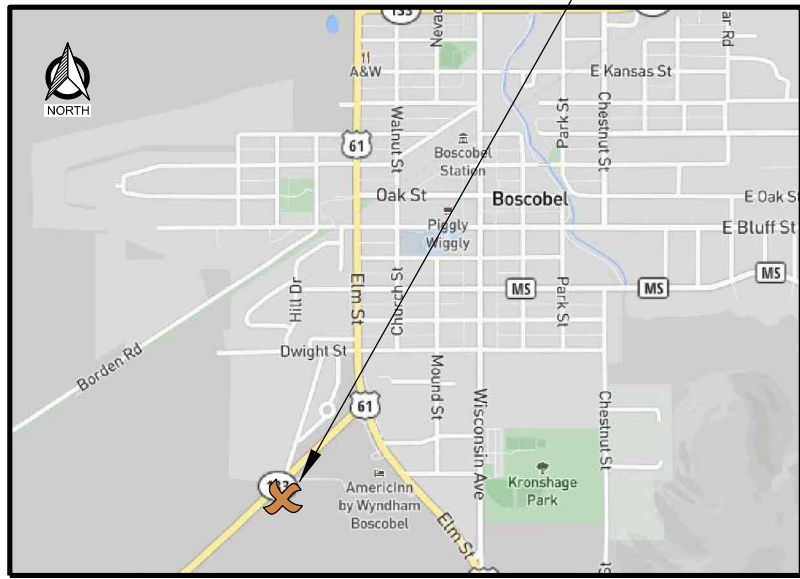


SITE LOCATION



**BOSCOBEL GF5 (31985)
BOSCOBEL, WISCONSIN
255' SELF-SUPPORT TOWER**

PROJECT DIRECTORY

ENGINEER:
EDGE CONSULTING ENGINEERS, INC.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
CONTACT: ARLEN OSTRENG, PE
PHONE: (608) 644-1449

OWNER
GRANT COUNTY
111 S. JEFFERSON ST.
LANCASTER, WI 53813-0529
CONTACT: SHERIFF NATE DRECKMAN
PHONE: (608) 723-2157

RADIO SYSTEM VENDOR:
RACOM CORPORATION
3190 CEDAR CROSS COURT
DUBUQUE, IA 52003
CONTACT: TANNER METZ
PHONE: (563) 583-2245

ELECTRICAL SERVICE PROVIDER:
BOSCOBEL MUNICIPAL UTILITIES
1006 WISCONSIN AVENUE
BOSCOBEL, WI 53805
PHONE: (608) 375-5030

PROJECT INFO

SITE ADDRESS:
700 STATE ROAD 133
BOSCOBEL, WI 53805

PROPERTY OWNER:
DAVID FLITCROFT
W6365 PIERCE ROAD
ELKHORN, WI 53121

TOWER OWNER:
GRANT COUNTY
111 S. JEFFERSON ST.
LANCASTER, WI 53813-0529

TOWER COORDINATES (PER 1-A CERTIFICATION):
LAT (NAD83/2011): 43°-07'-32.37" N (43.126658)
LONG (NAD83/2011): 90°-42'-50.21" W (-90.713947)
GROUND ELEVATION (NAVD 88): 685.7'
ASR NUMBER: TBD

PLSS INFORMATION
PART OF NW 1/4 OF THE SE 1/4
SECTION 34, T8N, R3W
CITY OF BOSCOBEL
GRANT COUNTY
WISCONSIN

PARCEL ID: 206-01336-0090

ZONING CLASSIFICATION: COMMERCIAL - HIGHWAY

SHEET INDEX

NO.:	SHEET TITLE
G-001	TITLE SHEET
1-2	* SITE SURVEY
C-101	OVERALL SITE PLAN
C-102	ENLARGED SITE PLAN
C-103	COMPOUND PLAN
C-104	GRADING AND EROSION CONTROL PLAN
C-501	SITE DETAILS
C-502	FENCE DETAILS
C-503	SHELTER FOUNDATION DETAILS
C-504	GENERATOR FUEL SYSTEM DETAILS
C-505	GRADING AND EROSION CONTROL DETAILS
A-101	SHELTER FLOOR PLAN
A-102	SHELTER CEILING PLAN
A-201	SHELTER ELEVATIONS: EXTERIOR
A-202	SHELTER ELEVATIONS: INTERIOR
T-201	TOWER LOADING / ELEVATION
T-501	TRANSMISSION LINE INSTALLATION DETAILS
T-502	ICE BRIDGE DETAILS
T-503	ANTENNA INSTALLATION DETAILS
E-101	GROUNDING PLAN
E-102	UTILITY PLAN
E-103	SHELTER GROUNDING PLAN
E-104	SHELTER ELECTRICAL PLAN
E-501	GROUNDING DETAILS
E-502	GROUNDING DETAILS
E-503	GROUNDING DETAILS
E-504	UTILITY DETAILS
E-505	UTILITY RACK DETAILS
	* BY OTHERS

CONSULTANT:

Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

RACOM
critical communications

**TITLE SHEET
BOSCOBEL GF5 (31985)
BOSCOBEL, WISCONSIN**

SUBMITTAL:

INT.	DATE:	DESCRIPTION:

CHECKED BY:	AJO
PLOT DATE:	6/20/2022
PROJECT NUMBER:	31985
SET TYPE:	BD
SHEET NUMBER:	G-001



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

TOLL FREE: 1-800-242-8511
FAX A LOCATE: 1-800-242-5811

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

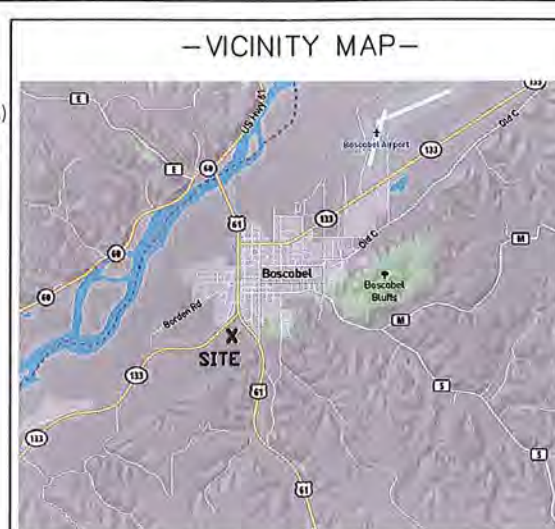
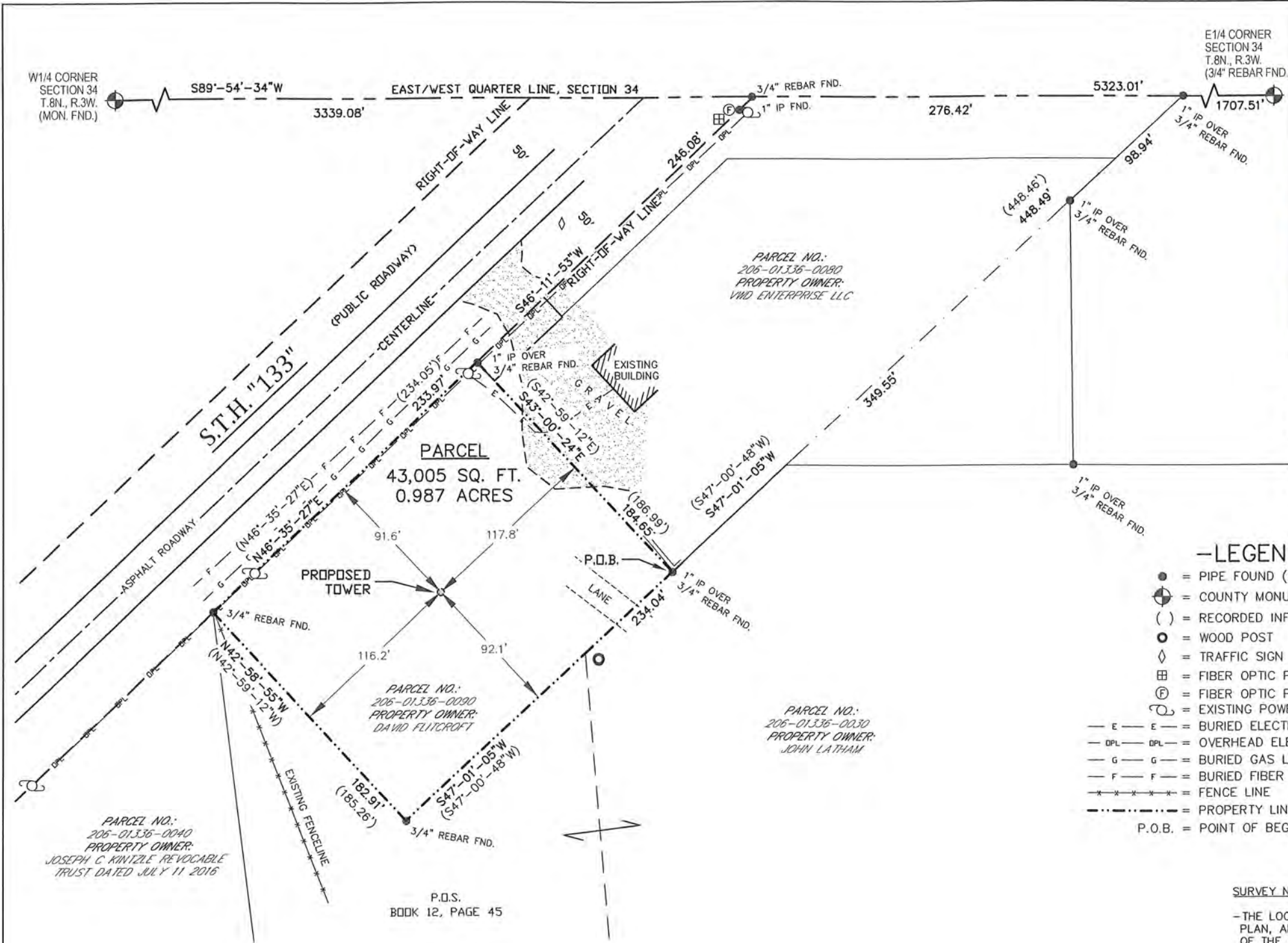
ENGINEER SEAL:



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

SIGNATURE:

DATE: 6/20/2022



PROPOSED TOWER BASE
LATITUDE: 43°-07'-32.37"
LONGITUDE: 90°-42'-50.21"
(Per North American Datum of 83/2011)
Ground Elevation: 685.7'
(Per North American Vertical Datum of 1988)

- LEGEND-**
- = PIPE FOUND (SIZE NOTED)
 - ⊕ = COUNTY MONUMENT FOUND
 - () = RECORDED INFORMATION
 - = WOOD POST
 - ◇ = TRAFFIC SIGN
 - ⊞ = FIBER OPTIC PEDESTAL
 - ⊞ = FIBER OPTIC POST
 - ⊞ = EXISTING POWER POLE
 - E — E = BURIED ELECTRIC
 - DPL — DPL = OVERHEAD ELECTRIC
 - G — G = BURIED GAS LINE
 - F — F = BURIED FIBER OPTIC LINE
 - * — * — = FENCE LINE
 - — — = PROPERTY LINE
 - P.O.B. = POINT OF BEGINNING

BEARINGS REFERENCED TO THE GRANT COUNTY
COORDINATE SYSTEM AND THE EAST/WEST
QUARTER LINE OF SECTION 34, T.8N., R.3W.,
WHICH BEARS: S89°-54'-34"W

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. 20220305205.

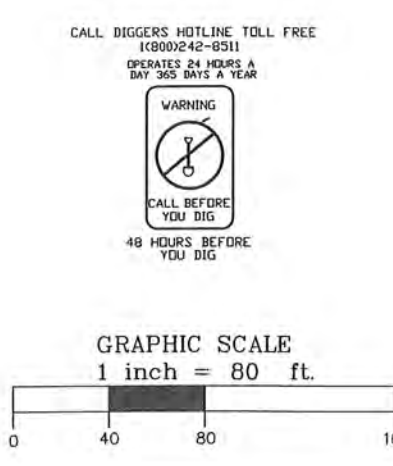
—NO TITLE SEARCH FOR PARCEL OWNERSHIP OR EXISTENCE OR NONEXISTENCE OF RECORDED OR UNRECORDED EASEMENTS HAS BEEN COMPLETED AS PART OF THIS SURVEY.

—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 PROPOSED TELECOMMUNICATIONS SITE IS LOCATED IN ZONE "X", FIRM PANEL NO. 55043C0014F, DATED FEBRUARY 03 2016, 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, Steven C. DeJong, 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 2ND day of MARCH, 2022.

Steven C. DeJong
WISCONSIN PROFESSIONAL LAND SURVEYOR
Steven C. DeJong, S-2791



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:

GRANT COUNTY WISCONSIN
111 SOUTH JEFFERSON STREET
LANCASTER, WI 53813

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

SITE NAME:
BOSCABEL

SITE ADDRESS:
**S.T.H. "133"
BOSCABEL, WI 53805**

PROPERTY OWNER:
DAVID FLITCROFT
W6365 PIERCE ROAD
ELKHORN, WI 53121

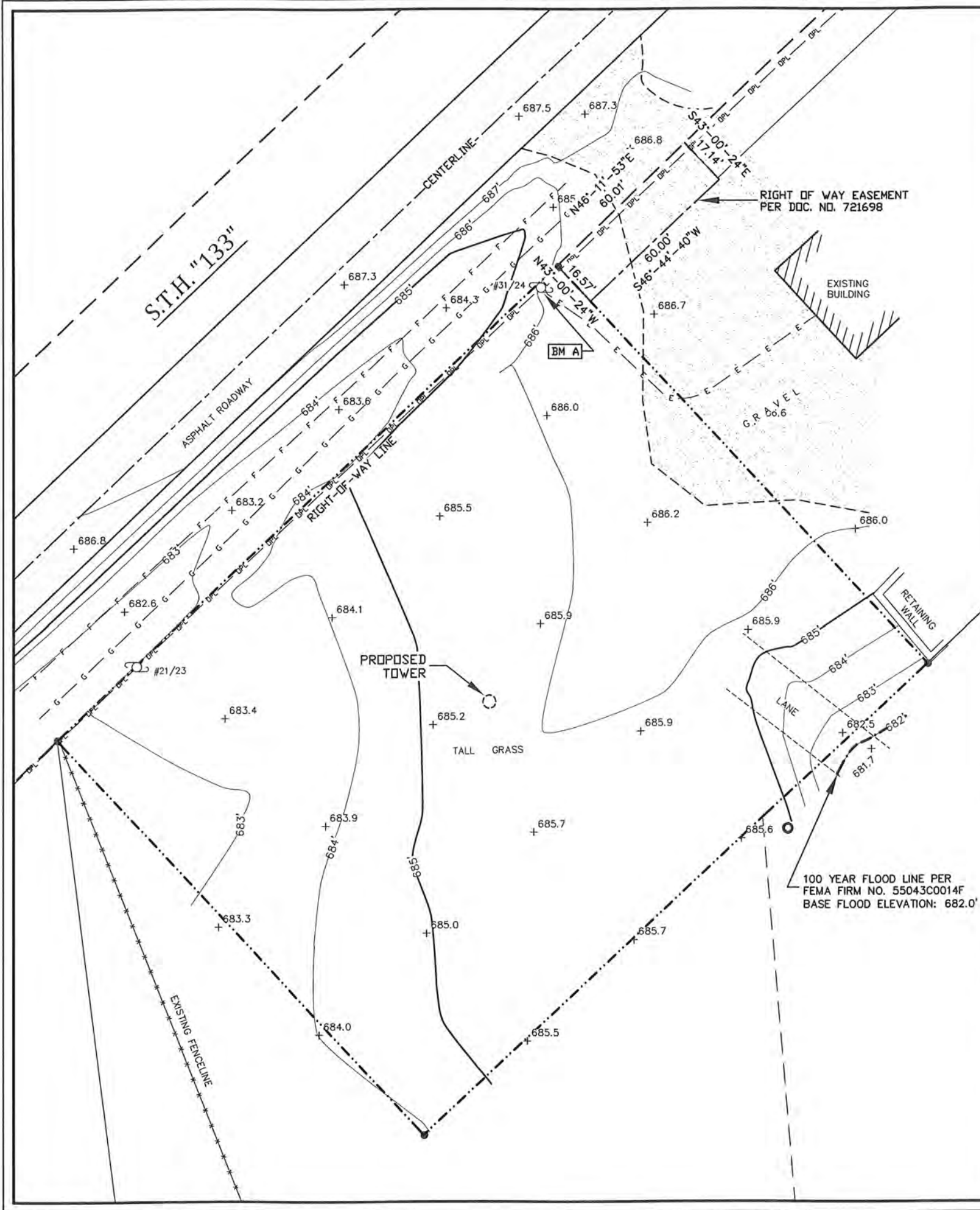
PARCEL NO.: 206-01336-0090

DEED REFERENCE: VOL. 1224, PG. 555
DOC. NO. 721698

SITE SURVEY FOR GRANT COUNTY
BEING A PART OF THE NW1/4 OF THE SE1/4, SECTION 34, T.8N., R.3W., CITY OF BOSCABEL, GRANT COUNTY, WISCONSIN

NO.	DATE	DESCRIPTION	BY
1	1-24-22	Preliminary Survey	JD

DRAWN BY:	J.D.	FIELD WORK DATE:	1-21-22
CHECKED BY:	S.C.D.	FIELD BOOK:	M-62, PG. 54
JOB NO.:	13407	SHEET	1 OF 2



- LEGEND—
- = PIPE FOUND (SIZE NOTED)
 - ⊕ = COUNTY MONUMENT FOUND
 - () = RECORDED INFORMATION
 - = WOOD POST
 - ◇ = TRAFFIC SIGN
 - ⊞ = FIBER OPTIC PEDESTAL
 - Ⓢ = FIBER OPTIC POST
 - ⌚ = EXISTING POWER POLE
 - E — E — = BURIED ELECTRIC
 - DPL — DPL — = OVERHEAD ELECTRIC
 - G — G — = BURIED GAS LINE
 - F — F — = BURIED FIBER OPTIC LINE
 - * — * — = FENCE LINE
 - · — · — = PROPERTY LINE
 - P.O.B. = POINT OF BEGINNING

BEARINGS REFERENCED TO THE GRANT COUNTY
COORDINATE SYSTEM AND THE EAST/WEST
QUARTER LINE OF SECTION 34, T.8N., R.3W.,
WHICH BEARS: S89°-54'-34"W



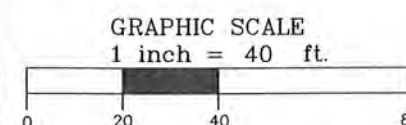
Being a part of the Northwest Quarter (NW1/4) of the Southeast Quarter (SE1/4) of Section Thirty-Four (34), Township Eight (8) North, Range Three (3) West, City of Boscobel, Grant County, Wisconsin containing 43,005 square feet (0.987 acres) of land and being described by:

Commencing at the East Quarter Corner of said Section 34; thence S89°-54'-34"W 1707.51 feet along the east/west quarter line of said Section 34; thence S47°-01'-05"W 448.49 feet to the point of beginning; thence continuing S47°-01'-05"W 234.04 feet; thence N42°-58'-55"W 182.91 feet to a point on the southerly line of State Highway 133; thence N46°-35'-27"E 233.97 feet along said southerly line of State Highway 133; thence S43°-00'-24"E 184.65 feet to the point of beginning. Being subject to any and all easements and restrictions of record.



BENCHMARK INFORMATION

SITE BENCHMARK: (BM A)
SET RAILROAD SPIKE IN NW FACE OF POWER
POLE #31/24; ±1' ABOVE GROUND LEVEL
ELEVATION: 687.34'



SURVEYOR'S CERTIFICATE

I, Steven C. DeJong, 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 2ND day of MARCH, 2022.

Steven C. DeJong
WISCONSIN PROFESSIONAL LAND SURVEYOR
Steven C. DeJong, S-2791

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:

**GRANT COUNTY
WISCONSIN**

111 SOUTH JEFFERSON STREET
LANCASTER, WI 53813

MERIDIAN
SURVEYING, LLC

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

SITE NAME:
BOSCOBEL

SITE ADDRESS:
**S.T.H. "133"
BOSCOBEL, WI 53805**

PROPERTY OWNER:
DAVID FLITCROFT
W6365 PIERCE ROAD
ELKHORN, WI 53121

PARCEL NO.: 206-01336-0090

DEED REFERENCE: VOL. 1224, PG. 555
DOC. NO. 721698

**SITE SURVEY
FOR
GRANT COUNTY**

BEING A PART OF THE NW1/4 OF THE
SE1/4, SECTION 34, T.8N., R.3W.,
CITY OF BOSCobel, GRANT COUNTY,
WISCONSIN

NO.	DATE	DESCRIPTION	BY
1	1-24-22	Preliminary Survey	JD

DRAWN BY: J.D.	FIELD WORK DATE: 1-21-22
CHECKED BY: S.C.D.	FIELD BOOK: M-62, PG. 54
JOB NO.: 13407	SHEET 2 OF 2

- A. 255' SELF-SUPPORT TOWER
- B. 75' x 75' FENCED COMPOUND
- C. 12' WIDE ACCESS DRIVE
- D. 90' TOWER SETBACK RADIUS (FROM TOWER CENTER)



NORTH

PARCEL #: 006-00320-0000
OWNER: BOSCOBEL EDUCATION
FOUNDATION, INC.

PARCEL #: 206-01336-0080
OWNER: VWD ENTERPRISE LLC

PARCEL #: 206-01336-0040
OWNER: JOSEPH C KINTZLE
REVOCABLE TRUST

PARCEL #: 206-01336-0030
OWNER: JOHN LATHAM

1. NORTH ARROW SHOWN AS APPROXIMATE.
2. AERIAL IMAGERY PER:
GRANT COUNTY GIS MAPPING DATA
3. PROPERTY LINES SHOWN PER SURVEY COMPLETED BY:
MERIDIAN SURVEYING, LLC

CONSULTANT:



Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:



OVERALL SITE PLAN
BOSCobel GF5 (31985)
BOSCobel, WISCONSIN

SUBMITTAL:

[illegible]

CHECKED BY	AJO
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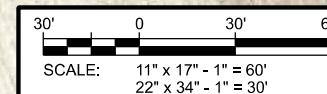
PLOT DATE	6/20/2022
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PROJECT NUMBER	31985
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SET TYPE	BD
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SHEET
NUMBER

C-101



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- A. 255' SELF-SUPPORT TOWER
- B. TOWER FOUNDATION
- C. GRANT COUNTY EQUIPMENT SHELTER
- D. 75' x 75' FENCED COMPOUND
- E. 16' WIDE VEHICLE ACCESS GATE W/ SNOW GATE
- F. 12' WIDE ACCESS DRIVE
- G. FUTURE TENANT
- H. 90' TOWER SETBACK RADIUS (FROM TOWER CENTER)



NORTH

-S.T.H. "133"

EXISTING POWER POLE
#31/24

EXISTING RIGHT OF WAY EASEMENT
PER DOC. NO. 721698

EXISTING
BUILDING

ENLARGED SITE PLAN

CONSULTANT:



CLIENT:



**BOSCOBEL GF5 (31985)
BOSCOBEL, WISCONSIN**

1. NORTH ARROW SHOWN AS APPROXIMATE.
2. PROPERTY LINES SHOWN PER SURVEY COMPLETED BY:
MERIDIAN SURVEYING, LLC
3. TOPOGRAPHIC FEATURES PER TOPOGRAPHIC SURVEY BY:
MERIDIAN SURVEYING, LLC
4. UNDERGROUND UTILITIES SHOWN PER:
DIGGERS HOTLINE TICKET #: 20220305205

SUBMITTAL:

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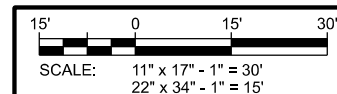
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PLOT DATE	6/20/2022
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PROJECT NUMBER	31985
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SET TYPE	BD
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SHEET NUMBER **C-102**

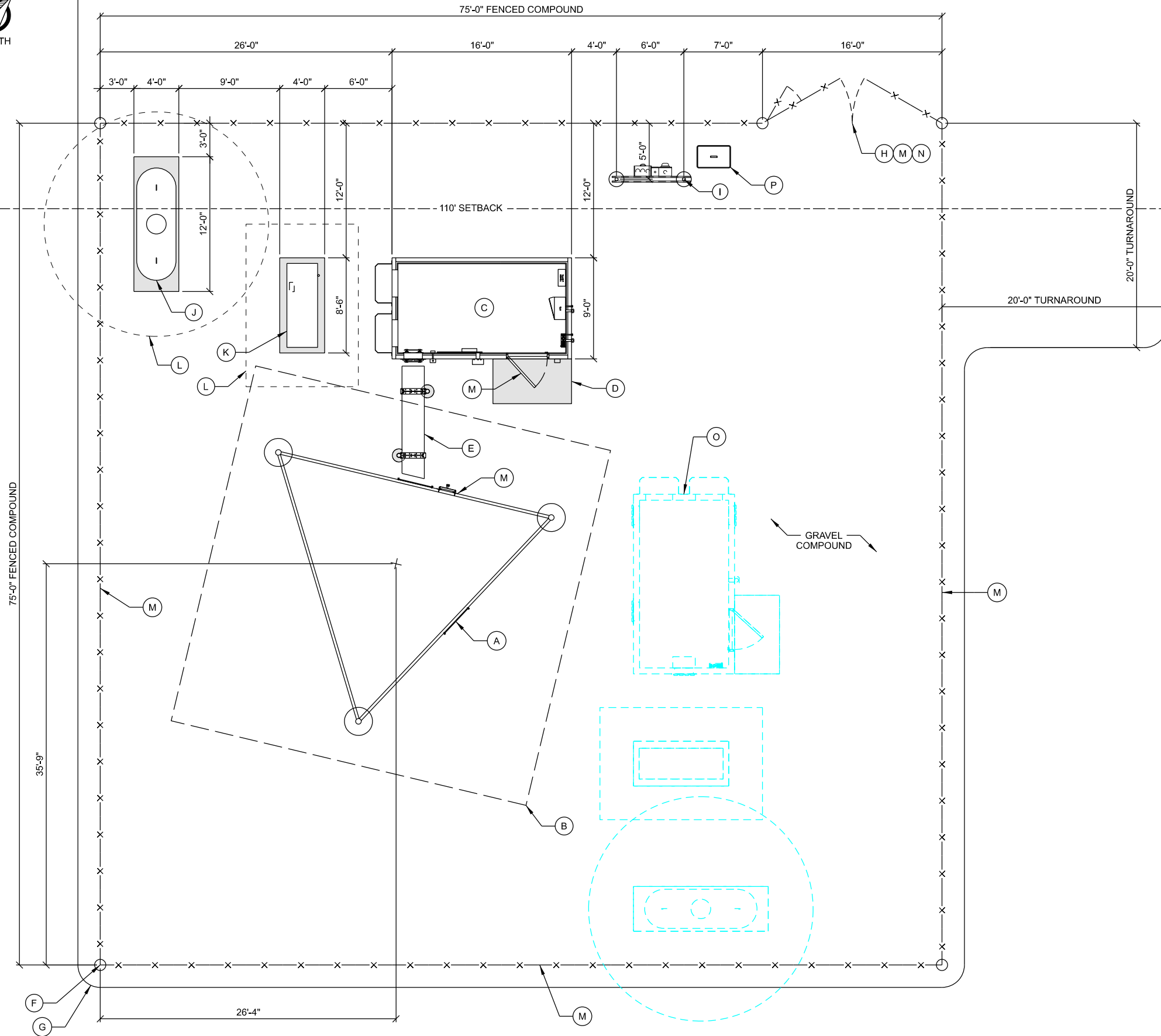


KEYNOTES: (THIS SHEET)

- A. 255' SELF-SUPPORT TOWER (25' FACE WIDTH SHOWN);
VERIFY WITH FINAL TOWER AND FOUNDATION PLANS
- B. TOWER FOUNDATION (32'-6" x 32'-6" PAD SHOWN);
VERIFY WITH FINAL TOWER AND FOUNDATION PLANS
- C. 9' x 16' GRANT COUNTY EQUIPMENT SHELTER;
SEE A-101 FOR DETAILS
- D. 4' x 7' CONCRETE STOOP;
SEE C-503 FOR DETAILS
- E. 24" WIDE ICE BRIDGE;
SEE T-502 FOR DETAILS
- F. 75' x 75' FENCED COMPOUND;
8' TALL (7' FABRIC W/ 1' BARB WIRE);
SEE C-502 FOR DETAILS
- G. GRAVEL COMPOUND;
EDGE TO EXTEND 2' BEYOND FENCE PERIMETER;
SEE B/C-501 FOR DETAILS
- H. 16' WIDE VEHICLE ACCESS GATE W/ SNOW GATE
AND MULTI-USER GATE LOCK SYSTEM;
(LOCKS BY OWNER)
- I. MULTI-METER UTILITY RACK;
SEE E-505 FOR DETAILS
- J. 500 GAL. LP FUEL TANK ON CONCRETE SLAB;
SEE C-504 FOR DETAILS
- K. 36 kW GENERATOR ON CONCRETE SLAB;
SEE C-504 FOR DETAILS
- L. CLEARANCE ZONE/SETBACKS
- 10' AROUND LP TANK
- 3' AROUND GENERATOR
- M. RF SIGNAGE (SUPPLIED BY RACOM)
- (4) RF NOTICE SIGNS;
INSTALL ON EACH SIDE OF FENCE
- (2) RF CAUTION SIGNS;
INSTALL NEAR TOWER CLIMB AND ON SHELTER DOOR
- N. ASR SIGN (SUPPLIED BY RACOM);
(1) REQUIRED;
SEE B/C-502 FOR DETAILS
- O. FUTURE TENANT
- P. FIBER OPTIC HANDHOLE BY GRANT CO.;
SEE DETAIL E/E-504

GENERAL NOTES: (THIS SHEET)

1. NORTH ARROW SHOWN AS APPROXIMATE.



CONSULTANT:

Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgesconsult.com

CLIENT:



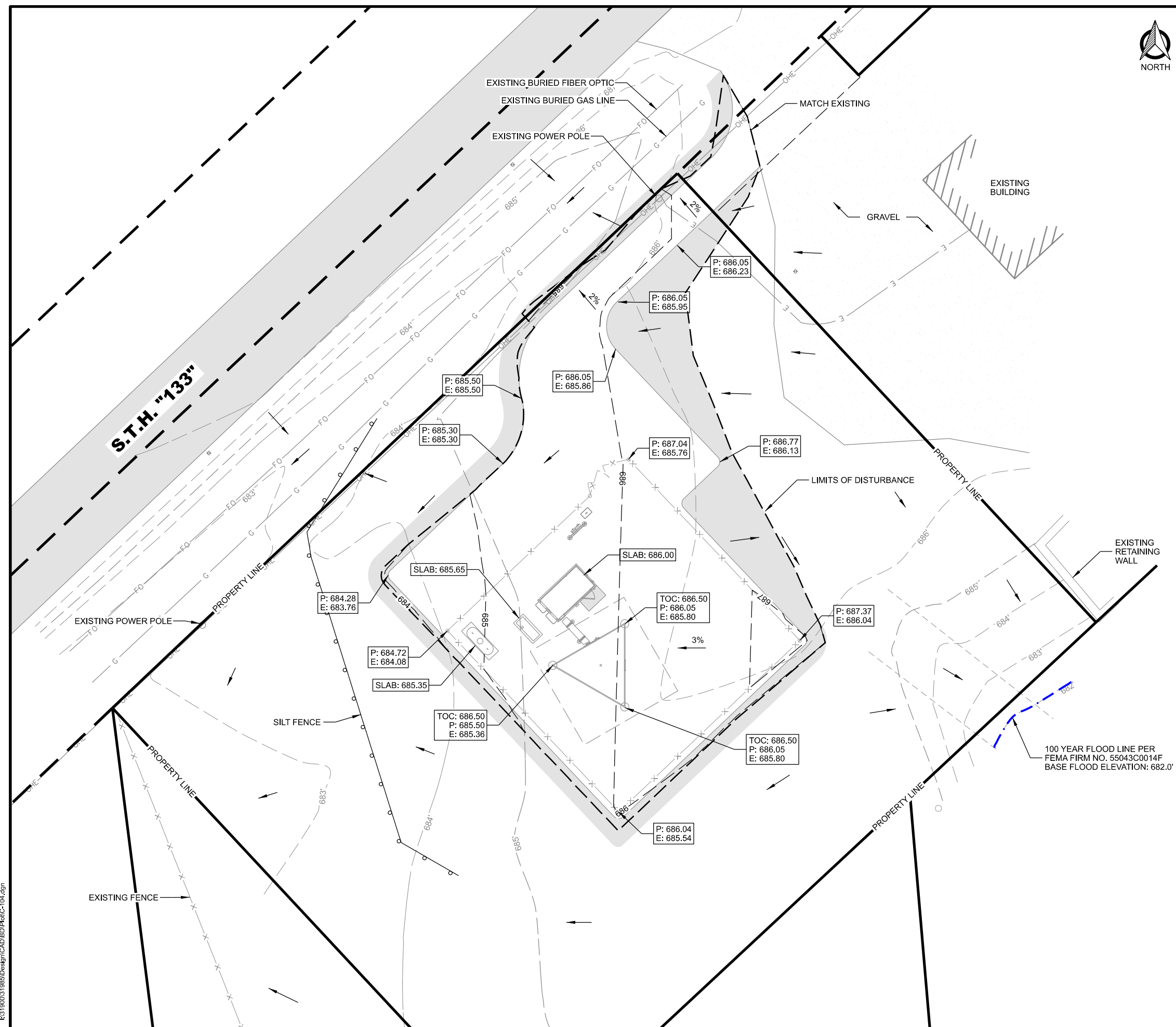
COMPOUND PLAN
BOSCOBEL GF5 (31985)
BOSCOBEL, WISCONSIN

SUBMITTAL:









INT.	DATE	DESCRIPTION

CHECKED BY	AJO
PLOT DATE	6/20/2022
PROJECT NUMBER	31985
SET TYPE	BD

SHEET NUMBER **C-103**



LEGEND: (THIS SHEET)

-
-  EXISTING CONTOUR GRADES
 PROPOSED CONTOUR GRADES
 SPOT ELEVATIONS
P = PROPOSED ELEV.
E = EXISTING ELEV.
FL = FLOW LINE
IE = INVERT ELEV.
TOC = TOP OF CONC.
 PROPOSED DRAINAGE PATH
 SILT FENCE, SEE DETAIL A/C-505
 LIMITS OF DISTURBANCE
 EROSION MAT
 TEMPORARY DITCH CHECK,
SEE DETAIL B/C-505

GRADING NOTES: (THIS SHEET)

1. CONTOUR INTERVAL IS 1 FOOT.
2. PERIMETER CONTROLS AND STONE TRACKING PADS SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES, INCLUDING CLEARING AND GRUBBING OPERATIONS. STONE TRACKING PAD SHALL BE A 12'X50' MIN. CONSISTING OF 3" BREAKER STONE.
3. CONTRACTOR SHALL INSTALL ADDITIONAL EROSION CONTROL MEASURES, BEYOND THOSE SHOWN IN THIS PLAN, SUITABLE FOR THEIR MEANS AND METHODS TO KEEP ALL SEDIMENT ON SITE DURING CONSTRUCTION ACTIVITIES. THIS INCLUDES IMPLEMENTATION OF SILT FENCE, EROSION BALES, TRACKING PADS, DIVERSION BERMS AND/OR OTHER APPROPRIATE DEVICES.
4. CONTRACTOR SHALL GRADUALLY MATCH INTO EXISTING GRADE. NO PROPOSED EARTHWORK SHALL HAVE A GREATER SLOPE THAN 3:1. FINISHED SITE TO BE GRADED TO MAINTAIN POSITIVE DRAINAGE IN ALL AREAS.
5. DRIVEWAY GRADE WITHIN 25 FEET OF PUBLIC ROAD ACCESS POINT SHALL BE LESS THAN 10% (10:1).
6. FINISHED GRADE SLOPES GREATER THAN 4:1, DITCH BOTTOMS AND GRASS SURFACES WITHIN 6 FEET OF ANY PAVED OR GRAVEL SURFACE REQUIRE EROSION MAT (TYPE 2-D - 12 MONTH LONGEVITY, DOUBLE NET EROSION CONTROL BLANKET)
7. ALL DISTURBED GRASS/TURF AREAS SHALL BE RESTORED WITH TOPSOIL, SEED AND MULCH. TOPSOIL TO BE 6-INCHES MINIMUM. SEED TO CONSIST OF NATIVE PURE LIVE SEED (PLS) AT 98% PURITY AND 95% GERMINATION. MULCH TO BE WEED-FREE GRAIN STRAW.
8. CONTRACTOR TO PERFORM MAINTENANCE AND INSPECTION OF EROSION CONTROL DEVICES AND EXPOSED GRADE THROUGHOUT CONSTRUCTION. THE CONTRACTOR SHALL INSPECT THE EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES ON A WEEKLY BASIS AND WITHIN 24 HOURS AFTER A PRECIPITATION EVENT 0.5 INCHES OR GREATER WHICH RESULTS IN RUNOFF. CONTRACTOR SHALL CONTINUE MAINTENANCE AND INSPECTION UNTIL FULL VEGETATION ESTABLISHMENT AND/OR PROJECT ACCEPTANCE.
9. CONTRACTOR TO REMOVE EROSION CONTROL MEASURES AFTER PROJECT ACCEPTANCE.
10. SEE SURVEY FOR BENCHMARK LOCATIONS.

GENERAL NOTES: (THIS SHEET)

1. NORTH ARROW SHOWN AS APPROXIMATE.
2. PROPERTY LINES SHOWN PER SURVEY COMPLETED BY: MERIDIAN SURVEYING, LLC
3. TOPOGRAPHIC FEATURES PER TOPOGRAPHIC SURVEY BY: MERIDIAN SURVEYING, LLC
4. UNDERGROUND UTILITIES SHOWN PER:
DIGGERS HOTLINE TICKET #: 20220305205

CONSULTANT:

 **Edge**
Consulting Engineers, Inc.

624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

 **RACOM**
critical communications

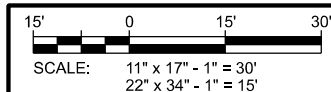
GRADING AND EROSION CONTROL PLAN
BOSCobel GF5 (31985)
BOSCobel, WISCONSIN

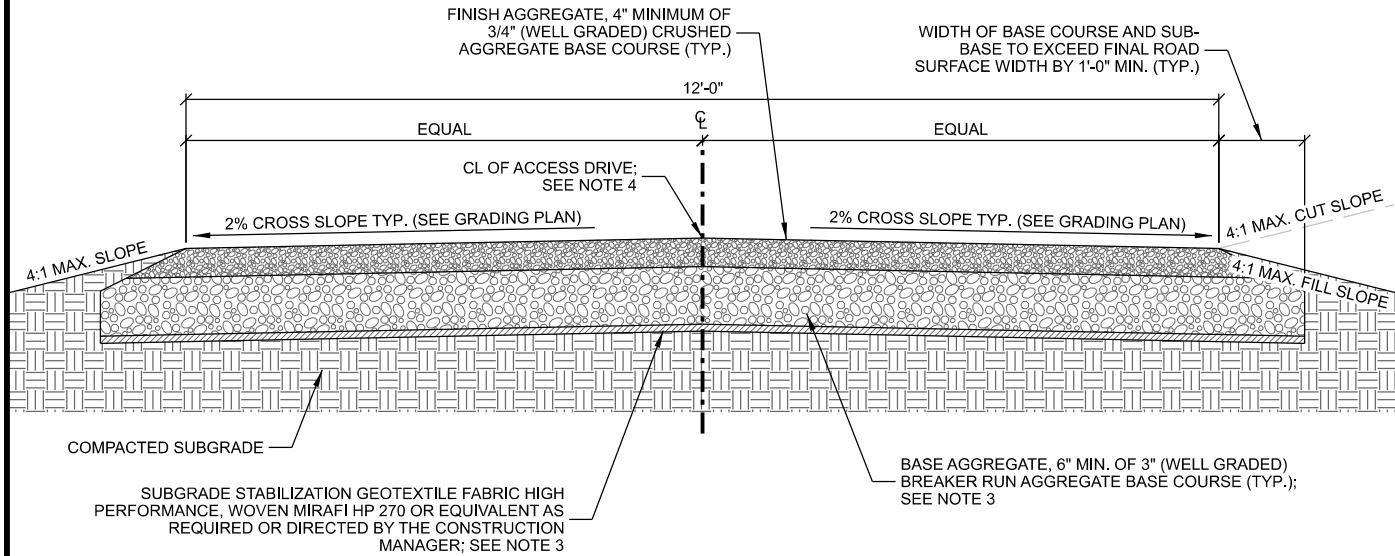
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CHECKED BY	AJO
PLOT DATE	6/20/2022
PROJECT NUMBER	31985
SET TYPE	BD

SHEET
NUMBER

C-104

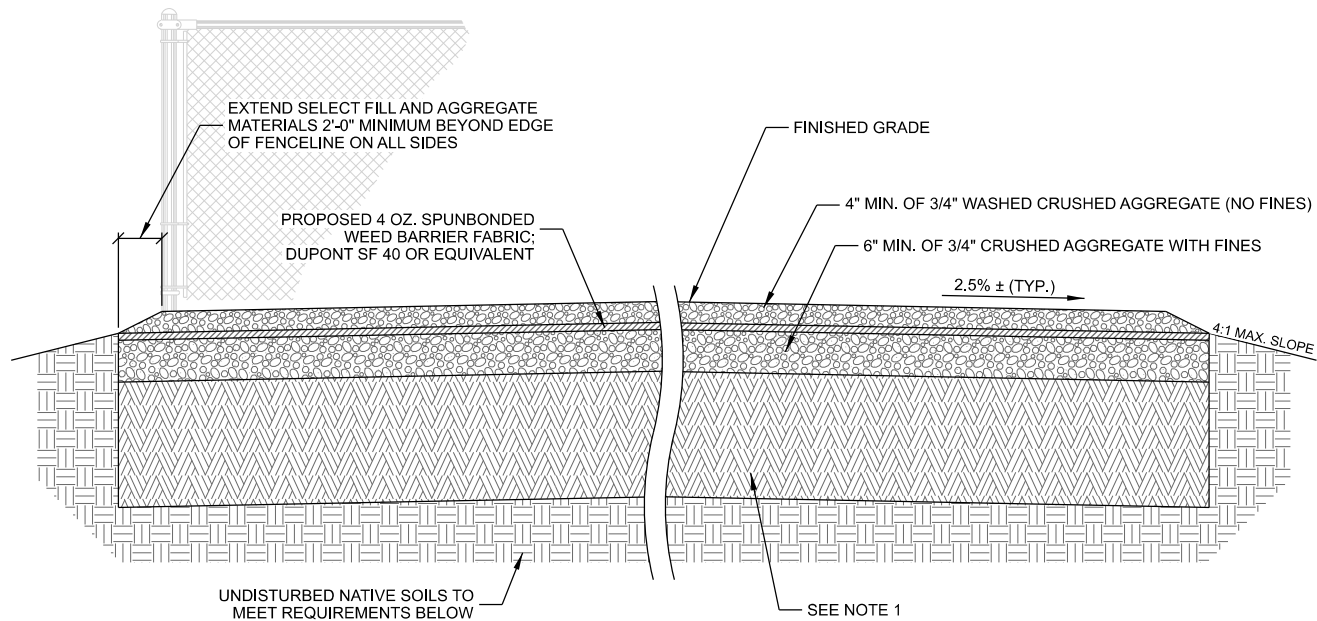




GENERAL NOTES:

1. 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.
2. SUBGRADE TO BE COMPACTED TO 90% STANDARD PROCTOR AND VERIFIED BY PROOF-ROLL WITH LOADED TRI-AXLE DUMP TRUCK. CONTACT CONSTRUCTION MANAGER FOR GUIDANCE FOR FAILING SUBGRADE SOILS.
3. FAILING AREAS OF SUBGRADE SHALL BE UNDERCUT TO A MINIMUM DEPTH OF 18" BELOW FINISH AGGREGATE AND STABILIZED WITH 3" (WELL GRADED) BREAKER RUN AGGREGATE OVER SUBGRADE STABILIZATION GEOTEXTILE FABRIC.
4. CONSULT GRADING PLAN OR SITE PLAN FOR FINAL SITE GRADES.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASPHALT 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.

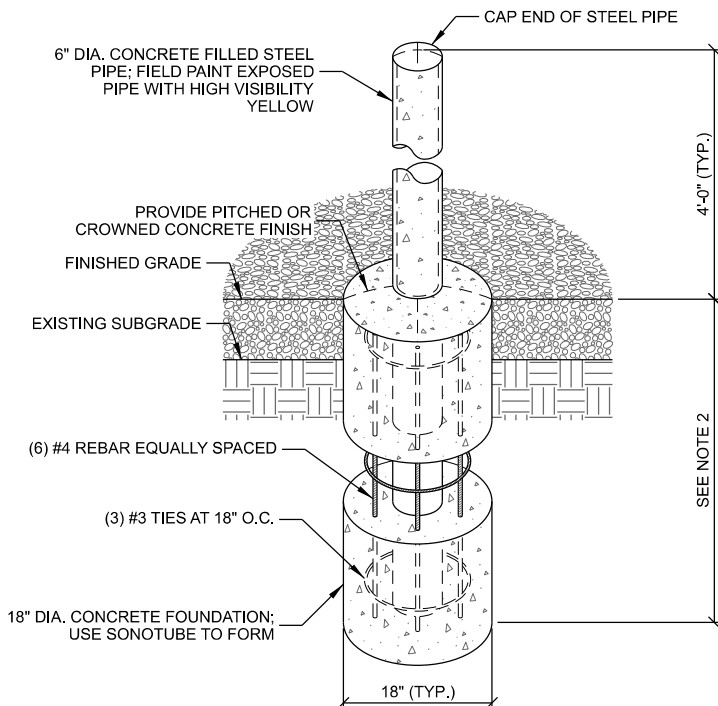
A GRAVEL DRIVE CROSS SECTION



NOTES:

1. 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 SELECT FILL MAY BE REQUIRED. CONTACT CONSTRUCTION MANAGER FOR GUIDANCE.
2. FINAL TOWER FOUNDATION DESIGN RECOMMENDATIONS TO SUPERCEDE GRADING PLAN OR SITE PLAN ELEVATIONS.

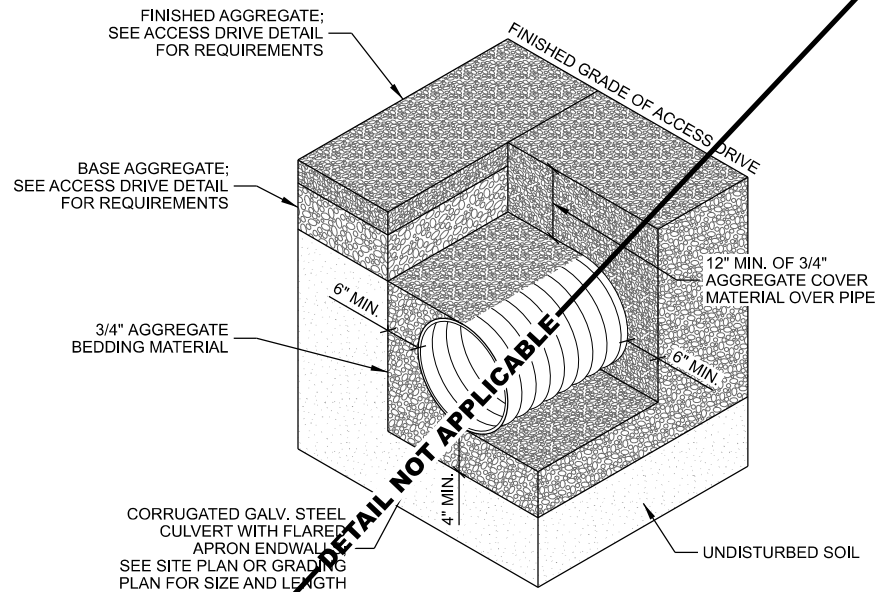
B COMPOUND CROSS SECTION



NOTES:

1. MAINTAIN 3" MINIMUM REBAR COVER IN ALL DIRECTION
2. PIER FOUNDATION DEPTH TO BE A MINIMUM OF 48"; DEPTH TO EXCEED LOCAL FROST DEPTH
3. CONCRETE TO BE A MINIMUM OF 4,000 PSI AT 28 DAYS

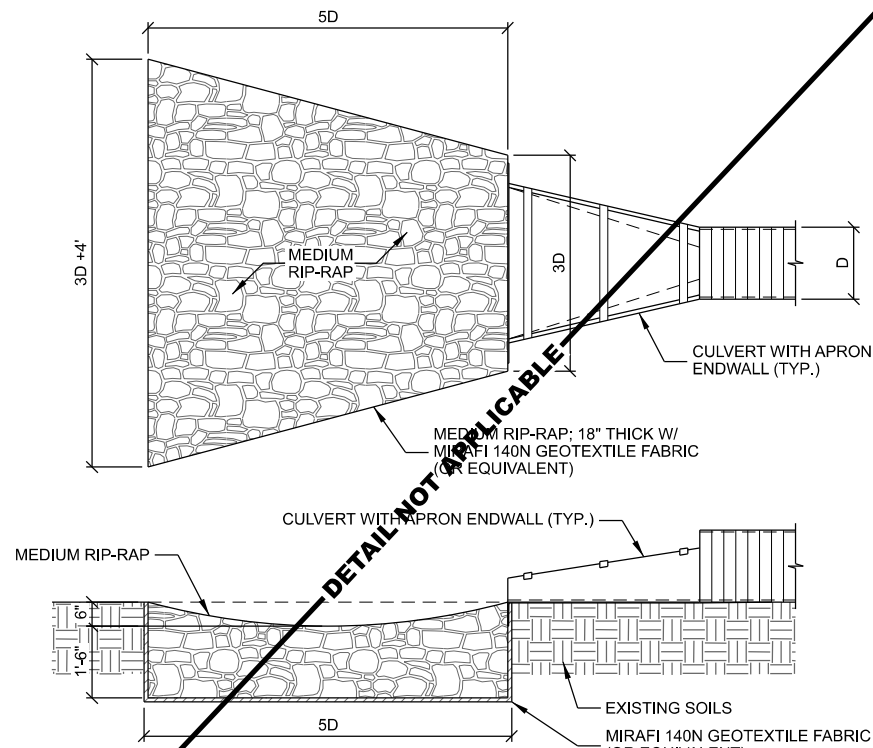
C PIPE BOLLARD



NOTES:

1. FOR CULVERT TRENCHES LOCATED OUTSIDE OF OF ACCESS DRIVE AREAS, BACKFILL MATERIAL MAY BE USED TO ACHIEVE REQUIRED COVER AFTER MINIMUM BEDDING REQUIREMENTS HAVE BEEN MET.
2. BACKFILL MATERIAL TO BE COMPACTED TO 90% MODIFIED PROCTOR AND TO BE FREE OF FROZEN CLODS AND STONES LARGER THAN 6".
3. GRADE AREAS UPSTREAM AND DOWNSTREAM OF CULVERT TO ACHIEVE POSITIVE DRAINAGE. SEE SITE PLAN OR GRADING PLAN FOR DETAILS.

D CULVERT



NOTES:

1. RIP-RAP DIMENSION TO BE DETERMINED BASED ON CULVERT DIAMETER "D".

E RIP-RAP ENERGY DISSIPATOR

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Edge
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624 WATER STREET
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CLIENT:

RACOM
critical communications

SITE DETAILS
BOSCobel GF5 (31985)
BOSCobel, WISCONSIN

SUBMITTAL:

INT.	DATE	DESCRIPTION

CHECKED BY:

AJO

PLOT DATE:

6/20/2022

PROJECT NUMBER:

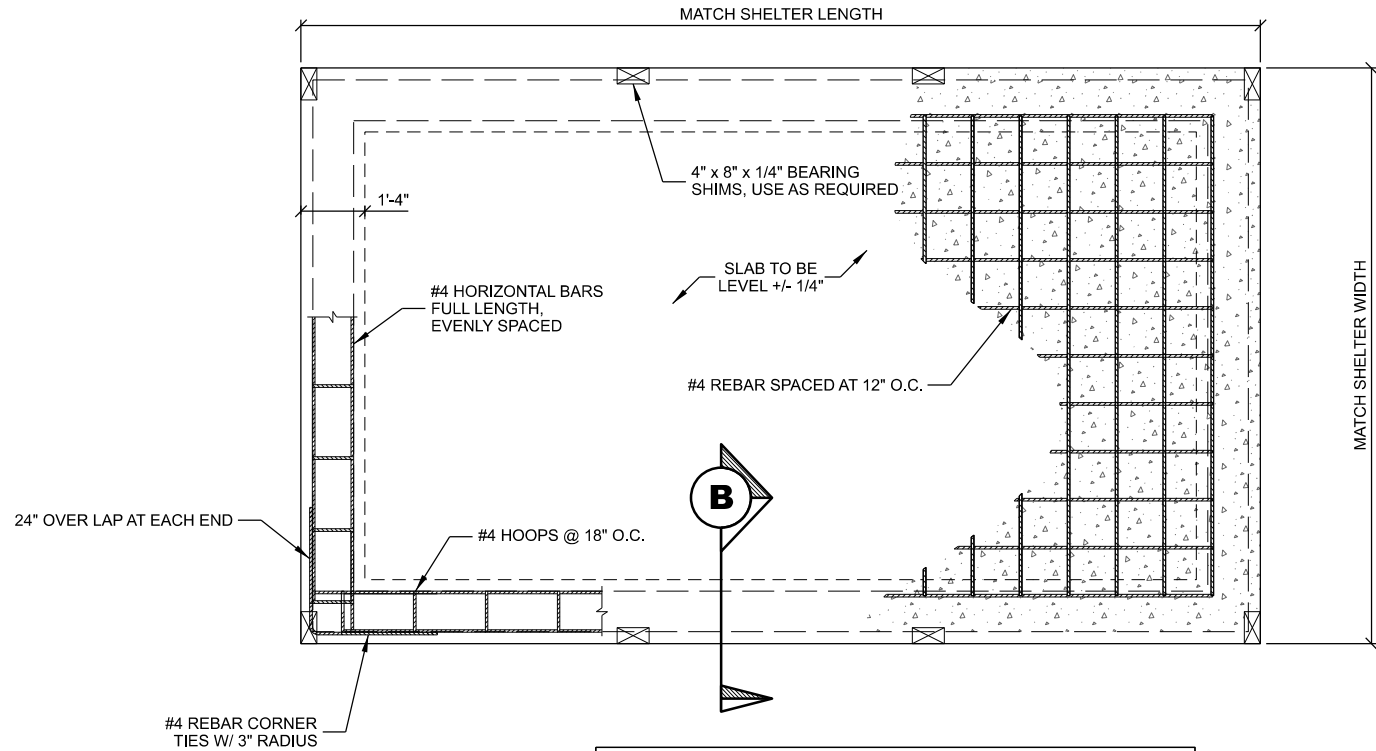
31985

SET TYPE:

BD

SHEET NUMBER:

C-501



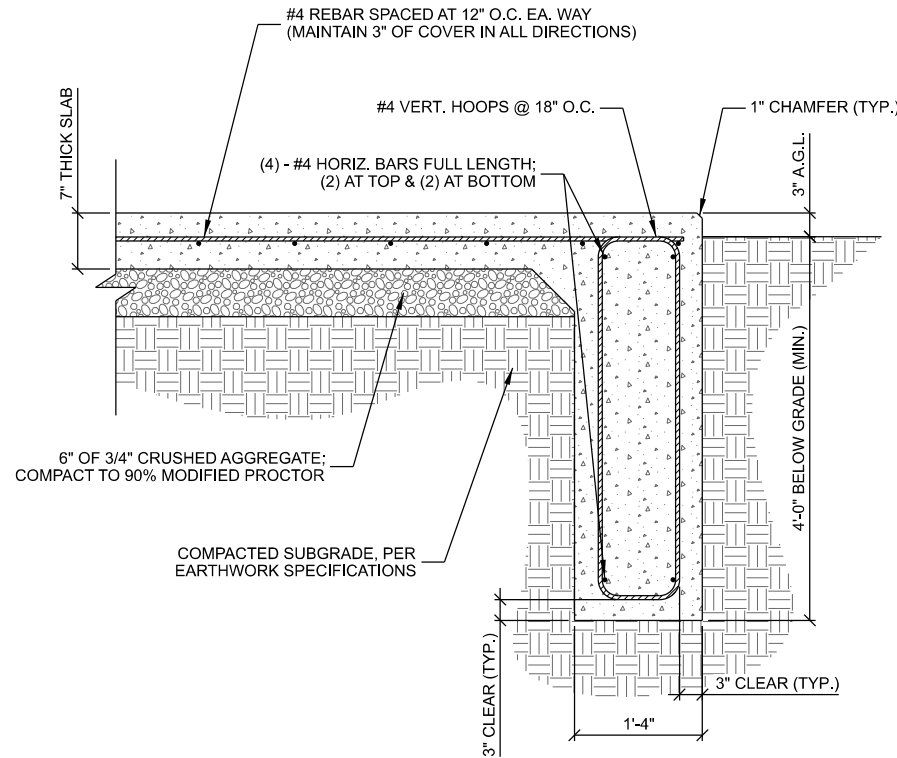
NOTES:

1. BEARING SHIM: GALVANIZED STEEL, 4 EACH SIDE USE SHIMS AS REQUIRED TO ASSURE SHELTER IS BEARING AT PERIMETER.

A SHELTER FOUNDATION PLAN

SCALE: 11" x 17" - 1/4" = 1'-0"

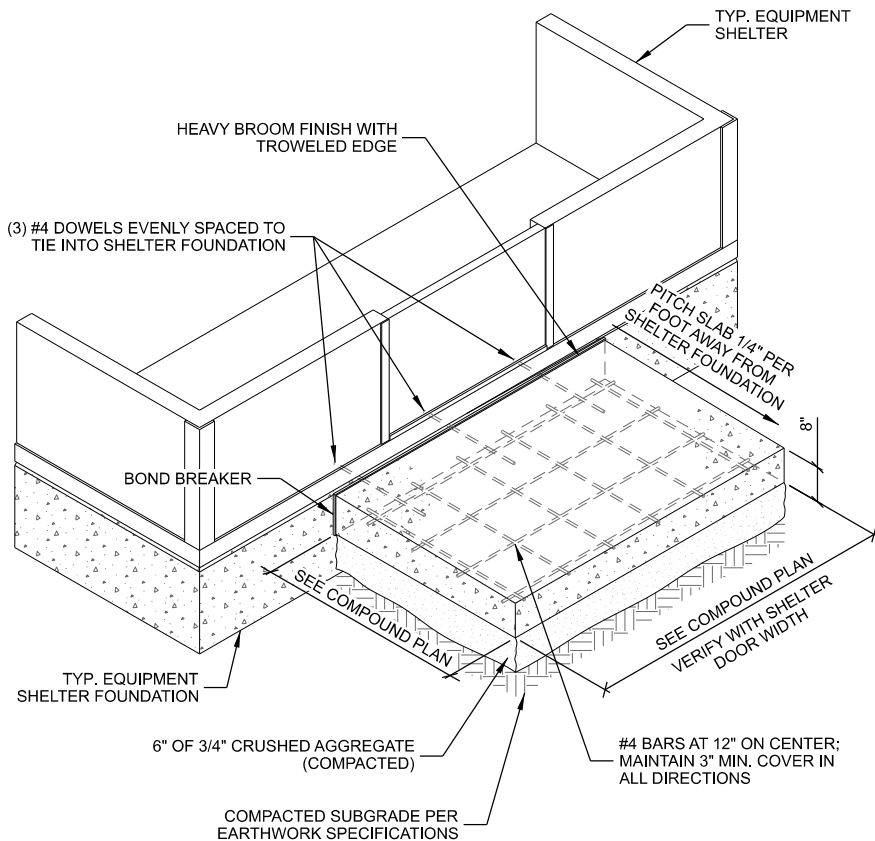
22" x 34" - 1/2" = 1'-0"



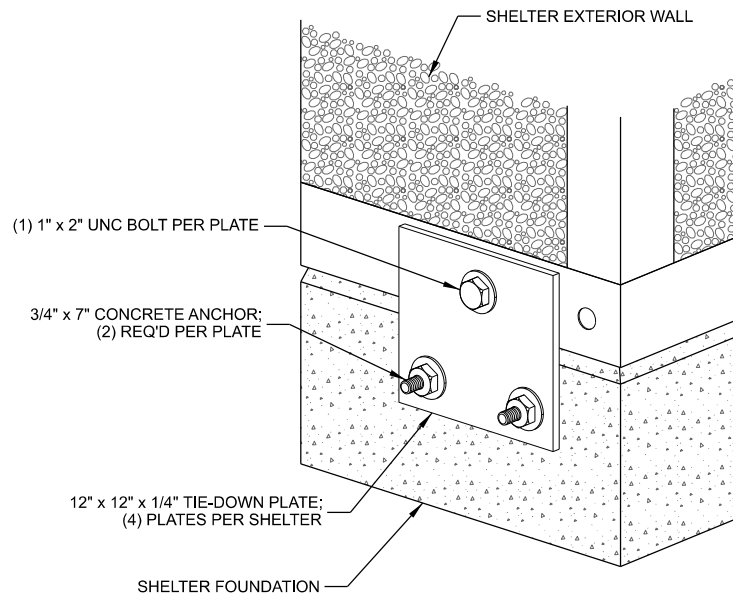
B SHELTER FOUNDATION

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

22" x 34" - 1" = 1'-0"



C SHELTER STOOP



D TIE DOWN PLATE

CONCRETE AND REINFORCING NOTES:

- ALL CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH LOCAL BUILDING CODE REQUIREMENTS AND MOST CURRENT VERSION OF ACI STANDARDS.
- ALL CONCRETE UNLESS SPECIFICALLY NOTED SHALL BE NORMAL WEIGHT (145 PCF) AND SHALL ACHIEVE A 28-DAY COMPRESSIVE STRENGTH (f_c) OF 4,000 PSI. EXPOSED EXTERIOR CONCRETE TO BE AIR ENTRAINED WITH 6% +/- 1% AIR CONTENT. CONTRACTOR TO PERFORM CONCRETE SLUMP TEST (4" MAX SLUMP). NO WATER TO BE ADDED AFTER SLUMP HAS BEEN MEASURED.
- ALL CONCRETE REINFORCING SHALL BE ASTM A615 GRADE 60 AND PLACED IN ACCORDANCE WITH ACI STANDARDS
- REMOVE ALL ORGANIC MATERIAL, SOFT AND/OR UNSUITABLE SOILS WITHIN FOUNDATION FOOTPRINT. DO NOT UTILIZE THESE SOILS FOR BACKFILL.
- CONSULT GEOTECHNICAL INVESTIGATION REPORT FOR ANTICIPATED SOIL CONDITIONS AND CONSTRUCTION CONSIDERATIONS.
- FOUNDATION DESIGN BASED ON A PRESUMPTIVE SOIL BEARING CAPACITY OF 2000 PSF AND MAX. PLASTICITY INDEX OF 20, CONTRACTOR TO CONFIRM BEARING SOILS MEET THESE CONDITIONS BEFORE INSTALLATION.
- SOILS NOT MEETING THE DESIGN BEARING STRENGTH SHALL BE UNDERCUT AND REPLACED WITH 3-INCH BREAKER STONE. UNDERCUT ONE FOOT ON EACH SIDE OF THE FOOTING FOR EVERY FOOT IN DEPTH. CONSULT WITH ENGINEER FOR REQUIRED UNDERCUT DEPTH.
- CONTRACTOR TO ENSURE POSITIVE DRAINAGE FROM ALL FOUNDATIONS.
- FOUNDATION DESIGN BASED ON INFORMATION PROVIDED BY SHELTER MFG. (WEIGHT, LIVE LOAD, ETC.). CONTRACTOR TO VERIFY EXACT SHELTER SIZE AND TYPE.

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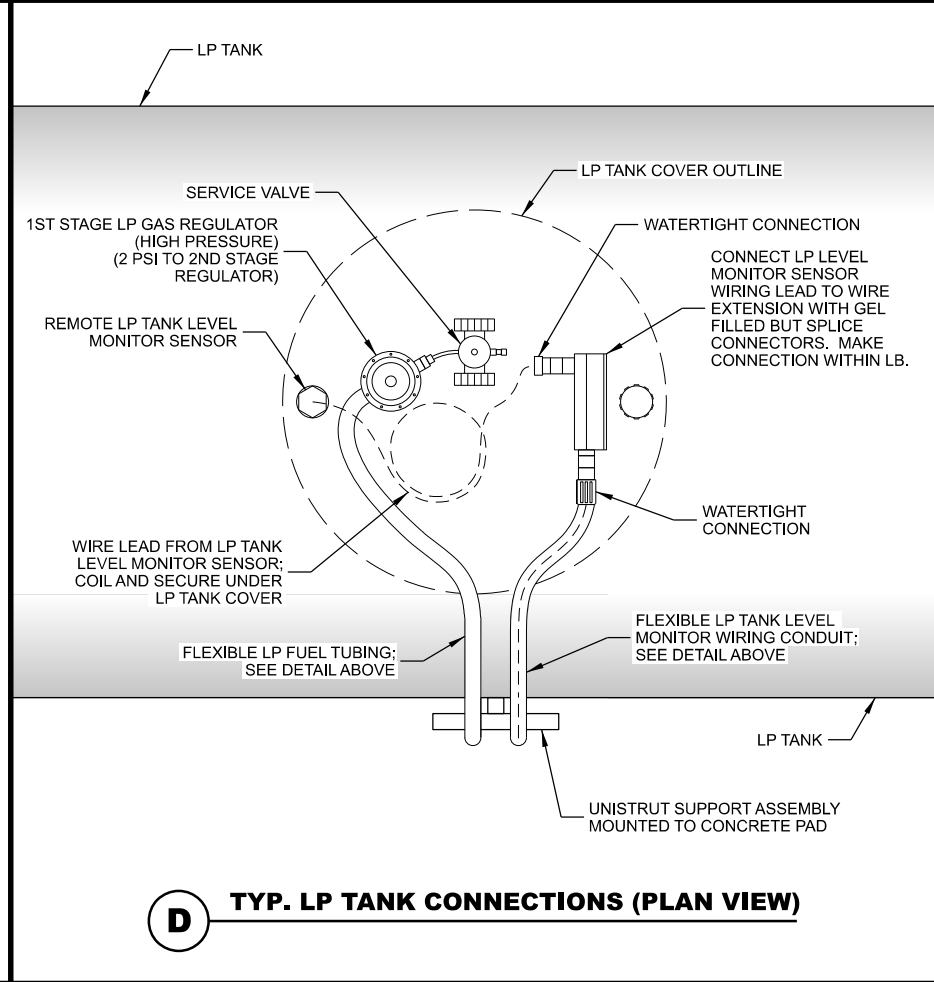
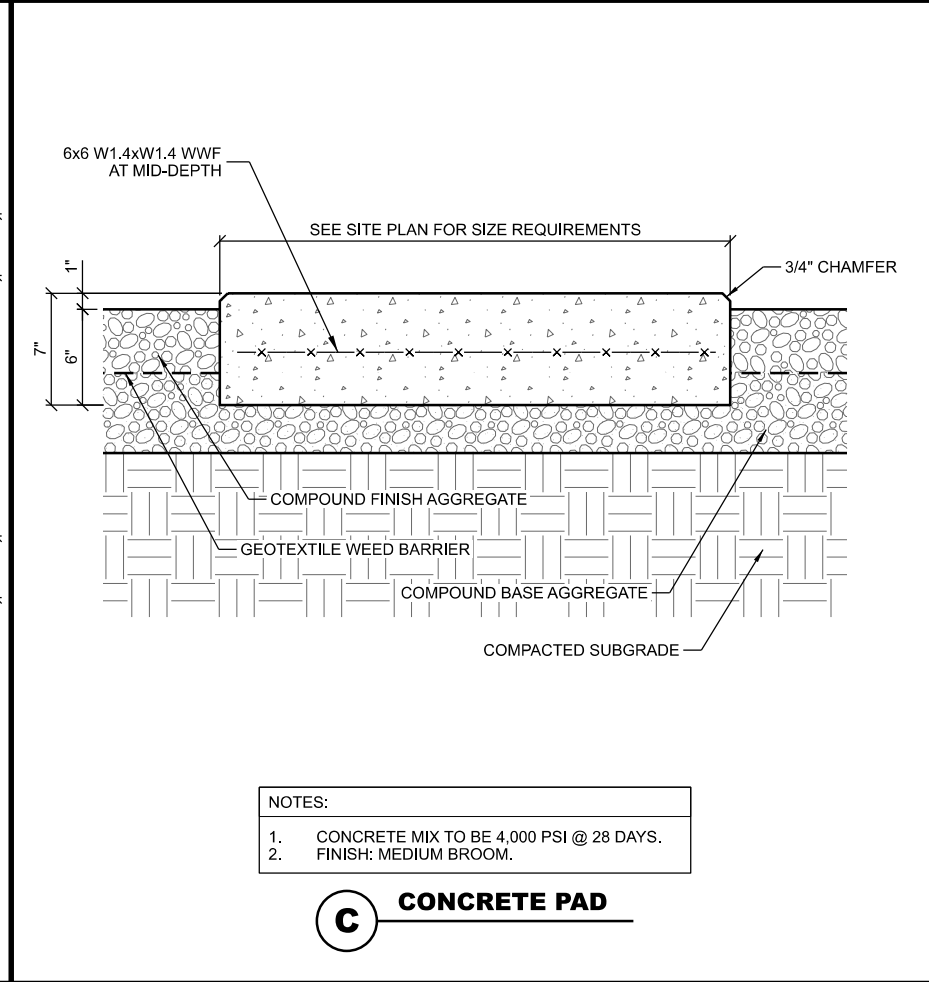
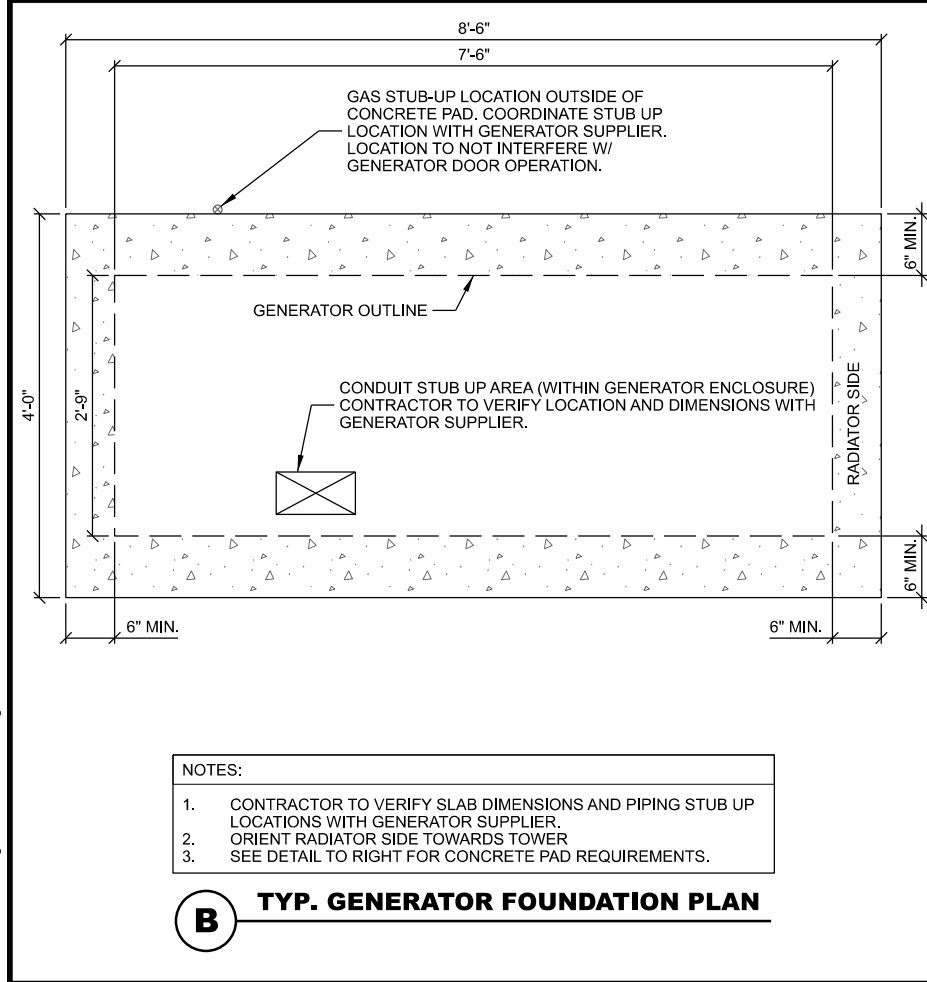
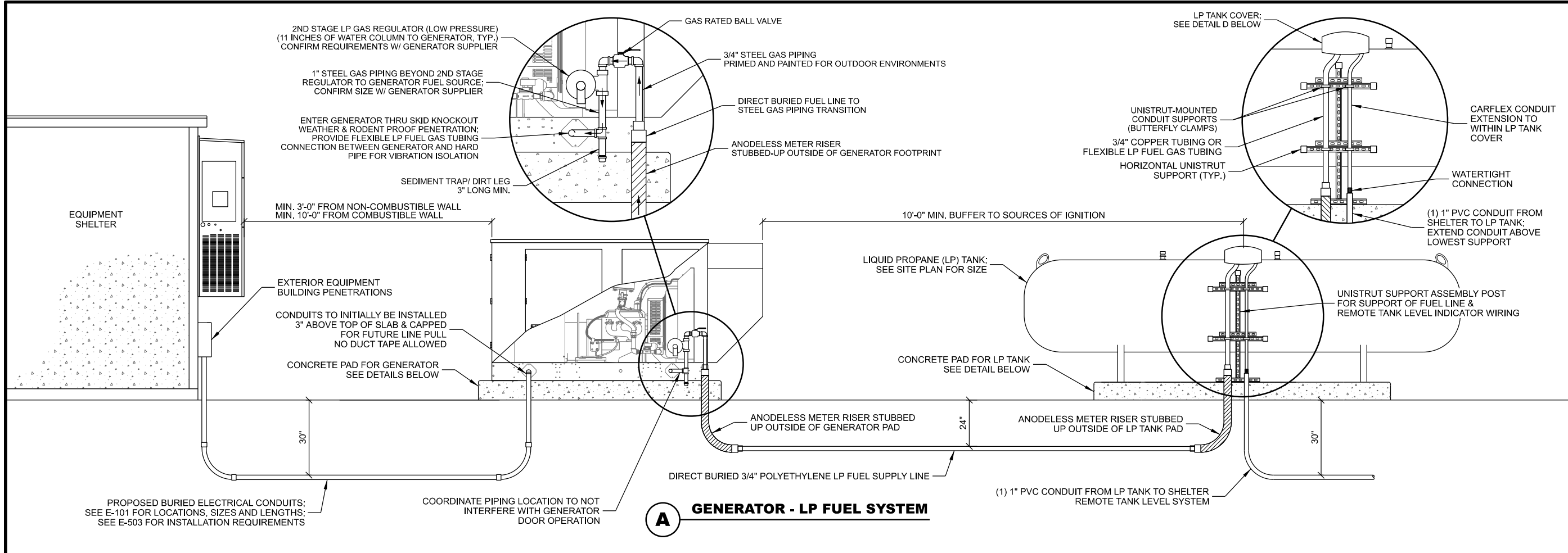
RACOM
critical communications

SHELTER FOUNDATION DETAILS
BOSCOBEL GF5 (31985)
BOSCOBEL, WISCONSIN

SUBMITTAL:

INT.	DATE:	DESCRIPTION:

CHECKED BY:	AJO
PLOT DATE:	6/20/2022
PROJECT NUMBER:	31985
SET TYPE:	BD
SHEET NUMBER:	C-503



CONSULTANT:

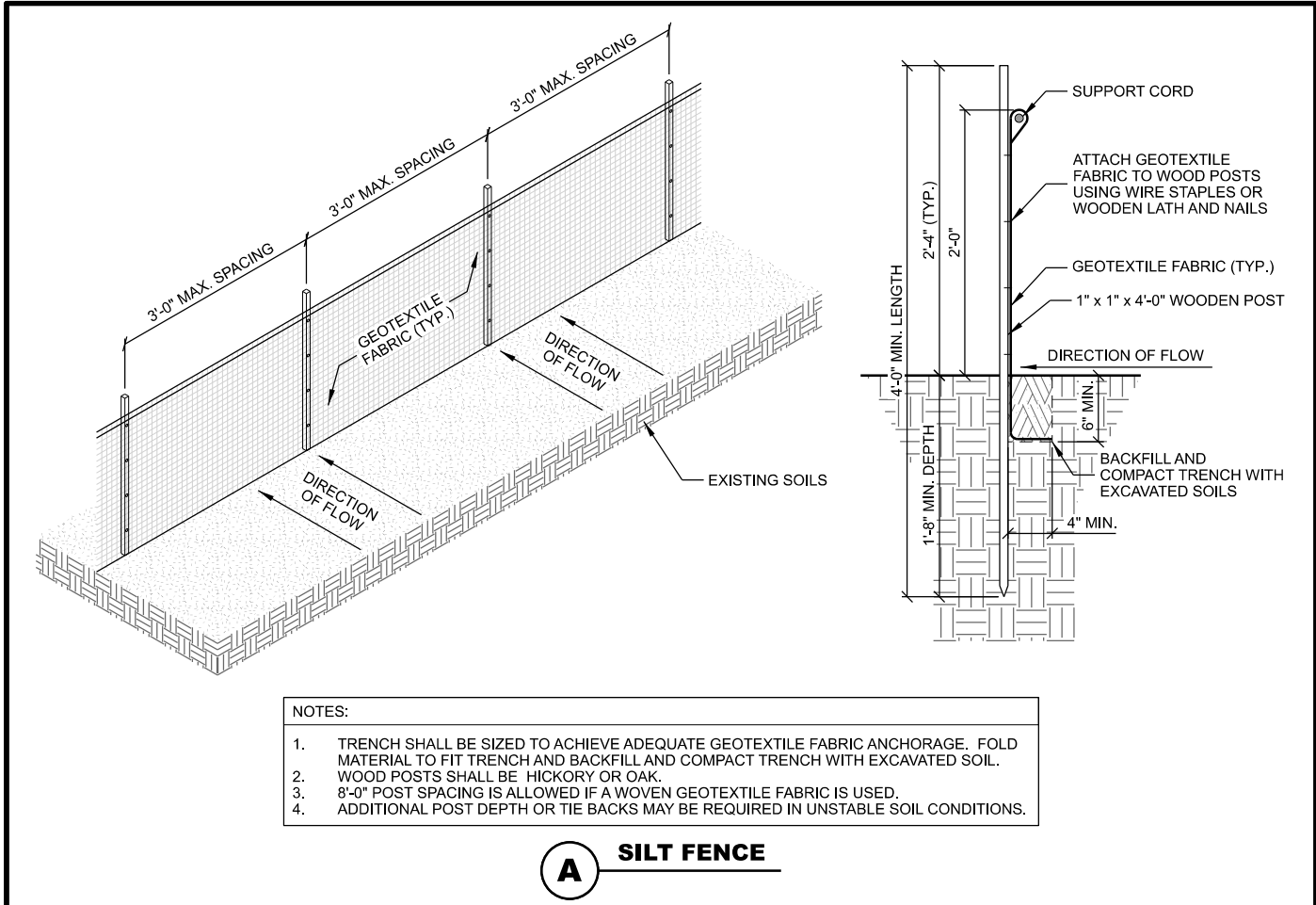
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CLIENT:

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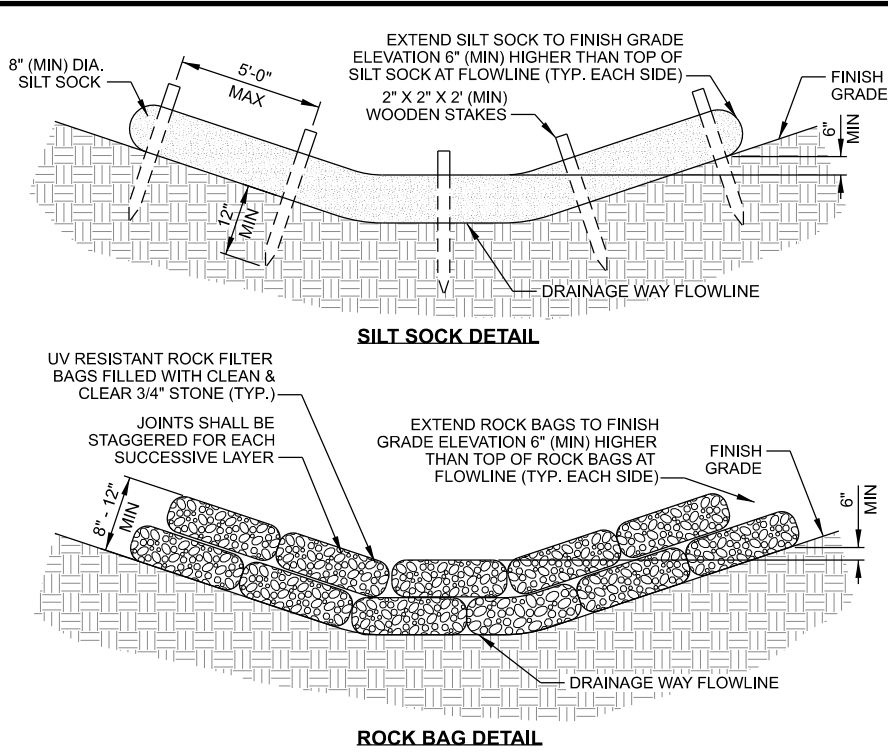
GENERATOR FUEL SYSTEM DETAILS
BOSCOBEL GF5 (31985)
BOSCOBEL, WISCONSIN

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
CHECKED BY:	AJO	
PLOT DATE:	6/20/2022	
PROJECT NUMBER:	31985	
SET TYPE:	BD	
SHEET NUMBER:	C-504	



- NOTES:
1. TRENCH SHALL BE SIZED TO ACHIEVE ADEQUATE GEOTEXTILE FABRIC ANCHORAGE. FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.
 2. WOOD POSTS SHALL BE HICKORY OR OAK.
 3. 8'-0" POST SPACING IS ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.
 4. ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOIL CONDITIONS.

A **SILT FENCE**



- NOTES:
1. TEMPORARY DITCH CHECK SHALL BE ORIENTED PERPENDICULAR TO UPSTREAM FLOWS.
 2. REMOVE SEDIMENT DEPOSITS ALONG DITCH CHECK WHEN 50% OR MORE OF THE EXPOSED HEIGHT OF THE CHECK IS COVERED.
 3. TEMPORARY DITCH CHECKS SHALL BE REMOVED FOLLOWING COMPLETE RESTORATION OF ALL UPSTREAM & DOWNSTREAM DRAINAGE WAYS AND TRIBUTARY AREAS.

B **TEMPORARY DITCH CHECK DETAILS**
SCALE: NTS

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GRADING AND EROSION CONTROL DETAILS
BOSCOBEL GF5 (31985)
BOSCOBEL, WISCONSIN

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
CHECKED BY:		AJO
PLOT DATE:		6/20/2022
PROJECT NUMBER:		31985
SET TYPE:		BD
SHEET NUMBER:		C-505

KEYNOTES: (THIS SHEET)

- A. RADIO EQUIPMENT RACK
- B. (1) 2" CONDUIT TO SHELTER;
ELECTRIC SERVICE
- C. (1) 2" CONDUIT TO GENERATOR;
GENERATOR POWER
- D. (1) 1" CONDUIT TO GENERATOR;
GENERATOR CONTROL & ALARM
- E. (1) 1" CONDUIT TO GENERATOR;
GENERATOR LOAD CENTER
- F. (1) 1" CONDUIT TO LP TANK;
LP TANK LEVEL MONITOR
- G. QUICKNET FIBER ENCLOSURE (FWME8);
20.25" W x 16.11" H x 3.52" D, (2 TOTAL)
- H. (2) 1-1/4" CONDUITS TO FIBER HANDHOLE
BY CONTRACTOR

GENERAL NOTES: (THIS SHEET)

1. CONTRACTOR TO FIELD VERIFY PENETRATION LOCATION
DIMENSIONS WITH SUPPLIED BUILDING. DIMENSIONS
SHOWN ARE APPROXIMATE.

****BUILDING TO BE PROVIDED BY OWNER, INSTALLED BY CONTRACTOR****
CONTRACTOR TO INSTALL EQUIPMENT AS NOTED IN THE SPECIFICATIONS

CONSULTANT:



CLIENT:



SHELTER FLOOR PLAN
BOSCOBEL GF5 (31985)
BOSCOBEL, WISCONSIN

SUBMITTAL:

INT.	DATE:	DESCRIPTION:

CHECKED BY: AJO

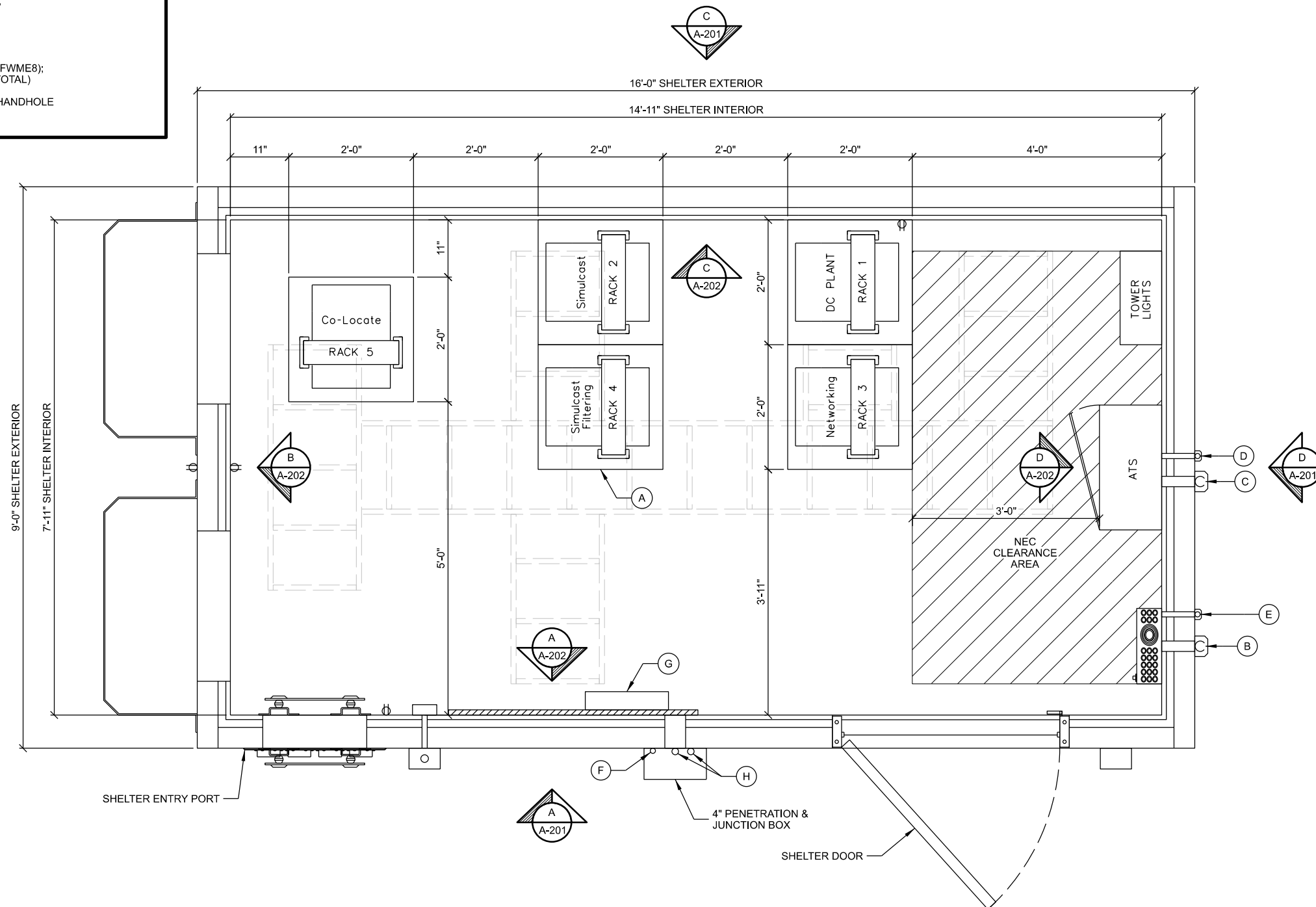
PLOT DATE: 6/20/2022

PROJECT NUMBER: 31985

SET TYPE: BD

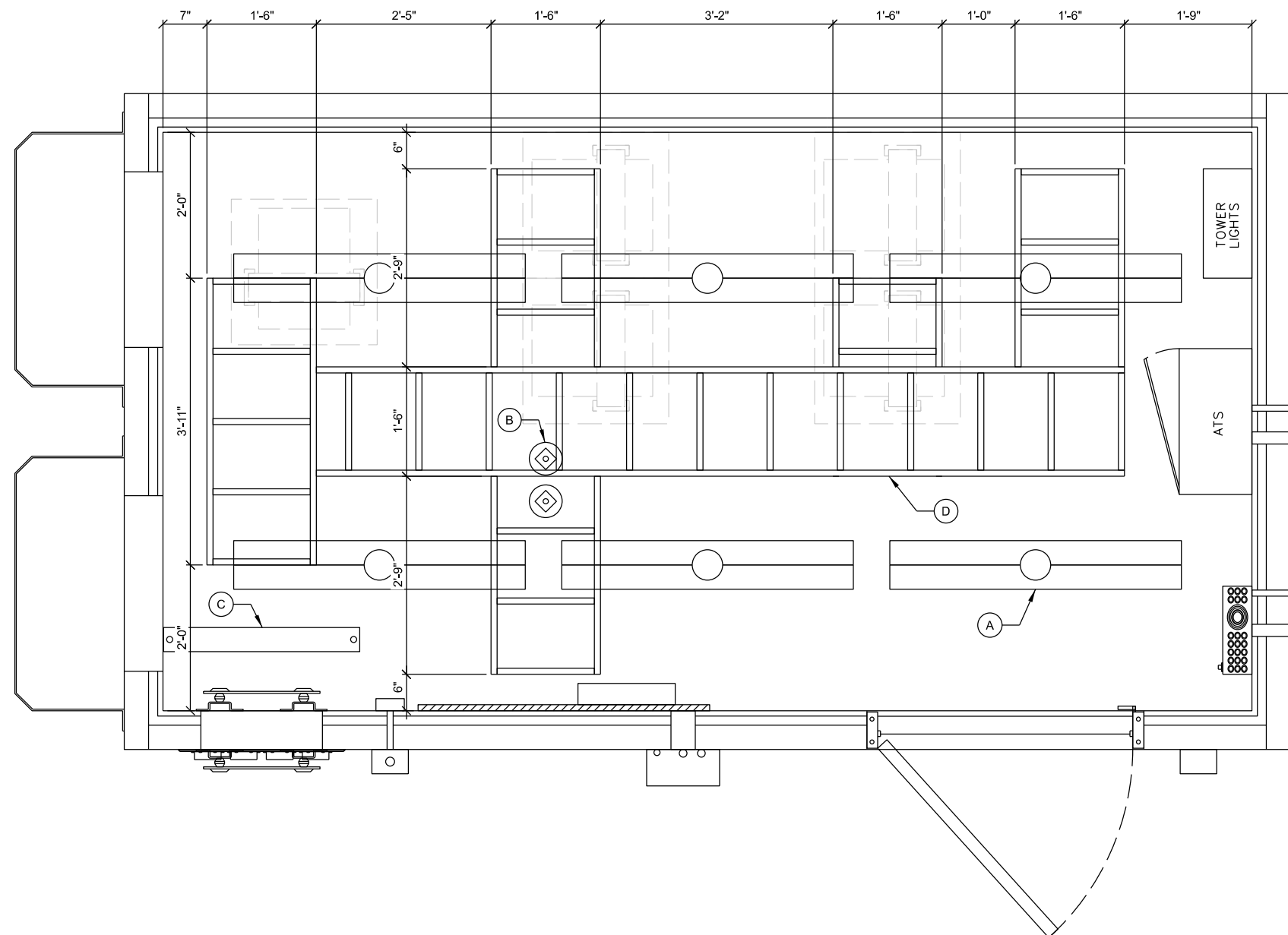
SHEET NUMBER: **A-101**

A SHELTER FLOOR PLAN
SCALE: 11" x 17" - 1/2" = 1'-0"
22" x 34" - 1" = 1'-0"



- A. 48" 2-BULB LIGHT FIXTURE
- B. SMOKE DETECTOR
- C. COAXIAL SURGE ARRESTOR TRAPEZE
- D. CABLE TRAY

1. CONTRACTOR TO FIELD VERIFY PENETRATION LOCATION
DIMENSIONS WITH SUPPLIED BUILDING. DIMENSIONS
SHOWN ARE APPROXIMATE.



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



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SHELTER CEILING PLAN
BOSCobel GF5 (31985)
BOSCobel, WISCONSIN

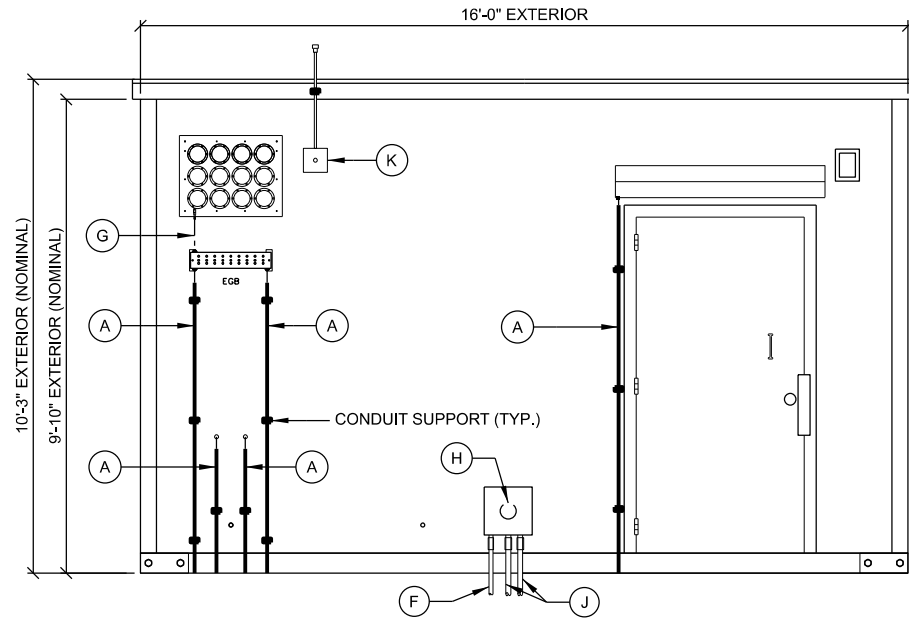
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INT.	DATE:	DESCRIPTION:
CHECKED BY	AJO	
PLOT DATE	6/20/2022	
PROJECT NUMBER	31985	
SET TYPE	BD	
SHEET NUMBER	A-102	

KEYNOTES: (THIS SHEET)

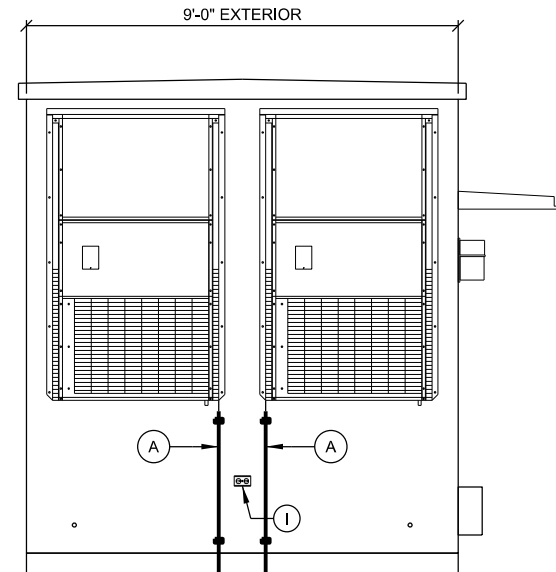
- A. #2 SOLID TINNED GROUND LEAD TO SITE GROUND SYSTEM. LEAD TO BE INSTALLED WITHIN CARFLEX CONDUIT. PROVIDE CONDUIT SUPPORT EVERY 30-INCHES. SECURE FASTENERS TO SHELTER WALL.
- B. 2" CONDUIT TO UTILITY RACK (AC POWER)
- C. 2" CONDUIT TO GENERATOR (AC POWER)
- D. 1" CONDUIT TO GENERATOR (CONTROL & ALARM)
- E. 1" CONDUIT TO GENERATOR (CONVENIENCE OUTLET)
- F. 1" CONDUIT TO LP TANK (REMOTE LEVEL MONITOR); CONNECT TO JUNCTION BOX
- G. #6 STRANDED INSULATED BONDING JUMPER TO ENTRY PORT PLATE
- H. 4" PENETRATION AND JUNCTION BOX
- I. EXTERIOR GFCI RECEPTACLE
- J. (2) 1-1/4" CONDUITS TO FIBER HANDHOLE BY CONTRACTOR
- K. TOWER LIGHTING JUNCTION BOX AND PHOTOCELL; SEE DETAIL D/E-504

GENERAL NOTES: (THIS SHEET)

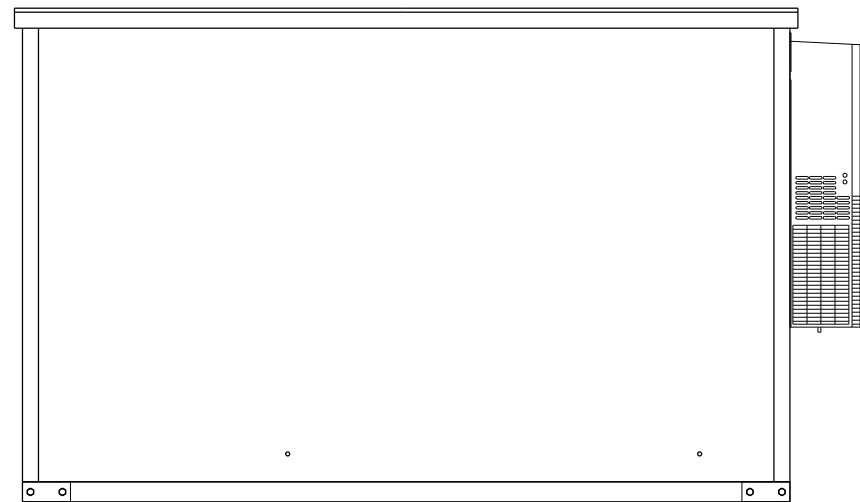
1. ALL PVC CONDUITS TO BUILDING TO INCLUDE SLIP JOINTS WHEN EXITING GRADE.
2. ALL CONDUITS ALONG SHELTER WALL TO BE PROVIDED WITH CONDUIT SUPPORTS AT +/- 30" INTERVALS.
3. ALL MECHANICAL GROUND CONNECTIONS TO UTILIZE 2-HOLE LUGS AND STAINLESS-STEEL HARDWARE. PROVIDE ANTI-OXIDANT COMPOUND BETWEEN LUG & CONNECTION POINT. USE COPPER ANTI-OXIDANT FOR COPPER-TO-COPPER CONNECTION.
4. SELF TAPPING SCREW GROUND CONNECTIONS ARE NOT ALLOWED.
5. ALL EXTERIOR METALLIC CONDUITS AND BOXES TO BE PROVIDED WITH GROUND BOND CONNECTION VIA THROUGH WALL HUB CONNECTION TO EXTERIOR GROUNDED DEVICE OR OTHER DIRECT CONNECTION TO GROUND SYSTEM.



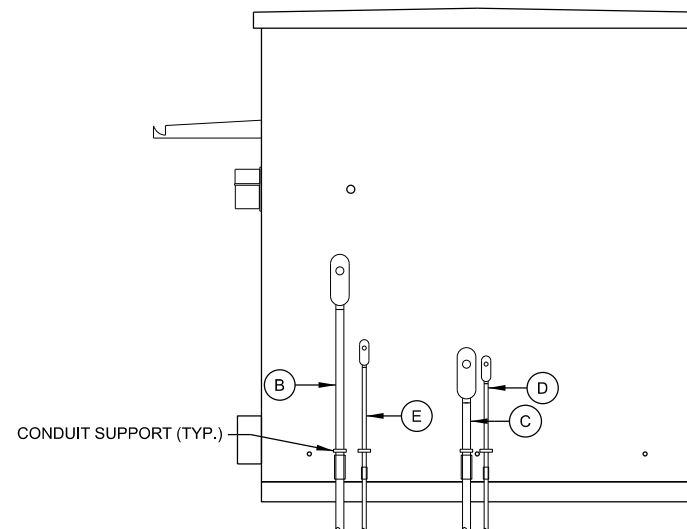
A EXTERIOR ELEVATION
SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"



B EXTERIOR ELEVATION
SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"



C EXTERIOR ELEVATION
SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"



D EXTERIOR ELEVATION
SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"

CONSULTANT:

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CLIENT:

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SHELTER ELEVATIONS: EXTERIOR
BOSCOBEL GF5 (31985)
BOSCOBEL, WISCONSIN

SUBMITTAL:

INT.	DATE	DESCRIPTION

CHECKED BY	AJO
PLOT DATE	6/20/2022
PROJECT NUMBER	31985
SET TYPE	BD

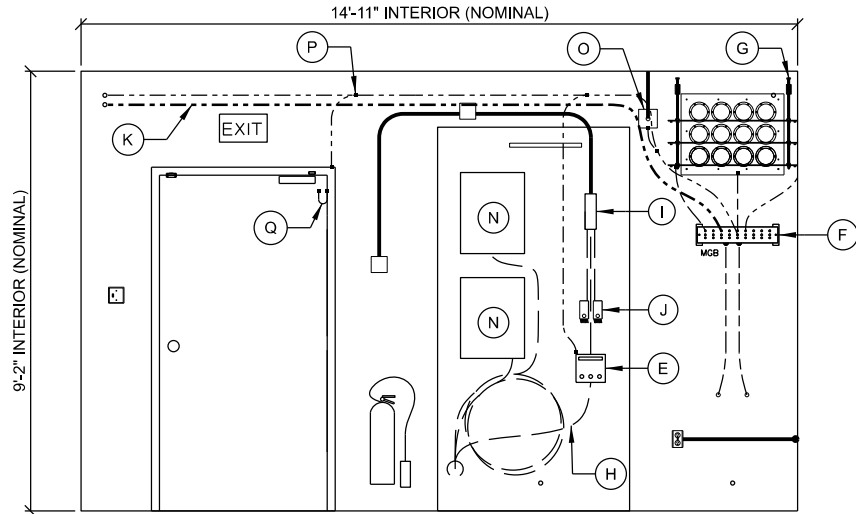
SHEET NUMBER **A-201**

KEYNOTES: (THIS SHEET)

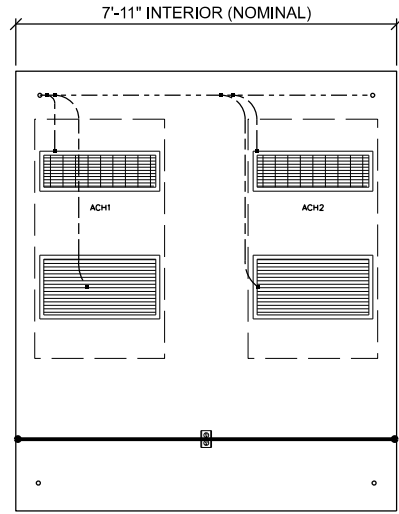
- A. AUTOMATIC TRANSFER SWITCH (ATS)
INSTALL AT 6'-0" ABOVE FINISH FLOOR
- B. CONDUIT/RACEWAY BETWEEN ELECTRIC SERVICE
DISCONNECT (SD), ATS & MTS
- C. BOND ALL DEVICE BOXES (ATS, TOWER LIGHTS, SPD1 &
SPD2) TO HALO (#6 STRANDED INSULATED)
- D. GROUNDING HALO (#2 STRANDED INSULATED) MOUNTED ON
NON-CONDUCTIVE STAND-OFFS 2-INCHES FROM WALL AND
6-INCHES BELOW CEILING
- E. LP TANK REMOTE LEVEL MONITOR
- F. MASTER GROUND BAR. FOLLOW PANI SYSTEM FOR
ORGANIZATION OF CONNECTIONS TO BAR
- G. COAXIAL SURGE PROTECTOR TRAPEZE GROUND SYSTEM
- H. ALARM WIRING
- I. R66 ALARM BLOCK
- J. HIGH & LOW TEMP ENVIRONMENTAL ALARMS
- K. NEUTRAL-GROUND BOND CONNECTION TIE TO MGB (#2
STRANDED INSULATED). ROUTE ALONG PERIMETER WALL
BELOW HALO OR ALONG CABLE TRAY
- L. POWER FAIL ALARM RELAY
- M. TOWER LIGHT CONTROLLER
- N. QUICKNET FIBER ENCLOSURE (FWME8);
20.25" W x 16.11" H x 3.52" D, (2 TOTAL);
(BY GRANT COUNTY)
- O. TOWER LIGHT JUNCTION BOX AND PENETRATION
- P. DOOR FRAME GROUND
- Q. DOOR PANEL GROUND (HINGE SIDE)

GENERAL NOTES: (THIS SHEET)

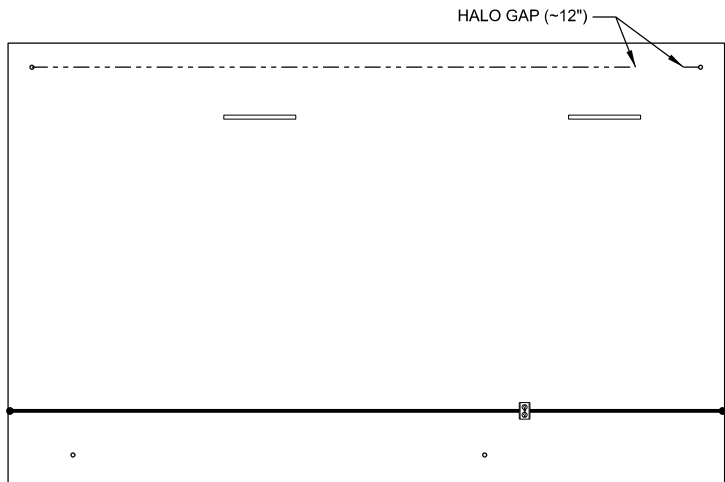
1. ALL INTERIOR CONDUITS TO BE RGS OR EMT. UTILIZE
COMPRESSION FITTINGS FOR EMT INSTALLATIONS.
2. ALL MECHANICAL GROUND CONNECTIONS TO UTILIZE 2-
HOLE LUGS AND STAINLESS-STEEL HARDWARE. PROVIDE
ANTI-OXIDANT COMPOUND BETWEEN LUG & CONNECTION
POINT. USE COPPER ANTI-OXIDANT FOR COPPER-TO-
COPPER CONNECTION.
3. PROVIDE EMT CONDUIT FOR ALL ALARM AND LOW VOLTAGE
WIRING FROM DEVICE TO ALARM BOARD. CONDUITS NEED
NOT BE FULL LENGTH AND MAY UTILIZE CABLE TRAY FOR
HORIZONTAL RUNS. CONDUITS SHALL EXTEND ABOVE AND
OVER TO CABLE TRAY AND PROVIDE BUSHINGS ON ENDS.
4. ALL METALLIC CONDUITS AND BOXES TO BE GROUND
BONDED TO HALO.



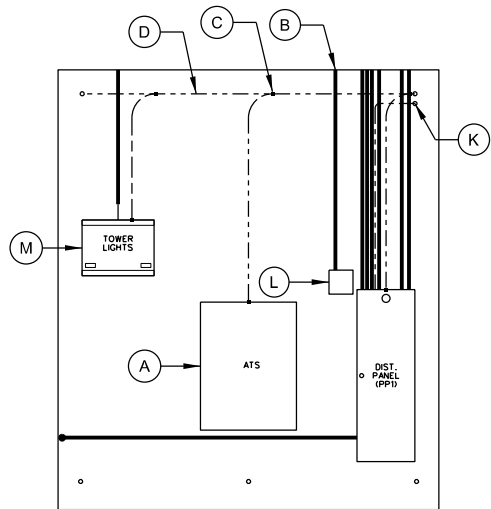
A INTERIOR ELEVATION
SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"



B INTERIOR ELEVATION
SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"



C INTERIOR ELEVATION
SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"



D INTERIOR ELEVATION
SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"

CONSULTANT:



CLIENT:

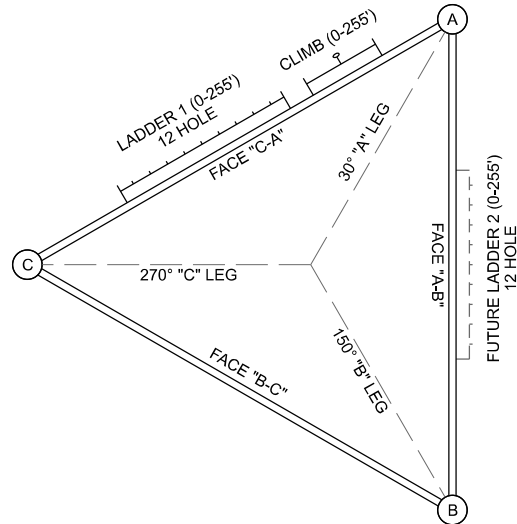


SHELTER ELEVATIONS: INTERIOR
BOSCOBEL GF5 (31985)
BOSCOBEL, WISCONSIN

SUBMITTAL:

INT.	DATE:	DESCRIPTION:

CHECKED BY:	AJO
PLOT DATE:	6/20/2022
PROJECT NUMBER:	31985
SET TYPE:	BD
SHEET NUMBER:	A-202



A TOWER ORIENTATION

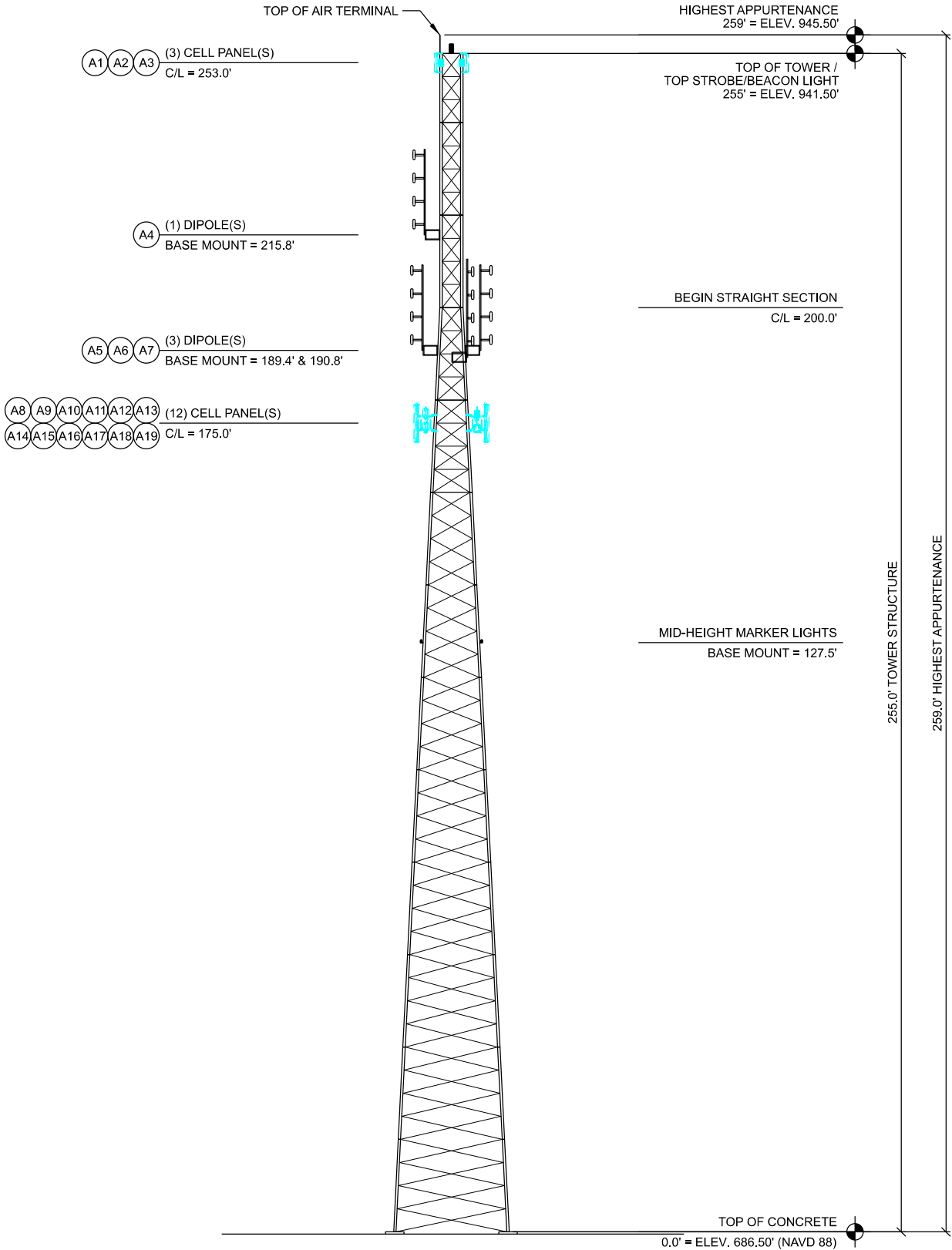
TOWER LOADING

ANTENNA ID	ANTENNA TYPE	(QTY.) ANTENNA MODEL SIZE & WEIGHT	TOWER LEG	ANTENNA MOUNT SIZE & WEIGHT	MOUNT HEIGHT (T.O.C.)	C/L HEIGHT (T.O.C.)	C/L ELEV. (NAVD 88)	ANTENNA AZMUTH	TLT (+/-)	Tx LINE (QTY.) SIZE	FREQUENCY (MHz)	OWNER USE	NOTES
A1 - A3	Panel	(3) Panel Antennas 4' x 20" x 8"	A, B, C	Leg Mounted	253.0'	253.0'	939.5'			(2) 1-5/8"		Future	(2) RRUs
A4	Dipole	Sinclair SD214-HF2P2LDF(D00B) 18.5' tall, 4 bays 109 lbs.	B	S-300 Stand-Off 36" long, 24" high 28 lbs.	215.8'	225.0'	911.5'	145°	0°	(1) 7/8"	138 - 174	Grant Co. P25 Rx	
A5	Dipole	Commscope DB-224A 21.25' tall, 4 bays 35 lbs.	C	S-300 Stand-Off 36" long, 24" high 28 lbs.	189.4'	200.0'	886.5'			(1) 7/8"	150 - 160	Grant Co. IFERN	
A6	Dipole	Sinclair SD214-HF2P2LDF(D00B) 18.5' tall, 4 bays 109 lbs.	B	S-300 Stand-Off 36" long, 24" high 28 lbs.	190.8'	200.0'	886.5'	145°	0°	(1) 7/8"	138 - 174	Grant Co. P25 Tx	
A7	Dipole	Sinclair SD214-HF2P2LDF(D00B) 18.5' tall, 4 bays 109 lbs.	A	S-300 Stand-Off 36" long, 24" high 28 lbs.	190.8'	200.0'	886.5'	145°	0°	(1) 7/8"	138 - 174	Grant Co. Fire Paging Tx	
A8 - A19	Panel	(12) Panel Antennas 8' x 20" x 8"	A, B, C	(3) 12'-6" V-Frames	175.0'	175.0'	861.5'			(12) 1-5/8"		Future	(9) RRUs

NOTES:

- TOWER TO BE ANALYZED FOR FULL CAPACITY LOADING (PROPOSED AND FUTURE).
- TOWER TO BE DESIGNED AS STRUCTURE CLASS III. REFER TO SPECS FOR OTHER REQUIREMENTS.
- ANTENNA LOADING IS BASED ON GRANT CO - PHASE 3 - ANTENNA & LINE DETAILS - REV 5.

B TOWER LOADING SUMMARY



NOTES:

- ALL DIMENSIONS SHOWN ARE REFERENCED FROM THE TOP OF TOWER FOUNDATION.
- TOWER TO BE EQUIPPED WITH E-1 LIGHTING KIT. LIGHTING SYSTEM TO BE COMPLETELY LED BASED. SPECIFICALLY DESIGNED FOR USE IN RF ENVIRONMENTS WITH NO INTERFERENCE. LIGHTS TO INCLUDE INFRARED EMITTERS AS REQUIRED BY CURRENT FAA LIGHTING REQUIREMENTS.
- AIR TERMINAL MOUNT TO BE BOLTED DIRECTLY TO TOWER STEEL. AIR TERMINAL TO BE BONDED TO AIR TERMINAL MOUNT.
- CONTRACTOR TO INSTALL TEMPORARY TOWER LIGHTING WHEN TOWER CONSTRUCTION REACHES 200'.
- TOP TOWER LIGHT TO BE INSTALLED ON MAST PIPE ABOVE TOP ANTENNA. NOTHING THAT IS 7/8" DIA OR MORE SHALL EXTEND ABOVE TOWER LIGHT.

C TOWER PROFILE (ELEVATION)

CONSULTANT:



CLIENT:



TOWER LOADING / ELEVATION
BOSCobel GF5 (31985)
BOSCobel, WISCONSIN

SUBMITTAL:

INT.	DATE	DESCRIPTION:

CHECKED BY:	AJO
PLOT DATE:	6/20/2022
PROJECT NUMBER:	31985
SET TYPE:	BD
SHEET NUMBER:	T-201

LEGEND: (THIS SHEET)

SIZE	SYMBOL	O.D.	MIN. BEND RAD.
1-5/8"		1.98"	20"
1-1/4"		1.55"	15"
7/8"		1.09"	10"
1/2"		0.63"	5"
CAT5		0.35"	3"
EW63		2"x1.16"	20"
EWP90-107		1.3"x0.8"	13"
LMR-400		0.4"	1"

LADDER #1 (COUNTY) 0' - 255'

LADDER #2 (FUTURE) 0' - 255'

ANTENNA ID:
SEE T-201 FOR DETAILS

NOTES:

1. REFER TO SHEET T-201 FOR ANTENNA ID REFERENCE AND LADDER INSTALLATION LOCATION.

2. DOUBLE STACKING OF 1-5/8" AND TRIPLE STACKING OF 7/8" COAX IS ALLOWED.

3. DOUBLE STACKING OF WAVEGUIDE IS ALLOWED WHEN USING CUSHION TYPE SNAP IN HANGERS.

4. GROUP LINES WITHIN LADDERS FOR SIMILAR TERMINATION LEVEL. SEPARATE WAVEGUIDE FROM COAX.

5. PROVIDE & INSTALL PROPERLY SIZED SNAP-INS FOR EACH COAX.

6. TOWER LOADING DESIGN SHALL ASSUME (3) COAX LADDERS INSTALLED

A

TRANSMISSION LINE LADDER ROUTING

ENTRY PANEL 1
(AS VIEWED FROM INSIDE SHELTER)

ENTRY PANEL PORT ASSIGNMENT

PORT #	ANTENNA ID	ANTENNA SYSTEM	(QTY.) CABLE SIZE
1	N/A	GPS	
2			
3			
4	N/A	GPS	
5	A6	P25 Tx	(1) 7/8"
6	A7	FIRE PAGING	(1) 7/8"
7	A4	P25 Rx	(1) 7/8"
8	A5	IFERN	(1) 7/8"
9			
10			
11			
12			

NOTES:

1. REFER TO SHEET T-201 FOR ANTENNA ID REFERENCE

2. PORT OPENINGS ARE 4" DIA UNLESS OTHERWISE NOTED.

3. PROVIDE AND INSTALL PROPERLY SIZED BOOTS, CUSHIONS AND PLUGS FOR EACH PORT OPENING INSIDE AND OUTSIDE OF SHELTER.

4. ALL UNUSED PORTS ON ALL ENTRY PANELS TO BE CAPPED & SECURED IN PLACE W/ BLACK CABLE TIE.

B

ENTRY PANEL ROUTING

3/4" DIA. HOLES FOR SNAP-IN TYPE COAX HANGERS

HARDWARE PROVIDED FOR FOUR ATTACHMENT POINTS PER SECTION

TOWER GIRT OR DIAGONAL

20' MAX. SECTION LENGTH

5" MAX.

C

VERTICAL TRANSMISSION LINE LADDER

INDOOR

OUTDOOR

12" +/-

SHELTER ROOF

INTERIOR GROUND HALO

SURGE PROTECTION DEVICE (POLYPHASERS)

COAX ROUTING INSIDE BUILDING

ARRESTOR TRAPEZE SYSTEM & CONNECTION TO INTERIOR MASTER GROUND BAR (BY CONTRACTOR) SITE PRO 1 MODEL #: ATK306U OR APPROVED EQUAL

INDEPENDENT GROUND LEADS TO MGB (#2 STRANDED INSULATED); 1 LEAD REQUIRED IF BONDED SYSTEM

INTERIOR MASTER GROUND BAR

SHELTER WALL

ENTRY PANEL PORT

GROUND KIT

GROUND CABLE BEFORE ENTERING BUILDING USING #6 AWG GROUND LEAD

EXTERIOR SHELTER GROUND BAR

D

CABLE ENTRY

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CONSULTANT:

Edge Consulting Engineers, Inc.

624 WATER STREET
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CLIENT:

RACOM

critical communications

TRANSMISSION LINE INSTALLATION DETAILS

BOSCOBEL GF5 (31985)

BOSCOBEL, WISCONSIN

SUBMITTAL:

INT.	DATE:	DESCRIPTION:

CHECKED BY:

AJO

PLOT DATE:

6/20/2022

PROJECT NUMBER:

31985

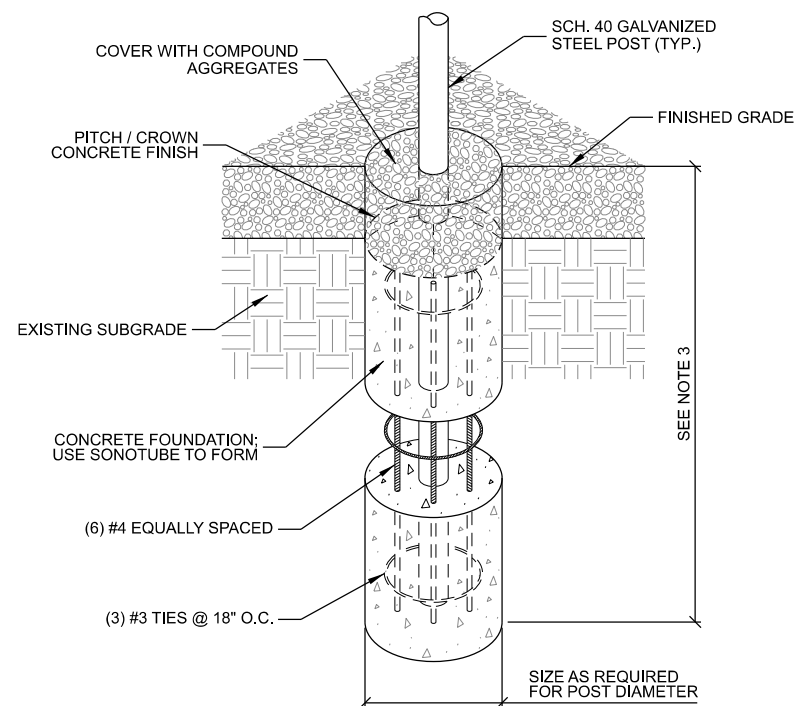
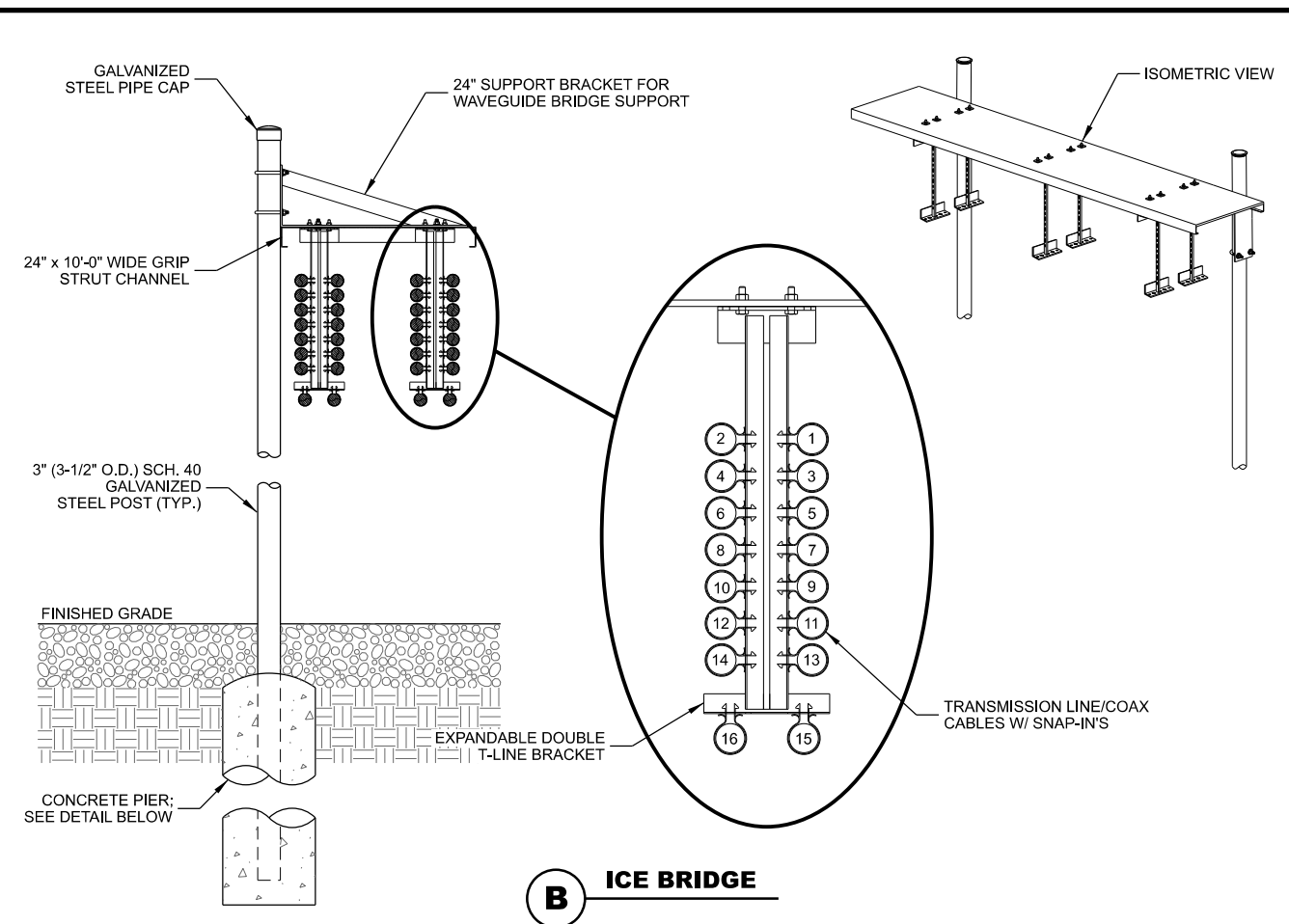
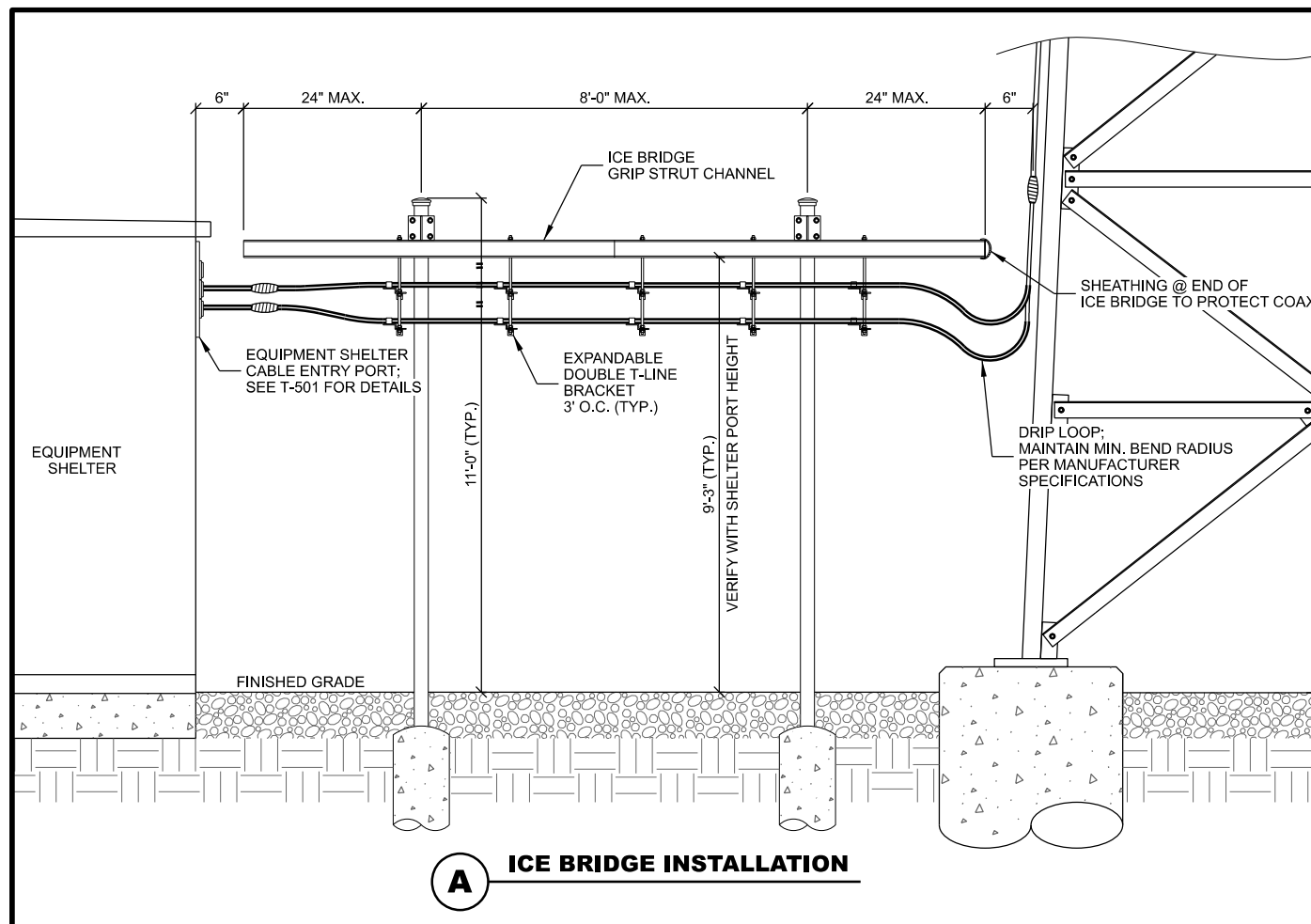
SET TYPE:

BD

SHEET NUMBER:

T-501

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- ICE BRIDGE NOTES : (THIS SHEET)**

1. FOR COMPONENTS AS SHOWN IN STANDARD DETAILS, MAXIMUM ALLOWABLE SPAN BETWEEN SUPPORTS ON A CONTINUOUS SINGLE SECTION OF BRIDGE CHANNEL SHALL BE 8' FOR A 10' SECTION.
2. SPLICES IN SECTIONS OF BRIDGE CHANNEL SHALL BE INSTALLED AT SUPPORTS, WHERE POSSIBLE, OR AT MOST 2' FROM A SUPPORT.
3. FREE ENDS OF ICE BRIDGE CHANNELS SHALL NOT EXCEED A CANTILEVER DISTANCE OF 2' FROM A SUPPORT.
4. CUT BRIDGE CHANNEL SECTIONS SHALL HAVE RAW EDGES TREATED WITH COLD GALVANIZING SPRAY.
5. DEVIATIONS FROM STANDARDS FOR COMPONENT INSTALLATIONS ARE PERMITTED WITH MANUFACTURER'S AND ENGINEER'S APPROVAL.
6. DEVIATIONS FROM ICE BRIDGE FOUNDATIONS SHOWN ON SITE SPECIFIC DRAWINGS OR STANDARD DETAILS REQUIRE ENGINEERING APPROVAL.
7. INSTALL PROTECTIVE SHEATHING AT TOWER END OF ICE BRIDGE TO PROTECT CABLING.

CONSULTANT:

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CLIENT:

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critical communications

ICE BRIDGE DETAILS
BOSCobel GF5 (31985)
BOSCobel, Wisconsin

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
CHECKED BY	AJO	
PLOT DATE	6/20/2022	
PROJECT NUMBER	31985	
SET TYPE	BD	
SHEET NUMBER	T-502	

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GROUNDING LEGEND: (THIS SHEET)

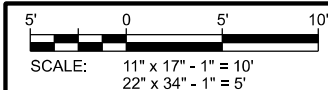
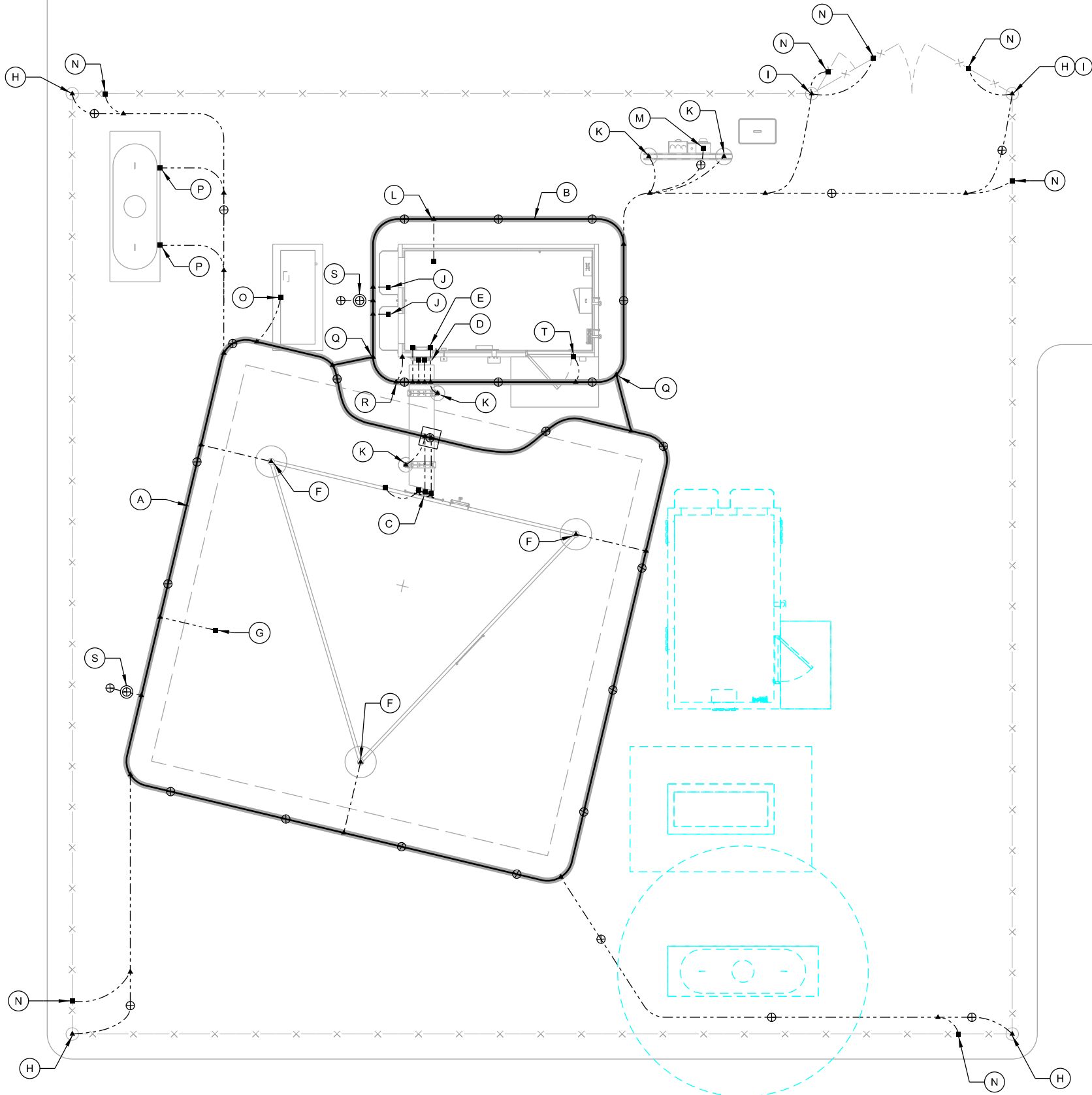
- ⊗ GROUND TEST WELL, SEE E-502 FOR DETAILS
- ⊗ COPPER CLAD GROUND ROD, (5/8" DIA. x 10' LONG)
SPACE @ GROUND ROD LENGTH (10' O.C. MAX., 6' MIN.)
- ⊗ COPPER PLATE, (18" x 18" x 0.032" THK)
SPACE @ GROUND ROD LENGTH (10' O.C. MAX., 6' MIN.)
- ▲ EXOTHERMIC OR UL RATED IRREVERSIBLE CONNECTION
(CADWELD OR HYGROUND)
- MECHANICAL CONNECTION
(BURNDY 2-HOLE LUG OR APPROVED EQUAL)
- #2 AWG BARE SOLID TINNED COPPER CONDUCTOR
IN STANDARD GROUND TRENCH, SEE E-502 FOR DETAILS
- #2/0 AWG BARE STRANDED TINNED COPPER CONDUCTOR
IN STANDARD GROUND TRENCH, SEE E-502 FOR DETAILS
- #2/0 AWG BARE STRANDED TINNED COPPER CONDUCTOR
IN ENHANCED GROUND TRENCH, SEE E-502 FOR DETAILS

KEYNOTES: (THIS SHEET)

- A. TOWER GROUND RING, MAINTAIN 2' SEPARATION
FROM TOWER FOUNDATION
- B. SHELTER GROUND RING, MAINTAIN 2' SEPARATION
FROM SHELTER FOUNDATION
- C. TOWER GROUND BAR, (2) LEADS TO TOWER GROUND RING &
(1) TO TOWER STEEL; SEE DETAIL D/E-501
- D. EXTERIOR SHELTER GROUND BAR, (2) LEADS TO SHELTER
GROUND RING; SEE DETAIL F/E-502
- E. INTERIOR SHELTER GROUND BAR (MGB), (2) LEADS TO
SHELTER GROUND RING; SEE DETAIL F/E-502
- F. TOWER STEEL GROUND, (1) PER LEG REQ'D. EXOTHERMIC
WELD TO LEG GROUND TAB; SEE E-501 FOR DETAILS
- G. TOWER FOUNDATION GROUND; SEE E-502 FOR DETAILS
- H. FENCE CORNER POST GROUND; SEE E-502 FOR DETAILS
- I. FENCE GATE GROUND; SEE E-502 FOR DETAILS
- J. SHELTER EXTERIOR AC UNIT GROUND; SEE A-201 FOR DETAILS
- K. ICE BRIDGE/UTILITY POST GROUND; SEE E-501 FOR DETAILS
- L. SHELTER FOUNDATION GROUND; SEE E-502 FOR DETAILS
- M. A/C METER BOX GROUND
- N. FENCE FABRIC & DETERRENT WIRING BONDING;
SEE E-502 FOR DETAILS
- O. GENERATOR ENCLOSURE GROUND, (1) LEAD
- P. LP TANK LEG GROUND (EACH LEG), 2-HOLE LUG
- Q. SHELTER GROUND RING TO TOWER GROUND RING, (2) LEADS
- R. SHELTER ANCHOR TAB GROUND. CLOSEST TAB TO RF ENTRY
PORT (1 REQ'D)
- S. GROUND TEST WELL; SEE DETAIL C/E-502 FOR DETAILS
- T. SHELTER AWNING GROUND. TIE TO SHELTER GROUND RING.

GENERAL NOTES: (THIS SHEET)

1. ALL EXTERIOR GROUNDING SHALL MEET OR EXCEED THE CURRENT HARRIS SITE
GROUNDING AND LIGHTNING PROTECTION GUIDELINES. REFER TO INSTALLATION
MANUAL AE/LZT 123 4618/1 REV F (JUNE 2017).
2. THE GROUNDING SYSTEM & CONDUCTORS SHALL BE TESTED BY CONTRACTOR
PRIOR TO BACKFILLING. SYSTEM SHALL PROVIDE 3 OHM OR LESS RESISTANCE
UPON COMPLETION.
3. ALL NON-INSULATED GROUND LEADS EXTENDING ABOVE GROUND LEVEL SHALL BE
ENCASED IN 1/2" PVC & SEALED WITH SILICONE.
4. GROUND RINGS & TOP OF RODS SHALL BE INSTALLED AT 30" BELOW FINISHED
GRADE. (SEE DETAIL A/E-501)
5. INSTALL 18"x18" COPPER PLATES IN LIEU OF GROUND RODS WHEN INSTALLING
OVER TOWER FOUNDATION OR WHERE DRIVING GROUND RODS IS NOT FEASIBLE.
REFER TO GEOTECH REPORT FOR SOIL CONDITIONS.
6. ALL MECHANICAL GROUND CONNECTIONS TO UTILIZE 2-HOLE LUGS AND
STAINLESS-STEEL HARDWARE. PROVIDE ANTI-OXIDANT COMPOUND BETWEEN
LUG & CONNECTION POINT. USE COPPER ANTI-OXIDANT FOR COPPER-TO-COPPER
CONNECTIONS. SELF-TAPPING SCREWS ARE NOT ALLOWED.
7. ALL ABOVE GRADE CADWELD CONNECTIONS (TO GALVANIZED ITEMS) SHALL BE
SPRAYED WITH COLD GALVANIZING COMPOUND TO PREVENT CORROSION.



CONSULTANT:

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CLIENT:



GROUNDING PLAN
BOSCobel GF5 (31985)
BOSCobel, WISCONSIN

SUBMITTAL:

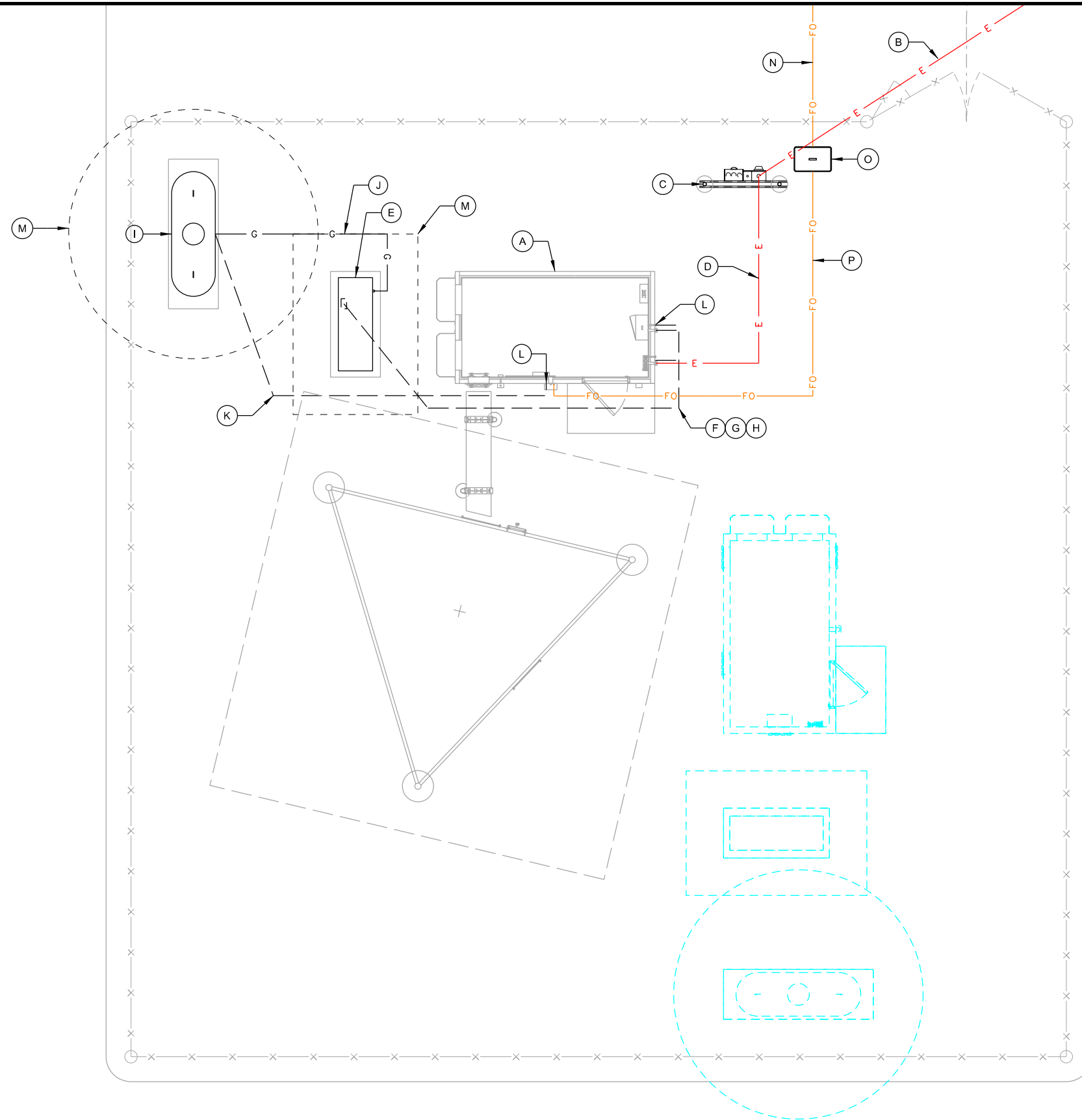
INT.	DATE	DESCRIPTION:

CHECKED BY	AJO
PLOT DATE	6/20/2022
PROJECT NUMBER	31985
SET TYPE	BD

SHEET NUMBER **E-101**

- A. EQUIPMENT SHELTER
- B. 600A 120/240V 1P SECONDARY ELECTRIC SERVICE TO UTILITY RACK. (2) 4" CONDUITS INSTALLED BY CONTRACTOR;
COORDINATE INSTALLATION WITH UTILITY PROVIDER
- C. UTILITY RACK INSTALLED BY CONTRACTOR;
SEE E-505 FOR DETAILS
- D. 200A 120/240V 1P ELECTRIC SERVICE TO EQUIPMENT BUILDING;
(1) 2" CONDUIT INSTALLED BY CONTRACTOR
- E. 36kW GENERATOR ON CONCRETE SUPPORT SLAB;
SEE C-504 FOR DETAILS
- F. GENERATOR AC ELECTRIC;
(1) 2" CONDUIT (RNMC)
- G. GENERATOR CONTROL & ALARM;
(1) 1" CONDUIT (RNMC)
- H. GENERATOR CONVENIENCE OUTLET;
(1) 1" CONDUIT (RNMC)
- I. 500 GAL. LP TANK, SEE C-504 FOR DETAILS
- J. LP FUEL LINE, SEE E-505 FOR DETAILS
- K. REMOTE LP FUEL TANK LEVEL MONITOR CONDUIT;
(1) 1" CONDUIT (RNMC)
- L. STUB ALL CONDUITS ON OUTSIDE OF CONCRETE FOUNDATION. ALL OUTSIDE BUILDING PENETRATIONS TO BE WEATHERPROOF LB, SEE E-503 FOR DETAILS
- M. UTILITY SETBACK / CLEARANCES.
3' AROUND GENERATOR.
10' AROUND LP TANK VALVE
- N. FIBER OPTIC CONDUITS
BY GRANT COUNTY;
(2) 1-1/4" CONDUITS (RNMC)
- O. FIBER HANDHOLE
BY GRANT COUNTY;
SEE DETAIL E/E-504
- P. FIBER OPTIC CONDUITS
BY CONTRACTOR;
(2) 1-1/4" CONDUITS (RNMC)

1. CONTRACTOR SHALL FIELD VERIFY DEPTHS, LOCATIONS, & SIZES OF ALL EXISTING UTILITIES.
2. ALL UTILITIES SHALL BE INSTALLED ACCORDING TO STATE AND LOCAL REQUIREMENTS.
3. ALL ELECTRICAL WORK SHALL CONFORM TO NATIONAL, STATE, AND LOCAL CODES.
4. ALL UNDERGROUND TRENCHING, PIPE AND CONDUIT INSTALLATION TO BE COMPLETED PRIOR TO FINAL SUBGRADE COMPACTION AND AGGREGATE INSTALLATION.
5. ALL CONDUCTORS TO BE COPPER.
6. ALL UNDERGROUND ELECTRICAL & TELCO CONDUITS TO BE SCH. 80 PVC UNLESS OTHERWISE REQUIRED BY THE UTILITY PROVIDER.
7. ALL OUTDOOR ABOVE GRADE EXPOSED ELECTRICAL CONDUIT RUNS TO BE RIGID GALVANIZED STEEL (RGS). ALL BELOW GRADE CONDUIT STUB UPS TO BE SCH 80 PVC WITH SLIP JOINT.
8. REFERENCE MANUFACTURER AND CATALOG NUMBERS ARE USED FOR QUALITY AND PERFORMANCE ONLY. EQUIPMENT MFR. BY OTHERS ARE EQUALLY ACCEPTABLE PROVIDED THEY MEET OR EXCEED THE SPEC.
9. PROVIDE AND INSTALL ALL NECESSARY WIRING AND CONDUITS FROM EXTERIOR ELECTRICAL ITEMS TO DISTRIBUTION PANEL WITHIN EQUIPMENT BUILDING.
10. ALL CONDUIT STUBS IN BUILDINGS & PULL BOXES TO BE IDENTIFIED AND LABELED.
11. PROVIDE PULL STRINGS IN ALL CONDUITS.
12. ALL INDOOR EXPOSED CONDUIT TO BE METALLIC (EMT OR RGS). COMPRESSION FITTINGS ARE REQUIRED FOR EMT CONDUITS.
13. SEE E-503 FOR CONDUIT INSTALLATION REQUIREMENTS.



SHEET
NUMBER



KEYNOTES: (THIS SHEET)

- A. MASTER GROUND BAR, SEE F/E-502

B. EXTERIOR GROUND BAR, SEE F/E-502

C. COAXIAL SURGE ARRESTOR TRAPEZE

D. #2 STRANDED INSULATED HALO MOUNTED ON NON-CONDUCTIVE STAND-OFFS 3-INCHES FROM WALL AND 6-INCHES BELOW CEILING

E. #2 STRANDED INSULATED SERVICE DISCONNECT NEUTRAL-GROUND BOND LEAD TO MGB

F. #2 STRANDED INSULATED RACK GROUNDS (1) PER RACK

G. #2 STRANDED INSULATED CABLE TRAY SYSTEM GROUND
- H. #6 STRANDED INSULATED CABLE TRAY SECTION GROUNDS

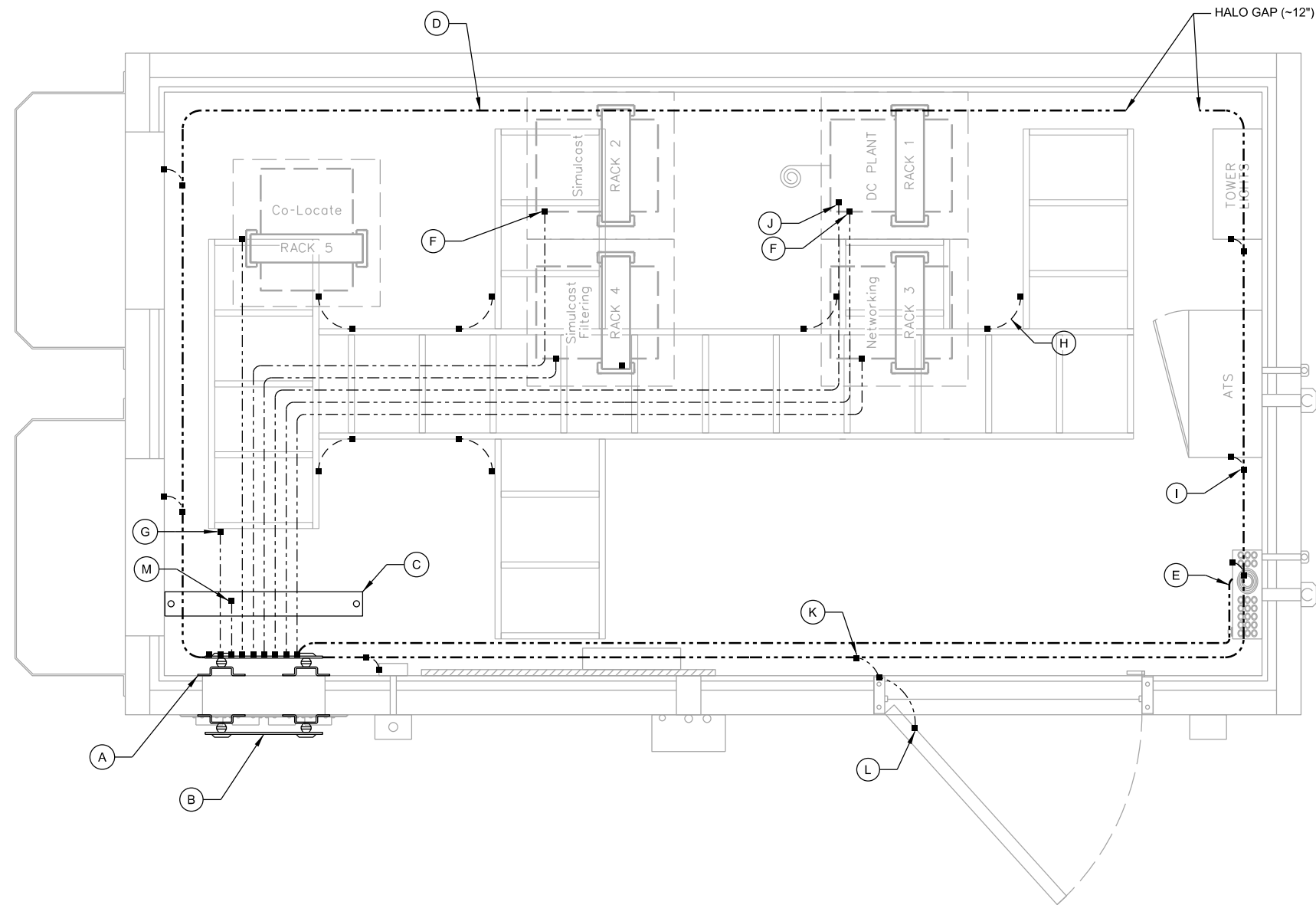
I. #6 STRANDED INSULATED METAL DEVICE/ BOX BONDS

J. (1) #2 STRANDED INSULATED DC PLANT GROUND

K. #6 OR LARGER STRANDED INSULATED DOOR FRAME GROUND

L. #6 OR LARGER STRANDED OR SHORT BRAIDED INSULATED DOOR PANEL GROUND (HINGE SIDE)

M. #2 STRANDED INSULATED COAXIAL SURGE ARRESTOR TRAPEZE GROUND



A **SHELTER GROUNDING PLAN**
SCALE: 11" x 17" - 1/2" = 1'-0"
22" x 34" - 1" = 1'-0"

CONSULTANT:



CLIENT:



SHELTER GROUNDING PLAN
BOSCOBEL GF5 (31985)
BOSCOBEL, WISCONSIN

SUBMITTAL:

INT.	DATE:	DESCRIPTION:

CHECKED BY: AJO

PLOT DATE: 6/20/2022

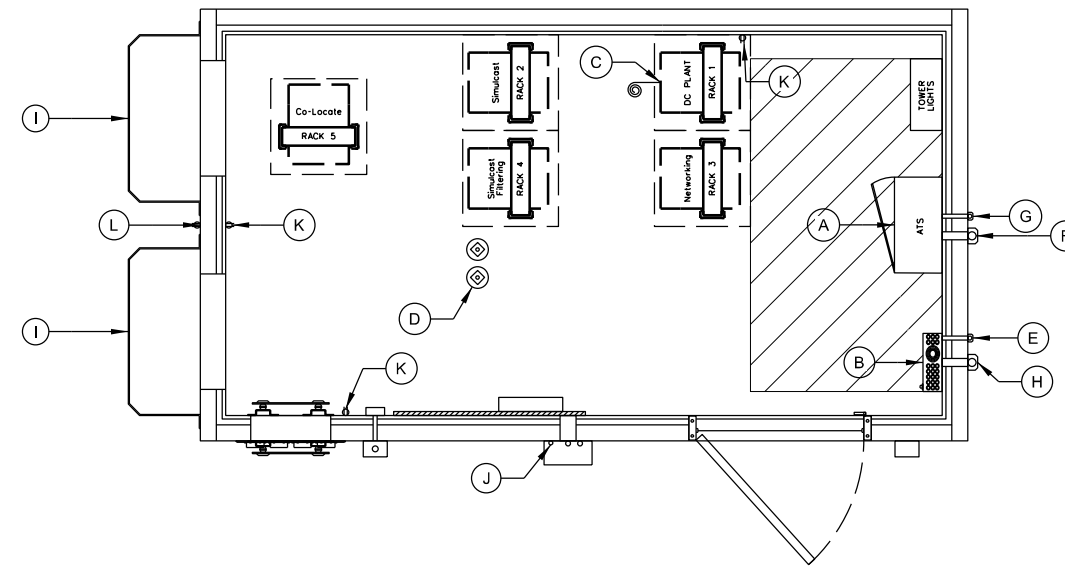
PROJECT NUMBER: 31985

SET TYPE: BD

SHEET NUMBER: **E-103**

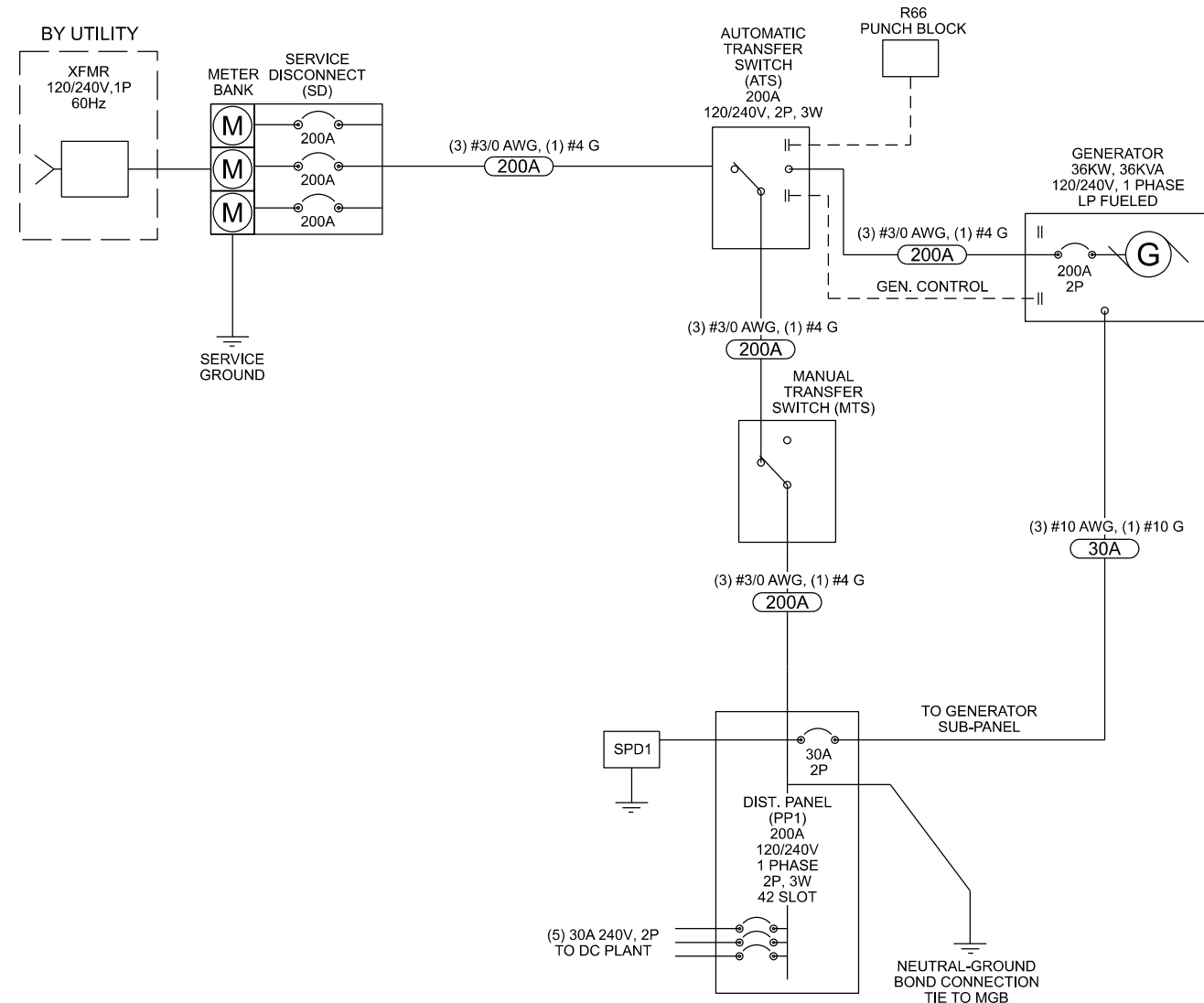
A.	AUTOMATIC TRANSFER SWITCH (ATS)
B.	DISTRIBUTION PANEL (PP1)
C.	(5) DC PLANT POWER FEEDS
D.	SMOKE ALARM
E.	GENERATOR SUB PANEL FEED
F.	GENERATOR A/C POWER FEED
G.	GENERATOR CONTROL WIRING FEED
H.	ELECTRIC UTILITY SERVICE FEED
I.	HVAC UNIT
J.	LP TANK LEVEL MONITOR RECEPTACLE
K.	INTERIOR CONVENIENCE OUTLET
L.	EXTERIOR CONVENIENCE OUTLET

1. ALL ELECTRICAL WORK SHALL CONFORM TO NATIONAL, STATE AND LOCAL CODES.
2. ALL WIRE AND CONDUIT SIZES SPECIFIED ARE MINIMUMS. LARGER SIZES MAY BE REQUIRED BY CODE. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND CODE REQUIREMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
3. ALL CONDUCTORS SHALL BE COPPER.
4. ALL INDOOR RACEWAY TO BE EMT OR RGS. EMT INSTALLATIONS SHALL UTILIZE COMPRESSION FITTINGS.
5. CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY WIRING AND CONDUITS FROM ELECTRICAL DEVICES REQUIRED ON PROJECT TO THE DISTRIBUTION PANELS.
6. ALL ELECTRICAL WORK SHALL BE COMPLETED UNDER THE DIRECT SUPERVISION OF A LICENSED MASTER ELECTRICIAN.



A **SHELTER ELECTRICAL PLAN**

SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"



B ELECTRICAL ONE LINE DIAGRAM

DIST. PANEL (PP1)	PHASE/WIRE				BUS SIZE		MAIN				A/C RATING
120/240VAC	1/3				200A		LUGS				10,000
LOAD	WIRE	POLE	TRIP	CK#	A	B	CK#	TRIP	POLE	WIRE	LOAD
HVAC #1	8	2	35	1							INT/EXT EMER. LIGHT
	-	-	-	3			2	15	1	12	
HVAC #2	8	2	35	5			4	15	1	12	SPARE
	-	-	-	7			6	20	1	12	RECEPTACLES
RECTIFIER #1	10	2	30	9			8	20	1	12	RECEPTACLES
	-	-	-	11			10	20	1	-	GFCI RECEPTACLE
RECTIFIER #2	10	2	30	13			12	20	1	-	TOWER LTG
	-	-	-	15			14	15	1	-	SMOKE DETECTOR
RECTIFIER #3	10	2	30	17			16	-	-	-	SPARE
	-	-	-	19			18	-	-	-	SPARE
SPARE	-	-	-	21			20	-	-	-	SPARE
	-	-	-	23			22	-	-	-	SPARE
SPARE	-	-	-	25			24	-	-	-	SPARE
	-	-	-	27			26	-	-	-	SPARE
SPARE	-	-	-	29			28	-	-	-	SPARE
	-	-	-	31			30	-	-	-	SPARE
SPARE	-	-	-	33			32	-	-	-	SPARE
	-	-	-	35			34	-	-	-	SPARE
SPARE	-	-	-	37			36	-	-	-	SPARE
	-	-	-	39			38	-	-	-	SPARE
SPARE	-	-	-	41			40	-	-	-	SPARE
	-	-	-	43			42	-	-	-	SPARE

C ELECTRIC DISTRIBUTION PANEL DIRECTORY

CLIENT:

 **RACOM**
critical communications

SHELTER ELECTRICAL PLAN
BOSCobel GF5 (31985)
BOSCobel, WISCONSIN

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
CHECKED BY	AJO	
PLOT DATE	6/20/2022	
PROJECT NUMBER	31985	
SET TYPE	BD	
SHEET NUMBER	E-104	

A. AIR TERMINAL:
EXTEND 2" ABOVE HIGHEST ANTENNA MIN. ON MAST PIPE
MECHANICALLY FASTEN AIR TERMINAL TO MAST PIPE MAST
PIPE TO BE MECHANICALLY CONNECTED TO TOWER STEEL

B. COAX / WAVEGUIDE TRANSMISSION LINE GROUND KIT;
SEE DETAIL THIS SHEET

C. GROUND KIT JUMPER;
CONNECT TO GROUND BAR WITH 2 HOLE LONG BARREL LUG

D. ANTENNA GROUND BAR (TINNED);
FOR CONNECTION OF MULTIPLE GROUND KITS AT ONE
LEVEL MOUNT TO TOWER STEEL;
INSTALL #2 STRANDED LEAD FROM GROUND BAR TO TOWER
STEEL

E. FOR SINGLE ANTENNAS AT ONE LEVEL OMIT ANTENNA
GROUND BAR CONNECT GROUND KIT JUMPER DIRECTLY TO
TOWER STEEL WITH UL LISTED BONDING CLAMP

F. UL LISTED BONDING CLAMP:
- HARGER BGC41.25-2 PIPE CLAMPS FOR
1-1/4" TO 2" DIA. ROUND MEMBERS
OR
- HARGER #223T HEAVY DUTY TINNED FLANGE
BONDING PLATE
- USE EXTERNAL ANTI-OXIDATION COMPOUND.
- PAINT WITH COLD GALV. COMPOUND AFTER BONDING.

G. TOWER GROUND BAR (TGB) (TINNED);
4" x 18" x 1/4" - SIZED FOR (30) 2 HOLE GROUND LUGS MOUNT
DIAGONALLY FOR EASIER HOOK-UP OF GROUNDING KIT
LEADS INSTALL ON TOWER WITH INSULATORS AT 12" (ABOVE
ICE BRIDGE)

H. TGB GROUNDS:
#2 BARE SOLID TINNED ENCASED IN CARFLEX CONDUIT
FROM TGB TO TOWER GROUND RING (2) REQ'D AND FROM
TGB TO TOWER STEEL (1) REQ'D:
CONDUIT TO BE SUPPORTED EVERY +/- 30-INCHES TO
GRADE. SUPPORT ALONG TRANSMISSION LADDER WITH
COAX SNAP-IN HANGERS OR ANGLE ADAPTERS CONNECTED
TO TOWER STEEL.

I. TOWER STEEL GROUNDS:
#2 BARE SOLID TINNED ENCASED IN CARFLEX CONDUIT
FROM TOWER STEEL TO TOWER GROUND RING (3) REQ'D.

J. TOWER FOUNDATION GROUND, (1 REQ'D);
SEE E-502 FOR DETAILS

K. SHELTER EXTERIOR GROUND BAR (EGB) (TINNED);
SEE DETAIL THIS SHEET

L. EGB GROUNDS:
#2 BARE SOLID TINNED
SEE DETAIL THIS SHEET & F/E-502.
ENCASE IN CARFLEX CONDUIT FROM EGB TO SHELTER
GROUND RING (2) REQ'D.
CONDUIT TO BE SUPPORTED EVERY +/- 30-INCHES TO
GRADE.

M. SURGE ARRESTOR/POLY PHASER

N. INTERIOR SHELTER GROUND BAR / MASTER GROUND BAR
(MGB);
SEE DETAIL THIS SHEET & F/E-502.

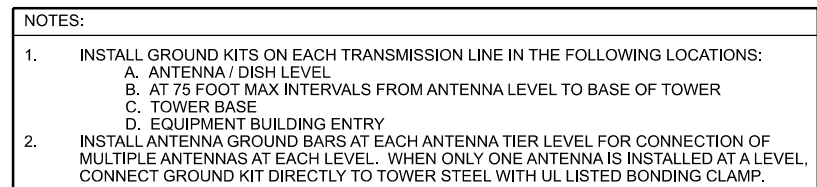
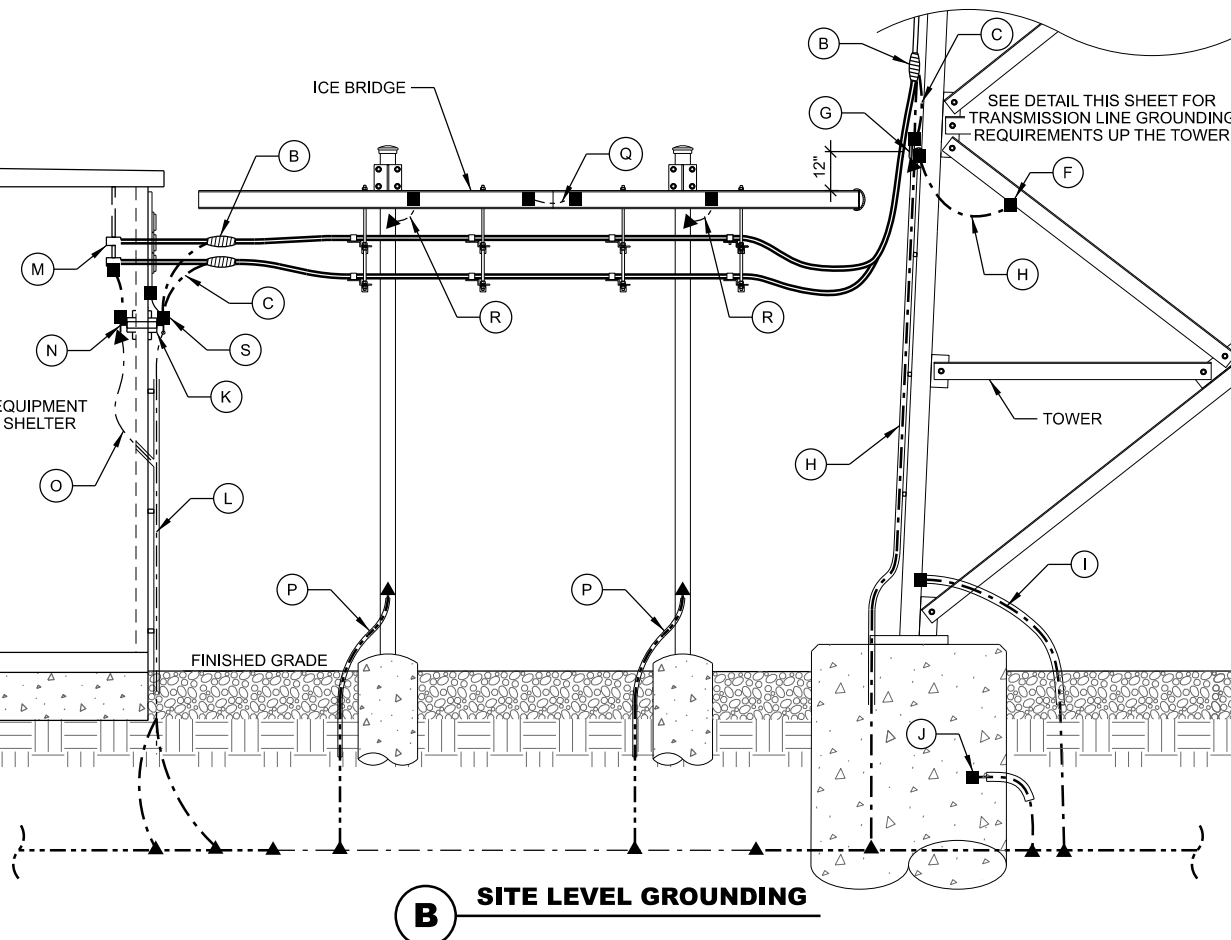
O. #2 BARE SOLID TINNED, ENCASE IN CARFLEX CONDUIT
FROM MGB TO SHELTER GROUND RING (2) REQ'D.;
SEE DETAIL THIS SHEET

P. ICE BRIDGE POST GROUNDS;
#2 BARE SOLID TINNED ENCASE IN CARFLEX CONDUIT TO 24"
BELOW GRADE;
SEE E-502 FOR DETAILS

Q. ICE BRIDGE SECTION GROUNDS;
#6 STRANDED INSULATED
2 HOLE LONG BARREL ON EACH END (TYP.)

R. ICE BRIDGE SECTION TO POST GROUNDS;
#6 STRANDED INSULATED
2 HOLE LONG BARREL ON SECTION & CADWELDED TO POST
ORIENT LEAD WITH HIGH SIDE TOWARDS TOWER

S. ENTRY PANEL GROUND;
#6 STRANDED INSULATED
2 HOLE LONG BARREL ON EACH END (TYP.)



GROUNDING DETAILS
BOSCOBEL GF5 (31985)
BOSCOBEL, WISCONSIN

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
CHECKED BY	AJO	
PLOT DATE	6/20/2022	
PROJECT NUMBER	31985	
SET TYPE	BD	
SHEET NUMBER	E-501	

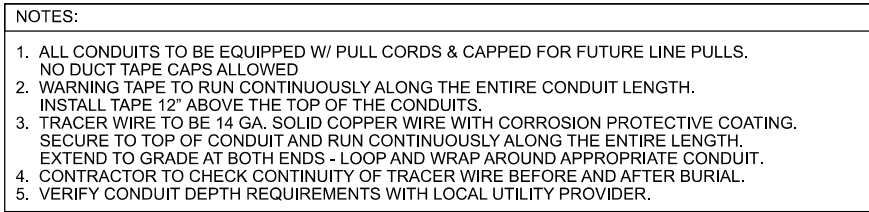


Diagram illustrating the installation of a buried conduit and tracer wire for a shelter exterior.

Labels and components shown:

- SHELTER EXTERIOR
- LB
- CONDUIT SUPPORT (AS REQUIRED)
- SLIP JOINT
- SECURE TRACER WIRE TO CONDUIT
- FINISHED GRADE
- TRACER WIRE SECURED TO TOP OF CONDUIT
- BURIED CONDUIT; SEE UTILITY PLAN FOR SIZE AND MATERIAL TYPE
- SHELTER FOUNDATION

PHOTOCELL

$\frac{1}{2}$ " NPT FEMALE THREADS

$\frac{1}{2}$ " RMC FOR PHOTO CELL

SECURE RMC TO SHELTER WITH BUTTERFLY CLAMP OR OTHER APPROVED METHOD

6" x 6" x 4" NEMA 3R METALLIC JUNCTION BOX SECURED TO EXTERIOR WALL

ICE BRIDGE

1" RMC CONDUIT SLEEVE THROUGH SHELTER WALL

$4\frac{1}{16}$ " SQUARE (5S) BOX SECURED TO INTERIOR WALL; SEE NOTE #1

CONDUIT TO LIGHTING CONTROLLER FOR FLASHER CABLE AND PHOTO CELL WIRES

LIGHTING CONTROLLER MOUNTED TO INTERIOR WALL PER MANUFACTURER SPECIFICATIONS; SEE NOTE #1

$\frac{1}{2}$ " CABLE ACROSS ICE BRIDGE; ROUTE FLASHER CABLE WITHIN CONDUIT SLEEVE ACROSS ICE BRIDGE

FLASHER CABLE

NOTES:

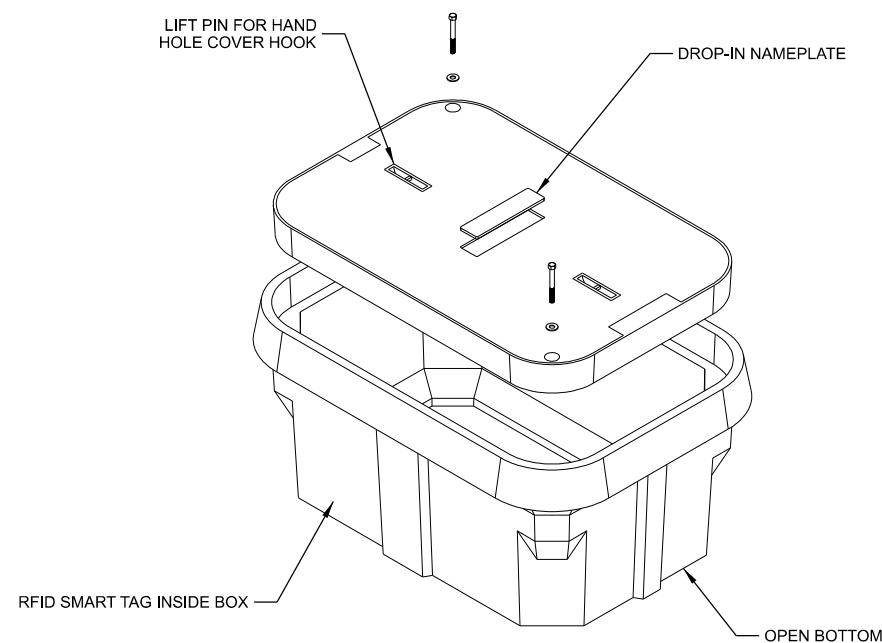
1. PROVIDE GROUND BOND FROM LIGHTING CONTROLLER BOX AND INTERIOR JUNCTION BOX TO INTERIOR GROUND HALO SYSTEM.

FIBERGLASS POLYMER CONCRETE UTILITY VAULT

DIMENSIONS: 30" x 42" x 24"; CUSTOMER TO ID H, W, & D

LOAD RATINGS: INCIDENTAL TRAFFIC

NON-CONDUCTIVE, UV RESISTANT, & IMPERVIOUS TO
CHEMICALS & MOISTURE



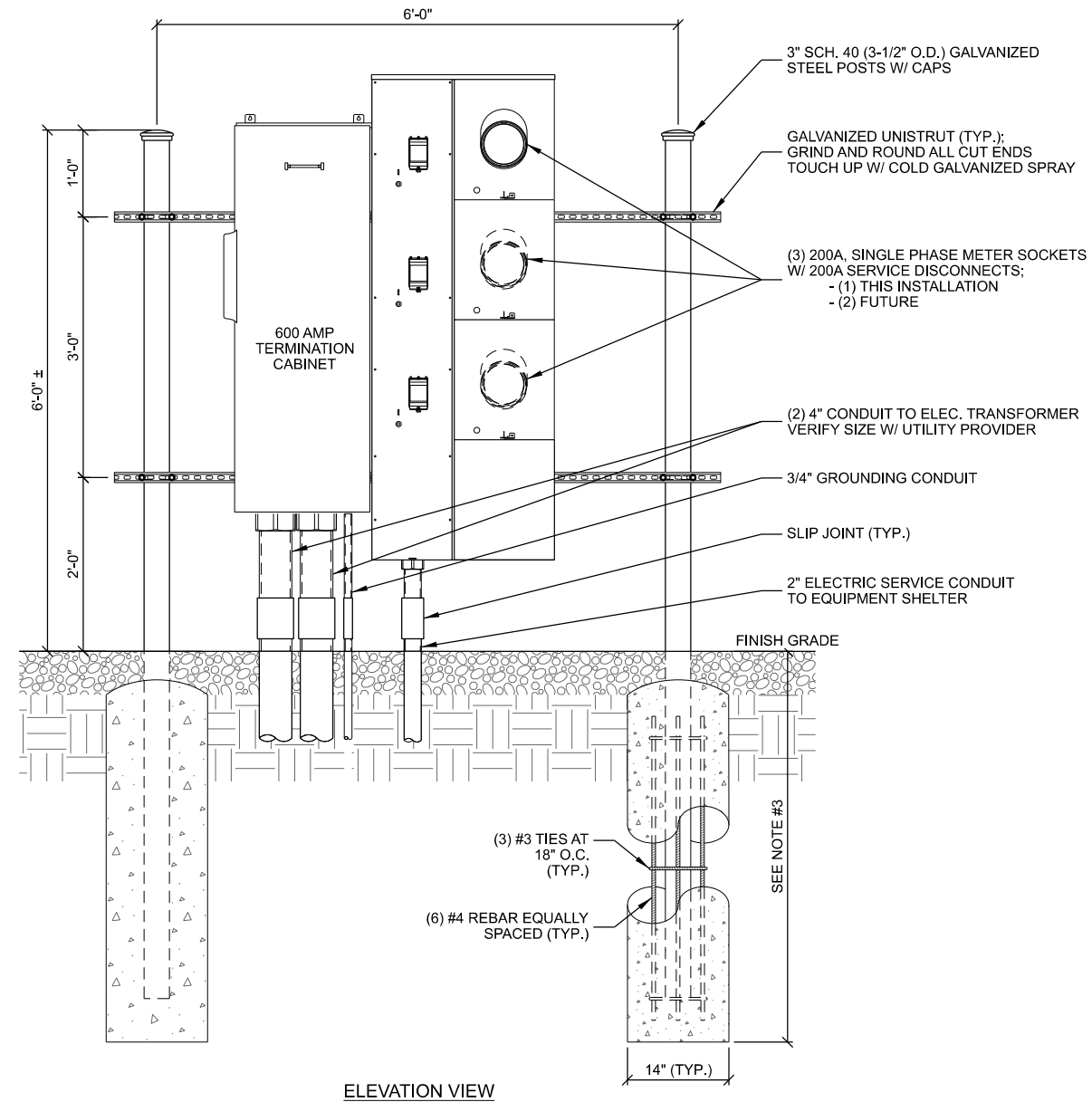
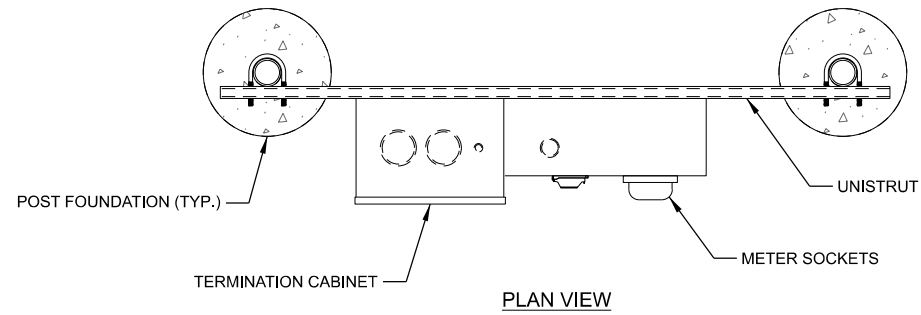
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CLIENT:

 **RACOM**
critical communications

UTILITY DETAILS
BOSCobel GF5 (31985)
BOSCobel, WISCONSIN

[illegible]



NOTES:

1. CONCRETE FOR PIER TO BE A MINIMUM OF 4,000 PSI AT 28 DAYS.
2. MAINTAIN 3" MINIMUM REBAR COVER IN ALL DIRECTIONS.
3. PIER FOUNDATION DEPTH TO BE A MINIMUM OF 48"; DEPTH TO EXCEED LOCAL FROST DEPTH.

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

CONSULTANT:

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 624 WATER STREET
 PRAIRIE DU SAC, WI 53578
 608.644.1449 VOICE
 608.644.1549 FAX
 www.edgeconsult.com

CLIENT:

RACOM
 critical communications

UTILITY RACK DETAILS
BOSCOBEL GF5 (31985)
BOSCOBEL, WISCONSIN

SUBMITTAL:

INT.	DATE:	DESCRIPTION:

CHECKED BY:	AJO
PLOT DATE:	6/20/2022
PROJECT NUMBER:	31985
SET TYPE:	BD
SHEET NUMBER:	E-505