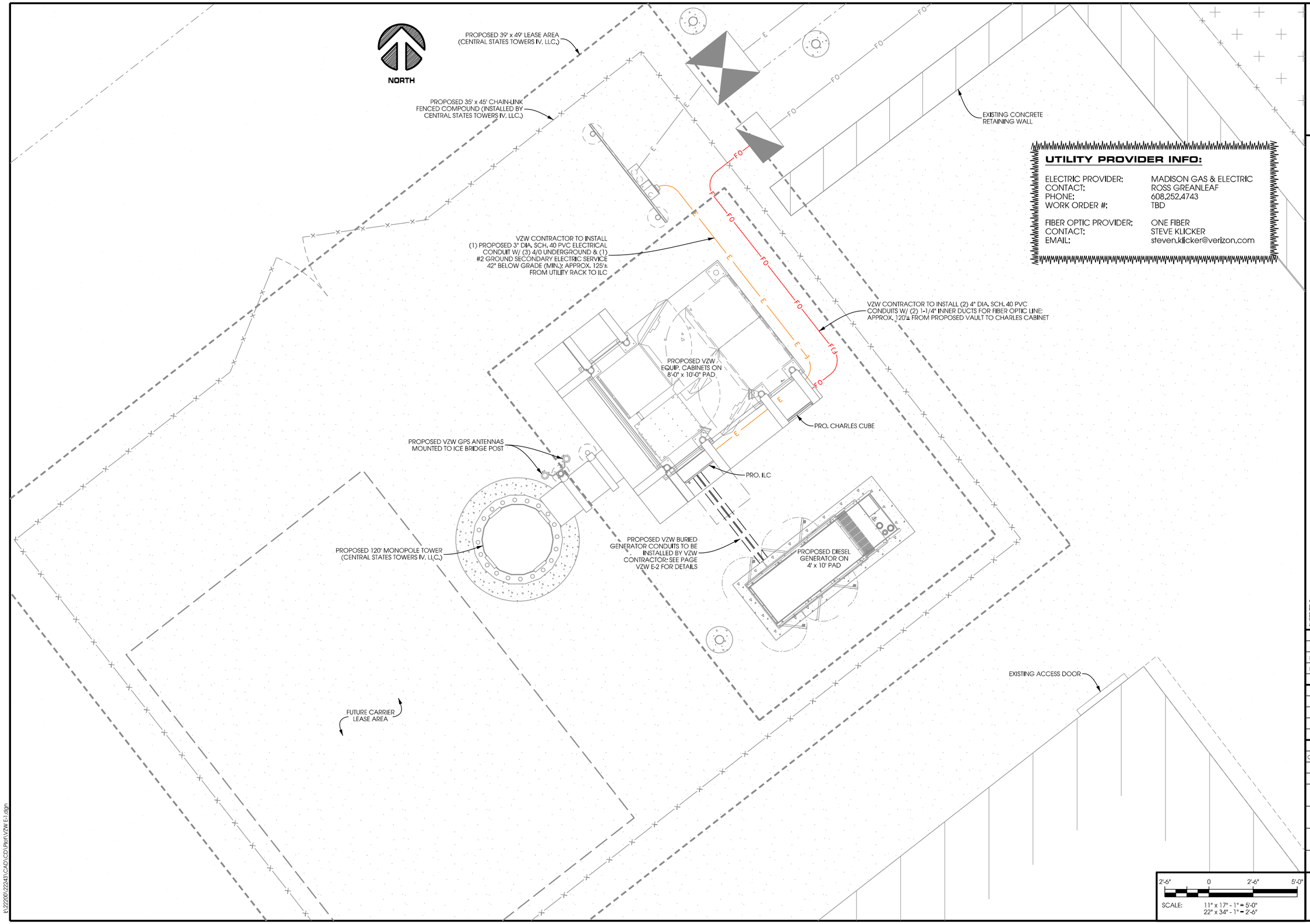

UTILITY PROVIDER INFO:

ELECTRIC PROVIDER:	MADISON GAS & ELECTRIC
CONTACT:	ROSS GREANLEAF
PHONE:	608.252.4743
WORK ORDER #:	TBD
FIBER OPTIC PROVIDER:	ONE FIBER
CONTACT:	STEVE KLICKER
EMAIL:	steven.klicker@verizon.com

2'-6" 0 2'-6" 5'-0"

SCALE: 11" x 17" - 1" = 5'-0"
22" x 34" - 1" = 2'-6"

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UTILITY PLAN
NORTH FITCHBURG (266596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN

CHECKED BY: PCM

PLOT DATE: 9/21/2021

PROJECT #: 22243

FILE NAME: VZW E-1.dgn

SHEET NUMBER:

VZW E-1

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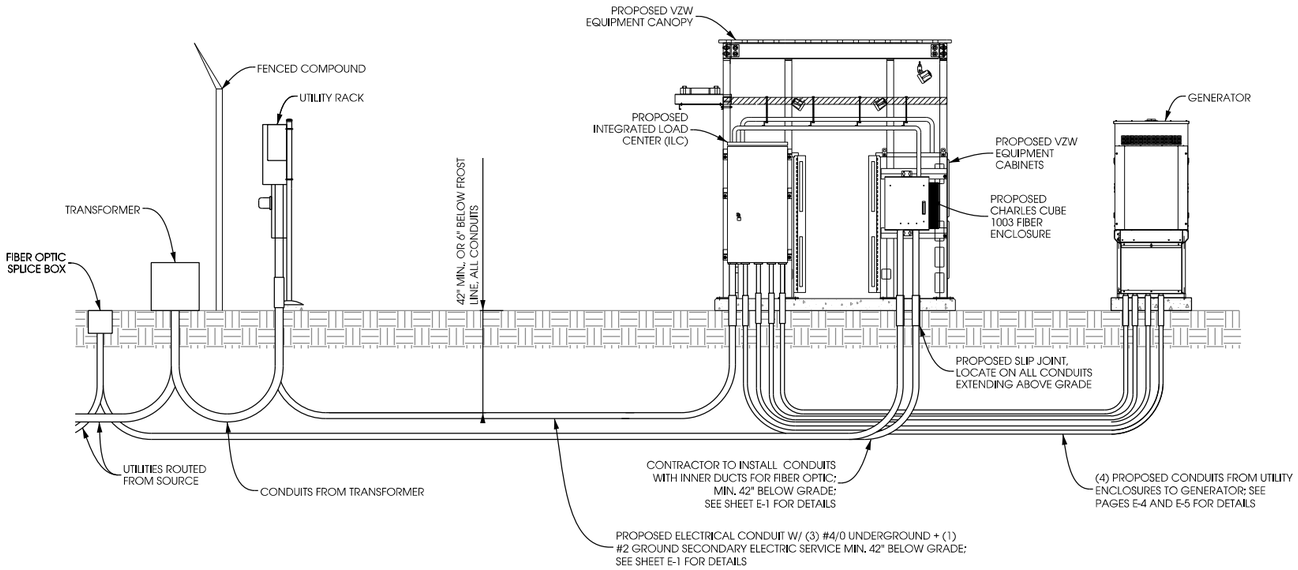


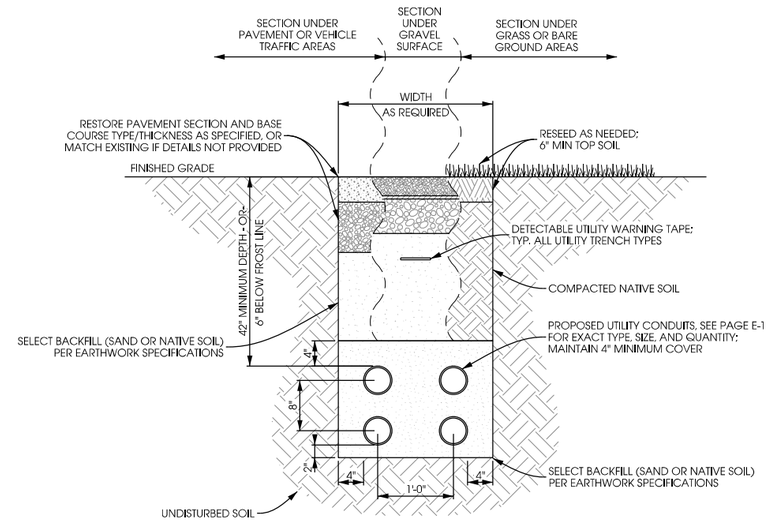
A ELECTRICAL RISER DETAIL (TYPICAL)

SCALE: NTS

NOTES:

UTILITY CONDUITS TO BE BURIED A MINIMUM DEPTH OF 42" BELOW GROUND LEVEL OR 6" BELOW THE FROST LINE.

CONDUIT TYPE, SIZE, AND QUANTITY SHOWN ON PAGE E-1.



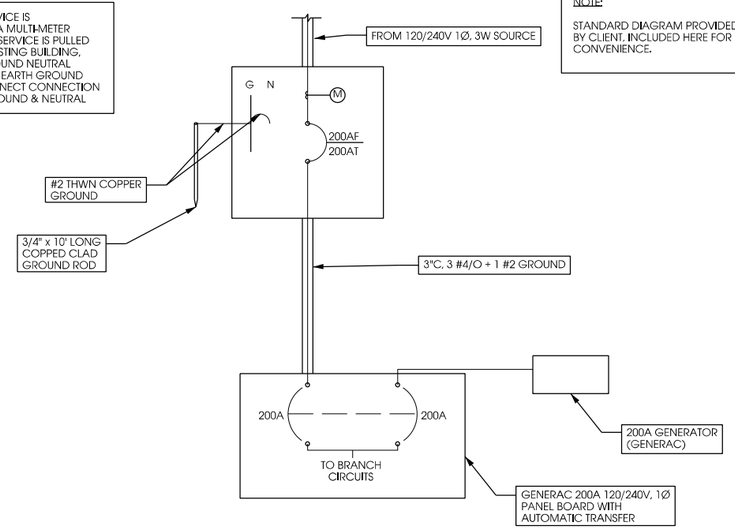
B UTILITY TRENCH DETAIL

SCALE: NTS

IF LESSEE SERVICE IS METERED AT A MULTI-METER GANG OR IF SERVICE IS PULLED FROM AN EXISTING BUILDING, DO NOT GROUND NEUTRAL TERMINAL TO EARTH GROUND AND DISCONNECT CONNECTION BETWEEN GROUND & NEUTRAL

NOTE:

STANDARD DIAGRAM PROVIDED BY CLIENT, INCLUDED HERE FOR CONVENIENCE.



C ELECTRIC LINE DIAGRAM & NOTES

SCALE: NTS

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UTILITY DETAILS
NORTH FITCHBURG (2666596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN

CHECKED BY: PCM

PLOT DATE: 9/21/2021

PROJECT #: 22243

FILE NAME: VZW E-2.dgn

SHEET NUMBER:

VZW E-2

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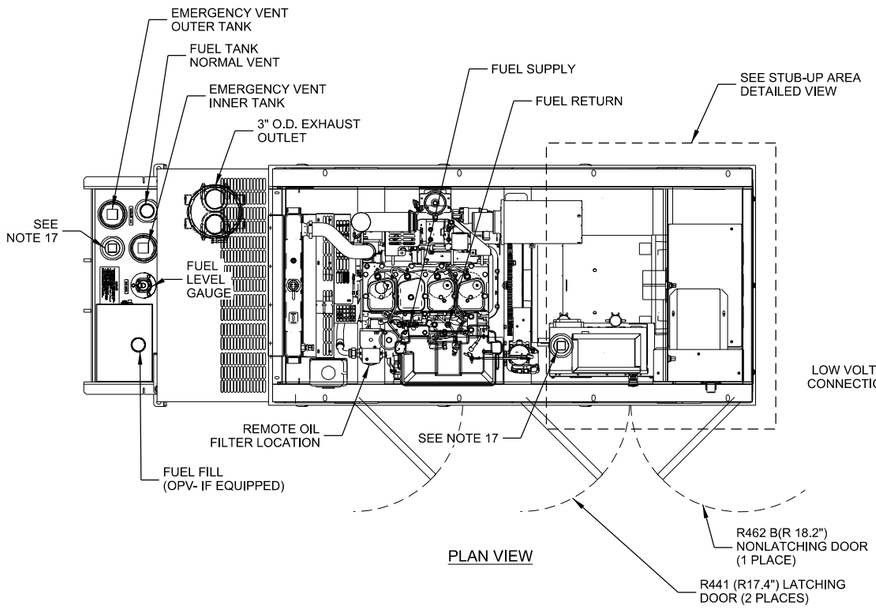
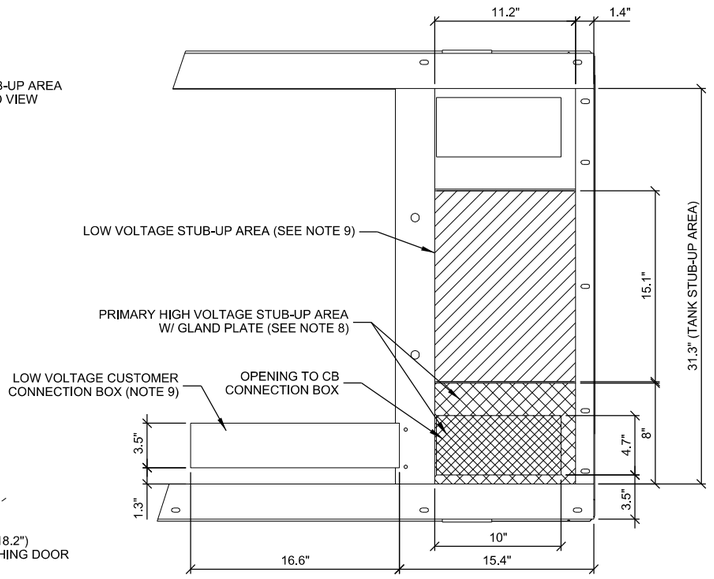


PLAN VIEW



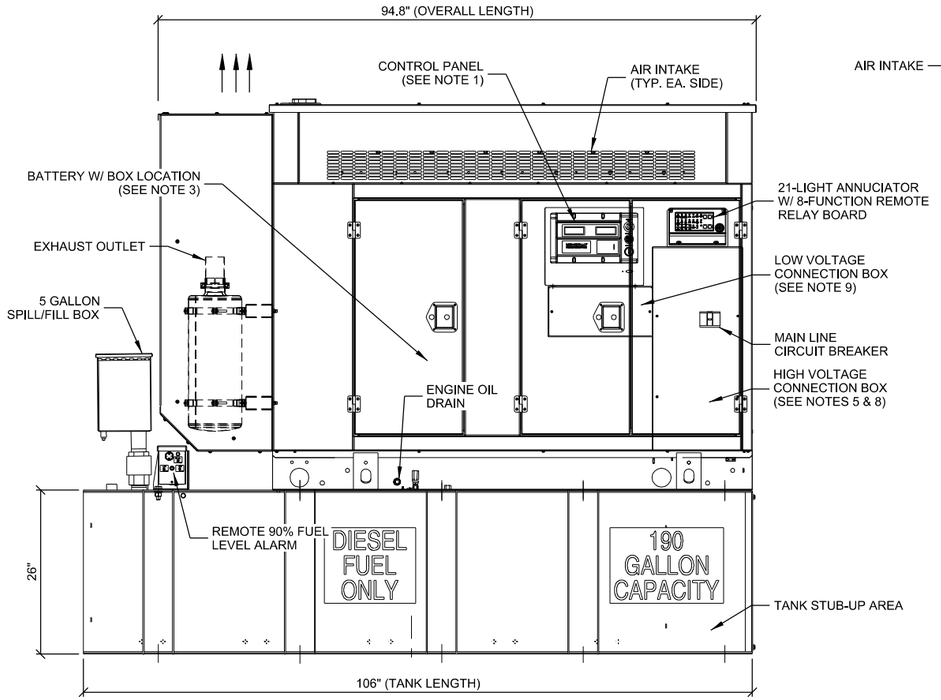
STUB-UP AREA DETAILED VIEW

NOTES:

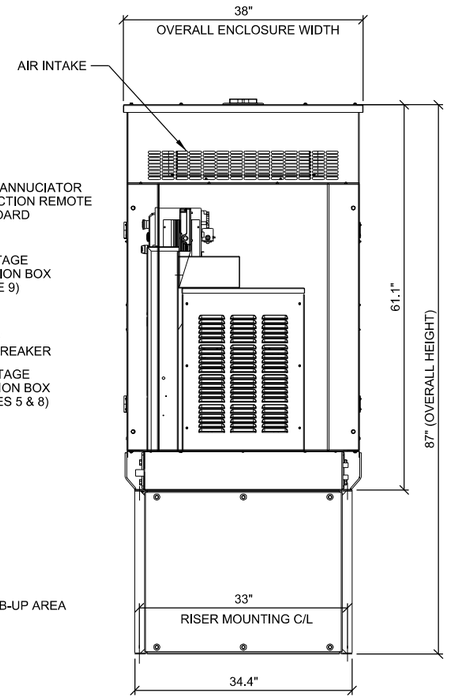
1. CONTROL PANEL W/ BATTERY CHARGER. THREE PRONG CORD COMING OUT OF CONTROL PANEL IS FOR THE BATTERY CHARGER
2. 1500W 120VAC ENGINE BLOCK HEATER WITH CORD.
3. 12 VOLT NEGATIVE GROUND SYSTEM
4. OPTIONAL REMOTE EMERGENCY STOP SHIPPED LOOSE WITH GENERATOR
5. GENERATOR MUST BE GROUNDED
6. CENTER OF GRAVITY & WEIGHT MAY SHIFT SLIGHTLY DUE TO UNIT OPTIONS.
7. STUB-UPS: BASE TANK REQUIRES ALL STUB-UPS TO BE IN THE REAR TANK STUB-UP AREA.
8. HIGH VOLTAGE STUB-UP AREA INCLUDES THE AC LOAD LEAD CONNECTION TO THE MAIN LINE CIRCUIT BREAKER (MLCB), THE NEUTRAL CONNECTION, AND AUXILIARY 120/240V CONNECTION.
9. CONNECTION POINTS FOR CONTROL WIRES. BOTTOM OF LOW VOLTAGE CUSTOMER CONNECTION BOX HAS KNOCKOUTS FOR 1/2" AND 3/4" CONDUIT FITTINGS.
10. MUST ALLOW FREE FLOW OF DISCHARGE AIR AND EXHAUST. SEE SPEC SHEET FOR MINIMUM AIR FLOW AND MAXIMUM RESTRICTION REQUIREMENTS.
11. MUST ALLOW FREE FLOW OF INTAKE AIR. SEE SPEC SHEET FOR MINIMUM AIR FLOW AND MAXIMUM RESTRICTION REQUIREMENTS.
12. ENCLOSED SETS- GENERATOR SET MUST BE INSTALLED SUCH THAT DISCHARGE AIR IS NOT RECIRCULATED.
13. IT IS THE RESPONSIBILITY OF THE INSTALLATION TECHNICIAN TO ENSURE THAT THE GENERATOR INSTALLATION COMPLIES WITH ALL APPLICABLE CODES, STANDARDS, AND REGULATION
14. 190 GALLON USEABLE CAPACITY BASE TANK.
15. UNIT IS SHIPPED WITH FUEL SUPPLY AND RETURN LINES DISCONNECTED AND PLUGGED BETWEEN ENGINE AND FUEL TANK. THIS HAS BEEN DONE TO FACILITATE PRESSURE TESTING OF THE TANK IN THE FIELD. FOR INFORMATION REGARDING CONNECTING THE FUEL SUPPLY AND RETURN LINES PRIOR TO START UP, SEE THE FUEL TANK FIELD TESTING PROCEDURE (0E5082) SUPPLIED IN THE TANK LOOSE VENTS KIT, WHICH IS SHIPPED WITH THIS GENERATOR.
16. SEE DRAWINGS 0C3850 FOR DUCT REMOVAL. REMOVAL OF FRONT DUCT WILL PROVIDE ACCESS TO MUFFLER FOR SERVICING.
17. ADDITIONAL 2" FEMALE NPT PORTS- PLUGGED OR EQUIPPED WITH TOP- MOUNT SWITCHES DEPENDING ON UNIT OPTIONS.

RECOMMENDED ELECTRICAL STUB-UPS
(SEE DETAILED VIEW & TOP VIEW)

DESCRIPTION	INSIDE BASE
HIGH VOLTAGE STUB-UP AREA 1) AC LOAD LEAD CONDUIT AREA. 2) 120/240 VAC FROM UTILITY FOR OPTIONAL LOADS SUCH AS GFCI OUTLET, BLOCK HEATER, BATTERY CHARGER, AND OTHER 120/240 VAC OPTIONS. (GLAND PLATE INCLUDED)	
LOW VOLTAGE STUB-UP AREA 1) TRANSFER SWITCH/COMMUNICATION CONDUITS. COMMUNICATIONS AND 2-WIRE START MUST NOT BE RUN IN CONDUIT WITH AC WIRING. (SEE NOTE 9)	



LEFT SIDE VIEW



REAR VIEW

RIGHT SIDE VIEW

A SD050 50KW 4.5L GENERAC DIESEL GENERATOR

WEIGHT DATA (INCLUDES WOODEN SHIPPING SKID):

ENCLOSED GENERATOR WITH EMPTY FUEL TANK: 1511 KG (3331 LBS)

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608.644.1449 voice
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GENERATOR DETAILS
NORTH FITCHBURG (2666596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN

CHECKED BY: PCM

PLOT DATE: 9/21/2021

PROJECT #: 22243

FILE NAME: VZW E-3.dgn

SHEET NUMBER:

VZW E-3

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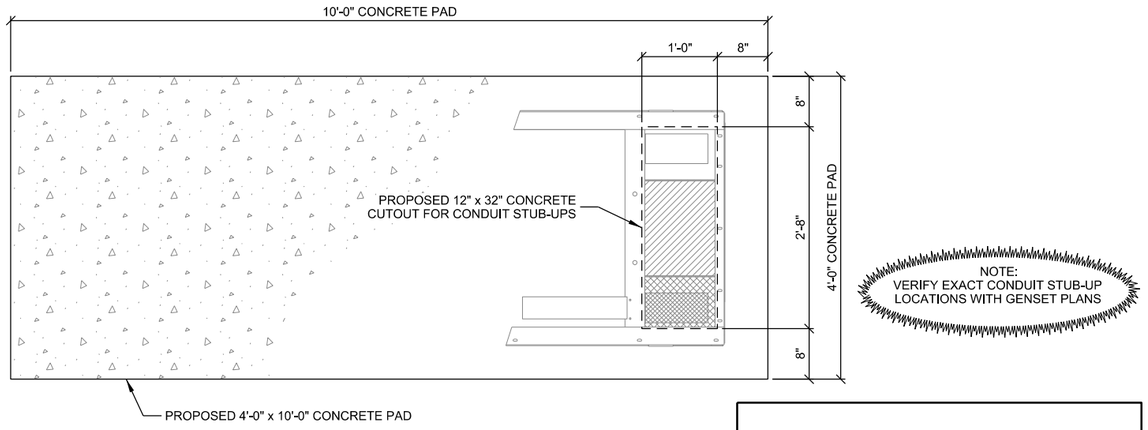
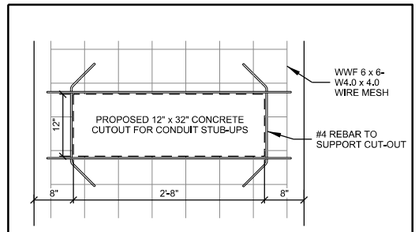
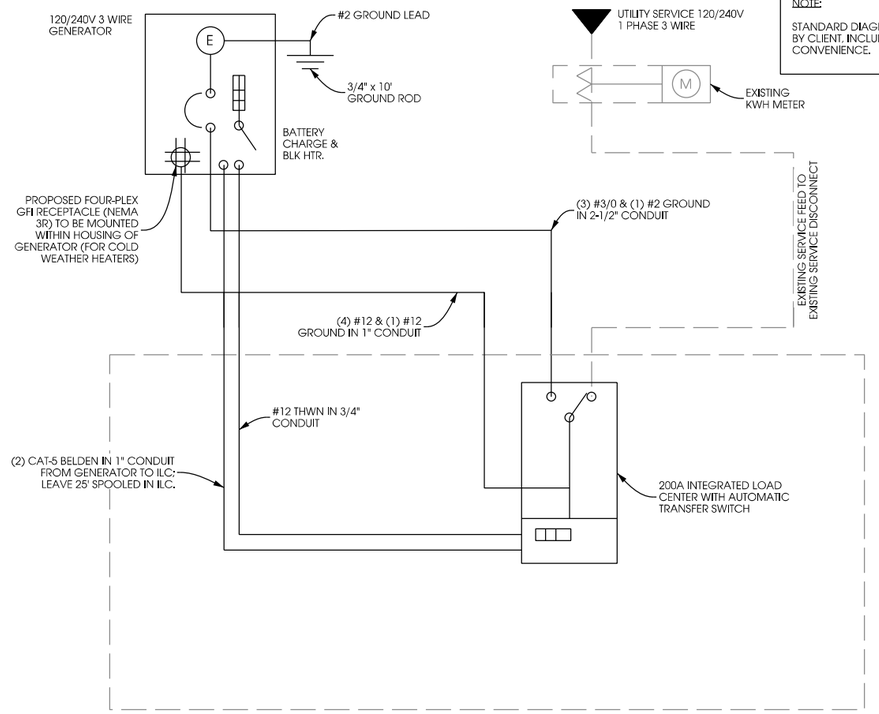


NOTE:
VERIFY EXACT CONDUIT STUB-UP LOCATIONS WITH GENSET PLANS



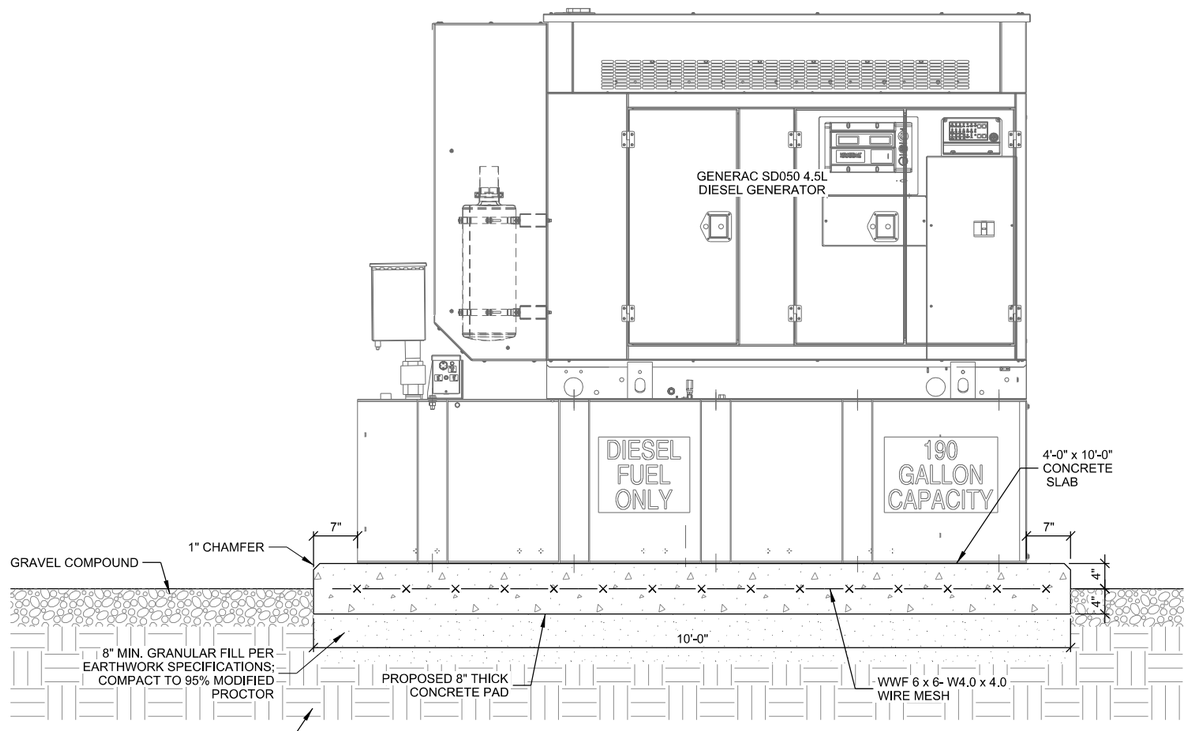
STUB-UP REINFORCEMENT

A **GENERAC DIESEL GENERATOR FOUNDATION LAYOUT**



NOTE:
STANDARD DIAGRAM PROVIDED BY CLIENT, INCLUDED HERE FOR CONVENIENCE.

C **GENERATOR SINGLE LINE DIAGRAM**

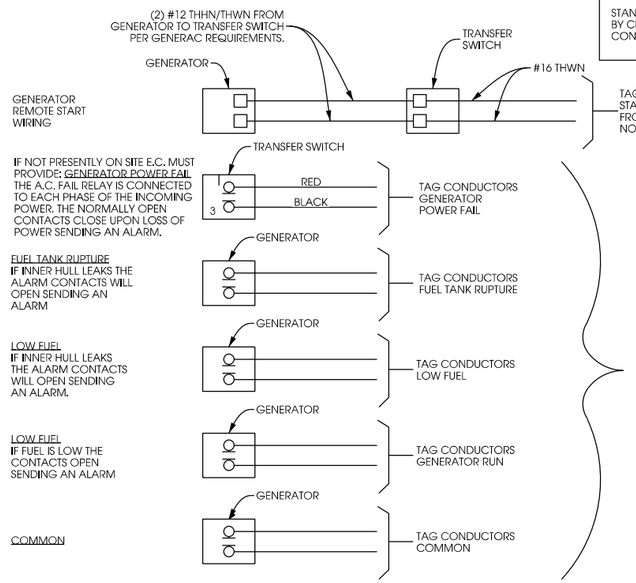


B **GENERAC DIESEL GENERATOR FOUNDATION DETAIL**

NOTES:

1. ELECTRICAL CONTRACTOR TO PULL (1) #16 AWG SOLID RED AND (1) #16 AWG SOLID BLACK FROM THE TRANSFER SWITCH TO ALARM WIRING BLOCK FOR REMOTE START.

2. ELECTRICAL CONTRACTOR TO PULL ALL ALARM LEADS TO EXISTING ALARM WIRING BLOCK. LEAVE A MINIMUM OF 24" PIGTAILS AT ALARM WIRING BLOCK AND TAG CONDUCTORS AS INDICATED. TERMINATIONS ON ALARM POINT WIRING BLOCK BY OTHERS. CONDUCTORS CAN BE RUN EXPOSED. THEY SHALL BE BUNDLED NEATLY USING TIES AND SUPPORTED AT 24" INTERVALS FOR NEAT INSTALLATION.



NOTE:
STANDARD DIAGRAM PROVIDED BY CLIENT, INCLUDED HERE FOR CONVENIENCE.

D **GENERATOR ALARM WIRING**

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Prairie du Sac, WI 53578
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608.644.1549 fax
www.edgeconsult.com

GENERATOR DETAILS
NORTH FITCHBURG (2666596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN
CHECKED BY: PCM	
PLOT DATE: 9/21/2021	
PROJECT #: 22243	
FILE NAME: VZW E-4.dgn	

SHEET NUMBER:
VZW E-4

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LEGEND

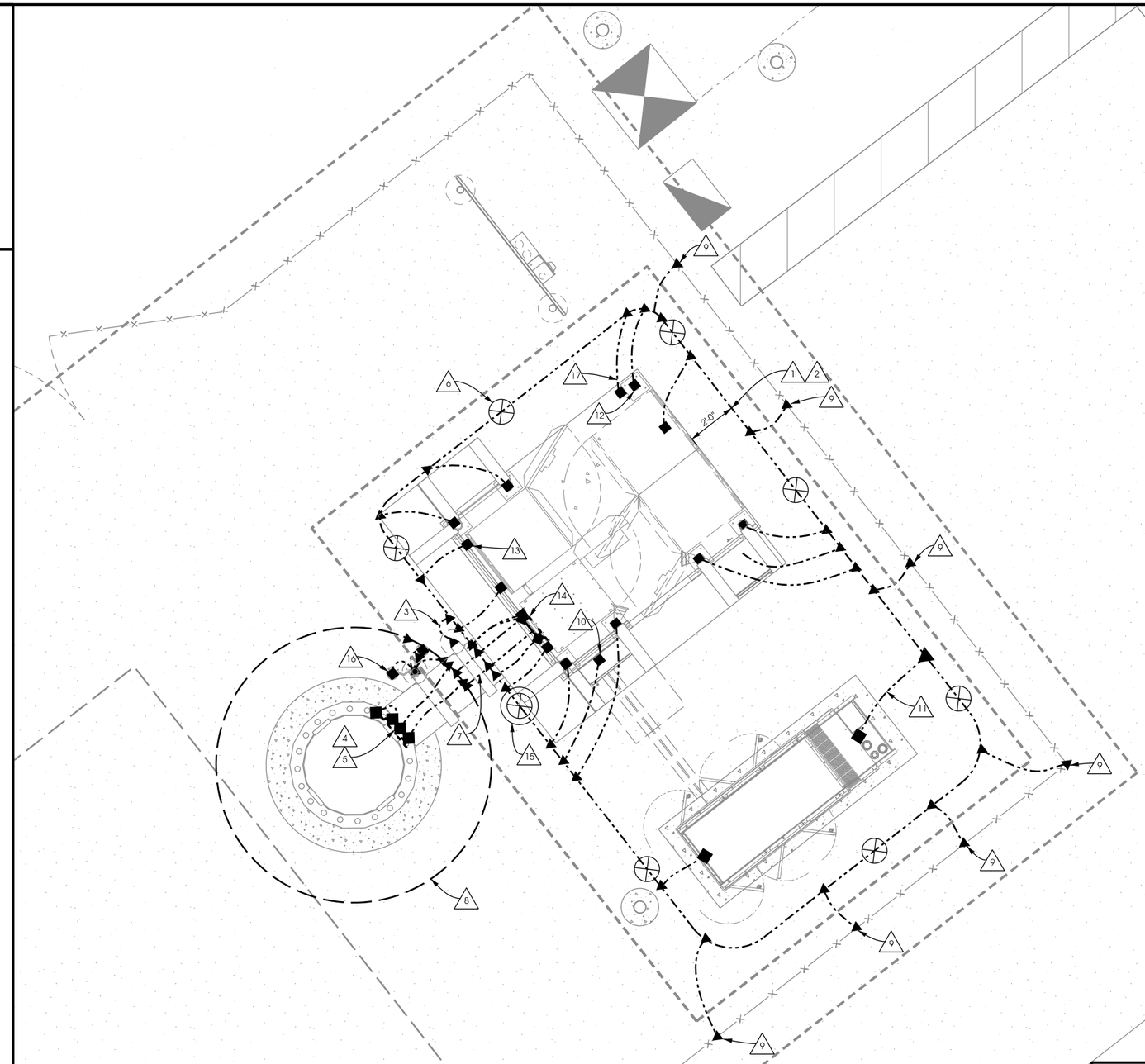
- INSPECTION WELL
- 5/8" DIA. x 10'-0" LONG, STEEL CLAD W/ A PURE COPPER JACKET (10' MAX SEPARATION)
- EXOTHERMIC CONNECTION (CADWELD OR EQUIVALENT)
- MECHANICAL CONNECTION (BURNDY OR EQUIVALENT)
- #2 SOLID BARE TINNED COPPER GROUND LEAD
- 18" X 18" X .032" THK COPPER PLATE (10' MAX SEPARATION)

KEYED GROUNDING NOTES:

1. EQUIPMENT PAD GROUND RING, #2 SOLID BARE-TINNED COPPER GROUND LEAD MIN. 4'-6" BURY (TYP.)OR 6" BELOW FROST WHICH EVER IS GREATER. GROUND RODS SPACED @ 8' O.C.
2. MAINTAIN 2-FOOT CLEARANCE FROM ALL STRUCTURES
3. GROUND ICE BRIDGE POSTS WITH #2 SOLID BARE TINNED COPPER LEADS
4. 4" x 20" x 1/4" COPPER GROUND BAR FOR CABLE GROUND KITS, NONISOLATED WITH (2) #2 SOLID BARE TINNED COPPER GROUND LEADS TO GROUND RING
5. GROUND CABLES TO GROUND BAR AT ANTENNA ELEVATION. GROUND ANTENNA GROUND BAR TO TOWER STEEL
6. 5/8" DIAMETER x 10'-0" LONG COPPER CLAD GROUND ROD WITH EXOTHERMIC CONNECTION. 8' SPACING, TYP.
7. BOND TOWER GROUND RING TO THE PROPOSED EQUIPMENT GROUND RING WITH (2) #2 SOLID BARE TINNED COPPER GROUND LEADS, EXOTHERMIC CONNECTION
8. TOWER GROUND RING
9. FENCE POST GROUND LEAD, #2 SOLID BARE TINNED COPPER, CADWELD CONNECTION. GROUND FENCE POSTS WITHIN 6-FEET OF EQUIPMENT PAD
10. GROUND ILC, ALARM JUNCTION BOX AND FIBER JUNCTION BOX
11. GROUND GENERATOR TO GROUND RING WITH #2 SOLID BARE TINNED COPPER LEADS
12. GROUND CANOPY SUPPORT COLUMNS TO GROUND RING WITH #2 SOLID BARE TINNED COPPER LEADS
13. GROUND EQUIPMENT CABINETS TO GROUND RING WITH #2 SOLID BARE TINNED COPPER LEADS
14. MASTER GROUND BAR
15. INSPECTION WELL (TYP.); SEE PAGE VZW G-3 FOR DETAIL
16. GROUND GPS TO ICE BRIDGE POST; SEE PAGE VZW A-4 FOR DETAIL
17. GROUND FOR CONCRETE FOUNDATION REBAR

NOTE:

- THE GROUNDING SHALL BE TESTED PRIOR TO FINAL BACKFILLING. DOCUMENTATION OF 5 OHM OR LESS RESISTANCE TO BE PROVIDED TO PROJECT MANAGER.
- ALL NON-INSULATED GROUND LEADS EXTENDING ABOVE GROUND LEVEL SHALL BE ENCASED IN 3/4" PVC & SEALED WITH SILICONE. PVC SHALL BE MIN. 16" INTO EARTH & EXTEND MIN. 6" ABOVE GROUND.
- INSTALL 18" X 18" COPPER PLATES IN LIEU OF GROUND RODS WHEN INSTALLING OVER TOWER FOUNDATION OR WHERE DRIVING GROUND RODS IS NOT FEASIBLE.



NOTE:

- TOP OF EACH GROUND ROD SHALL EXTEND NO MORE THAN 6" ABOVE BOTTOM OF TRENCH

NOTE:

ANY CONDUCTIVE UTILITY JUNCTION BOX OR ENCLOSURE SHALL BE BONDED TO THE EARTH GROUND SYSTEM W/ A #2 SOLID BARE TINNED COPPER GROUND LEAD

GROUNDING ELECTRODE SYSTEM NOTES:

1. CONNECTIONS:
   ALL CONNECTIONS SHALL BE EXOTHERMICALLY CONNECTED UNLESS NOTED OTHERWISE. CONTRACTOR TO FOLLOW ALL MANUFACTURER'S GUIDELINES & RECOMMENDATIONS.
2. ALL ELECTRICAL AND MECHANICAL GROUND CONNECTIONS SHALL HAVE ANTI-OXIDANT COMPOUND APPLIED TO CONNECTION.
3. FENCE/GATE:
   GROUND FENCE POSTS WITHIN 6-FEET OF ENCLOSURE AND 25-FEET OF TOWER. GROUND EACH GATE POST AND CORNER POST. GROUND CONNECTIONS TO FENCE POSTS SHALL BE MADE BY THE EXOTHERMIC PROCESS AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND PROCEDURES.
4. CONTRACTOR SHALL SUBMIT THE GROUND RESISTANCE TEST REPORT AS FOLLOWS:
   A. ONE (1) COPY TO THE OWNER REPRESENTATIVE
   B. ONE (1) COPY TO THE ENGINEER
   C. ONE (1) COPY TO KEEP INSIDE EQUIPMENT ENCLOSURE

Edge
Consulting Engineers, Inc.
624 Water Street
Prairie du Sac, WI 53578
608.644.1449 voice
608.644.1549 fax
www.edgeconsult.com

GROUNDING PLAN
NORTH FITCHBURG (266596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN

CHECKED BY: PCM

PLOT DATE: 9/21/2021

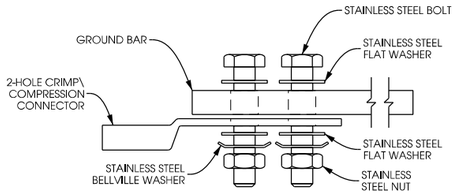
PROJECT #: 22243

FILE NAME: VZW G-1.dgn

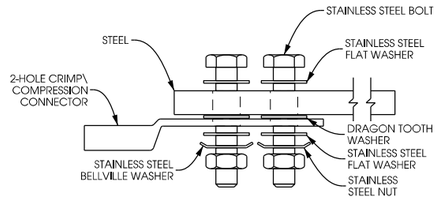
SHEET NUMBER:

VZW G-1

D:\22243\22243\CAD\CD Plan\VZW G-1.dgn



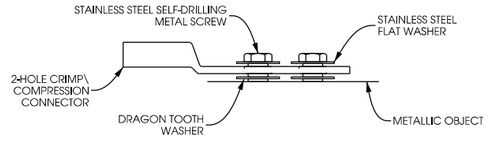
SINGLE CONNECTOR AT GROUND BARS



SINGLE CONNECTOR AT STEEL OBJECTS

NOTES

- ALL OUTDOOR HARDWARE (BOLTS, SCREWS, NUTS, WASHERS) SHALL BE 18-8 STAINLESS STEEL TYPE GRADE. INDOORS, GRADE 5 STEEL HARDWARE MAY BE USED.
- CHOOSE BOLT LENGTH TO ALLOW THE EXPOSURE OF AT LEAST TWO THREADS.
- BACK TO BACK LUG CONNECTIONS ARE AN ACCEPTABLE PRACTICE WHEN BONDED TO A GROUND BAR OR STEEL OBJECTS.
- AT CONNECTIONS MADE TO STEEL OR ANY OTHER DISSIMILAR METALS, A DRAGON TOOTH WASHER MEETING VZW PRACTICES SHALL BE USED BETWEEN THE CONNECTOR AND STEEL.
- IF NOT USING DRAGON TOOTH WASHERS, THOROUGHLY REMOVE A SECTION OF PAINT OR COATING APPROXIMATELY THE SAME SIZE AS CONNECTOR. REMOVE THE PAINT FROM SURFACE USING A DREMEL TYPE TOOL.
- USE AN APPROVED ANTI-OXIDATION COMPOUND ON ALL GROUNDING CONNECTIONS. A COPPER COSMOLINE GREASE BASED COMPOUND (NO OX-ID) SHALL BE USED ON ALL COPPER TO COPPER CONNECTIONS. A ZINC BASED (GREY COLORED) COMPOUND SHALL BE USED ON ALL COPPER TO STEEL CONNECTIONS.
- WHEN BONDING TO A METALLIC OBJECT WHERE ACCESS IS LIMITED TO ONLY ONE SURFACE, DRILLING & TAPPING OR SELF DRILLING SCREWS ARE THE PREFERRED AND ACCEPTABLE MEANS OF CONNECTION. SHEET METAL SCREWS SHALL NOT BE USED.



SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS

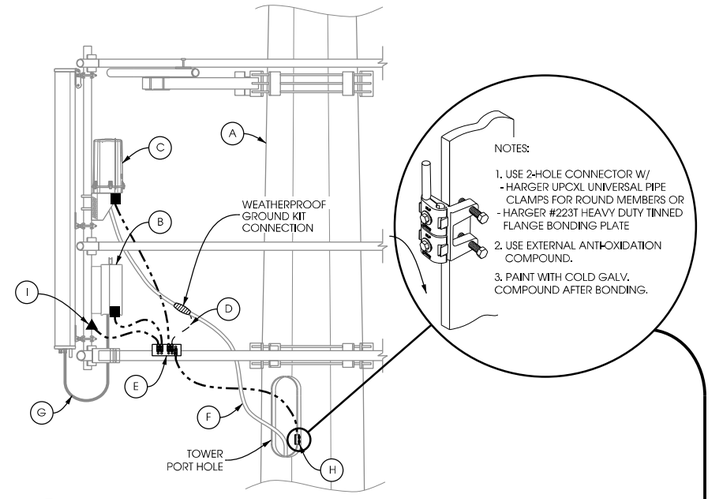
A LUG DETAIL

SCALE: NTS

KEYED GROUNDING NOTES:

- (A) MONOPOLE TOWER
- (B)
- (C) DISTRIBUTION SURGE PROTECTOR; GROUND WITH #2 STRANDED INSULATED GROUND LEAD
- (D) # 6 INSULATED TINNED COPPER CABLE GROUND KITS TO GROUND BAR; COMMSCOPE PART # UG12158-15B4-T OR APPROVED EQUIVELANT
- (E) UPPER ANTENNA GROUND BAR; MOUNT GROUND BAR DIRECTLY TO TOWER STEEL
- (F) CABLE, MAINTAIN MINIMUM BEND RADIUS
- (G) JUMPER, MAINTAIN MINIMUM BEND RADIUS
- (H) CLAMP #2 STRANDED INSULATED COPPER GROUND LEAD TO TOWER STEEL W/ HARGERS HEAVY DUTY TINNED FLANGE BONDING PLANT(P/N# 223T), OR APPROVED EQUIVALENT
- (I) CADWELD #2 STRANDED INSULATED COPPER GROUND LEAD TO ANTENNA MAST PIPE

**ALL GROUND LEADS TO BE ROUTED IN A DOWNWARD FASHION.



B ANTENNA LEVEL GROUNDING DETAILS

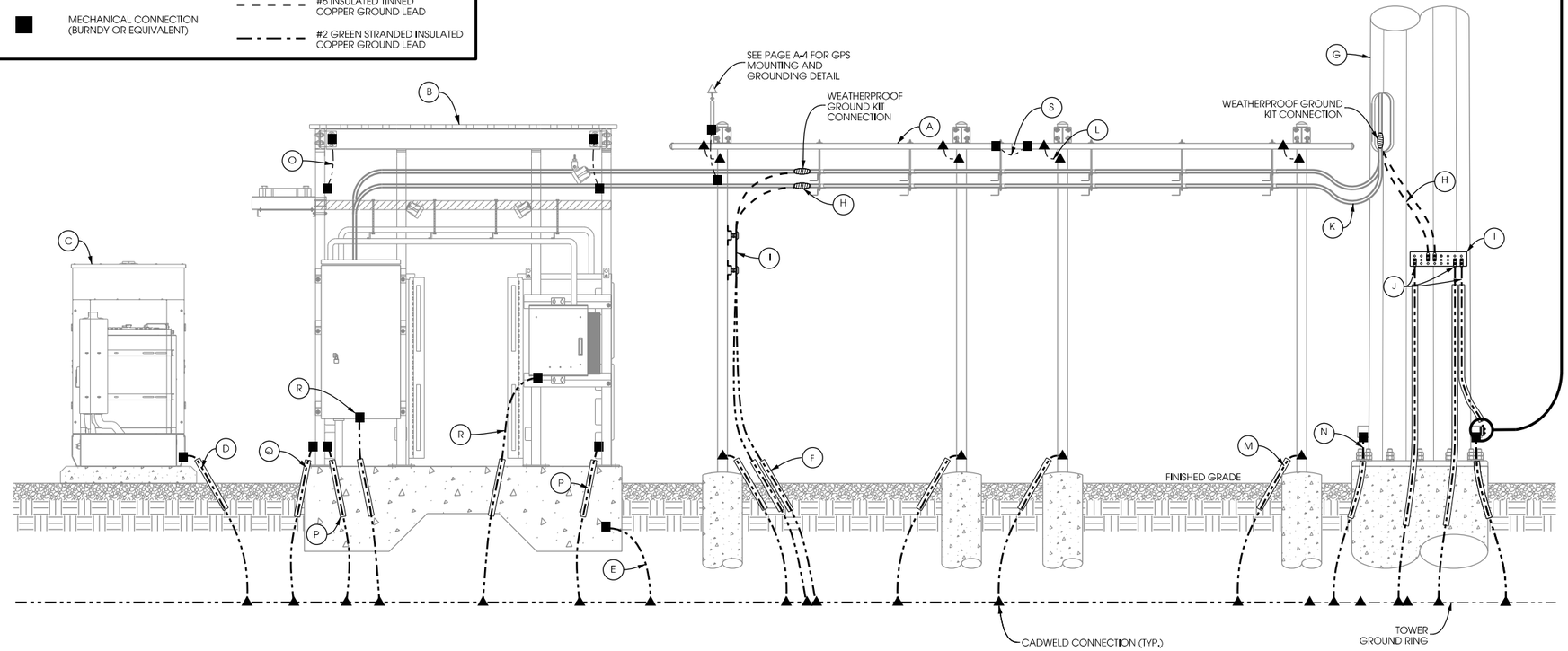
SCALE: NTS

KEYED GROUNDING NOTES:

- (A) ICE BRIDGE
- (B) EQUIPMENT CANOPY
- (C) BACKUP GENERATOR
- (D) (2) #2 SOLID BARE TINNED COPPER GROUND LEADS BETWEEN GENERATOR AND EQUIPMENT GROUND RING THROUGH SEALED 1/2" CONDUIT
- (E) GROUND FOR FOUNDATION REBAR; SEE PAGE G-3 FOR DETAIL
- (F) 1/2" DIA. PVC CONDUIT; EXTEND PVC CONDUIT 24" BELOW GRADE AND FILL WITH SILICONE (TYP.)
- (G) MONOPOLE TOWER
- (H) # 6 INSULATED TINNED COPPER CABLE GROUND KITS TO GROUND BAR; COMMSCOPE PART # UG12158-15B4-T OR APPROVED EQUIVELANT
- (I) 4" x 20" x 1/4" TINNED, INSULATED, NON-ISOLATED COPPER GROUND BAR FOR GROUND KITS
- (J) PROVIDE (2) #2 SOLID BARE TINNED COPPER GROUND LEADS FROM LOWER TOWER GROUND BAR TO TOWER GROUND RING AND (1) #2 SOLID BARE TINNED COPPER GROUND LEAD FROM LOWER TOWER GROUND BAR TO TOWER STEEL; ALL LEADS TO BE ENCASED IN 1/2" SEALED CONDUIT
- (K) CABLES WITH DRIPLOOP INSTALLED BY ANTENNA CONTRACTOR, MAINTAIN MINIMUM BEND RADIUS
- (L) #2 SOLID BARE TINNED COPPER GROUND JUMPER BETWEEN ICE BRIDGE AND STEEL SUPPORT POST BY ANTENNA CONTRACTOR; ORIENT WITH HIGH SIDE TOWARDS TOWER
- (M) #2 SOLID BARE TINNED COPPER GROUND LEADS TO ICE BRIDGE POSTS IN 1/2" PVC CONDUIT
- (N) IF APPLICABLE; #2 SOLID BARE TINNED COPPER GROUND LEADS (4) FROM TOWER STEEL TO GROUND RING; USE GROUNDING TABS WHEN AVAILABLE
- (O) #2 TINNED COPPER GROUND LEAD BETWEEN EQUIPMENT CANOPY AND STEEL SUPPORT POST
- (P) #2 TINNED COPPER GROUND LEAD BETWEEN SUPPORT COLUMN AND EQUIPMENT GROUND RING THROUGH SEALED 1/2" CONDUIT
- (Q) EQUIPMENT CABINET GROUNDING; EXTEND (2) #2 SOLID BARE TINNED COPPER GROUND LEADS TO GROUND RING THROUGH SEALED 1/2" PVC CONDUITS
- (R) #2 TINNED COPPER GROUND LEAD BETWEEN UTILITY ENCLOSURES AND EQUIPMENT GROUND RING THROUGH SEALED 1/2" CONDUIT
- (S) #2 GREEN STRANDED INSULATED COPPER GROUND LEAD WITH 2-HOLE LUGS BETWEEN ICE BRIDGE SECTIONS

LEGEND

- ▲ EXOTHERMIC CONNECTION (CADWELD OR EQUIVALENT)
- ■ MECHANICAL CONNECTION (BURNDY OR EQUIVALENT)
- #2 SOLID BARE TINNED COPPER GROUND LEAD
- #6 INSULATED TINNED COPPER GROUND LEAD
- #2 GREEN STRANDED INSULATED COPPER GROUND LEAD



C GROUND LEVEL GROUNDING DETAILS

SCALE: NTS

Edge
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GROUNDING DETAILS
NORTH FITCHBURG (266596)
FITCHBURG, WISCONSIN

SHEET TITLE:

PRELIMINARY DWGS:	INT:
SITE SKETCH V.1 - 04/08/2019	CV
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CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN
CHECKED BY: PCM	
PLOT DATE: 9/21/2021	
PROJECT #: 22243	
FILE NAME: VZW G-2.dgn	

SHEET NUMBER:

VZW G-2

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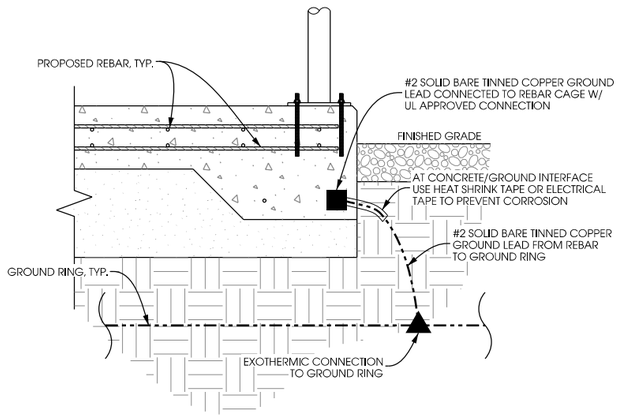
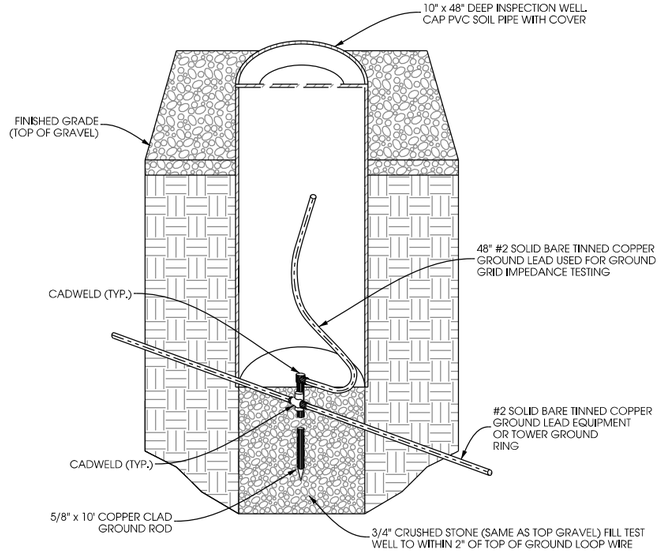
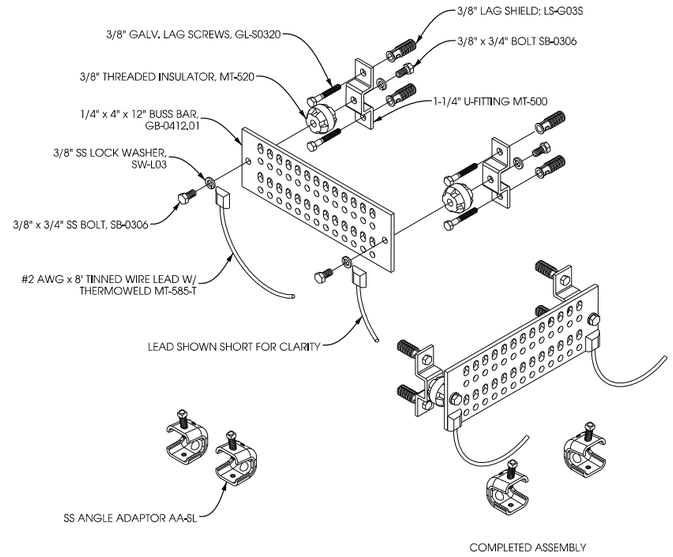
NOTES:
- FOUNDATION GROUNDING PER NEC 250.52(3)(A)
- FOUNDATION GROUNDING CONNECTIONS TO BE COVERED BY A MINIMUM OF 3" OF CONCRETE.
- REBAR GROUNDING SHALL BE MADE TO A MIN. 20' CONTINUOUS REBAR, IF POSSIBLE.



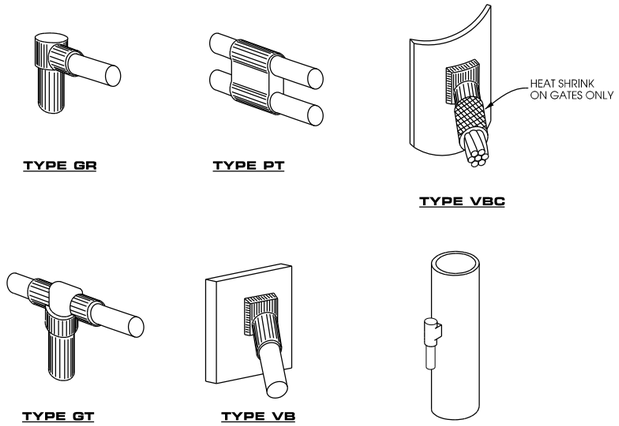
A **FOUNDATION GROUNDING**
SCALE: NTS



B **INSPECTION WELL DETAIL**
SCALE: NTS



C **GROUND AND BUSS BAR DETAIL**
SCALE: NTS

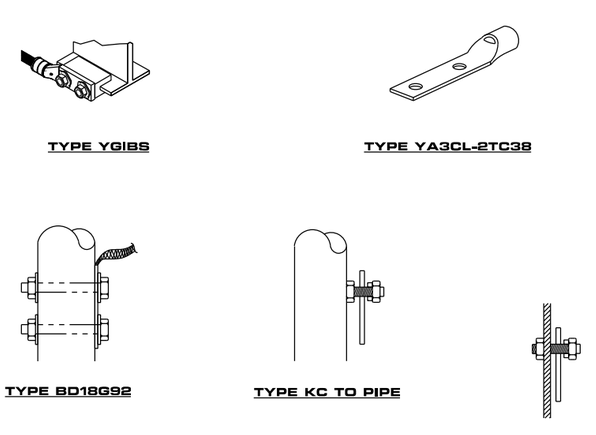


NOTE:

CADWELD "TYPES" SHOWN ARE EXAMPLES. CONSULT WITH PROJECT MANAGER FOR OTHER POSSIBLE TYPES OF CADWELDS THAT CAN BE USED IN STANDARD OR SPECIALLY DESIGNED GROUNDING PLANS.

CONTRACTOR TO PROVIDE ALL REQUIRED CADWELD CONNECTIONS.

D **CADWELD DETAILS**
SCALE: NTS

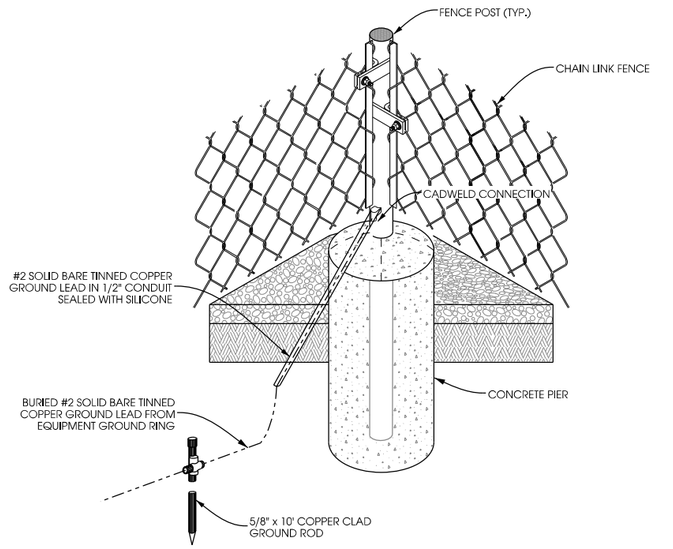


NOTE:

BURNDY "TYPES" SHOWN ARE EXAMPLES. CONSULT WITH PROJECT MANAGER FOR OTHER POSSIBLE TYPES OF BURNDY CONNECTIONS THAT CAN BE USED IN STANDARD OR SPECIALLY DESIGNED GROUNDING PLANS.

CONTRACTOR TO PROVIDE ALL REQUIRED BURNDY CONNECTIONS.

E **BURNDY DETAILS**
SCALE: NTS



F **FENCE POST GROUNDING DETAIL**
SCALE: NTS

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GROUNDING DETAILS
NORTH FITCHBURG (2666596)
FITCHBURG, WISCONSIN

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CD 100'S V.2 - 9/21/21	BJN
CHECKED BY: PCM	
PLOT DATE: 9/21/2021	
PROJECT #: 22243	
FILE NAME: VZW G-3.dgn	

SHEET NUMBER:
VZW G-3

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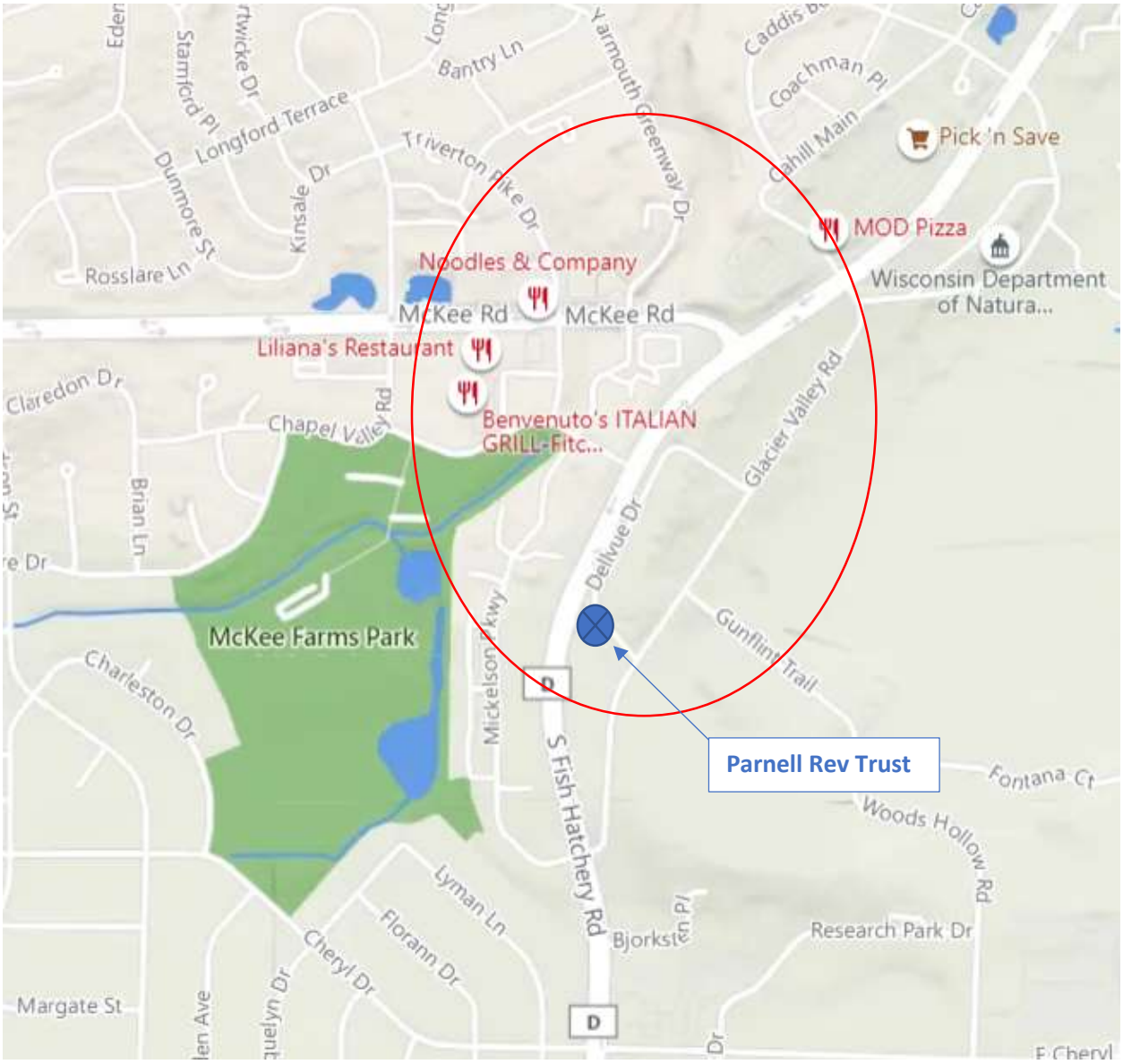
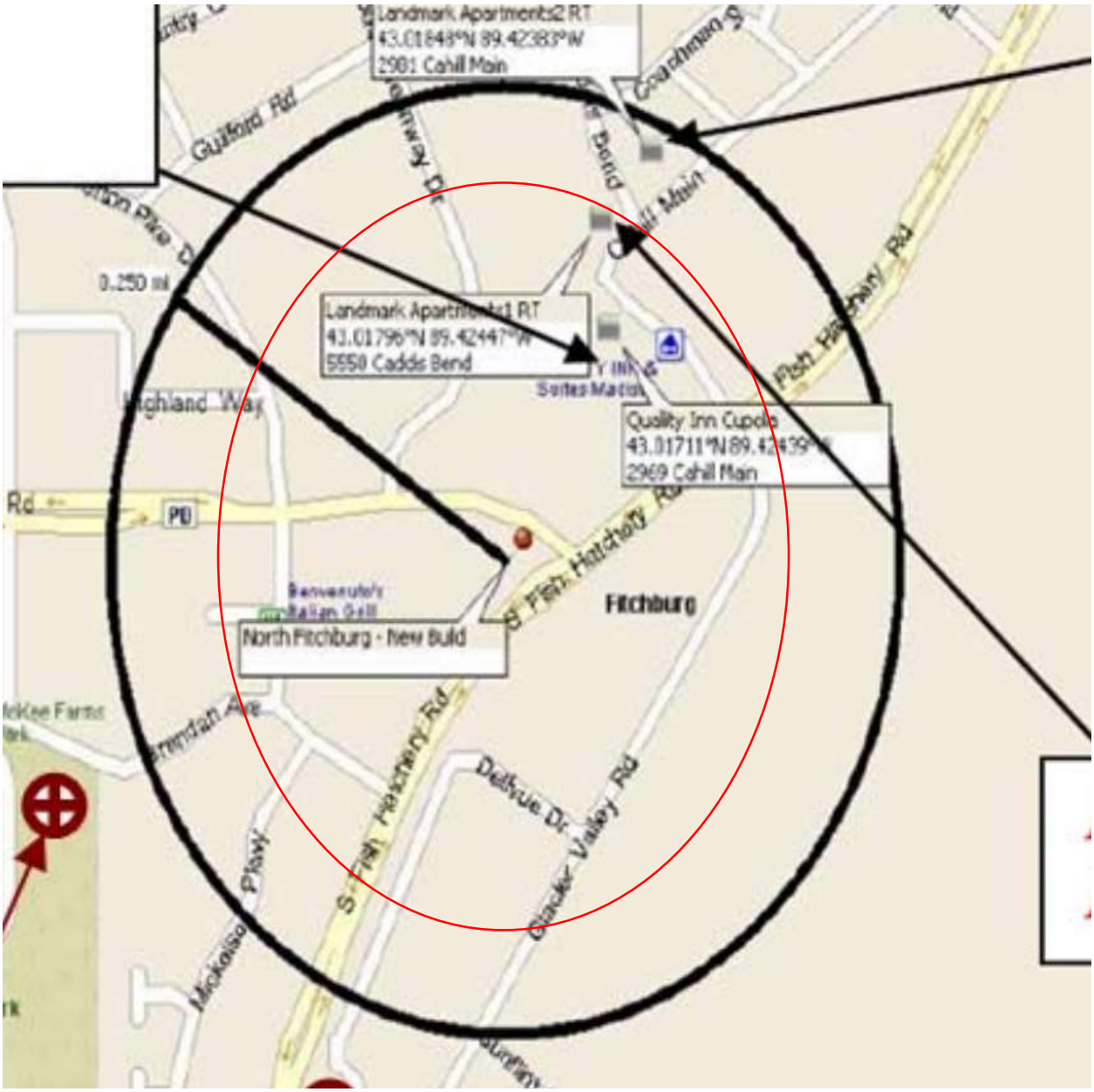

Bantry Ln
Yarmouth Greenway Dr
Coachman Pl
Cahill Main
Pick 'n Save
Triverton Pike Dr
Longford Terrace
Stamford Pl
Dunmore St
Kinsale Dr
Rosslare Ln
MOD Pizza
Noodles & Company
McKee Rd
McKee Rd
Wisconsin Department of Natura...
Liliana's Restaurant
Benvenuto's ITALIAN GRILL-Fitc...
Claredon Dr
Chapel Valley Rd
Glacier Valley Rd
Brian Ln
Dellvue Dr
McKee Farms Park
Gunflint Trail
Charleston Dr
Mickelson Pkwy
S Fish Hatchery Rd
Parnell Rev Trust
Fontana Ct
Woods Hollow Rd
Lyman Ln
Florann Dr
Cheryl Dr
Bjorksten Pl
Research Park Dr
Margate St
D
D


Landmark Apartments2 RT
43.01848°N 89.42383°W
2981 Cahill Main
Landmark Apartments1 RT
43.01796°N 89.42447°W
5550 Caddis Bend
Quality Inn Cupola
2969 Cahill Main
North Fitchburg - New Build
Fitchburg
Guilford Rd
Caddis Bend
Cahill Main
Fish Hatchery Rd
Highland Way
Rd
PB
S Fish Hatchery Rd
Dunbrae Dr
Glacier Valley Rd
Mckinley Pkwy
Brendan Ave
0.250 mi

Sabre Industries™
INNOVATION DELIVERED

September 21, 2021

Mr. Yuri Dobrowolsky
Vice President of Operations
Central States Tower
323 South Hale Street, Suite 100
Wheaton, Illinois 60187

RE: Proposed 120' Sabre Monopole for North Fitchburg, WI

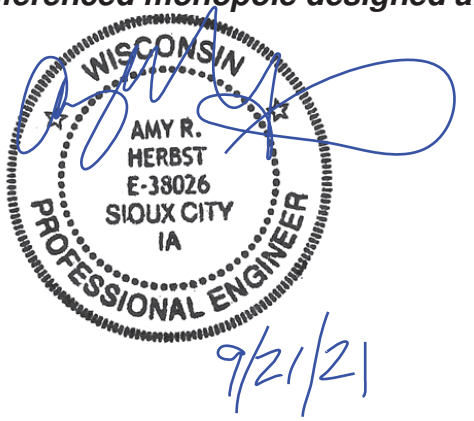
Dear Mr. Dobrowolsky,

Upon receipt of order, we propose to design and supply the above referenced Sabre monopole for an ASCE 7-16 Ultimate Wind Speed of 107 with no ice and 40 mph with 1.5" radial ice, Structure Class II, Exposure Category C and Topographic Category 1 in accordance with the Telecommunications Industry Association Standard ANSI/TIA-222-G, "Structural Standard for Antenna Supporting Structures and Antennas".

When designed according to this standard, the wind pressures and steel strength capacities include several safety factors. Therefore, it is highly unlikely that the monopole will fail structurally in a wind event where the design wind speed is exceeded within the range of the built-in safety factors.

Should the wind speed increase beyond the capacity of the built-in safety factors, to the point of failure of one or more structural elements, the most likely location of the failure would be within the monopole shaft, above the base plate. Assuming that the wind pressure profile is similar to that used to design the monopole, the monopole will buckle at the location of the highest combined stress ratio within the monopole shaft, resulting in the portion of the monopole above leaning over and remaining in a permanently deformed condition. The resulting fall radius of this structure would be zero feet. ***Please note that this letter only applies to the above referenced monopole designed and manufactured by Sabre Towers & Poles.***

Sincerely,



Amy R. Herbst, P.E.
Senior Design Engineer

Sabre Industries, Inc. • 7101 Southbridge Drive • Sioux City, IA 51111
P: 712-258-6690 **F:** 712-279-0814 **W:** www.SabreIndustries.com

Sworn Statement of Hemal Parikh
in Support of New Tower Construction Pursuant to Wis. Stat. §66.0404

State of Illinois)
) ss.
County of Cook)

HEMAL PARIKH, being first duly sworn on oath, deposes and says that:

1. I am an adult resident of the State of Illinois and serve as a Radio Frequency Engineer at Verizon Wireless ("Verizon").

2. My job duties at Verizon include design and optimization of new and existing wireless facilities to meet Verizon's network needs. I have ongoing oversight duties related to Verizon's mobile service support structures in the State of Wisconsin, including the proposed mobile service support structure being proposed by Verizon and Central States Tower IV, LLC at 2861 Dellvue Drive, Fitchburg, WI, parcel ID 0609-091-7060-2 (the "Proposed Communications Facility").

3. This sworn statement is made pursuant to Wis. Stat. §66.0404(2)(b)6.

4. Verizon identified a genuine need for the Proposed Communications Facility, and thereafter, Verizon's engineering department issued a "search ring" defining the precise geographic area where the Proposed Communications Facility was needed to address the identified need (the "Search Ring").

5. The Proposed Communications Facility is being proposed because collocation within the Search Ring is infeasible, as no existing structures of any kind are available for collocation.

6. Because no structures exist to support collocation within the Search Ring, we are requesting permission to construct the Proposed Communications Facility.

7. I have reviewed § 64-77(a)(3) of the Fitchburg City Code. That section of the City Code requests an applicant provide an inventory of existing or approved towers and buildings within one mile of a proposed installation, and an explanation of why those towers and buildings cannot accommodate the proposed installation. Providing information of towers and buildings within a one

mile radius of the proposed installation would not provide useful information. The established Search Ring encompasses an area much smaller than one mile. As the State of Wisconsin recognized in Wis. Stat. § 66.0404(2)(b)6, the relevant and permissible inquiry is an analysis of available sites "within the applicant's search ring". As this sworn statement indicates, there are no structures within the Search Ring which could accommodate the proposed installation.

Hemal Parikh

State of Illinois)
) ss.
County of Cook)

This instrument was acknowledged, subscribed and sworn to before me on June 2, 2020, by Hemal Parikh.

Sharon A Petrielli
NOTARY PUBLIC FOR ILLINOIS
My Commission Expires: 7-15-21

OFFICIAL SEAL
SHARON A PETRIELLI
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES:07/15/21

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

Aeronautical Study No.
2021-AGL-22140-OE
Prior Study No.
2019-AGL-17239-OE

Issued Date: 08/27/2021

Brian Meier
Central States Tower V, LLC
323 S. Hale Street
Suite 100
Wheaton, IL 60187

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

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

Structure:	Monopole WI-00-1458 North Fitchburg
Location:	Fitchburg, WI
Latitude:	43-00-40.13N NAD 83
Longitude:	89-25-40.25W
Heights:	940 feet site elevation (SE)
	125 feet above ground level (AGL)
	1065 feet above mean sea level (AMSL)

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

See attachment for additional condition(s) or information.
To coordinate frequency activation and verify that no interference is caused to FAA facilities, prior to beginning any transmission from the site you must contact FAA ASR RADAR (9.43 nm) we require that prior to transmitting you notify Madison, Airway Transportation System Specialist (ATSS) Supervisor, System Support Center (SSC) Manager, at 608-244-2452 and Mike Bowers, Central Service Area Frequency Management Officer, at 816-718-2925.

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

This determination expires on 02/27/2023 unless:

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

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

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

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

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

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.This determination includes all previously filed frequencies and power for this structure.

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

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

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

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

If we can be of further assistance, please contact our office at (816) 329-2525, or natalie.schmalbeck@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2021-AGL-22140-OE.

Signature Control No: 491874776-492939501 (DNE)
Natalie Schmalbeck
Technician

Attachment(s)
Additional Information
Frequency Data
Map(s)

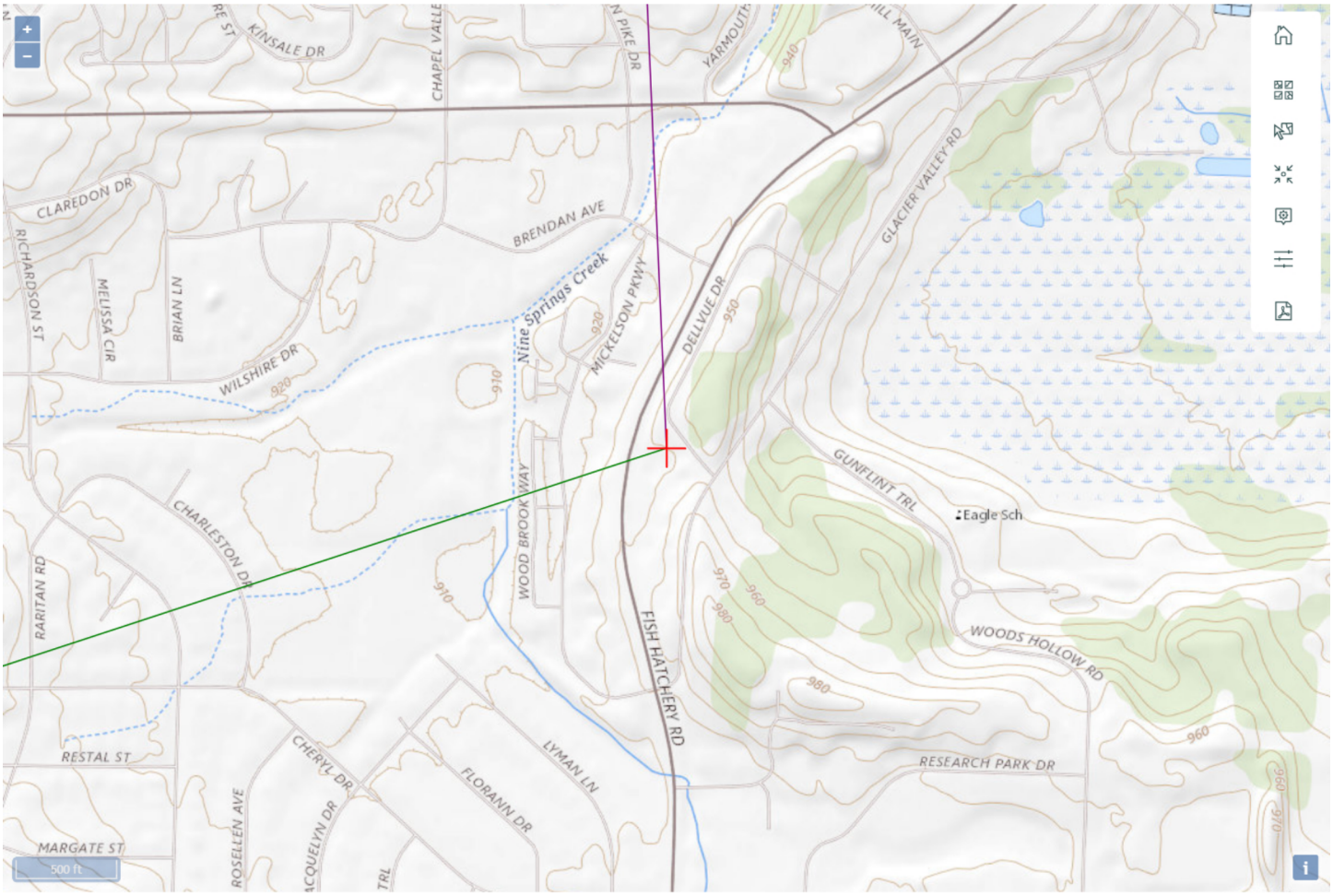
cc: FCC

Radio Frequency transmitters in the 2650-2690 MHz band have been identified as the cause of interference to FAA ASR RADARs. Due to the proximity of your proposed facility to a FAA ASR RADAR (9.43 nm) we require that prior to transmitting you notify Madison, Airway Transportation System Specialist (ATSS) Supervisor, System Support Center (SSC) Manager, at 608-244-2452 and Mike Bowers, Central Service Area Frequency Management Officer, at 816-718-2925 of the date you will begin transmitting. These actions will ensure that the FAA is aware that changes in the electromagnetic environment have occurred and to be on alert for any impacts to FAA systems. Note, upon receipt of notification from the Federal Aviation Administration (FAA) or Federal Communications Commission (FCC) that harmful interference is being caused by the licensee's (permittee's) transmitter, the licensee (permittee) shall either immediately reduce the power to the point of no interference, cease operation, or take immediate corrective action as is necessary to eliminate the harmful interference.

Frequency Data for ASN 2021-AGL-22140-OE

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

Verified Map for ASN 2021-AGL-22140-OE



SD030 | 2.4L | 30 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

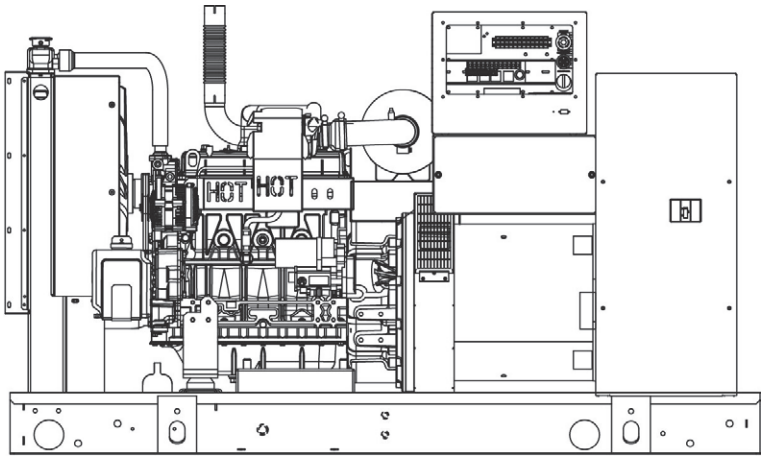
GENERAC | INDUSTRIAL POWER

STANDBY POWER RATING

30 kW, 38 kVA, 60 Hz

PRIME POWER RATING*

27 kW, 34 kVA, 60 Hz



*Built in the USA using domestic and foreign parts

*EPA Certified Prime ratings are not available in the U.S. or its Territories.

**Certain options or customization may not hold certification valid.

Image used for illustration purposes only

CODES AND STANDARDS

Generac products are designed to the following standards:

UL2200, UL508, UL142, UL498

NFPA70, 99, 110, 37

NEC700, 701, 702, 708

ISO9001, 8528, 3046, 7637, Pluses #2b, 4

NEMA ICS10, MG1, 250, ICS6, AB1

ANSI C62.41

POWERING AHEAD

For over 50 years, Generac has led the industry with innovative design and superior manufacturing.

Generac ensures superior quality by designing and manufacturing most of its generator components, including alternators, enclosures and base tanks, control systems and communications software.

Generac's gensets utilize a wide variety of options, configurations and arrangements, allowing us to meet the standby power needs of practically every application.

Generac searched globally to ensure the most reliable engines power our generators. We choose only engines that have already been proven in heavy-duty industrial application under adverse conditions.

Generac is committed to ensuring our customers' service support continues after their generator purchase.

SD030 | 2.4L | 30 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

STANDARD FEATURES

ENGINE SYSTEM

General

- Oil Drain Extension
- Air Cleaner
- Fan Guard
- Stainless Steel flexible exhaust connection
- Critical Exhaust Silencer (enclosed only)
- Factory Filled Oil
- Radiator Duct Adapter (open set only)

Fuel System

- Fuel lockoff solenoid
- Primary fuel filter

Cooling System

- Closed Coolant Recovery System
- UV/Ozone resistant hoses
- Factory-Installed Radiator
- Radiator Drain Extension
- 50/50 Ethylene glycol antifreeze
- 120 VAC Coolant Heater

Engine Electrical System

- Battery charging alternator
- Battery cables
- Battery tray
- Solenoid activated starter motor
- Rubber-booted engine electrical connections

ALTERNATOR SYSTEM

- UL2200 GENprotect™
- 12 leads (3-phase, non 600 V)
- Class H insulation material
- Vented rotor
- 2/3 pitch
- Skewed stator
- Auxiliary voltage regulator power winding
- Amortisseur winding
- Brushless Excitation
- Sealed Bearings
- Automated manufacturing (winding, insertion, lacing, varnishing)
- Rotor dynamically spin balanced
- Full load capacity alternator
- Protective thermal switch

GENERATOR SET

- Internal Genset Vibration Isolation
- Separation of circuits - high/low voltage
- Separation of circuits - multiple breakers
- Silencer Heat Shield
- Wrapped Exhaust Piping
- Silencer housed in discharge hood (enclosed only)
- Standard Factory Testing
- 2 Year Limited Warranty (Standby rated Units)
- 1 Year Limited Warranty (Prime rated Units)
- Silencer mounted in the discharge hood (enclosed only)

ENCLOSURE (IF SELECTED)

- Rust-proof fasteners with nylon washers to protect finish
- High performance sound-absorbing material
- Gasketed doors
- Stamped air-intake louvers
- Air discharge hoods for radiator-upward pointing
- Stainless steel lift off door hinges
- Stainless steel lockable handles
- Rhino Coat™ - Textured polyester powder coat

TANKS (IF SELECTED)

- UL 142
- Double wall
- Vents
- Sloped top
- Sloped bottom
- Factory pressure tested (2 psi)
- Rupture basin alarm
- Fuel level
- Check valve in supply and return lines
- Rhino Coat™ - Textured polyester powder coat
- Stainless hardware

CONTROL SYSTEM

Control Panel

- Digital H Control Panel - Dual 4x20 Display
- Programmable Crank Limiter
- 7-Day Programmable Exerciser
- Special Applications Programmable PLC
- RS-232/485
- All-Phase Sensing DVR
- Full System Status
- Utility Monitoring
- Low Fuel Pressure Indication
- 2-Wire Start Compatible
- Power Output (kW)
- Power Factor
- kW Hours, Total & Last Run
- Real/Reactive/Apparent Power
- All Phase AC Voltage
- All Phase Currents
- Oil Pressure
- Coolant Temperature
- Coolant Level
- Engine Speed
- Battery Voltage
- Frequency
- Date/Time Fault History (Event Log)
- Isochronous Governor Control
- Waterproof/sealed Connectors
- Audible Alarms and Shutdowns
- Not in Auto (Flashing Light)
- Auto/Off/Manual Switch
- E-Stop (Red Mushroom-Type)
- NFPA110 Level I and II (Programmable)
- Customizable Alarms, Warnings, and Events
- Modbus protocol
- Predictive Maintenance algorithm
- Sealed Boards
- Password parameter adjustment protection
- Single point ground
- 15 channel data logging
- 0.2 msec high speed data logging
- Alarm information automatically comes up on the display

Alarms

- Oil Pressure (Pre-programmable Low Pressure Shutdown)
- Coolant Temperature (Pre-programmed High Temp Shutdown)
- Coolant Level (Pre-programmed Low Level Shutdown)
- Low Fuel Pressure Alarm
- Engine Speed (Pre-programmed Over speed Shutdown)
- Battery Voltage Warning
- Alarms & warnings time and date stamped
- Alarms & warnings for transient and steady state conditions
- Snap shots of key operation parameters during alarms & warnings
- Alarms and warnings spelled out (no alarm codes)

SD030 | 2.4L | 30 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

CONFIGURABLE OPTIONS

ENGINE SYSTEM

General

- O Oil Heater
- O Industrial Exhaust Silencer

Fuel System

- O Flexible fuel lines
- O Primary fuel filter

Engine Electrical System

- O 10A UL battery charger
- O 2.5A UL battery charger
- O Battery Warmer

ALTERNATOR SYSTEM

- O Alternator Upsizing
- O Anti-Condensation Heater
- O Tropical coating
- O Permanent Magnet Excitation

CIRCUIT BREAKER OPTIONS

- O Main Line Circuit Breaker
- O 2nd Main Line Circuit Breaker
- O Shunt Trip and Auxiliary Contact
- O Electronic Trip Breaker

GENERATOR SET

- O Gen-Link Communications Software (English Only)
- O 8 Position Load Center
- O 2 Year Extended Warranty
- O 5 Year Warranty
- O 5 Year Extended Warranty

ENCLOSURE

- O Weather Protected
- O Level 1 Sound Attenuation
- O Level 2 Sound Attenuation
- O Steel Enclosure
- O Aluminum Enclosure
- O 150 MPH Wind Kit
- O 12 VDC Enclosure Lighting Kit
- O 120 VAC Enclosure Lighting Kit
- O AC/DC Enclosure Lighting Kit
- O Door Alarm Switch

TANKS (Size on last page)

- O Electrical Fuel Level
- O Mechanical Fuel Level
- O 54 Gal (204.4 L) Usable Capacity
- O 132 Gal (499.7 L) Usable Capacity
- O 211 Gal (798.7 L) Usable Capacity
- O 300 Gal (1135.6 L) Usable Capacity
- O 8" Fill Extension
- O 13" Fill Extension
- O 19" Fill Extension

CONTROL SYSTEM

- O 21-Light Remote Annunciator
- O Remote Relay Panel (8 or 16)
- O Oil Temperature Sender with Indication Alarm
- O Remote E-Stop (Break Glass-Type, Surface Mount)
- O Remote E-Stop (Red Mushroom-Type, Surface Mount)
- O Remote E-Stop (Red Mushroom-Type, Flush Mount)
- O Remote Communication - Modem
- O Remote Communication - Ethernet
- O 10A Run Relay
- O Ground Fault Indication and Protection Functions

ENGINEERED OPTIONS

ENGINE SYSTEM

- O Coolant heater ball valves
- O Block Heaters
- O Fluid containment pans

ALTERNATOR SYSTEM

- O 3rd Breaker Systems

CONTROL SYSTEM

- O Spare inputs (x4) / outputs (x4) - H Panel Only
- O Battery Disconnect Switch

GENERATOR SET

- O Special Testing
- O IBC Seismic Certification

ENCLOSURE

- O Motorized Dampers
- O Door switched for intrusion alert
- O Enclosure ambient heaters

TANKS

- O Overfill Protection Valve
- O UL2085 Tank
- O ULC S-601 Tank
- O Stainless Steel Tank
- O Special Fuel Tanks (MIDEQ and FL DEP/DERM, etc.)
- O Vent Extensions

RATING DEFINITIONS

Standby - Applicable for a varying emergency load for the duration of a utility power outage with no overload capability.

Prime - Applicable for supplying power to a varying load in lieu of utility for an unlimited amount of running time. A 10% overload capacity is available for 1 out of every 12 hours. The Prime Power option is only available on International applications. Power ratings in accordance with ISO 8528-1, Second Edition

SD030 | 2.4L | 30 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General

Make	Generac
EPA Emissions Compliance	Stationary Emergency
EPA Emissions Reference	See Emissions Data Sheet
Cylinder #	4
Type	In-Line
Displacement - L (cu In)	2.4 (146.46)
Bore - mm (in)	90 (3.54)
Stroke - mm (in)	94 (3.70)
Compression Ratio	21.3:1
Intake Air Method	Turbocharged
Cylinder Head Type	Cast Iron
Piston Type	Aluminium

Engine Governing

Governor	Electronic Isochronous
Frequency Regulation (Steady State)	+/- 0.25%

Lubrication System

Oil Pump Type	Gear
Oil Filter Type	Full Flow
Crankcase Capacity - L (qts)	6.2 (6.52)

Cooling System

Cooling System Type	Closed Recovery
Water Pump	Pre-Lubed, Self Sealing
Fan Type	Pusher
Fan Speed (rpm)	2698
Fan Diameter mm (in)	560 (22)
Coolant Standard Wattage	1500
Coolant Heater Standard Voltage	120 VAC

Fuel System

Fuel Type	Ultra Low Sulfur Diesel Fuel
Fuel Specifications	ASTM
Fuel Filtering (microns)	5
Fuel Injection	Distribution Injection Pump
Fuel Pump Type	Engine Driven Gear
Injector Type	Mechanical
Fuel Supply Line mm (in)	7.94 (0.31)
Fuel Return Line mm (in)	7.94 (0.31)

Engine Electrical System

System Voltage	12 VDC
Battery Charging Alternator	Std
Battery Size	See Battery Index 0161970SBY
Battery Voltage	12 VDC
Ground Polarity	Negative

ALTERNATOR SPECIFICATIONS

Standard Model	390
Poles	4
Field Type	Revolving
Insulation Class - Rotor	H
Insulation Class - Stator	H
Total Harmonic Distortion	<5%
Telephone Interference Factor (TIF)	<50

Standard Excitation	Synchronous
Bearings	Single Sealed Cartridge
Coupling	Direct, Flexible Disc
Load Capacity - Standby	100%
Prototype Short Circuit Test	Yes
Voltage Regulator Type	Digital
Number of Sensed Phases	All
Regulation Accuracy (Steady State)	±0.25%

SD030 | 2.4L | 30 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

OPERATING DATA

POWER RATINGS

		Standby
Single-Phase 120/240 VAC @1.0pf	30 kW	Amps: 125
Three-Phase 120/208 VAC @0.8pf	30 kW	Amps: 104
Three-Phase 120/240 VAC @0.8pf	30 kW	Amps: 90
Three-Phase 277/480 VAC @0.8pf	30 kW	Amps: 46
Three-Phase 346/600 VAC @0.8pf	30 kW	Amps: 36

STARTING CAPABILITIES (sKVA)

		sKVA vs. Voltage Dip											
		480 VAC						208/240 VAC					
Alternator	kW	10%	15%	20%	25%	30%	35%	10%	15%	20%	25%	30%	35%
Standard	35	24	36	48	60	72	84	18	27	36	45	54	63
Upsize 1	40	27	41	54	68	81	95	20	31	41	51	61	71
Upsize 2	50	34	52	69	86	103	120	26	39	52	65	77	90

FUEL CONSUMPTION RATES*

Fuel Pump Lift - ft (m)
3 (1)
Total Fuel Pump Flow (Combustion + Return)
4.5 gph

Diesel - gph (lph)	
Percent Load	gph (lph)
25%	0.92 (3.5)
50%	1.45 (5.5)
75%	1.96 (7.4)
100%	2.74 (10.4)

* Fuel supply installation must accommodate fuel consumption rates at 100% load.

COOLING

		Standby
Coolant Flow per Minute	gpm (lpm)	10 (38)
Coolant System Capacity	gal (L)	2.8 (10.95)
Heat Rejection to Coolant	BTU/hr	111,000
Inlet Air	cfm (m3/hr)	4,500 (7647)
Max. Operating Radiator Air Temp	F° (C°)	122 (50)
Max. Ambient Temperature (before derate)	F° (C°)	104 (40)
Maximum Radiator Backpressure	in H_2O	0.5

COMBUSTION AIR REQUIREMENTS

		Standby
Flow at Rated Power	cfm (m3/min)	90 (2.55)

ENGINE

		Standby
Rated Engine Speed	rpm	1800
Horsepower at Rated kW**	hp	49
Piston Speed	ft/min (m/min)	1110 (338)
BMEP	psi	153

EXHAUST

		Standby
Exhaust Flow (Rated Output)	cfm (m^3/min)	230 (391)
Max. Backpressure (Post Silencer)	inHg (Kpa)	1.5 (5.1)
Exhaust Temp (Rated Output)	°F (°C)	850 (454)
Exhaust Outlet Size (Open Set)	mm (in)	63.5 (2.5)

** Refer to "Emissions Data Sheet" for maximum bHP for EPA and SCAQMD permitting purposes.

Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions. Please consult a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528 and DIN6271 standards.

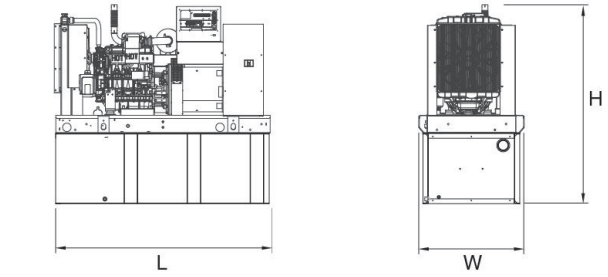
SD030 | 2.4L | 30 kW

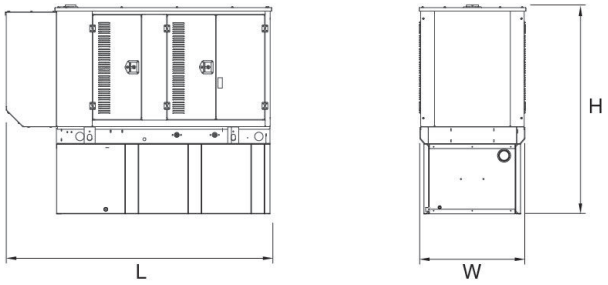
INDUSTRIAL DIESEL GENERATOR SET

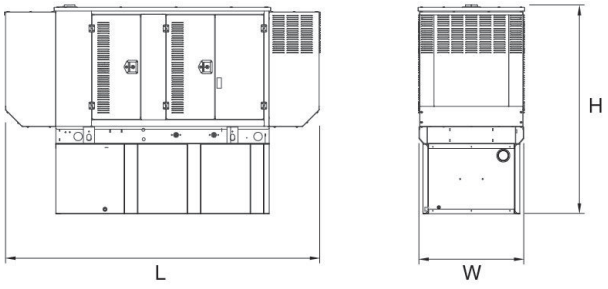
EPA Certified Stationary Emergency

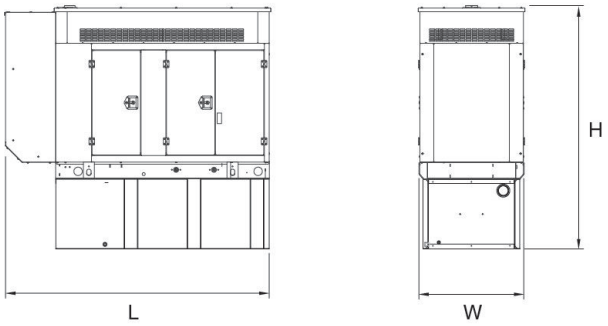
GENERAC | INDUSTRIAL POWER

DIMENSIONS AND WEIGHTS*









OPEN SET

RUN TIME HOURS	USABLE CAPACITY GAL (L)	L x W x H in (mm)	WT lbs (kg) - Tank & Open Set
NO TANK	-	76 (1930.4) x 37.4 (949.9) x 42.2 (1072.1)	2060 (934)
19	54 (204.4)	76 (1930.4) x 37.4 (949.9) x 55.2 (1402.1)	2540 (1152)
48	132 (499.7)	76 (1930.4) x 37.4 (949.9) x 67.2 (1706.9)	2770 (1257)
77	211 (798.7)	76 (1930.4) x 37.4 (949.9) x 79.2 (2011.7)	2979 (1351)
109	300 (1135.6)	92.9 (2360) x 37.4 (949.9) x 82.7 (2100.6)	3042 (1380)

STANDARD ENCLOSURE

RUN TIME HOURS	USABLE CAPACITY GAL (L)	L x W x H in (mm)	WT lbs (kg) - Enclosure Only	
			Steel	Aluminum
NO TANK	-	94.8 (2408.9) x 38 (965.2) x 49.5 (1258.1)		
19	54 (204.4)	94.8 (2408.9) x 38 (965.2) x 62.5 (1587.5)		
48	132 (499.7)	94.8 (2408.9) x 38 (965.2) x 74.5 (1892.3)	302 (137)	191 (87)
77	211 (798.7)	94.8 (2408.9) x 38 (965.2) x 86.5 (2197.1)		
109	300 (1135.6)	94.8 (2408.9) x 38 (965.2) x 90 (2286)		

LEVEL 1 ACOUSTIC ENCLOSURE

RUN TIME HOURS	USABLE CAPACITY GAL (L)	L x W x H in (mm)	WT lbs (kg) - Enclosure Only	
			Steel	Aluminum
NO TANK	-	112.5 (2857.1) x 38 (965.2) x 49.5 (1258.1)		
19	54 (204.4)	112.5 (2857.1) x 38 (965.2) x 62.5 (1587.5)		
48	132 (499.7)	112.5 (2857.1) x 38 (965.2) x 74.5 (1892.3)	455 (206)	288 (131)
77	211 (798.7)	112.5 (2857.1) x 38 (965.2) x 86.5 (2197.1)		
109	300 (1135.6)	112.5 (2857.1) x 38 (965.2) x 90 (2286)		

LEVEL 2 ACOUSTIC ENCLOSURE

RUN TIME HOURS	USABLE CAPACITY GAL (L)	L x W x H in (mm)	WT lbs (kg) - Enclosure Only	
			Steel	Aluminum
NO TANK	-	94.8 (2408.9) x 38 (965.2) x 62 (1573.9)		
19	54 (204.4)	94.8 (2408.9) x 38 (965.2) x 75 (1905)		
48	132 (499.7)	94.8 (2408.9) x 38 (965.2) x 87 (2209.8)	460 (209)	291 (132)
77	211 (798.7)	94.8 (2408.9) x 38 (965.2) x 99 (2514.6)		
109	300 (1135.6)	94.8 (2408.9) x 38 (965.2) x 102.5 (2603.5)		

*All measurements are approximate and for estimation purposes only. Sound dBA can be found on the sound data sheet. Enclosure Only weight is added to Tank & Open Set weight to determine total weight.

YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER

Specification characteristics may change without notice. Dimensions and weights are for preliminary purposes only. Please consult a Generac Power Systems Industrial Dealer for detailed installation drawings.

Generac Power Systems, Inc. | P.O. Box 8 | Waukesha, WI 53187
P: (262) 544-4811

Part No 0K5085
Rev. D 08/19/15

Nathan Ward

From: Ronald Zechel <rmsi@intaccess.com>
Sent: Tuesday, February 14, 2017 11:10 PM
To: Ronald Zechel
Subject: Fwd: RE: McKee Farms Park Inquiry - Verizon

-------- Forwarded Message --------
Subject:RE: McKee Farms Park Inquiry - Verizon
Date: Wed, 14 Dec 2016 15:30:36 +0000
From: Patrick Marsh <Patrick.Marsh@fitchburgwi.gov>
To: Ronald Zechel <rmsi@intaccess.com>, Scott Endl <Scott.Endl@fitchburgwi.gov>

Mr. Zechel – We are not interested in proceeding at this time.

Pat

Patrick S. Marsh, **ICMA-CM**
City Administrator
City of Fitchburg
5520 Lacy Road
Fitchburg, WI 53711-5318
(608) 270-4209
(608) 212-2707 Mobile
Patrick.Marsh@Fitchburgwi.gov

HUSCH BLACKWELL

Rodney W. Carter
Partner

511 North Broadway, Suite 1100
Milwaukee, WI 53202-5502
Direct: 414-978-5365
Fax: 414-223-5000
Rodney.Carter@huschblackwell.com

September 21, 2021

VIA E-MAIL
sonja.kruesel@fitchburgwi.gov

Ms. Sonja Kruesel
City Planner / Zoning Administrator
City of Fitchburg
5520 Lacy Road
Fitchburg, WI 53711

Re: **Report on Neighborhood Meeting**
Application for Telecommunication Facilities Permit and Petition for Waiver
2861 Dellvue Drive, Fitchburg, WI 53711

Dear Ms. Kruesel:

At the City's request, Central States Tower IV, LLC, Cellco Partnership d/b/a Verizon Wireless, and DISH Wireless L.L.C.'s conducted a neighborhood meeting relative to their proposal to construct a multi-carrier wireless communications facility at 2861 Dellvue Drive. This letter will detail and summarize the meeting. We ask that it please be included as part of the record before the City in this matter.

The neighborhood meeting was held via Zoom at 5:30 pm on Wednesday, September 8, 2021. Attached is the invitation to the neighborhood meeting, as well as the mailing and RSVP list for the neighborhood meeting.

The City requested fourteen property owners be invited to the neighborhood meeting. Four of those property owners expressed an interest in attending. In addition, Alderman Udell attended the meeting. Somehow, five additional individuals, who were outside the City's designated "neighborhood", learned of the meeting and asked to attend. Those individuals were provided Zoom links and attended the meeting.

Not all who actually attended the neighborhood meeting identified themselves in the meeting. We believe that it could be possible that only one actual neighbor identified by the Village attended the neighborhood meeting (Ken Wigdal).

Highlights of comments made at the neighborhood meeting are as follows:

- There was much discussion about health impacts of the proposed communications facility, both to humans and animals. One of the main voices raising health concern issues was Kathryn Arndt, who appears to live a mile away from the proposed facility.

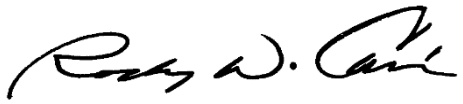
- There was concern over vehicle storage on the property where the proposed communications facility will be located. The Applicants have proposed screening for the communications facility and will work with the City on other reasonable measures to screen the communications facility.

- An individual who simply identified himself as "Fitch" elected to locate my home address during the meeting and share it in the group chat with the other attendees (see attached). I believe he wanted to confirm my representation that I had power lines behind my home, but he did not elaborate on why he elected to share my address with the other attendees.

We worked to address the questions of the attendees at the neighborhood meeting. We will continue address any City questions as the pending Application proceeds forward.

Respectfully and sincerely,

HUSCH BLACKWELL LLP



Rodney W. Carter

RWC/wp
Enclosure