



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

CONDITIONAL USE PERMIT APPLICATION

The undersigned owner, or owner's authorized agent, of property herein described hereby applies for a conditional use permit for the following described property:

1. Location of Property:

Street Address: 2863 Dellvue Drive

Legal Description - (Metes & Bounds, or Lot No. And Plat): _____

Lot 6, Assesors Plat 2

***Also submit in electronic format (MS WORD or plain text) by email to: **PLANNING@FITCHBURGWI.GOV**

2. Current Use of Property: Shop, storage, pond

3. Proposed Use of Property: Telecom Facility

4. Proposed Development Schedule: Completion by June 30, 2022

5. Zoning District: Rural Development

6. Future Land Use Plan Classification: _____

***Pursuant to Section 22-3(b) of the Fitchburg Zoning Ordinance, all Conditional Use Permits shall be consistent with the currently adopted City of Fitchburg Comprehensive Plan.

***Attach three (3) copies of a site plan which shows any proposed land divisions, plus vehicular access points and the location and size of all existing and proposed structures and parking areas. Two (2) of the three (3) copies shall be no larger than 11" x 17". Submit one (1) pdf document of the entire submittal to planning@fitchburgwi.gov.

Additional information may be requested.

Type of Residential Development (If Applicable): _____

No. of Dwelling Units by Bedroom: 1 BR 2 BR 3 BR 4 or More

No. Of Parking Stalls: _____

Type of Non-residential Development (If Applicable): Telecom Facility

Proposed Hours of Operation: 24/7 **No. Of Employees:** Unmanned Facility

Floor Area: _____ **No. Of Parking Stalls:** _____

Sewer: Municipal Private **Water:** Municipal Private

Current Owner of Property: Robert S. Parnell Revocable Living Trust

Address: 2861 Dellvue Drive

Phone No: _____

Contact Person: Nathan Ward

Email: nward@buellconsulting.com

Address: 1200 Riva Ridge, Racine, WI 53402

Phone No: 414-788-1327

Respectfully Submitted By: Nathan Ward

Owner's or Authorized Agent's Signature

Digitally signed by Nathan Ward
 DN: cn=Nathan Ward, o=Buell, ou, email=nward@buellconsulting.com,
 c=US
 Date: 2022.06.10 14:10:05'00'

**** It is highly recommended that an applicant hold at least one neighborhood meeting prior to submitting an CUP application to identify any concerns or issues of surrounding residents.**

PLEASE NOTE - Applicants shall be responsible for legal or outside consultant costs incurred by the City. Submissions shall be made at least four (4) weeks prior to desired plan commission meeting.

For City Use Only: **Date Received:** _____ **Publish:** _____

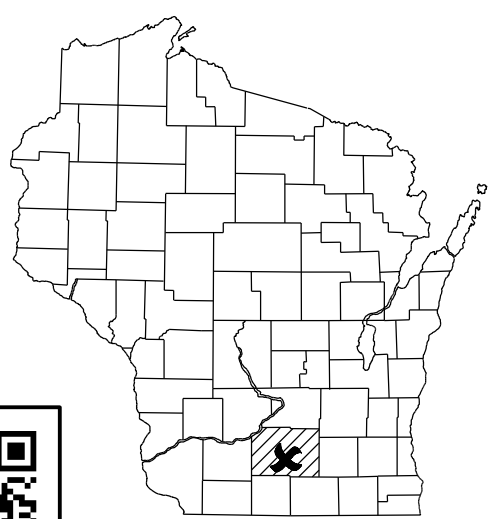
Ordinance Section No. _____ **Fee Paid:** _____

Permit Request No. _____

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	BUN
CD 100'S V.2 - 9/21/21	BUN
CHECKED BY:	
PCM	
PLOT DATE:	
9/21/2021	
PROJECT #:	
22243	
FILE NAME:	
T-1.dgn	
SHEET NUMBER:	
T-1	



NORTH FITCHBURG [266596]
FITCHBURG, WISCONSIN
120' MONOPOLE TOWER

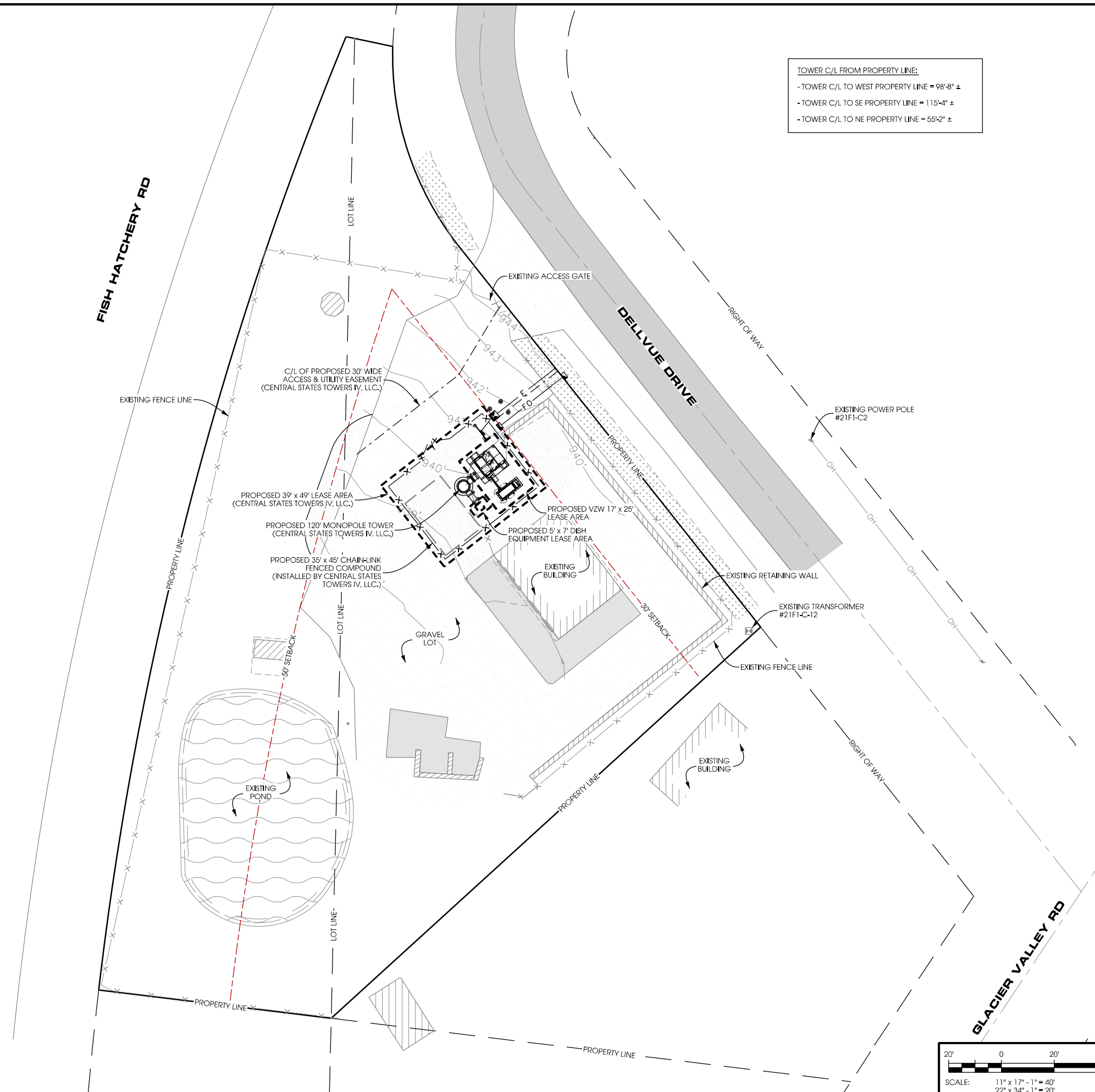


SITE LOCATION MAPS	SHEET INDEX	DIRECTORY	PROJECT INFO	SCOPE OF WORK																																																																														
	<table border="1"> <thead> <tr> <th>NO:</th> <th>SHEET TITLE</th> </tr> </thead> <tbody> <tr> <td colspan="2">CST CONSTRUCTION SECTION</td> </tr> <tr> <td>T-1</td> <td>TITLE SHEET</td> </tr> <tr> <td>C-1</td> <td>SITE PLAN</td> </tr> <tr> <td>C-2</td> <td>COMPOUND PLAN</td> </tr> <tr> <td>C-3</td> <td>FENCE DETAILS</td> </tr> <tr> <td>C-4</td> <td>CONSTRUCTION DETAILS</td> </tr> <tr> <td>C-5</td> <td>SITE GRADING PLAN</td> </tr> <tr> <td>A-1</td> <td>TOWER ELEVATION</td> </tr> <tr> <td>E-1</td> <td>UTILITY PLAN</td> </tr> <tr> <td>E-2</td> <td>UTILITY RACK</td> </tr> <tr> <td>G-1</td> <td>GROUNDING PLAN</td> </tr> <tr> <td>G-2</td> <td>GROUNDING DETAILS</td> </tr> <tr> <td>SP-1</td> <td>SPECIFICATIONS</td> </tr> <tr> <td>SP-2</td> <td>SPECIFICATIONS</td> </tr> <tr> <td>P-1</td> <td>SITE PHOTOS</td> </tr> <tr> <td colspan="2">VERIZON WIRELESS CONSTRUCTION SECTION</td> </tr> <tr> <td>1-3</td> <td>SURVEY *</td> </tr> <tr> <td>VZW C-1</td> <td>SITE PLAN</td> </tr> <tr> <td>VZW C-2</td> <td>COMPOUND PLAN</td> </tr> <tr> <td>VZW C-3</td> <td>ENLARGED COMPOUND PLAN</td> </tr> <tr> <td>VZW S-1</td> <td>EQUIPMENT DETAILS</td> </tr> <tr> <td>VZW S-2</td> <td>EQUIPMENT DETAILS</td> </tr> <tr> <td>VZW S-3</td> <td>FOUNDATION DETAILS</td> </tr> <tr> <td>VZW S-4</td> <td>EQUIPMENT ELEVATIONS</td> </tr> <tr> <td>VZW A-1</td> <td>TOWER ELEVATION</td> </tr> <tr> <td>VZW A-2</td> <td>ANTENNA CONFIGURATION</td> </tr> <tr> <td>VZW A-3</td> <td>ANTENNA CONFIGURATION</td> </tr> <tr> <td>VZW A-4</td> <td>ICE BRIDGE DETAILS</td> </tr> <tr> <td>VZW A-5</td> <td>EQUIPMENT SPECIFICATIONS</td> </tr> <tr> <td>VZW A-6</td> <td>EQUIPMENT MOUNTING</td> </tr> <tr> <td>VZW A-7</td> <td>MOUNT CLASSIFICATION</td> </tr> <tr> <td>VZW E-1</td> <td>UTILITY PLAN</td> </tr> <tr> <td>VZW E-2</td> <td>UTILITY DETAILS</td> </tr> <tr> <td>VZW E-3</td> <td>GENERATOR DETAILS</td> </tr> <tr> <td>VZW E-4</td> <td>GENERATOR DETAILS</td> </tr> <tr> <td>VZW G-1</td> <td>GROUNDING PLAN</td> </tr> <tr> <td>VZW G-2</td> <td>GROUNDING DETAILS</td> </tr> <tr> <td>VZW G-3</td> <td>GROUNDING DETAILS</td> </tr> </tbody> </table>	NO:	SHEET TITLE	CST CONSTRUCTION SECTION		T-1	TITLE SHEET	C-1	SITE PLAN	C-2	COMPOUND PLAN	C-3	FENCE DETAILS	C-4	CONSTRUCTION DETAILS	C-5	SITE GRADING PLAN	A-1	TOWER ELEVATION	E-1	UTILITY PLAN	E-2	UTILITY RACK	G-1	GROUNDING PLAN	G-2	GROUNDING DETAILS	SP-1	SPECIFICATIONS	SP-2	SPECIFICATIONS	P-1	SITE PHOTOS	VERIZON WIRELESS CONSTRUCTION SECTION		1-3	SURVEY *	VZW C-1	SITE PLAN	VZW C-2	COMPOUND PLAN	VZW C-3	ENLARGED COMPOUND PLAN	VZW S-1	EQUIPMENT DETAILS	VZW S-2	EQUIPMENT DETAILS	VZW S-3	FOUNDATION DETAILS	VZW S-4	EQUIPMENT ELEVATIONS	VZW A-1	TOWER ELEVATION	VZW A-2	ANTENNA CONFIGURATION	VZW A-3	ANTENNA CONFIGURATION	VZW A-4	ICE BRIDGE DETAILS	VZW A-5	EQUIPMENT SPECIFICATIONS	VZW A-6	EQUIPMENT MOUNTING	VZW A-7	MOUNT CLASSIFICATION	VZW E-1	UTILITY PLAN	VZW E-2	UTILITY DETAILS	VZW E-3	GENERATOR DETAILS	VZW E-4	GENERATOR DETAILS	VZW G-1	GROUNDING PLAN	VZW G-2	GROUNDING DETAILS	VZW G-3	GROUNDING DETAILS	<p>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</p> <p>ENGINEERING COMPANY: EDGE CONSULTING ENGINEERS, INC. 624 WATER STREET PRAIRIE DU SAC, WI 53578 CONTACT: PAUL MOLITOR PHONE: 608.644.1449</p> <p>SITE ACQUISITION: BUELL CONSULTING, INC. 1360 ENERGY PARK DRIVE SUITE 210 ST. PAUL, MN 55108 CONTACT: NATHAN WARD PHONE: 414.788.1327</p> <p>SURVEYOR: MERIDIAN SURVEYING, LLC. N9637 FRIENDSHIP DRIVE KAUKAUNA, WI 54130 CONTACT: CRAIG KEACH PHONE: 920.993.0881</p>	<p>SITE LOCATION: E911 ADDRESS TO BE DETERMINED 2861 DELLVUE DRIVE FITCHBURG, WI 53711</p> <p>PROPERTY OWNER: ROBERT S. PARNELL REVOCABLE LIVING TRUST 2861 DELLVUE DRIVE FITCHBURG, WI 53711</p> <p>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</p> <p>1A INFORMATION (NAD 1983/2011) -TOWER BASE- -LAT: 43°-00'-40.13" -LONG: 89°-25'-40.25" -GROUND ELEVATION (NAVD 88): 939.6'</p> <p>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</p> <p>TAX PARCEL NUMBER: 060909170602</p> <p>ZONED: R-D (RURAL DEVELOPMENT)</p>	<p>PROJECT DESCRIPTION: PROJECT TYPE: 120' MONOPOLE TOWER EQUIPMENT: 8'-0" x 10'-0" CONCRETE EQUIP. PAD GENERATOR: EXTERIOR DIESEL GENERATOR</p> <p>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</p>
NO:	SHEET TITLE																																																																																	
CST CONSTRUCTION SECTION																																																																																		
T-1	TITLE SHEET																																																																																	
C-1	SITE PLAN																																																																																	
C-2	COMPOUND PLAN																																																																																	
C-3	FENCE DETAILS																																																																																	
C-4	CONSTRUCTION DETAILS																																																																																	
C-5	SITE GRADING PLAN																																																																																	
A-1	TOWER ELEVATION																																																																																	
E-1	UTILITY PLAN																																																																																	
E-2	UTILITY RACK																																																																																	
G-1	GROUNDING PLAN																																																																																	
G-2	GROUNDING DETAILS																																																																																	
SP-1	SPECIFICATIONS																																																																																	
SP-2	SPECIFICATIONS																																																																																	
P-1	SITE PHOTOS																																																																																	
VERIZON WIRELESS CONSTRUCTION SECTION																																																																																		
1-3	SURVEY *																																																																																	
VZW C-1	SITE PLAN																																																																																	
VZW C-2	COMPOUND PLAN																																																																																	
VZW C-3	ENLARGED COMPOUND PLAN																																																																																	
VZW S-1	EQUIPMENT DETAILS																																																																																	
VZW S-2	EQUIPMENT DETAILS																																																																																	
VZW S-3	FOUNDATION DETAILS																																																																																	
VZW S-4	EQUIPMENT ELEVATIONS																																																																																	
VZW A-1	TOWER ELEVATION																																																																																	
VZW A-2	ANTENNA CONFIGURATION																																																																																	
VZW A-3	ANTENNA CONFIGURATION																																																																																	
VZW A-4	ICE BRIDGE DETAILS																																																																																	
VZW A-5	EQUIPMENT SPECIFICATIONS																																																																																	
VZW A-6	EQUIPMENT MOUNTING																																																																																	
VZW A-7	MOUNT CLASSIFICATION																																																																																	
VZW E-1	UTILITY PLAN																																																																																	
VZW E-2	UTILITY DETAILS																																																																																	
VZW E-3	GENERATOR DETAILS																																																																																	
VZW E-4	GENERATOR DETAILS																																																																																	
VZW G-1	GROUNDING PLAN																																																																																	
VZW G-2	GROUNDING DETAILS																																																																																	
VZW G-3	GROUNDING DETAILS																																																																																	
	<p>* COMPLETED BY OTHERS</p>	<p>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.</p> <p>UTILITY INFO</p> <p>ELECTRIC PROVIDER: NAME: MADISON GAS & ELECTRIC CONTACT: ROSS GREANLEAF PHONE: 608.252.4743</p> <p>FIBER OPTIC PROVIDER: NAME: ONE FIBER CONTACT: STEVE KLICKER EMAIL: steven.klicker@verizon.com</p> <p>MEMBER OF THE NATIONAL ASSOCIATION OF PROFESSIONAL ENGINEERS</p> <p>TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN, CALL DIGGER'S HOTLINE</p> <p>TOLL FREE 1-800-242-8511 FAX A LOCATE 1-800-338-3860</p> <p>WI STATUTE 182.0175 (1974) REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE</p>	<p>ENGINEER SEAL:</p>	<p>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.</p> <p>Signature: </p> <p>Date: 09-21-21</p>																																																																														

R:\22200\22243\CAD\CDD\Plot1.dgn

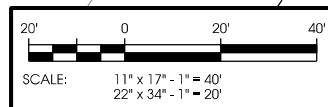


AERIAL OVERVIEW OF SITE



TOWER C/L FROM PROPERTY LINE:

- TOWER C/L TO WEST PROPERTY LINE = 98'-8" ±
- TOWER C/L TO SE PROPERTY LINE = 115'-4" ±
- TOWER C/L TO NE PROPERTY LINE = 55'-2" ±



SITE PLAN
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 100S V.1 - 9/20/21	BJN
CD 100S V.2 - 9/21/21	BJN
CHECKED BY:	
PCM	
PLOT DATE:	
9/21/2021	
PROJECT #:	
22243	
FILE NAME:	
C-1.dgn	
SHEET NUMBER:	
C-1	



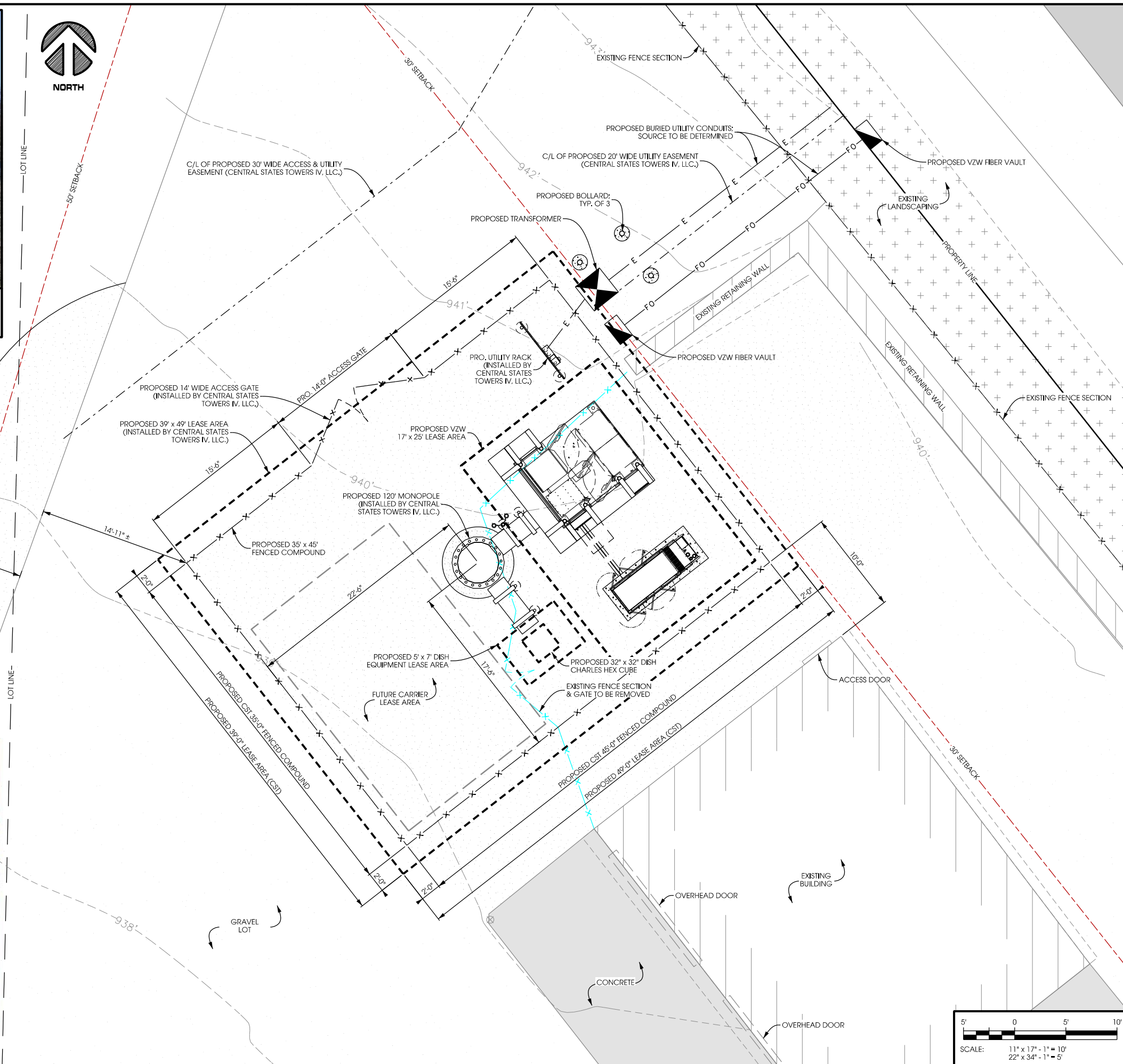
SITE OVERVIEW (LOOKING SE)



PROPOSED LEASE AREA (LOOKING WEST)



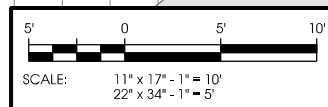
NORTH

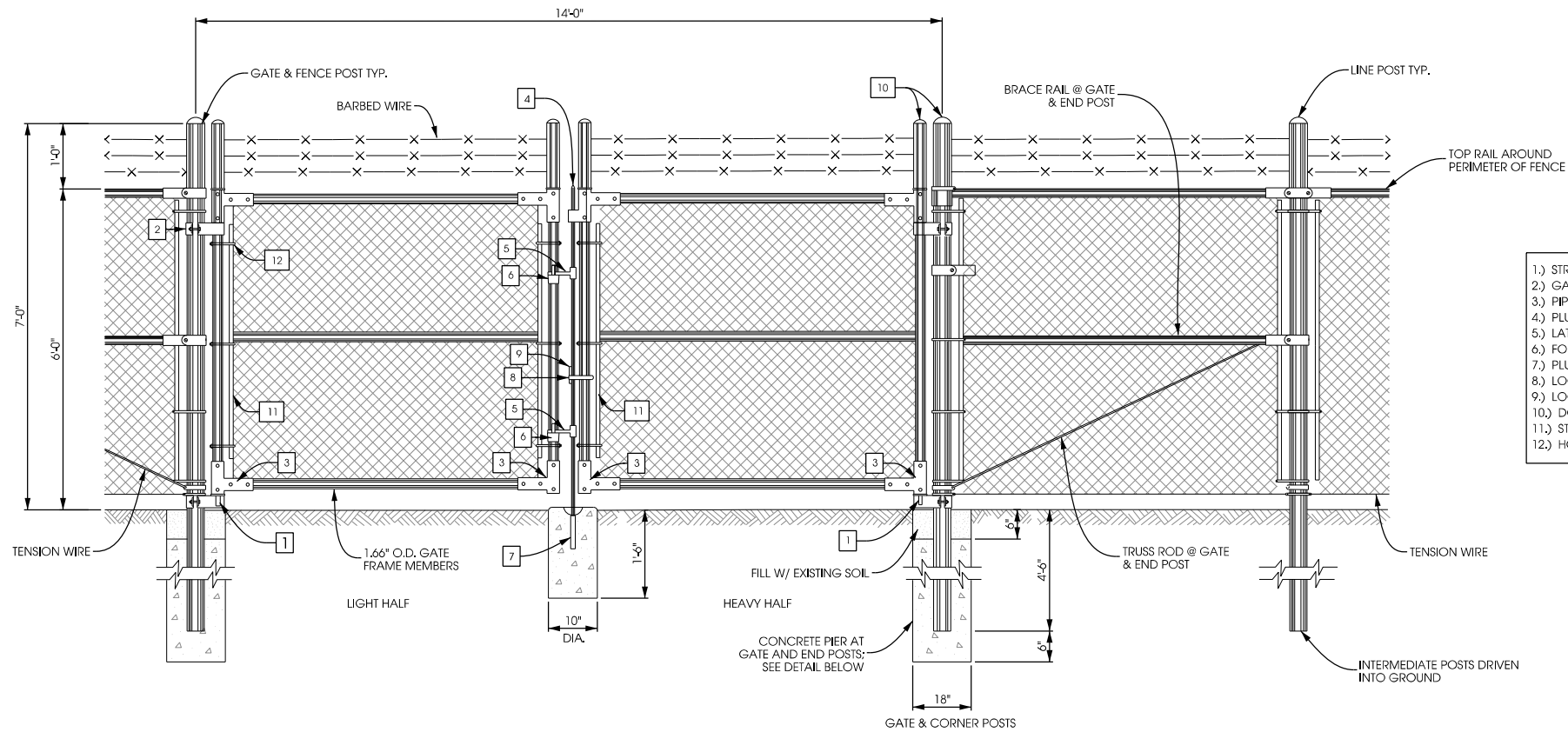


COMPOUND PLAN
NORTH FITCHBURG [266596]
FITCHBURG, WISCONSIN

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

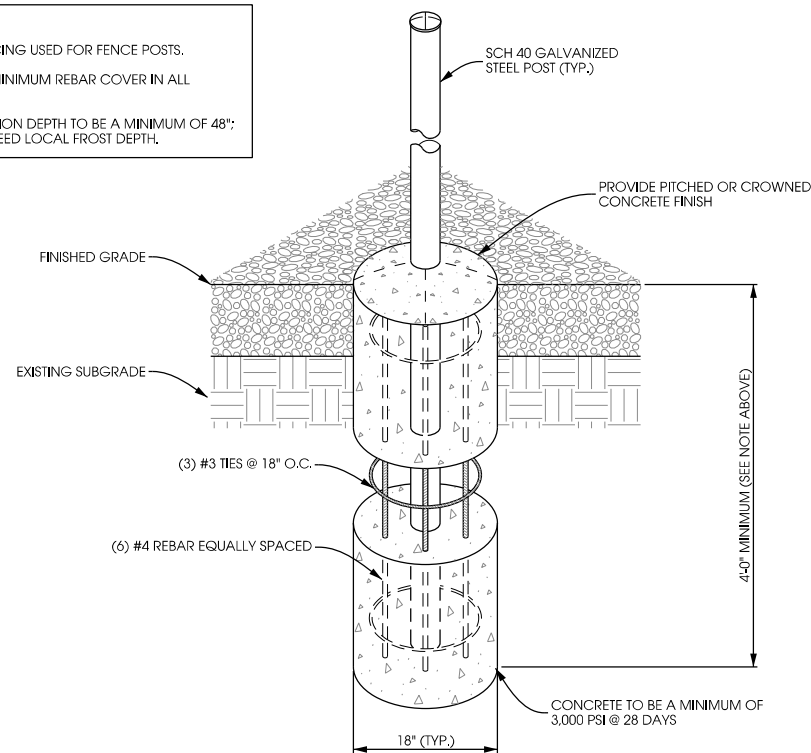




- 1.) STRAIGHT PLUG
- 2.) GATE HINGE
- 3.) PIPE SLEEVE
- 4.) PLUNGER ROD
- 5.) LATCH FORK
- 6.) FORK CATCH
- 7.) PLUNGER ROD CATCH
- 8.) LOCK KEEPER GUIDE
- 9.) LOCK KEEPER
- 10.) DOME CAP
- 11.) STRETCHER BAR
- 12.) HOOK BOLTS

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.

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:	
C-3.dgn	
SHEET NUMBER:	

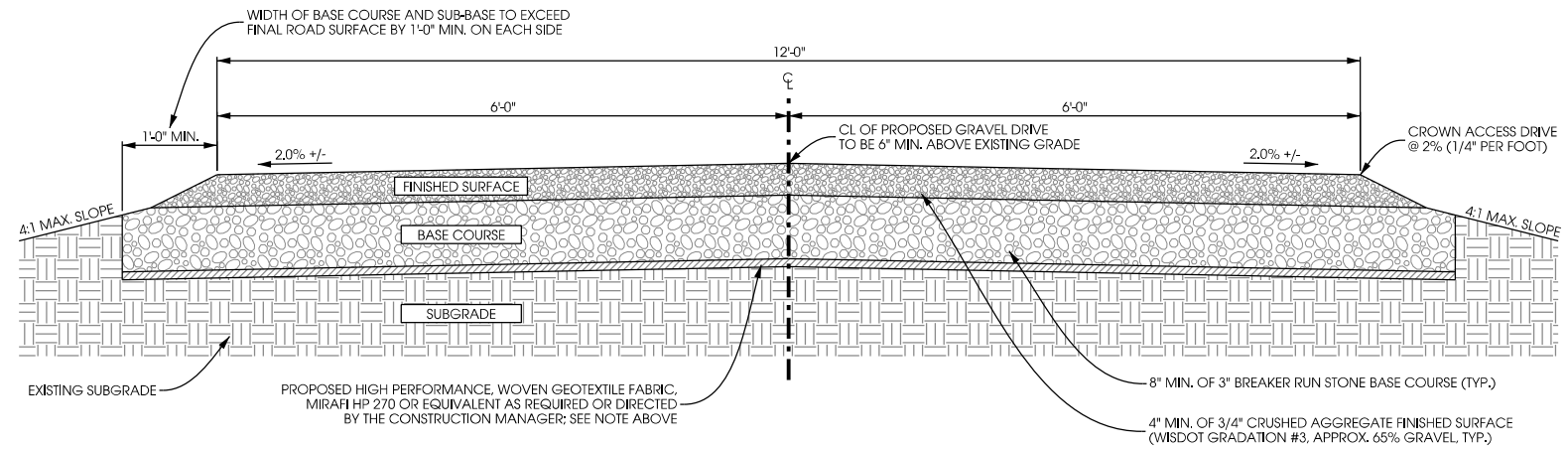
NOTES:
 REMOVE ALL TOPSOIL, ORGANIC MATERIAL AND WET OR POOR SOILS ALONG ACCESS DRIVE. CONTRACTOR TO REVIEW SITE CONDITIONS AND CONSULT GEOTECHNICAL REPORT FOR ANTICIPATED DEPTH OF SOILS THAT WILL REQUIRE REMOVAL. IF POOR SOILS ARE ENCOUNTERED AT A DEPTH OF MORE THAN 12", CONTACT CONSTRUCTION MANAGER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

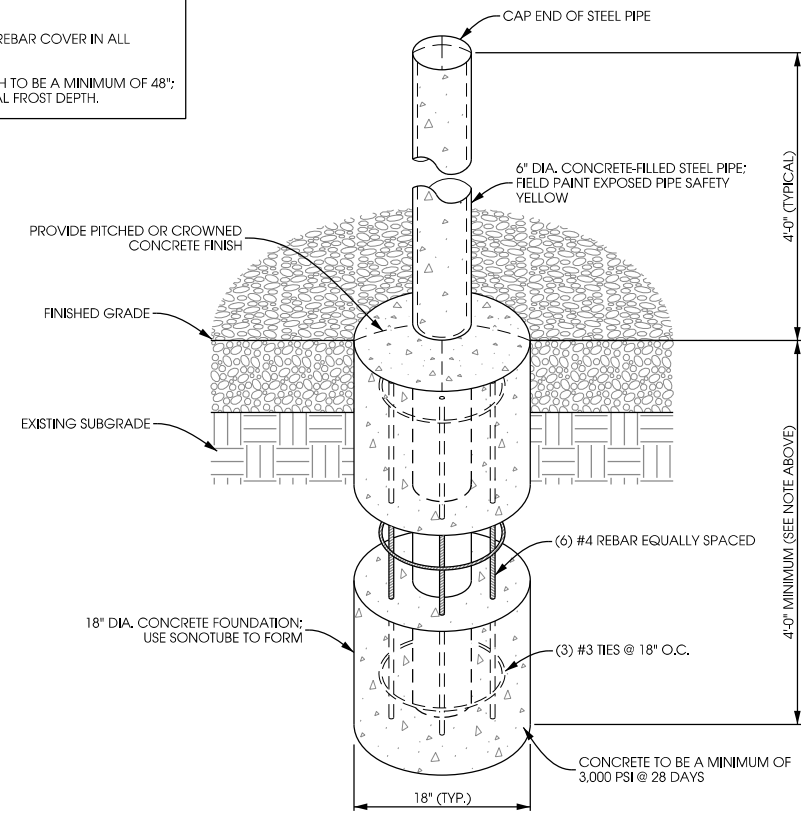
BEARING CAPACITY	REQ'D AGGREGATE THICKNESS
1000 PSF	*16" MIN.
1500 PSF	12" MIN.
≥ 2000 PSF	8" MIN. (SEE DETAIL)

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.



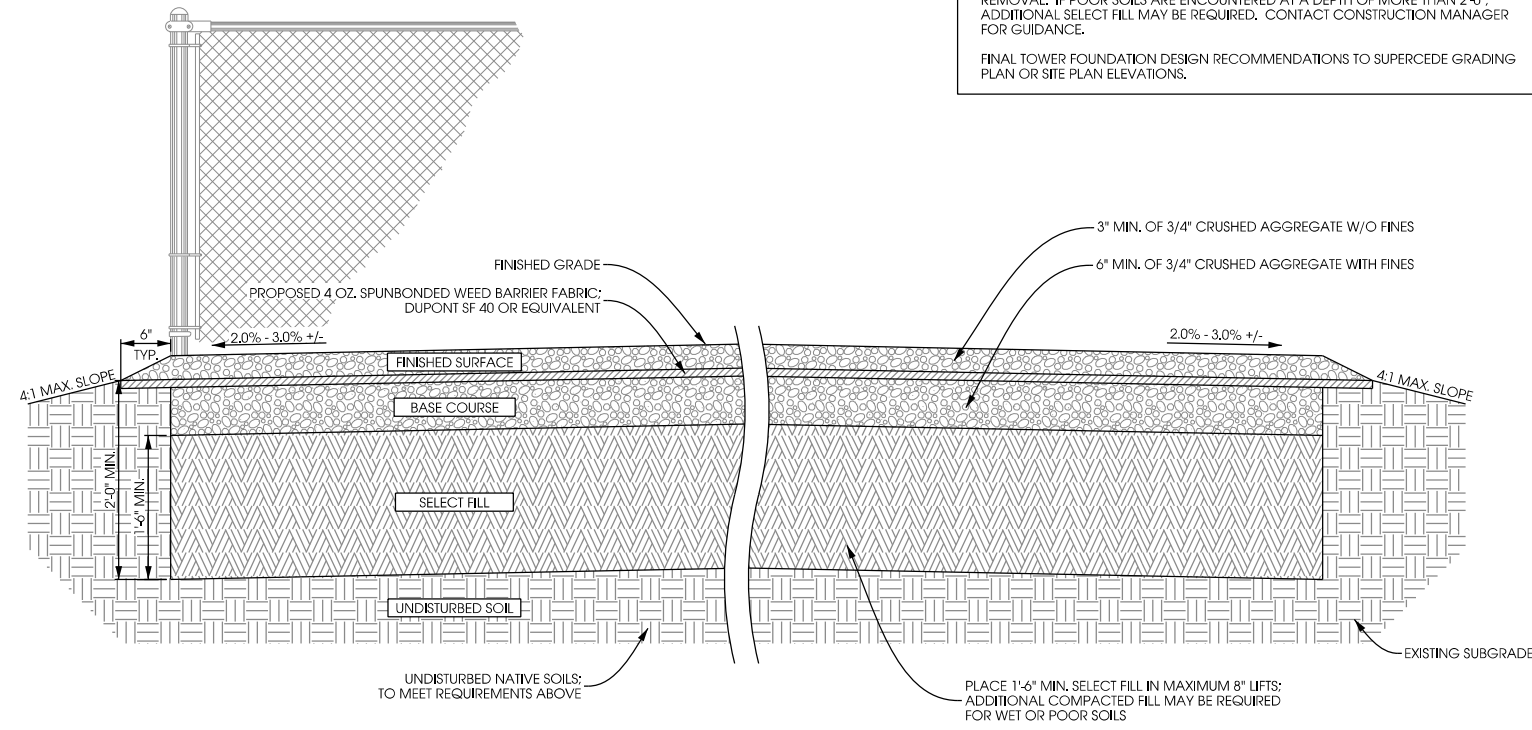
A GRAVEL DRIVE CROSS SECTION
 SCALE: NTS

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

THIS SPACE INTENTIONALLY LEFT BLANK

SHEET TITLE:

PRELIMINARY DWGS:	INTI:
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	BUN
CD 100'S V.2 - 9/21/21	BUN
CHECKED BY:	
PCM	
PLOT DATE:	
9/21/2021	
PROJECT #:	
22243	
FILE NAME:	
C-4.dgn	

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.



LOT LINE

LOT LINE

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

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

PROPOSED BURIED UTILITY CONDUITS; SOURCE TO BE DETERMINED

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

PROPOSED BOLLARD; TYP. OF 3

PROPOSED TRANSFORMER

P: 941.25
E: 941.38

P: 940.85
E: 940.85

PRO. UTILITY RACK

PROPOSED VZW FIBER VAULT

P: 940.78
E: 940.09

PROPOSED 14' WIDE ACCESS GATE

GRADING EXTENTS (TYP.)

PROPOSED 120' MONOPOLE

TOC: 940.50
P: 939.85
E: 939.71

PROPOSED FENCED COMPOUND

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

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

NOTE:

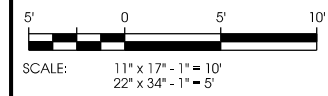
IMPERVIOUS SURFACE RATIO = 39.3%

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.

GRADING LEGEND

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



Edge Consulting Engineers, Inc.
 624 Water Street
 Fitchburg, WI 53578
 608.644.1449 vo/cbe
 608.644.1519 fax
 www.edgeconsulting.com

**SITE GRADING PLAN
 NORTH FITCHBURG [266596]
 FITCHBURG, WISCONSIN**

SHEET TITLE:

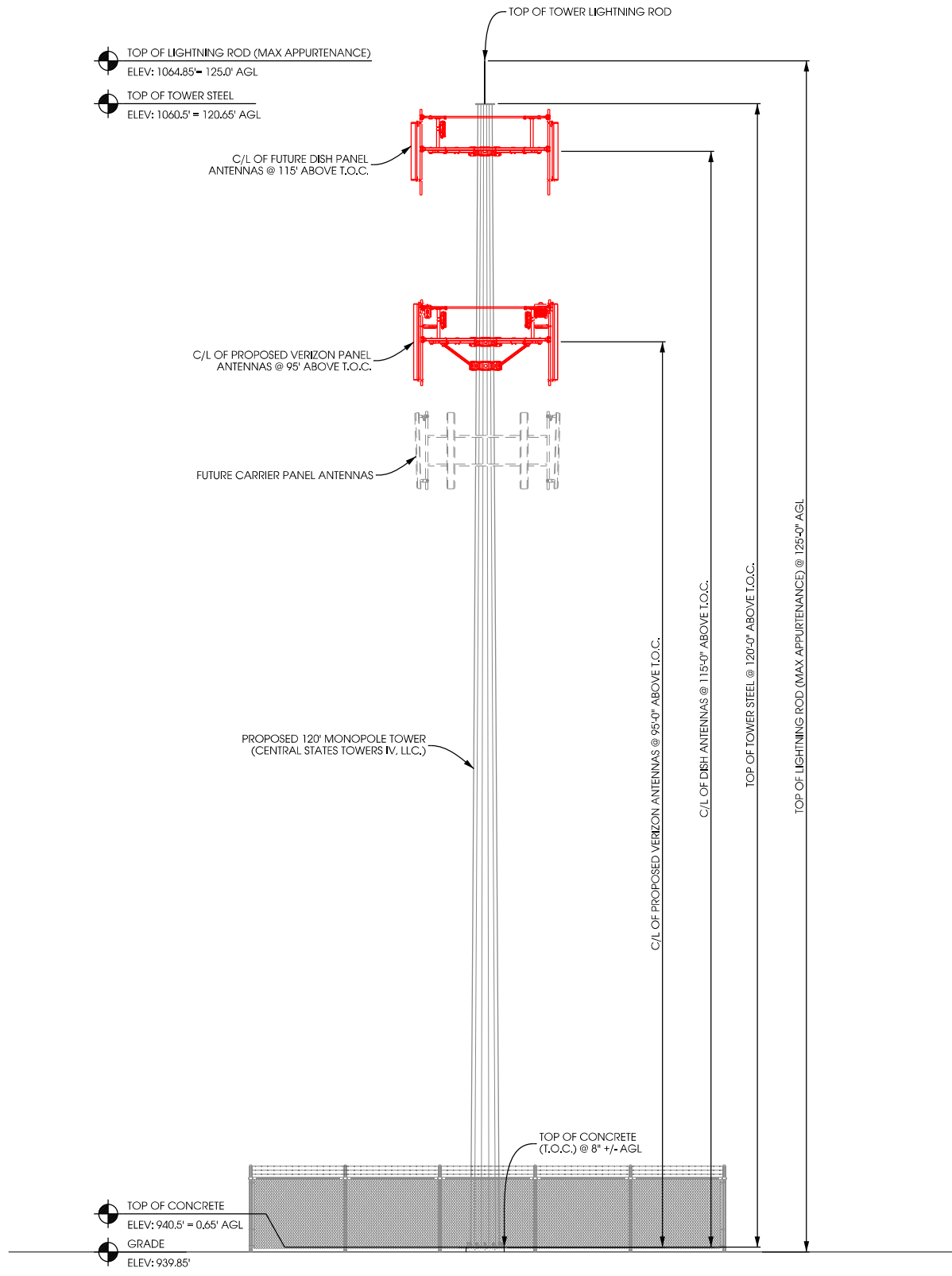
PRELIMINARY DWGS:	INI:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN

CHECKED BY:
PCM
 PLOT DATE:
9/21/2021
 PROJECT #:
22243
 FILE NAME:
C-5.dgn

SHEET NUMBER:
C-5

R:22200\22243\CAD\CDD\Plan\C-5.dgn

- 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"

**TOWER ELEVATION
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	BUN
CD 100'S V.2 - 9/21/21	BUN
CHECKED BY:	
PCM	
PLOT DATE:	
9/21/2021	
PROJECT #:	
22243	
FILE NAME:	
A-1.dgn	

R:\22200\22243\CAD\CDD\Plot\A-1.dgn

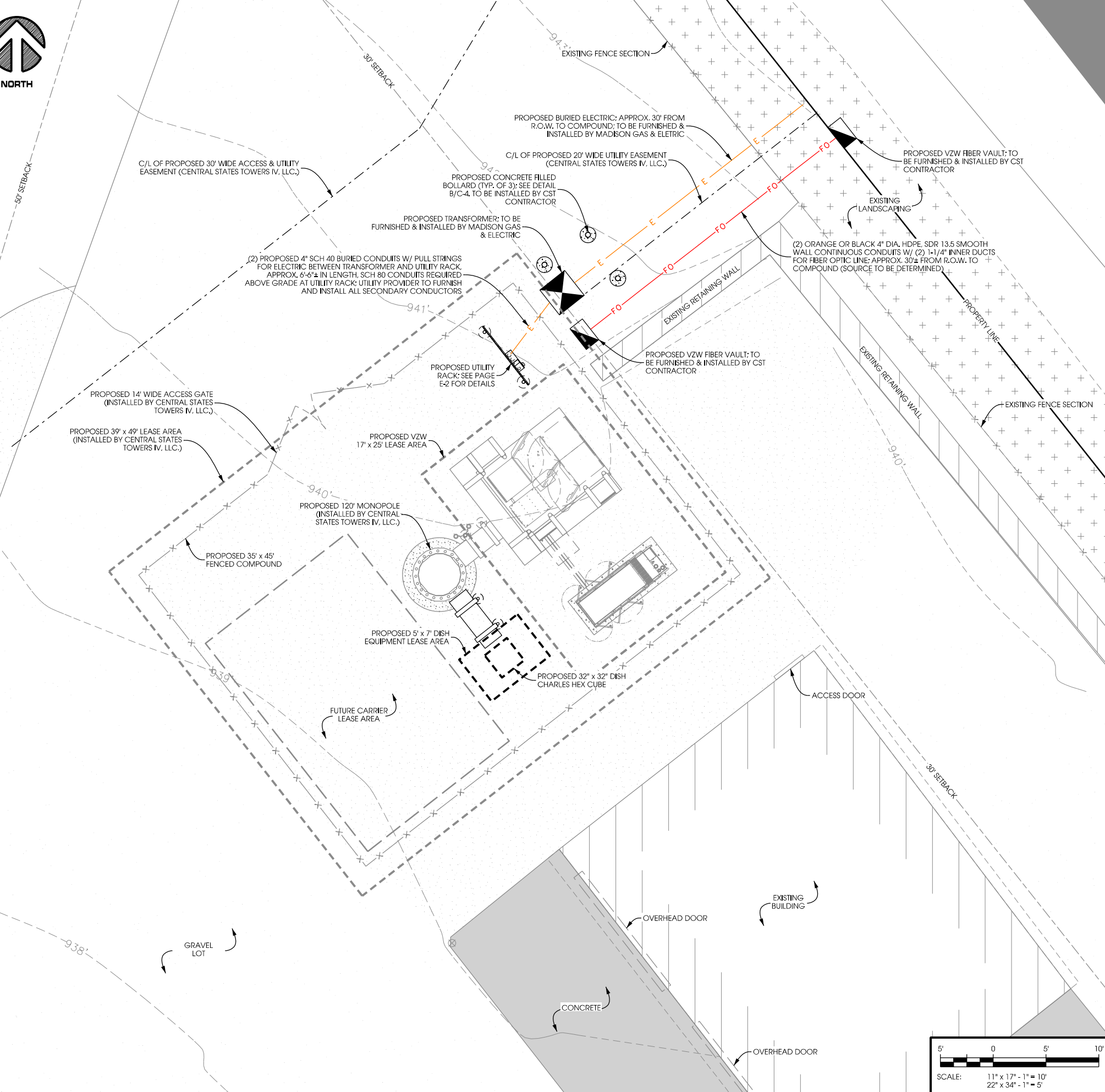
UTILITY PROVIDER INFO:

ELECTRIC PROVIDER: MADISON GAS & ELECTRIC
 CONTACT: ROSS GREANLEAF
 PHONE: 608.252.4743
 WORK ORDER #: TBD

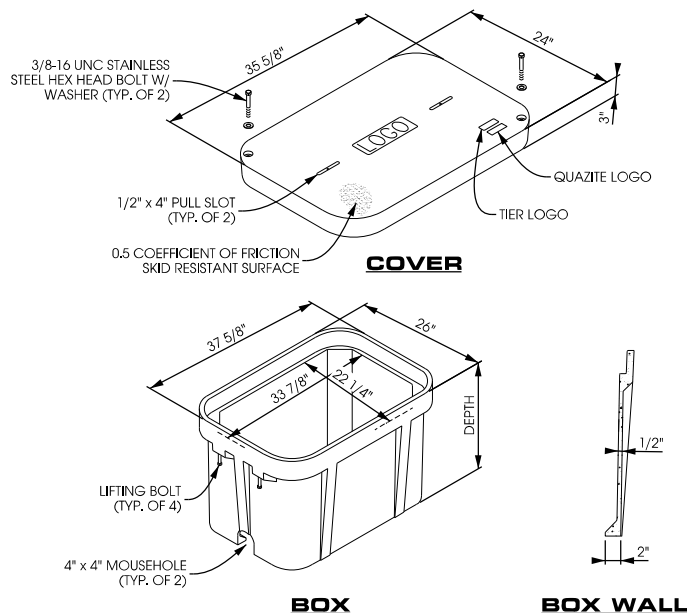
FIBER OPTIC PROVIDER: ONE FIBER
 CONTACT: STEVE KLICKER
 EMAIL: steven.klicker@verizon.com



50' SETBACK



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

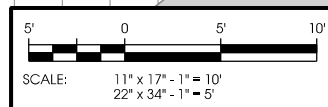


A SPLICE/PULL BOX DETAIL
 SCALE: NTS

UTILITY PLAN
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	BUN
CD 100'S V.2 - 9/21/21	BUN
CHECKED BY:	
PCM	
PLOT DATE:	9/21/2021
PROJECT #:	22243
FILE NAME:	E-1.dgn
SHEET NUMBER:	

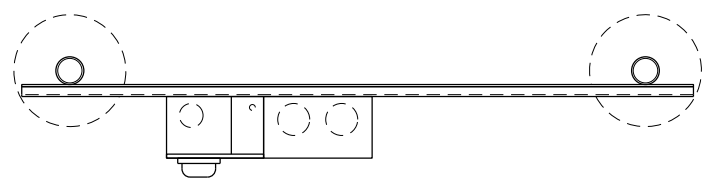


NOTE:
 - AT MULTI GANGED METER INSTALLATIONS ROUTE A 3/0 GREEN THWN STRANDED COPPER CONDUCTOR FROM THE N-G CONNECTION POINT TO JUST ABOVE THE EARTH SURFACE. THIS CONDUCTOR SHALL BE ROUTED THROUGH PVC ABOVE FINISHED GRADE TO AVOID THEFT AND BARE UPON ENTRY INTO EARTH & BONDED TO AN APPROVED DRIVEN GROUND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

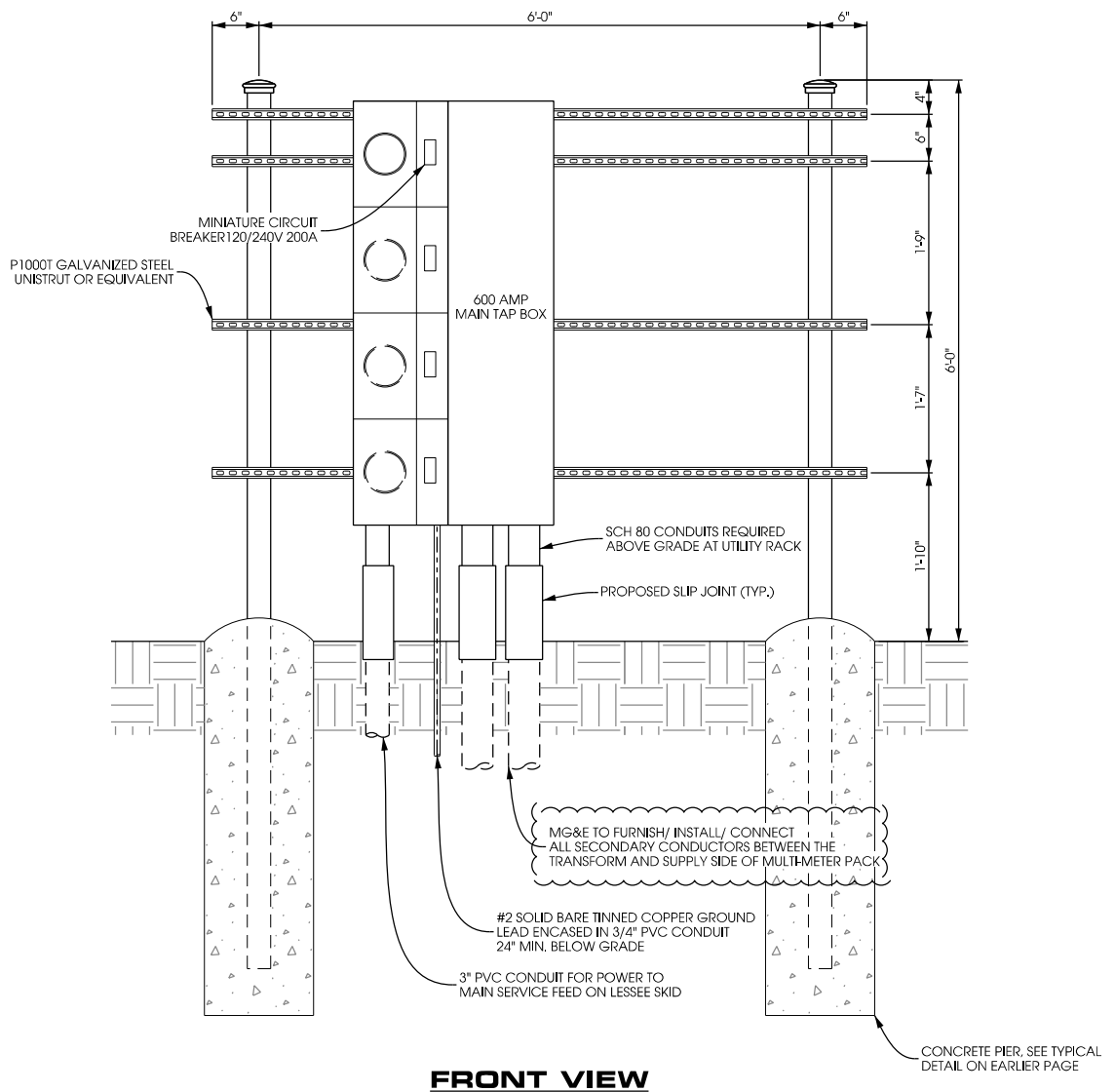
CABINET MOUNT NOTE:
 - ATTACH CABINETS W/ SPRING LOADED WASHERS TO UNISTRUTS

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

Edge
 Consulting Engineers, Inc.
 624 Water Street
 Prairie du Sac, WI 53578
 608.644.1449 voice
 608.644.1519 fax
 www.edgeconsulting.com



PLAN VIEW



FRONT VIEW

A MULTI-METER UTILITY RACK
 SCALE: 11" x 17" - 1/2" = 1'-0"
 22" x 34" - 1" = 1'-0"







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 100S V.1 - 9/20/21	BJN
CD 100S V.2 - 9/21/21	BJN
CHECKED BY:	
PCM	
PLOT DATE:	
9/21/2021	
PROJECT #:	
22243	
FILE NAME:	
E2.dgn	











SHEET NUMBER:
E-2

R:\22200\22243\CAD\CDD\Plat\E2.dgn

LEGEND

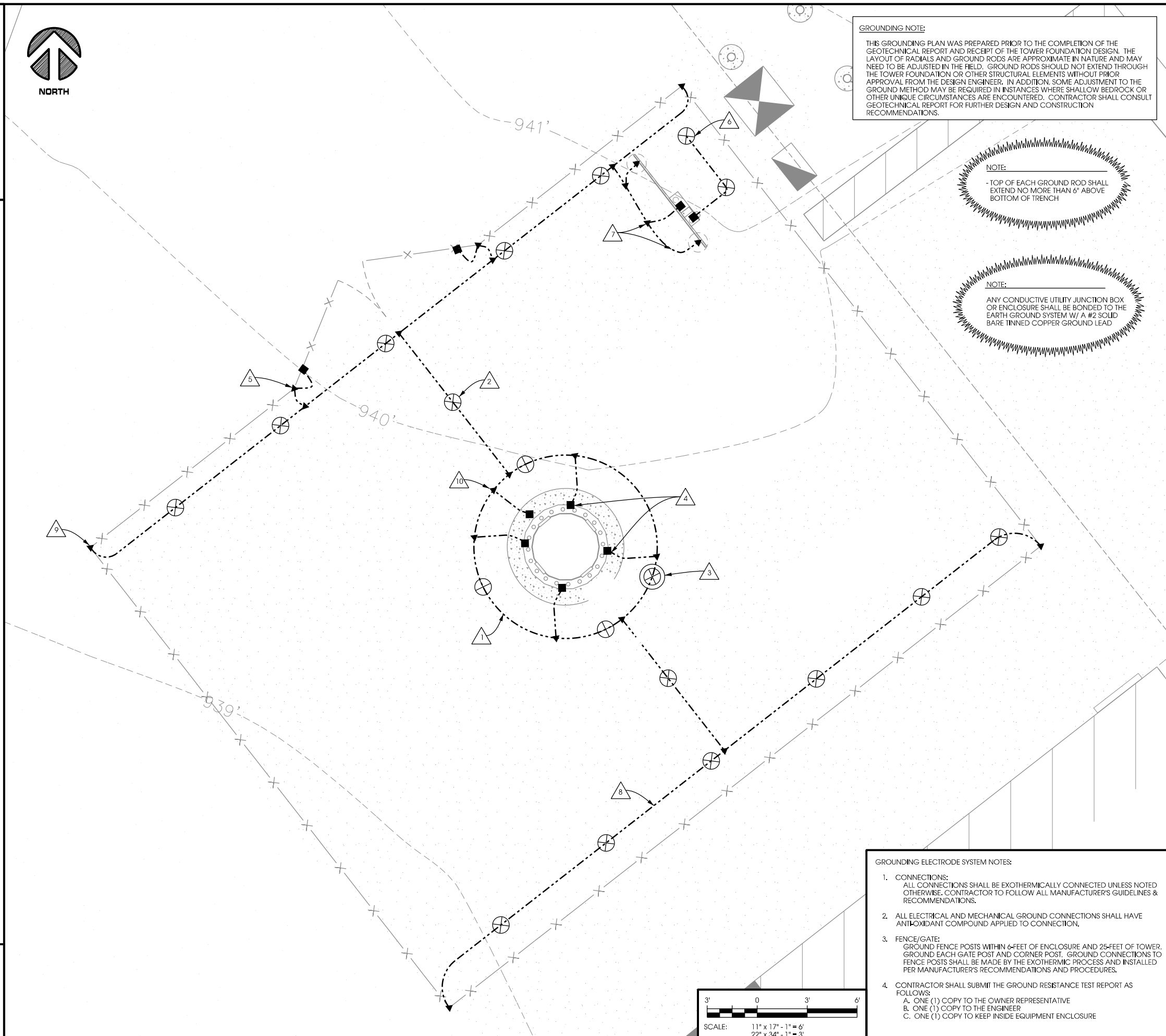
-  INSPECTION WELL
-  5/8" DIA. x 10'-0" LONG, STEEL CLAD W/ A PURE COPPER JACKET (10' MAX SEPARATION)
-  EXOTHERMIC CONNECTION (CADWELD OR EQUIVALENT)
-  MECHANICAL CONNECTION (BURNDY OR EQUIVALENT)
-  #2 SOLID BARE TINNED COPPER GROUND LEAD
-  18" X 18" X .032" THK COPPER PLATE (10' MAX SEPARATION)

KEYED GROUNDING NOTES:

-  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.
-  5/8" DIAMETER x 10'-0" LONG COPPER CLAD GROUND ROD WITH EXOTHERMIC CONNECTION, 8' SPACING, TYP.
-  INSPECTION WELL (TYP.); SEE PAGE G-2 FOR DETAIL
-  (4) GROUND LEADS FROM TOWER STEEL TO GROUND RING (USE GROUNDING TABS WHEN AVAILABLE)
-  GATE GROUND LEAD, #2 SOLID BARE TINNED COPPER GROUND LEADS TO GATE POST, & BRAIDED STRAP CONNECTION FROM POST TO GATE
-  GROUND ELECTRIC METER TO (2) INDEPENDENT GROUND RODS, SPACED 10' O.C. WITH #2 SOLID BARE TINNED COPPER
-  GROUND MULTI-METER CABINETS
-  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
-  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
-  GROUND TOWER FOUNDATION REBAR

NOTE:

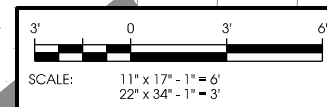
- THE GROUNDING SHALL BE TESTED PRIOR TO FINAL BACKFILLING. DOCUMENTATION OF 5 OHM OR LESS RESISTANCE TO BE PROVIDED TO PROJECT MANAGER.
- ALL NON-INSULATED GROUND LEADS EXTENDING ABOVE GROUND LEVEL SHALL BE ENCASED IN 3/4" PVC & SEALED WITH SILICONE. PVC SHALL BE MIN. 16" INTO EARTH & EXTEND MIN. 6" 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.



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



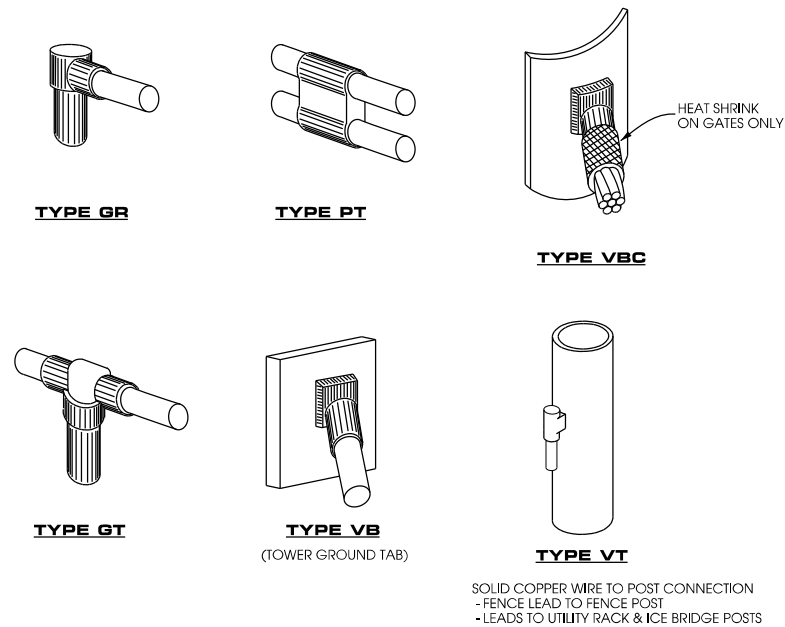
GROUNDING ELECTRODE SYSTEM NOTES:

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

Edge Consulting Engineers, Inc.
 624 Water Street
 Fitchburg, WI 53578
 608.644.1449 vo/pe
 608.644.1519 fax
 www.edgeconsulting.com

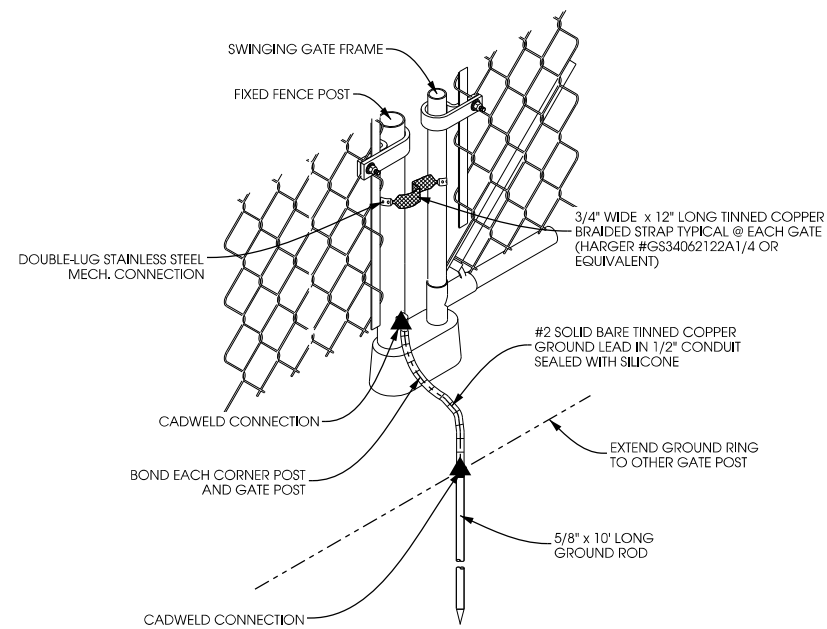
**GROUNDING PLAN
 NORTH FITCHBURG [266596]
 FITCHBURG, WISCONSIN**

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:		
G-1.dgn		
SHEET NUMBER:		
G-1		

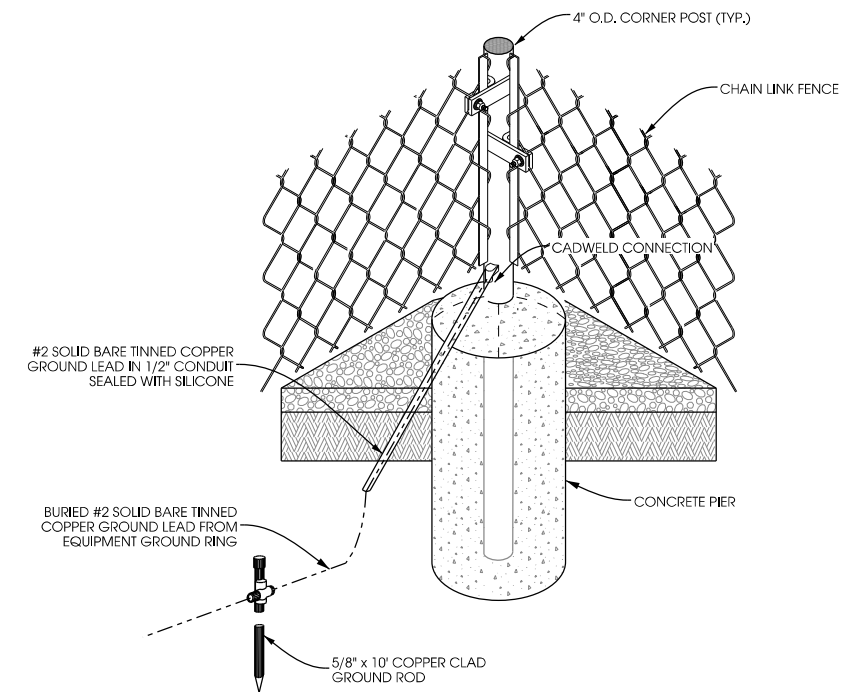


NOTE:
 CADWELD TYPES SHOWN ARE EXAMPLES. CONSULT WITH PROJECT MANAGER FOR OTHER POSSIBLE TYPES OF CADWELDS THAT CAN BE USED IN STANDARD OR SPECIALLY DESIGNED GROUNDING PLANS.
 CONTRACTOR TO PROVIDE ALL REQUIRED CADWELD CONNECTIONS.

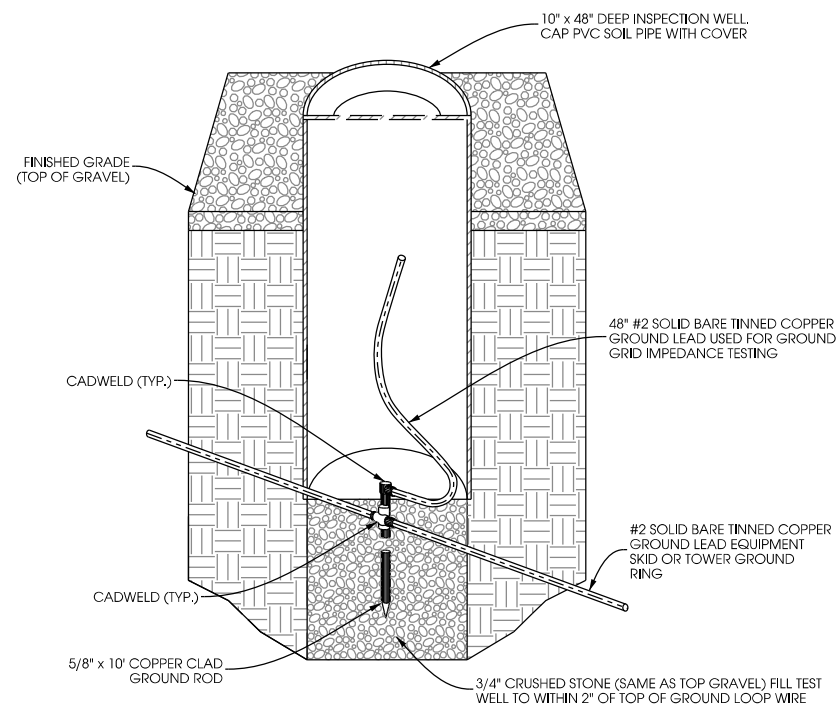
A CADWELD DETAILS
 SCALE: NTS



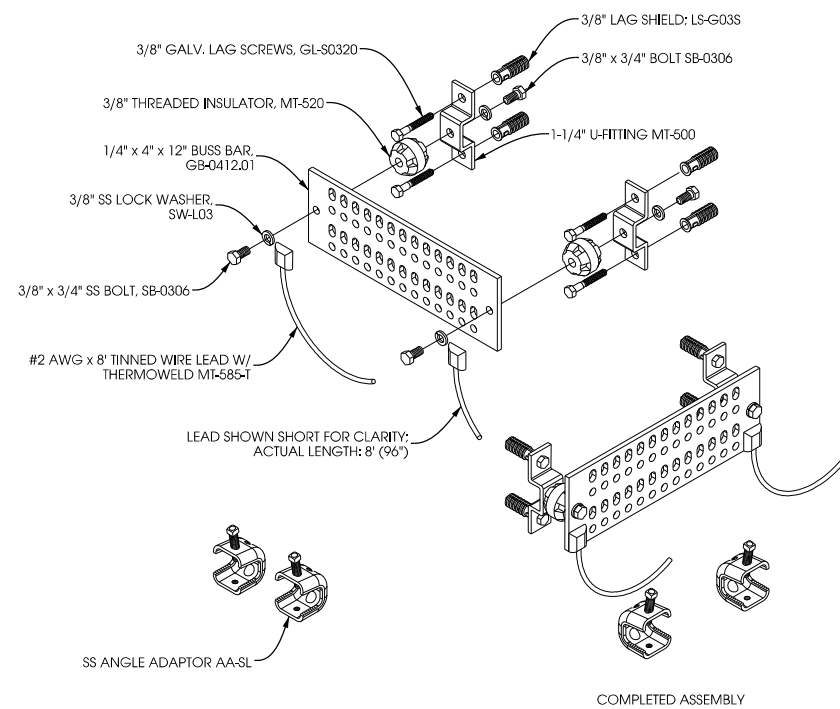
B GATE GROUNDING DETAIL
 SCALE: NTS



C FENCE POST GROUNDING DETAIL
 SCALE: NTS

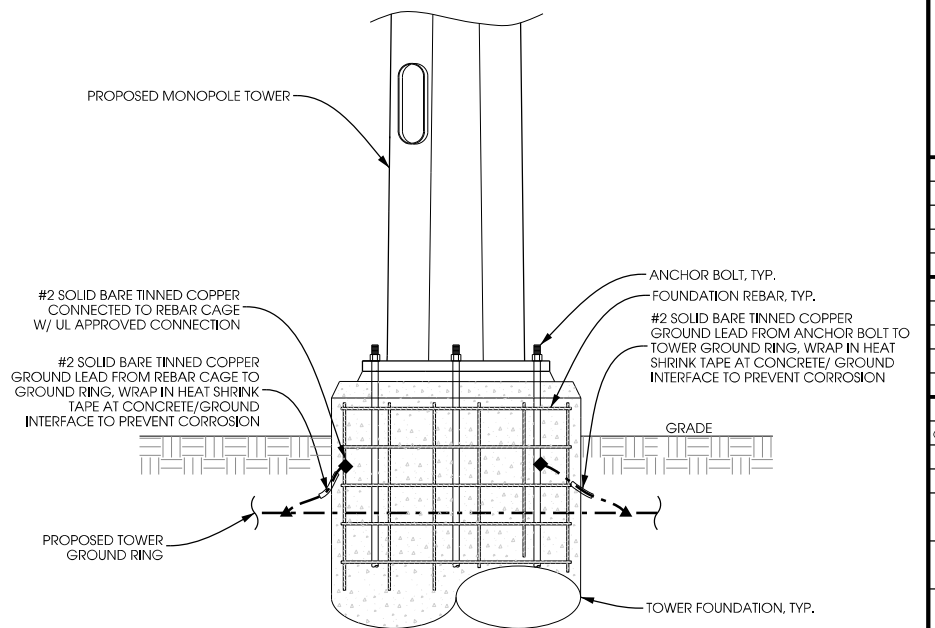


D INSPECTION WELL DETAIL
 SCALE: NTS



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\"/>



F TOWER FOUNDATION GROUNDING
 SCALE: NTS

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

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 HARDSURFACED FINISHES TO A DIRT-FREE CONDITION, FREE OF STAINS, FILMS AND SIMILAR FOREIGN SUBSTANCES. AVOID DISTURBING NATURAL WEATHERING OF EXTERIOR SURFACES.
E. REMOVE DEBRIS FROM LIMITED ACCESS SPACES, INCLUDING ROOFS, EQUIPMENT 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 REPAIRED OR RESTORED, OR THAT SHOW EVIDENCE OF REPAIR OR RESTORATION. DO NOT PAINT OVER "UL" AND SIMILAR LABELS, INCLUDING ELECTRICAL NAME PLATES.
H. LEAVE THE PROJECT CLEAN AND READY FOR OCCUPANCY.
I. DUST OFF ALL EQUIPMENT, INCLUDING BATTERY PACKS, WITHIN EQUIPMENT 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 FROM 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 MRFR1 - 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. PROJECT 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 THOSE 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-F191-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.



SPECIFICATIONS NORTH FITCHBURG [266596] FITCHBURG, WISCONSIN

Table with columns for drawing type, date, and revision. Includes rows for PRELIMINARY DWGS, STAMPED PERMIT DWGS, STAMPED FINAL DWGS, and SHEET NUMBER SP-1.

R:\22200\222483\CAD\CDD\Phat\SP-1.dgn

- 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 WET 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, PULL BOX, JUNCTION BOX, SWITCH BOX, ETC. THE TYPE OF TAGGING METHODS SHALL BE IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA.).
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, NBFV 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 UL 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 UL LABEL, FITTING SHALL BE GLAND RING COMPRESSION TYPE.
- C. FLEXIBLE METALLIC CONDUIT SHALL HAVE UL 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 CALK.
- 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. BOLT-HEAD
- 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 | 54860BE |
| E. #2/0 THWN | 54852BE |
| 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 OHMMER 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 #25020-2, 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 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 MANUFACTURER'S 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.

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	BUN
CD 100'S V.2 - 9/21/21	BUN

CHECKED BY:
PCM
PLOT DATE:
9/21/2021
PROJECT #:
22243
FILE NAME:
SP-2.dgn

SHEET NUMBER:

SP-2



SITE OVERVIEW
LOOKING NORTH



PROPOSED CST LEASE AREA
LOOKING WEST



GRAVEL ACCESS DRIVE
LOOKING SOUTHWEST



GRAVEL ACCESS DRIVE
LOOKING NORTHEAST TOWARDS DELLVUE DRIVE

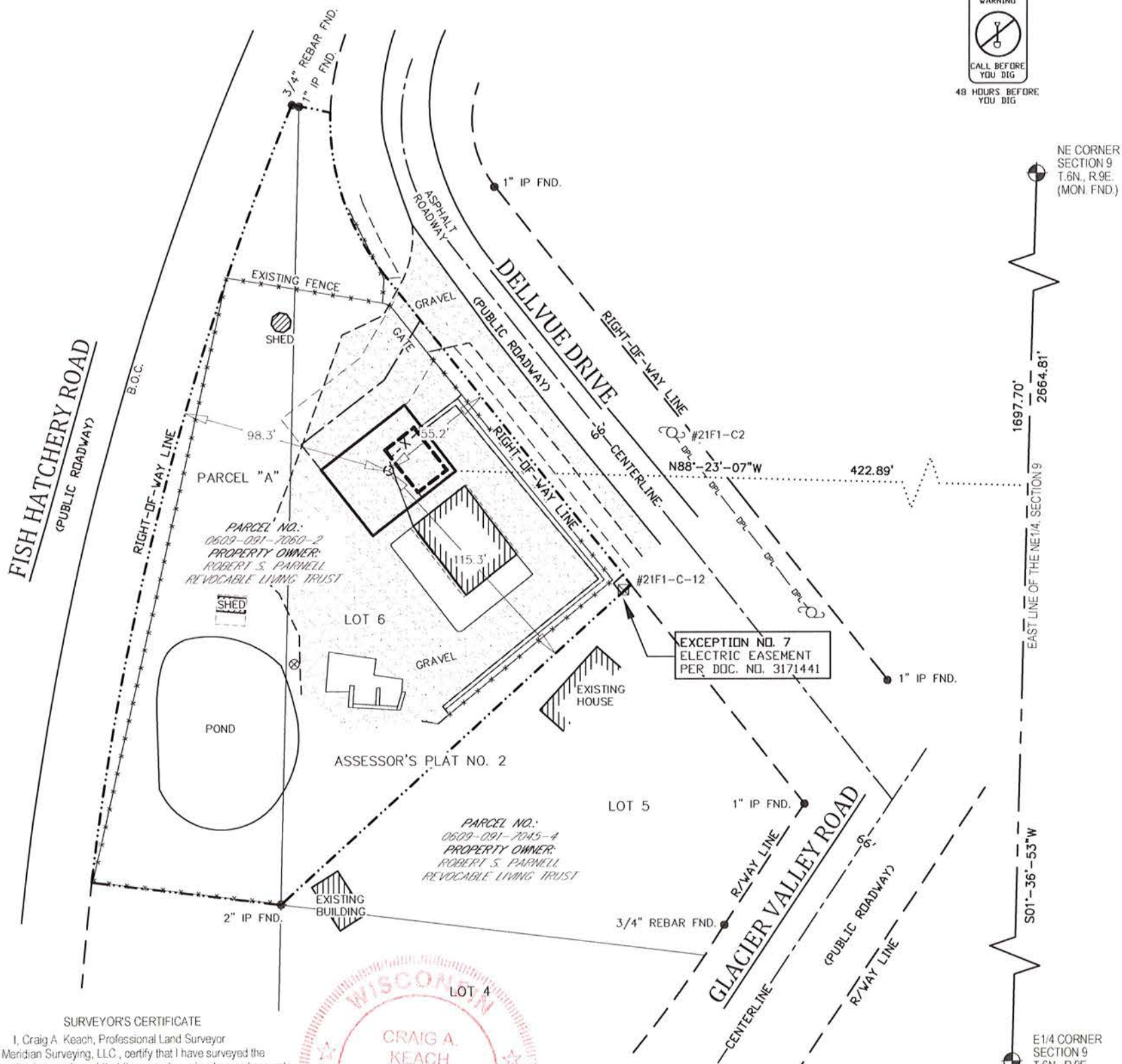
SITE PHOTOS
NORTH FITCHBURG [266596]
FITCHBURG, WISCONSIN

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 100S V.1 - 9/20/21	BUN
CD 100S V.2 - 9/21/21	BUN
CHECKED BY:	
PCM	
PLOT DATE:	
9/21/2021	
PROJECT #:	
22243	
FILE NAME:	
P-1.dgn	

SHEET NUMBER:

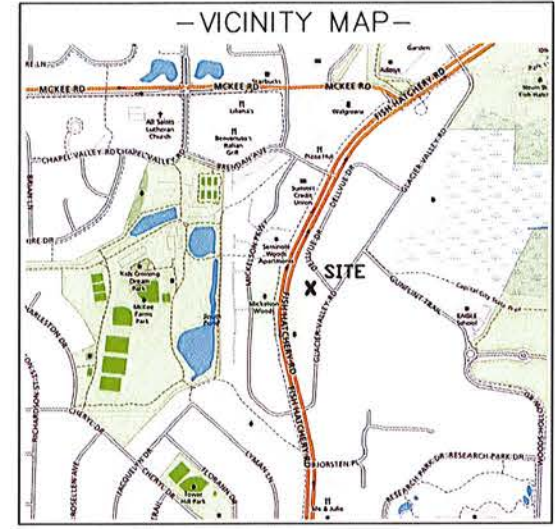
P-1



CALL DIGGERS HOTLINE TOLL FREE
1(800)242-8511
OPERATES 24 HOURS A DAY 365 DAYS A YEAR

WARNING
CALL BEFORE YOU DIG
48 HOURS BEFORE YOU DIG

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



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
 - DPL — = OVERHEAD ELECTRIC
 - X — = CHAINLINK FENCE LINE
 - ~~~~~ = EDGE OF BRUSH/WOODS
 - - - - - = PROPERTY LINE

SURVEY NOTES:

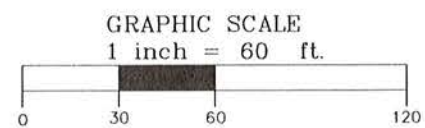
- THE LOCATION OF THE EXISTING UTILITIES, AS SHOWN ON THIS PLAN, ARE APPROXIMATE ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ACTUAL LOCATION AND DEPTH OF ALL EXISTING UTILITIES. THE OWNER AND THE SURVEYOR SHALL NOT BE RESPONSIBLE FOR ANY OMISSION OR VARIATION FROM THE LOCATION SHOWN.
- 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.

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



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)

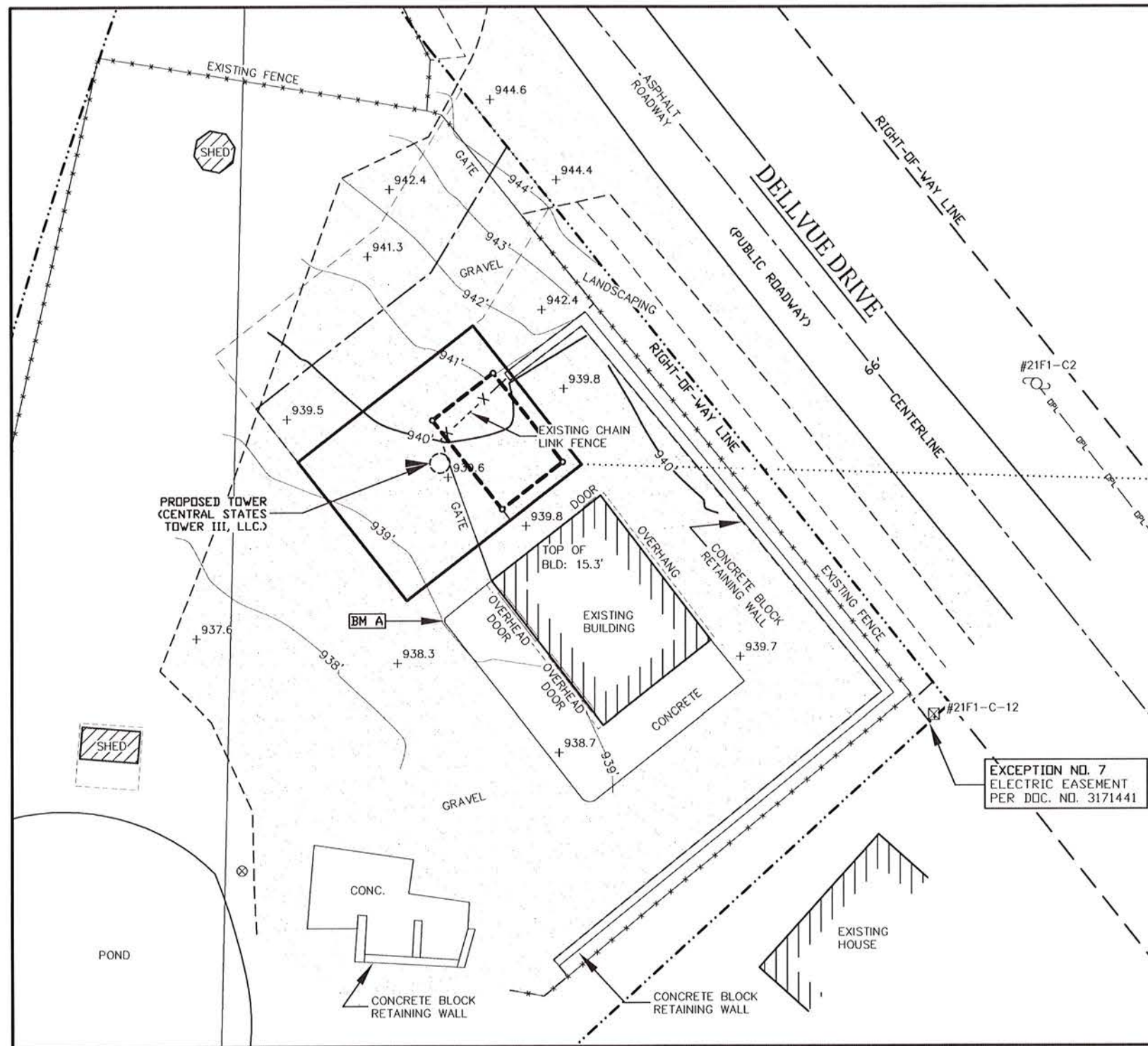
DEED REFERENCE: DOC. NO. 5466447

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

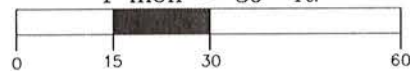
DRAWN BY: J.D.	FIELD WORK DATE: 4-01-19
CHECKED BY: C.A.K.	FIELD BOOK: M-53, PG. 15
JOB NO.: 11016	SHEET 1 OF 3



- 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 --- = OVERHEAD ELECTRIC
 - X --- = CHAINLINK FENCE LINE
 - ~~~~~ = EDGE OF BRUSH/WOODS
 - = PROPERTY LINE

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

GRAPHIC SCALE
 1 inch = 30 ft.



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



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

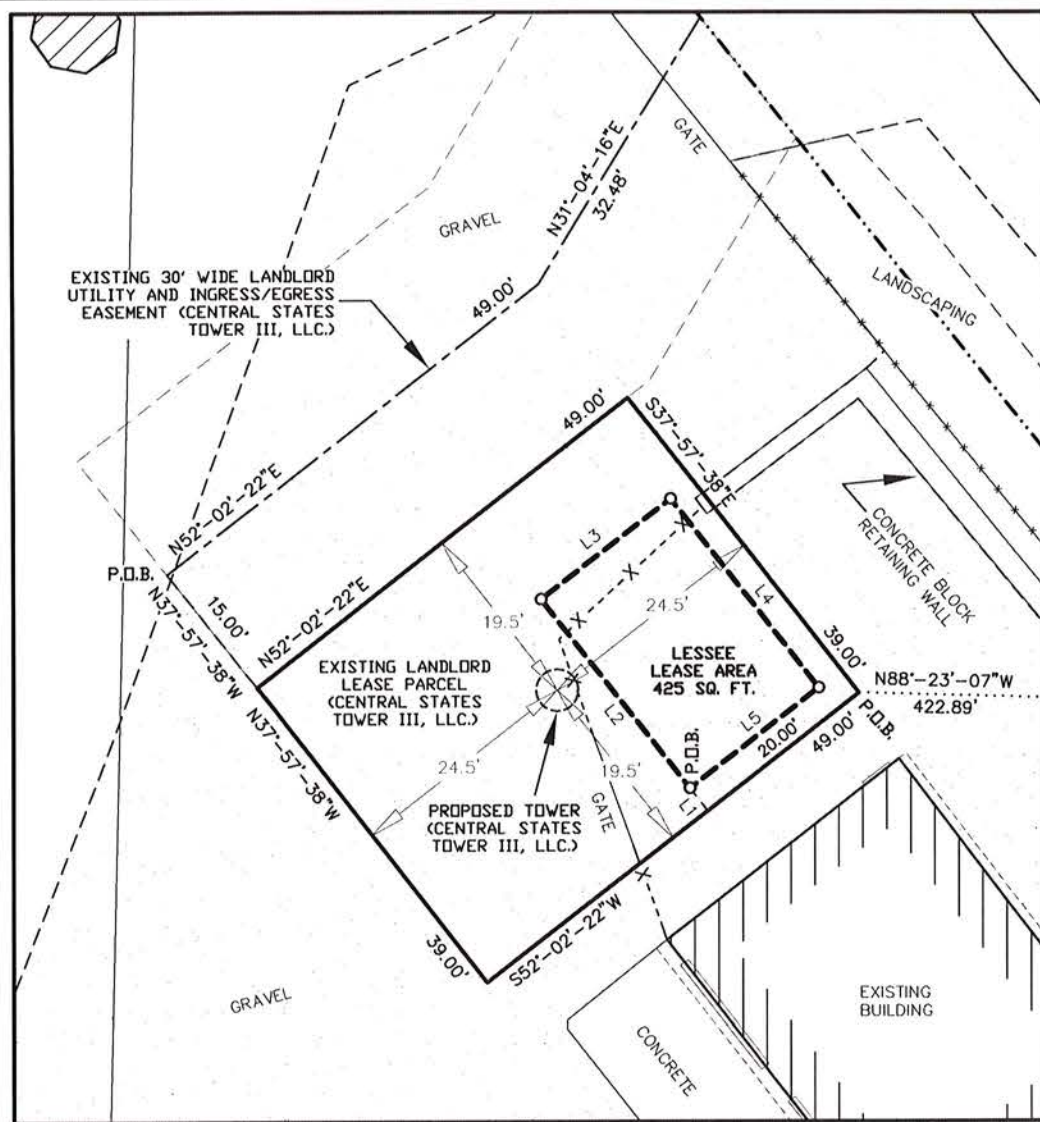
DRAWN BY: J.D. **FIELD WORK DATE:** 4-01-19

CHECKED BY: C.A.K. **FIELD BOOK:** M-53, PG. 15

JOB NO.: 11016 **SHEET** 2 **OF** 3

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





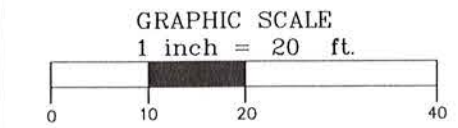
LESSEE LEASE PARCEL
 PART OF LOT SIX (6), ASSESSOR'S PLAT TWO (2), BEING LOCATED IN THE SOUTHEAST QUARTER (SE1/4) OF THE NORTHEAST QUARTER (NE1/4) OF SECTION NINE (9), TOWNSHIP SIX (6) NORTH, RANGE NINE (9) EAST, CITY OF FITCHBURG, DANE COUNTY, WISCONSIN CONTAINING 425 SQUARE FEET (0.010 ACRES) OF LAND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



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**
- = 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
 - DPL — = OVERHEAD ELECTRIC
 - X --- = CHAINLINK FENCE LINE
 - ~~~~~ = EDGE OF BRUSH/WOODS
 - - - - - = PROPERTY LINE



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

- 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.**

SURVEYED FOR:

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

SURVEYED FOR:

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

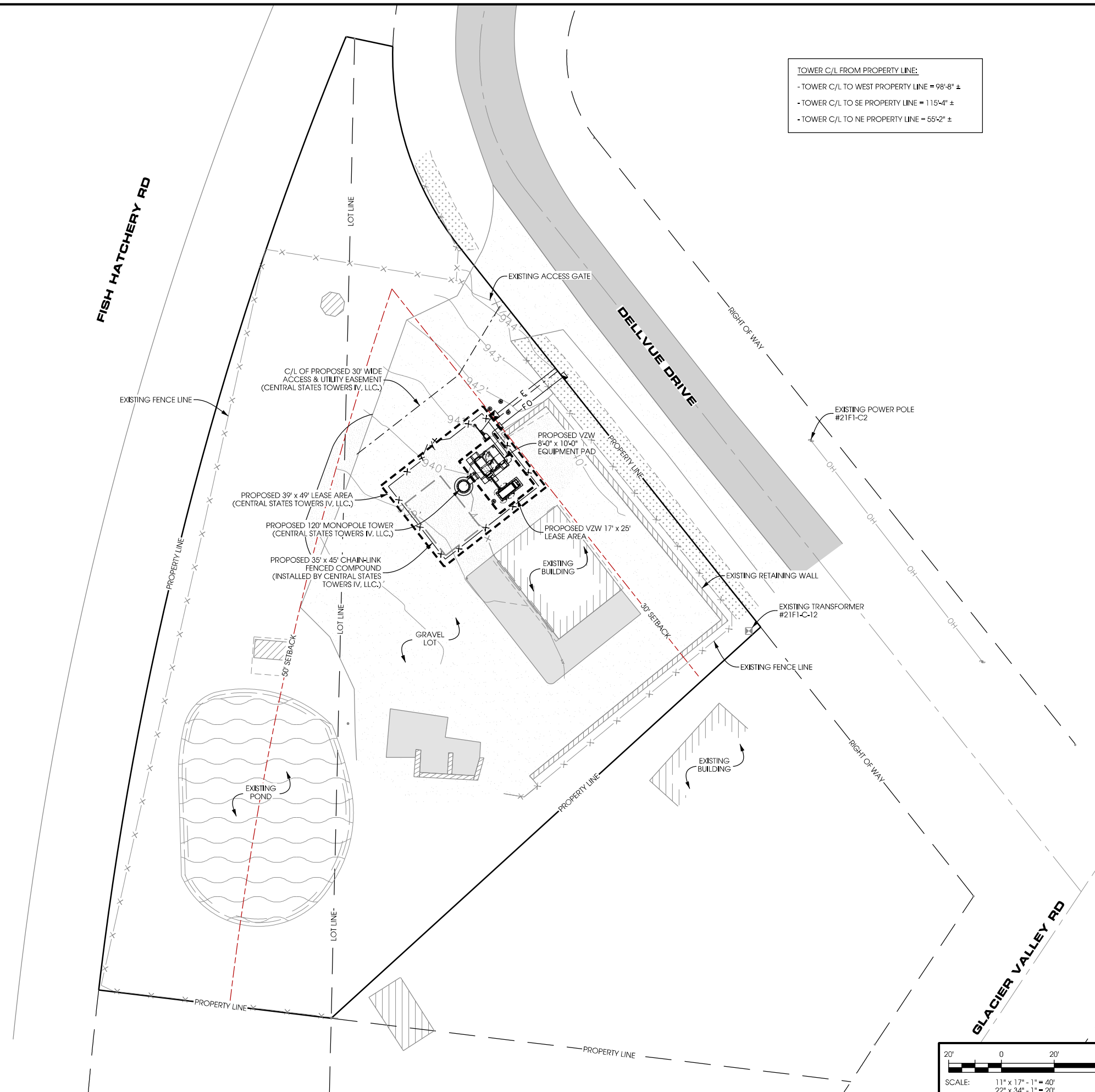
DRAWN BY: J.D. **FIELD WORK DATE:** 4-01-19

CHECKED BY: C.A.K. **FIELD BOOK:** M-53, PG. 15

JOB NO.: 11016 **SHEET** 3 OF 3



AERIAL OVERVIEW OF SITE

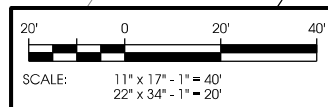


TOWER C/L FROM PROPERTY LINE:
 - TOWER C/L TO WEST PROPERTY LINE = 98'-8" ±
 - TOWER C/L TO SE PROPERTY LINE = 115'-4" ±
 - TOWER C/L TO NE PROPERTY LINE = 55'-2" ±

SITE PLAN
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 100S V.1 - 9/20/21	BJN
CD 100S V.2 - 9/21/21	BJN
CHECKED BY:	
PCM	
PLOT DATE:	
9/21/2021	
PROJECT #:	
22243	
FILE NAME:	
VZW C-1.dgn	



SHEET NUMBER:
VZW C-1

R:\22200\22243\CAD\CAD_Plot\VZW C-1.dgn



SITE OVERVIEW (LOOKING SE)



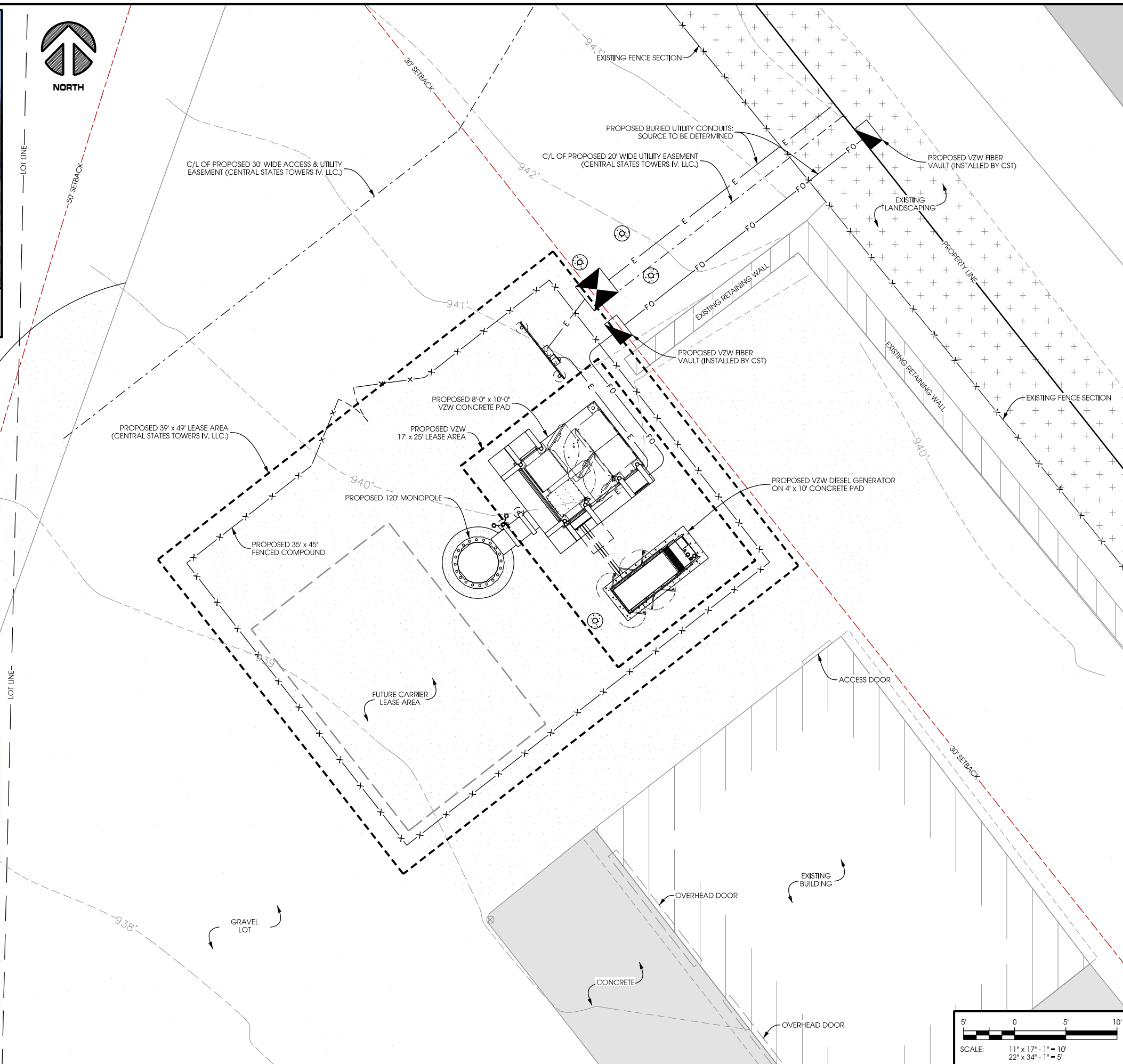
PROPOSED LEASE AREA (LOOKING WEST)



NORTH

LOT LINE

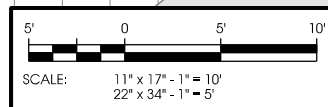
LOT LINE



COMPOUND PLAN
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 C-2.dgn



SHEET NUMBER:
VZW C-2

R:\22200\22243\CAD\C2D\Plot\VZW C-2.dgn



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

PROPOSED VZW GPS ANTENNAS
MOUNTED TO ICE BRIDGE POST

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

FUTURE CARRIER
LEASE AREA

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

PROPOSED DIESEL
GENERATOR ON
4' x 10' PAD

PRO. CHARLES CUBE

PRO. ILC

EXISTING CONCRETE
RETAINING WALL

EXISTING ACCESS DOOR

PRO. 10'-0" CONCRETE PAD

PRO. 8'-0" CONCRETE PAD

PROPOSED VZW 25'-0" LEASE AREA

PRO. 10'-0" CONCRETE PAD

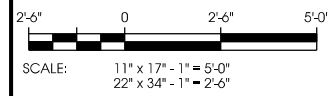
PROPOSED VZW 17'-0" LEASE AREA

R:\22200\22243\CAD\C3D\Plan\VZW C-3.dgn

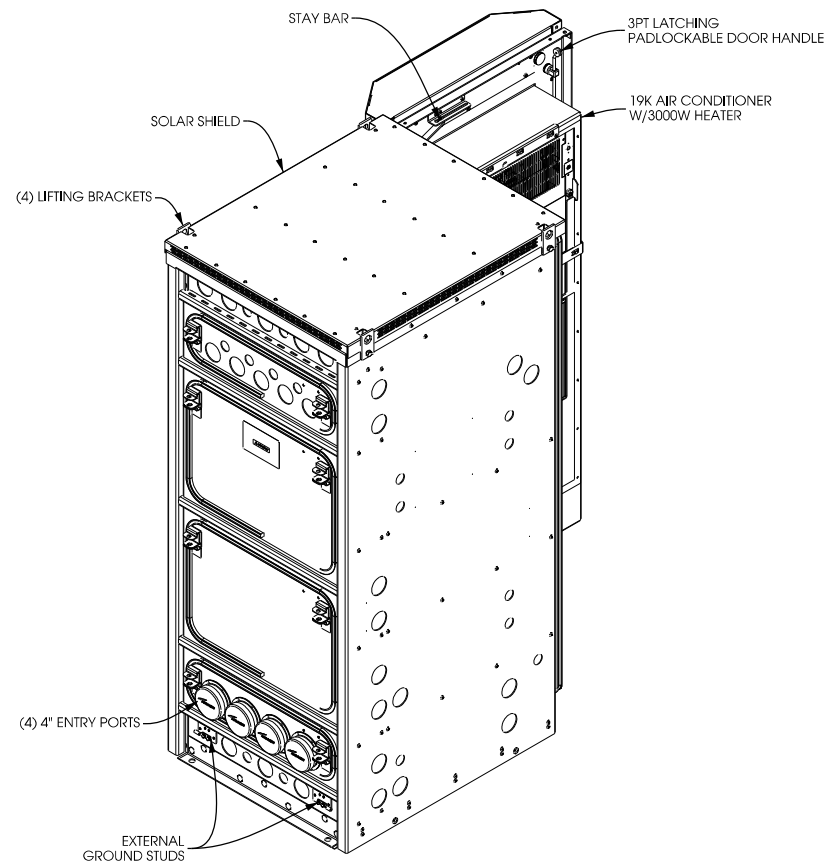
Edge
Consulting Engineers, Inc.
624 Water Street
Poulsbo, WA 98278
608.644.1449 voice
608.644.1549 fax
www.edgeconsulting.com

ENLARGED COMPOUND PLAN
NORTH FITCHBURG [266596]
FITCHBURG, WISCONSIN

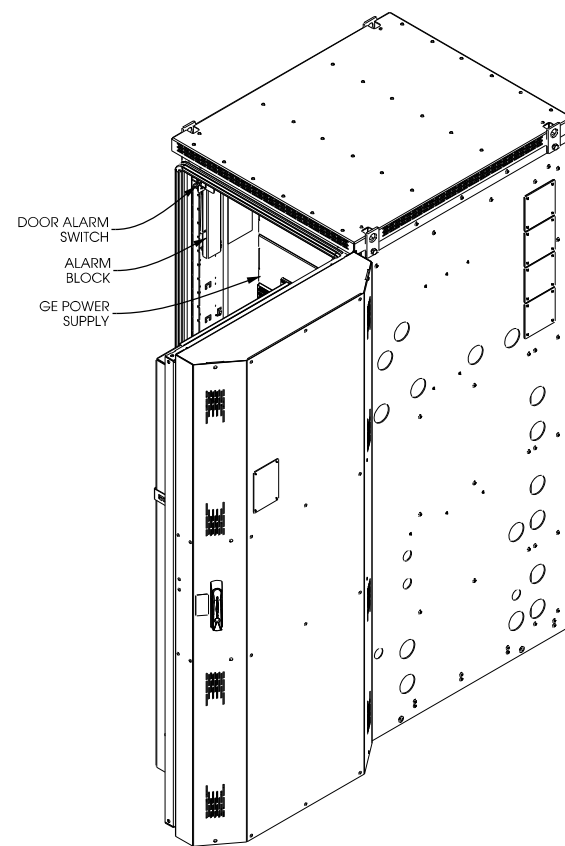
SHEET TITLE:	INITI:
PRELIMINARY DWGS:	CV
SITE SKETCH V.1 - 04/08/2019	JAH
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100S V.1 - 9/20/21	BJN
CD 100S V.2 - 9/21/21	BJN
CHECKED BY:	
PCM	
PLOT DATE:	
9/21/2021	
PROJECT #:	
22243	
FILE NAME:	
VZW C-3.dgn	



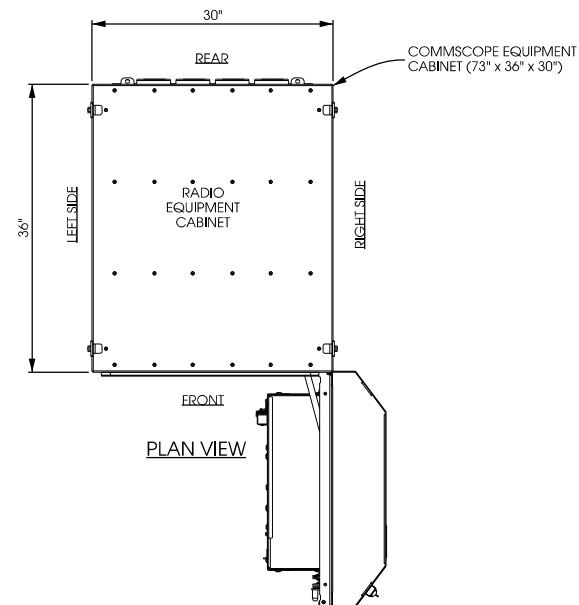
SHEET NUMBER:
VZW C-3



REAR ISOMETRIC VIEW

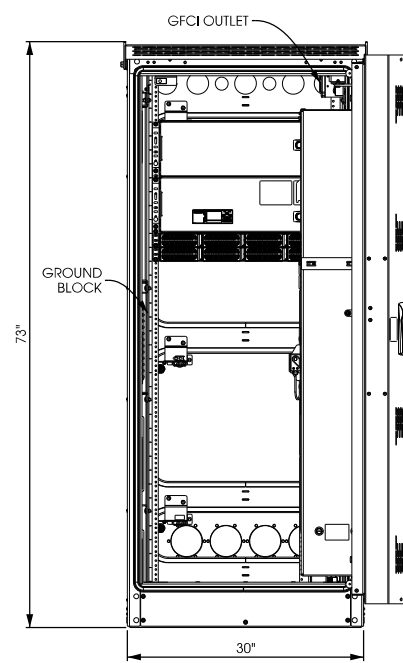


FRONT ISOMETRIC VIEW



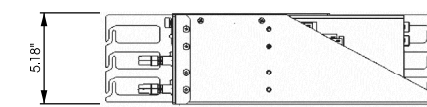
PLAN VIEW

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 #1531426G150P
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

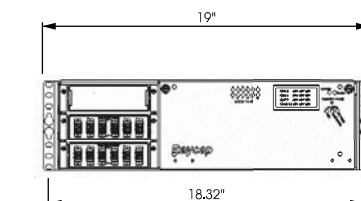


FRONT ELEVATION VIEW

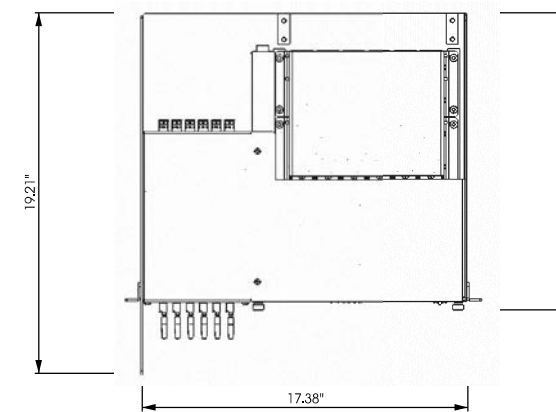
A **COMMSCOPE RBA72-30**
SCALE: NTS



SIDE VIEW



FRONT VIEW



PLAN VIEW

B **RACK MOUNTED SURGE PROTECTOR**
SCALE: NTS

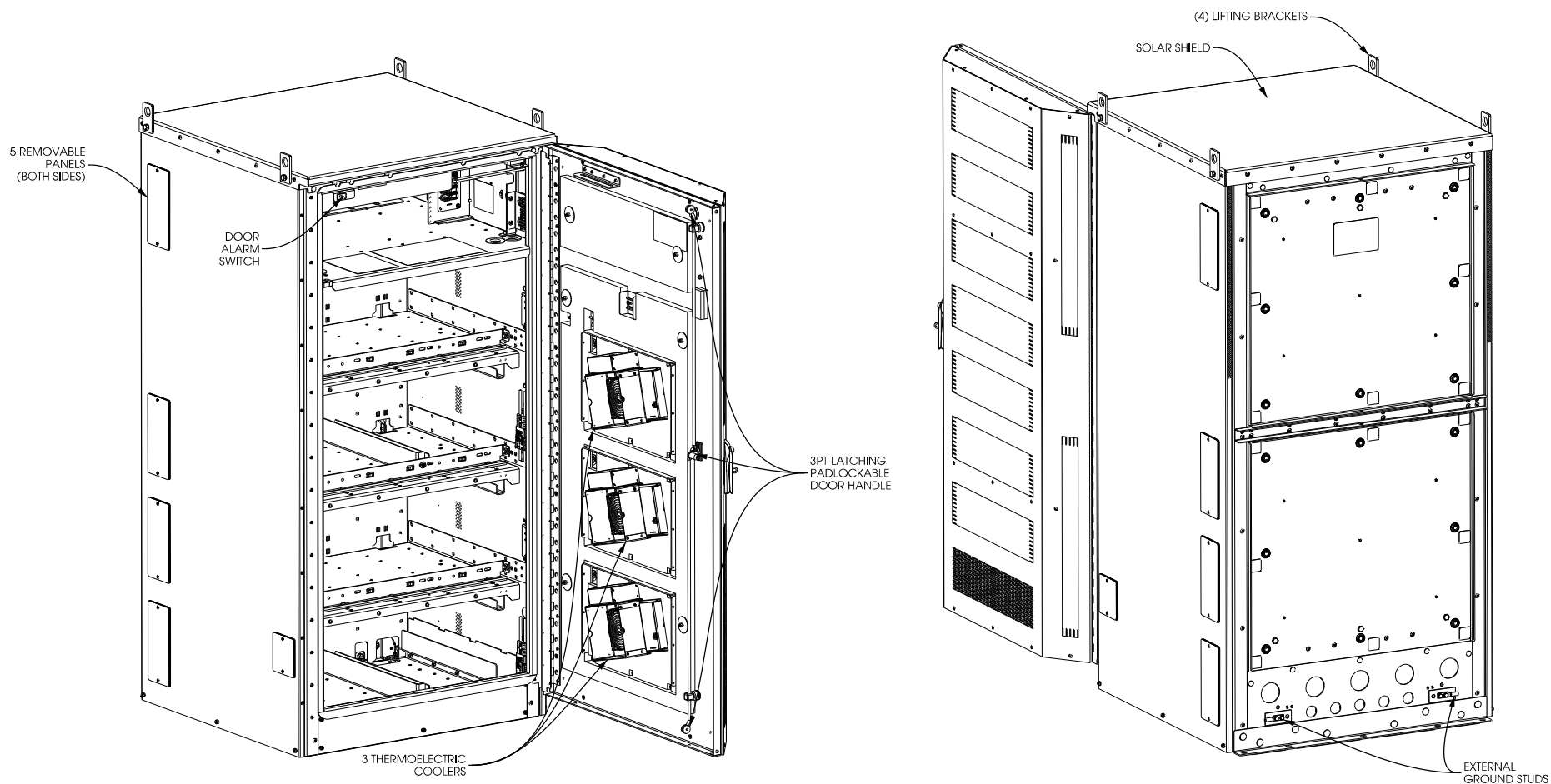
DC SURGE PROTECTOR:
RAYCAP PART # RCMDC-4520-RM-48
RACK MOUNTED DISTRIBUTION SURGE PROTECTION FOR 12 RRH DC CIRCUITS
DIMENSIONS: 5.18" x 18.32" x 15.80" (H x W x D)
WEIGHT: 22.10 LBS

EQUIPMENT DETAILS
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 100S V.1 - 9/20/21	BJN
CD 100S V.2 - 9/21/21	BJN
CHECKED BY:	
PCM	
PLOT DATE:	
9/21/2021	
PROJECT #:	
22243	
FILE NAME:	
VZW S-1.dgn	
SHEET NUMBER:	

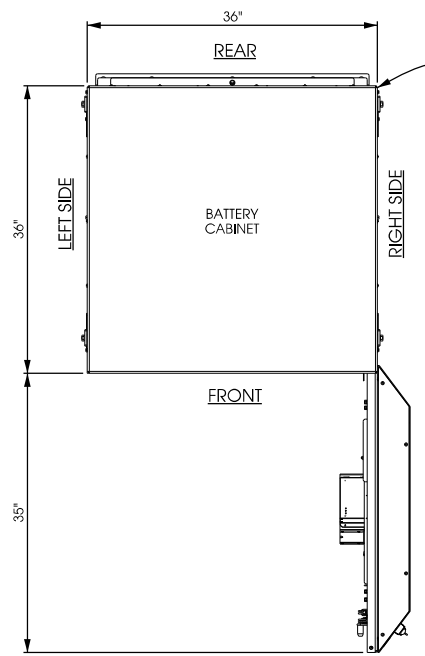
R:\22200\22243\CAD\CDD\Part\VZW S-1.dgn



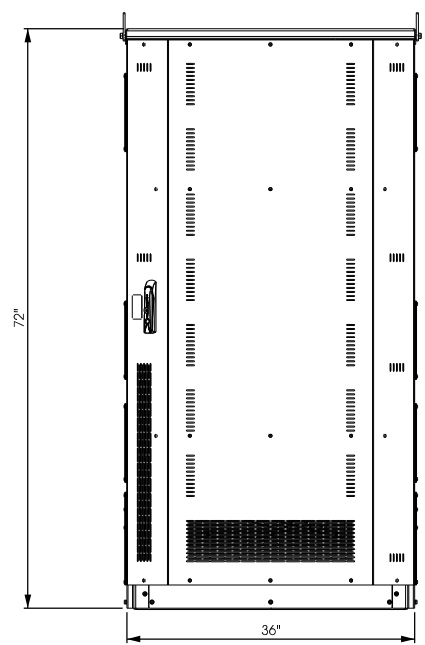
FRONT ISOMETRIC VIEW

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

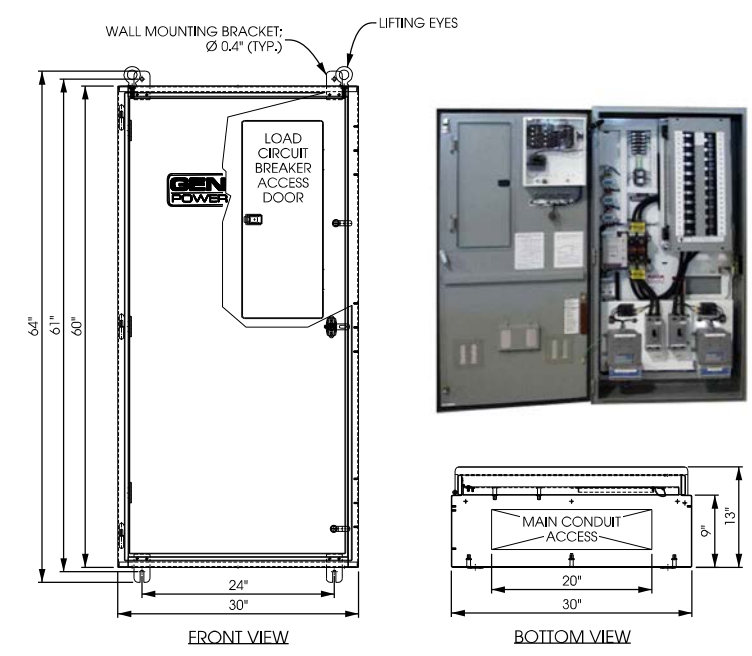


PLAN VIEW



FRONT ELEVATION VIEW

A COMMSCOPE RBA72-36
SCALE: NTS

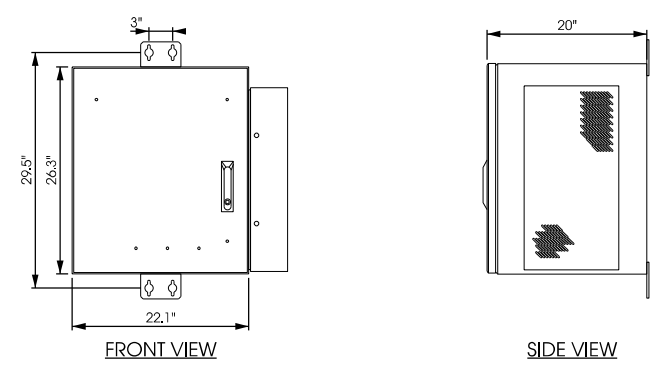


ILC RATED AMPS	VOLTAGE	PHASE	ENCLOSURE HEIGHT	ENCLOSURE WIDTH	ENCLOSURE DEPTH	WEIGHT (LBS)
200	120/240	1	60"	30"	10"	350
200	120/208	3	60"	30"	10"	350

B INTEGRATED LOAD CENTER
SCALE: NTS

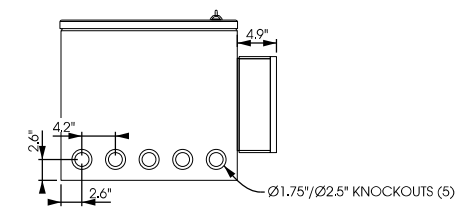
ENCLOSURE
CHARLES UNIVERSAL BROADBAND
ENCLOSURES (CUBE) PART # RL1003

-ACCESSORIES:
POLE MOUNT KIT, PART # 97-CABPMTKIT
H-FRAME HARDWARE KIT, PART # 97-001971-A
SLIDE OUT TRAY, PART # 97-001990-A
10" PLINTH KIT, PART # 97-002127-A



FRONT VIEW

SIDE VIEW



BOTTOM VIEW

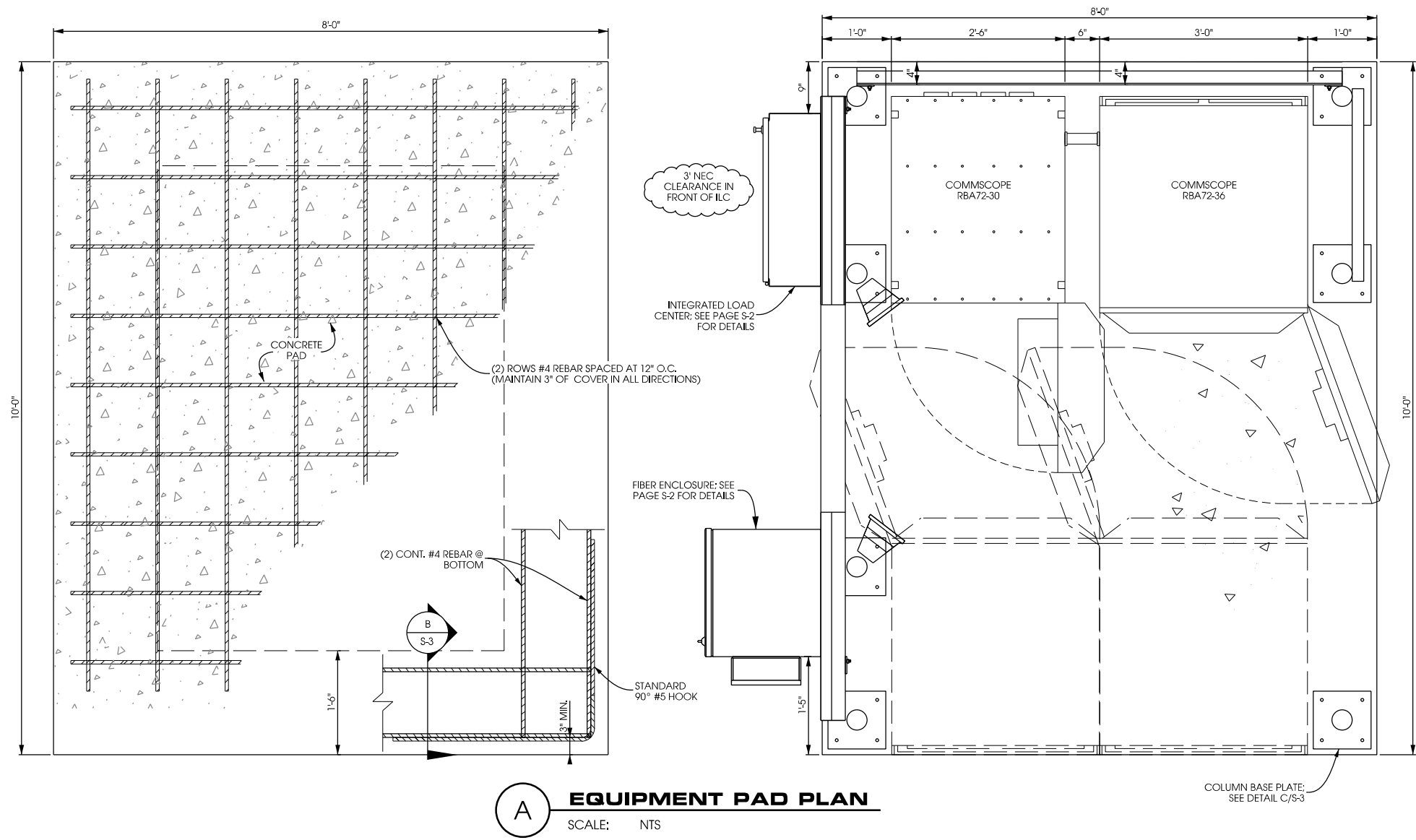
C CHARLES UNIVERSAL ENCLOSURE
SCALE: NTS

EQUIPMENT DETAILS
NORTH FITCHBURG [266596]
FITCHBURG, WISCONSIN

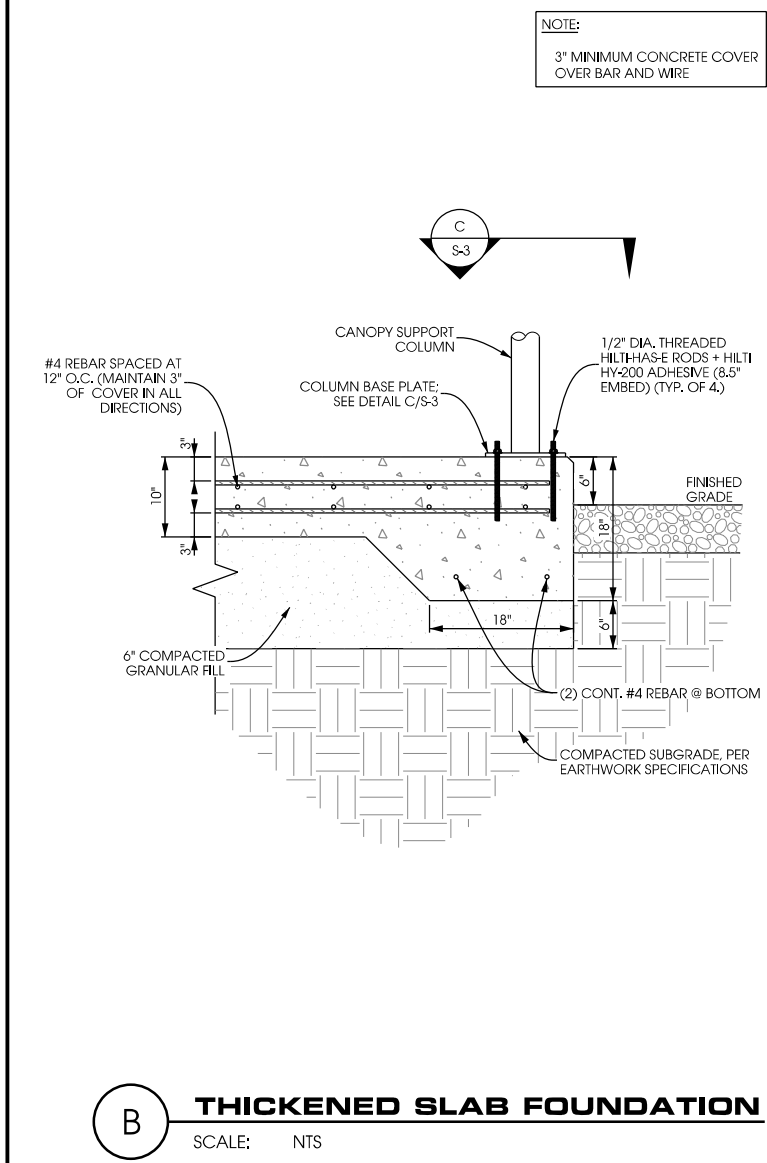
SHEET TITLE:

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 S-2.dgn	
SHEET NUMBER:	

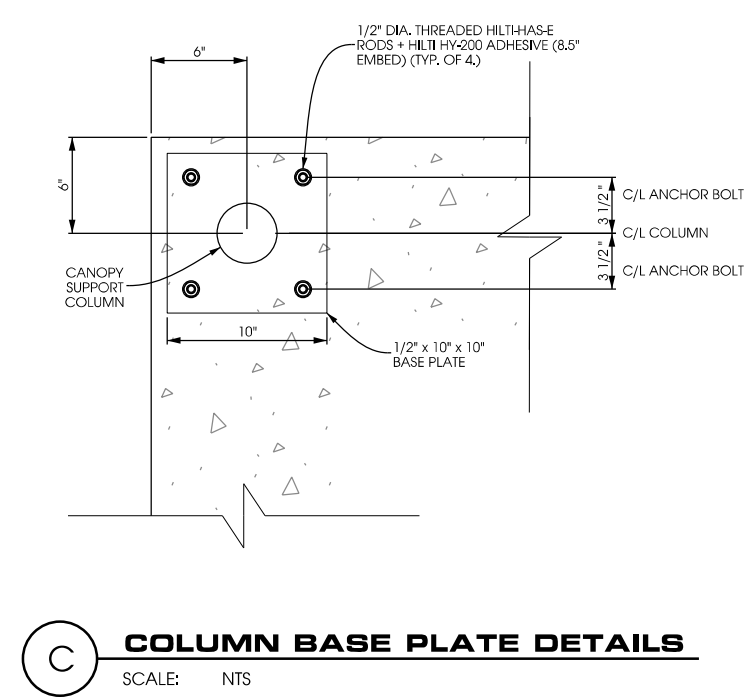
FOUNDATION DETAILS
NORTH FITCHBURG [266596]
FITCHBURG, WISCONSIN



A EQUIPMENT PAD PLAN
 SCALE: NTS



B THICKENED SLAB FOUNDATION
 SCALE: NTS



C COLUMN BASE PLATE DETAILS
 SCALE: NTS

THIS SPACE INTENTIONALLY LEFT BLANK

- 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 (IF) = 1.00 WHICH CORRESPONDS A REDUCED SEISMIC RESPONSE COEFFICIENT (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.

SHEET TITLE:

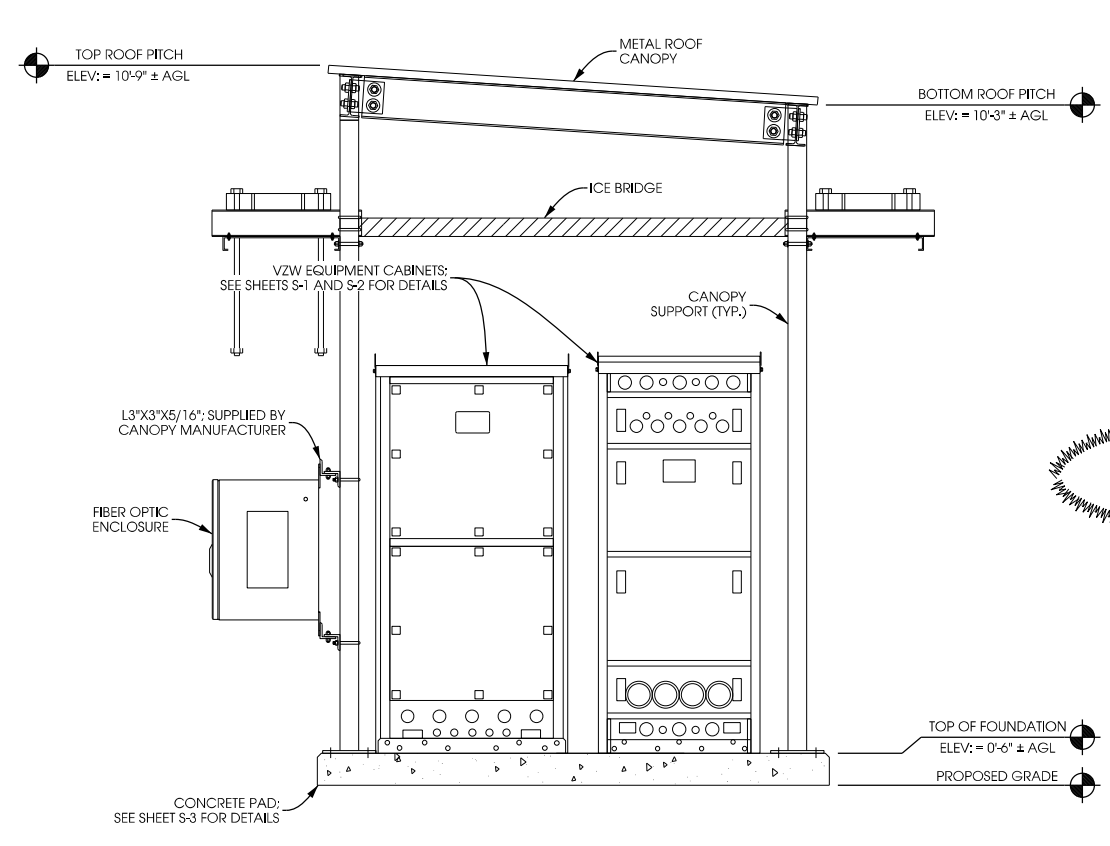
PRELIMINARY DWGS:	INI:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN
CHECKED BY:	
PCM	
PLOT DATE:	
9/21/2021	
PROJECT #:	
22243	
FILE NAME:	
VZW S-3.dgn	
SHEET NUMBER:	
VZW S-3	

EQUIPMENT ELEVATIONS
NORTH FITCHBURG [266596]
FITCHBURG, WISCONSIN

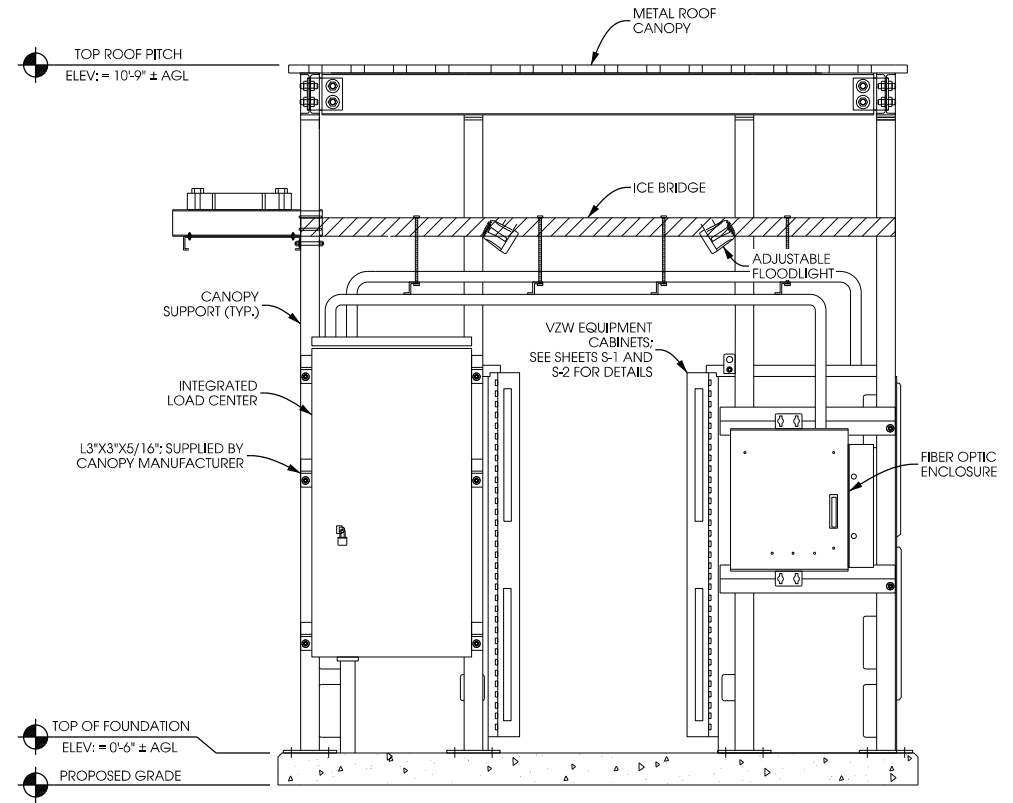
SHEET TITLE:

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 100S V.1 - 9/20/21	BJN
CD 100S 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

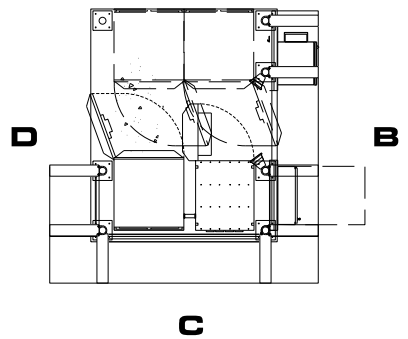


ELEVATION A

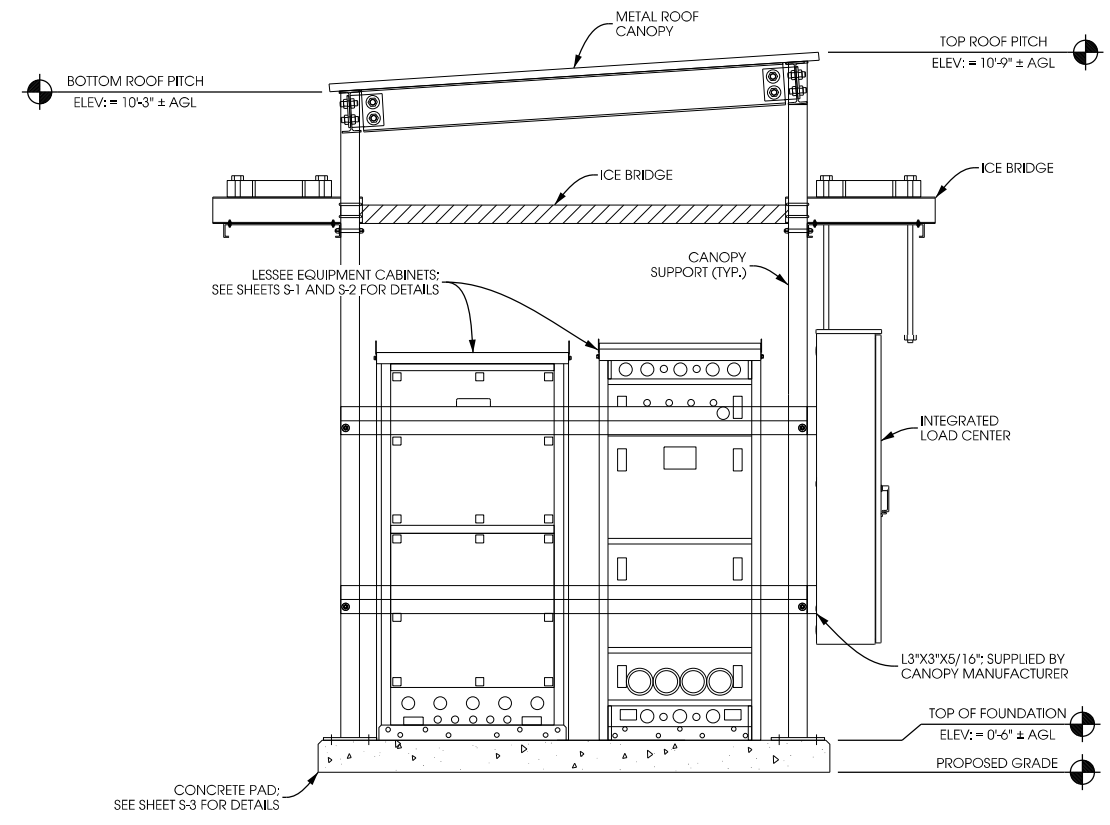


ELEVATION B

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 C



ELEVATION D

EQUIPMENT CANOPY ELEVATIONS
 SCALE: 11" x 17" - 1/3" = 1'-0" SABRE DRAWING #: Z30199033
 22" x 34" - 2/3" = 1'-0"

R:\22200\22243\CAD\CDD\Part\VZW S-4.dgn

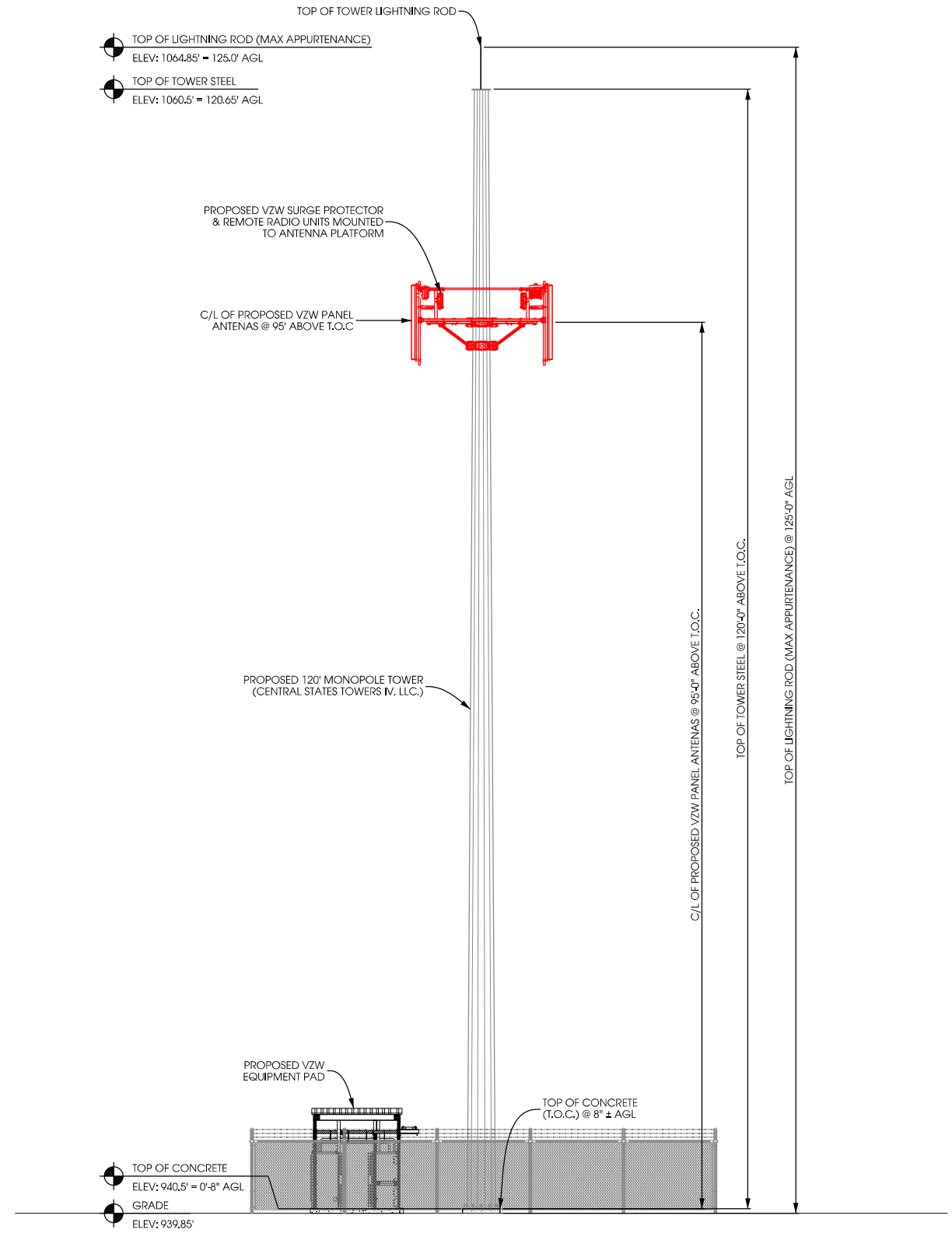
NOTES:
 1.) CONTRACTOR TO VERIFY HEIGHT AND DIRECTION OF ANTENNA WITH PROJECT MANAGER & FINAL RF DESIGN.
 2.) HYBRID CABLE LENGTH NOT TO EXCEED 367'.
 3.) HYBRID JUMPER CABLE LENGTH NOT TO EXCEED 30'.
 4.) IF CABLING LENGTH EXCEEDS MAXIMUM ALLOWED CONTRACTOR SHALL CONTACT CLIENT AND ENGINEER TO RESOLVE PRIOR TO CONSTRUCTION.

RF EMISSIONS REPORT REQUIRED

YES NO

Date: _____

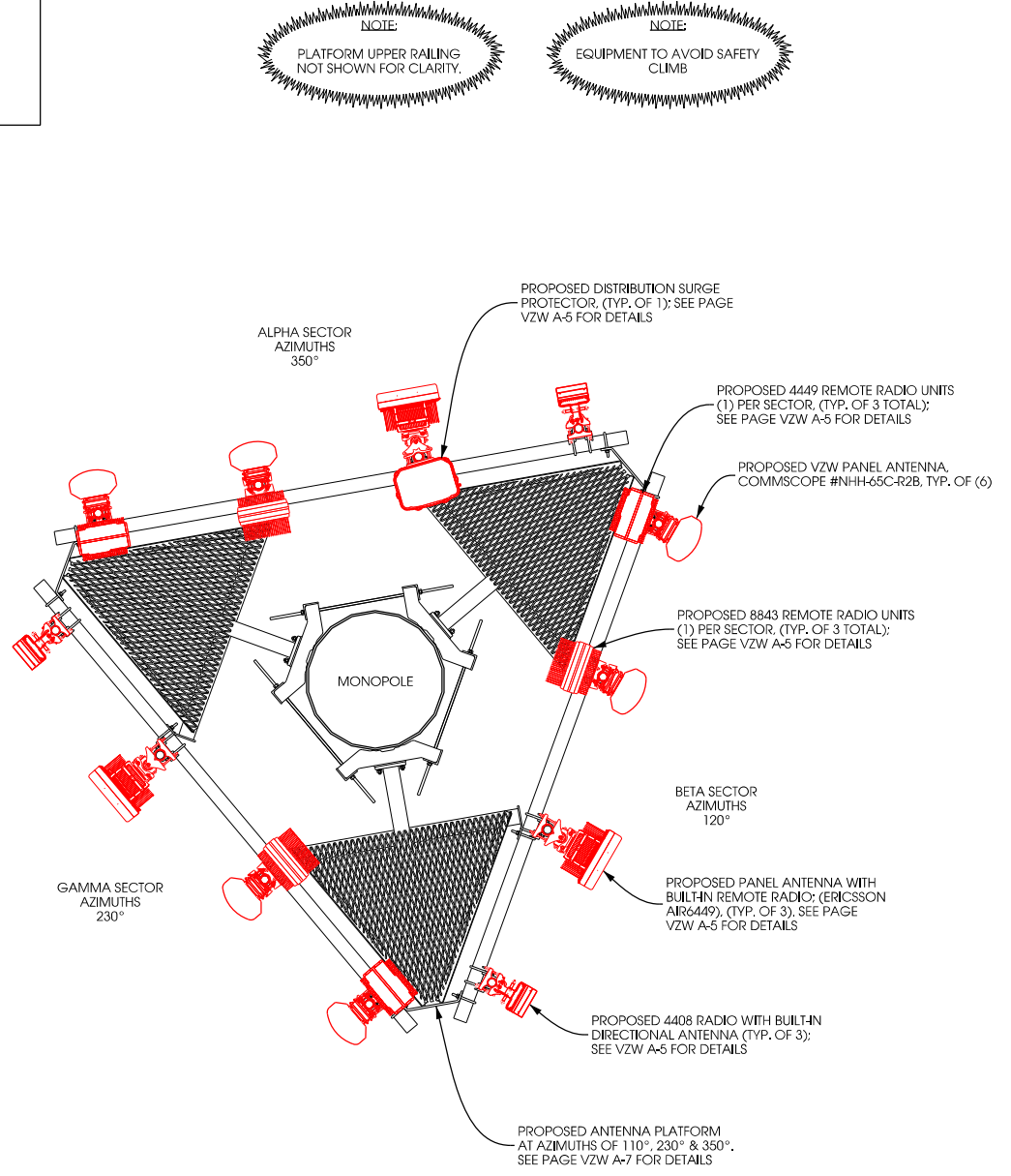
HYBRID CABLE INFO	
QUANTITY	1
LENGTH FROM GROUND SURGE PROTECTOR TO TOWER	15'±
LENGTH FROM T.O.C. TO TOWER SURGE PROTECTOR C/L	95'±
TOTAL HYBRID CABLE LENGTH	110'±



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.



B ANTENNA & EQUIPMENT ORIENTATION
 SCALE: NTS

**TOWER ELEVATION
 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-1.dgn
SHEET NUMBER:	

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.														

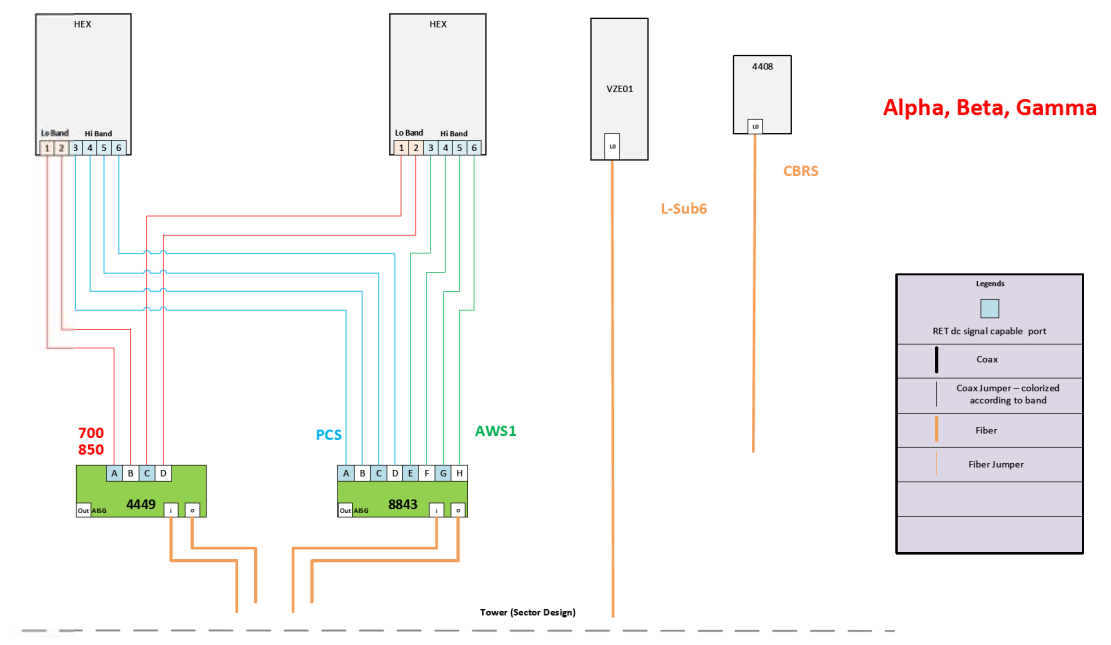
Added: 12 Removed: 0 Retained: 0

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.													



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/HTTR Box and Hybrid cables not shown
- Size of objects in drawing doesn't reflect equipment true dimension

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)

**ANTENNA CONFIGURATION
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	BUN
CD 100'S V.2 - 9/21/21	BUN
CHECKED BY:	PCM
PLOT DATE:	9/21/2021
PROJECT #:	22243
FILE NAME:	VZW A-2.dgn
SHEET NUMBER:	

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 DISCREPANCIES ARE IDENTIFIED, CONTACT ENGINEER PRIOR TO INSTALLATION.

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	0002	0003
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	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	350	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



ANTENNA CONFIGURATION

NORTH FITCHBURG [266596]

FITCHBURG, WISCONSIN

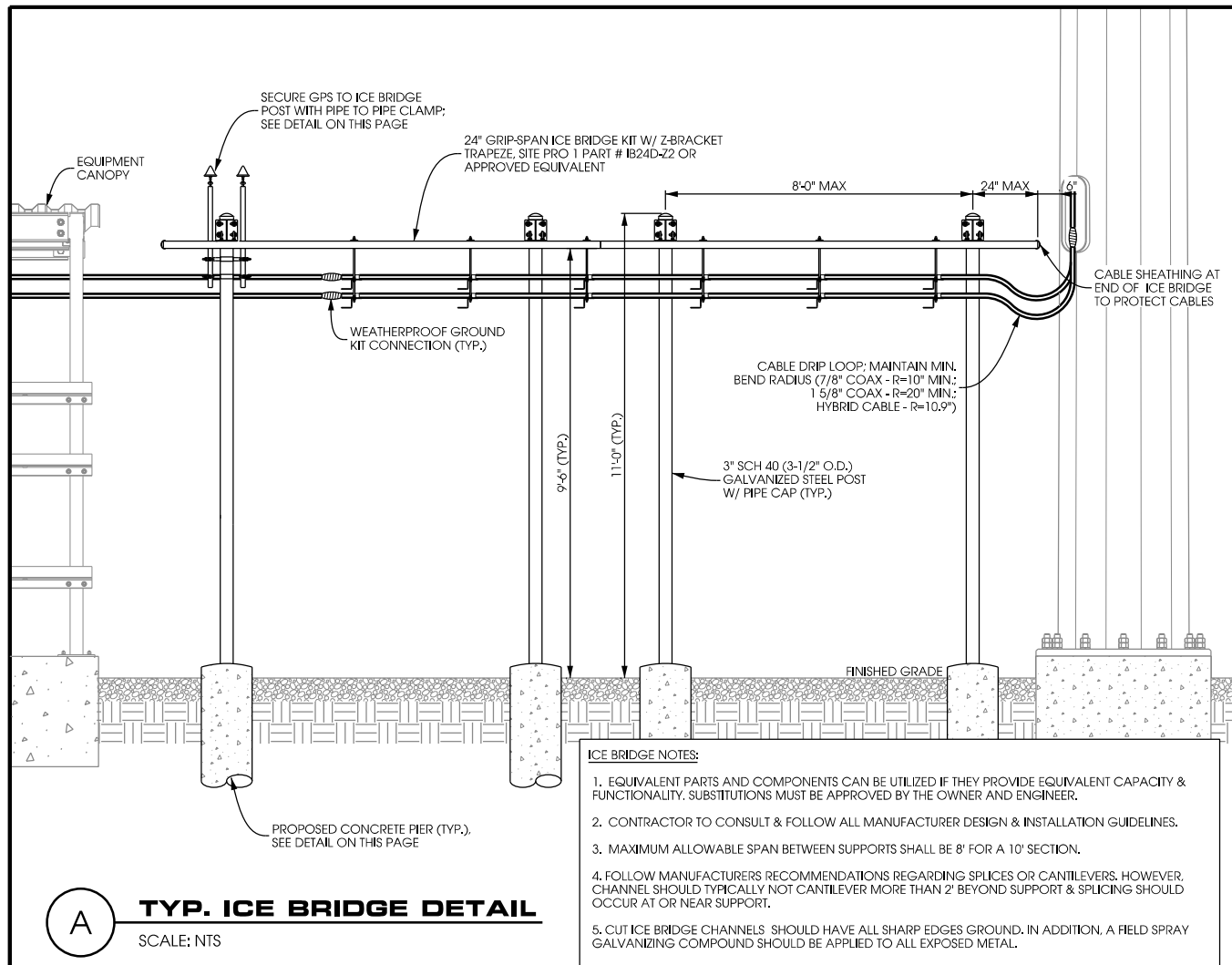
PRELIMINARY DWGS:	INI:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH

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

CHECKED BY:	PCM
PLOT DATE:	9/21/2021
PROJECT #:	22243
FILE NAME:	VZW A-3.dgn
SHEET NUMBER:	

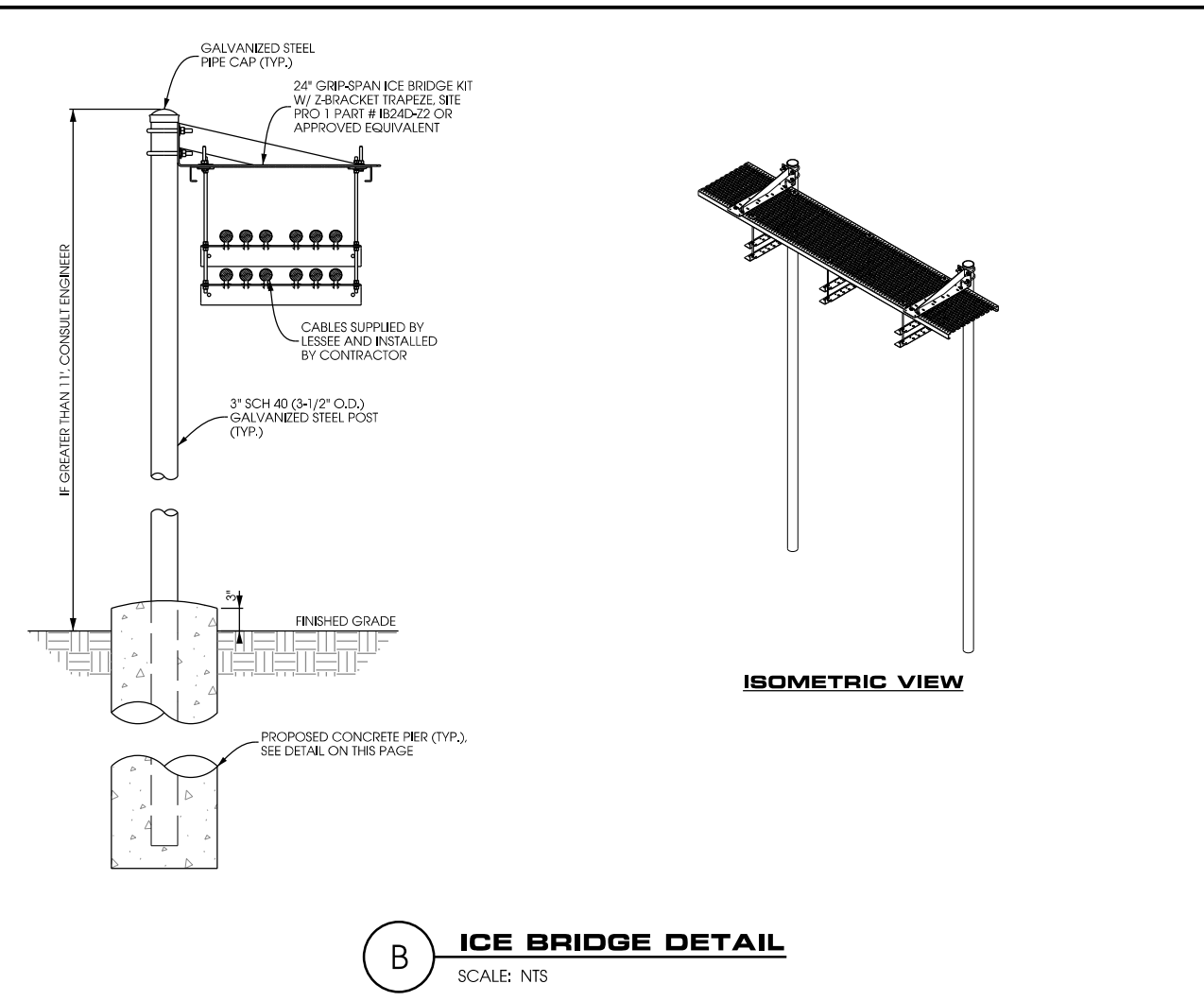
VZW A-3

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 DISCREPANCIES ARE IDENTIFIED, CONTACT ENGINEER PRIOR TO INSTALLATION.

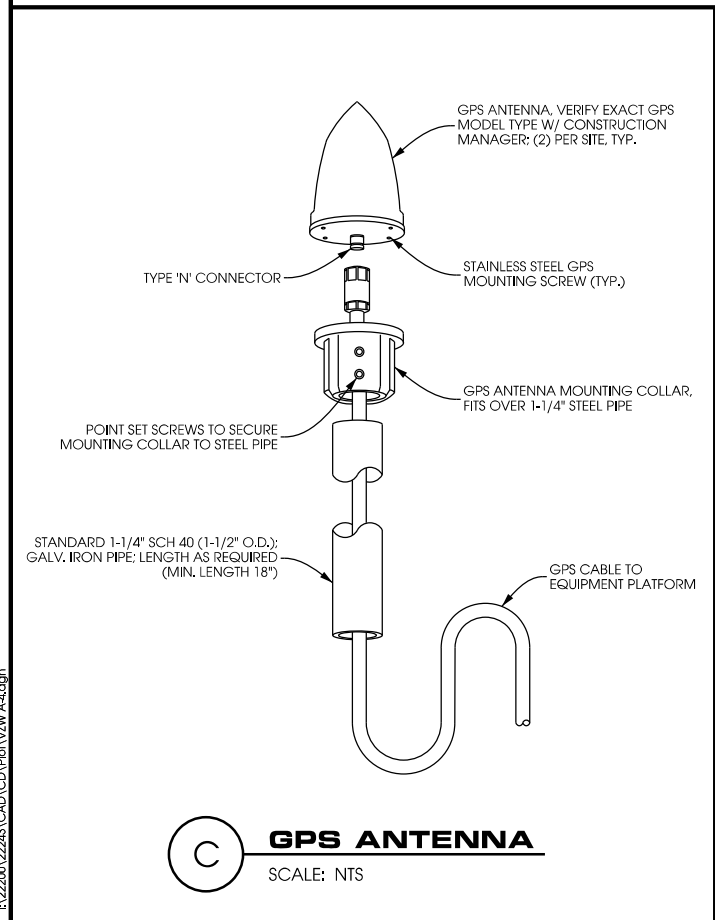


A TYP. ICE BRIDGE DETAIL
SCALE: NTS

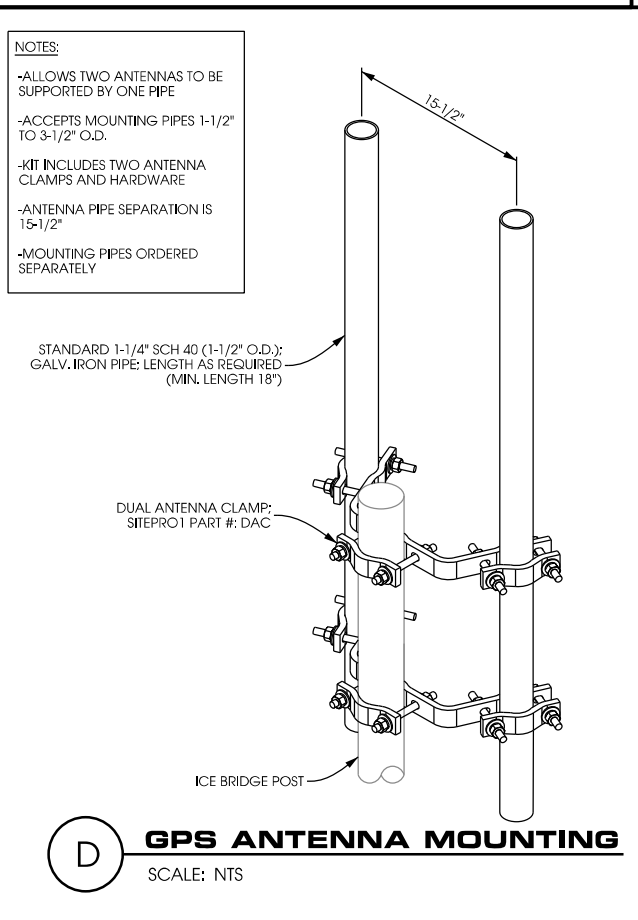
- ICE BRIDGE NOTES:**
1. EQUIVALENT PARTS AND COMPONENTS CAN BE UTILIZED IF THEY PROVIDE EQUIVALENT CAPACITY & FUNCTIONALITY. SUBSTITUTIONS MUST BE APPROVED BY THE OWNER AND ENGINEER.
 2. CONTRACTOR TO CONSULT & FOLLOW ALL MANUFACTURER DESIGN & INSTALLATION GUIDELINES.
 3. MAXIMUM ALLOWABLE SPAN BETWEEN 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.



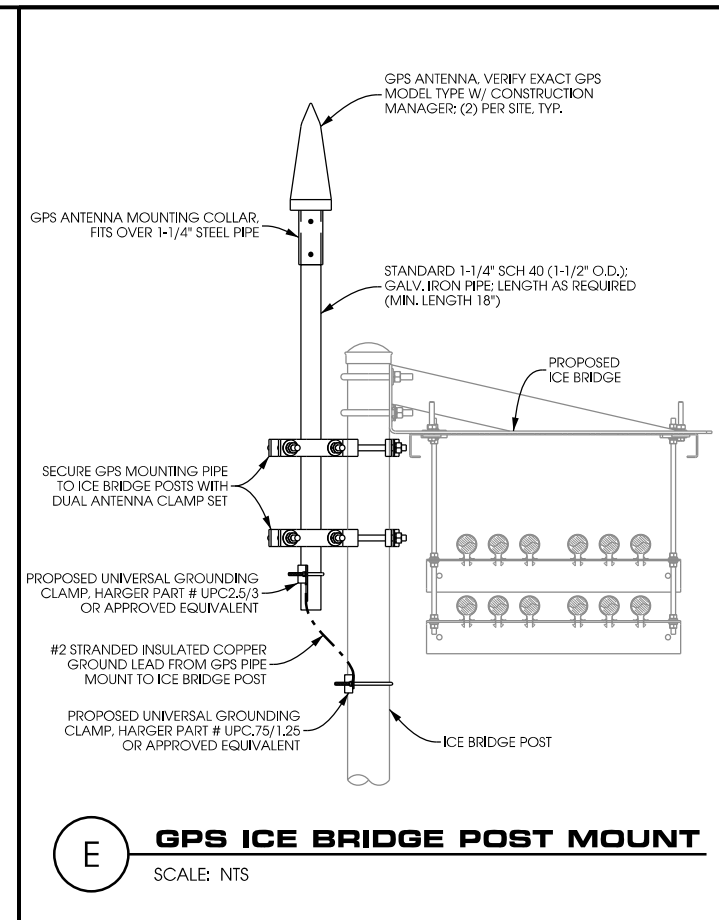
B ICE BRIDGE DETAIL
SCALE: NTS



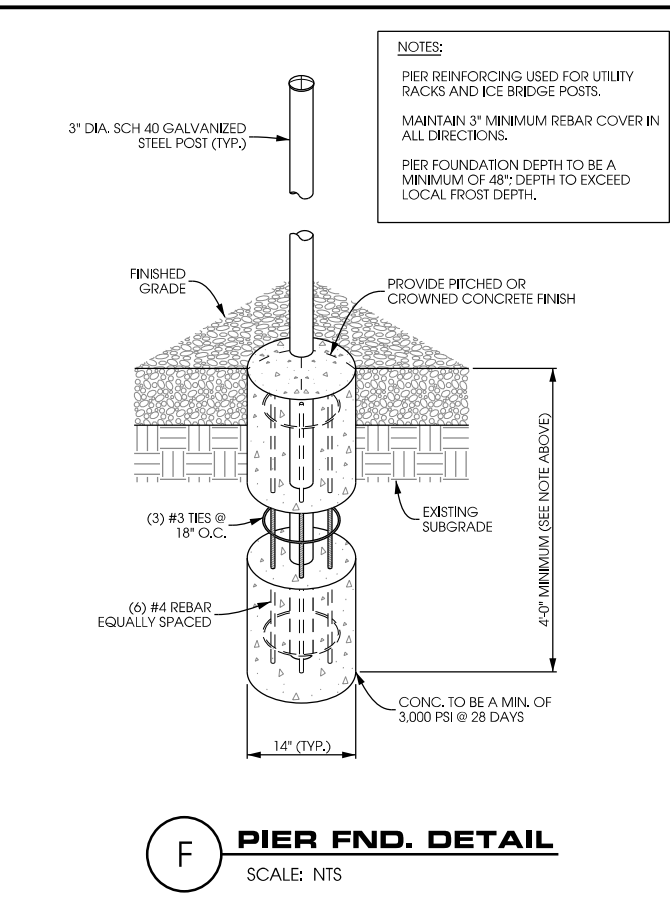
C GPS ANTENNA
SCALE: NTS



D GPS ANTENNA MOUNTING
SCALE: NTS



E GPS ICE BRIDGE POST MOUNT
SCALE: NTS



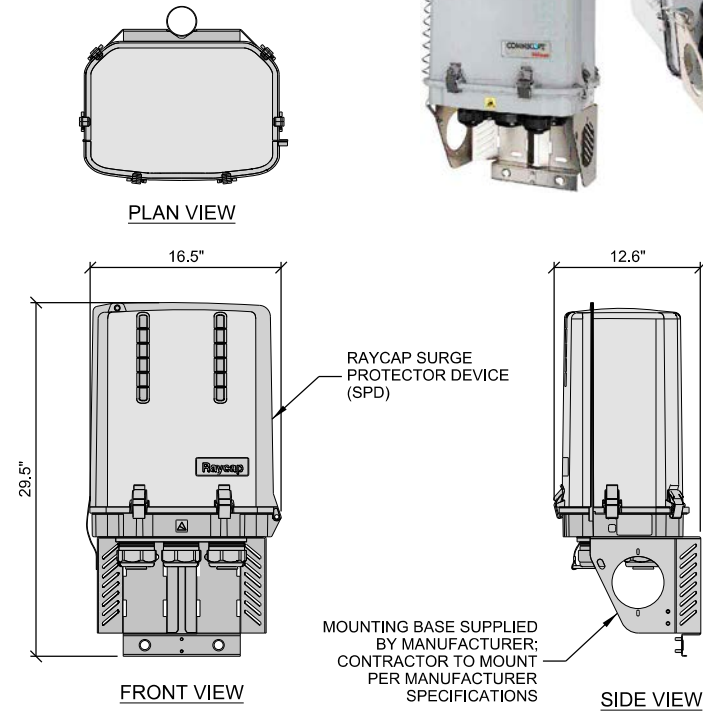
F PIER FND. DETAIL
SCALE: NTS

ICE BRIDGE DETAILS
NORTH FITCHBURG [266596]
FITCHBURG, WISCONSIN

SHEET TITLE:

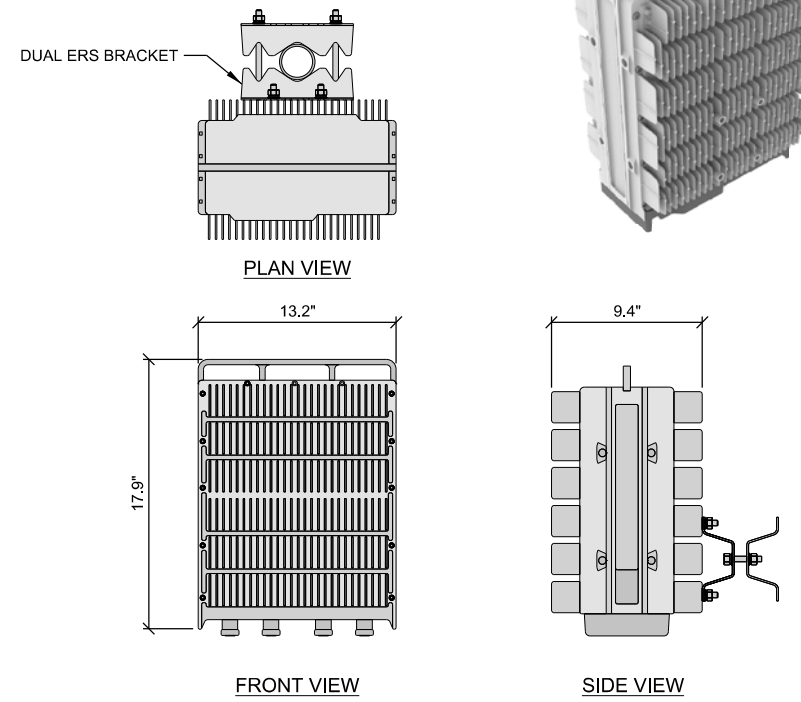
PRELIMINARY DWGS:	INI:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN
CHECKED BY:	
PCM	
PLOT DATE:	9/21/2021
PROJECT #: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

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



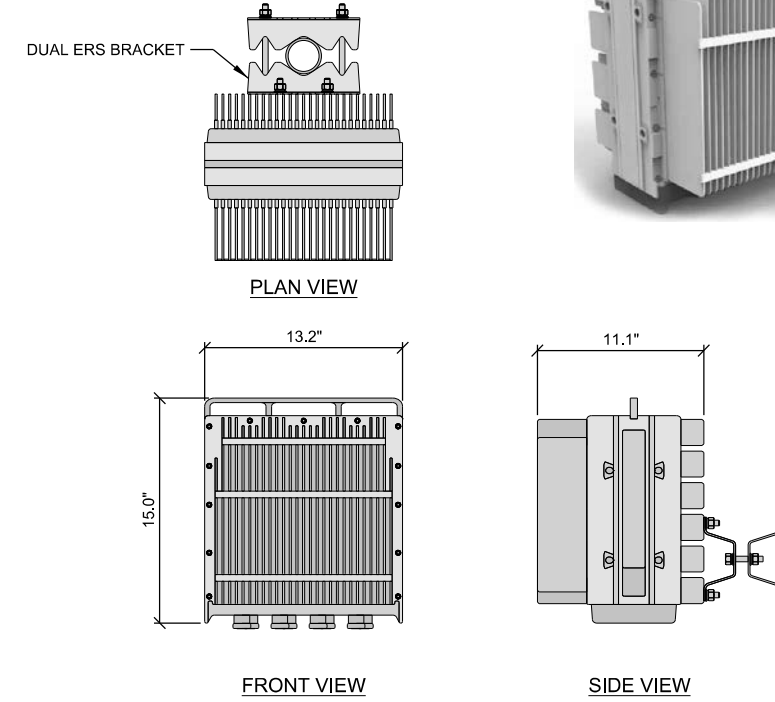
A RAYCAP SURGE PROTECTOR DEVICE (SPD)

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



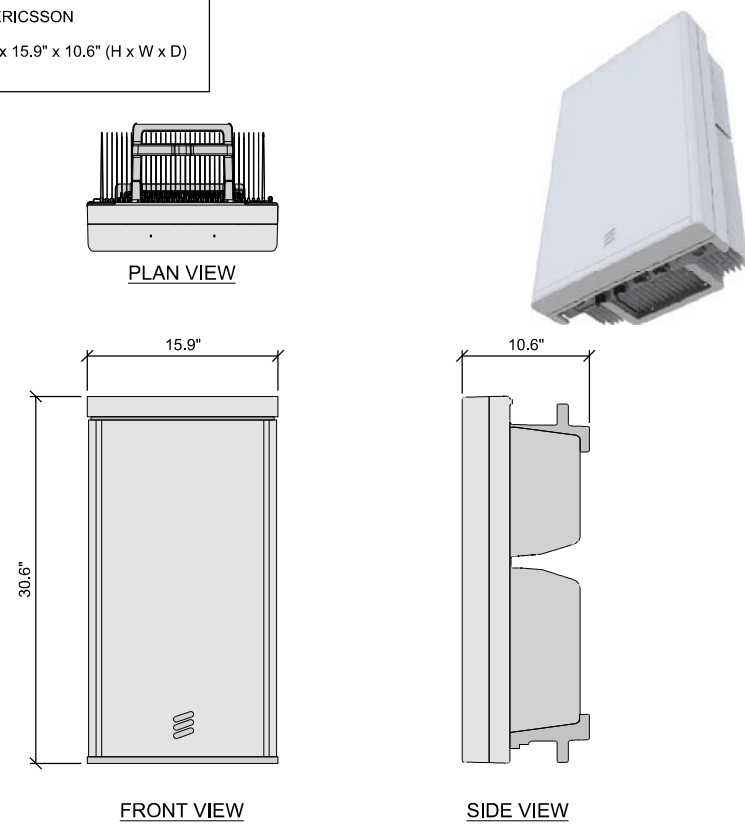
B ERICSSON RADIO 4449

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



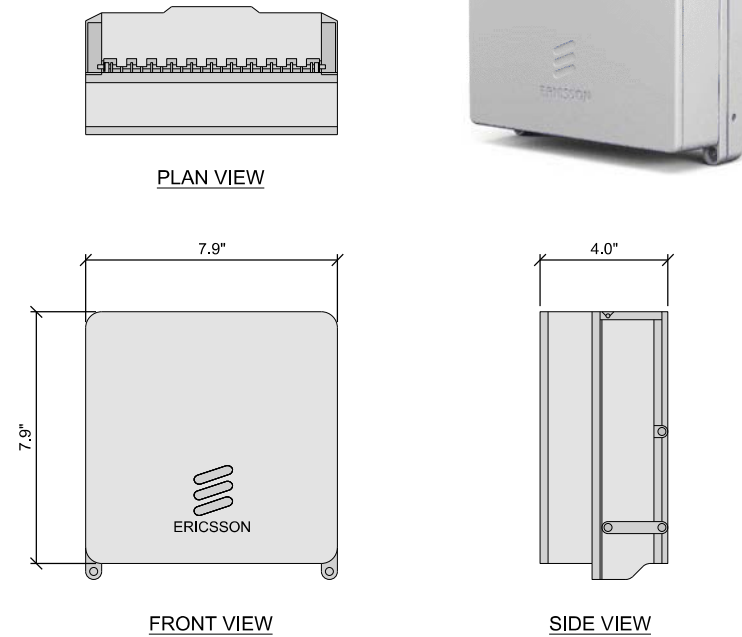
C ERICSSON RADIO 8843

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.



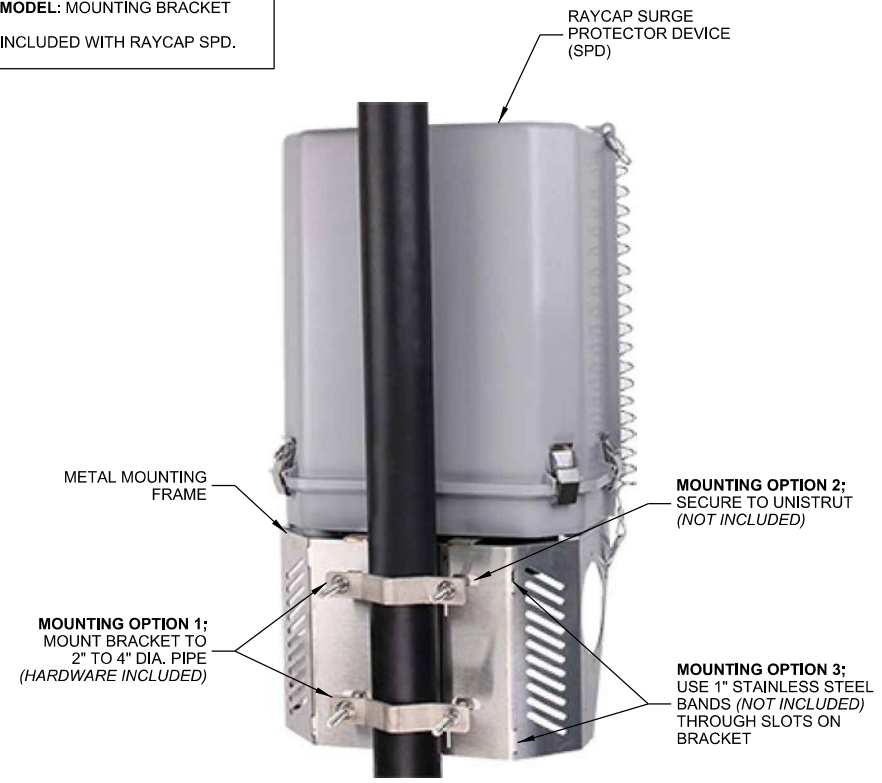
E ERICSSON RADIO 4408

THIS SPACE INTENTIONALLY LEFT BLANK

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-5.dgn	
SHEET NUMBER:	

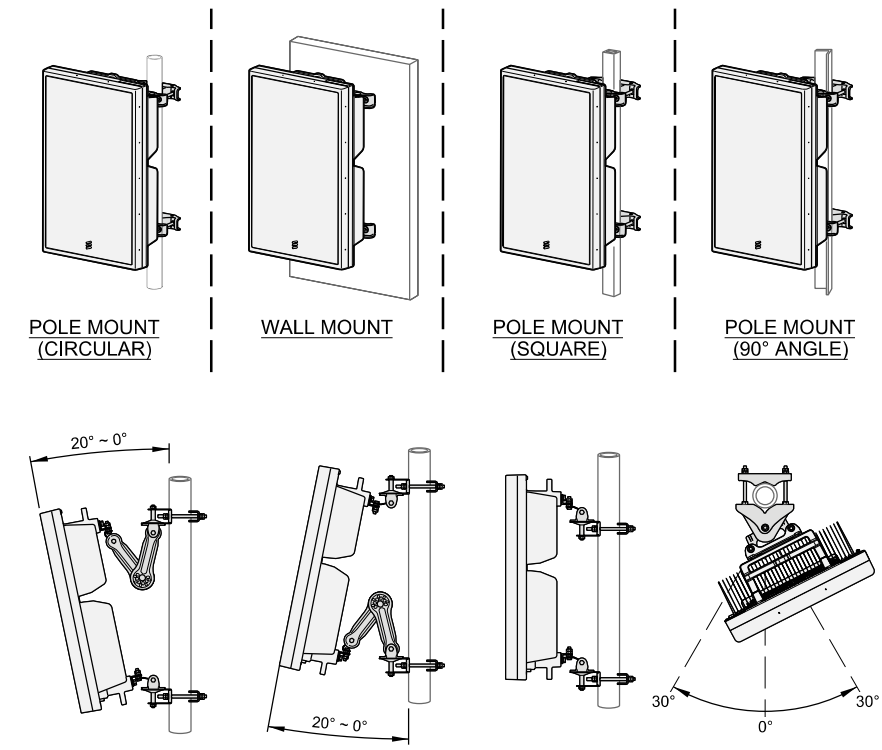
MANUFACTURER: RAYCAP
MODEL: MOUNTING BRACKET
 INCLUDED WITH RAYCAP SPD.



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"

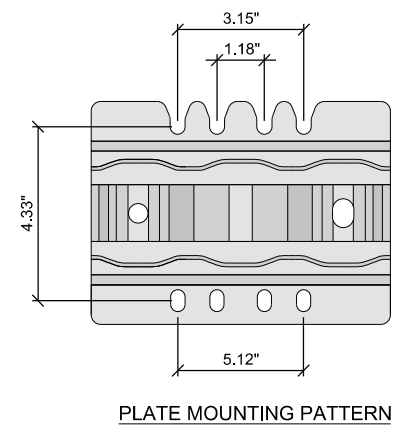


B ERICSSON SWIVEL MOUNT KIT

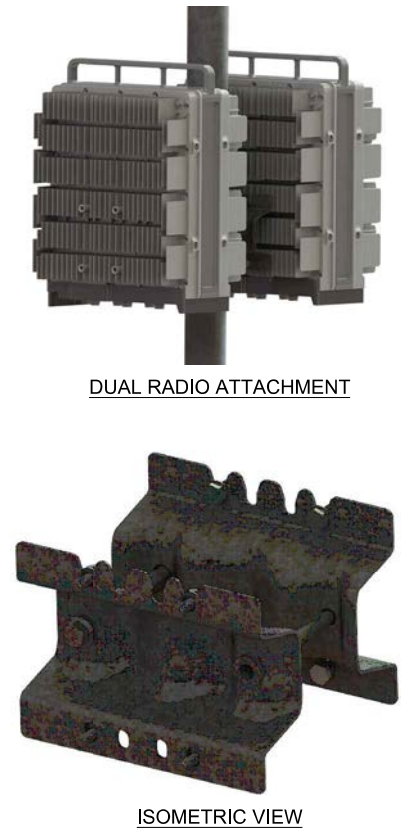
MANUFACTURER: ERICSSON
MODEL: SXK 109 1973/2
WEIGHT: 3.75 LBS

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.



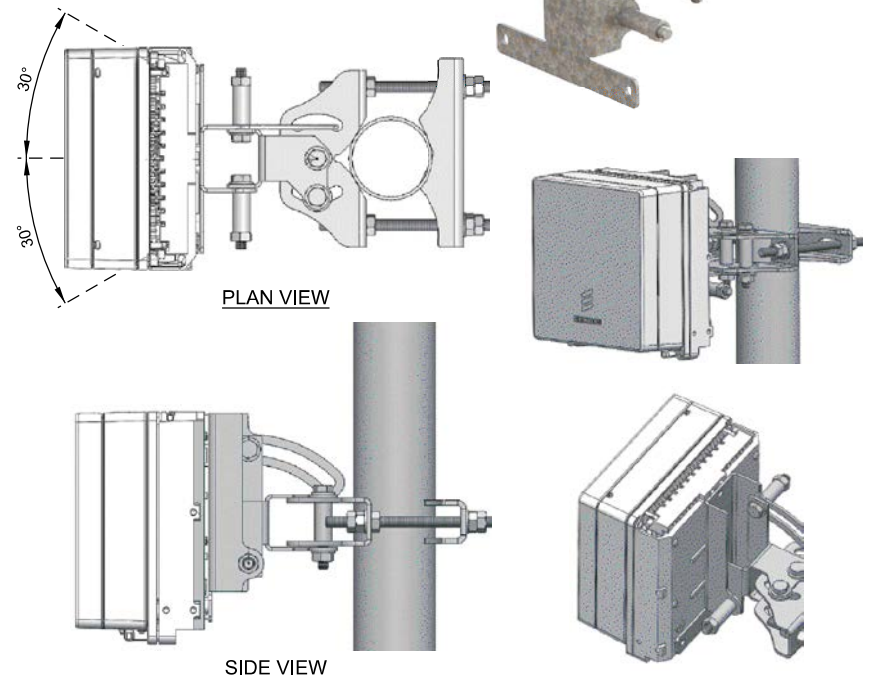
C DUAL ERS BRACKET



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



D MICRO ERS TILT BRACKET

THIS SPACE INTENTIONALLY LEFT BLANK

SHEET TITLE:

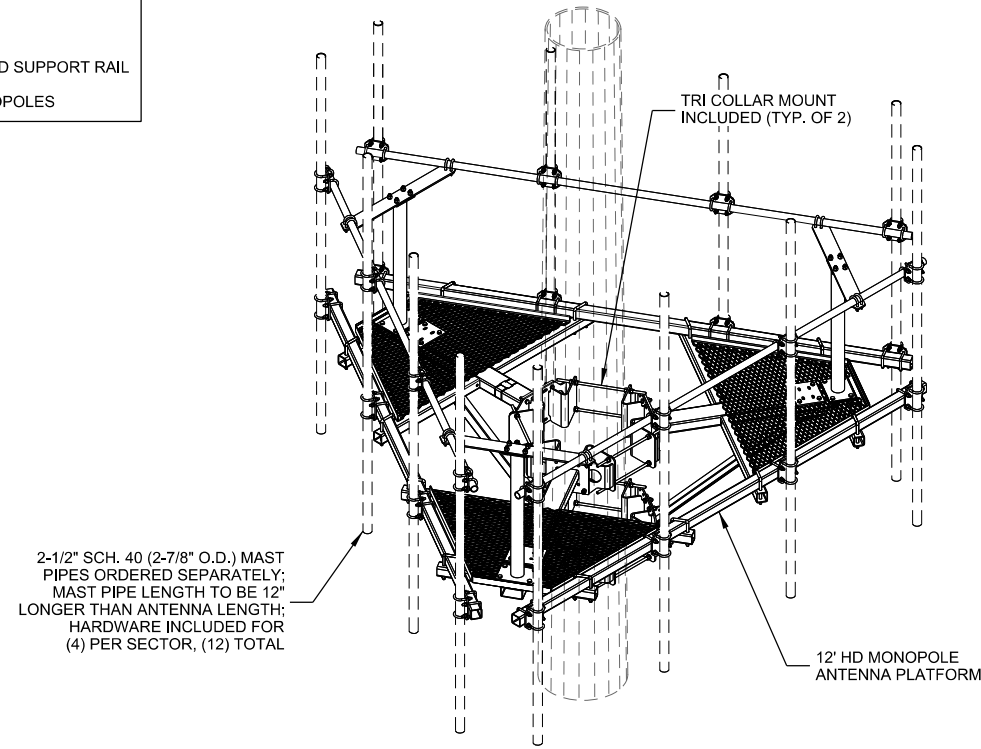
PRELIMINARY DWGS:	INI:
SITE SKETCH V.1 - 04/08/2019	CV
PRELIM. 90'S V.1 - 09/27/2019	JAH
PRELIM. 90'S V.2 - 12/09/2019	JAH
STAMPED PERMIT DWGS:	
STAMPED FINAL DWGS:	
CD 100 (PENDING FO) - 8/4/21	CV
CD 100'S V.1 - 9/20/21	BJN
CD 100'S V.2 - 9/21/21	BJN
CHECKED BY:	
PCM	
PLOT DATE:	
9/21/2021	
PROJECT #:	
22243	
FILE NAME:	
VZW A-6.dgn	
SHEET NUMBER:	

I:\22200\22243\CAD\CD\Plot\VZW A-6.dgn

MANUFACTURER: SABRE
 MODEL: C10-855-667C
 12' HD PLATFORM & ENHANCED SUPPORT RAIL
 FITS 10" DIA. TO 40" DIA. MONOPOLES

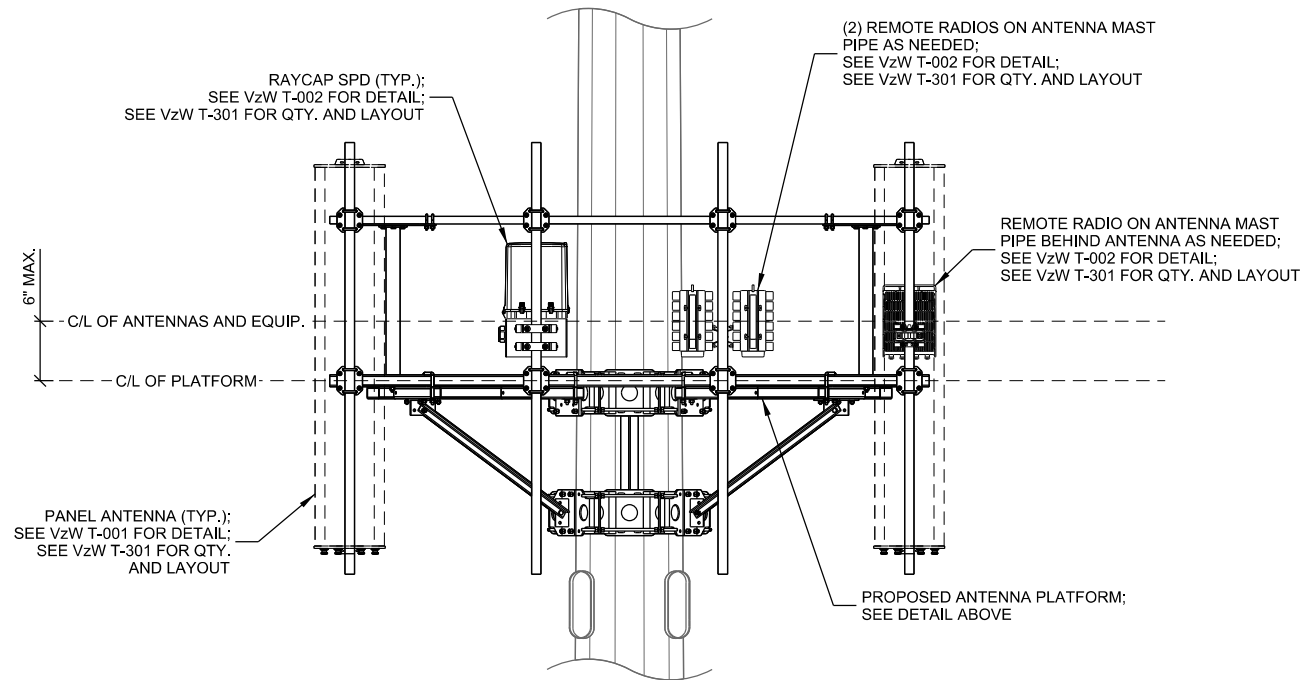
MOUNT CLASSIFICATION

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



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".



**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



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.)

EXISTING CONCRETE
RETAINING WALL

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

VZW CONTRACTOR TO INSTALL
(1) PROPOSED 3" DIA. SCH. 40 PVC ELECTRICAL
CONDUIT W/ (3) 4/0 UNDERGROUND & (1)
#2 GROUND SECONDARY ELECTRIC SERVICE
42" BELOW GRADE (MIN.); APPROX. 125'
FROM UTILITY RACK TO ILC

VZW CONTRACTOR TO INSTALL (2) 4" DIA. SCH. 40 PVC
CONDUITS W/ (2) 1-1/4" INNER DUCTS FOR FIBER OPTIC LINE
APPROX. 120'± FROM PROPOSED VAULT TO CHARLES CABINET

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

PRO. CHARLES CUBE

PROPOSED VZW GPS ANTENNAS
MOUNTED TO ICE BRIDGE POST

PRO. ILC

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

PROPOSED VZW BURIED
GENERATOR CONDUITS TO BE
INSTALLED BY VZW
CONTRACTOR; SEE PAGE
VZW E-2 FOR DETAILS

PROPOSED DIESEL
GENERATOR ON
4' x 10' PAD

EXISTING ACCESS DOOR

FUTURE CARRIER
LEASE AREA

UTILITY PLAN
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

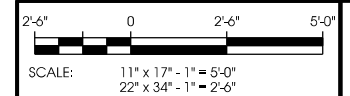
STAMPED PERMIT DWGS:

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



R:\22200\22243\CAD\CD\Plot\VZW E-1.dgn

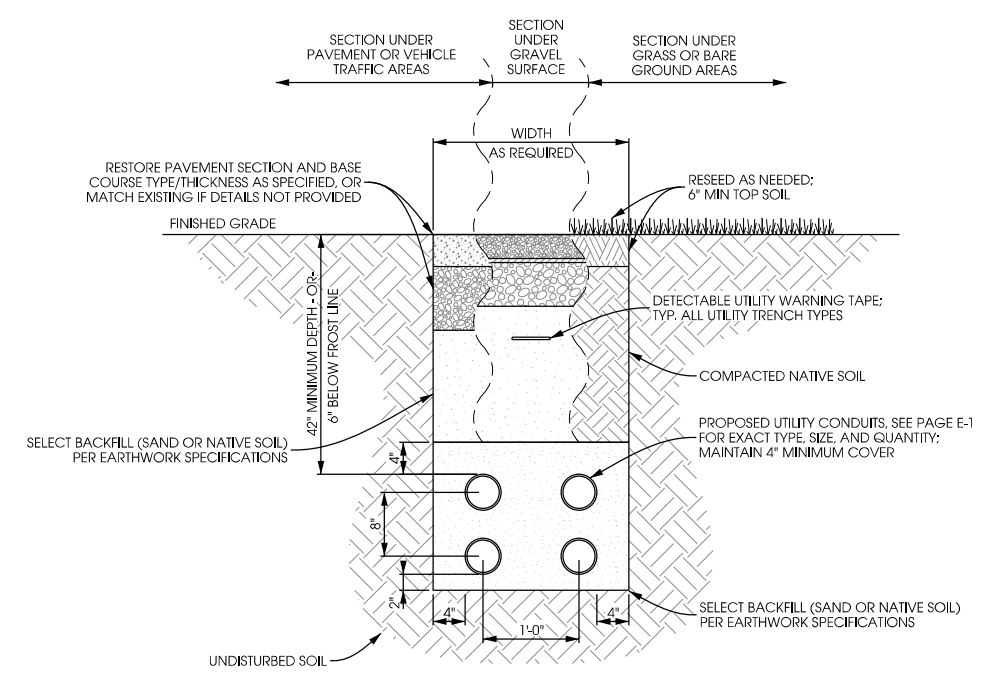
SHEET TITLE:

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

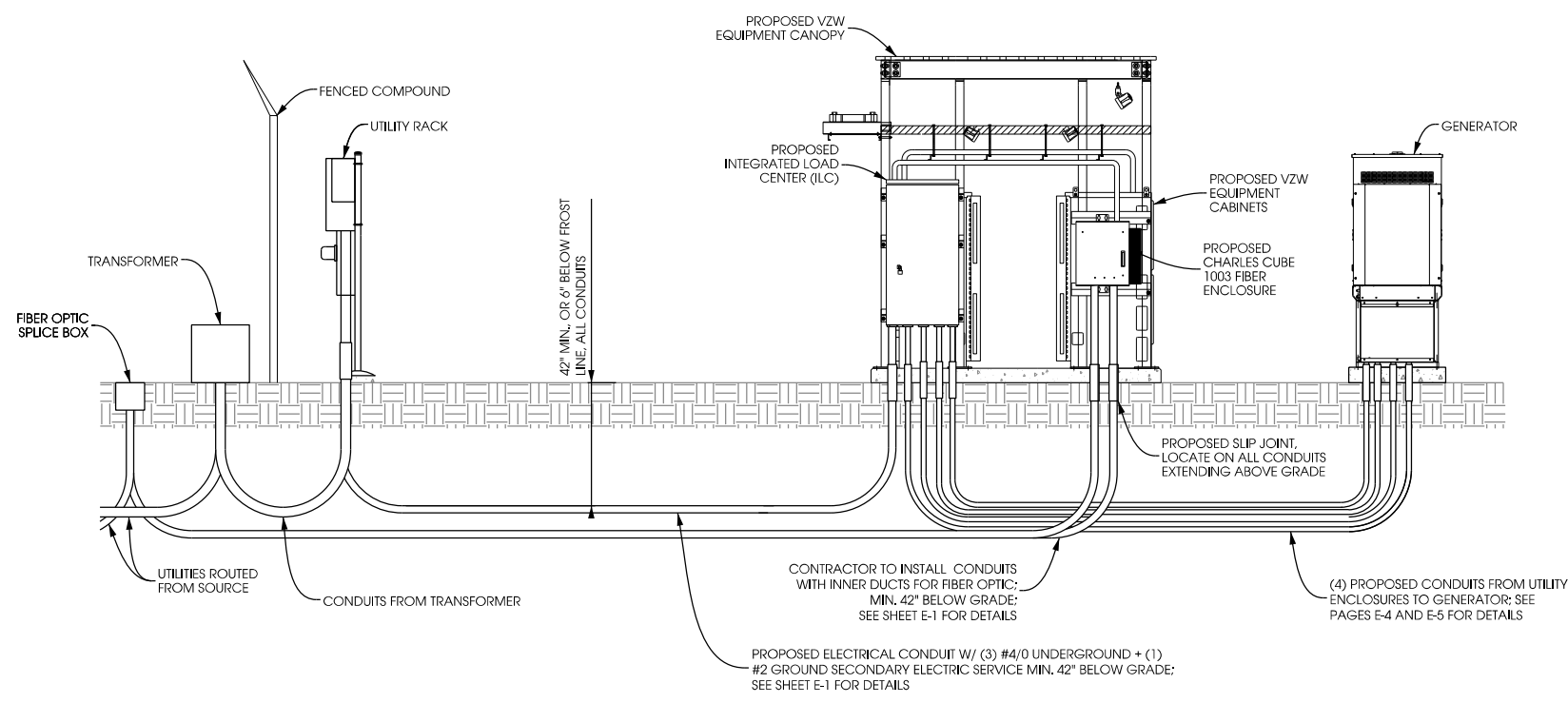
CHECKED BY:
 PCM
 PLOT DATE:
 9/21/2021
 PROJECT #:
 22243
 FILE NAME:
 VZW E-2.dgn

SHEET NUMBER:
VZW E-2

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.

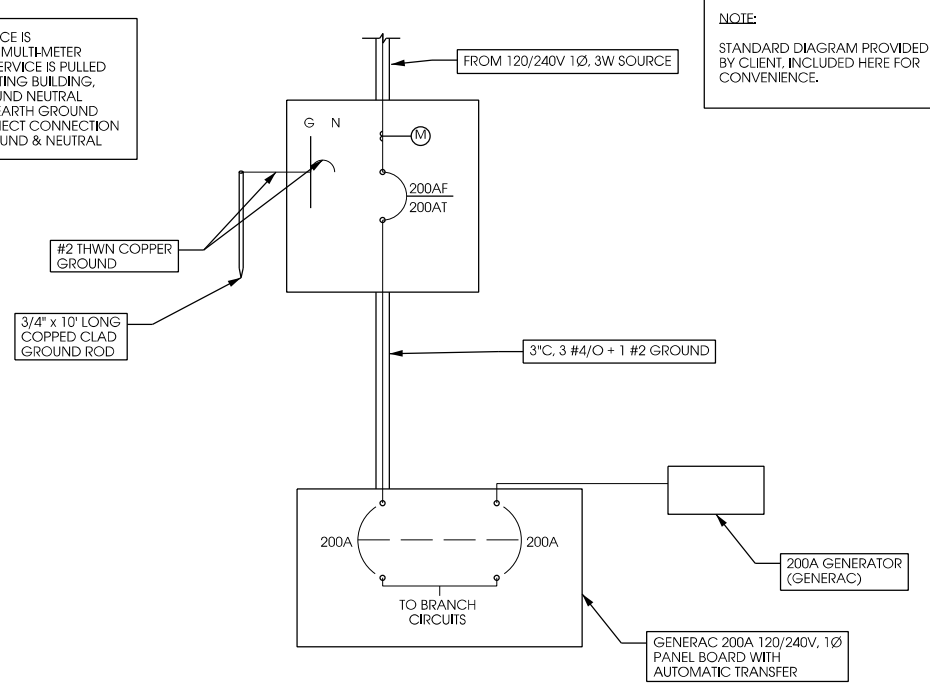


B UTILITY TRENCH DETAIL
 SCALE: NTS

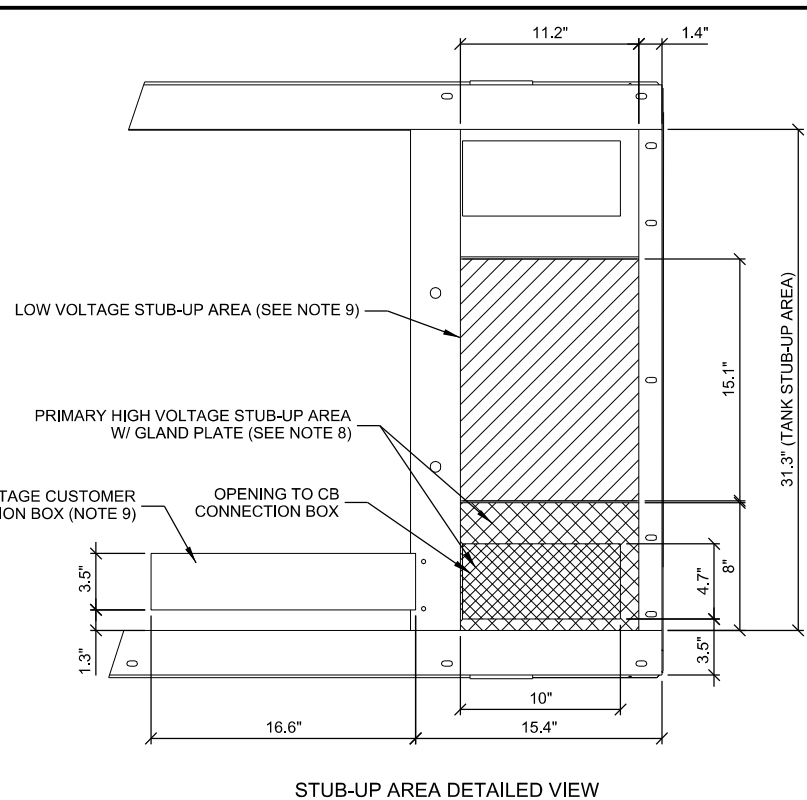
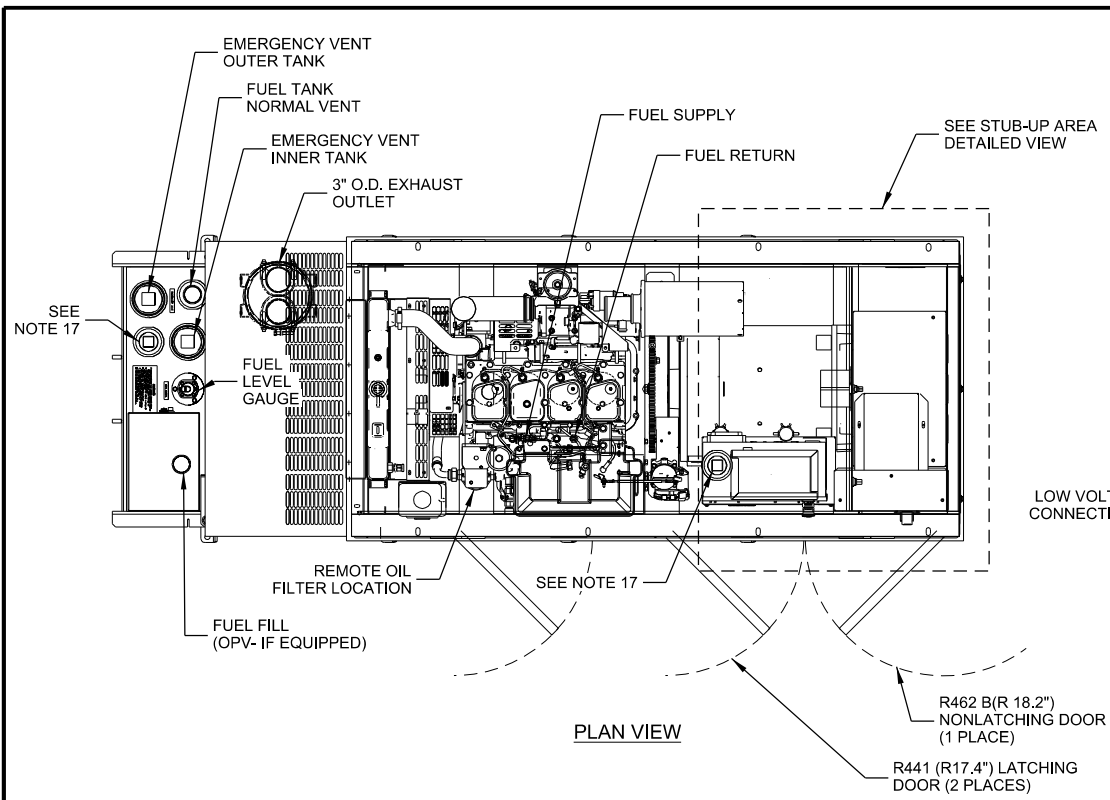


A ELECTRICAL RISER DETAIL (TYPICAL)
 SCALE: NTS

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



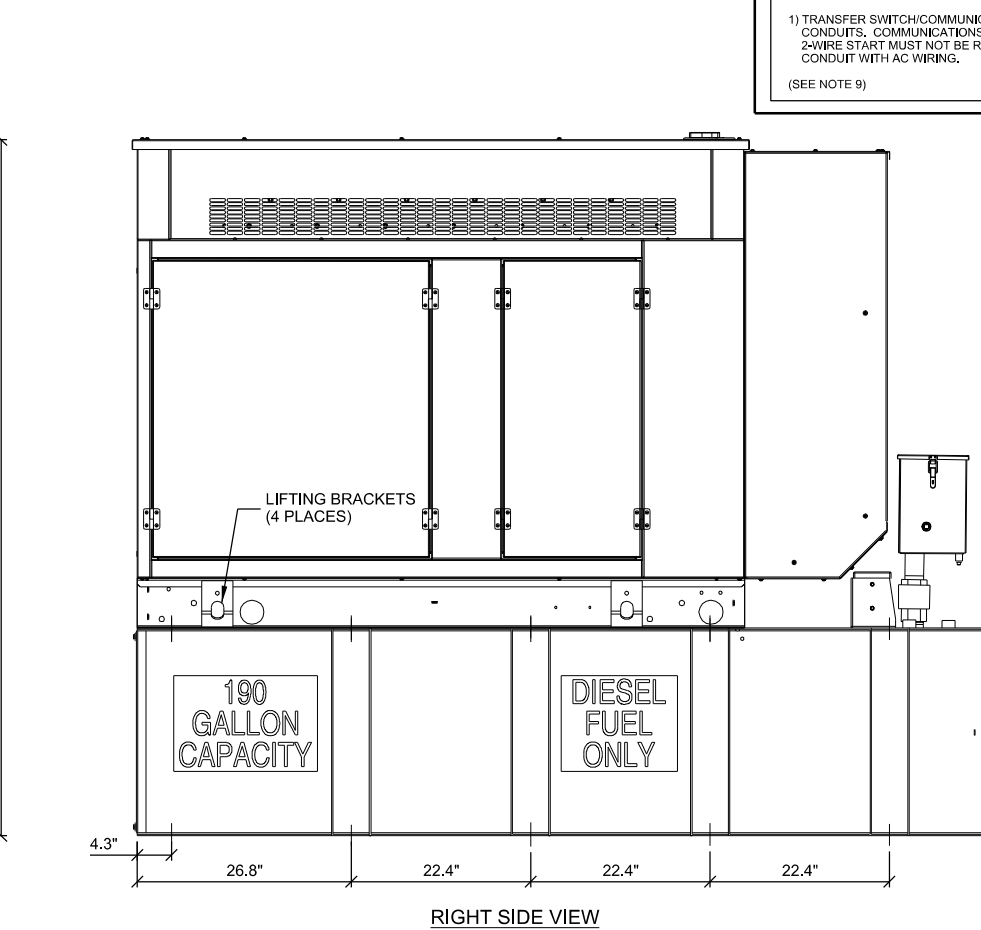
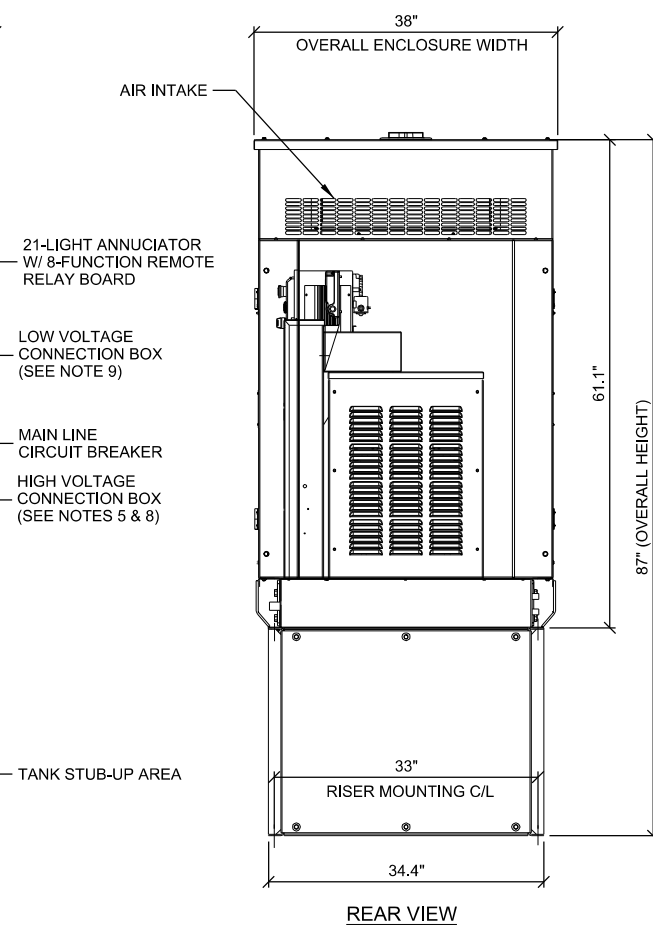
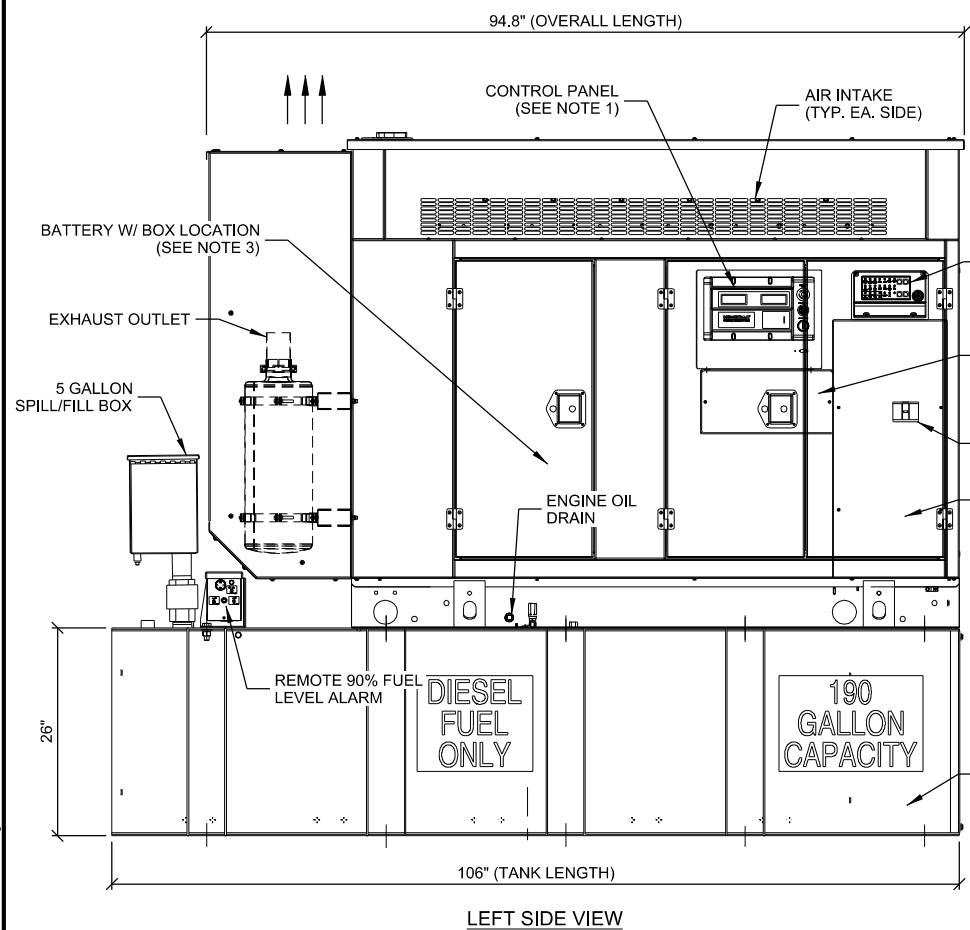
C ELECTRIC LINE DIAGRAM & NOTES
 SCALE: NTS



- NOTES:
- CONTROL PANEL W/ BATTERY CHARGER. THREE PRONG CORD COMING OUT OF CONTROL PANEL IS FOR THE BATTERY CHARGER
 - 1500W 120VAC ENGINE BLOCK HEATER WITH CORD.
 - 12 VOLT NEGATIVE GROUND SYSTEM
 - OPTIONAL REMOTE EMERGENCY STOP SHIPPED LOOSE WITH GENERATOR
 - GENERATOR MUST BE GROUNDED
 - CENTER OF GRAVITY & WEIGHT MAY SHIFT SLIGHTLY DUE TO UNIT OPTIONS.
 - STUB-UPS: BASE TANK REQUIRES ALL STUB-UPS TO BE IN THE REAR TANK STUB-UP AREA.
 - 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.
 - CONNECTION POINTS FOR CONTROL WIRES. BOTTOM OF LOW VOLTAGE CUSTOMER CONNECTION BOX HAS KNOCKOUTS FOR 1/2" AND 3/4" CONDUIT FITTINGS.
 - MUST ALLOW FREE FLOW OF DISCHARGE AIR AND EXHAUST. SEE SPEC SHEET FOR MINIMUM AIR FLOW AND MAXIMUM RESTRICTION REQUIREMENTS.
 - MUST ALLOW FREE FLOW OF INTAKE AIR. SEE SPEC SHEET FOR MINIMUM AIR FLOW AND MAXIMUM RESTRICTION REQUIREMENTS.
 - ENCLOSED SETS- GENERATOR SET MUST BE INSTALLED SUCH THAT DISCHARGE AIR IS NOT RECIRCULATED.
 - IT IS THE RESPONSIBILITY OF THE INSTALLATION TECHNICIAN TO ENSURE THAT THE GENERATOR INSTALLATION COMPLIES WITH ALL APPLICABLE CODES, STANDARDS, AND REGULATION
 - 190 GALLON USEABLE CAPACITY BASE TANK.
 - 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.
 - SEE DRAWINGS 0C3850 FOR DUCT REMOVAL. REMOVAL OF FRONT DUCT WILL PROVIDE ACCESS TO MUFFLER FOR SERVICING.
 - 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)	[Cross-hatched pattern]
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)	[Diagonal line pattern]



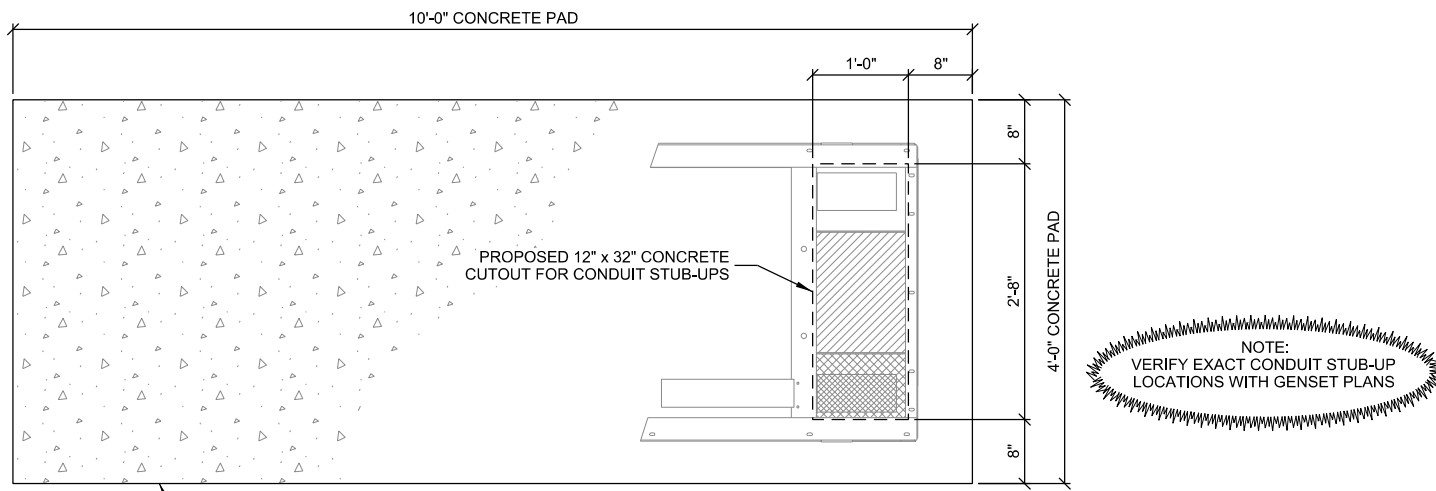
A SD050 50KW 4.5L GENERAC DIESEL GENERATOR

WEIGHT DATA (INCLUDES WOODEN SHIPPING SKID):
 ENCLOSED GENERATOR WITH EMPTY FUEL TANK: 1511 KG (3331 LBS)

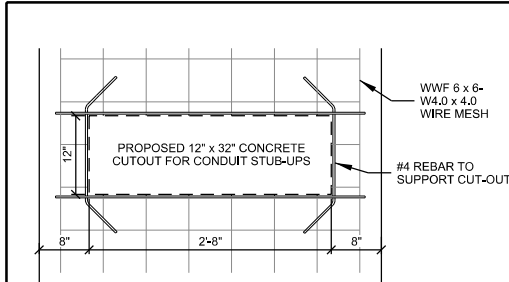
**GENERATOR DETAILS
 NORTH FITCHBURG [266596]
 FITCHBURG, WISCONSIN**

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 E-3.dgn	
SHEET NUMBER:	
VZW E-3	

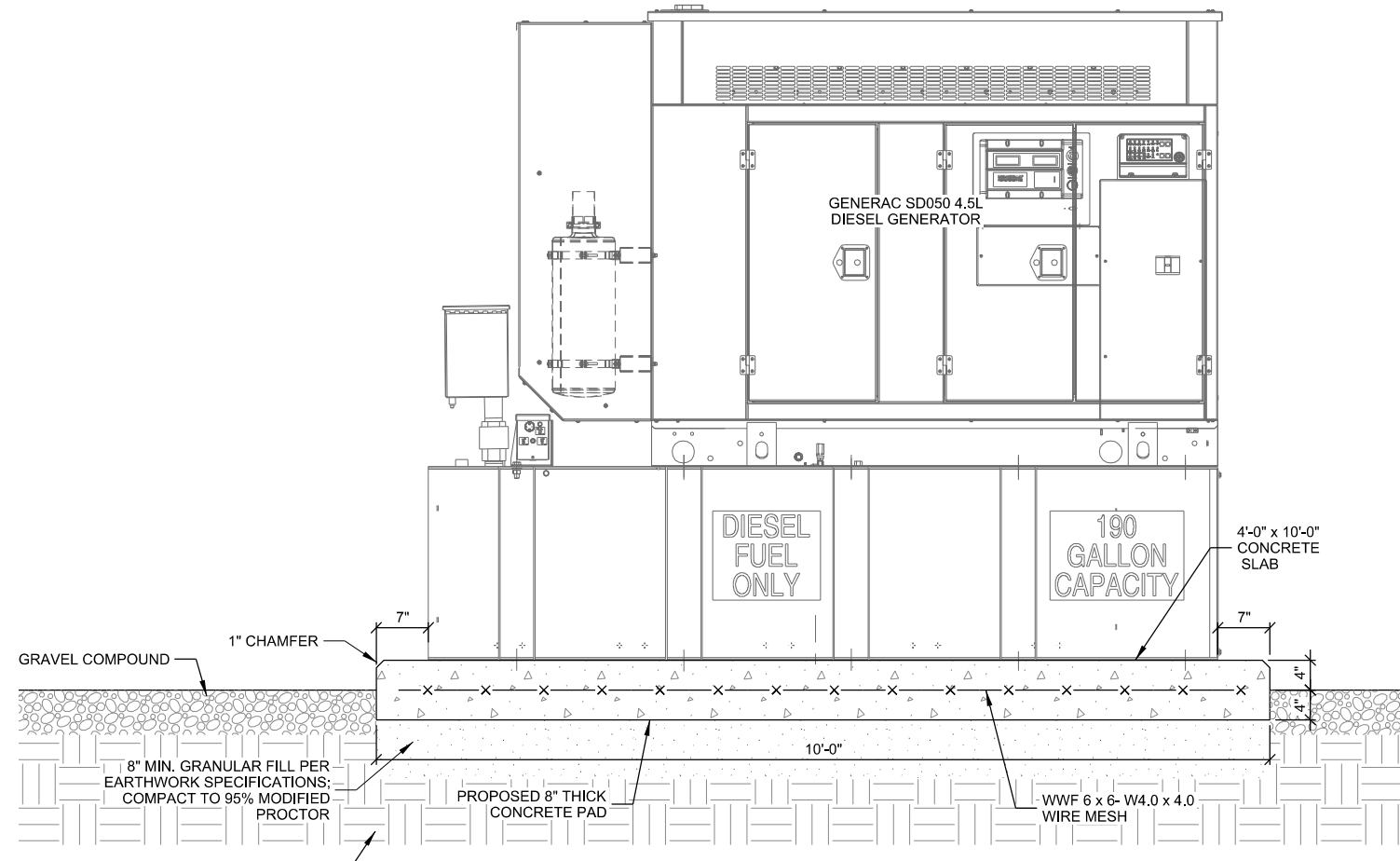


NOTE:
VERIFY EXACT CONDUIT STUB-UP
LOCATIONS WITH GENSET PLANS

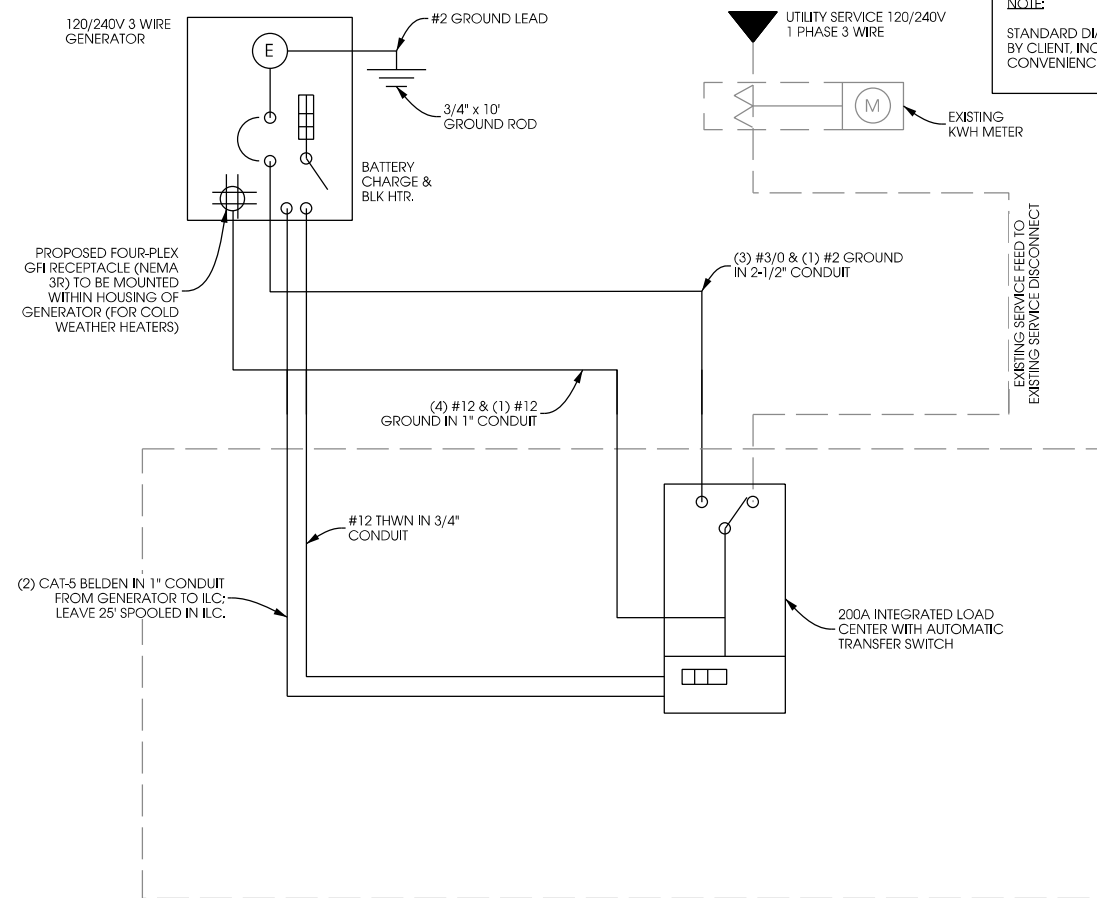


STUB-UP REINFORCEMENT

A GENERAC DIESEL GENERATOR FOUNDATION LAYOUT



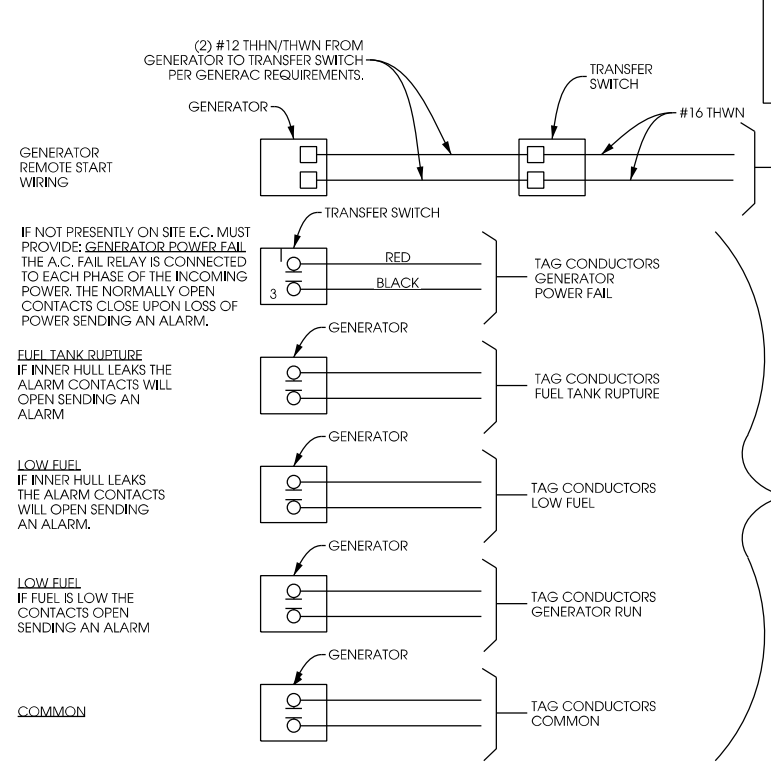
B GENERAC DIESEL GENERATOR FOUNDATION DETAIL



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

C GENERATOR SINGLE LINE DIAGRAM

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

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 E-4.dgn
SHEET NUMBER:	

GROUNDING PLAN
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 G-1.dgn
SHEET NUMBER:	VZW G-1

LEGEND

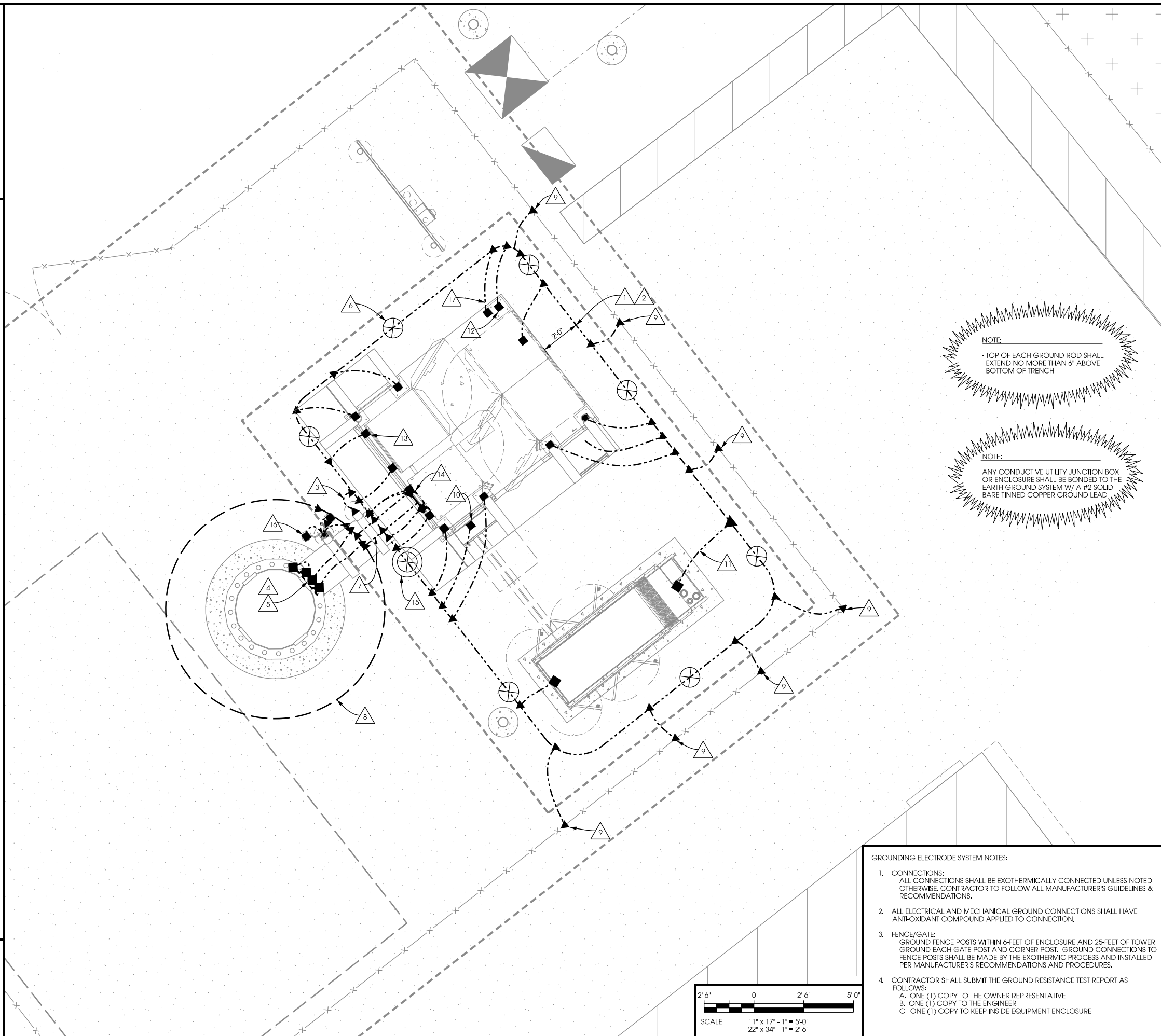
-  INSPECTION WELL
-  5/8" DIA. x 10'-0" LONG, STEEL CLAD W/ A PURE COPPER JACKET (10' MAX SEPARATION)
-  EXOTHERMIC CONNECTION (CADWELD OR EQUIVALENT)
-  MECHANICAL CONNECTION (BURNDY OR EQUIVALENT)
-  #2 SOLID BARE TINNED COPPER GROUND LEAD
-  18" X 18" X .032" THK COPPER PLATE (10' MAX SEPARATION)

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, NON-INSULATED 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:

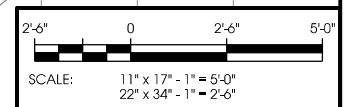
- THE GROUNDING SHALL BE TESTED PRIOR TO FINAL BACKFILLING. DOCUMENTATION OF 5 OHM OR LESS RESISTANCE TO BE PROVIDED TO PROJECT MANAGER.
- ALL NON-INSULATED GROUND LEADS EXTENDING ABOVE GROUND LEVEL SHALL BE ENCASED IN 3/4" PVC & SEALED WITH SILICONE. PVC SHALL BE MIN. 16" INTO EARTH & EXTEND MIN. 6" 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.



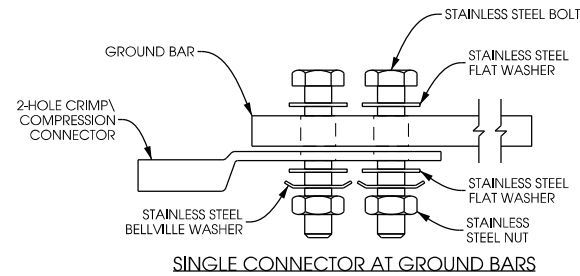
NOTE:
 - TOP OF EACH GROUND ROD SHALL EXTEND NO MORE THAN 6" ABOVE BOTTOM OF TRENCH

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

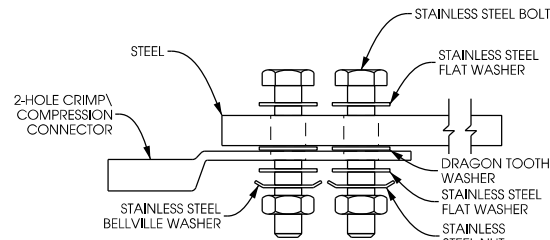
- GROUNDING ELECTRODE SYSTEM NOTES:**
1. CONNECTIONS: ALL CONNECTIONS SHALL BE EXOTHERMICALLY CONNECTED UNLESS NOTED OTHERWISE. CONTRACTOR TO FOLLOW ALL MANUFACTURER'S GUIDELINES & RECOMMENDATIONS.
 2. ALL ELECTRICAL AND MECHANICAL GROUND CONNECTIONS SHALL HAVE ANTI-OXIDANT COMPOUND APPLIED TO CONNECTION.
 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



R:\22200\22243\CAD\CDD\Plan\VZW G-1.dgn

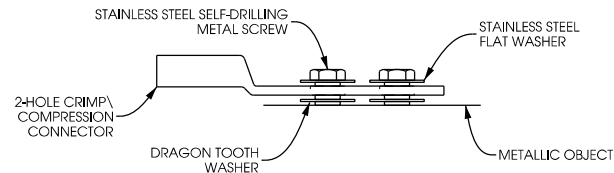


SINGLE CONNECTOR AT GROUND BARS



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 OXID) 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.

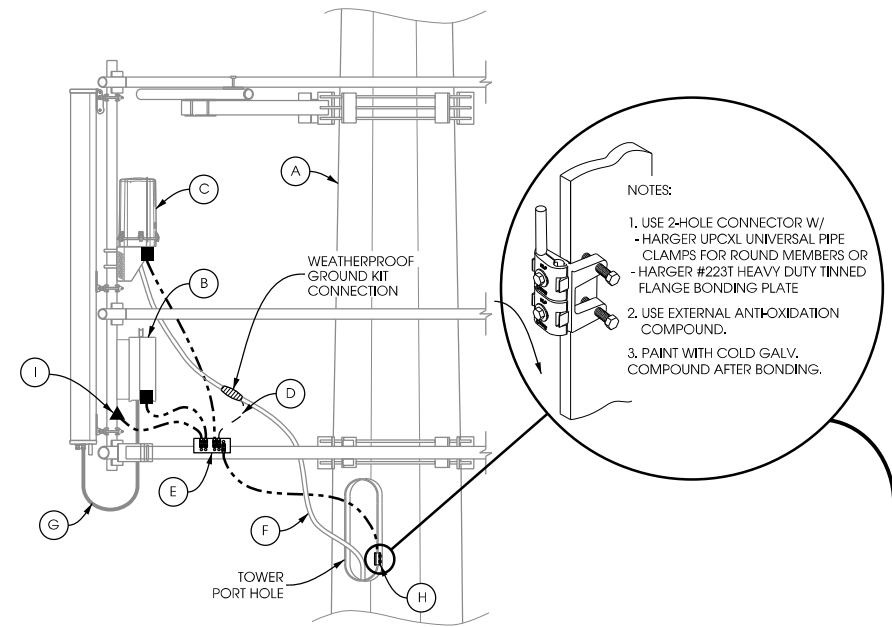


SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS

A LUG DETAIL
SCALE: NTS

KEYED GROUNDING NOTES:

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

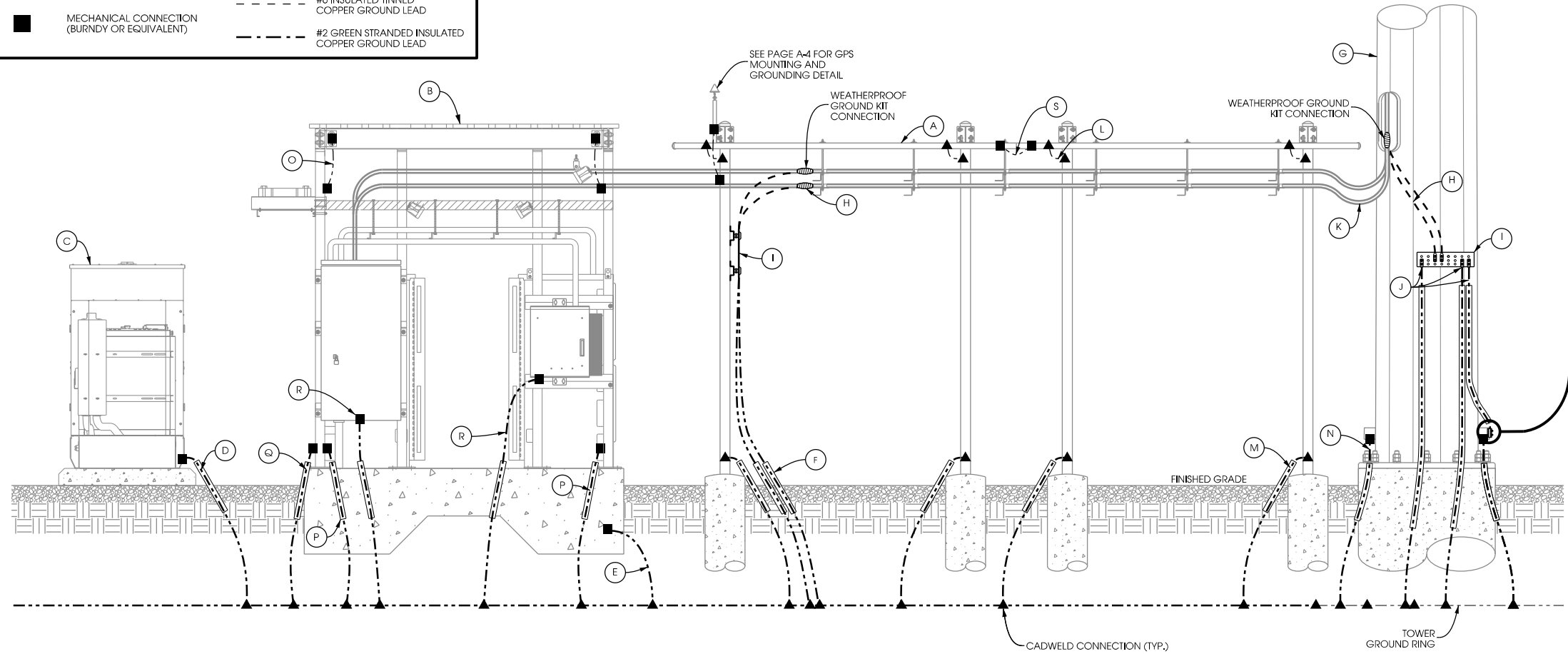
- NOTES:**
1. USE 2-HOLE CONNECTOR W/ - HARGER UPCXL UNIVERSAL PIPE CLAMPS FOR ROUND MEMBERS OR - HARGER #223T HEAVY DUTY TINNED FLANGE BONDING PLATE
 2. USE EXTERNAL ANTI-OXIDATION COMPOUND.
 3. PAINT WITH COLD GALV. COMPOUND AFTER BONDING.

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



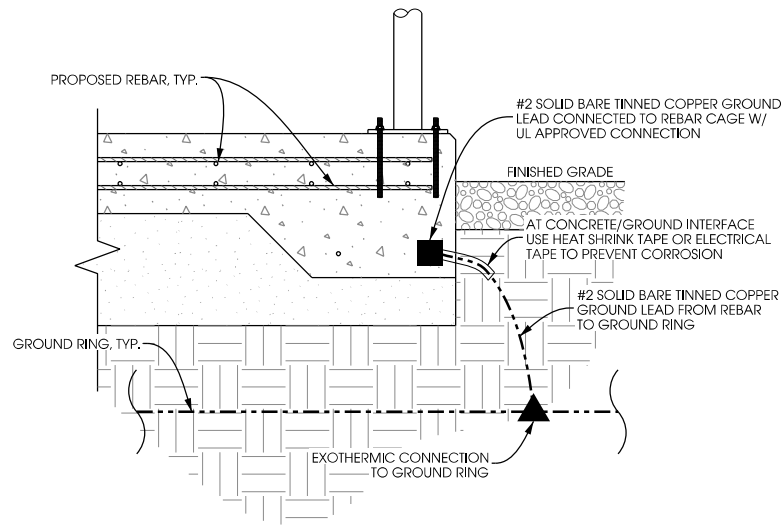
C GROUND LEVEL GROUNDING DETAILS
SCALE: NTS

GROUNDING DETAILS
NORTH FITCHBURG [266596]
FITCHBURG, WISCONSIN

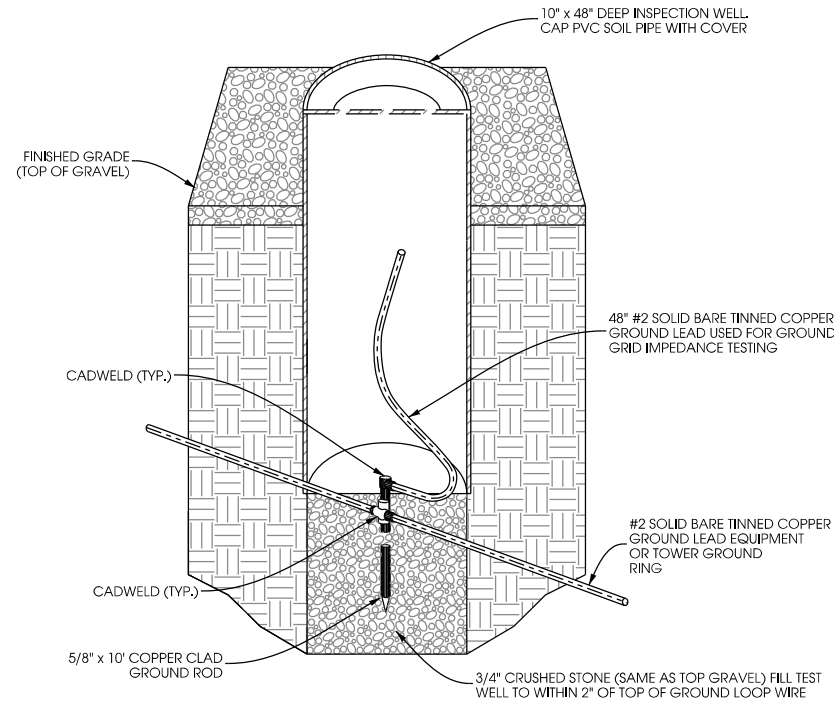
SHEET TITLE:

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

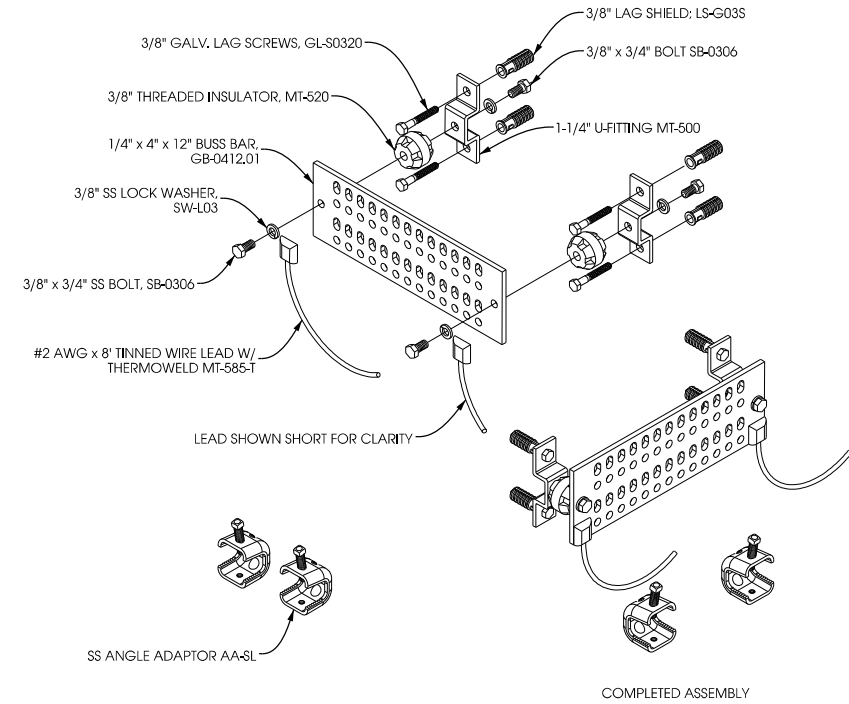
NOTES:
 - FOUNDATION GROUNDING PER NEC 250.52(3)(A)
 - FOUNDATION GROUNDING CONNECTIONS TO BE COVERED BY A MINIMUM OF 3" OF CONCRETE.
 - REBAR GROUNDING SHALL BE MADE TO A MIN. 20' CONTINUOUS REBAR, IF POSSIBLE.



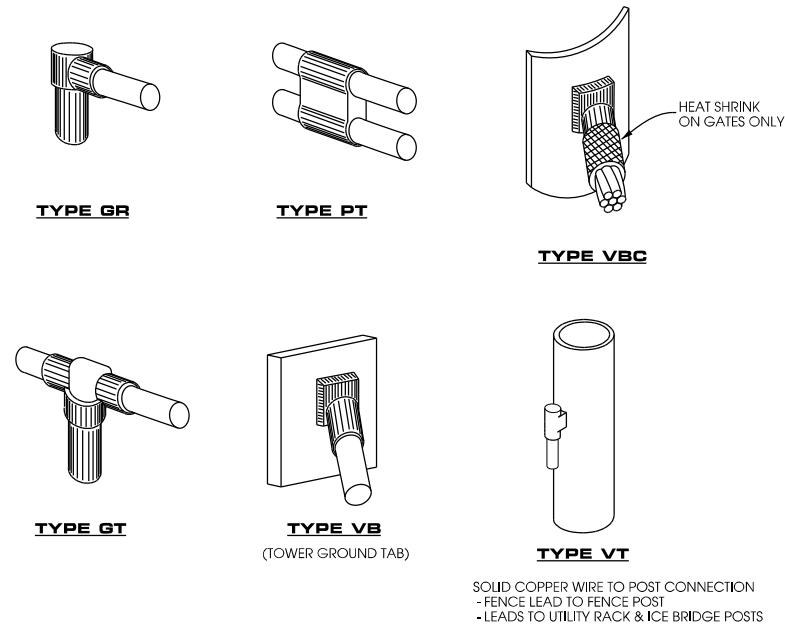
A FOUNDATION GROUNDING
 SCALE: NTS



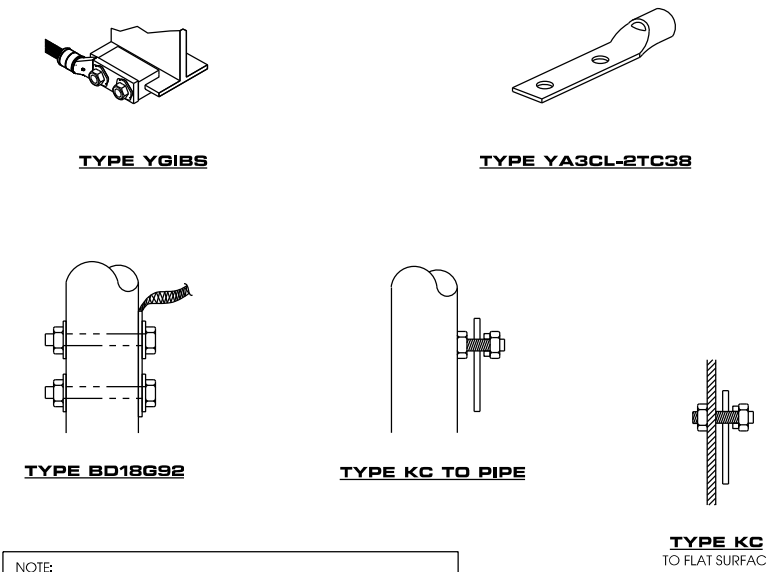
B INSPECTION WELL DETAIL
 SCALE: NTS



C GROUND AND BUSS BAR DETAIL
 SCALE: NTS

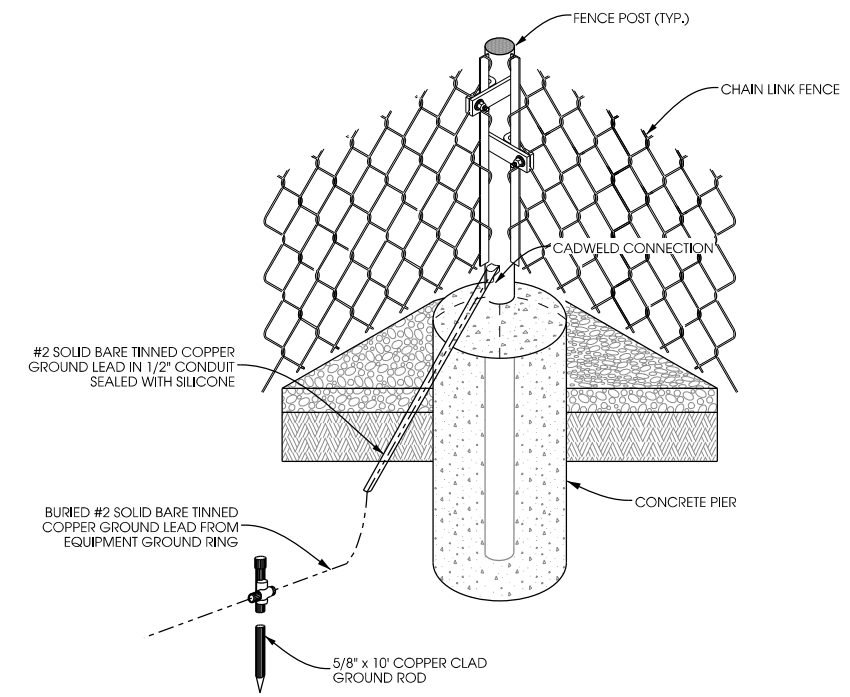


D CADWELD DETAILS
 SCALE: NTS



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

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 G-3.dgn	
SHEET NUMBER:	

R:222001,222433,CAD,CDD,Plot,VZW G-3.dgn