

SITE LOCATION



CAMBRIDGE (27656) CAMBRIDGE, WISCONSIN 420' GUYED TOWER

PROJECT DIRECTORY

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

OWNER
JEFFERSON COUNTY SHERIFF'S OFFICE
411 S CENTER AVE.
JEFFERSON, WI 53549-1703
CONTACT: (920) 674-7346
NAME: TODD LINDERT

TECHNOLOGY CONSULTANT:
TRUE NORTH CONSULTING GROUP
140 3RD STREET SOUTH
STILLWATER, MN 55082
CONTACT: (651) 705-1255
NAME: JOHN THOMPSON

RADIO SYSTEM VENDOR:
GENERAL COMMUNICATIONS
2880 COMMERCE PARK DR.
MADISON, WI 53719
CONTACT: (608) 271-4848
NAME: CHAD TOMASZEWSKI

ELECTRICAL SERVICE PROVIDER:
ALLIANT ENERGY

PROJECT INFO

SITE ADDRESS:
3 LAGOON DRIVE
CAMBRIDGE, WI 53523

PROPERTY OWNER:
VILLAGE OF CAMBRIDGE
PO BOX 89
CAMBRIDGE, WI 53523

TOWER OWNER:
BERTRAM COMMUNICATIONS, LLC
300 INDUSTRIAL DRIVE
RANDOM LAKE, WI 53075

TOWER COORDINATES (PER MERIDIAN SURVEY):
LAT (NAD83/2011): 43°-00'-48.38" N (43.013439)
LONG (NAD83/2011): 89°-00'-41.78" W (-89.011606)
GROUND ELEVATION (NAVD 88): 836.7'
FCC NUMBER: 1317917

PLSS INFORMATION
PART OF SE 1/4 OF THE NE 1/4 &
PART OF SW 1/4 OF THE NE 1/4
SECTION 1, T6N, R12E
VILLAGE OF CAMBRIDGE
DANE COUNTY
WISCONSIN

PART OF NW 1/4 OF THE SW 1/4 &
PART OF SW 1/4 OF THE NW 1/4
SECTION 6, T6N, R13E
VILLAGE OF CAMBRIDGE
JEFFERSON COUNTY
WISCONSIN

PARCEL ID(S): 111/0612-011-9361-1 DANE CO. &
111-0613-0623-000,
111-0613-0632-000 JEFFERSON CO.

ZONING CLASSIFICATION(S): ???

SHEET INDEX

NO.:	SHEET TITLE
G-001	TITLE SHEET
1-4	*LEASE EXHIBIT
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-503	SHELTER FOUNDATION DETAILS
C-504	GENERATOR FUEL SYSTEM DETAILS
A-101	SHELTER FLOOR 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-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:




TITLE SHEET
CAMBRIDGE (27656)
CAMBRIDGE, WISCONSIN

SUBMITTAL:

INT.	DATE:	DESCRIPTION:

CHECKED BY	AJO
PLOT DATE	5/12/2021
PROJECT NUMBER	27656
SET TYPE	BD
SHEET NUMBER	G-001


**ONE CALL
SYSTEMS INTERNATIONAL**

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

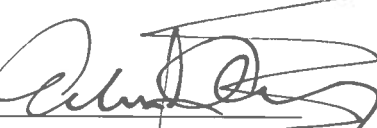
TOLL FREE: 1-800-242-8511
FAX A LOCATE: 1-800-242-5811

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

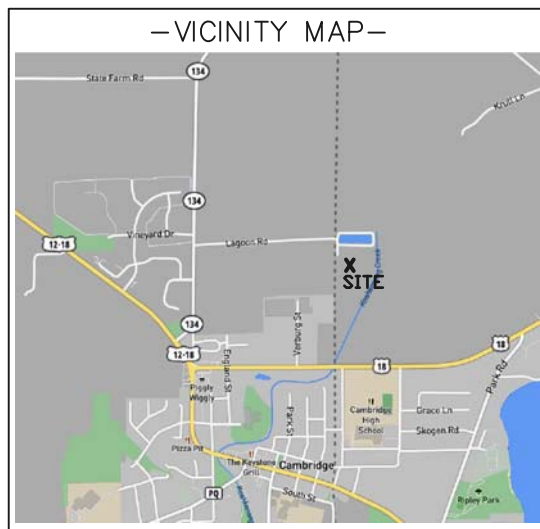
ENGINEER SEAL:


**ARLEN J.
OSTRENG
32437
PRAIRIE DU SAC,
WISCONSIN
PROFESSIONAL ENGINEER**

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

SIGNATURE: 

DATE: 5-12-2021



PROPOSED TOWER BASE

LATITUDE: 43°-00'-48.38"
 LONGITUDE: 89°-00'-41.78"
 (Per North American Datum of 83/2011)

Ground Elevation: 836.7'
 (Per North American Vertical Datum of 1988)

-LEGEND-

- = 1" X 18" IRON PIPE SET
- = 6" NAIL SET
- ⊙ = COUNTY MONUMENT FOUND
- ⊗ = WATER VALVE
- ⊕ = FIRE HYDRANT
- ⊙ = FIBER OPTIC POST
- ⊙ = LIGHT POLE
- ⊙ = ELECTRIC METER
- ⊙ = ELECTRIC TRANSFORMER
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- T — T — = BURIED TELEPHONE
- E — E — = BURIED ELECTRIC
- G — G — = BURIED GAS LINE
- ~~~~~ = EDGE OF BRUSH/WOODS
- - - - - = PROPERTY LINE

SURVEYED FOR:

BERTRAM COMMUNICATIONS LLC
 300 Industrial Drive
 Random Lake, WI 53075
 phone: 920-351-1023
 fax: 920-994-9990

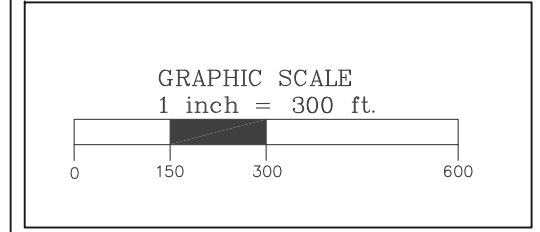
MERIDIAN SURVEYING, LLC

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

SITE NAME:
CAMBRIDGE

SITE NUMBER:
XX

SITE ADDRESS:
3 LAGOON DRIVE
CAMBRIDGE, WI 53523



PROPERTY OWNER:
VILLAGE OF CAMBRIDGE
PO BOX 89
CAMBRIDGE, WI 53523

PARCEL NO.:
111/0612-011-9361-1 DANE CO. &
111-0613-0623-000,
111-0613-0632-000 JEFFERSON CO.

DEED REFERENCE:
DOCUMENT NO. 1037993

LEASE EXHIBIT
FOR
BERTRAM COMMUNICATIONS

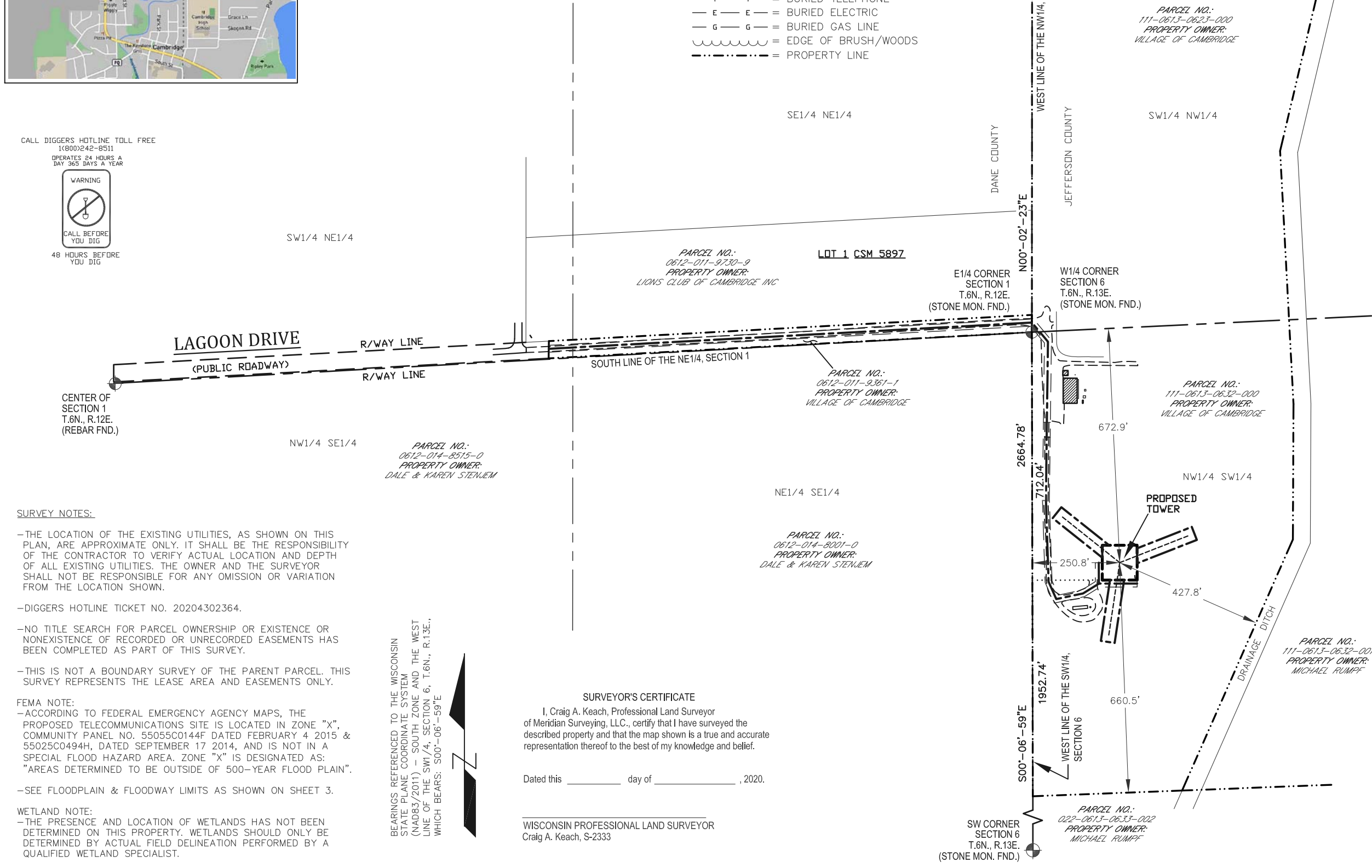
BEING A PART OF THE SE1/4 OF THE NE1/4 AND THE SW1/4 OF THE NE1/4 OF SECTION 1, T.6N., R.12E., VILLAGE OF CAMBRIDGE, DANE COUNTY AND THE NW1/4 OF THE SW1/4 AND THE SW1/4 OF THE NW1/4 SECTION 6, T.6N., R.13E., VILLAGE OF CAMBRIDGE, JEFFERSON COUNTY, WISCONSIN

NO.	DATE	DESCRIPTION	BY
1	10/22/20	Preliminary Survey	JD

DRAWN BY: J.D.	FIELD WORK DATE: 10-20-20
CHECKED BY: C.A.K.	FIELD BOOK: M58, PG. 27
JOB NO.: 12398	SHEET 1 OF 4

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

48 HOURS BEFORE YOU DIG



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. 20204302364.
- 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.

FEMA NOTE:
-ACCORDING TO FEDERAL EMERGENCY AGENCY MAPS, THE PROPOSED TELECOMMUNICATIONS SITE IS LOCATED IN ZONE "X", COMMUNITY PANEL NO. 55055C0144F DATED FEBRUARY 4 2015 & 55025C0494H, DATED SEPTEMBER 17 2014, AND IS NOT IN A SPECIAL FLOOD HAZARD AREA. ZONE "X" IS DESIGNATED AS: "AREAS DETERMINED TO BE OUTSIDE OF 500-YEAR FLOOD PLAIN".

-SEE FLOODPLAIN & FLOODWAY LIMITS AS SHOWN ON SHEET 3.

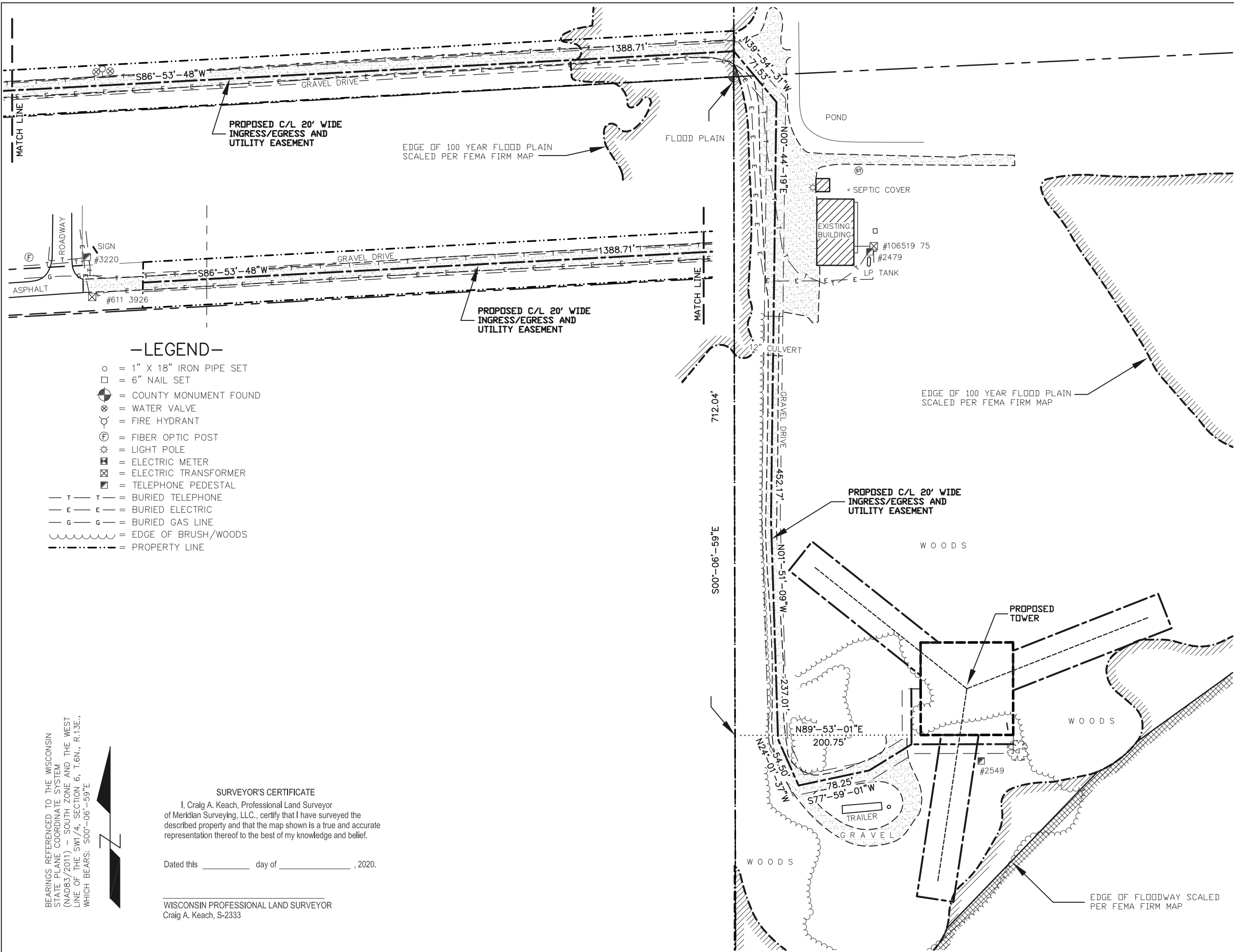
WETLAND NOTE:
-THE PRESENCE AND LOCATION OF WETLANDS HAS NOT BEEN DETERMINED ON THIS PROPERTY. WETLANDS SHOULD ONLY BE DETERMINED BY ACTUAL FIELD DELINEATION PERFORMED BY A QUALIFIED WETLAND SPECIALIST.

BEARINGS REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM (NAD83/2011) - SOUTH ZONE AND THE WEST LINE OF THE SW1/4, SECTION 6, T.6N., R.13E., WHICH BEARS: S00°-06'-59"E

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 _____ day of _____, 2020.

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



SURVEYED FOR:

B **BERTRAM COMMUNICATIONS LLC**
 300 Industrial Drive
 Random Lake, WI 53075
 phone: 920-351-1023
 fax: 920-994-9990

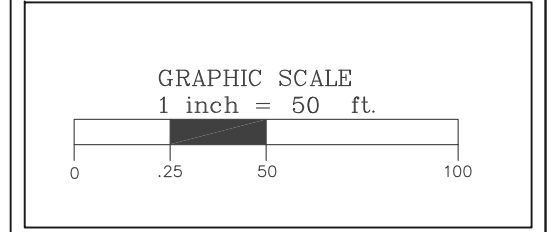
MERIDIAN
SURVEYING, LLC

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

SITE NAME:
CAMBRIDGE

SITE NUMBER:
XX

SITE ADDRESS:
3 LAGOON DRIVE
CAMBRIDGE, WI 53523



PROPERTY OWNER:
 VILLAGE OF CAMBRIDGE
 PO BOX 89
 CAMBRIDGE, WI 53523

PARCEL NO.:
 111/0612-011-9361-1 DANE CO. &
 111-0613-0623-000,
 111-0613-0632-000 JEFFERSON CO.

DEED REFERENCE:
 DOCUMENT NO. 1037993

LEASE EXHIBIT
 FOR
BERTRAM COMMUNICATIONS

BEING A PART OF THE SE1/4 OF THE NE1/4 AND THE SW1/4 OF THE NE1/4 OF SECTION 1, T.6N., R.12E., VILLAGE OF CAMBRIDGE, DANE COUNTY AND THE NW1/4 OF THE SW1/4 AND THE SW1/4 OF THE NW1/4 SECTION 6, T.6N., R.13E., VILLAGE OF CAMBRIDGE, JEFFERSON COUNTY, WISCONSIN

NO.	DATE	DESCRIPTION	BY
1	10/22/20	Preliminary Survey	JD

DRAWN BY: J.D. **FIELD WORK DATE:** 10-20-20

CHECKED BY: C.A.K. **FIELD BOOK:** M58, PG. 27

JOB NO.: 12398 **SHEET** 2 **OF** 4

-LEGEND-

- o = 1" X 18" IRON PIPE SET
- = 6" NAIL SET
- ⊙ = COUNTY MONUMENT FOUND
- ⊗ = WATER VALVE
- ⊕ = FIRE HYDRANT
- Ⓣ = FIBER OPTIC POST
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SURVEYOR'S CERTIFICATE

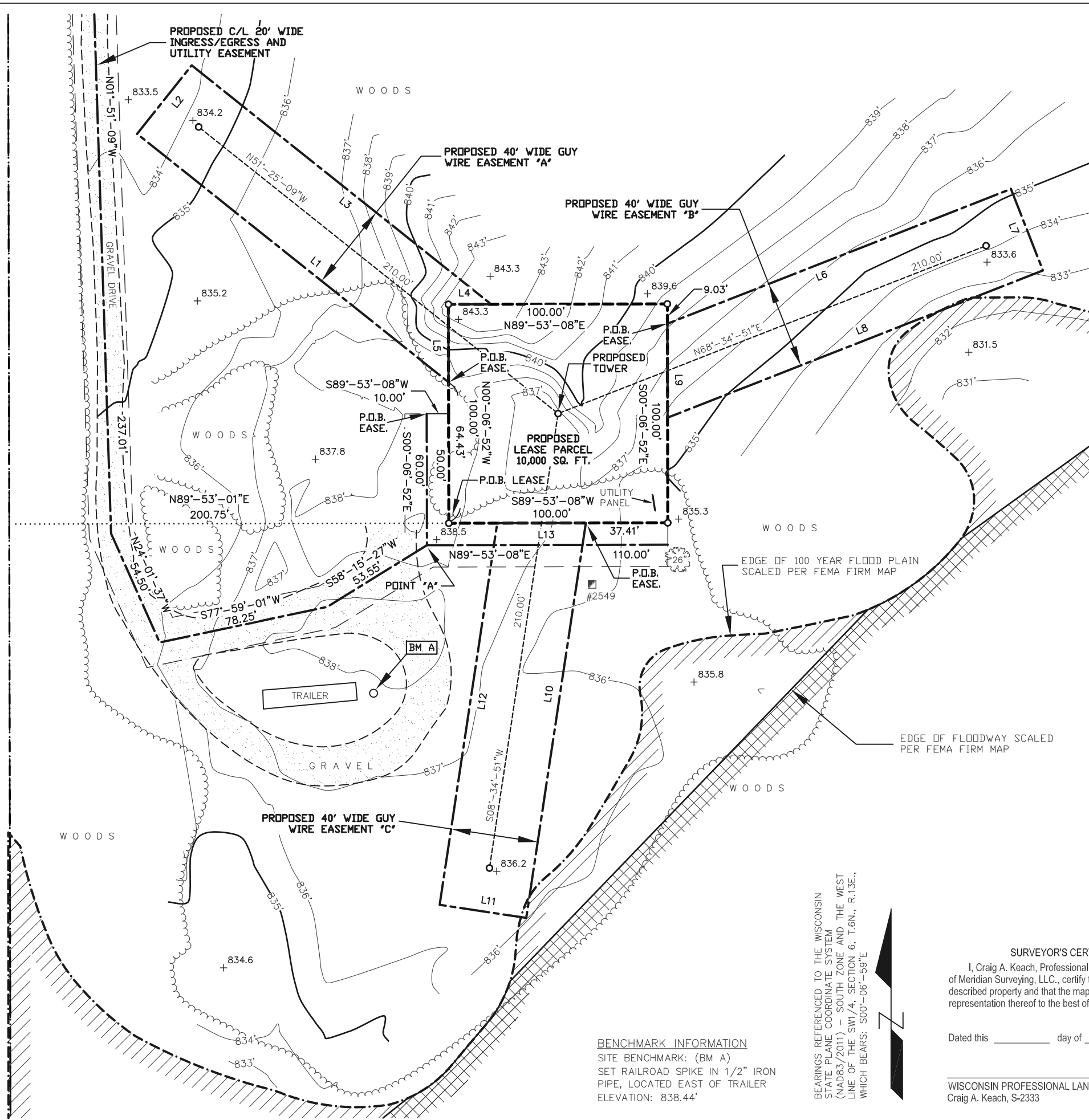
I, Craig A. Keach, Professional Land Surveyor of Meridian Surveying, LLC., certify that I have surveyed the described property and that the map shown is a true and accurate representation thereof to the best of my knowledge and belief.

Dated this _____ day of _____, 2020.

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

BEARINGS REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM (NAD83/2011) - SOUTH ZONE AND THE WEST LINE OF THE SW1/4, SECTION 6, T.6N., R.13E., WHICH BEARS: S00°-06'-59"E





Line #	Direction	Length
L1	N51°25'09"W	181.96'
L2	N38°34'51"E	40.00'
L3	S51°25'09"E	174.99'
L4	S89°53'08"W	19.57'
L5	S00°06'52"E	35.57'
L6	N68°34'51"E	168.53'
L7	S21°25'09"E	40.00'
L8	S68°34'51"W	184.13'
L9	N00°06'52"W	42.93'
L10	S08°34'51"W	182.48'
L11	N81°25'09"W	40.00'
L12	N08°34'51"E	176.36'
L13	N89°53'08"E	40.47'

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BENCHMARK INFORMATION
 SITE BENCHMARK: (BM A)
 SET RAILROAD SPIKE IN 1/2" IRON PIPE, LOCATED EAST OF TRAILER
 ELEVATION: 838.44'

BEARINGS REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM (NAD83/2011) - SOUTH ZONE AND THE WEST LINE OF THE SW1/4, SECTION 6, T.6N., R.13E., WHICH BEARS: S00°-06'-59"E

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Dated this _____ day of _____, 2020.

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

SURVEYED FOR:

BERTRAM COMMUNICATIONS LLC
 300 Industrial Drive
 Random Lake, WI 53075
 phone: 920-351-1023
 fax: 920-994-9990

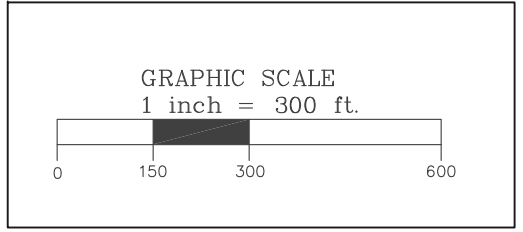
MERIDIAN SURVEYING, LLC

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 Kaukauna, WI 54130 Fax: 920-273-6037

SITE NAME:
CAMBRIDGE

SITE NUMBER:
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SITE ADDRESS:
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 PO BOX 89
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 111-0613-0623-000,
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NO.	DATE	DESCRIPTION	BY
1	10/22/20	Preliminary Survey	JD

DRAWN BY: J.D.	FIELD WORK DATE: 10-20-20
CHECKED BY: C.A.K.	FIELD BOOK: M58, PG. 27
JOB NO.: 12398	SHEET 3 OF 4

LEASE PARCEL

Part of the Northwest Quarter (NW1/4) of the Southwest Quarter (SW1/4) of Section Six (6), Township Six (6) North; Range Thirteen (13) East; Village of Cambridge, Jefferson County Wisconsin, containing 10,000 square feet (0.230 acres) of land and being described by:

Commencing at the West Quarter Corner of said Section 6; thence S00°-06'-59"E 712.04 feet along the West line of the SW1/4 of said Section 6; thence N89°-53'-01"E 200.75 feet to the point of beginning; thence N00°-06'-52"W 100.00 feet; thence N89°-53'-08"E 100.00 feet; thence S00°-06'-52"E 100.00 feet; thence S89°-53'-08"W 100.00 feet to the point of beginning; Being subject to any and all easements and restrictions of record.

GUY WIRE EASEMENT "A"

Part of the Northwest Quarter (NW1/4) of the Southwest Quarter (SW1/4) of Section Six (6), Township Six (6) North; Range Thirteen (13) East; Village of Cambridge, Jefferson County Wisconsin, containing 6,791 square feet (0.156 acres) of land and being described by:

Commencing at the West Quarter Corner of said Section 6; thence S00°-06'-59"E 712.04 feet along the West line of the SW1/4 of said Section 6; thence N89°-53'-01"E 200.75 feet; thence N00°-06'-52"W 64.43 feet to the point of beginning; thence N51°-25'-09"W 181.96 feet; thence N38°-34'-51"E 40.00 feet; thence S51°-25'-09"E 174.99 feet thence S89°-53'-08"W 19.57 feet; thence S00°-06'-52"E 35.57 feet to the point of beginning; Being subject to any and all easements and restrictions of record.

GUY WIRE EASEMENT "B"

Part of the Northwest Quarter (NW1/4) of the Southwest Quarter (SW1/4) of Section Six (6), Township Six (6) North; Range Thirteen (13) East; Village of Cambridge, Jefferson County Wisconsin, containing 7,053 square feet (0.162 acres) of land and being described by:

Commencing at the West Quarter Corner of said Section 6; thence S00°-06'-59"E 712.04 feet along the West line of the SW1/4 of said Section 6; thence N89°-53'-01"E 200.75 feet; thence N00°-06'-52"W 100.00 feet; thence N89°-53'-08"E 100.00 feet; thence S00°-06'-52"E 9.03 feet to the point of beginning; thence N68°-34'-51"E 168.53 feet; thence S21°-25'-09"E 40.00 feet; thence S68°-34'-51"W 184.13 feet thence N00°-06'-52"W 42.93 feet to the point of beginning; Being subject to any and all easements and restrictions of record.

GUY WIRE EASEMENT "C"

Part of the Northwest Quarter (NW1/4) of the Southwest Quarter (SW1/4) of Section Six (36), Township Six (6) North; Range Thirteen (13) East; Village of Cambridge, Jefferson County Wisconsin, containing 7,177 square feet (0.165 acres) of land and being described by:

Commencing at the West Quarter Corner of said Section 6; thence S00°-06'-59"E 712.04 feet along the West line of the SW1/4 of said Section 6; thence N89°-53'-01"E 200.75 feet; thence N00°-06'-52"W 100.00 feet; thence N89°-53'-08"E 100.00 feet; thence S00°-06'-52"E 100.00 feet; thence S89°-53'-08"W 37.41 feet to the point of beginning; thence S08°-34'-51"W 182.48 feet; thence N81°-25'-09"W 40.00 feet; thence N08°-34'-51"E 176.36 feet; thence N89°-53'-08"E 40.47 feet to the point of beginning; Being subject to any and all easements and restrictions of record.

20 FOOT WIDE INGRESS/EGRESS AND UTILITY EASEMENT

Part of the Northwest Quarter (NW1/4) of the Southwest Quarter (SW1/4) and part of the Southwest Quarter (SW1/4) of the Northwest Quarter (NW1/4) of Section Six (6), Township Six (6) North; Range Thirteen (13) East; Village of Cambridge, Jefferson County Wisconsin, Also part of the Southeast Quarter (SE1/4) of the Northeast Quarter (NE1/4) and part of the Southwest Quarter (SW1/4) of the Northeast Quarter (NE1/4) of Section One (1); Town Six (6) North; Range Twelve (12) East, Village of Cambridge, Dane County, Wisconsin containing 50,114 square feet (1.151 acres) of land and being Ten (10) feet each side of and parallel to the following described centerline:

Commencing at the West Quarter Corner of said Section 6; thence S00°-06'-59"E 712.04 feet along the West line of the SW1/4 of said Section 6; thence N89°-53'-01"E 200.75 feet; thence N00°-06'-52"W 50.00 feet; thence S89°-53'-08"W 10.00 feet to the point of beginning; thence S00°-06'-52"E 60.00 feet to a point herein after referred to as "Point A"; thence N89°-53'-08"E 110.00 feet to the point of termination. Also beginning at said "Point A" thence S58°-15'-27"W 53.55 feet; thence S77°-59'-01"W 78.25 feet; thence N24°-01'-37"W 54.50 feet; thence N01°-51'-09"W 237.01 feet; thence N00°-44'-19"E 452.17 feet; thence N39°-54'-31"W 71.53 feet; thence S86°-53'-48"W 1388.71 feet to a point on the East Right of Way line of Lagoon Drive and the point of termination. The side lot lines of said easement shall be shortened or lengthened to terminate on the East Right of Way line of Lagoon Drive Being subject to any and all easements and restrictions of record.

SURVEYED FOR:

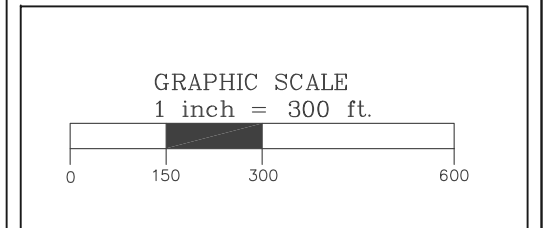


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MERIDIAN SURVEYING, LLC
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Kaukauna, WI 54130 Fax: 920-273-6037

SITE NAME: CAMBRIDGE
SITE NUMBER: XX
SITE ADDRESS: 3 LAGOON DRIVE CAMBRIDGE, WI 53523



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VILLAGE OF CAMBRIDGE
PO BOX 89
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NO.	DATE	DESCRIPTION	BY
1	10/22/20	Preliminary Survey	JD

DRAWN BY: J.D.	FIELD WORK DATE: 10-20-20
CHECKED BY: C.A.K.	FIELD BOOK: M58, PG. 27
JOB NO.: 12398	SHEET 4 OF 4

KEYNOTES: (THIS SHEET)

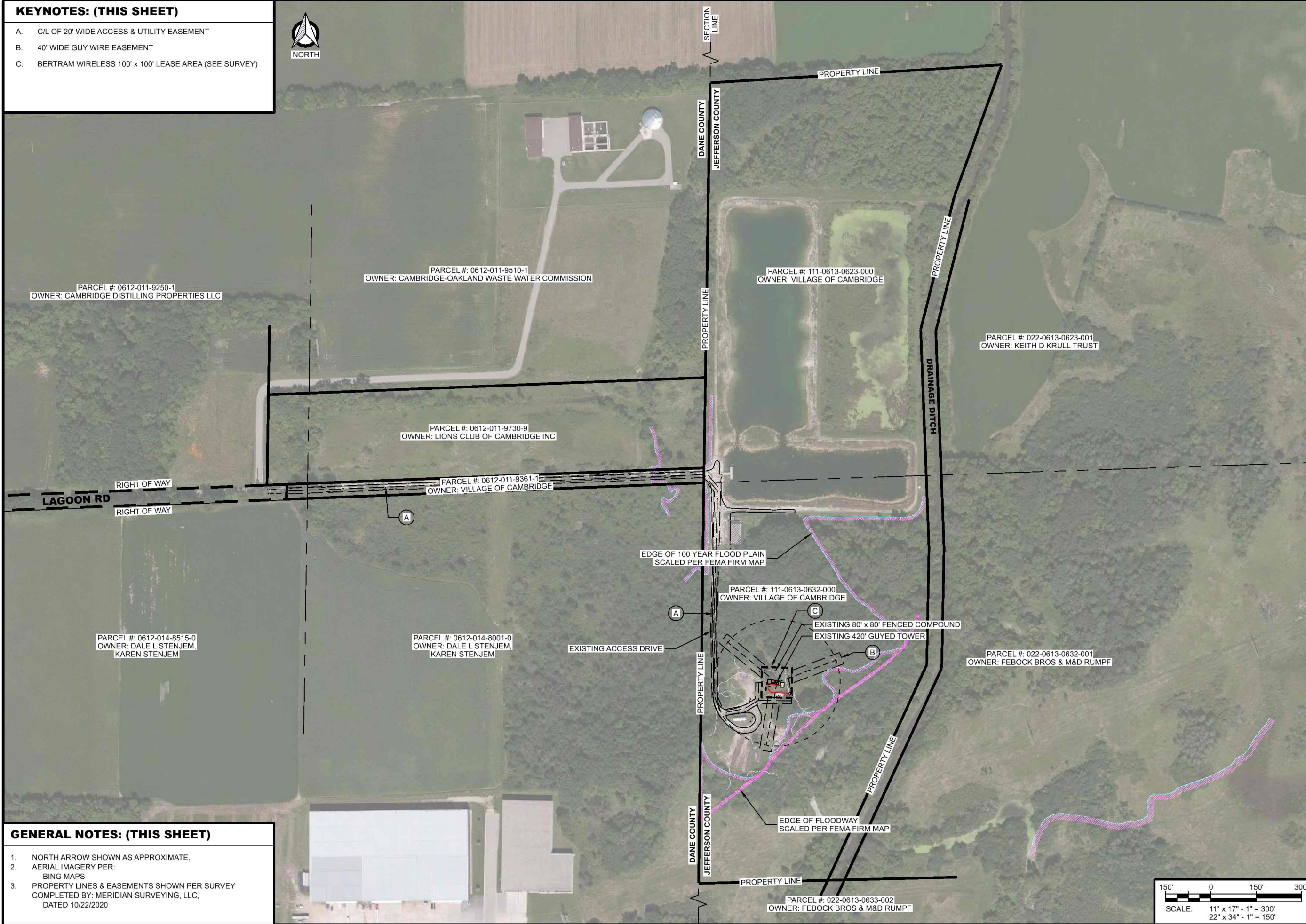
- A. C/L OF 20' WIDE ACCESS & UTILITY EASEMENT
- B. 40' WIDE GUY WIRE EASEMENT
- C. BERTRAM WIRELESS 100' x 100' LEASE AREA (SEE SURVEY)



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



**OVERALL SITE PLAN
 CAMBRIDGE (27656)
 CAMBRIDGE, WISCONSIN**



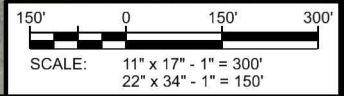
GENERAL NOTES: (THIS SHEET)

1. NORTH ARROW SHOWN AS APPROXIMATE.
2. AERIAL IMAGERY PER: BING MAPS
3. PROPERTY LINES & EASEMENTS SHOWN PER SURVEY COMPLETED BY: MERIDIAN SURVEYING, LLC, DATED 10/22/2020

SUBMITTAL:

INT.	DATE	DESCRIPTION

CHECKED BY	AJO
PLOT DATE	5/12/2021
PROJECT NUMBER	27656
SET TYPE	BD
SHEET NUMBER	C-101



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KEYNOTES: (THIS SHEET)

- A. JEFFERSON COUNTY EQUIPMENT SHELTER
- B. C/L OF 20' WIDE ACCESS & UTILITY EASEMENT
- C. 40' WIDE GUY WIRE EASEMENT
- D. BERTRAM WIRELESS 100' x 100' LEASE AREA (SEE SURVEY)



CONSULTANT:

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CLIENT:

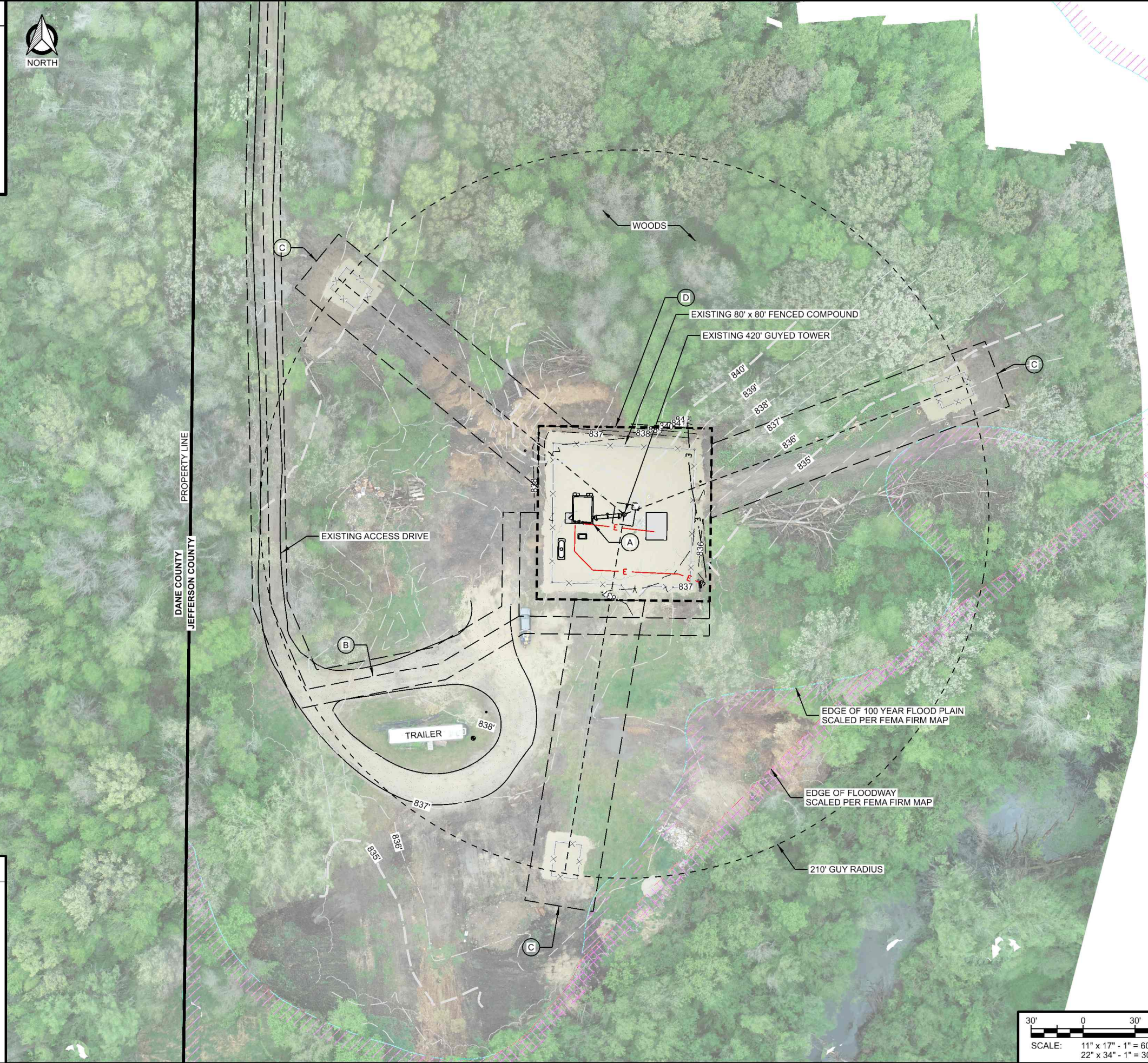


**ENLARGED SITE PLAN
 CAMBRIDGE (27656)
 CAMBRIDGE, WISCONSIN**

GENERAL NOTES: (THIS SHEET)

1. NORTH ARROW SHOWN AS APPROXIMATE.
2. AERIAL IMAGERY PER UAS-DRONE FLIGHT: EDGE CONSULTING ENGINEERS, INC. ON 05/04/2021
3. PROPERTY LINES & EASEMENTS SHOWN PER SURVEY COMPLETED BY: MERIDIAN SURVEYING, LLC, DATED 10/22/2020
4. TOPOGRAPHIC FEATURES PER TOPOGRAPHIC SURVEY BY: MERIDIAN SURVEYING, LLC, DATED 10/22/2020
5. UNDERGROUND UTILITIES SHOWN PER: DIGGERS HOTLINE TICKET #: 20204302364

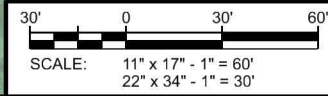
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SUBMITTAL:

INT.	DATE	DESCRIPTION

CHECKED BY:	AJO
PLOT DATE:	5/12/2021
PROJECT NUMBER:	27656
SET TYPE:	BD



SHEET NUMBER **C-102**

KEYNOTES: (THIS SHEET)

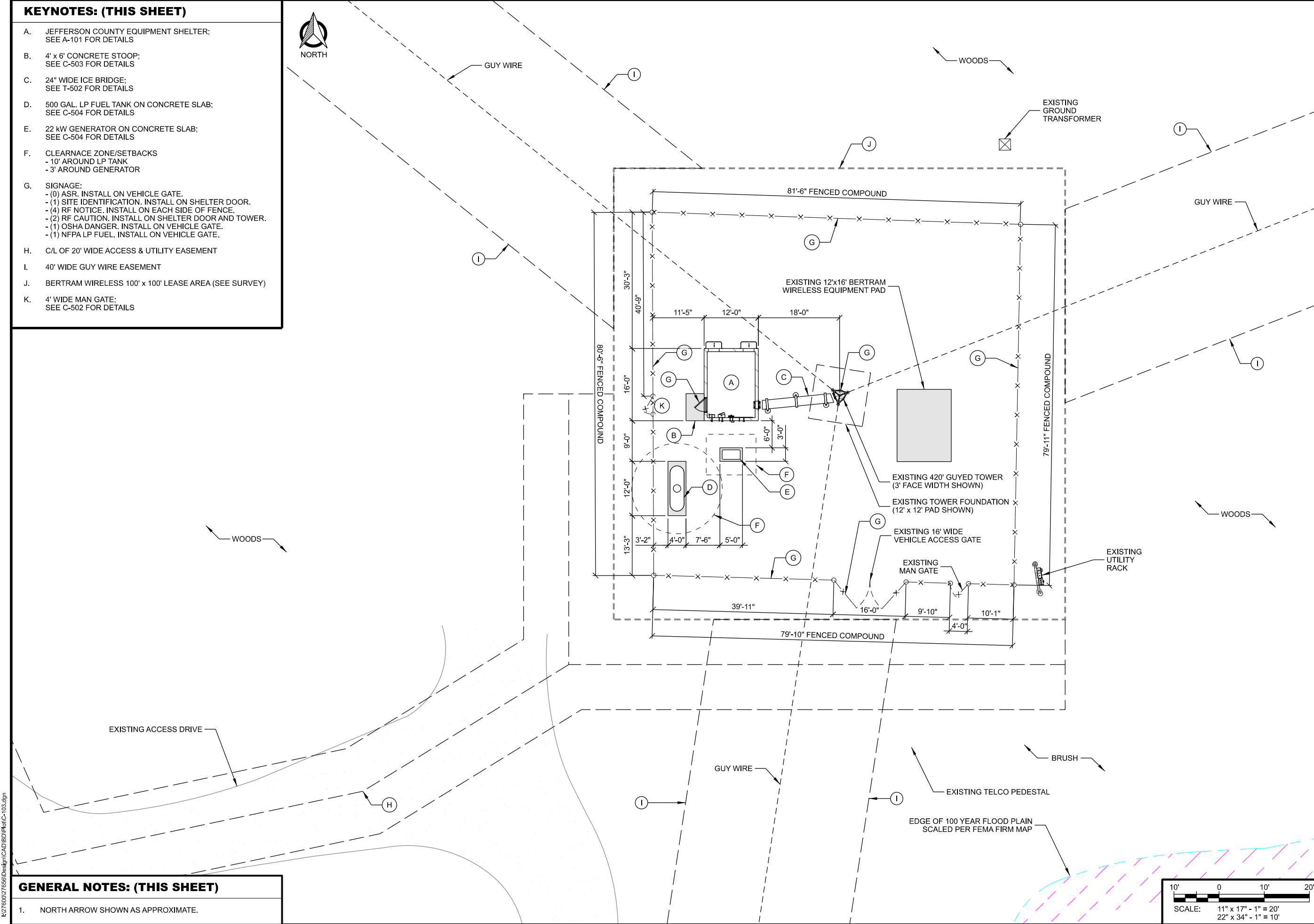
- A. JEFFERSON COUNTY EQUIPMENT SHELTER;
SEE A-101 FOR DETAILS
- B. 4' x 6' CONCRETE STOOP;
SEE C-503 FOR DETAILS
- C. 24" WIDE ICE BRIDGE;
SEE T-502 FOR DETAILS
- D. 500 GAL. LP FUEL TANK ON CONCRETE SLAB;
SEE C-504 FOR DETAILS
- E. 22 kW GENERATOR ON CONCRETE SLAB;
SEE C-504 FOR DETAILS
- F. CLEARANCE ZONE/SETBACKS
- 10' AROUND LP TANK
- 3' AROUND GENERATOR
- G. SIGNAGE:
- (0) ASR. INSTALL ON VEHICLE GATE.
- (1) SITE IDENTIFICATION. INSTALL ON SHELTER DOOR.
- (4) RF NOTICE. INSTALL ON EACH SIDE OF FENCE.
- (2) RF CAUTION. INSTALL ON SHELTER DOOR AND TOWER.
- (1) OSHA DANGER. INSTALL ON VEHICLE GATE.
- (1) NFPA LP FUEL. INSTALL ON VEHICLE GATE.
- H. C/L OF 20' WIDE ACCESS & UTILITY EASEMENT
- I. 40' WIDE GUY WIRE EASEMENT
- J. BERTRAM WIRELESS 100' x 100' LEASE AREA (SEE SURVEY)
- K. 4' WIDE MAN GATE;
SEE C-502 FOR DETAILS



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**COMPOUND PLAN
CAMBRIDGE (27656)
CAMBRIDGE, WISCONSIN**



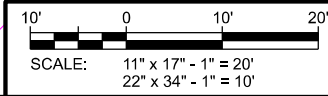
GENERAL NOTES: (THIS SHEET)

- 1. NORTH ARROW SHOWN AS APPROXIMATE.

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






INT.	DATE	DESCRIPTION:

CHECKED BY	AJO
PLOT DATE	5/12/2021
PROJECT NUMBER	27656
SET TYPE	BD
SHEET NUMBER	C-103



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LEGEND: (THIS SHEET)

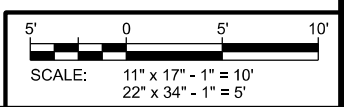
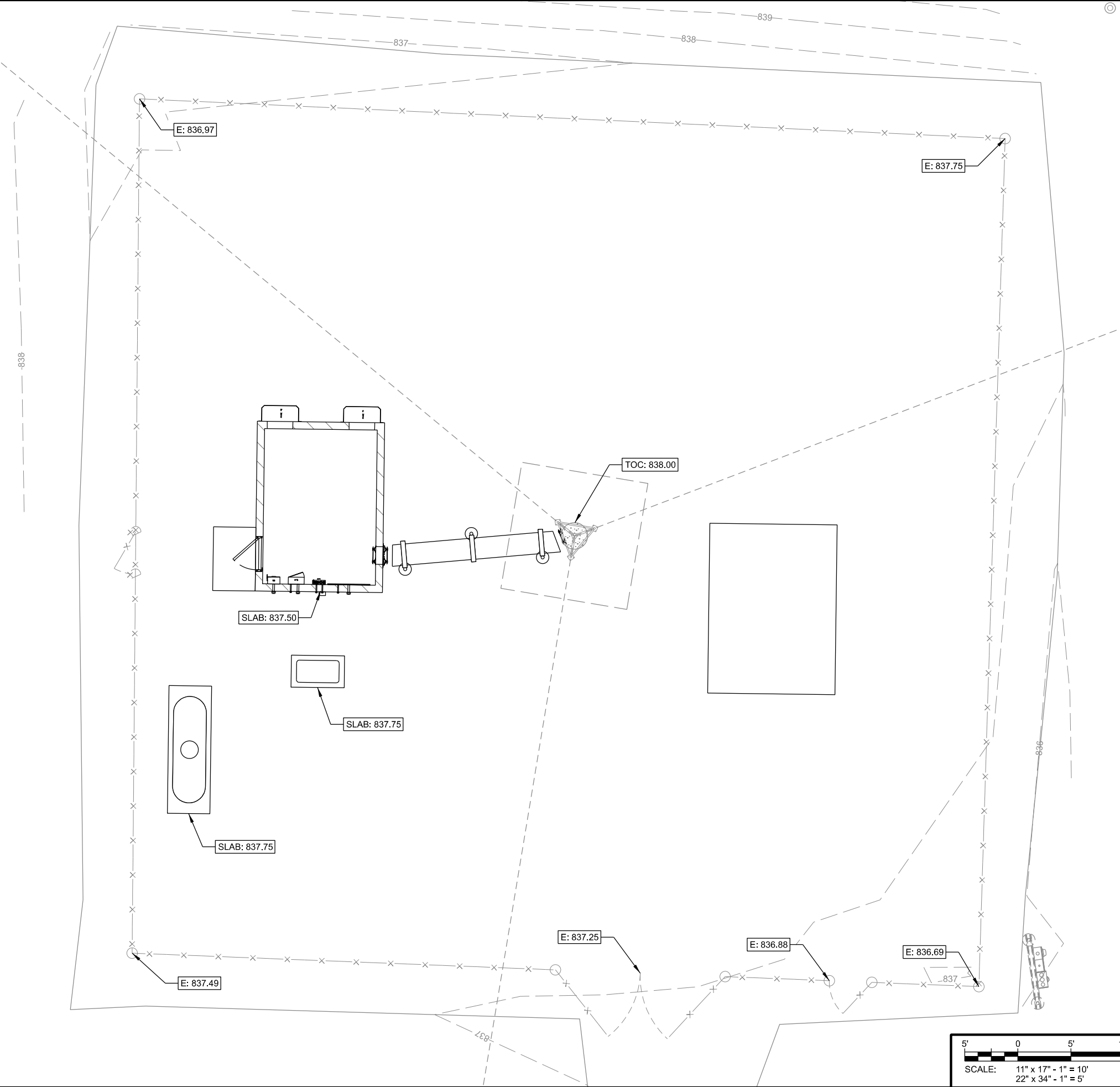
-  EXISTING CONTOUR GRADES
-  PROPOSED CONTOUR GRADES
-  SPOT ELEVATIONS
P = PROPOSED ELEV.
E = EXISTING ELEV.
FL = FLOW LINE
IE = INVERT ELEV.
TOC = TOP OF CONC.
-  PROPOSED DRAINAGE PATH
-  SILT FENCE
-  LIMITS OF DISTURBANCE
-  EROSION MAT

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 SHEET C-102 FOR BENCHMARK LOCATIONS.

GENERAL NOTES: (THIS SHEET)

1. NORTH ARROW SHOWN AS APPROXIMATE.
2. TOPOGRAPHIC FEATURES PER TOPOGRAPHIC SURVEY BY: EDGE CONSULTING ENGINEERS, INC. ON 05/05/2021



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GRADING AND EROSION CONTROL PLAN
 CAMBRIDGE (27656)
 CAMBRIDGE, WISCONSIN

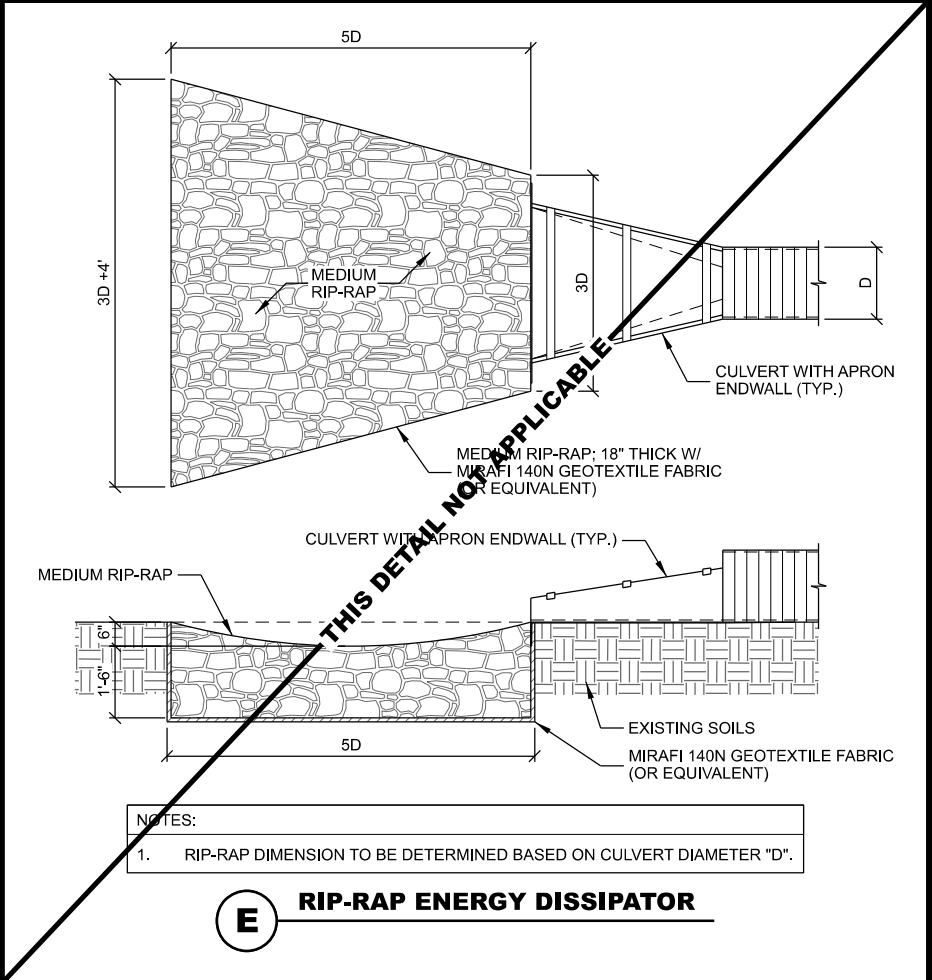
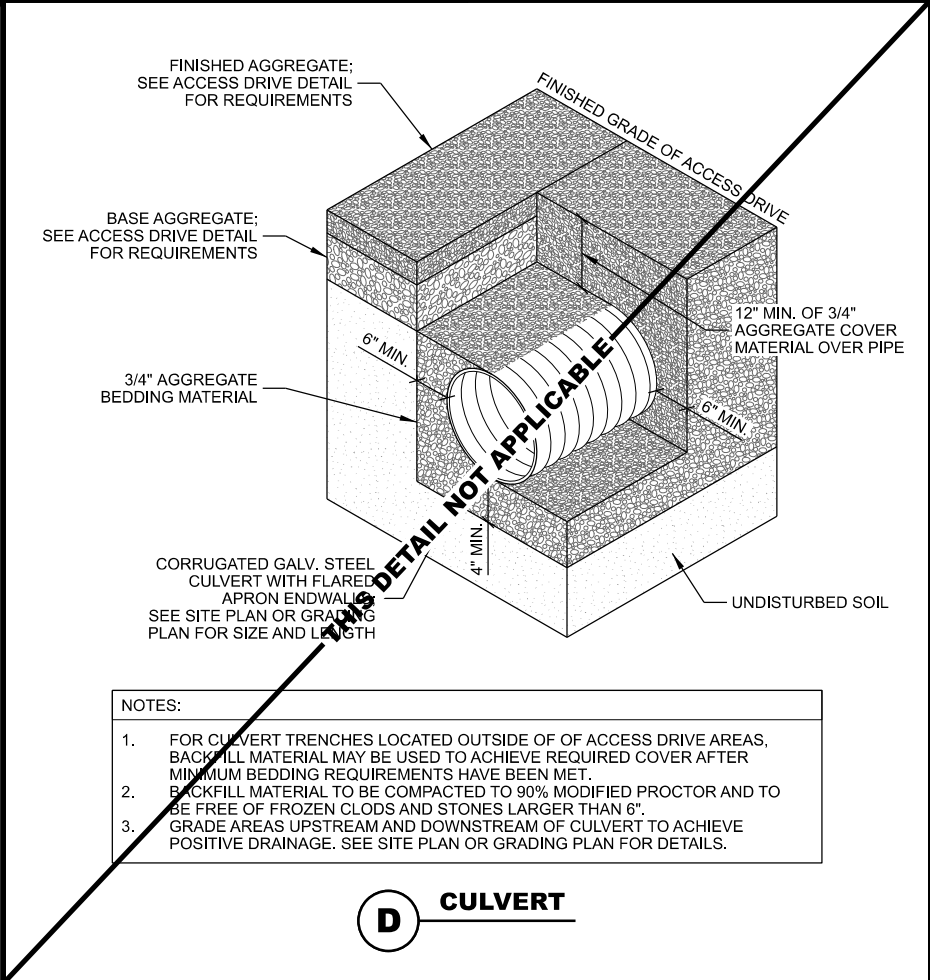
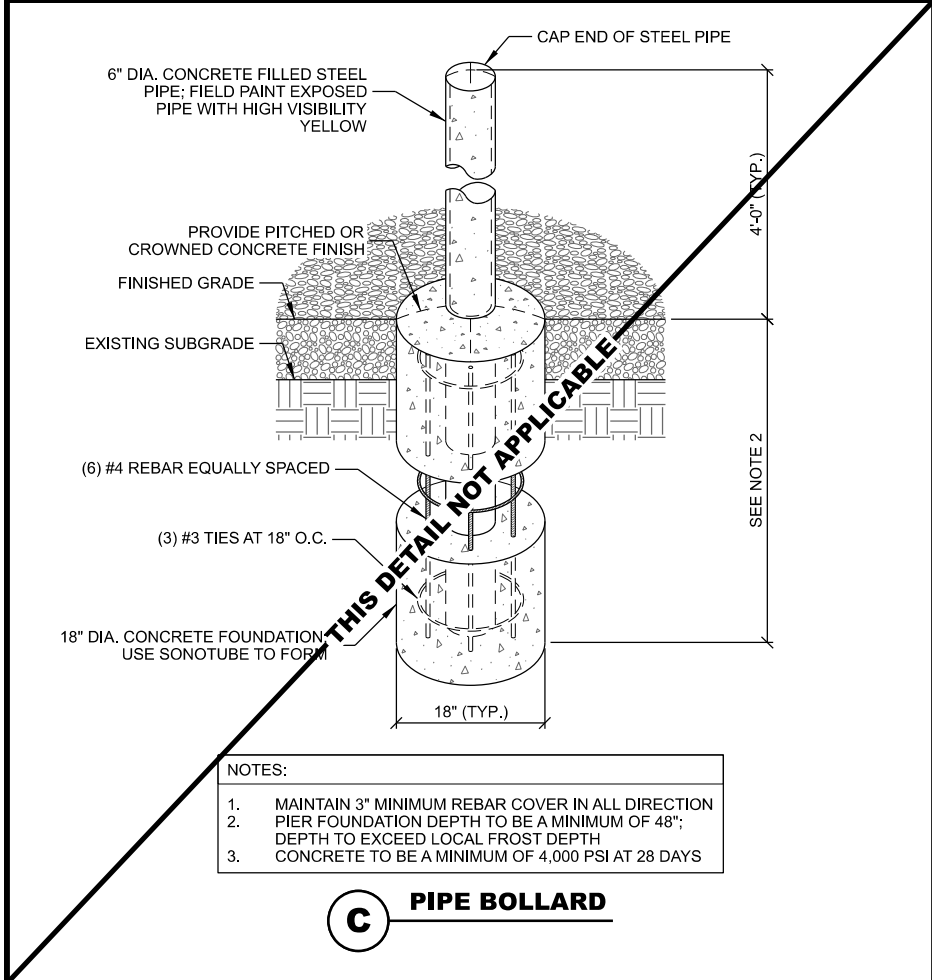
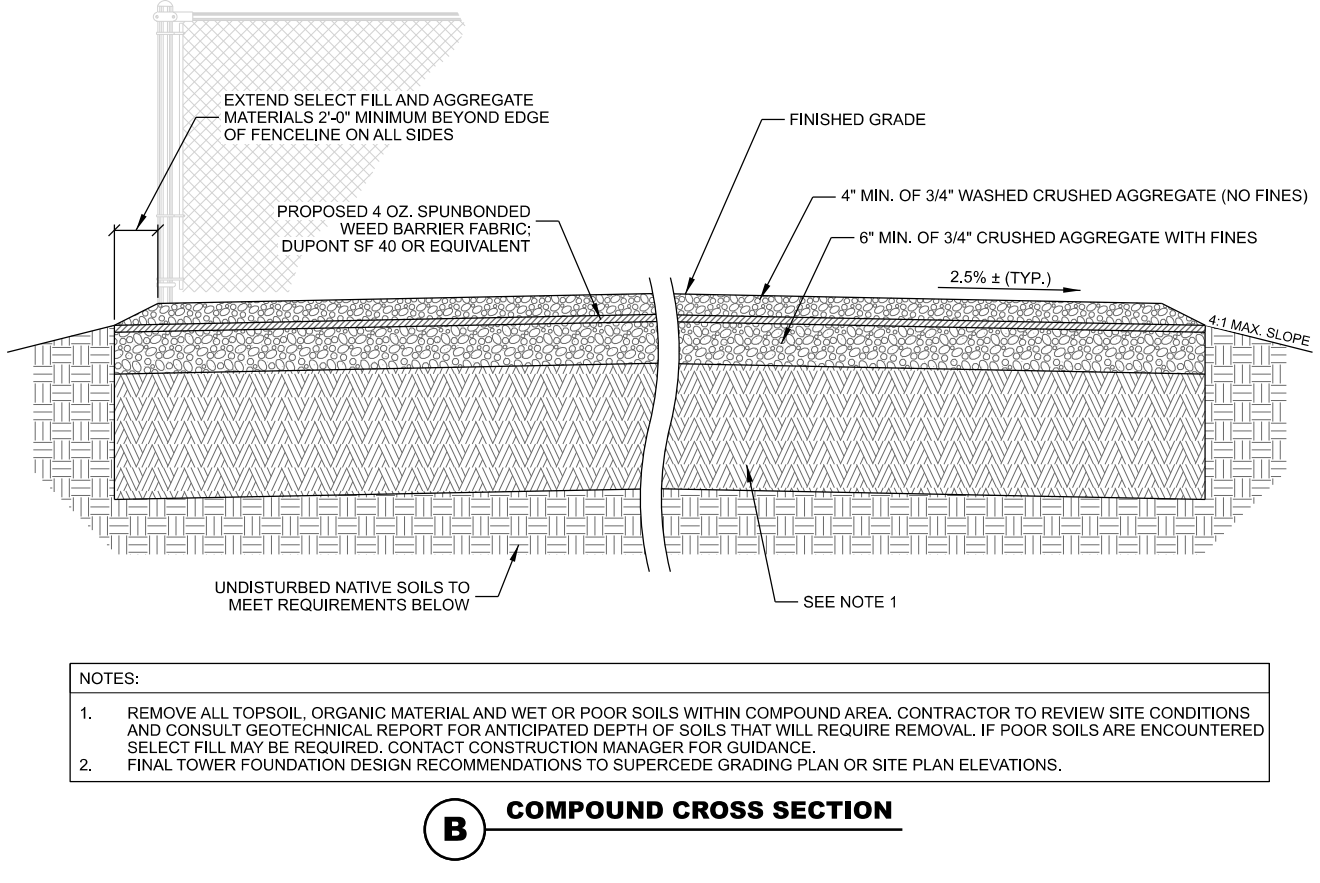
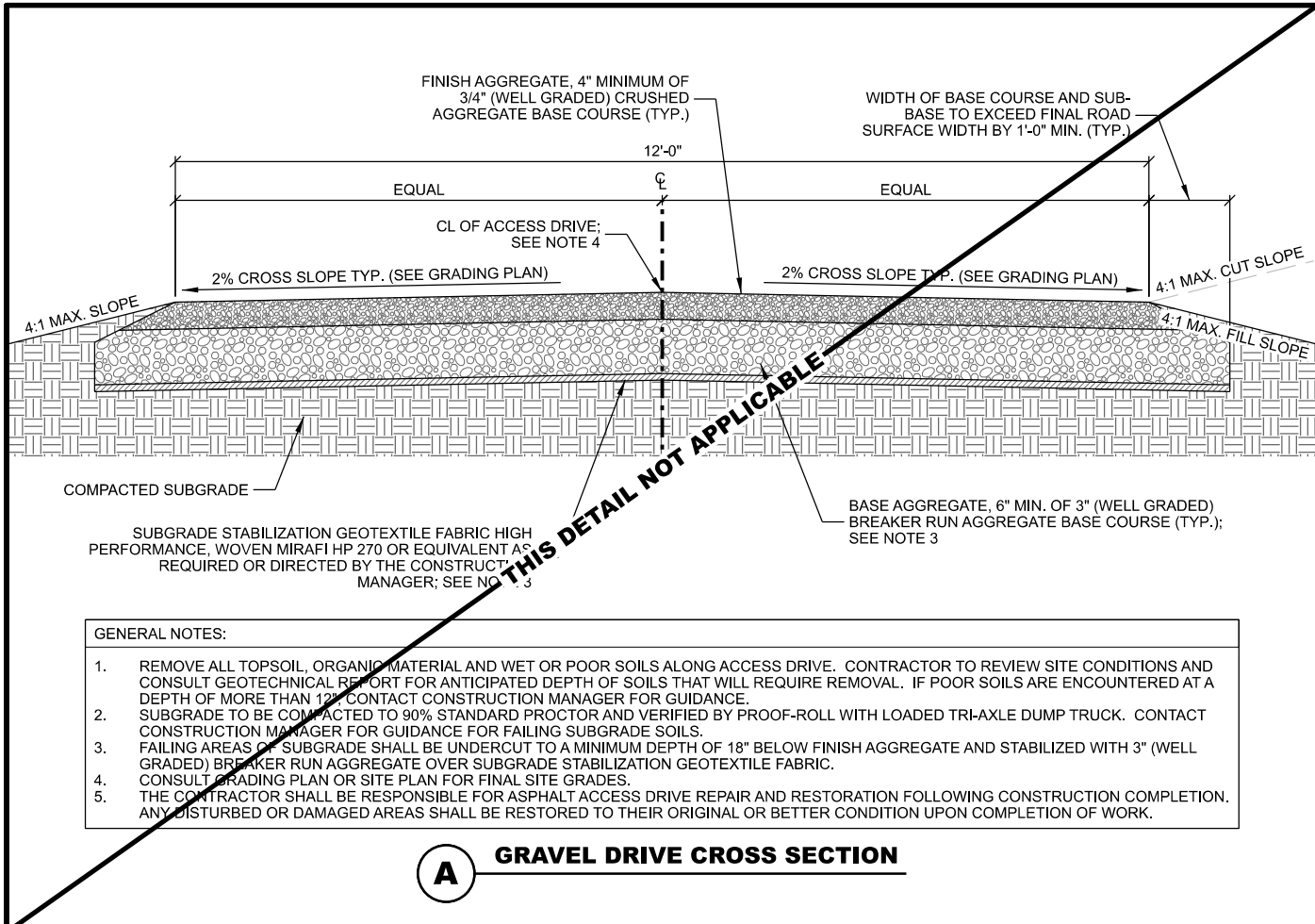
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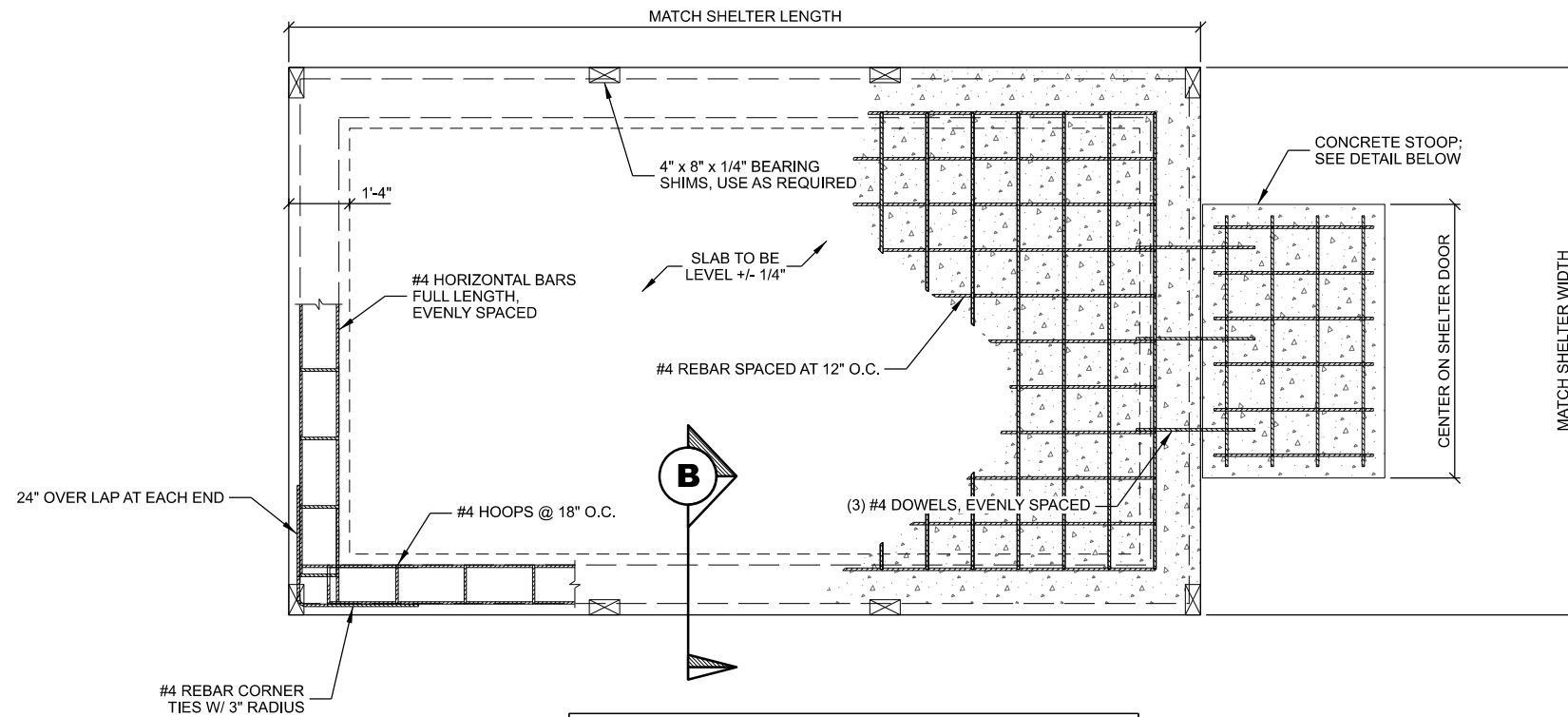
CHECKED BY	AJO
PLOT DATE	5/12/2021
PROJECT NUMBER	27656
SET TYPE	BD
SHEET NUMBER	C-104

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SITE DETAILS
CAMBRIDGE (27656)
CAMBRIDGE, WISCONSIN

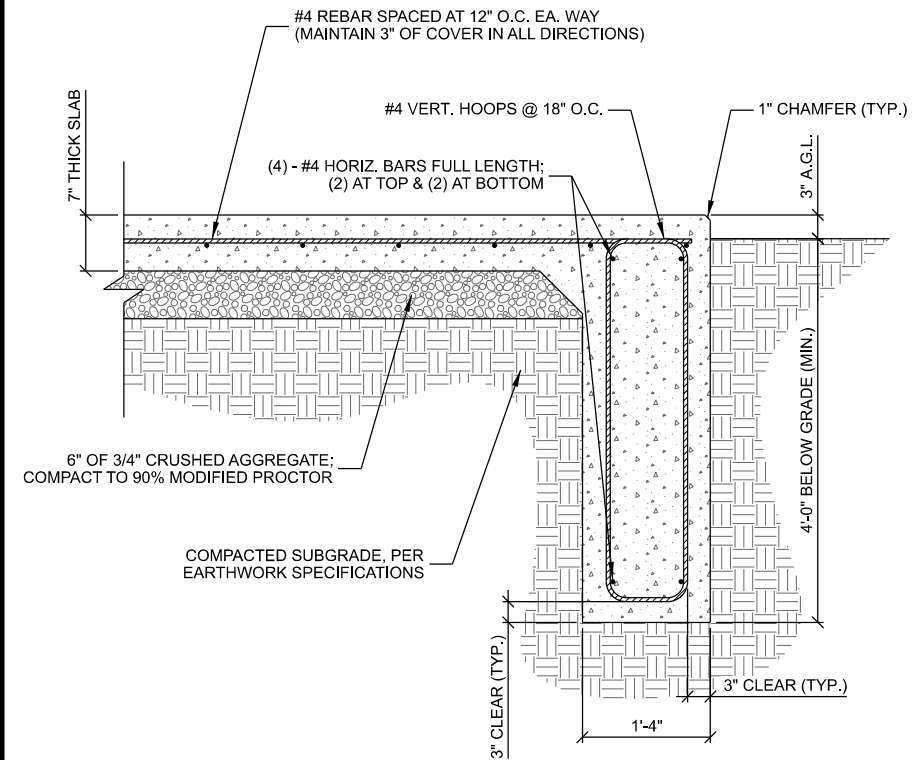


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INT.	DATE:	DESCRIPTION:
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PLOT DATE:	5/12/2021	
PROJECT NUMBER:	27656	
SET TYPE:	BD	
SHEET NUMBER:	C-501	

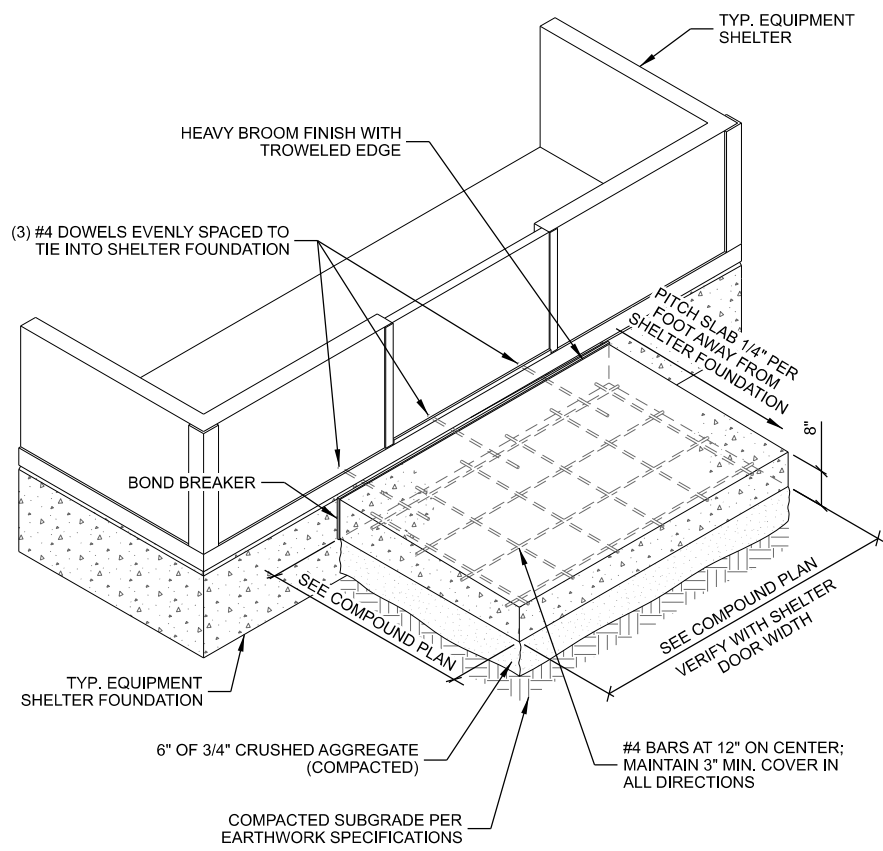


NOTES:
 1. BEARING SHIM: GALVANIZED STEEL, 4 EACH SIDE USE SHIMS AS REQUIRED TO ASSURE SHELTER IS BEARING AT PERIMETER.

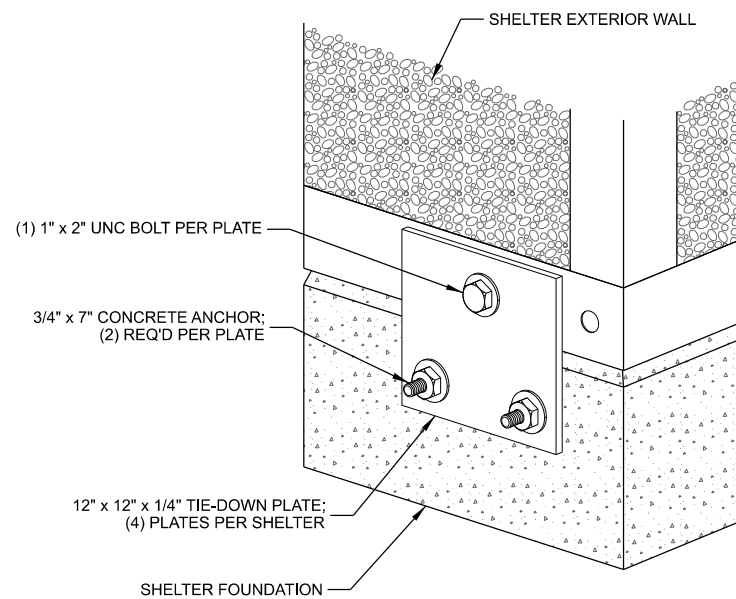
A SHELTER FOUNDATION PLAN
 SCALE: 11" x 17" - 1/4" = 1'-0"
 22" x 34" - 1/2" = 1'-0"



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.

CONSULTANT:
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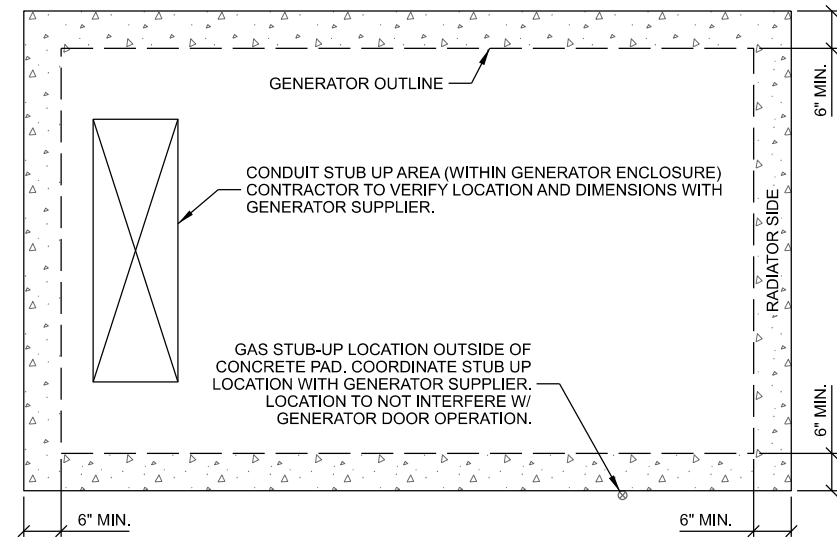
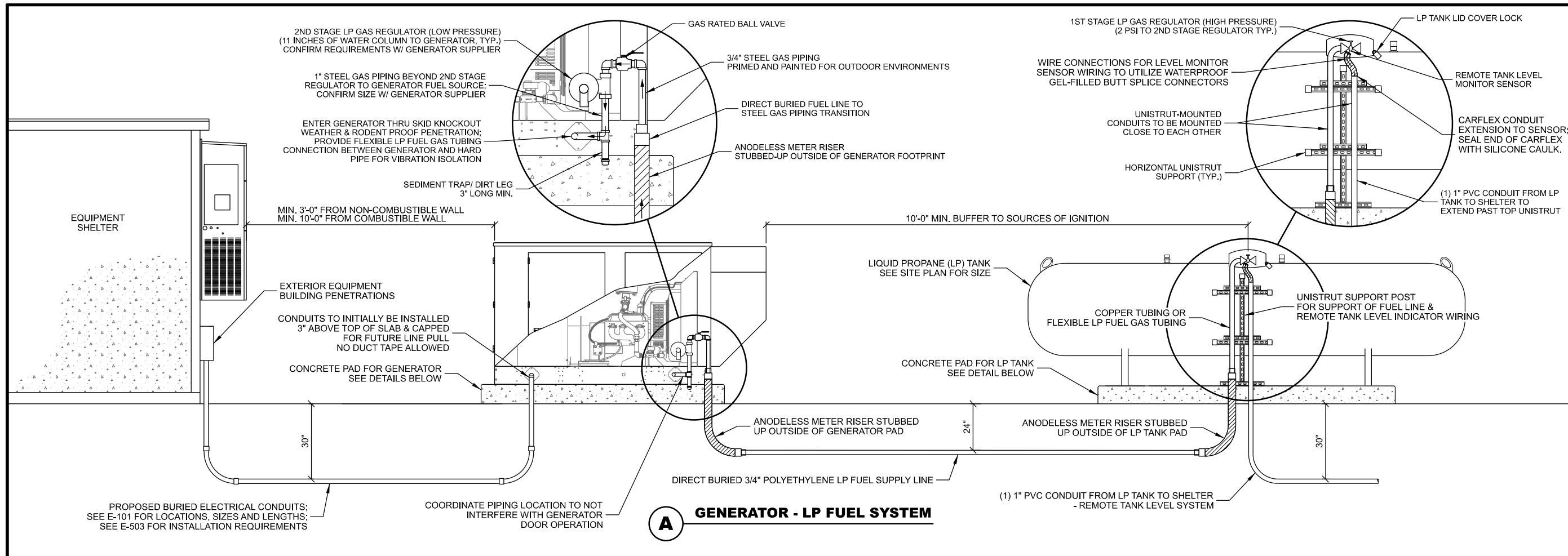
SHELTER FOUNDATION DETAILS
 CAMBRIDGE (27656)
 CAMBRIDGE, WISCONSIN

SUBMITTAL:

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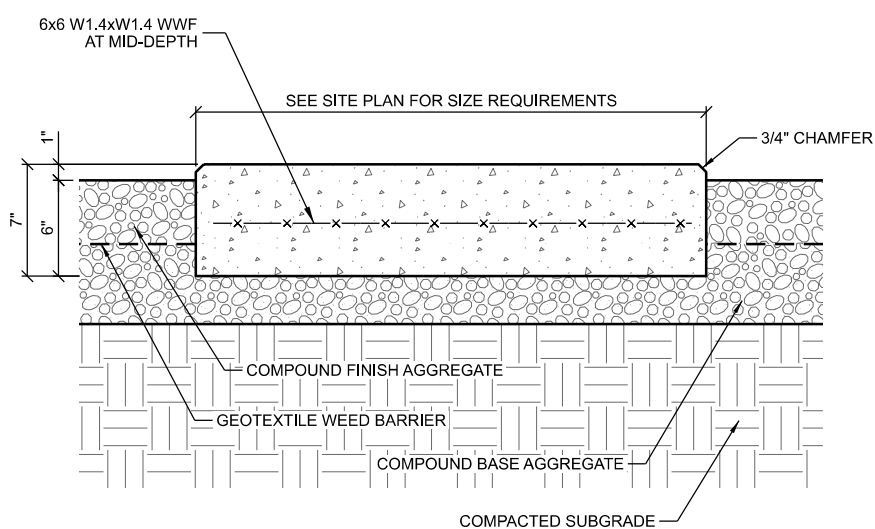
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PLOT DATE:	5/12/2021
PROJECT NUMBER:	27656
SET TYPE:	BD
SHEET NUMBER:	C-503

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- NOTES:**
1. CONTRACTOR TO VERIFY SLAB DIMENSIONS AND PIPING STUB UP LOCATIONS WITH GENERATOR SUPPLIER.
 2. ORIENT RADIATOR SIDE TOWARDS TOWER
 3. SEE DETAIL TO RIGHT FOR CONCRETE PAD REQUIREMENTS.

B **TYP. GENERATOR FOUNDATION PLAN**



- NOTES:**
1. CONCRETE MIX TO BE 4,000 PSI @ 28 DAYS.
 2. FINISH: MEDIUM BROOM.

C **CONCRETE PAD**

THIS SPACE INTENTIONALLY LEFT BLANK

CONSULTANT:
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GENERATOR FUEL SYSTEM DETAILS
CAMBRIDGE (27656)
CAMBRIDGE, WISCONSIN

SUBMITTAL:

INT.	DATE:	DESCRIPTION:

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PROJECT NUMBER:	27656
SET TYPE:	BD
SHEET NUMBER:	C-504

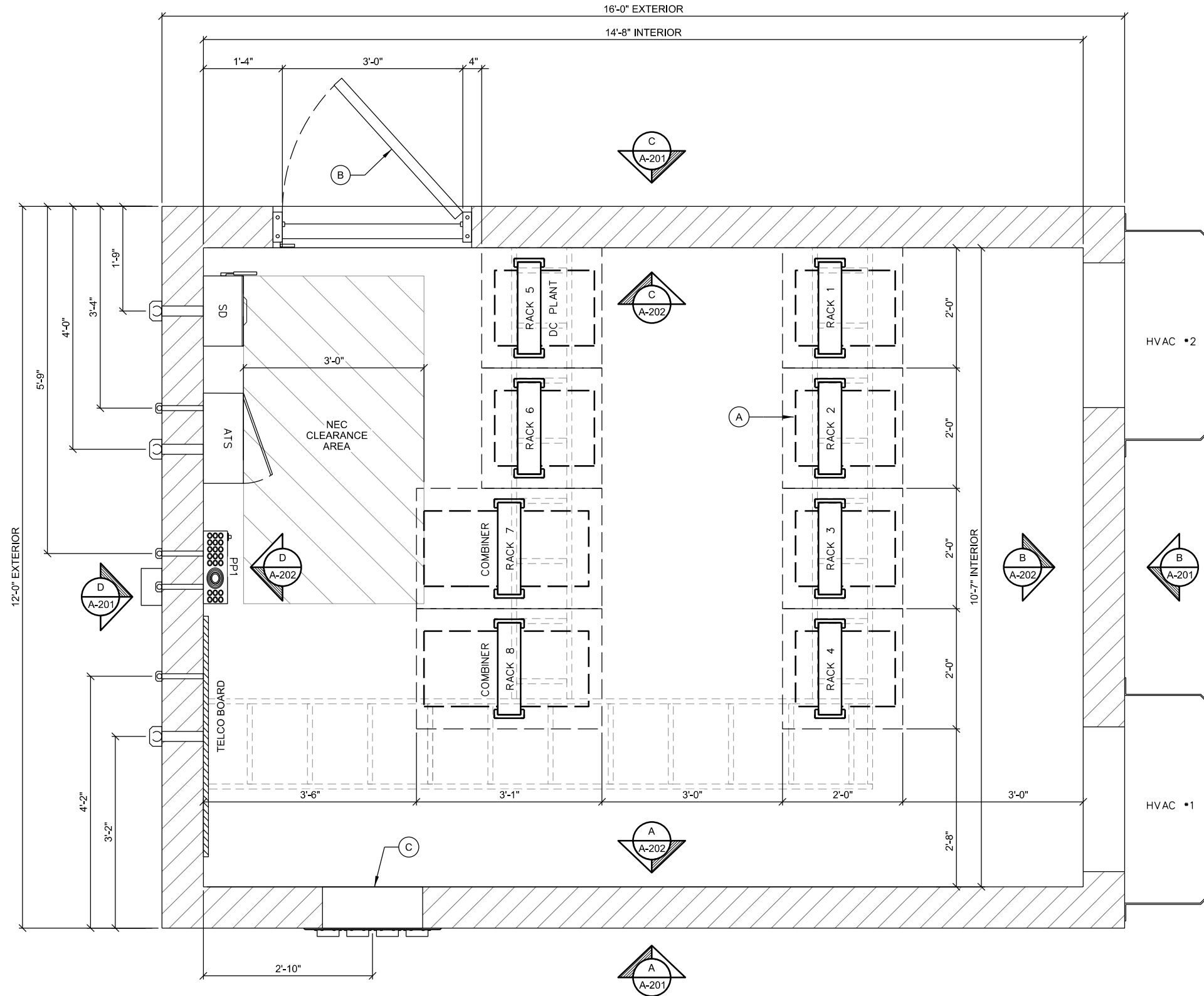
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KEYNOTES: (THIS SHEET)

- A. RADIO EQUIPMENT RACK
INSTALLED BY OTHERS (RADIO VENDOR)
- B. 3'-0" ENTRY DOOR
- C. 12 HOLE (4x3) ENTRY PANEL PORT

GENERAL NOTES: (THIS SHEET)

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



****SHELTER PROVIDED BY OWNER & INSTALLED BY CONTRACTOR****

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

CONSULTANT:
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**SHELTER FLOOR PLAN
CAMBRIDGE (27656)
CAMBRIDGE, WISCONSIN**

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:

CHECKED BY	AJO
PLOT DATE	5/12/2021
PROJECT NUMBER	27656
SET TYPE	BD
SHEET NUMBER	A-101

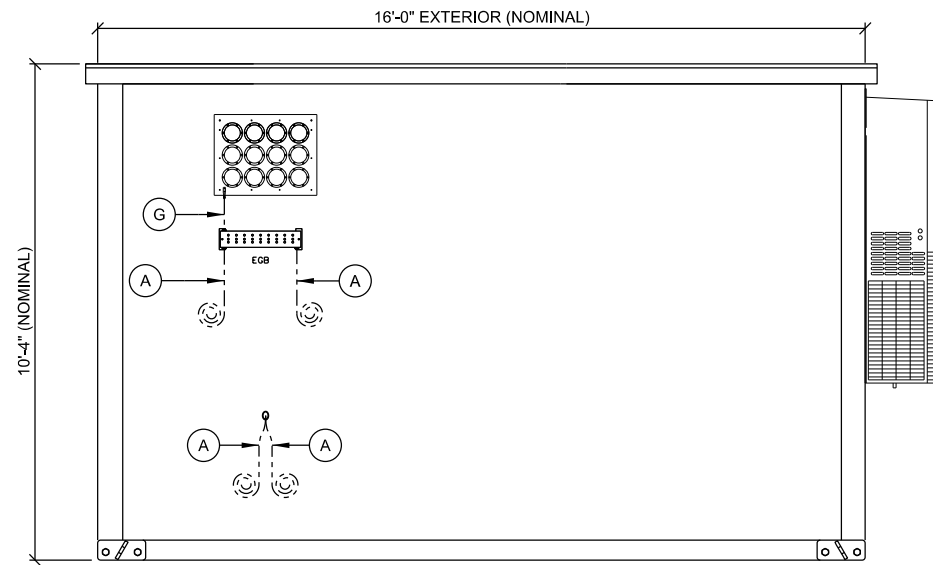
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KEYNOTES: (THIS SHEET)

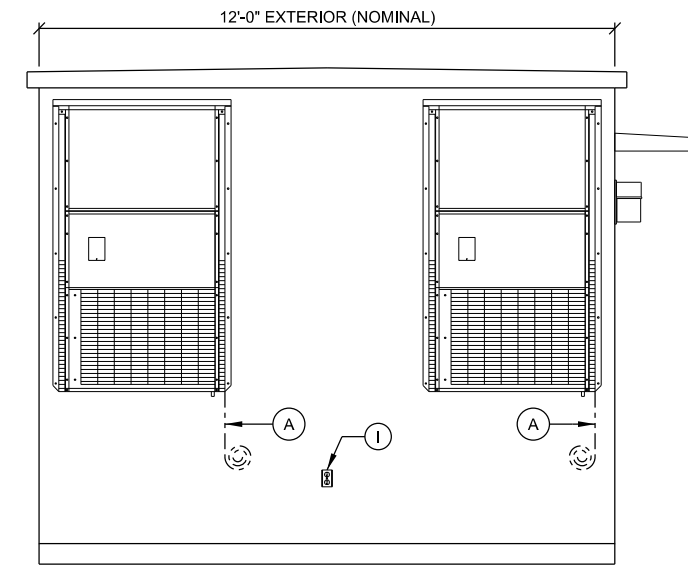
- A. (2) #2 SOLID TINNED GROUND LEADS TO SITE GROUND SYSTEM
- B. 2" CONDUIT TO UTILITY RACK (AC POWER)
- C. 2" CONDUIT TO GENERATOR (AC POWER)
- D. 1" CONDUIT TO GENERATOR (CONTROL & ALARM)
- E. ~~1" CONDUIT TO GENERATOR (CONVENIENCE OUTLET)~~ (NOT REQ'D)
- F. 1" CONDUIT TO LP TANK (REMOTE MONITOR)
- G. #6 STRANDED INSULATED BONDING JUMPER TO ENTRY PORT PLATE
- H. 2" PENETRATION (FUTURE COMMUNICATION SERVICE)
- I. EXTERIOR GFCI RECEPTACLE
- J. EXTERIOR LIGHT (WALL PACK)
- K. DOOR HARDWARE
- L. 3/4" CONDUIT TO BERTRAM EQUIPMENT (AC POWER)

GENERAL NOTES: (THIS SHEET)

1. ALL PVC CONDUITS TO BUILDING TO INCLUDE SLIP JOINTS WHEN EXITING GRADE.
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 CONNECTIONS.
3. SELF TAPPING SCREW CONNECTIONS ARE NOT ALLOWED.
4. ALL EXTERIOR METALLIC CONDUITS AND BOXES TO BE PROVIDED WITH GROUND BOND CONNECTION VIA THROUGH WALL HUG CONNECTION TO INTERIOR GROUNDED DEVICE OR OTHER DIRECT CONNECTION TO GROUND SYSTEM.

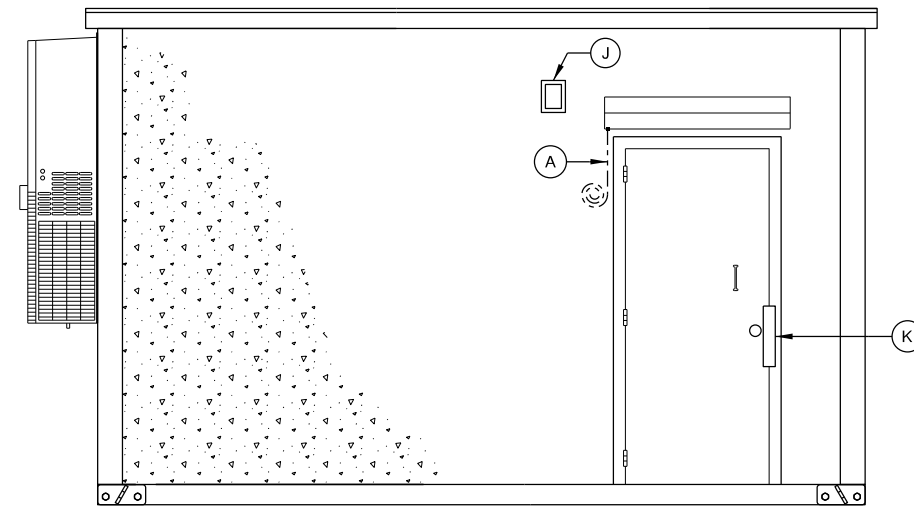


A EXTERIOR ELEVATION
SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"

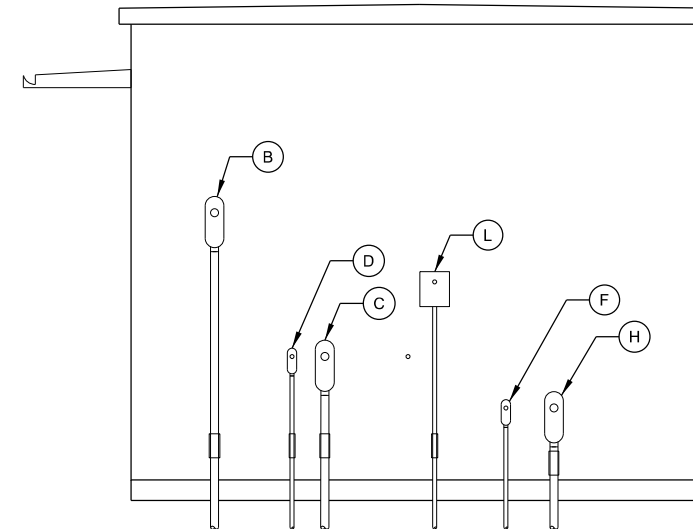


B EXTERIOR ELEVATION
SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"

**** SHELTER PROVIDED BY OWNER & INSTALLED BY CONTRACTOR ****



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"

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SHELTER ELEVATIONS: EXTERIOR
CAMBRIDGE (27656)
CAMBRIDGE, WISCONSIN

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:

CHECKED BY:	AJO
PLOT DATE:	5/12/2021
PROJECT NUMBER:	27656
SET TYPE:	BD
SHEET NUMBER:	A-201

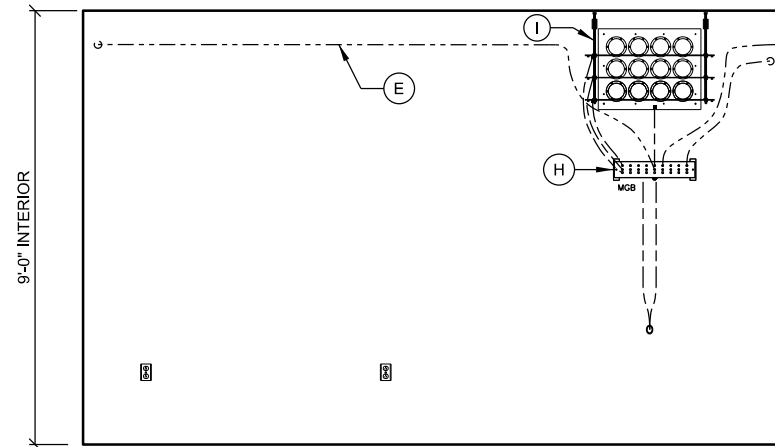
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KEYNOTES: (THIS SHEET)

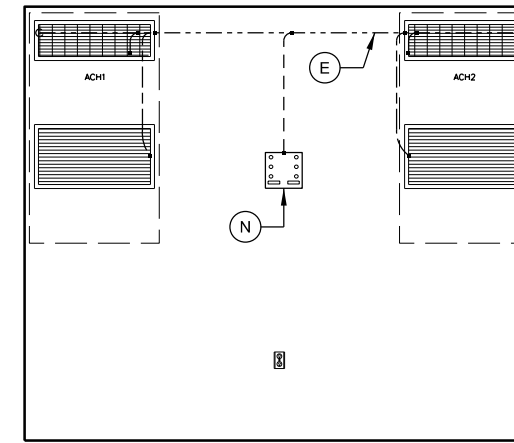
- A. AUTOMATIC TRANSFER SWITCH (ATS) BY CONTRACTOR INSTALL AT 6'-0" ABOVE FINISH FLOOR
- B. CONDUIT/RACEWAY BETWEEN ELECTRIC SERVICE DISCONNECT (SD) & ATS
- C. 60A CIRCUIT BREAKER & SPD1 ON ELEC. SERVICE DISCONNECT
- D. BOND ALL DEVICE BOXES (ATS, SPD1 & SPD2) TO HALO (#6 STRANDED INSULATED)
- E. GROUNDING HALO (#2 STRANDED INSULATED)
- F. SPD2 ON DIST. PANEL (PP1)
- G. LP TANK LEVEL MONITOR BY CONTRACTOR
- H. MASTER GROUND BAR. FOLLOW PANI SYSTEM FOR ORGANIZATION OF CONNECTIONS TO BAR
- I. COAXIAL SURGE PROTECTOR TRAPEZE GROUND SYSTEM
- J. LP MONITOR DOUBLE DUPLEX OUTLET
- K. ALARM WIRING FROM EXISTING AND INSTALLED DEVICES
- L. R66 ALARM BLOCK
- M. NEUTRAL-GROUND BOND CONNECTION FROM SD GROUND TERMINAL TO MGB (#2 STRANDED INSULATED). ROUTE ALONG PERIMETER WALL BELOW HALO OR ALONG CABLE TRAY
- N. HVAC LEAD LAG CONTROLLER
- O. 3/4" ALARM WIRING CONDUIT
- P. HIGH & LOW TEMP ALARMS

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 CONNECTIONS. SELF-TAPPING SCREWS ARE NOT ALLOWED.
- 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.

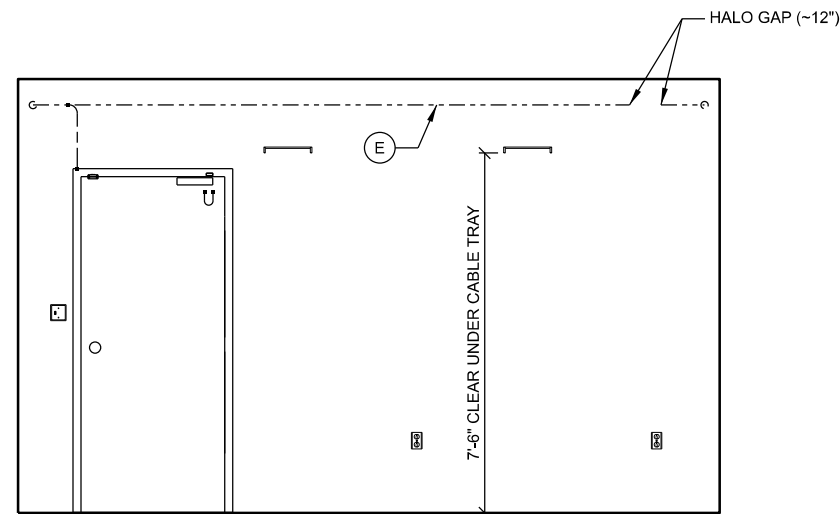


A INTERIOR ELEVATION
SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"

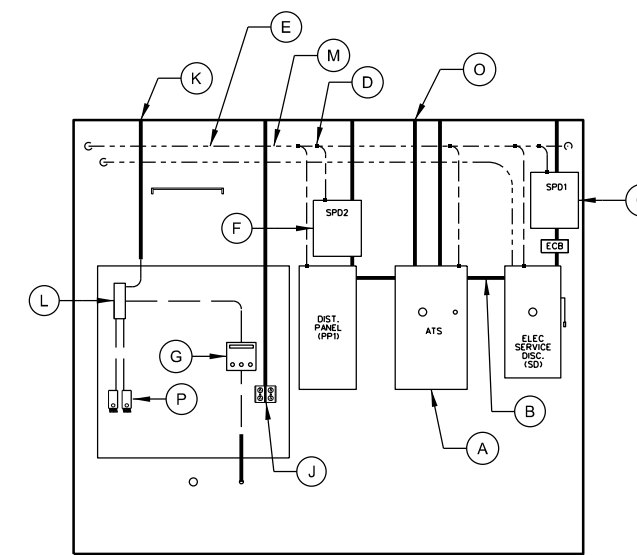


B INTERIOR ELEVATION
SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"

****SHELTER PROVIDED BY OWNER & INSTALLED BY CONTRACTOR****
ATS AND LP TANK LEVEL MONITOR ARE BY CONTRACTOR



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"

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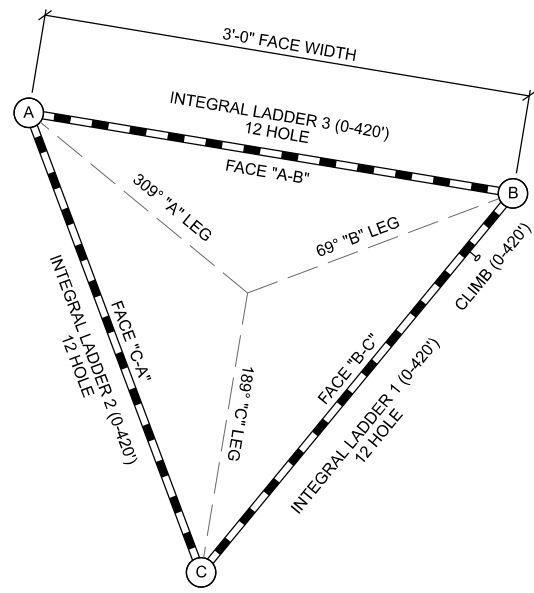


SHELTER ELEVATIONS: INTERIOR
CAMBRIDGE (27656)
CAMBRIDGE, WISCONSIN

SUBMITTAL:

INT.	DATE:	DESCRIPTION:

CHECKED BY:	AJO
PLOT DATE:	5/12/2021
PROJECT NUMBER:	27656
SET TYPE:	BD
SHEET NUMBER:	A-202



A TOWER ORIENTATION

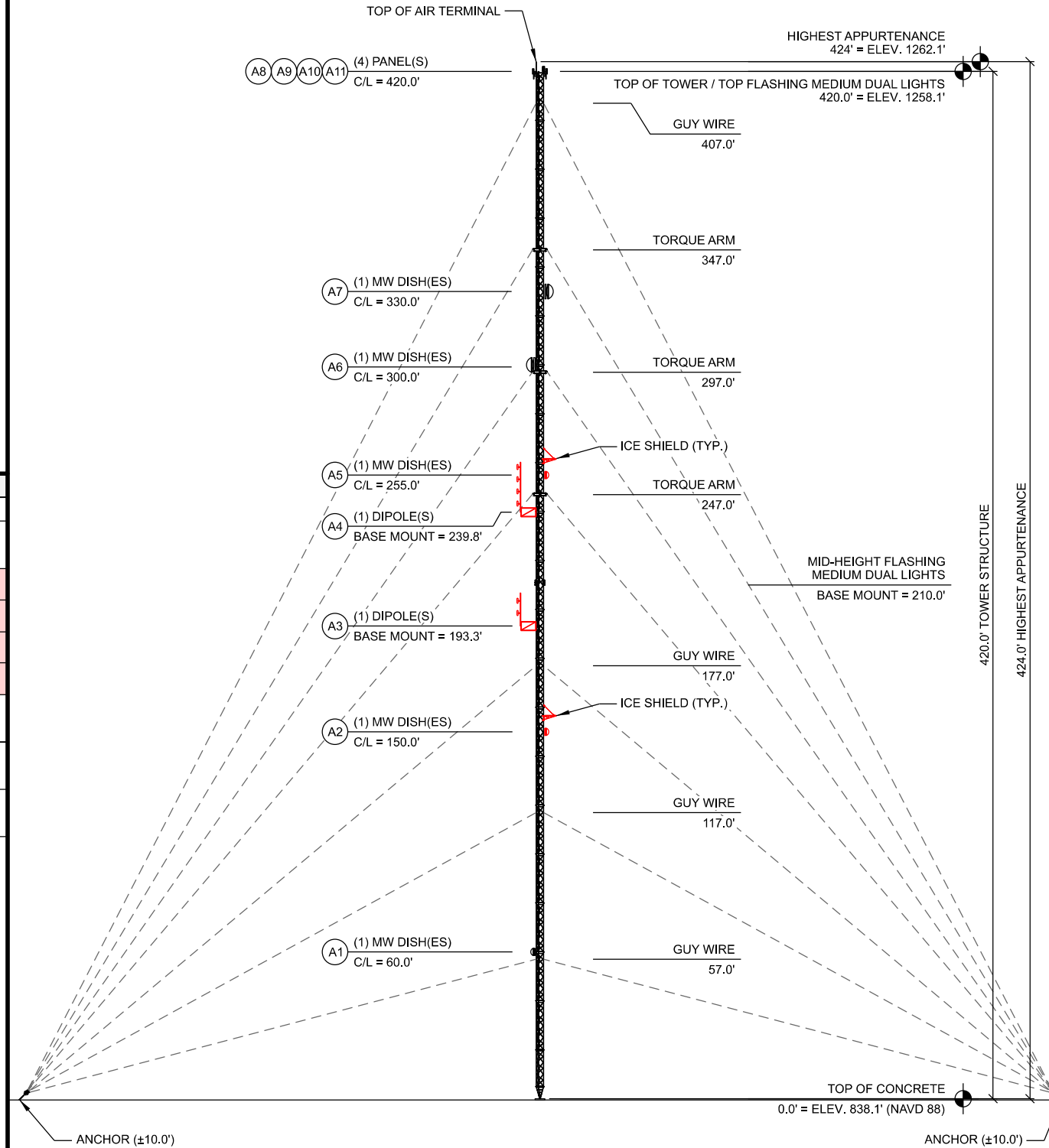
TOWER LOADING

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	TILT (+/-)	Tx LINE (QTY.) SIZE	FREQUENCY (MHz)	OWNER USE	NOTES
A1	MW Dish	(1) 3' Solid Dish w/ Radome 3' Dia	A	(1) Leg Dish Mount	60.0'	60.0'	898.1'	333°		(1) 24-Strand SMF (12" Dia) & (1) 14.5 S00W Power (5/8" Dia.)		Bertram Wireless	Existing
A2	MW Dish	(1) radiowaves HP3-11 (TR) 3' Dia 50 lbs.	B	Leg Mount (PM-SU4-63) 4.5' OD x 63" Mast Pipe 138 lbs.	150.0'	150.0'	988.1'	91.3°		(1) LDF2-50 (3/8")	11200	Jefferson Co. Path to Jefferson	Ice Shield @ 156.5'
A3	Dipole	(1) Comprod 872F-70TM-1/4 13.5' Long 24 lbs.	A	HS-400 Stand-Off 48" Long, 42" High 56 lbs.	193.3'	200.0'	1038.1'	270°		(1) LCF78-50JA (7/8")	138 - 174	Jefferson Co. P25 Tx	
A4	Dipole	(1) Comprod 874F-70TM-1/4 20.5' Long 67 lbs.	A	HS-400 Stand-Off 48" Long, 42" High 56 lbs.	239.8'	250.0'	1088.1'	0°		(1) LCF78-50JA (7/8")	138 - 174	Jefferson Co. P25 Rx	
A5	MW Dish	(1) radiowaves HP3-11 (TR) 3' Dia 50 lbs.	B	Leg Mount (PM-SU4-63) 4.5' OD x 63" Mast Pipe 138 lbs.	255.0'	255.0'	1093.1'	54.68°		(1) LDF2-50 (3/8")	11200	Jefferson Co. Path to Lake Mills	Ice Shield @ 261.5'
A6	MW Dish	(1) 6' Solid Dish 6' Dia	A	(1) Leg Dish Mount	300.0'	300.0'	1138.1'	3°		(1) 24-Strand SMF (12" Dia) & (1) 14.5 S00W Power (5/8" Dia.)		Bertram Wireless	Existing
A7	MW Dish	(1) 6' Solid Dish 6' Dia	B	(1) Leg Dish Mount	330.0'	330.0'	1168.1'	71°		(1) 24-Strand SMF (12" Dia) & (1) 14.5 S00W Power (5/8" Dia.)		Bertram Wireless	Existing
A8-A11	Panel	(4) Panels - (1) Per Sector, KPPA-5GHZDP90S 27" x 7" x 3.5" 8 lbs ea.	B, C	(2) 4'-2" Mast Pipe w/ 10" Stand-Off, (2) Antennas per Mast, (1) Mast per (2) Sectors	420.0'	420.0'	1258.1'			(1) 24-Strand SMF (12" Dia) & (1) 12.9 S00W Power (5/8" Dia.)		Bertram Wireless	Existing; 3' x 2' x 12" Box

**** ANTENNA AND LINE INSTALLATION BY OTHERS **
NOT PART OF CONTRACT**

- NOTES:
- REFER TO ANTENNA MOUNTING DETAILS FOR ADDITIONAL INFO ON MOUNT DESIGN AND MOUNTING REQUIREMENTS.
 - ALL OMNI & DIPOLE ANTENNAS BELOW TOP LAYER TO INCLUDE TOP BRACING WHEN RECOMMENDED BY MANUFACTURER.
 - PROPOSED JEFFERSON CO. ANTENNA AND MICROWAVE LOADING IS BASED ON DESIGN SUPPLIED BY GENERAL COMMUNICATIONS, DATED 04/01/2021.
 - PROPOSED BERTRAM WIRELESS ANTENNA AND MICROWAVE LOADING IS BASED ON DESIGN SUPPLIED BY BERTRAM WIRELESS, DATED 04/08/2021.

B TOWER LOADING SUMMARY



- NOTES:
- ALL DIMENSIONS SHOWN ARE REFERENCED FROM THE TOP OF TOWER STEEL BASE PLATE.
 - TOWER MANUFACTURER: SABRE MODEL/SERIAL #: 3600 SRWD TOWER MANUFACTURER JOB #: 470061

C TOWER PROFILE (ELEVATION)

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**TOWER LOADING / ELEVATION
CAMBRIDGE (27656)
CAMBRIDGE, WISCONSIN**

SUBMITTAL:

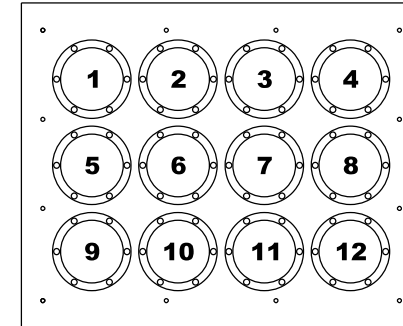
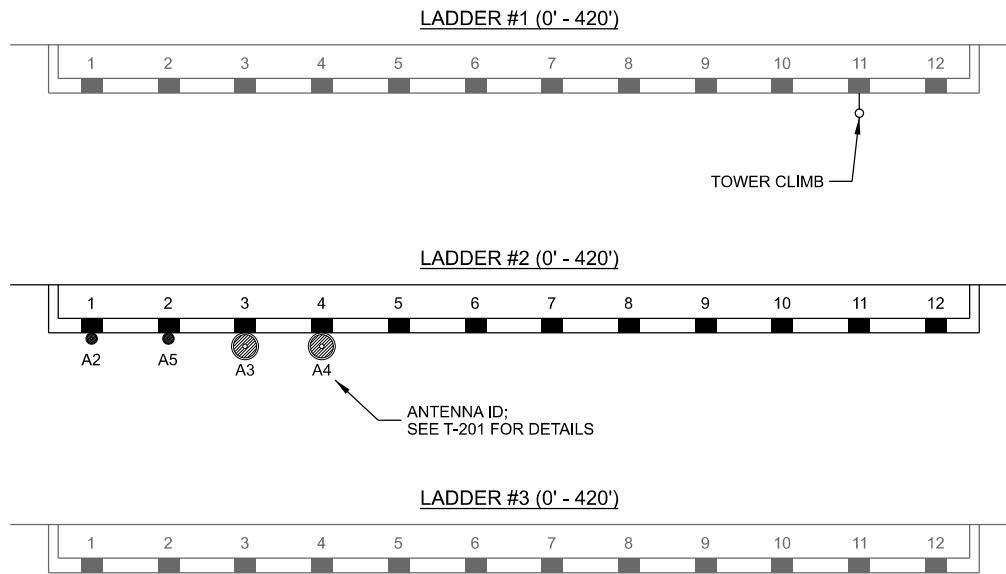
INT.	DATE	DESCRIPTION:

CHECKED BY	AJO
PLOT DATE	5/12/2021
PROJECT NUMBER	27656
SET TYPE	BD
SHEET NUMBER	T-201

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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"



PORT #	ANTENNA ID	ANTENNA SYSTEM	(QTY.) CABLE SIZE
1	A2	MW DISH	(1) 3/8"
2	A5	MW DISH	(1) 3/8"
3			
4			
5	A3	P25 Tx	(1) 7/8"
6	A4	P25 Rx	(1) 7/8"
7			
8			
9			
10			
11			
12			

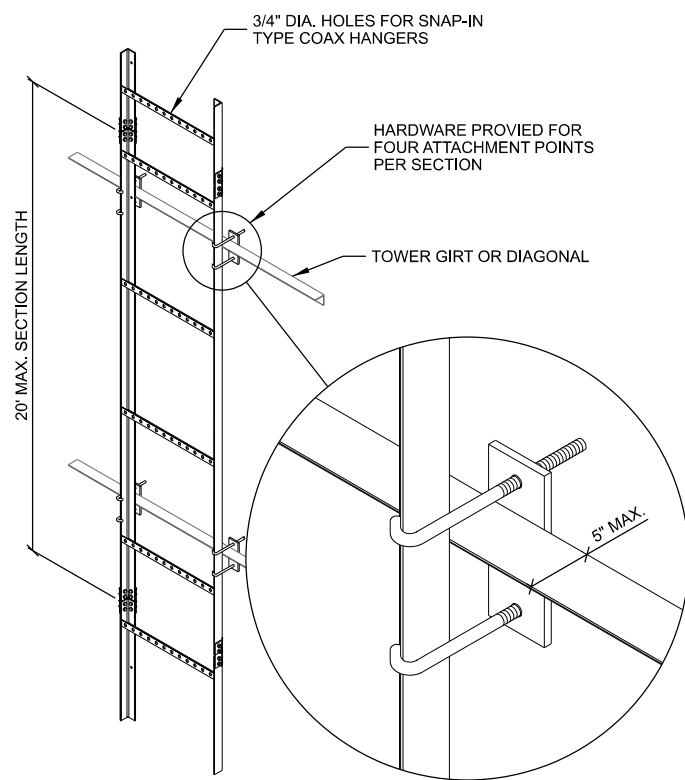
- NOTES:**
- REFER TO SHEET T-201 FOR ANTENNA ID REFERENCE AND LADDER INSTALLATION LOCATION.
 - DOUBLE STACKING OF 1-5/8" AND TRIPLE STACKING OF 7/8" COAX IS ALLOWED.
 - DOUBLE STACKING OF WAVEGUIDE IS ALLOWED WHEN USING CUSHION TYPE SNAP IN HANGERS.
 - GROUP LINES WITHIN LADDERS FOR SIMILAR TERMINATION LEVEL. SEPARATE WAVEGUIDE FROM COAX.
 - PROVIDE & INSTALL PROPERLY SIZED SNAP-INS FOR EACH COAX.
 - TOWER LOADING DESIGN SHALL ASSUME (3) COAX LADDERS INSTALLED

A TRANSMISSION LINE LADDER ROUTING

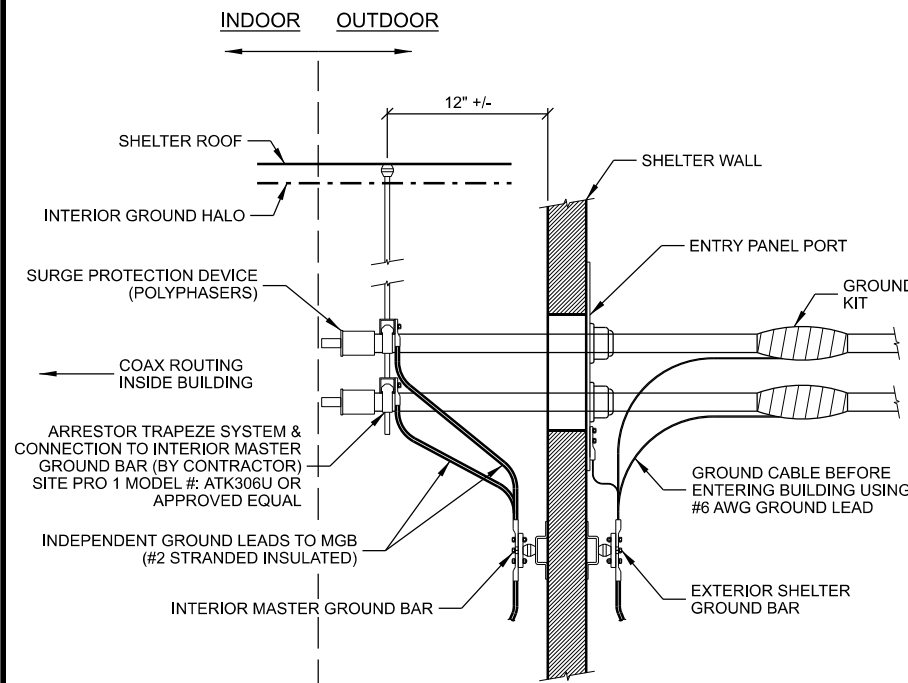
- NOTES:**
- REFER TO SHEET T-201 FOR ANTENNA ID REFERENCE
 - PORT OPENINGS ARE 4" DIA UNLESS OTHERWISE NOTED.
 - PROVIDE AND INSTALL PROPERLY SIZED BOOTS, CUSHIONS AND PLUGS FOR EACH PORT OPENING INSIDE AND OUTSIDE OF SHELTER.
 - ALL UNUSED PORTS ON ALL ENTRY PANELS TO BE CAPPED & SECURED IN PLACE W/ BLACK CABLE TIE.

B ENTRY PANEL ROUTING

****TRANSMISSION LINE INSTALLATION BY OTHERS**
NOT PART OF CONTRACT**



C VERTICAL TRANSMISSION LINE LADDER



D CABLE ENTRY

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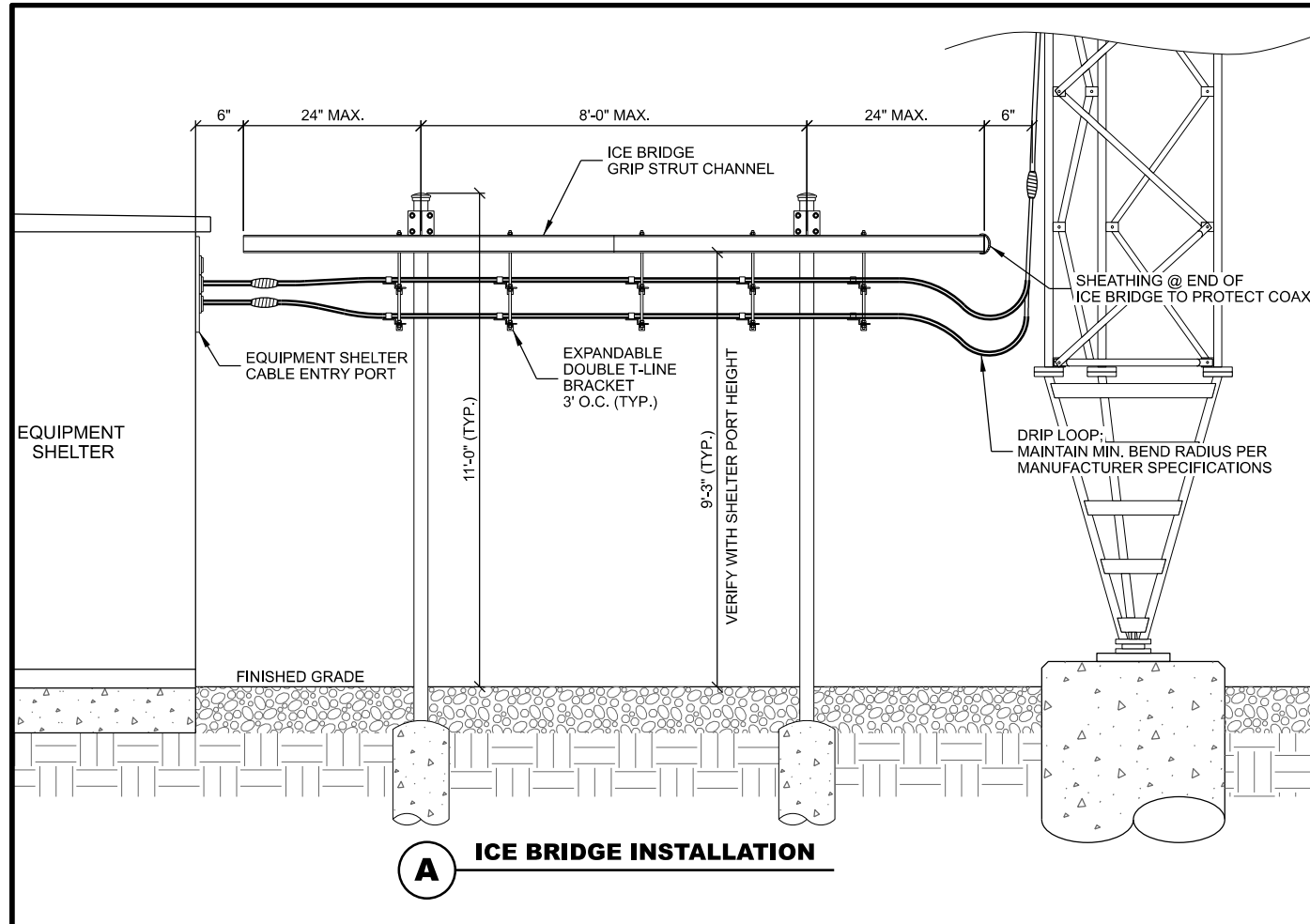
**TRANSMISSION LINE INSTALLATION DETAILS
CAMBRIDGE (27656)
CAMBRIDGE, WISCONSIN**

SUBMITTAL:

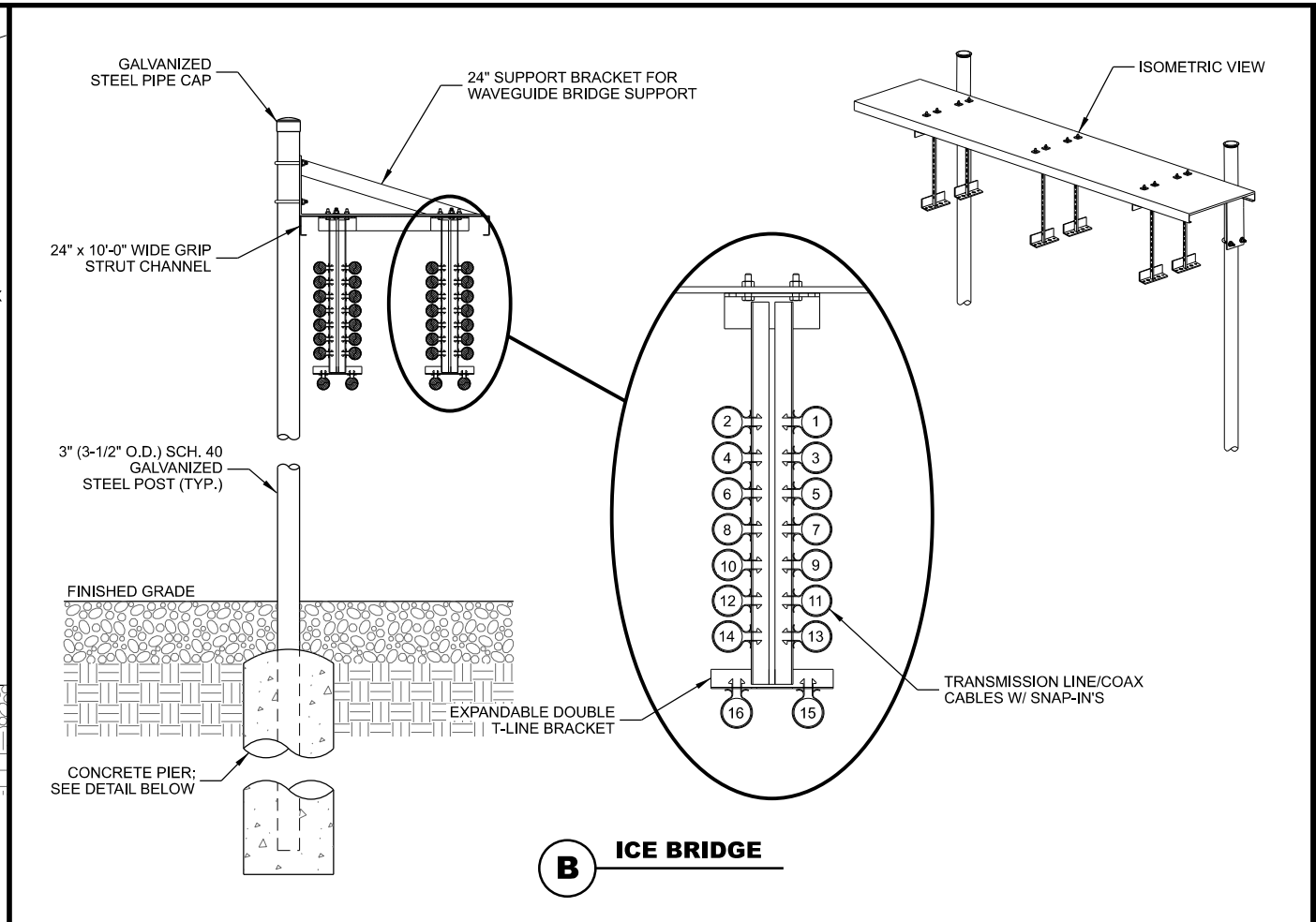
INT.	DATE:	DESCRIPTION:

CHECKED BY	AJO
PLOT DATE	5/12/2021
PROJECT NUMBER	27656
SET TYPE	BD
SHEET NUMBER	T-501

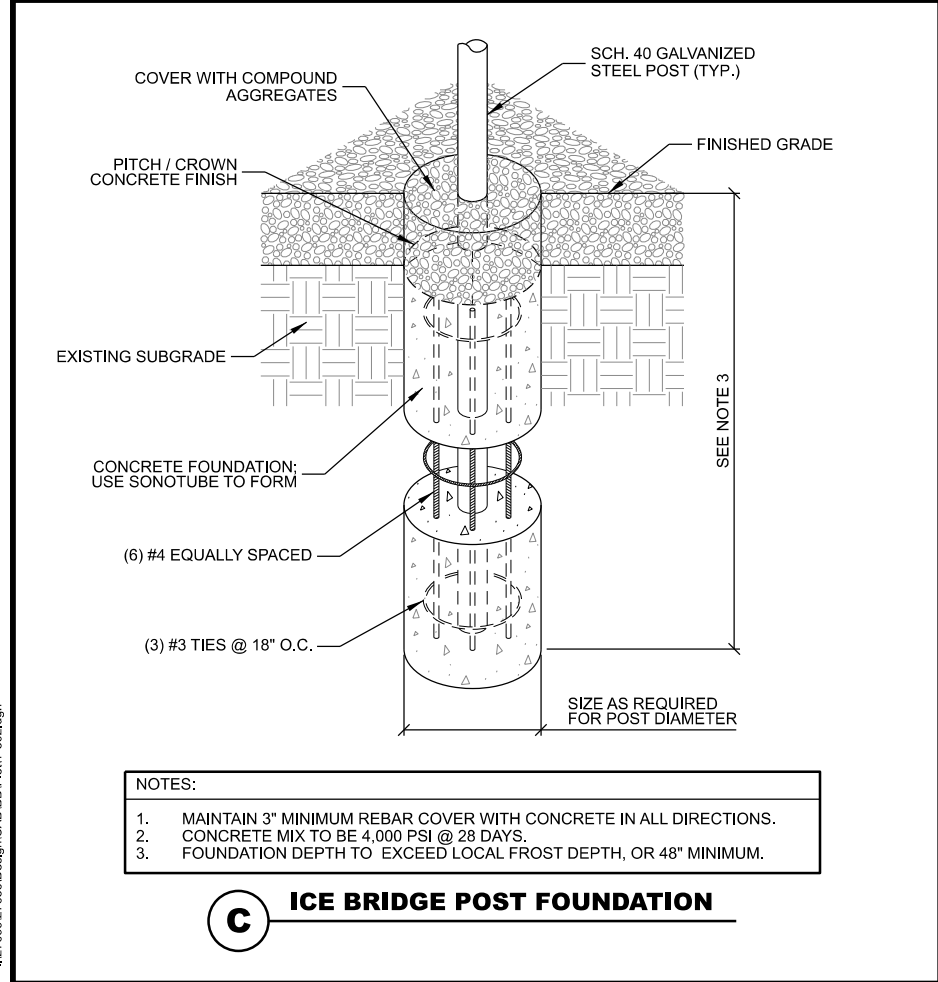
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A ICE BRIDGE INSTALLATION



B ICE BRIDGE



C ICE BRIDGE POST FOUNDATION

- NOTES:
1. MAINTAIN 3" MINIMUM REBAR COVER WITH CONCRETE IN ALL DIRECTIONS.
 2. CONCRETE MIX TO BE 4,000 PSI @ 28 DAYS.
 3. FOUNDATION DEPTH TO EXCEED LOCAL FROST DEPTH, OR 48" MINIMUM.

THIS SPACE INTENTIONALLY LEFT BLANK

- 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.

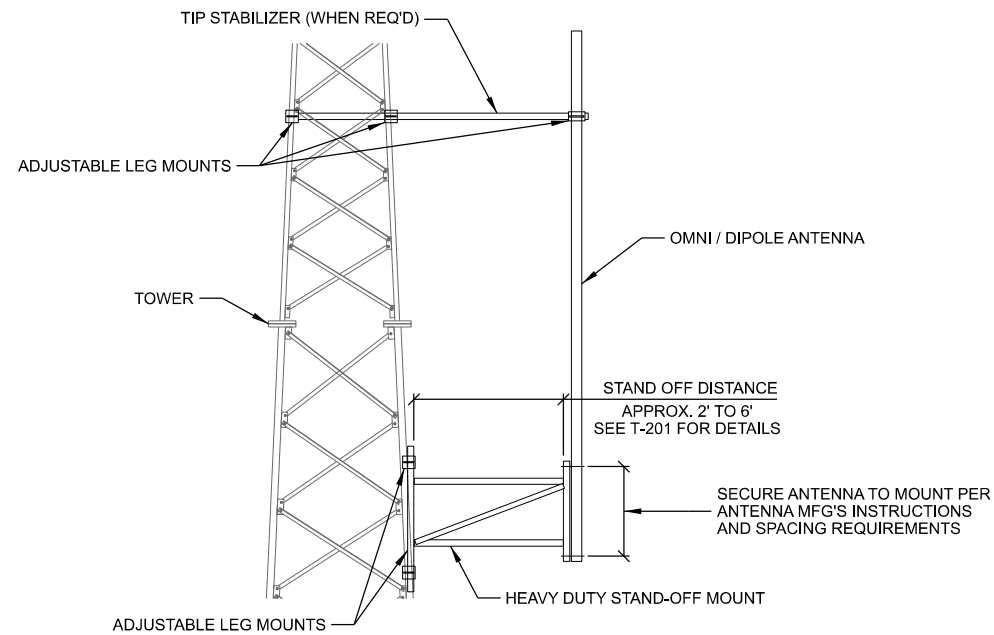
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ICE BRIDGE DETAILS
CAMBRIDGE (27656)
CAMBRIDGE, WISCONSIN

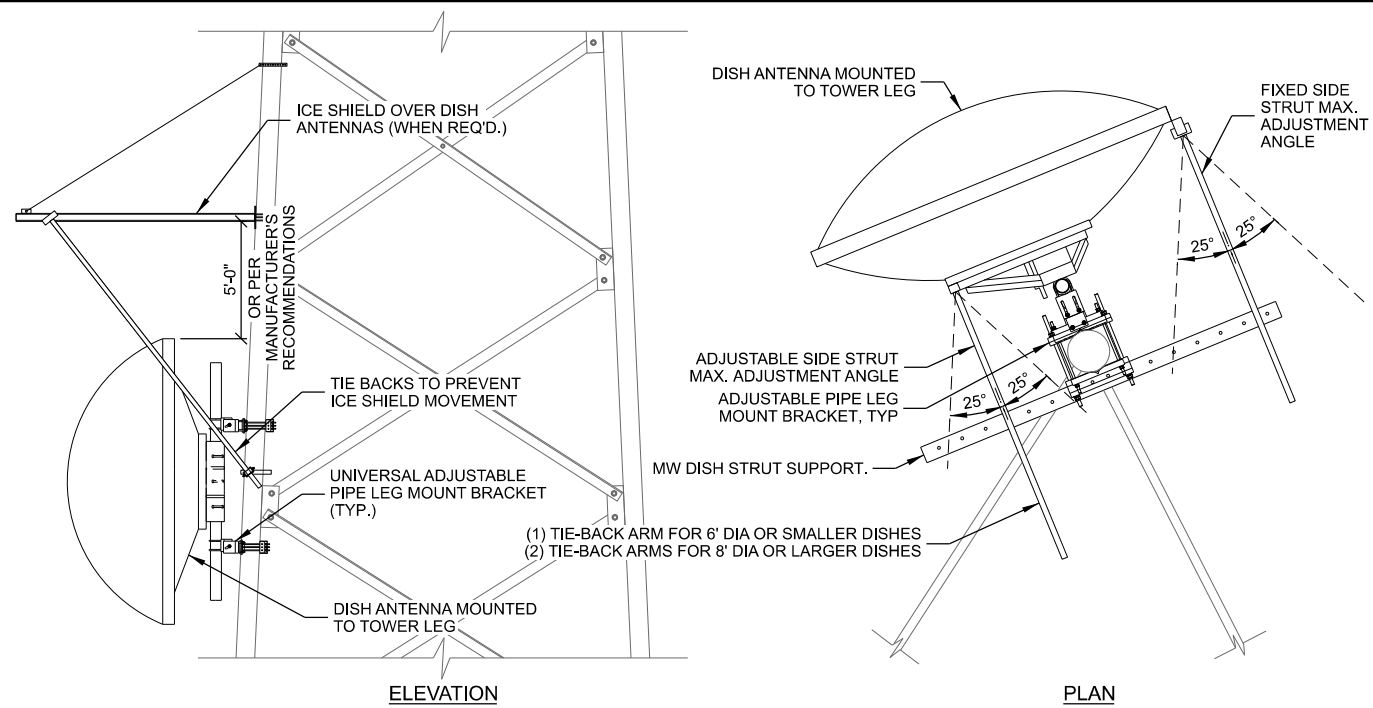
SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
CHECKED BY:	AJO	
PLOT DATE:	5/12/2021	
PROJECT NUMBER:	27656	
SET TYPE:	BD	
SHEET NUMBER:	T-502	

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- NOTES:
1. ANTENNA MOUNTS SHOWN ARE SCHEMATIC ONLY. TOWER MANUFACTURER IS RESPONSIBLE TO DESIGN MOUNTS TO MEET THE ANTENNA LOADS AND MAXIMUM WIND DESIGN PARAMETERS AS OUTLINED IN THE SPECS.
 2. POSITION LOCATIONS ARE REFERENCED INCREASING IN A CLOCKWISE DIRECTION (INCREASING AZIMUTH).
 3. ALL MOUNTS, MOUNTING HARDWARE AND ACCESSORIES TO BE HOT DIPPED GALVANIZED.

A OMNI / DIPOLE STANDOFF MOUNTING



- NOTES:
1. 4' DIA. OR GREATER DISH ANTENNAS TO BE MOUNTED ON 4.5" O.D. PIPE MASTS.
 2. INSTALL TIE-BACK SUPPORT(S) FOR EACH DISH PER DETAIL OR DISH MANUFACTURERS INSTRUCTIONS.
 3. ANTENNA MOUNTS SHOWN ARE SCHEMATIC ONLY. MOUNT MANUFACTURER IS RESPONSIBLE TO DESIGN MOUNTS TO MEET THE ANTENNA LOADS AND MAXIMUM WIND DESIGN PARAMETERS AS OUTLINED IN THE SPECS.
 4. ICE SHIELD WIDTH TO BE 2' WIDER THAN DISH DIAMETER MIN.
 5. ICE SHIELDS TO INCLUDE TIE BACK WIRES TO PREVENT MOVEMENT & TWIST IN HIGH WIND CONDITIONS.

B DISH MOUNTING

*** * ANTENNA INSTALLATION BY OTHERS * ***
NOT PART OF CONTRACT

CONSULTANT:

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CLIENT:

JEFFERSON COUNTY WI
ESTABLISHED 1838









ANTENNA INSTALLATION DETAILS
CAMBRIDGE (27656)
CAMBRIDGE, WISCONSIN

SUBMITTAL:

INT.	DATE:	DESCRIPTION:

CHECKED BY	AJO
PLOT DATE	5/12/2021
PROJECT NUMBER	27656
SET TYPE	BD
SHEET NUMBER	T-503

GROUNDING LEGEND: (THIS SHEET)

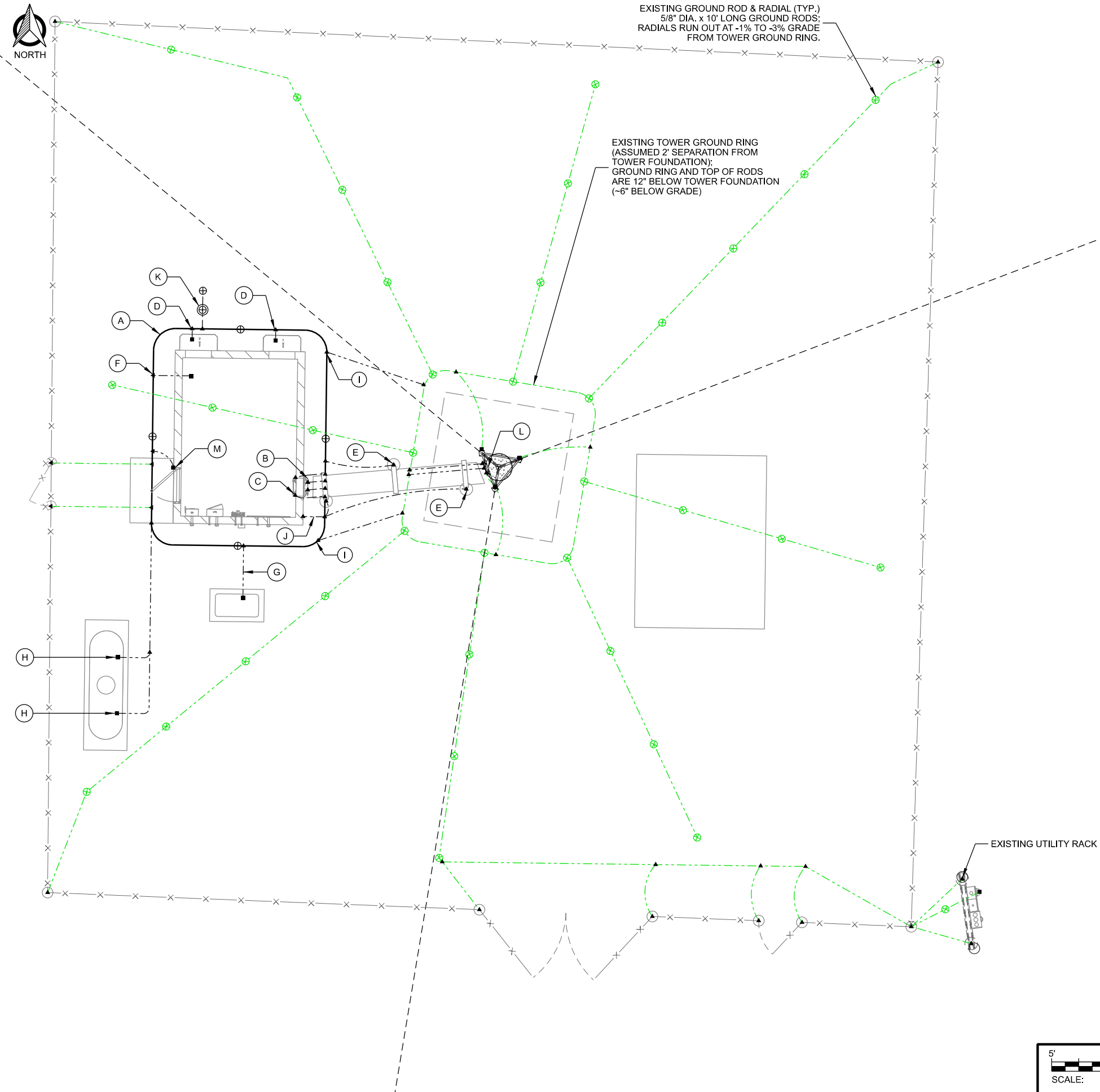
-  GROUND TEST WELL, SEE E-502 FOR DETAILS
-  COPPER CLAD GROUND ROD, (5/8" DIA. x 10' LONG)
SPACE @ 2X GROUND ROD LENGTH (20' O.C. MAX., 6' MIN.)
-  COPPER PLATE, (18" x 18" x 0.032" THK)
SPACE @ 2X GROUND ROD LENGTH (20' O.C. MAX., 6' MIN.)
-  EXOTHERMIC OR UL RATED IRREVERSIBLE CONNECTION
(CADWELD OR HYGROUND)
-  MECHANICAL CONNECTION
(BURNNDY 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 AWG BARE SOLID TINNED COPPER CONDUCTOR
IN ENHANCED GROUND TRENCH, SEE E-502 FOR DETAILS

KEYNOTES: (THIS SHEET)

- A. SHELTER GROUND RING, MAINTAIN 2' SEPARATION FROM SHELTER FOUNDATION
- B. EXTERIOR SHELTER GROUND BAR, (2) LEADS TO SHELTER GROUND RING. GROUND BAR PROVIDED W/ SHELTER.
- C. INTERIOR SHELTER GROUND BAR (MGB), (2) LEADS TO SHELTER GROUND RING. GROUND BAR PROVIDED W/ SHELTER.
- D. SHELTER EXTERIOR AC UNIT GROUND
- E. ICE BRIDGE/UTILITY POST GROUND, SEE E-501 FOR DETAILS
- F. SHELTER FOUNDATION GROUND, SEE E-502 FOR DETAILS
- G. GROUND GENERATOR ENCLOSURE, (1) LEAD
- H. GROUND LP TANK, EACH LEG
- I. SHELTER GROUND RING TO TOWER GROUND RING, (2) LEADS
- J. SHELTER ANCHOR TAB GROUND. CLOSEST TAB TO RF ENTRY PORT (1 REQ'D)
- K. GROUND TEST WELL. SEE DETAIL C/E-502
- L. LOWER TOWER GROUND BAR, (2) LEADS TO TOWER GROUND RING & (1) TO TOWER STEEL
- M. SHELTER AWNING GROUND. TIE TO SHELTER GROUND RING.

GENERAL NOTES: (THIS SHEET)

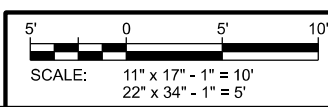
1. ALL EXTERIOR GROUNDING SHALL MEET OR EXCEED THE CURRENT HARRIS SITE GROUNDING AND LIGHTNING PROTECTION GUIDELINES. REFER TO INSTALLATION MANUAL AE/LZT 123 4618/1 REV F (JUNE 2017).
2. THE GROUNDING SYSTEM & CONDUCTORS SHALL BE TESTED BY CONTRACTOR PRIOR TO BACKFILLING. SYSTEM SHALL PROVIDE 3 OHM OR 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-OXIDENT 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.



EXISTING GROUND ROD & RADIAL (TYP.)
5/8" DIA. x 10' LONG GROUND RODS;
RADIALS RUN OUT AT -1% TO -3% GRADE
FROM TOWER GROUND RING.

EXISTING TOWER GROUND RING
(ASSUMED 2' SEPARATION FROM
TOWER FOUNDATION);
GROUND RING AND TOP OF RODS
ARE 12" BELOW TOWER FOUNDATION
(-6" BELOW GRADE)

EXISTING UTILITY RACK



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**GROUNDING PLAN
CAMBRIDGE (27656)
CAMBRIDGE, WISCONSIN**

SUBMITTAL:

INT.	DATE	DESCRIPTION

CHECKED BY	AJO
PLOT DATE	5/12/2021
PROJECT NUMBER	27656
SET TYPE	BD
SHEET NUMBER	E-101

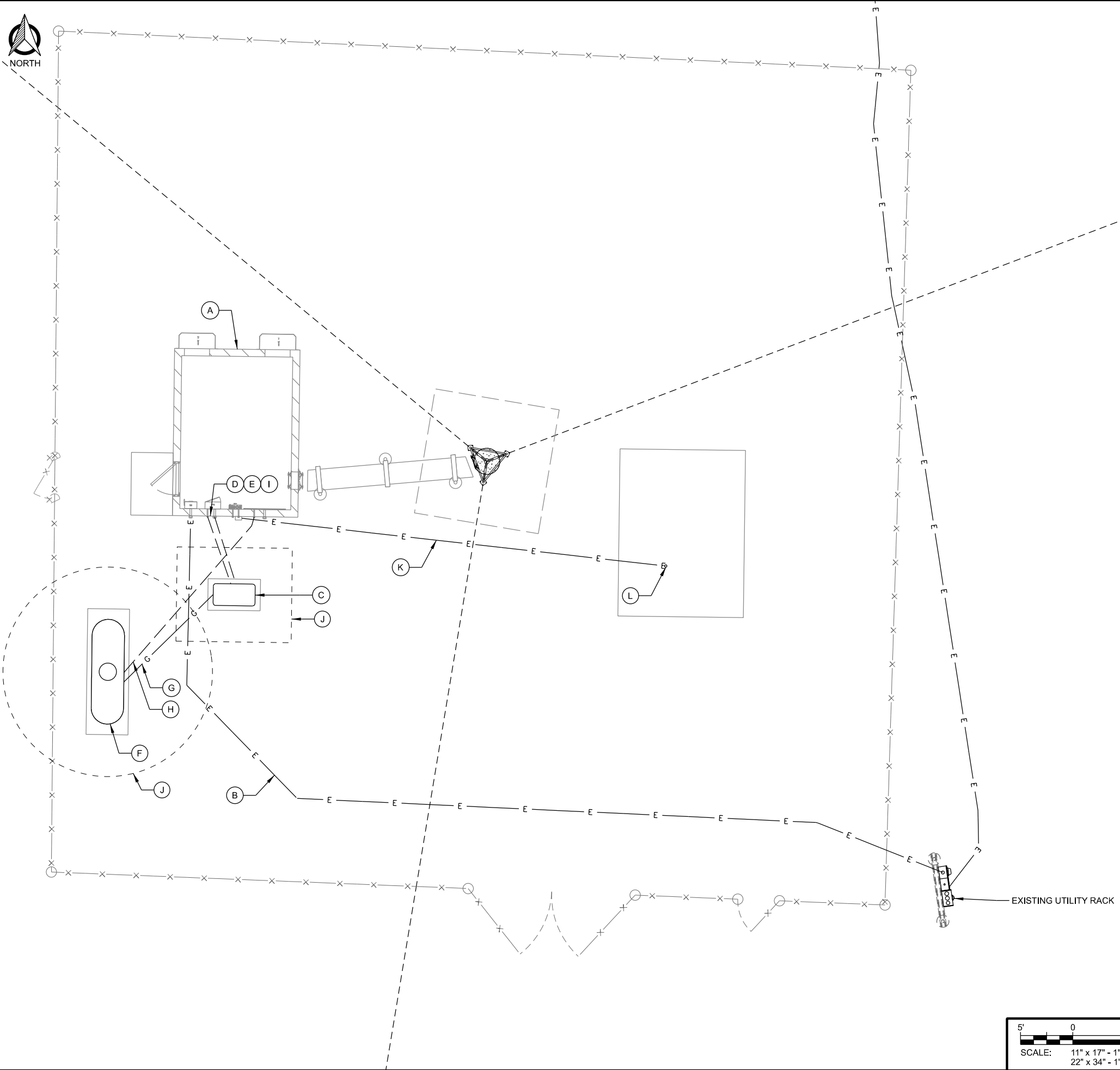
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KEYNOTES: (THIS SHEET)

- A. EQUIPMENT SHELTER
- B. 200A 120/240V 1P ELECTRIC SERVICE TO EQUIPMENT BUILDING;
(1) 2" CONDUIT INSTALLED BY CONTRACTOR
- C. 22kW GENERATOR ON CONCRETE SUPPORT SLAB;
SEE C-504 FOR DETAILS
- D. GENERATOR AC ELECTRIC;
(1) 2" CONDUIT.
- E. GENERATOR CONTROL & ALARM;
(1) 1" CONDUIT.
- F. 500 GAL. LP TANK, SEE C-504 FOR DETAILS
- G. LP FUEL LINE, SEE E-505 FOR DETAILS
- H. REMOTE LP FUEL TANK LEVEL MONITOR CONDUIT;
(1) 1" CONDUIT
- I. STUB ALL CONDUITS ON OUTSIDE OF CONCRETE FOUNDATION. ALL OUTSIDE BUILDING PENETRATIONS TO BE WEATHERPROOF LB, SEE E-503 FOR DETAILS
- J. UTILITY SETBACK / CLEARANCES.
3' AROUND GENERATOR.
10' AROUND LP TANK VALVE
- K. BERTRAM ELECTRIC (1) 20A, 1P CIRCUIT
(1) 3/4" CONDUIT W/ PULL STRING
- L. STUB-UP & CAP CONDUIT AT BERTRAM EQUIPMENT LOCATION.

GENERAL NOTES: (THIS SHEET)

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.



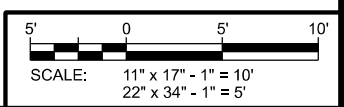
CONSULTANT:
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**UTILITY PLAN
CAMBRIDGE (27656)
CAMBRIDGE, WISCONSIN**

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:

CHECKED BY:	AJO
PLOT DATE:	5/12/2021
PROJECT NUMBER:	27656
SET TYPE:	BD
SHEET NUMBER:	E-102



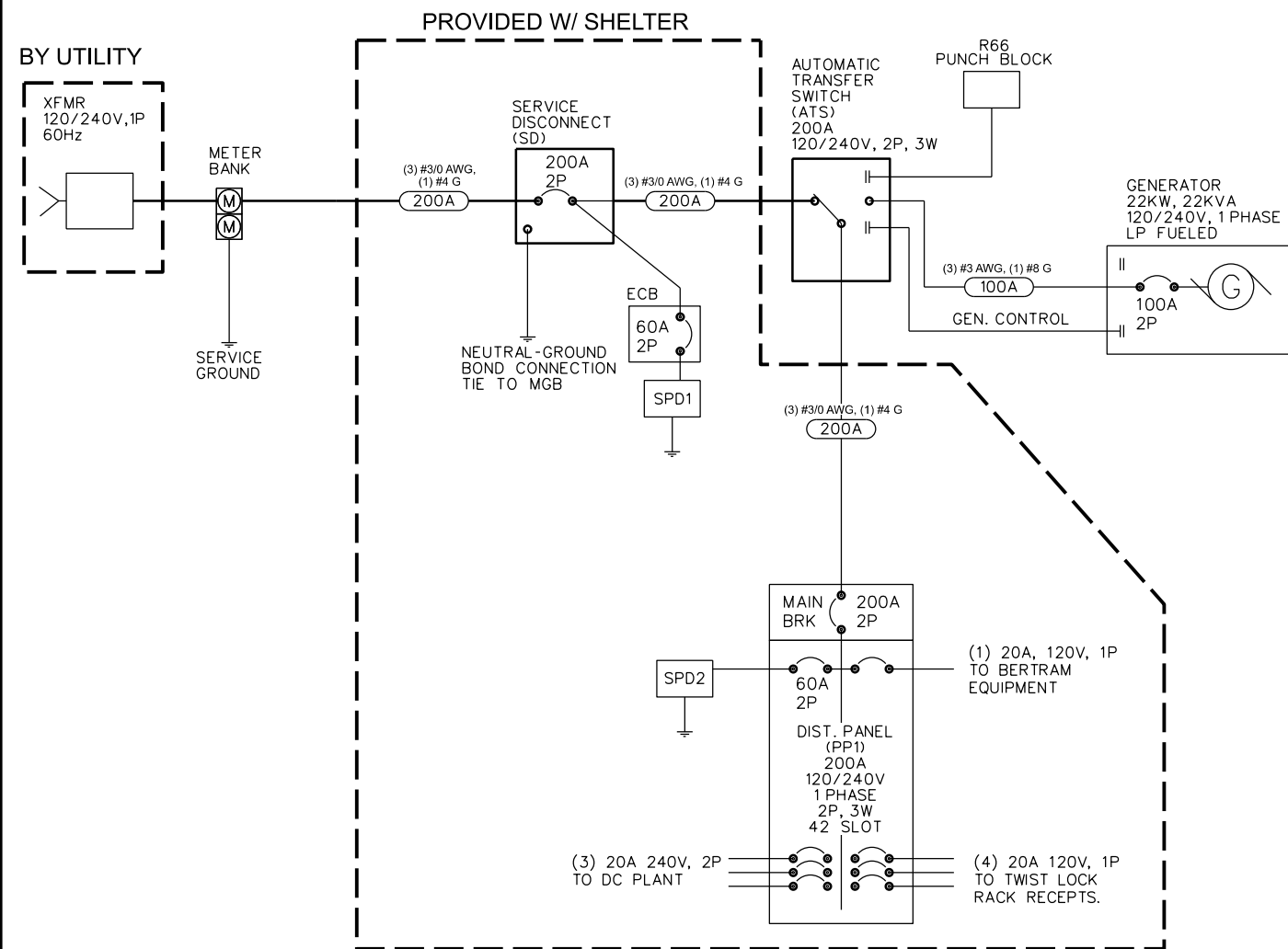
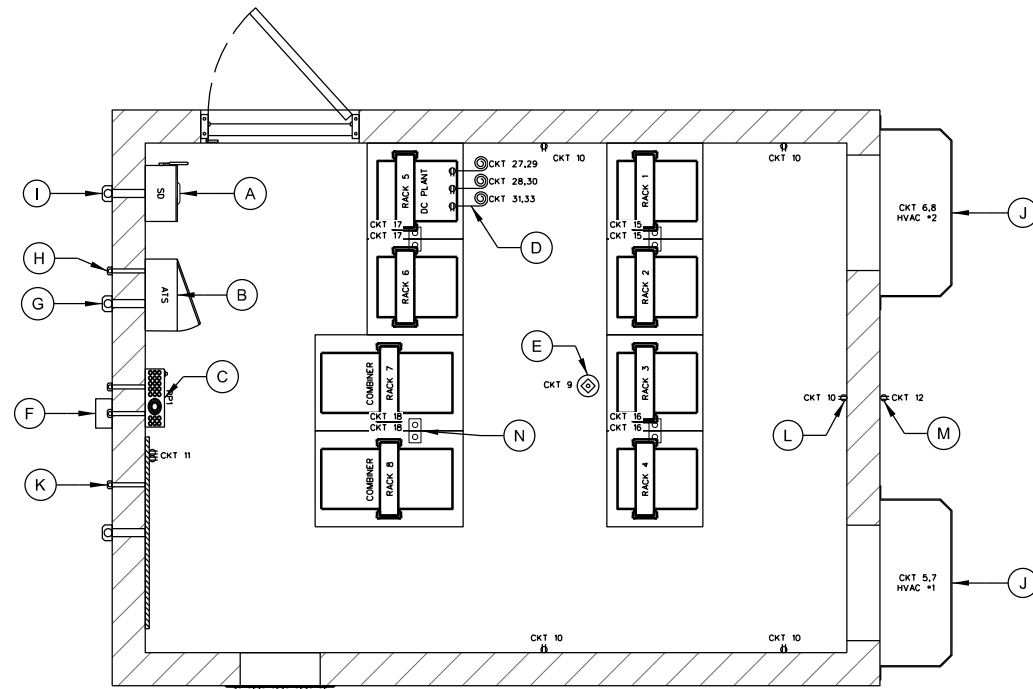
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KEYNOTES: (THIS SHEET)

- A. SERVICE DISCONNECT
- B. AUTOMATIC TRANSFER SWITCH (ATS)
200A GENERAC (30"Hx13.5"Wx7"D)
BY CONTRACTOR
- C. DISTRIBUTION PANEL (PP1)
- D. (3) DC PLANT POWER FEEDS.
PROVIDE PIGTAIL LEADS FROM CEILING MOUNTED
JUNCTION BOX.
CONNECTION TO RACKS BY RADIO VENDOR.
- E. SMOKE ALARM
- F. BERTRAM ELECTRIC SERVICE
- G. GENERATOR A/C POWER FEED
- H. GENERATOR CONTROL WIRING FEED
- I. ELECTRIC UTILITY SERVICE FEED
- J. HVAC UNIT (2 TON)
- K. LP TANK MONITOR RECEPTACLE
- L. INTERIOR CONVENIENCE OUTLET
- M. EXTERIOR CONVENIENCE OUTLET
- N. (2) 20A 120V TWIST LOCK RECEPTACLES, CEILING MOUNTED
IN 2 GANG BOX, LOCATED BETWEEN (2) ADJACENT RACKS.
(1) 20A, 120V CIRCUIT PER EACH PAIR OF TWIST LOCKS.

GENERAL NOTES: (THIS SHEET)

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. CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY WIRING AND CONDUITS FROM ELECTRICAL DEVICES REQUIRED ON PROJECT TO THE DISTRIBUTION PANELS.
5. ALL ELECTRICAL WORK SHALL BE COMPLETED UNDER THE DIRECT SUPERVISION OF A LICENSED MASTER ELECTRICIAN.
6. CONTRACTOR SHALL PERFORM AN INSPECTION OF THE EXISTING ELECTRICAL EQUIPMENT AND INSTALLATION WITHIN THE PRE-MANUFACTURED BUILDING PROVIDED BY THE OWNER FOR CONFORMANCE WITH STATE AND LOCAL ELECTRICAL CODE. ELECTRICAL CONTRACTOR SHALL NOTIFY ENGINEER OF ANY NON-CONFORMING ITEMS.



B ELECTRICAL ONE LINE DIAGRAM
SCALE: 11" x 17" - NTS
22" x 34" - NTS

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

DIST. PANEL (PP1)	PHASE/WIRE	BUS SIZE	MAIN LUGS		AIC RATING				
120/240VAC	1/3	200A			10,000				
LOAD	POLE	TRIP	WIRE	CT#	TRIP	POLE	WIRE	LOAD	
Power Fail	12 2	20	1			2	50 2	8	Surge Arrestor
	- -	-	3			4	- -		
HVAC #1	10 2	30	5			6	30 2	10	HVAC #2
	- -	-	7			8	- -		
Smoke Detector	12 1	20	9			10	20 1	12	Receptacles - Interior
LP Tank Monitor	12 1	20	11			12	20 1	12	Receptacles - Exterior
Gen Outlet	12 1	20	13			14	20 1	12	Lights - Int/Emer/Door
Twist Lock Recept. 1&2	12 1	20	15			16	20 1	12	Twist Lock Recept. 3&4
Twist Lock Recept. 5&6	12 1	20	17			18	20 1	12	Twist Lock Recept. 7&8
SPARE	- -	-	19			20	20 1	12	Exterior Disc
SPARE	- -	-	21			22	- -		SPARE
SPARE	- -	-	23			24	- -		SPARE
SPARE	- -	-	25			26	- -		SPARE
DC Drop #1	12 2	20	27			28	20 2	12	DC Drop #2
	- -	-	29			30	- -		
DC Drop #3	12 2	20	31			32	- -		SPARE
	- -	-	33			34	- -		SPARE
SPARE	- -	-	35			36	- -		SPARE
SPARE	- -	-	37			38	- -		SPARE
SPARE	- -	-	39			40	- -		SPARE
Bertram Electric	10 1	20	41			42	- -		SPARE

C ELECTRIC DISTRIBUTION PANEL DIRECTORY
SCALE: 11" x 17" - NTS
22" x 34" - NTS

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SHELTER ELECTRICAL PLAN
CAMBRIDGE (27656)
CAMBRIDGE, WISCONSIN

SUBMITTAL:

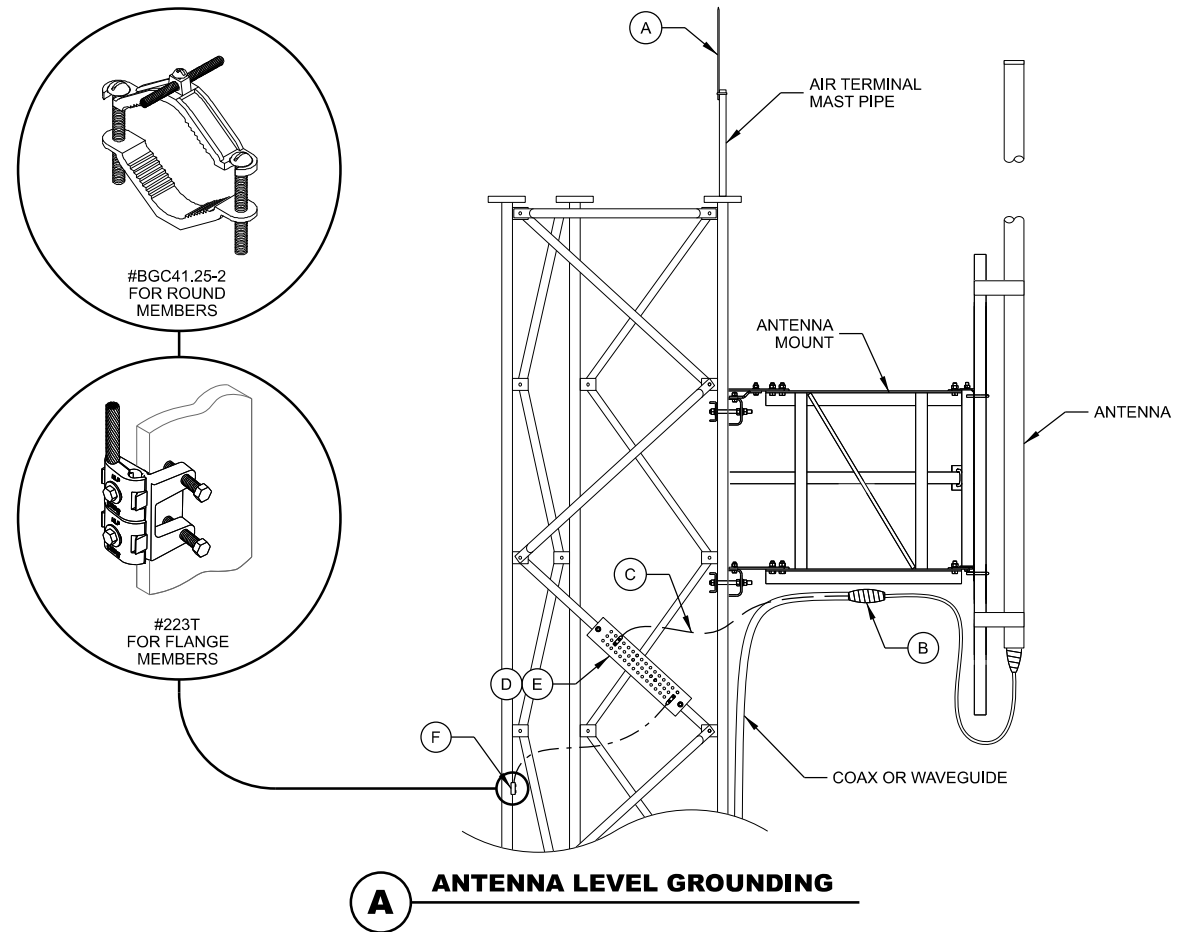
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CHECKED BY	AJO
PLOT DATE	5/12/2021
PROJECT NUMBER	27656
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SHEET NUMBER	E-104

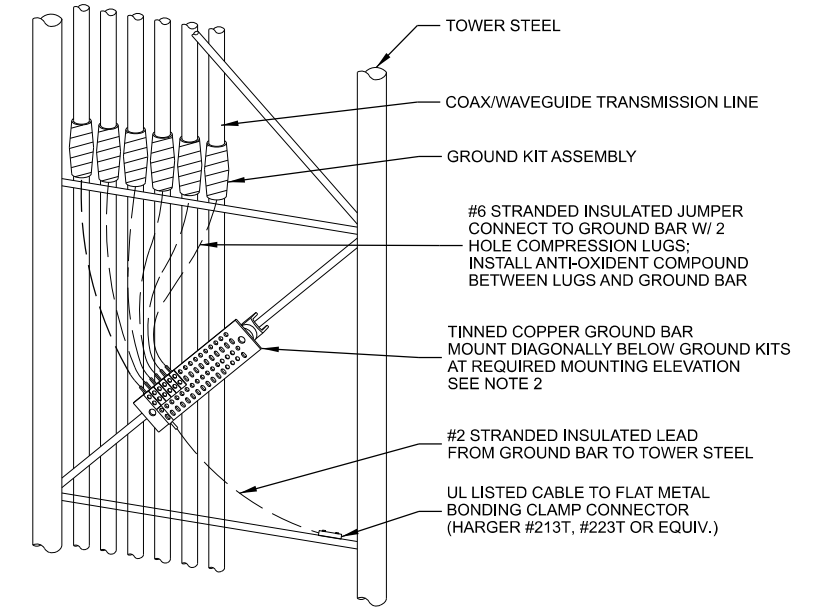
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KEYNOTES: (THIS SHEET)

- A. AIR TERMINAL:
EXTEND 2' ABOVE HIGHEST ANTENNA MIN. ON MAST PIPE
MECHANICALLY FASTEN AIR TERMINAL TO MAST PIPE
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 1/2" - 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
- 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
ENCASE IN CARFLEX CONDUIT FROM EGB TO SHELTER
GROUND RING (2) REQ'D.
- M. SURGE ARRESTOR/POLY PHASER
- N. INTERIOR SHELTER GROUND BAR / MASTER GROUND BAR
(MGB);
SEE DETAIL THIS SHEET
- 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.)

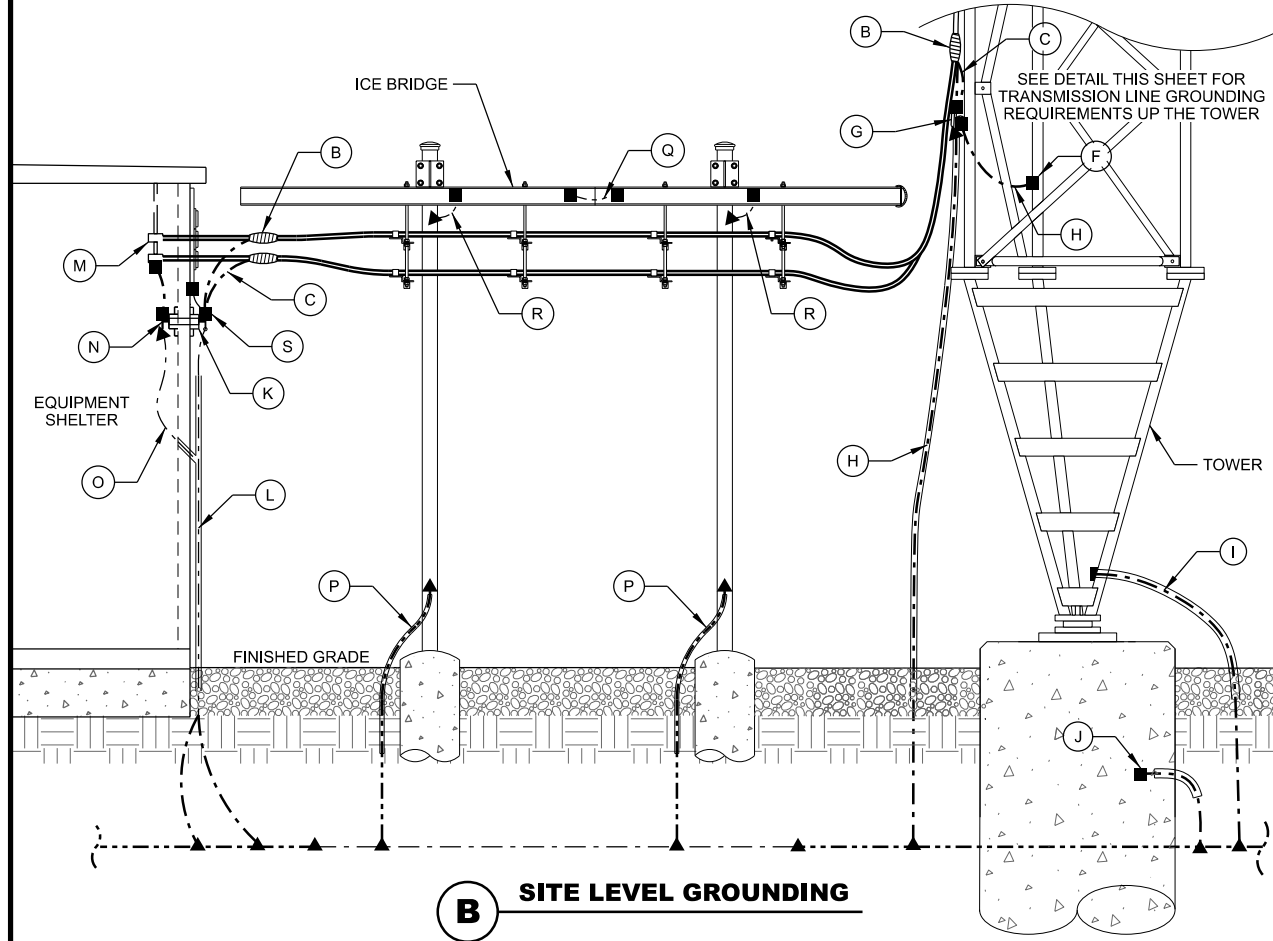


A ANTENNA LEVEL GROUNDING

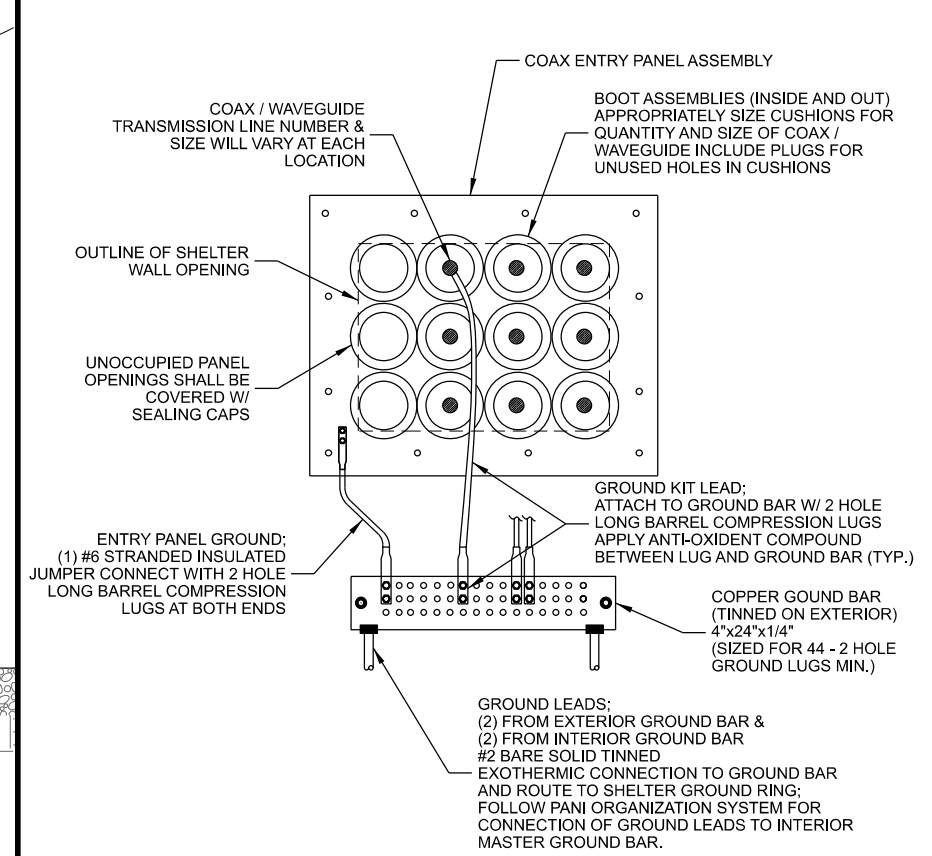


- NOTES:**
- INSTALL GROUND KITS ON EACH TRANSMISSION LINE IN THE FOLLOWING LOCATIONS:
 - A. ANTENNA / DISH LEVEL
 - B. AT 75 FOOT MAX INTERVALS FROM ANTENNA LEVEL TO BASE OF TOWER
 - C. TOWER BASE
 - D. EQUIPMENT BUILDING ENTRY
 - INSTALL ANTENNA GROUND BARS AT EACH ANTENNA TIER LEVEL FOR CONNECTION OF MULTIPLE ANTENNAS AT EACH LEVEL. WHEN ONLY ONE ANTENNA IS INSTALLED AT A LEVEL, CONNECT GROUND KIT DIRECTLY TO TOWER STEEL WITH UL LISTED BONDING CLAMP.

C TRANSMISSION LINE GROUNDING



B SITE LEVEL GROUNDING



D INTERIOR / EXTERIOR SHELTER GROUND BARS

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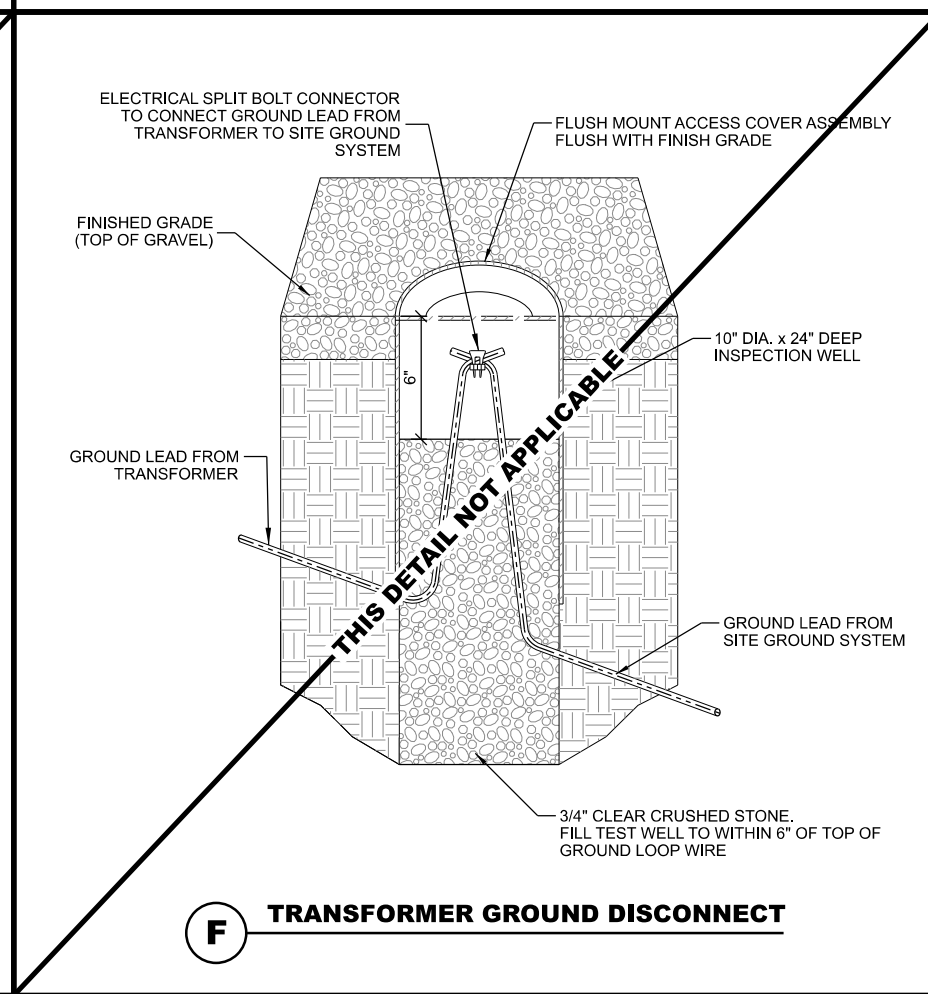
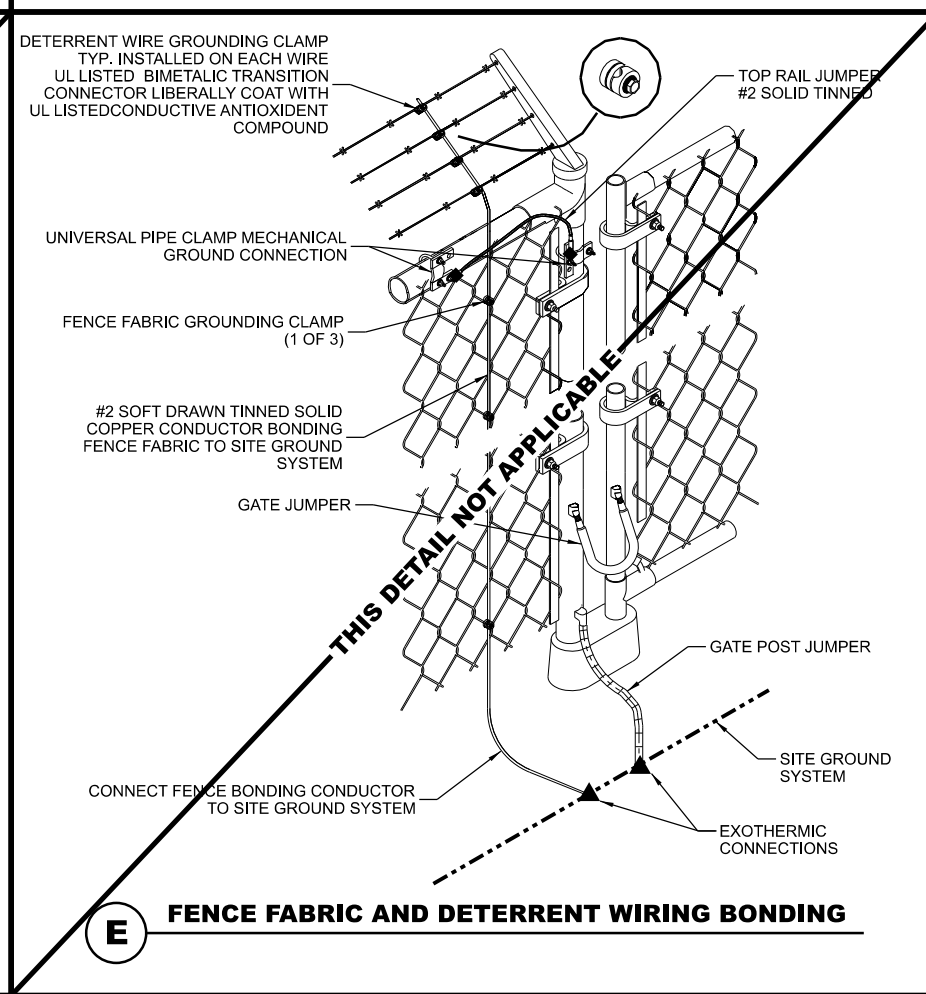
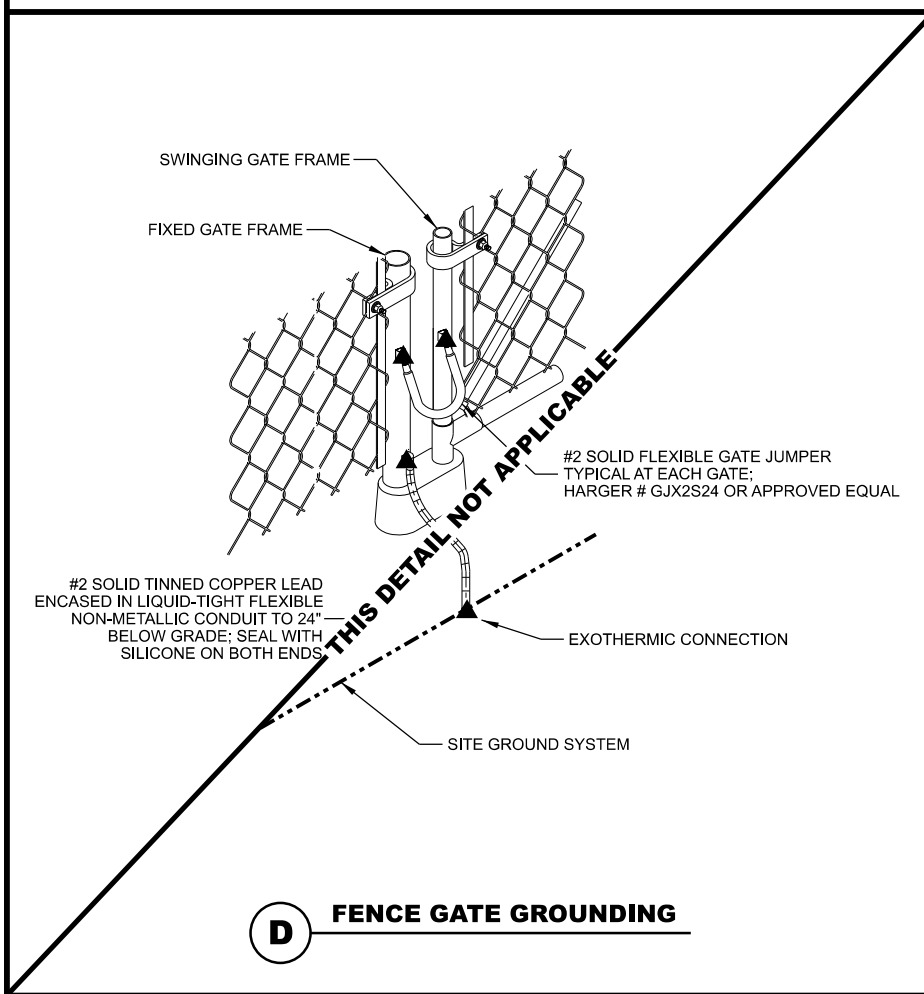
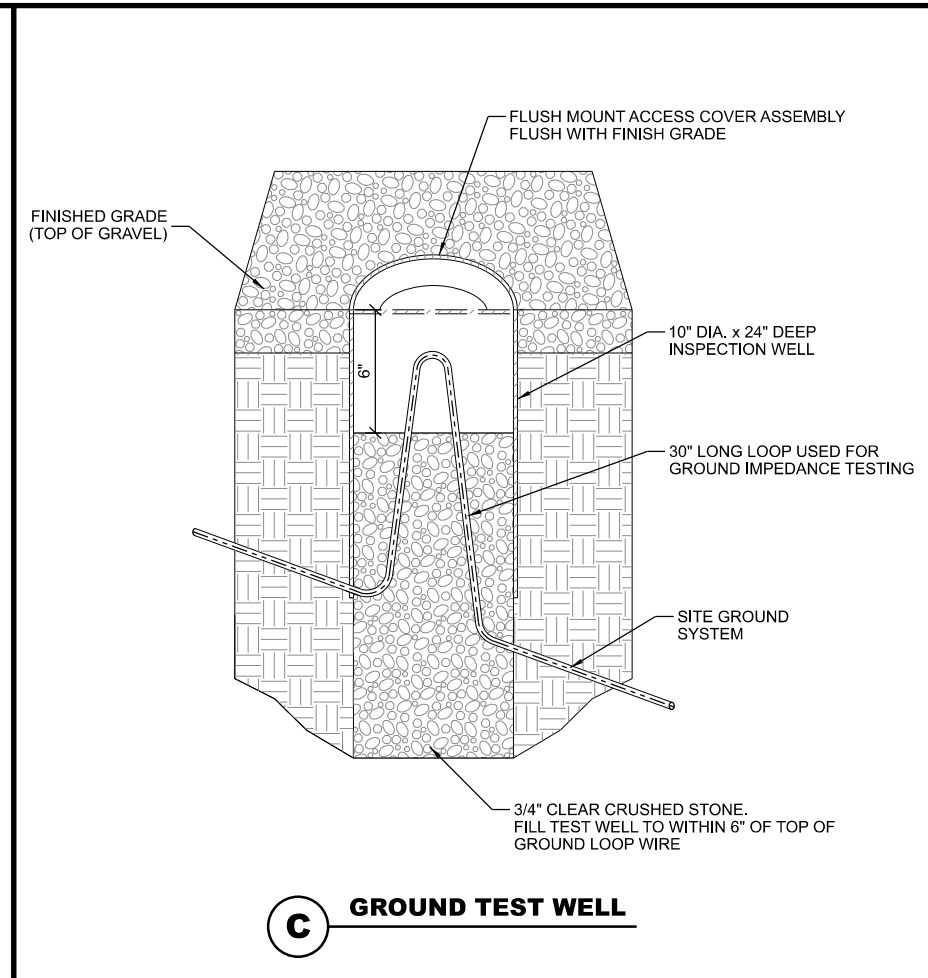
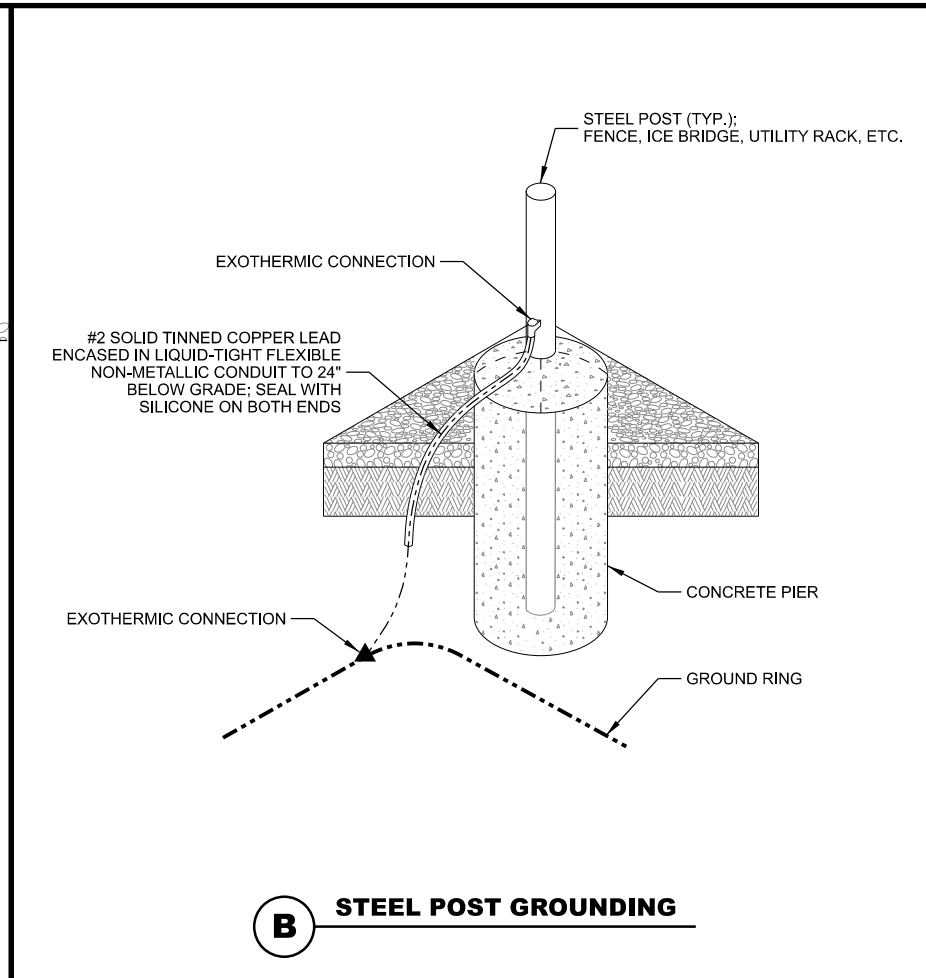
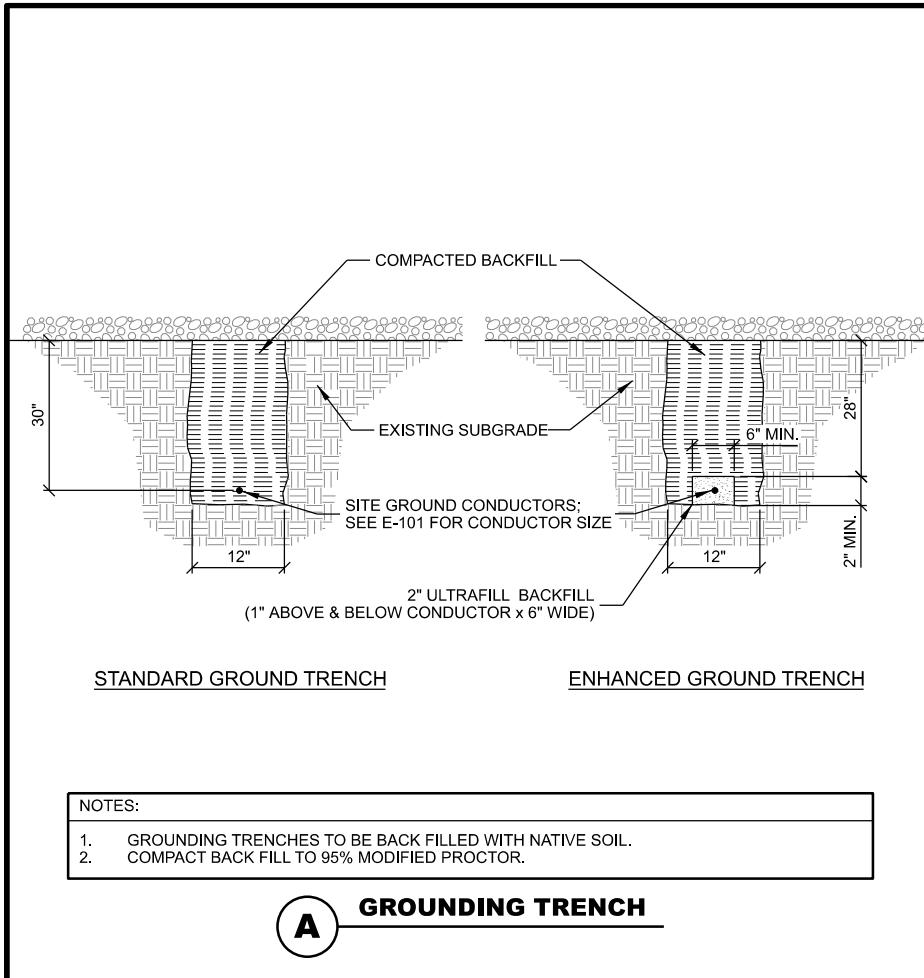
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**GROUNDING DETAILS
CAMBRIDGE (27656)
CAMBRIDGE, WISCONSIN**

SUBMITTAL:

INT.	DATE:	DESCRIPTION:

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PLOT DATE:	5/12/2021
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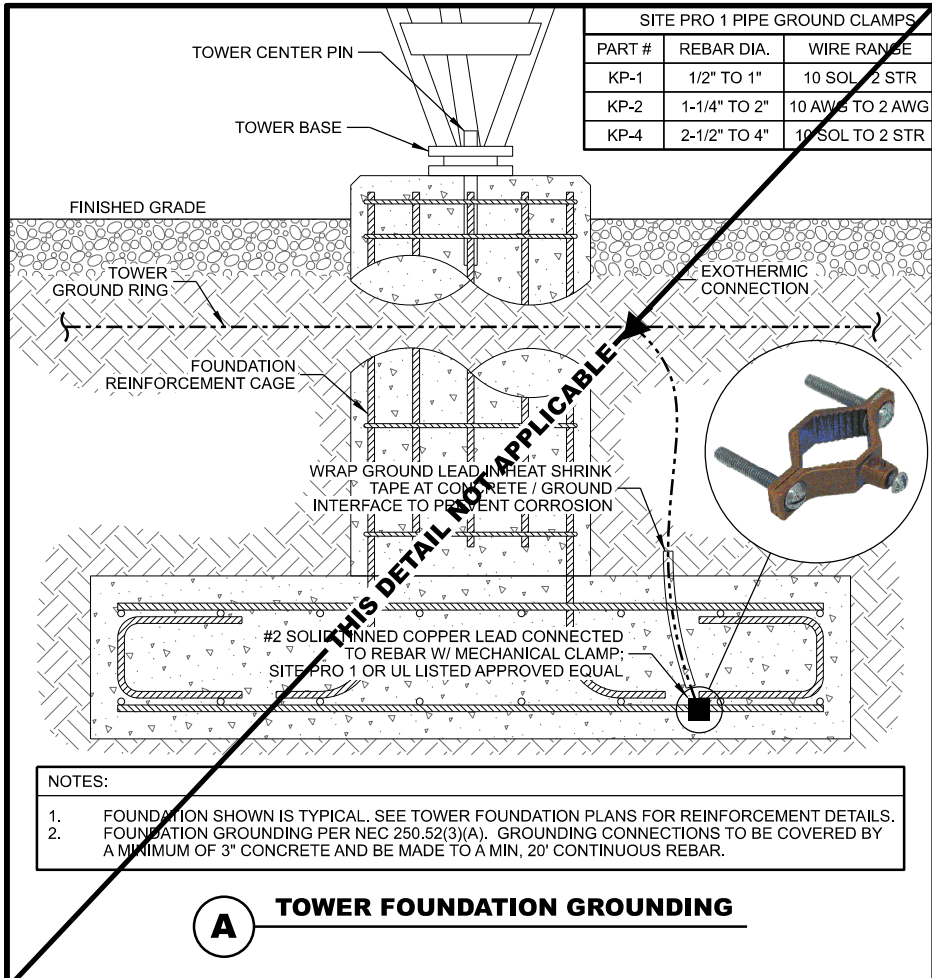
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CAMBRIDGE (27656)
CAMBRIDGE, WISCONSIN**

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PLOT DATE:	5/12/2021
PROJECT NUMBER:	27656
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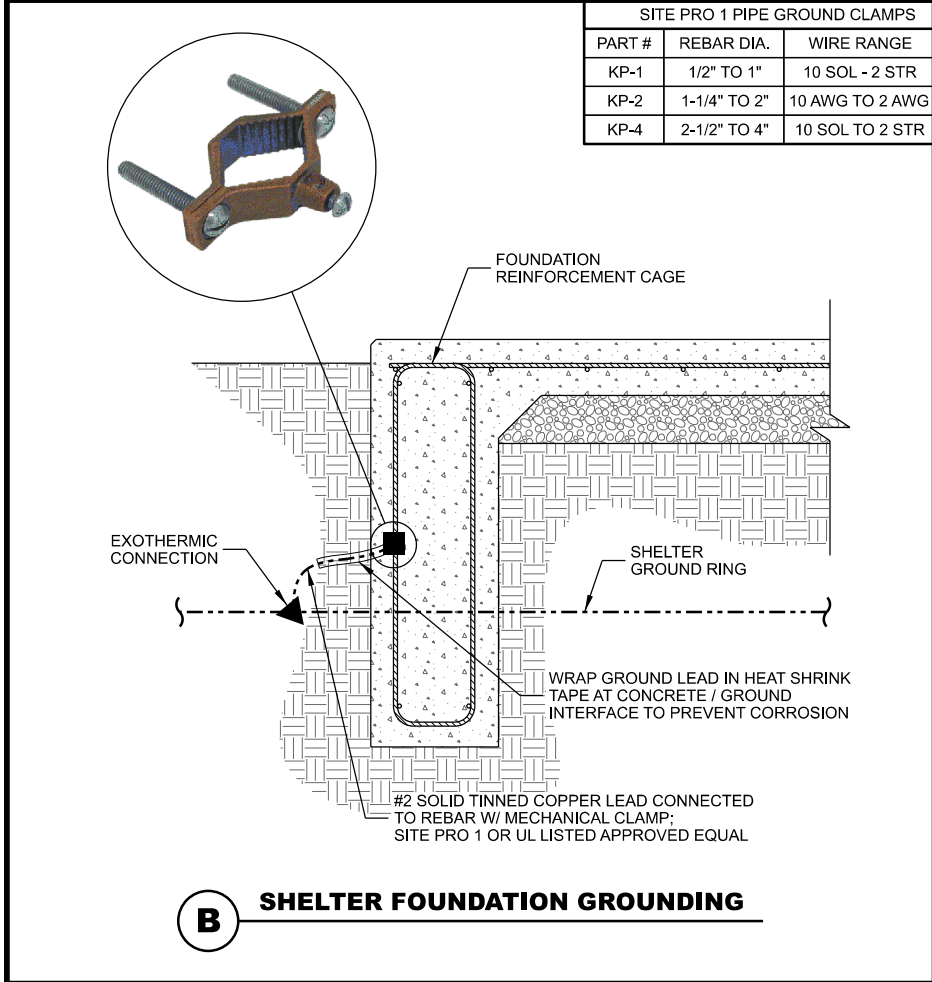
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SITE PRO 1 PIPE GROUND CLAMPS		
PART #	REBAR DIA.	WIRE RANGE
KP-1	1/2" TO 1"	10 SOL - 2 STR
KP-2	1-1/4" TO 2"	10 AWG TO 2 AWG
KP-4	2-1/2" TO 4"	10 SOL TO 2 STR

- NOTES:
- FOUNDATION SHOWN IS TYPICAL. SEE TOWER FOUNDATION PLANS FOR REINFORCEMENT DETAILS.
 - FOUNDATION GROUNDING PER NEC 250.52(3)(A). GROUNDING CONNECTIONS TO BE COVERED BY A MINIMUM OF 3" CONCRETE AND BE MADE TO A MIN. 20' CONTINUOUS REBAR.

A TOWER FOUNDATION GROUNDING



SITE PRO 1 PIPE GROUND CLAMPS		
PART #	REBAR DIA.	WIRE RANGE
KP-1	1/2" TO 1"	10 SOL - 2 STR
KP-2	1-1/4" TO 2"	10 AWG TO 2 AWG
KP-4	2-1/2" TO 4"	10 SOL TO 2 STR

B SHELTER FOUNDATION GROUNDING

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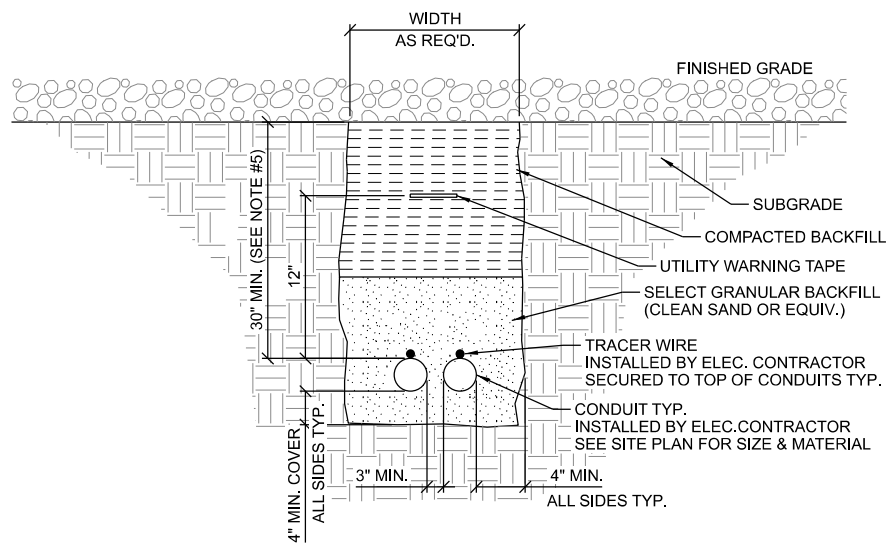


CLIENT:
GROUNDING DETAILS
CAMBRIDGE (27656)
CAMBRIDGE, WISCONSIN

SUBMITTAL:		
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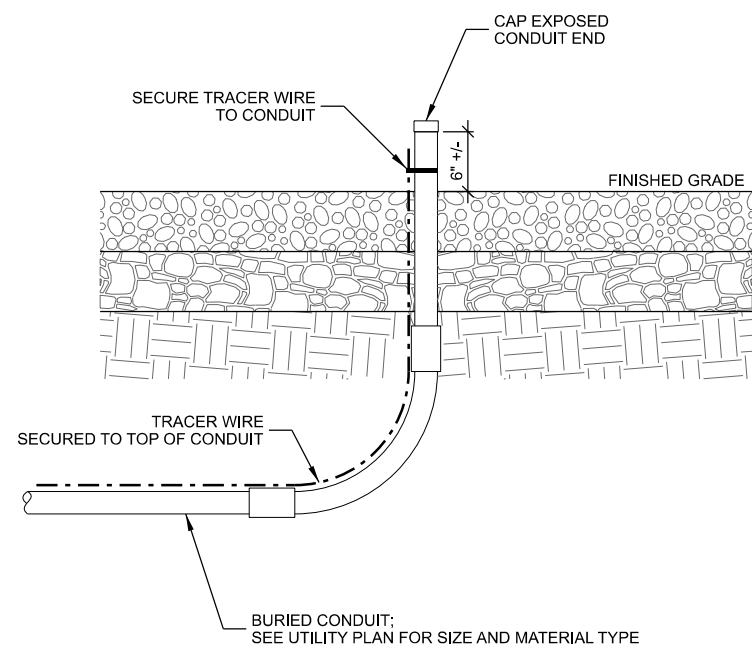
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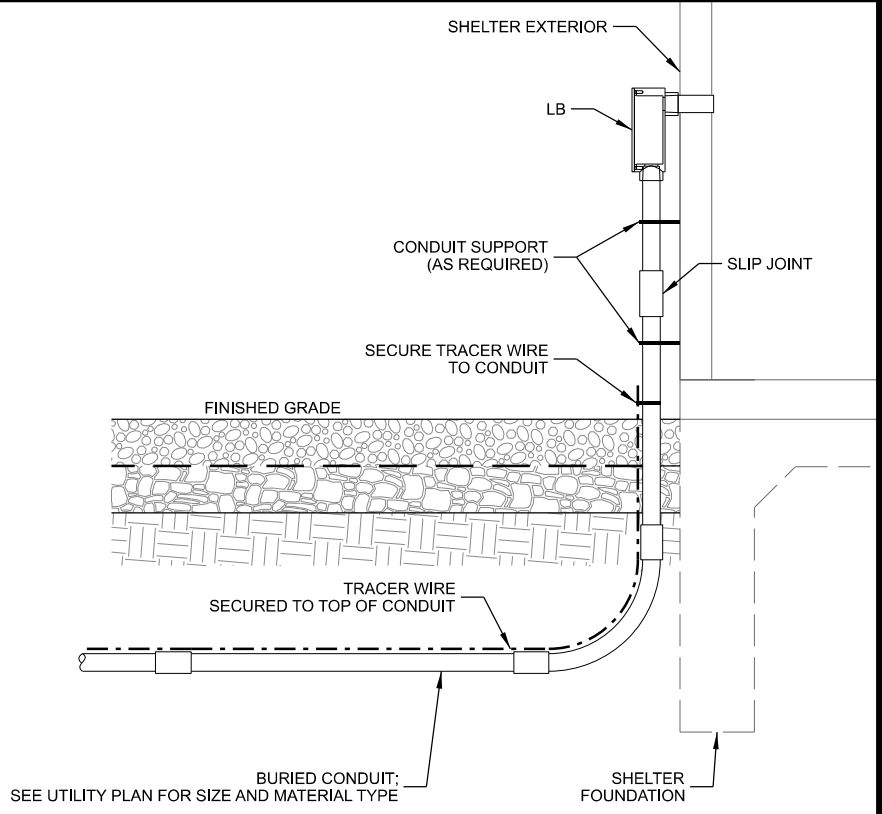


- NOTES:
1. ALL CONDUITS TO BE EQUIPPED W/ PULL CORDS & CAPPED FOR FUTURE LINE PULLS. NO DUCT TAPE CAPS ALLOWED
 2. WARNING TAPE TO RUN CONTINUOUSLY ALONG THE ENTIRE CONDUIT LENGTH. INSTALL TAPE 12" ABOVE THE TOP OF THE CONDUITS.
 3. TRACER WIRE TO BE 14 GA. SOLID COPPER WIRE WITH CORROSION PROTECTIVE COATING. SECURE TO TOP OF CONDUIT AND RUN CONTINUOUSLY ALONG THE ENTIRE LENGTH. EXTEND TO GRADE AT BOTH ENDS - LOOP AND WRAP AROUND APPROPRIATE CONDUIT.
 4. CONTRACTOR TO CHECK CONTINUITY OF TRACER WIRE BEFORE AND AFTER BURIAL.
 5. VERIFY CONDUIT DEPTH REQUIREMENTS WITH LOCAL UTILITY PROVIDER.

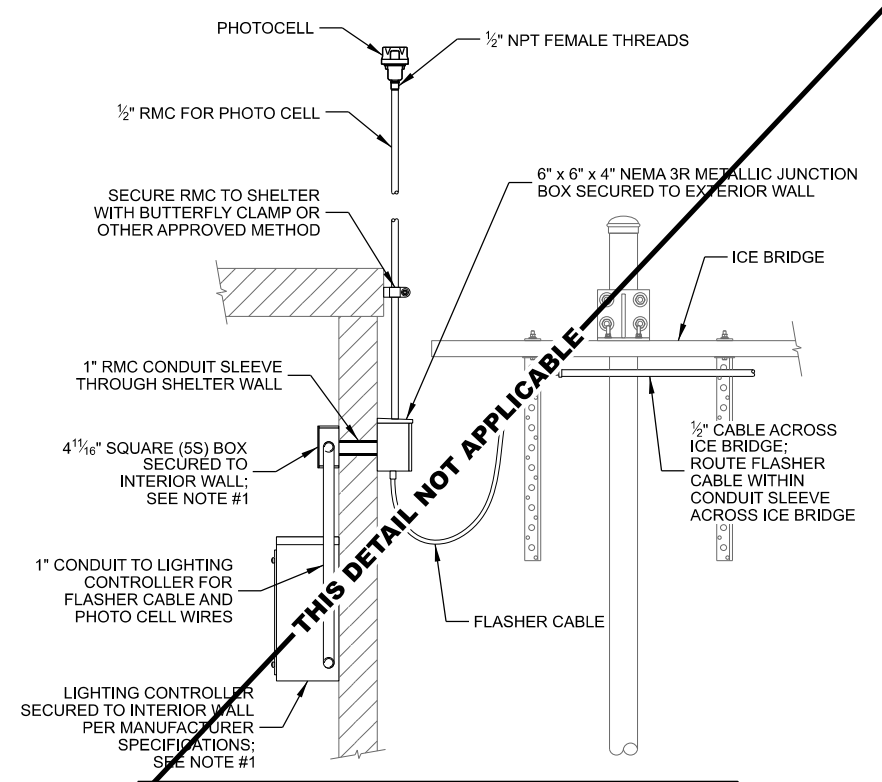
A UTILITY TRENCH



B CONDUIT STUB-UP



C CONDUIT STUB-UP AT SHELTER



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

D TOWER LIGHTING INSTALLATION

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UTILITY DETAILS
CAMBRIDGE (27656)
CAMBRIDGE, WISCONSIN

SUBMITTAL:

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PLOT DATE:	5/12/2021
PROJECT NUMBER:	27656
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SHEET NUMBER:	E-504

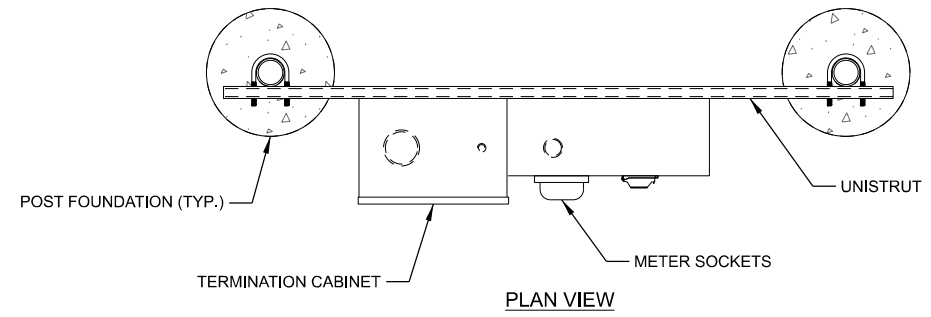


**UTILITY RACK DETAILS
 CAMBRIDGE (27656)
 CAMBRIDGE, WISCONSIN**

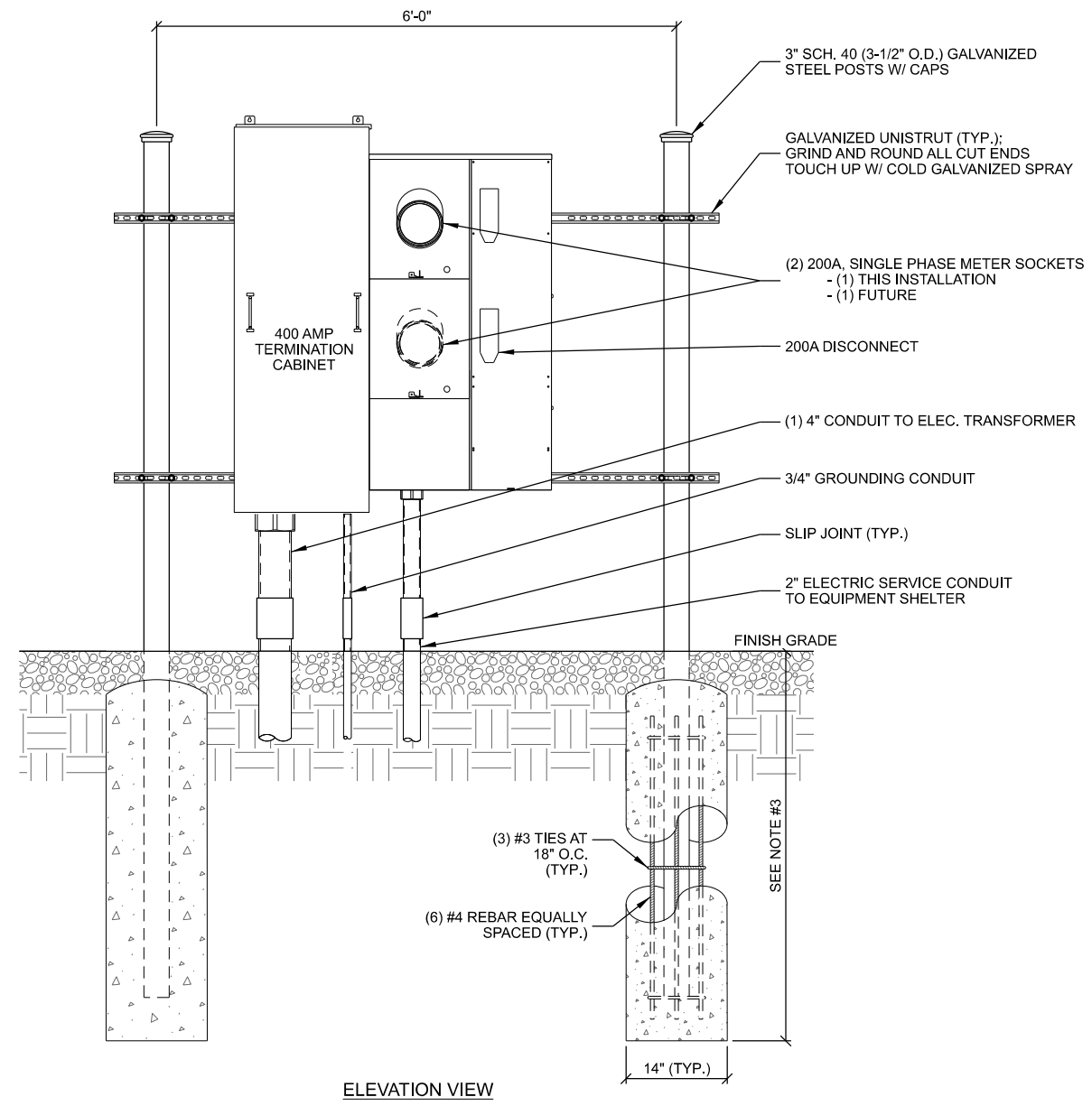
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PLOT DATE:	5/12/2021
PROJECT NUMBER:	27656
SET TYPE:	BD
SHEET NUMBER:	E-505



****UTILITY RACK IS EXISTING****



- 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"



IMAGE FROM 5-4-2021