

NOTE TO GENERAL CONTRACTOR:
NO WORK IS TO BE PERFORMED ON THIS SITE WITHOUT REVIEW OF THE APPROVED STRUCTURAL ANALYSIS. IF ANY DISCREPANCIES ARE FOUND, THE GENERAL CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING. AT NO TIME WILL ANY ADDITIONAL ANTENNAS BE INSTALLED WITHOUT WRITTEN CONSENT FROM TOWER/BUILDING ENGINEER.



NB+C™
TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.
120 EASTSHORE DRIVE, SUITE 300
GLEN ALLEN, VA 23059
(804) 548-4079

T-Mobile

T-MOBILE NORTHEAST LLC

324 MADISON MEWS
NORFOLK, VA 23510
OFFICE: (757) 453-6907
FAX: (757) 589-0904

VA72505A
RIO ROAD EAST (DUNLORA)
NB+C PROJECT #100838
1225 EAST RIO ROAD
CHARLOTTESVILLE, VA 22901
ALBEMARLE COUNTY

REVISIONS			
3	10/24/22	REVISED	CCC
2	06/22/22	AAV PROJECT	JQG
1	06/14/22	RFDS	JQG
0	03/14/22	FINAL CDs	LTA
A	03/09/22	PRELIMINARY CDs	CDE
REV	DATE	DESCRIPTION	BY

PROFESSIONAL STAMP

ENGINEER

TRENT T. SNARR, P.E.
VA PROFESSIONAL ENGINEER LIC. #49978

SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1

SHENTEL SITE ID: 69202/WA69SH202
SHENTEL SITE NAME: RIO ROAD EAST (DUNLORA)

1225 EAST RIO ROAD
CHARLOTTESVILLE, VA 22901
ALBEMARLE COUNTY

TOWER OWNER:
SHENANDOAH MOBILE TOWER
SITE NUMBER: 69202
SITE NAME: DUNLORA

SCOPE OF WORK

- TOWER:
- REMOVAL OF (3) EXISTING SHENTEL ANTENNAS
 - REMOVAL OF (6) EXISTING SHENTEL RRUS
 - REMOVAL OF EXISTING SHENTEL COAX/FEEDLINES
 - INSTALLATION OF (3) NEW T-MOBILE COMMScope - FFVV-65A-R2-V1 ANTENNAS @ POSITION 1
 - INSTALLATION OF (3) NEW T-MOBILE ERICSSON AIR6419 B41 ANTENNAS @ POSITION 2
 - INSTALLATION OF (3) NEW T-MOBILE ERICSSON 4480 B71+B85 RRUS
 - INSTALLATION OF (3) NEW T-MOBILE ERICSSON 4460 B25+B66 RRUS
 - INSTALLATION OF (4) NEW T-MOBILE 6x24 HYBRID CABLES
 - REMOVAL OF EXISTING T-MOBILE (SHENTEL) ANTENNA MOUNT
 - INSTALLATION OF T-MOBILE (SHENTEL) ANTENNA MOUNT
 - ALL PROPOSED EQUIPMENT TO BE PAINTED TO MATCH TOWER - COLOR IS SHERWIN WILLIAMS UMBRA 8W400B (INDUSTRIAL AND MARINE COATING)
- GROUND:
- REMOVAL OF EXISTING SHENTEL EQUIPMENT CABINETS
 - INSTALLATION OF (1) NEW T-MOBILE 3'-0" H-FRAME EXTENSION
 - REMOVAL OF EXISTING SHENTEL FIBER DISTRIBUTION BOX
 - INSTALLATION OF (1) NEW T-MOBILE ERICSSON 6160 ENCLOSURE & (1) NEW ERICSSON B160 BATTERY CABINET
 - INSTALLATION OF (2) NEW BB 6651 INSIDE NEW ENCLOSURE
 - INSTALLATION OF (1) IXRe ROUTER & (2) PSU 4813 INSIDE NEW ENCLOSURE
 - REMOVAL OF (1) EXISTING SHENTEL 120/240V 200A 24 SPACE PPC
 - INSTALLATION OF (1) NEW T-MOBILE 120/240V 200A 30 SPACE VERTIV PPC

SITE INFORMATION

LATITUDE (NAD 83): 38.07001400°
LONGITUDE (NAD 83): -78.46712000°

JURISDICTION: ALBEMARLE COUNTY

ZONING DESIGNATION: R2 (RESIDENTIAL)

GROUND ELEVATION: 500.00'± (AMSL)

PARCEL NUMBER: 062A1-00-0K-00100

PARCEL AREA: 5.42± ACRES

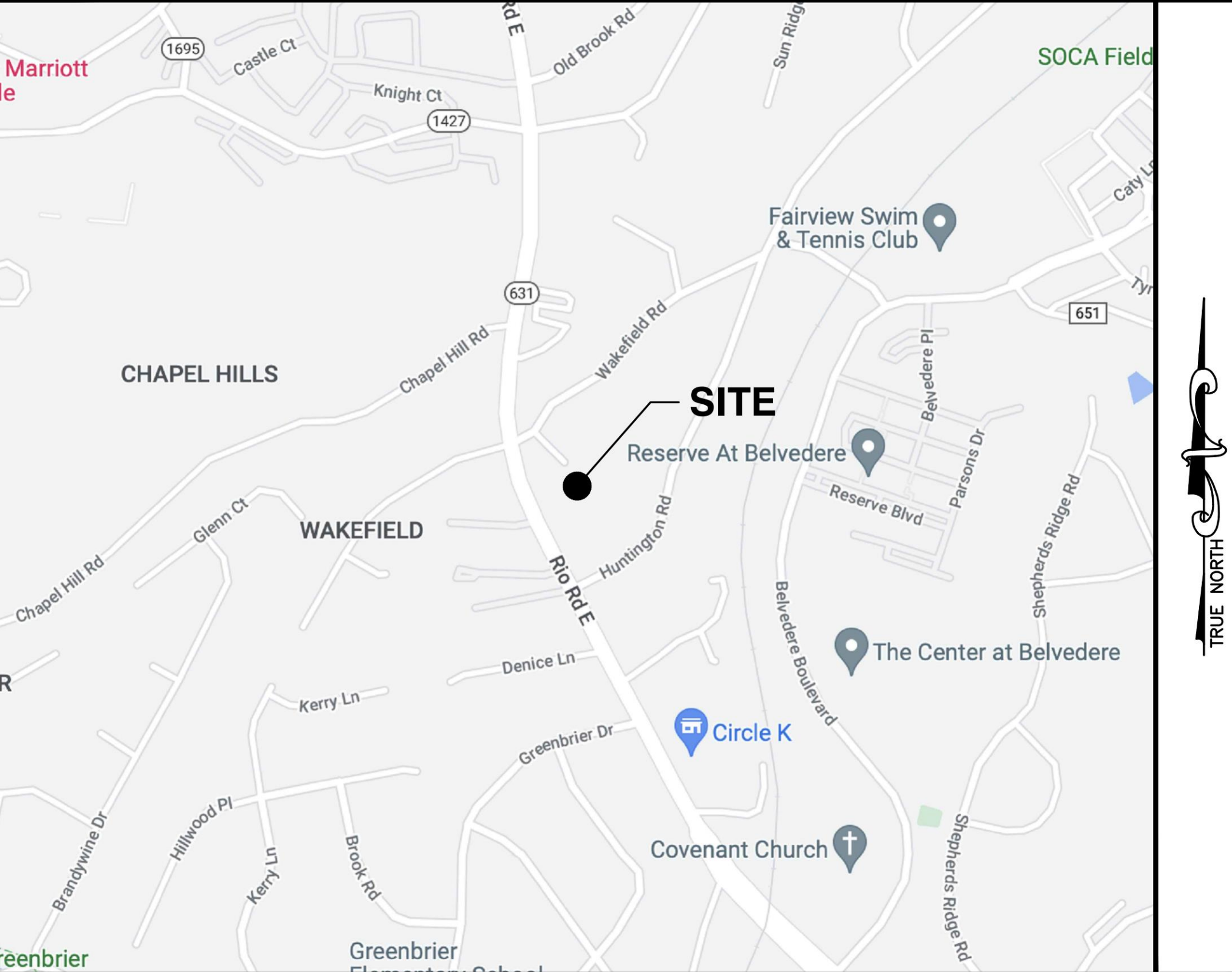
PARCEL OWNER: CHARLOTTESVILLE CHURCH OF THE BRETHREN
1225 E RIO ROAD
CHARLOTTESVILLE, VA 22901

STRUCTURE TYPE: MONOPOLE

STRUCTURE HEIGHT: 100'-0" (AGL)

CONSTRUCTION TYPE: IIB
USE GROUP: U

VICINITY MAP



CODE COMPLIANCE

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

- 2018 BUILDING CODE
- 2017 NATIONAL ELECTRICAL CODE
- 2018 NFPA 101, LIFE SAFETY CODE
- 2018 INTERNATIONAL FIRE CODE (IFC)
- AMERICAN CONCRETE INSTITUTE
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION
- MANUAL OF STEEL CONSTRUCTION 15TH EDITION
- ANSI/TIA-222-H
- TIA 607
- INSTITUTE FOR ELECTRICAL & ELECTRONICS ENGINEER 81
- IEEE C2 NATIONAL ELECTRIC SAFETY CODE LATEST EDITION
- TELCORDIA GR-1275
- ANSI/T 311
- 2018 VIRGINIA CONSTRUCTION CODE

DRAWING INDEX

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DO NOT SCALE DRAWINGS

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

PROJECT TEAM

APPLICANT: T-MOBILE NORTHEAST LLC
324 MADISON MEWS
NORFOLK, VA 23510
OFFICE: (757) 453-6907
FAX: (757) 589-0904

PROJECT MANAGEMENT FIRM: NETWORK BUILDING + CONSULTING, LLC.
120 EASTSHORE DRIVE, SUITE 300
GLEN ALLEN, VA 23059
(804) 548-4079

ENGINEERING FIRM: NB+C ENGINEERING SERVICES, LLC.
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GLEN ALLEN, VA 23059
(804) 548-4079
JWOOD@NBCLLC.COM

ELECTRICAL & GROUNDING NOTES

1. ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
2. ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
3. THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
4. GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
5. ELECTRICAL AND TELCO WIRING AT EXPOSED INDOOR LOCATIONS SHALL BE IN ELECTRICAL METALLIC TUBING OR RIGID NONMETALLIC TUBING (RIGID SCHEDULE 40 PVC OR RIGID SCHEDULE 80 PVC FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) (AS PERMITTED BY CODE).
6. ELECTRICAL AND TELCO WIRING AT CONCEALED INDOOR LOCATIONS SHALL BE IN ELECTRICAL METALLIC TUBING, ELECTRICAL NONMETALLIC TUBING, OR RIGID NONMETALLIC TUBING (RIGID SCHEDULE 40 PVC AS PERMITTED BY CODE).
7. ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING, ABOVE GRADE AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS (RGS) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.
8. BURIED CONDUIT SHALL BE RIGID NONMETALLIC CONDUIT (RIGID SCHEDULE 40 PVC); DIRECT BURIED IN AREAS OF OCCASIONAL LIGHT TRAFFIC, ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY TRAFFIC.
9. LIQUID–TIGHT FLEXIBLE METALLIC CONDUIT SHALL BE USED INDOORS AND OUTDOORS IN AREAS WHERE VIBRATION OCCURS AND FLEXIBILITY IS NEEDED.
10. ELECTRICAL WIRING SHALL BE COPPER WITH TYPE THHN OR THWN–2 THIN INSULATION.
11. RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE PPC AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.
12. RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE TELCO CABINET AND BTS CABINET AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE AT EACH END.
13. ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
14. GROUNDING SHALL COMPLY WITH NEC ART. 250. ADDITIONALLY, GROUNDING, BONDING AND LIGHTING PROTECTION SHALL BE DONE IN ACCORDANCE WITH T–MOBILE CELL SITE GROUNDING STANDARDS.
15. GROUND CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.
16. INSTALL #2 AWG GREEN–INSULATED STRANDED WIRE FOR ABOVE GRADE GROUNDING AND #2 BARE TINNED COPPER WIRE FOR BELOW GRADE GROUNDING UNLESS OTHERWISE NOTED.
17. ALL POWER AND GROUND CONNECTIONS TO BE CRIMP–STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY HARGER (OR APPROVED EQUAL) RATED FOR OPERATION AT NO LESS THAN 75°C OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
18. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 6 FEET OF PROJECT OWNER EQUIPMENT OR CABINET TO MASTER GROUND BAR OR GROUNDING RING.
19. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
20. APPLY OXIDE INHIBITING COMPOUND TO ALL MECHANICAL GROUND CONNECTIONS.
21. CONTRACTOR SHALL PROVIDE AND INSTALL OMNI DIRECTIONAL ELECTRONIC MARKER SYSTEM (EMS) BALLS OVER EACH GROUND ROD AND BONDING POINT BETWEEN EXISTING TOWER/ MONOPOLE GROUNDING RING AND EQUIPMENT GROUNDING RING.
22. CONTRACTOR SHALL TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE–OUT DOCUMENTATION. 5 OHMS MAXIMUM RESISTANCE REQUIRED.
23. CONTRACTOR SHALL CONDUCT ANTENNA, CABLE, AND LNA RETURN–LOSS AND DISTANCE–TO–FAULT MEASUREMENTS (SWEEP TESTS) AND RECORD RESULTS FOR PROJECT CLOSE OUT.
24. THE T–MOBILE ELECTRICAL EQUIPMENT INCLUDING PANEL, SWITCH GEAR AND DISCONNECT ARE TO BE LABELED WITH ENGRAVED BAKELITE LABELS.

GENERAL NOTES

1. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES ORDINANCES, LAWS AND REGULATIONS OF ALL MUNICIPALITIES, UTILITIES COMPANY OR OTHER PUBLIC AUTHORITIES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS THAT MAY BE REQUIRED BY ANY FEDERAL, STATE, COUNTY OR MUNICIPAL AUTHORITIES.
3. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER, IN WRITING, OF ANY CONFLICTS, ERRORS OR OMISSIONS PRIOR TO THE SUBMISSION OF BIDS OR PERFORMANCE OF WORK. MINOR OMISSIONS OR ERRORS IN THE BID DOCUMENTS SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR THE OVERALL INTENT OF THESE DRAWINGS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SITE IMPROVEMENTS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED AS A RESULT OF CONSTRUCTION OF THIS FACILITY.
5. THE SCOPE OF WORK FOR THIS PROJECT SHALL INCLUDE PROVIDING ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED TO COMPLETE THIS PROJECT. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER’S RECOMMENDATIONS.
6. THE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO SUBMITTING A BID TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
7. CONTRACTOR SHALL VERIFY ANTENNA ELEVATION AND AZIMUTH WITH RF ENGINEERING PRIOR TO INSTALLATION.
8. ALL STRUCTURAL ELEMENTS SHALL BE HOT DIPPED GALVANIZED STEEL.
9. CONTRACTOR SHALL MAKE A UTILITY "ONE CALL" TO LOCATE ALL UTILITIES PRIOR TO EXCAVATING.
10. IF ANY UNDERGROUND UTILITIES OR STRUCTURES EXIST BENEATH THE PROJECT AREA, CONTRACTOR MUST LOCATE IT AND CONTACT THE APPLICANT & THE OWNER’S REPRESENTATIVE.
11. OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION BY TECHNICIANS APPROXIMATELY 2 TIMES PER MONTH.
12. PROPERTY LINE INFORMATION WAS PREPARED USING DEEDS, TAX MAPS, AND PLANS OF RECORD AND SHOULD NOT BE CONSTRUED AS AN ACCURATE BOUNDARY SURVEY.
13. THIS PLAN IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD.
14. THE PROPOSED FACILITY WILL CAUSE ONLY A "DE MINIMIS" INCREASE IN STORMWATER RUNOFF. THEREFORE, NO DRAINAGE STRUCTURES ARE PROPOSED.
15. NO SIGNIFICANT NOISE, SMOKE, DUST, OR ODOR WILL RESULT FROM THIS FACILITY.
16. THE FACILITY IS UNMANNED AND NOT INTENDED FOR HUMAN HABITATION (NO HANDICAP ACCESS REQUIRED).
17. THE FACILITY IS UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SANITARY SERVICE.
18. POWER TO THE FACILITY WILL BE MONITORED BY A SEPARATE METER.

STRUCTURAL NOTES

1. THE STRUCTURAL STEEL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ANCHOR BOLT LOCATIONS, ELEVATION OF TOP OF CONCRETE AND BEARING PLATES, ALIGNMENT ETC. PRIOR TO START OF STEEL ERECTION.
2. THE LATEST EDITION OF THE FOLLOWING SPECIFICATIONS SHALL GOVERN:

A. AISC – "ALLOWABLE STRESS DESIGN SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS".

B. AISC – "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".

C. AWS – "D1.1 STRUCTURAL WELDING CODE – STEEL".
3. MATERIAL, UNLESS OTHERWISE NOTED, SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS

STRUCTURAL WIDE FLANGE & M SHAPES

A992 OR A572

FY = 50KSI

OTHER STRUCTURAL SHAPES AND PLATES

A36, FY = 36 KSI

STRUCTURAL TUBING

A500, GRADE B

FY = 46 KSI

HIGH STRENGTH BOLTS

A325

THREADED RODS

A354, GRADE BC

ANCHOR BOLTS

A325 OR A354 BC

PIPE (HANDRAIL)

SCH 40 PIPE
4. ALL WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 USING E70XX ELECTRODES. UNLESS OTHERWISE NOTED PROVIDE CONTINUOUS MINIMUM SIZED FILLET WELDS PER AISC REQUIREMENTS.
5. HOLES IN STEEL SHALL BE DRILLED OR PUNCHED. ALL SLOTTED HOLES SHALL BE PROVIDED WITH SMOOTH EDGES. BURNING OF HOLES AND TORCH CUTTING AT THE SITE IS NOT PERMITTED. ALL HOLES IN BEARING PLATES SHALL BE DRILLED.
6. ALL STEEL TO BE HOT–DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123.
7. EPOXY ANCHORS TO BE INSTALLED PER MANUFACTURER’S SPECIFICATIONS.
8. ALL BOLTS SHALL BE TIGHTENED USING TURN–OF–THE–NUT METHOD PER AISC SPECIFICATIONS USING STANDARD HOLES.
9. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND FIT PRIOR TO FABRICATION.

ENGINEER

APPLICANT

SITE INFORMATION

DESIGN RECORD

PROFESSIONAL STAMP

ENGINEER

SHEET TITLE

SHEET NUMBER

NB+C

TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.

120 EASTSHORE DRIVE, SUITE 300

GLEN ALLEN, VA 23059

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T

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VA72505A

RIO ROAD EAST (DUNLORA)

NB+C PROJECT #100838

1225 EAST RIO ROAD

CHARLOTTESVILLE, VA 22901

ALBEMARLE COUNTY

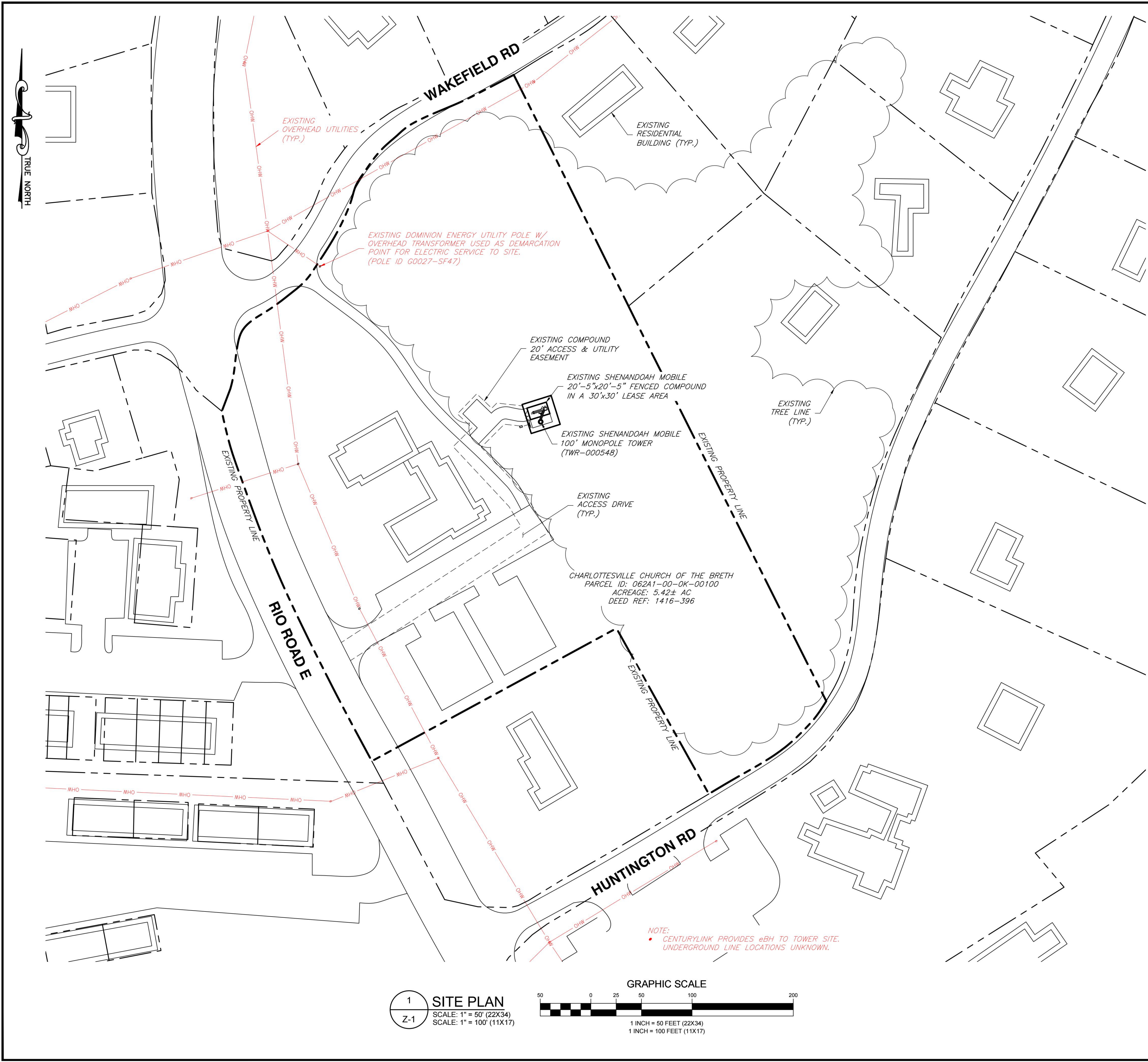
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TRENT T. SNARR, P.E.
VA PROFESSIONAL ENGINEER LIC. #49978

GENERAL NOTES

GN-1



ZONING INFORMATION		
JURISDICTION: ALBEMARLE COUNTY		
ZONING: R-2		
DIMENSION	EXISTING ±	PROPOSED ±
FRONT YARD SETBACK:	297.0'±	-
SIDE YARD SETBACK:	217.0'±	-
REAR YARD SETBACK:	128.0'±	-
LOT AREA: 5.42± AC		
(ALL MEASUREMENTS ARE IN FEET ± UNLESS OTHERWISE NOTED)		
NOTES:		

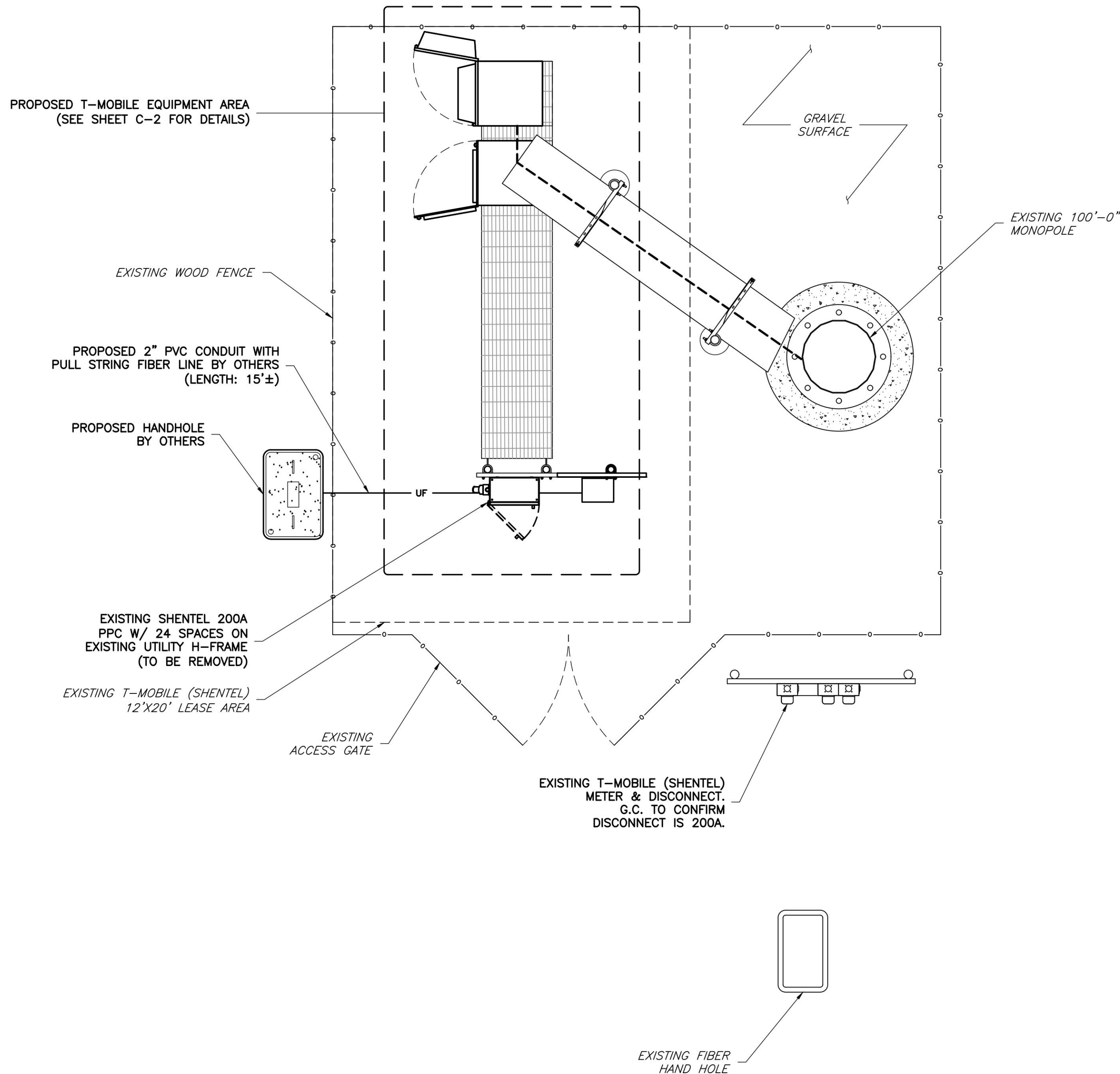
LEGEND	
	PROPERTY LINE - SUBJECT PARCEL
	PROPERTY LINE - ABUTTERS
	EXISTING ROAD
	EXISTING FENCE
	EXISTING EASEMENT
	EXISTING LEASE AREA
	EXISTING OVERHEAD UTILITIES

FIXED ASSET NO.	ASSET DESCRIPTION
TWR-000548	MONOPOLE 69202 DUNLORA
TWR-000549	CAP INTEREST - TOWER

GENERAL NOTES

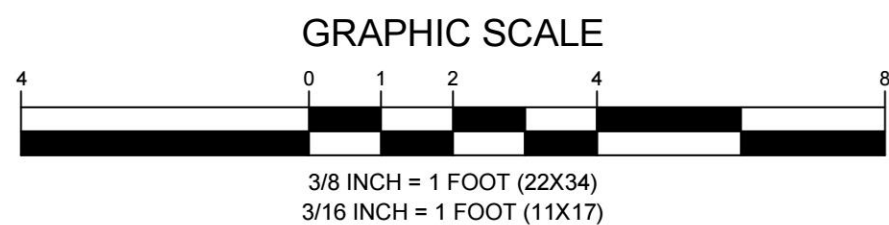
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1
C-1

COMPOUND PLAN
SCALE: 3/8" = 1' (22X34)
SCALE: 3/16" = 1' (11X17)



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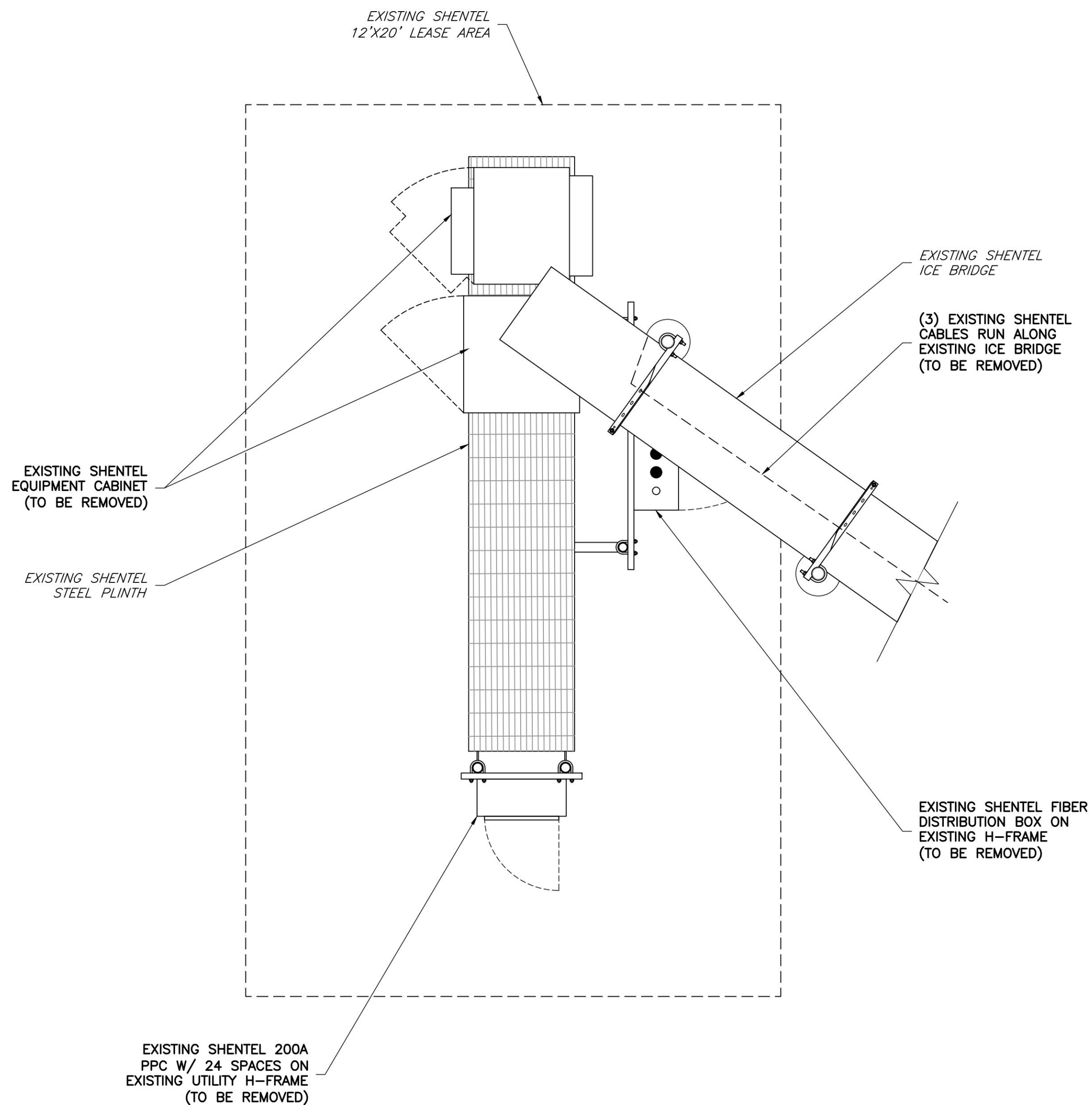
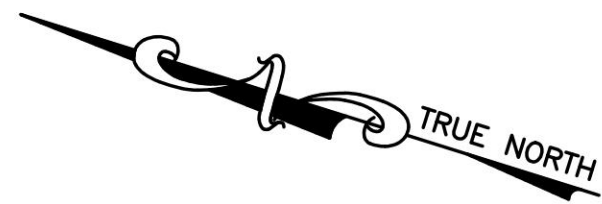
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SHEET TITLE

**COMPOUND
PLAN**

SHEET NUMBER

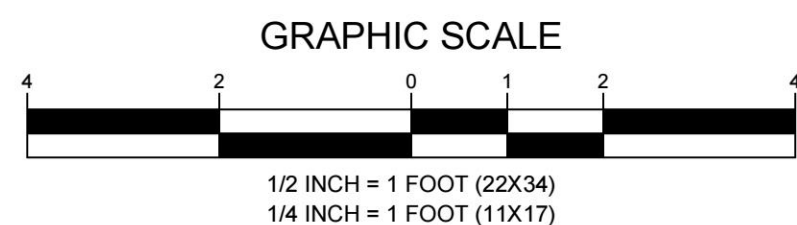
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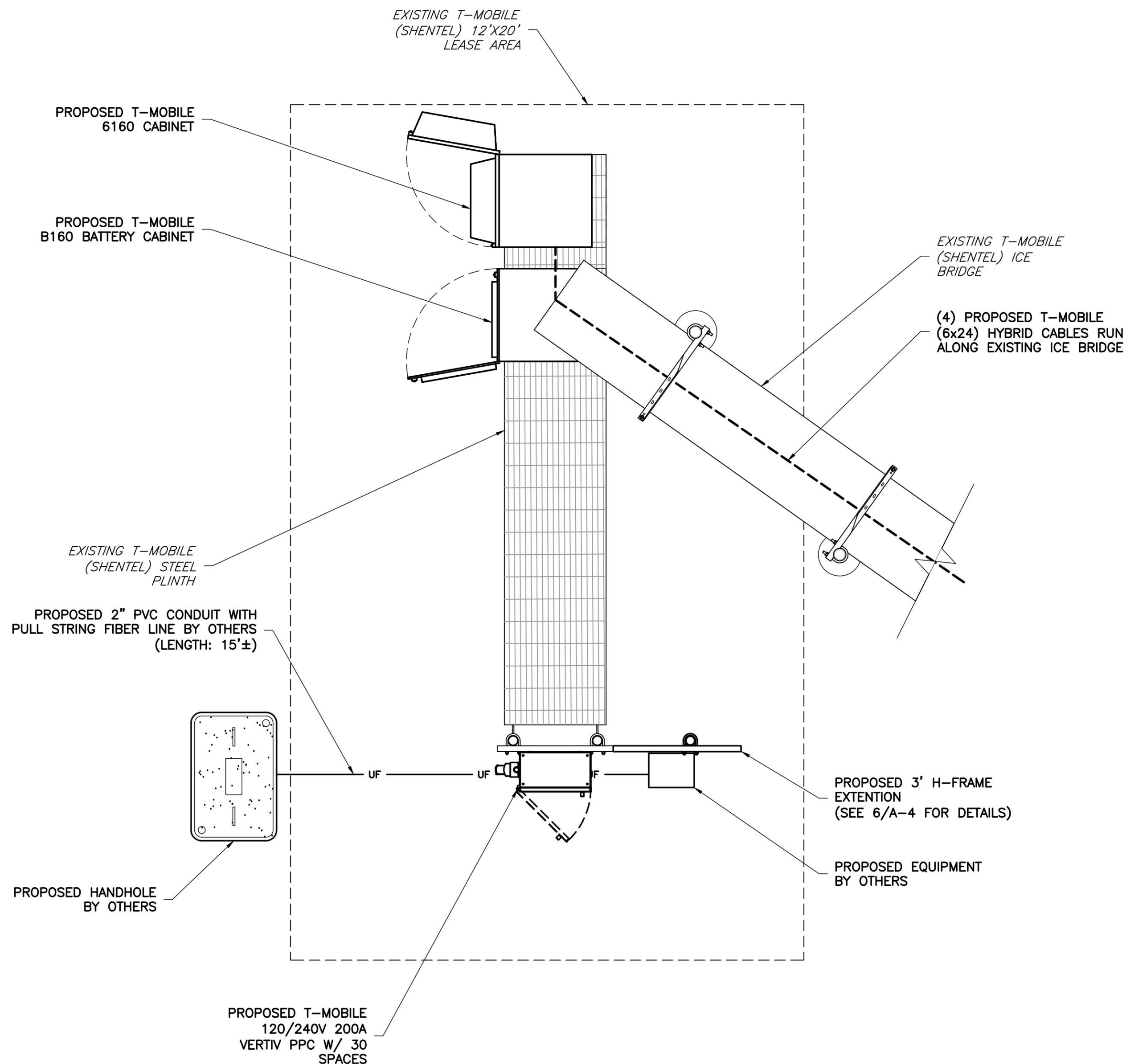
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C-2

EXISTING EQUIPMENT PLAN

SCALE: 1/2" = 1' (22X34)
SCALE: 1/4" = 1' (11X17)



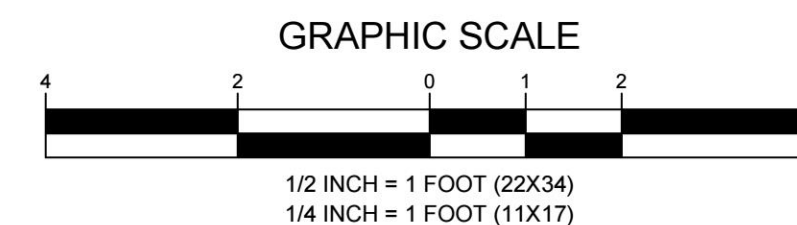
NOTE:
FINAL LOCATION OF PROPOSED EQUIPMENT CABINETS
TO BE DETERMINED IN THE FIELD BY THE G.C.



2
C-2

PROPOSED EQUIPMENT PLAN

SCALE: 1/2" = 1' (22X34)
SCALE: 1/4" = 1' (11X17)



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FAX: (757) 589-0904

SITE INFORMATION

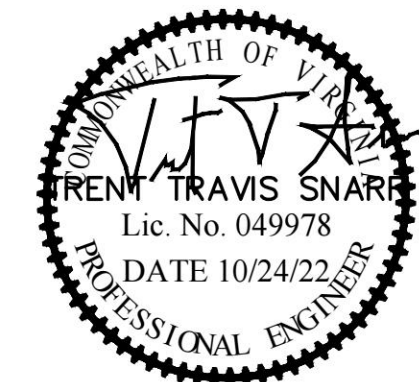
VA72505A
RIO ROAD EAST (DUNLORA)
NB+C PROJECT #100838
1225 EAST RIO ROAD
CHARLOTTESVILLE, VA 22901
ALBEMARLE COUNTY

DESIGN RECORD

REVISIONS

REV	DATE	DESCRIPTION	BY
3	10/24/22	REVISED	CCC
2	06/22/22	AAV PROJECT	JQG
1	06/14/22	RFDS	JQG
0	03/14/22	FINAL CDs	LTA
A	03/09/22	PRELIMINARY CDs	CDE

PROFESSIONAL STAMP



ENGINEER

TRENT T. SNARR, P.E.
VA PROFESSIONAL ENGINEER LIC. #49978

SHEET TITLE

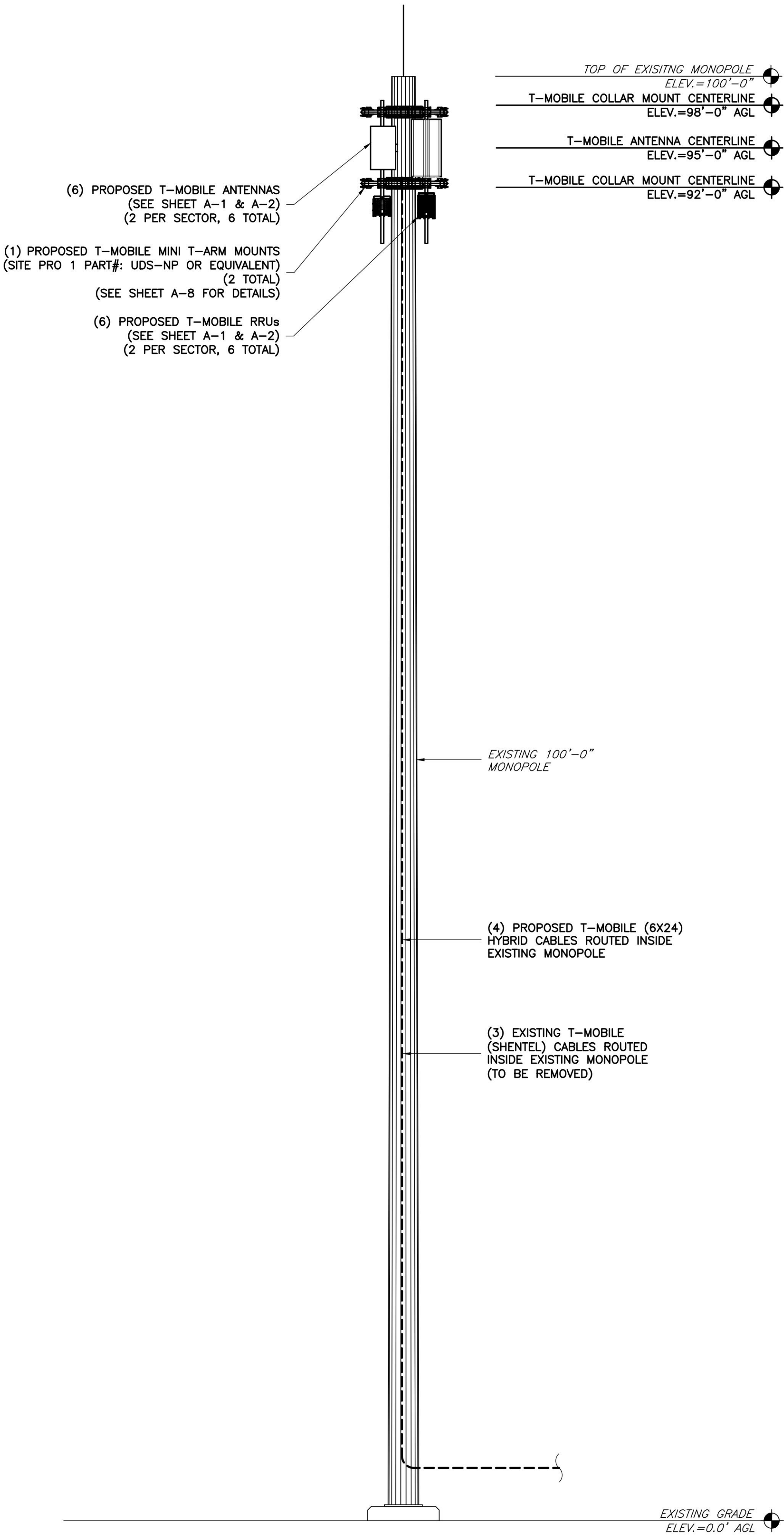
EQUIPMENT
PLANS

SHEET NUMBER

C-2

GENERAL ANTENNA NOTES

1. ALL ANTENNAS TO BE FURNISHED WITH DOWNTILT BRACKETS. CONTRACTOR IS TO COORDINATE AND VERIFY THE PROPOSED DOWNTILTS WITH THE CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION.
2. ANTENNA CENTERLINE HEIGHT IS IN REFERENCE TO ELEVATION 0.0'. (EXISTING GRADE)
3. CHECK WITH RF ENGINEER FOR LATEST ANTENNA TYPE & AZIMUTH.
4. CONTRACTOR SHALL VERIFY ANTENNA TYPE AND AZIMUTH WITH CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION.
5. ALL CABLE LENGTHS ARE ESTIMATED AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
6. COLOR TAPE MARKINGS MUST BE 3/4" WIDE AND UV RESISTANT, SUCH AS SCOTCH 35 VINYL ELECTRICAL COLOR CODING TAPE.
7. CONTRACTOR SHALL COORDINATE COLOR CODINGS IN THE FIELD WITH THE CONSTRUCTION MANAGER.

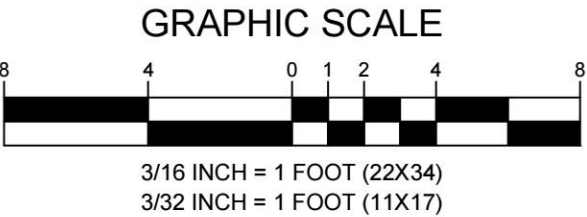


1

ELEVATION

SCALE: 3/16" = 1' (22X34)
SCALE: 3/32" = 1' (11X17)

C-3



ENGINEER

APPLICANT

SITE INFORMATION

DESIGN RECORD

PROFESSIONAL STAMP

ENGINEER

SHEET TITLE

SHEET NUMBER

NB+C

TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.
120 EASTSHORE DRIVE, SUITE 300
GLEN ALLEN, VA 23059
(804) 548-4079

T-Mobile

T-MOBILE NORTHEAST LLC

324 MADISON MEWS
NORFOLK, VA 23510
OFFICE: (757) 453-6907
FAX: (757) 589-0904

VA72505A
RIO ROAD EAST (DUNLORA)
NB+C PROJECT #100838
1225 EAST RIO ROAD
CHARLOTTESVILLE, VA 22901
ALBEMARLE COUNTY

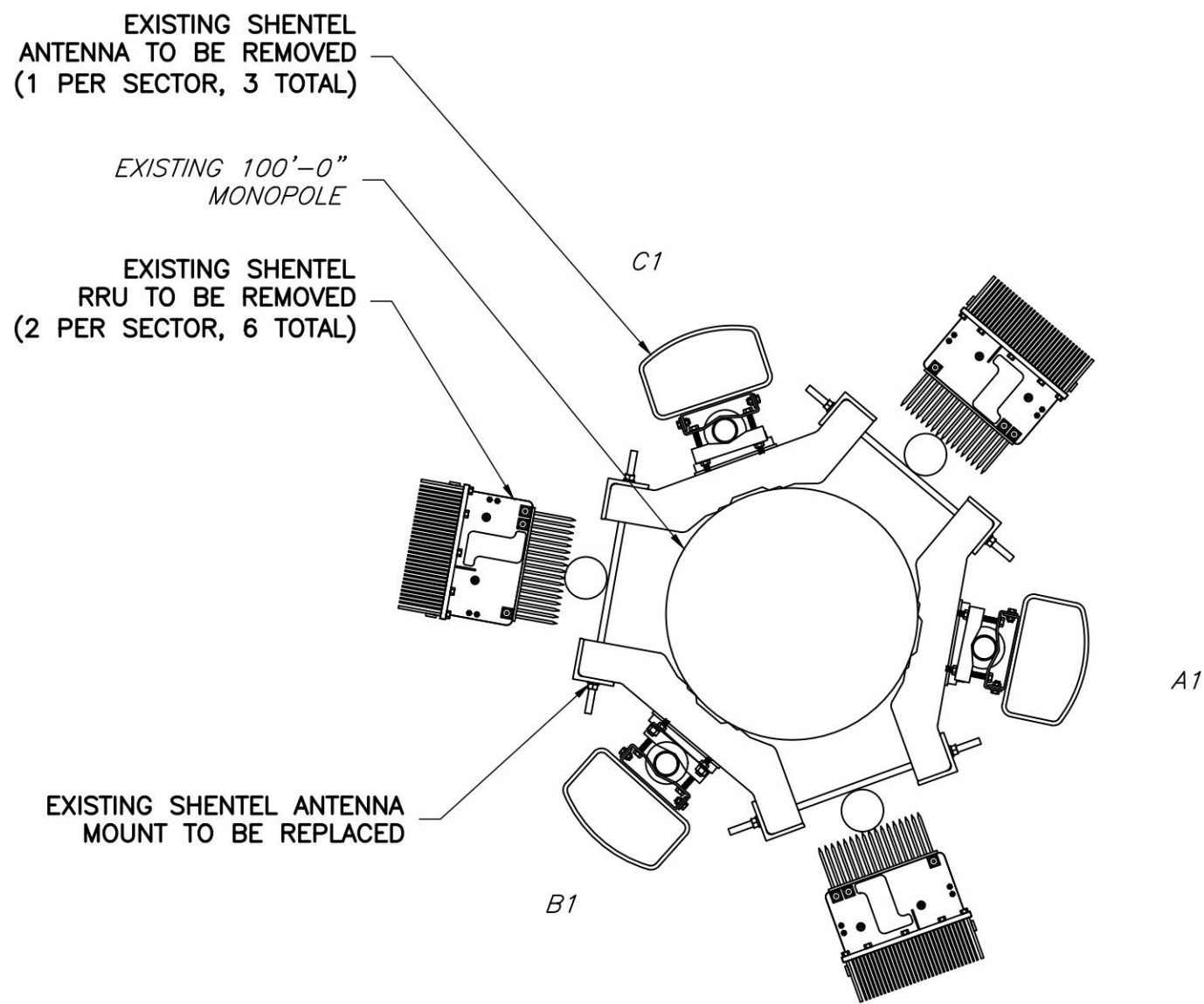
REVISIONS			
3	10/24/22	REVISED	CCC
2	06/22/22	AAV PROJECT	JQG
1	06/14/22	RFDS	JQG
0	03/14/22	FINAL CDs	LTA
A	03/09/22	PRELIMINARY CDs	CDE
REV	DATE	DESCRIPTION	BY



TRENT T. SNARR, P.E.
VA PROFESSIONAL ENGINEER LIC. #49978

ELEVATION

C-3

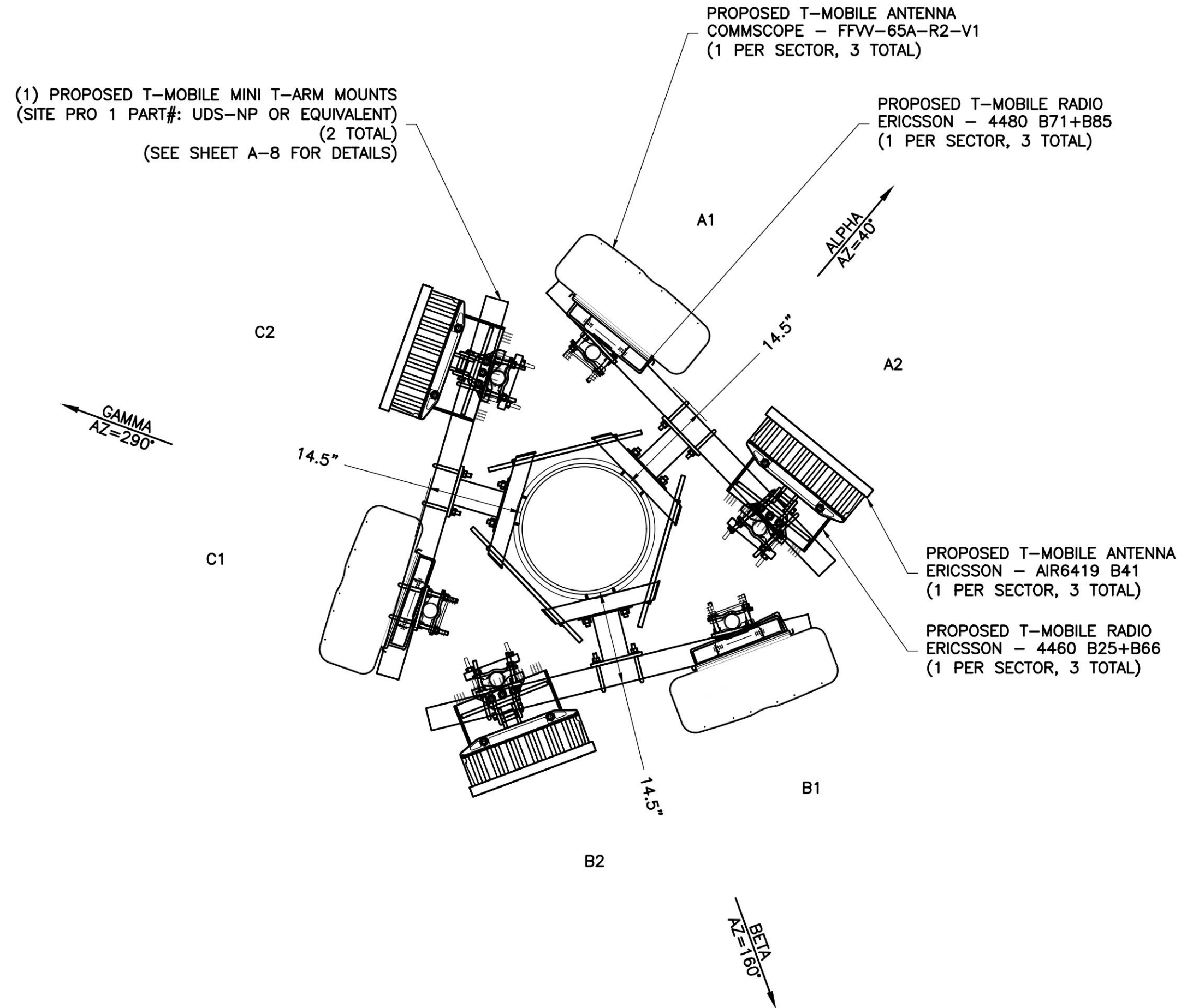


1
A-1
EXISTING ANTENNA ORIENTATION PLAN
NOT TO SCALE

APPROX
TRUE NORTH

ALL EXISTING SHENTEL ANTENNAS, RADIOS, TMA'S, DIPLEXERS,
AND CABLES WILL BE REMOVED FROM THE SITE.
(MICROWAVE EQUIPMENT IS EXCLUDED FROM THIS REQUIREMENT)

NOTE:
CONTRACTOR TO MAKE SURE THE SAFETY CLIMB
IS NOT DAMAGED WHEN SWAPPING THE MOUNTS.
CONTRACTOR WILL MAKE SURE THE CABLE IS
NOT AGAINST THE MOUNTS OR MOUNT HARDWARE.



2
A-1
PROPOSED ANTENNA ORIENTATION PLAN
NOT TO SCALE

APPROX
TRUE NORTH

ENGINEER

NB+C
TOTALLY COMMITTED.
NB+C ENGINEERING SERVICES, LLC.
120 EASTSHORE DRIVE, SUITE 300
GLEN ALLEN, VA 23059
(804) 548-4079

APPLICANT

T-Mobile
T-MOBILE NORTHEAST LLC
324 MADISON MEWS
NORFOLK, VA 23510
OFFICE: (757) 453-6907
FAX: (757) 589-0904

SITE INFORMATION

VA72505A
RIO ROAD EAST (DUNLORA)
NB+C PROJECT #100838
1225 EAST RIO ROAD
CHARLOTTESVILLE, VA 22901
ALBEMARLE COUNTY

DESIGN RECORD

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0	03/14/22	FINAL CDs	LTA	
A	03/09/22	PRELIMINARY CDs	CDE	

PROFESSIONAL STAMP



ENGINEER

TRENT T. SNARR, P.E.
VA PROFESSIONAL ENGINEER LIC. #49978

SHEET TITLE

ANTENNA
ORIENTATION
PLANS

SHEET NUMBER

A-1


ANTENNA SCHEDULE												
SECTOR	STATUS	ANTENNA MANUFACTURER	ANTENNA MODEL	ANTENNA DIMENSIONS (HxWxD)	RAD CENTER	AZIMUTH	ELEC DOWNTILT	MECH DOWNTILT	RRU QUANTITY & MODEL	TMA/DIPLEXER QUANTITY & MODEL	CABLE QUANTITY & TYPE	CABLE LENGTH
A1	PROPOSED	COMMSCOPE	FFW-65A-R2-V1	48.19"x25.20"x9.25"	95.00'	40°	6°/6°/4°/4°	0°	(1) PROPOSED 4480 B71+B85 (1) PROPOSED 4460 B25+B66	-	(1) PROPOSED (6x24) HYBRID CABLE (1) PROPOSED (6x24) HYBRID FLEX CABLE (SHARED WITH ALL SECTORS)	140.00'
A2	PROPOSED	ERICSSON	AIR6419 B41	34.50"x20.00"x8.0"	95.00'	40°	4°/4°	0°	-	-		
B1	PROPOSED	COMMSCOPE	FFW-65A-R2-V1	48.19"x25.20"x9.25"	95.00'	160°	6°/6°/4°/4°	0°	(1) PROPOSED 4480 B71+B85 (1) PROPOSED 4460 B25+B66	-	(1) PROPOSED (6x24) HYBRID CABLE	140.00'
B2	PROPOSED	ERICSSON	AIR6419 B41	34.50"x20.00"x8.0"	95.00'	160°	4°/4°	0°	-	-		
C1	PROPOSED	COMMSCOPE	FFW-65A-R2-V1	48.19"x25.20"x9.25"	95.00'	290°	6°/6°/4°/4°	0°	(1) PROPOSED 4480 B71+B85 (1) PROPOSED 4460 B25+B66	-	(1) PROPOSED (6x24) HYBRID CABLE	140.00'
C2	PROPOSED	ERICSSON	AIR6419 B41	34.50"x20.00"x8.0"	95.00'	290°	4°/4°	0°	-	-		

NOTES:
1. CONTRACTOR TO VERIFY PROPOSED ANTENNA INFORMATION IS THE MOST CURRENT DATA AT TIME OF CONSTRUCTION.
2. CONTRACTOR TO CONFIRM CABLE LENGTHS PRIOR TO CONSTRUCTION.


1
A-2

ANTENNA CONFIGURATION SCHEDULE
NOT TO SCALE

ENGINEER

**TOTALLY COMMITTED.**
NB+C ENGINEERING SERVICES, LLC.
120 EASTSHORE DRIVE, SUITE 300
GLEN ALLEN, VA 23059
(804) 548-4079

APPLICANT

**T-Mobile**
T-MOBILE NORTHEAST LLC

324 MADISON MEWS
NORFOLK, VA 23510
OFFICE: (757) 453-6907
FAX: (757) 589-0904

SITE INFORMATION

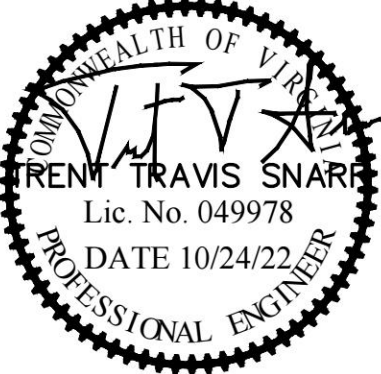
VA72505A
RIO ROAD EAST (DUNLORA)
NB+C PROJECT #100838
1225 EAST RIO ROAD
CHARLOTTESVILLE, VA 22901
ALBEMARLE COUNTY

DESIGN RECORD

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A	03/09/22	PRELIMINARY CDs	CDE
REV	DATE	DESCRIPTION	BY

PROFESSIONAL STAMP



ENGINEER

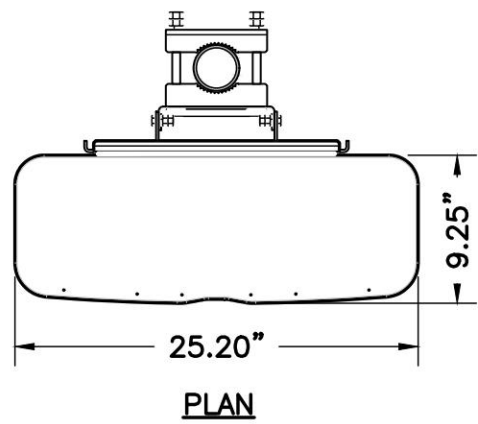
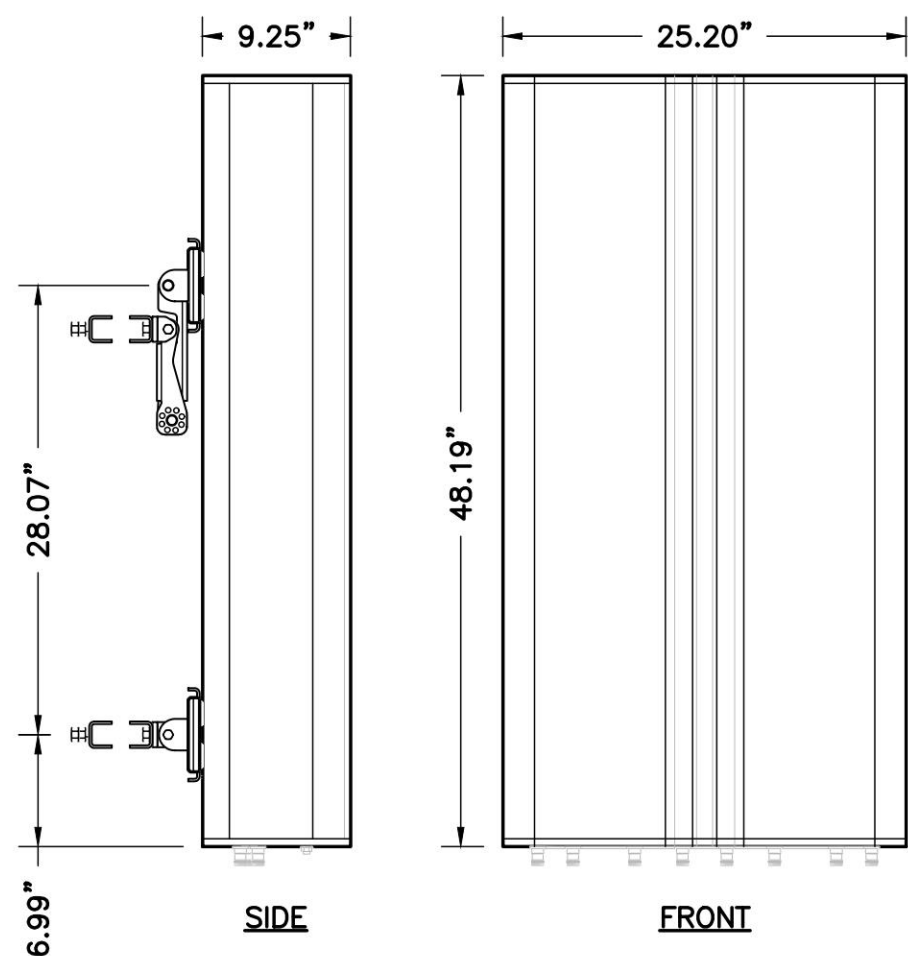
TRENT T. SNARR, P.E.
VA PROFESSIONAL ENGINEER LIC. #49978

SHEET TITLE

ANTENNA
SCHEDULE

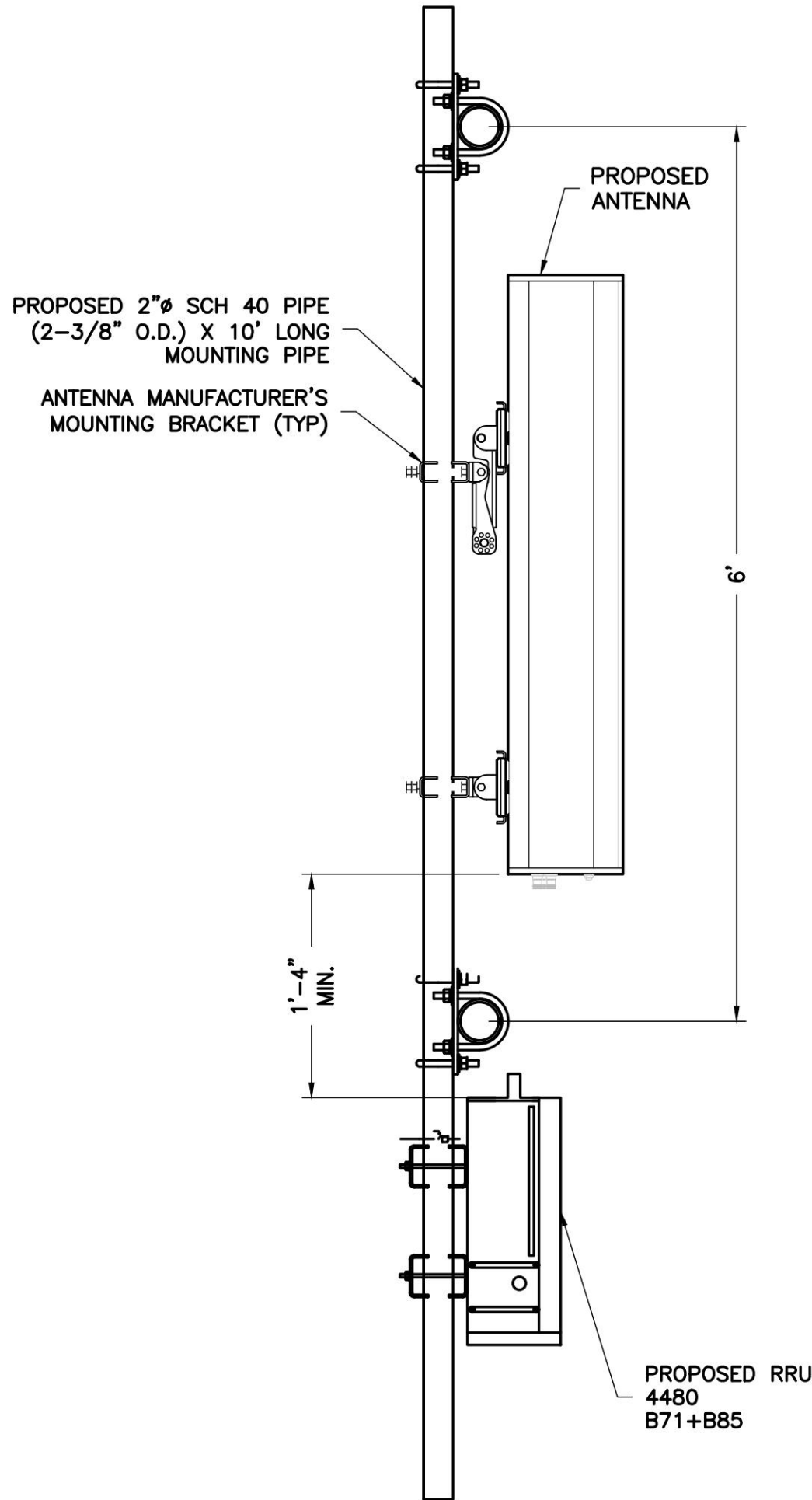
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A-2

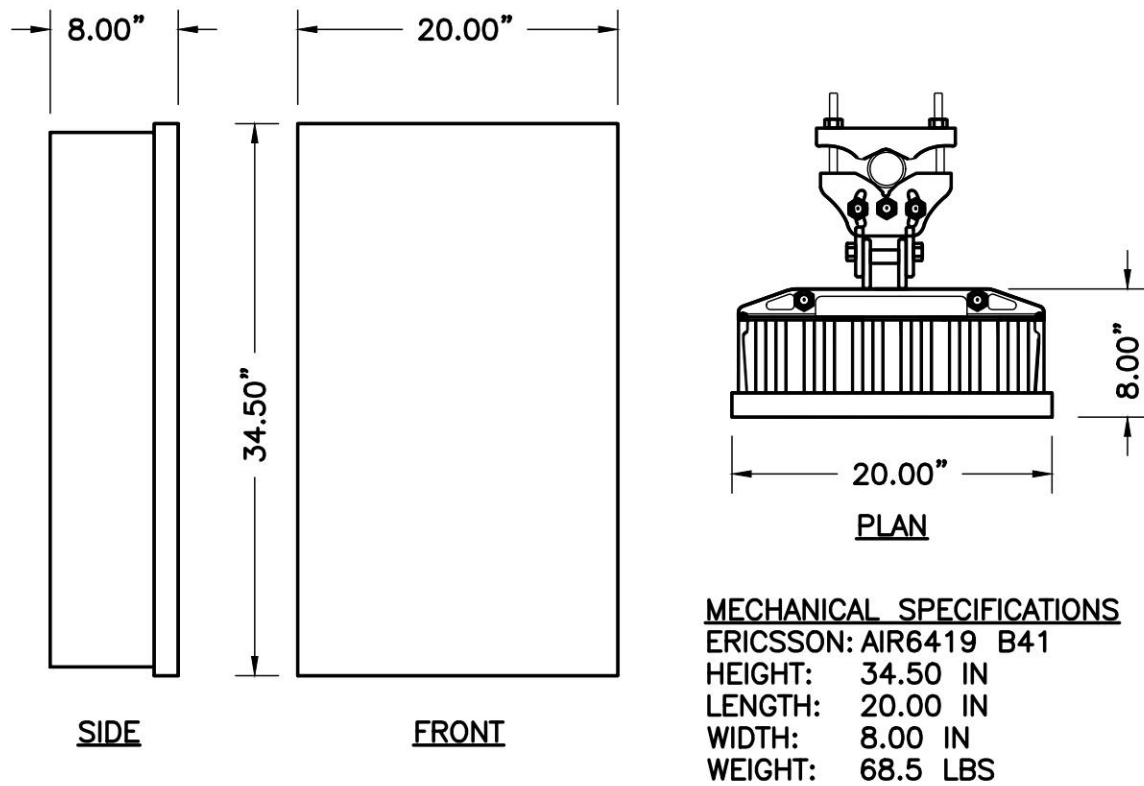


MECHANICAL SPECIFICATIONS
COMMSCOPE: FFV-65A-R2-V1
HEIGHT: 48.19 IN
WIDTH: 25.20 IN
DEPTH: 9.25 IN
WEIGHT: 73.193 LBS

1 COMMSCOPE PANEL ANTENNA
A-3 NOT TO SCALE

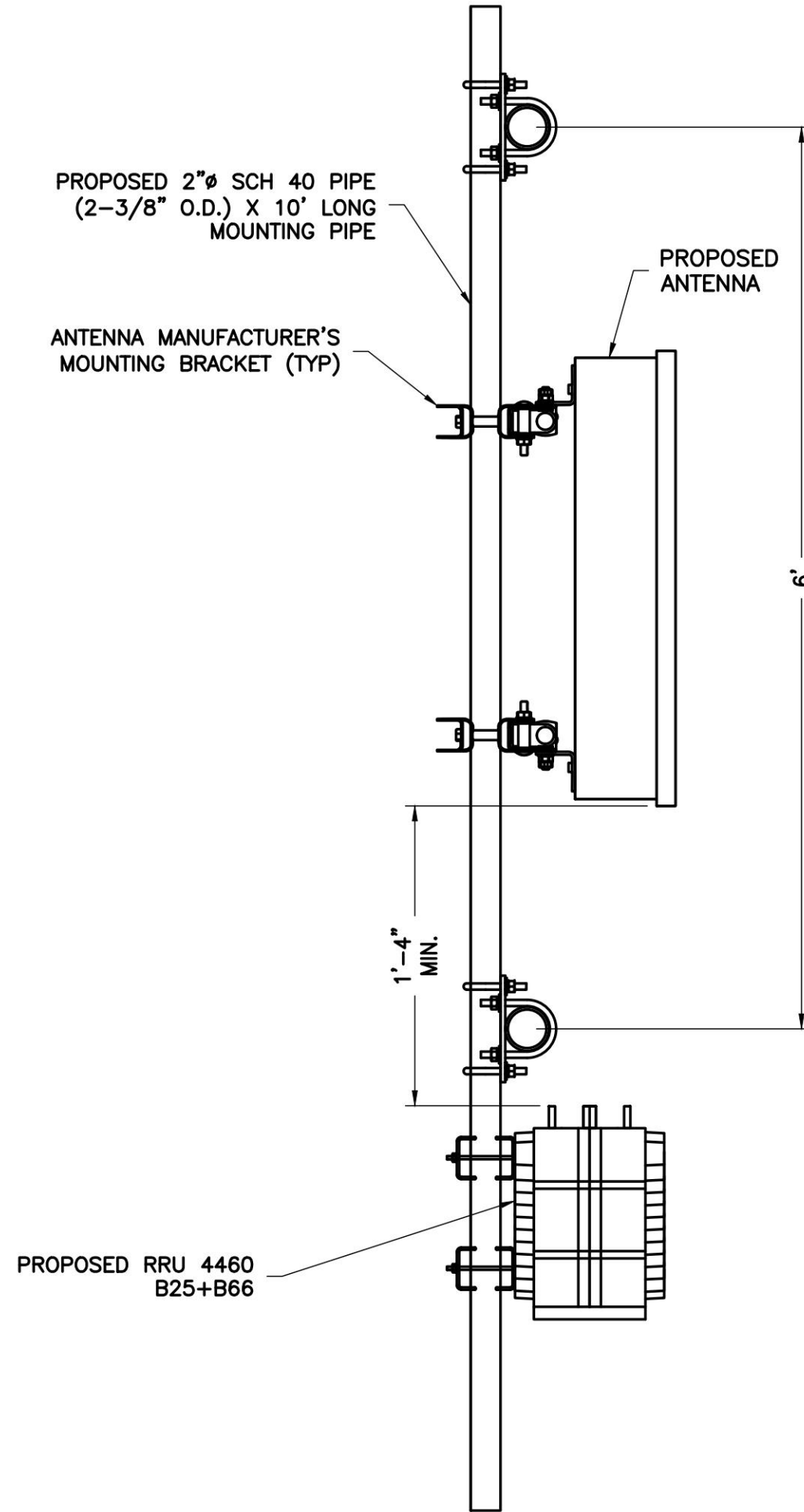


2 ANTENNA MOUNTING DETAIL
A-3 NOT TO SCALE



MECHANICAL SPECIFICATIONS
ERICSSON: AIR6419 B41
HEIGHT: 34.50 IN
LENGTH: 20.00 IN
WIDTH: 8.00 IN
WEIGHT: 68.5 LBS

3 ERICSSON PANEL ANTENNA
A-3 NOT TO SCALE



4 ANTENNA MOUNTING DETAIL
A-3 NOT TO SCALE

ENGINEER

NB+C
TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.
120 EASTSHORE DRIVE, SUITE 300
GLEN ALLEN, VA 23059
(804) 548-4079

APPLICANT

T-Mobile

T-MOBILE NORTHEAST LLC

324 MADISON MEWS
NORFOLK, VA 23510
OFFICE: (757) 453-6907
FAX: (757) 589-0904

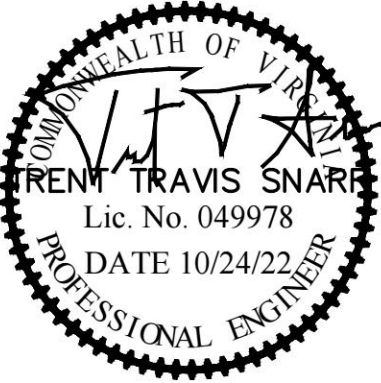
SITE INFORMATION

VA72505A
RIO ROAD EAST (DUNLORA)
NB+C PROJECT #100838
1225 EAST RIO ROAD
CHARLOTTESVILLE, VA 22901
ALBEMARLE COUNTY

DESIGN RECORD

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0	03/14/22	FINAL CDs	LTA	
A	03/09/22	PRELIMINARY CDs	CDE	

PROFESSIONAL STAMP



ENGINEER

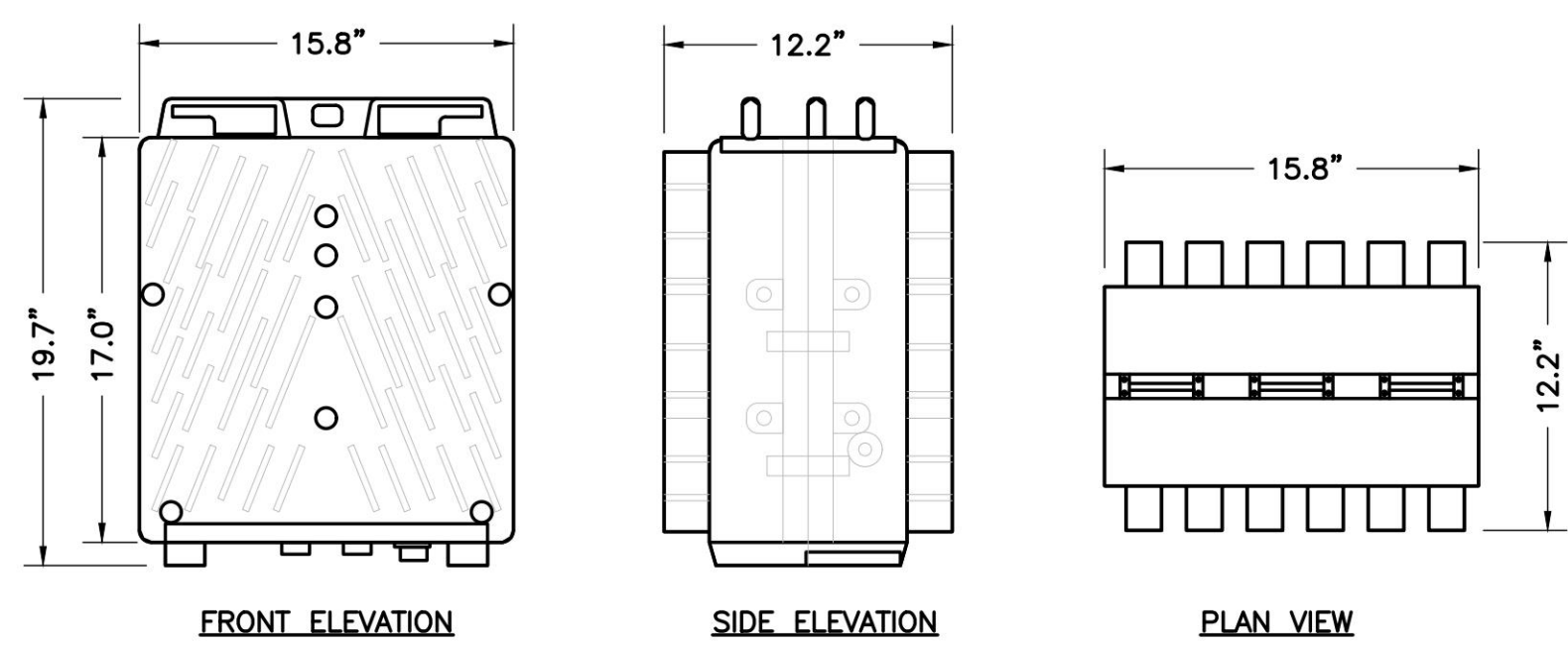
TRENT T. SNARR, P.E.
VA PROFESSIONAL ENGINEER LIC. #49978

SHEET TITLE

ANTENNA
SPECIFICATIONS
& DETAILS

SHEET NUMBER

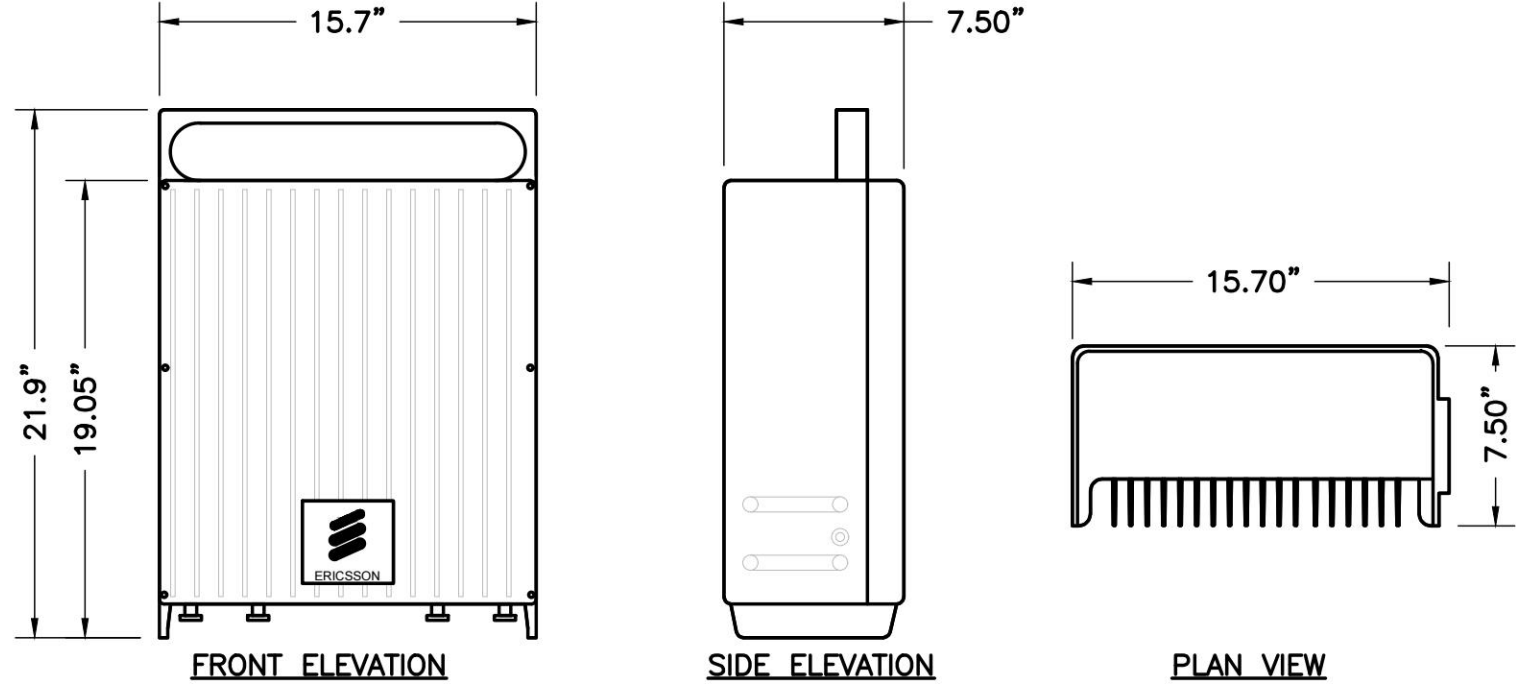
A-3



SIZE AND WEIGHT TABLE				
MANUFACTURER & MODEL NUMBER	HEIGHT	WIDTH	DEPTH	WEIGHT WITHOUT BRACKET
ERICSSON 4460 B25+B66	19.7"	15.8"	12.2"	109.00 LBS

NOTE:
DO NOT PAINT THE RRU. RRU SOLAR SHIELD CAN BE PAINTED PER
MANUFACTURER'S METHOD OF PROCEDURE.

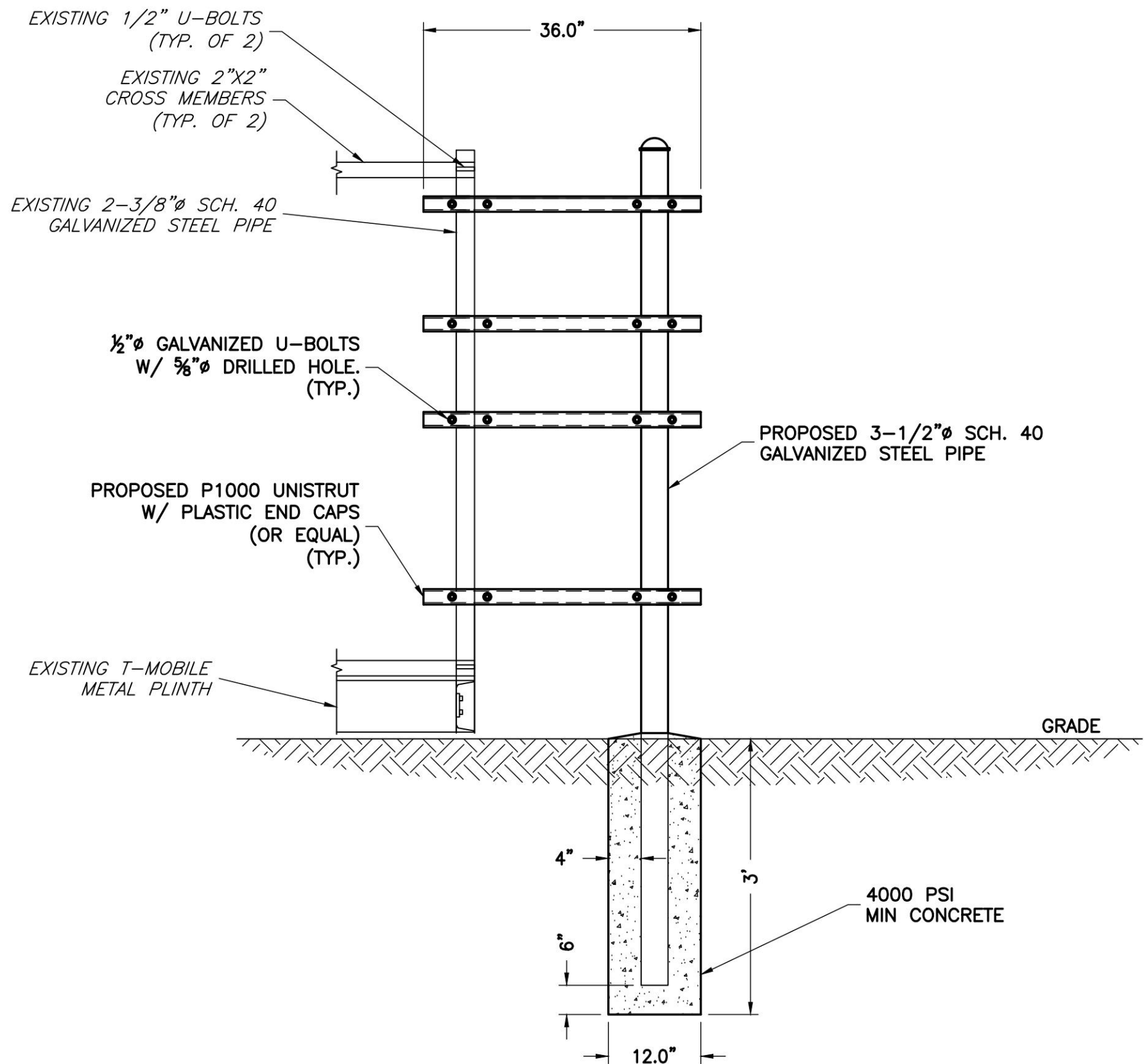
1
A-4 NTS
ERICSSON REMOTE RADIO UNIT (RRU)



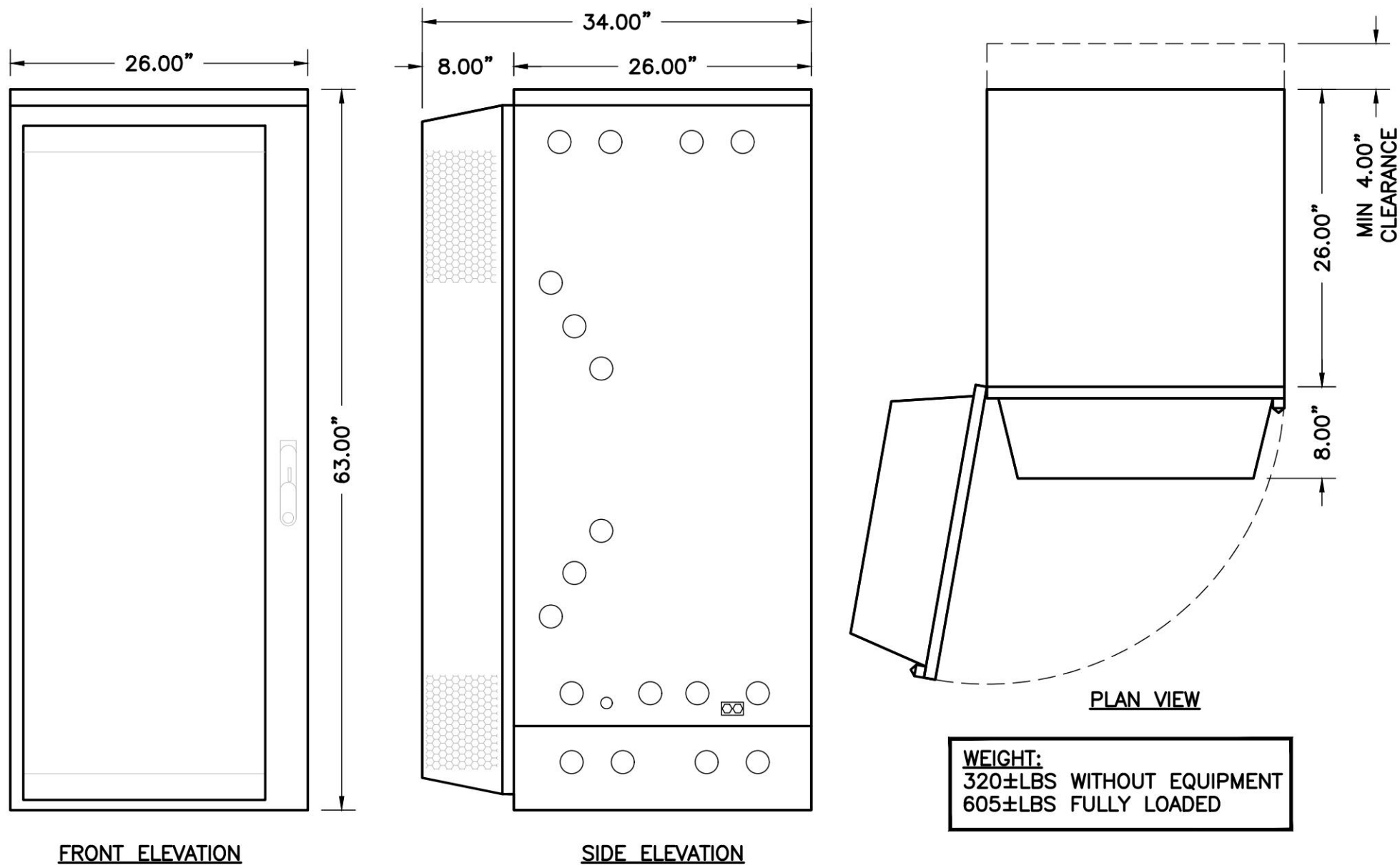
SIZE AND WEIGHT TABLE				
MANUFACTURER & MODEL NUMBER	HEIGHT	WIDTH	DEPTH	WEIGHT WITHOUT BRACKET
ERICSSON 4480 B71+B85	21.9"	15.7"	7.50"	81.00 LBS

NOTE:
DO NOT PAINT THE RRU. RRU SOLAR SHIELD CAN BE PAINTED PER
MANUFACTURER'S METHOD OF PROCEDURE.

2
A-4 NTS
ERICSSON REMOTE RADIO UNIT (RRU)

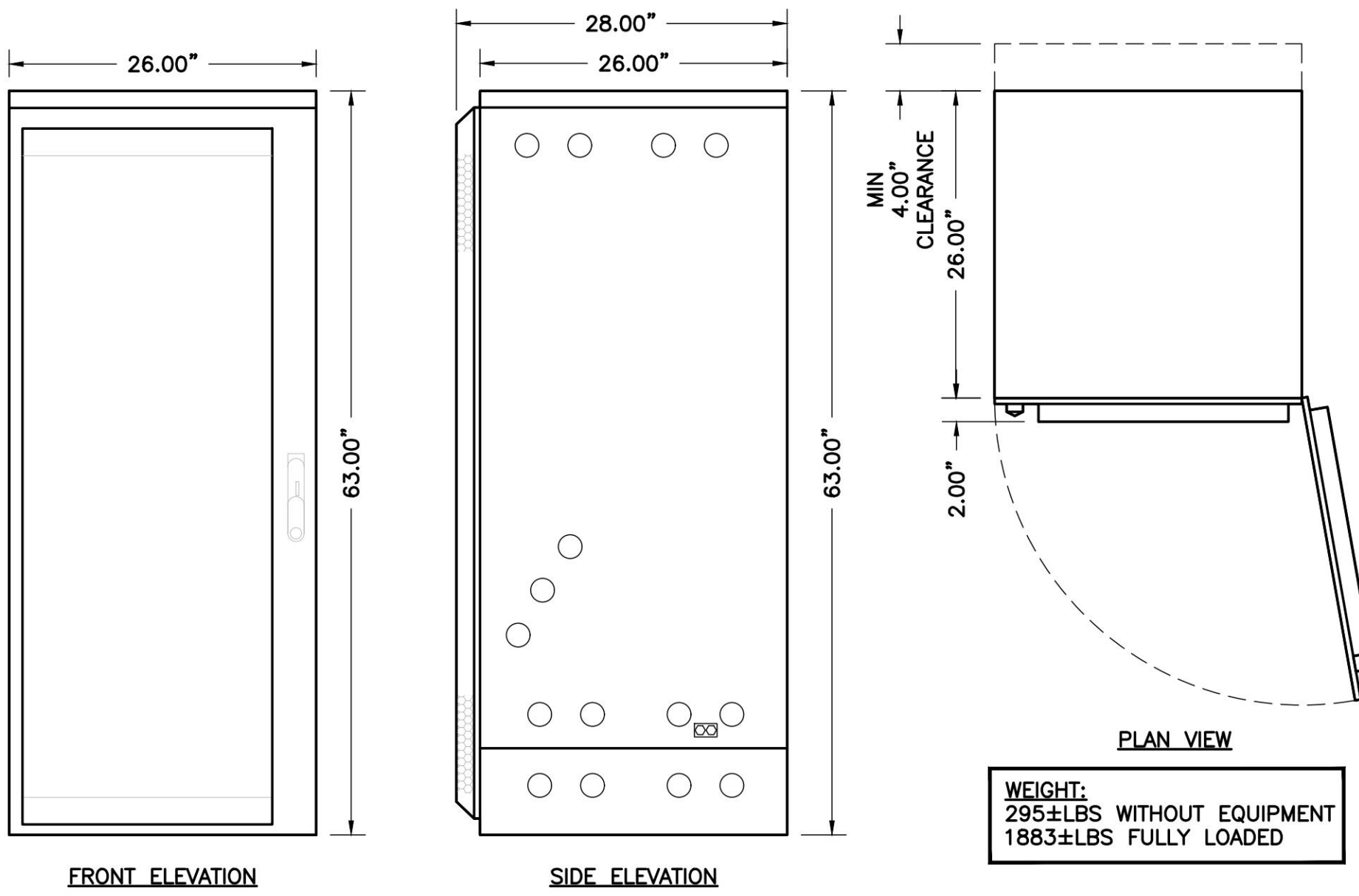


3
A-4 NTS
H-FRAME EXPANSION DETAIL



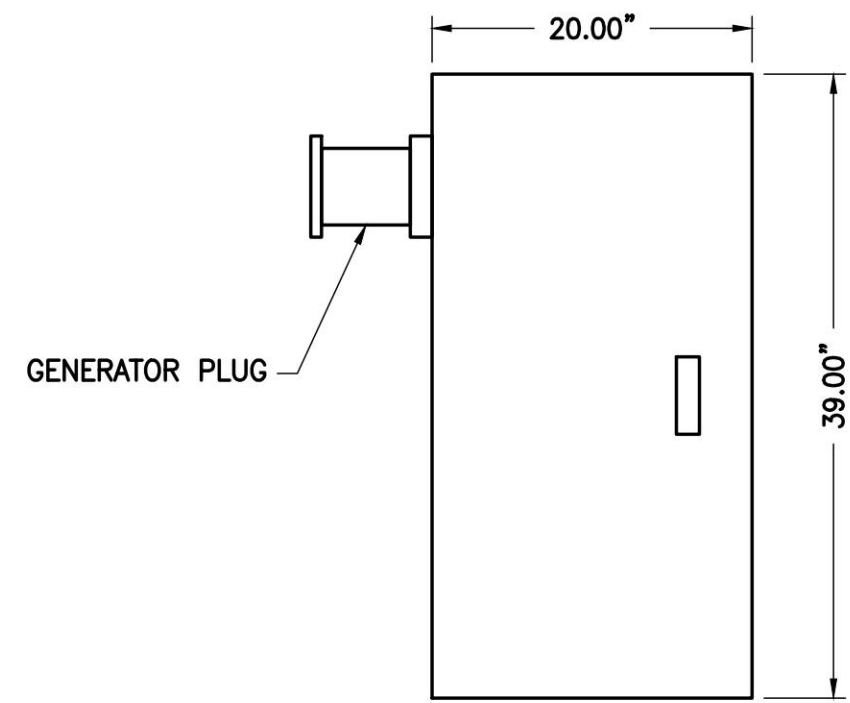
WEIGHT:
320±LBS WITHOUT EQUIPMENT
605±LBS FULLY LOADED

4
A-4 NTS
6160 ENCLOSURE CABINET



WEIGHT:
295±LBS WITHOUT EQUIPMENT
1883±LBS FULLY LOADED

5
A-4 NTS
B160 BATTERY CABINET



6
A-4 NTS
VERTIV PPC UNIT DETAIL

ENGINEER

APPLICANT

SITE INFORMATION

DESIGN RECORD

PROFESSIONAL STAMP

ENGINEER

SHEET TITLE

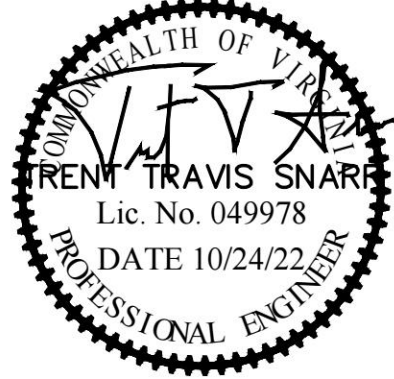
SHEET NUMBER

NB+C
TOTALLY COMMITTED.
NB+C ENGINEERING SERVICES, LLC.
120 EASTSHORE DRIVE, SUITE 300
GLEN ALLEN, VA 23059
(804) 548-4079

T-Mobile
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324 MADISON MEWS
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VA72505A
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ALBEMARLE COUNTY

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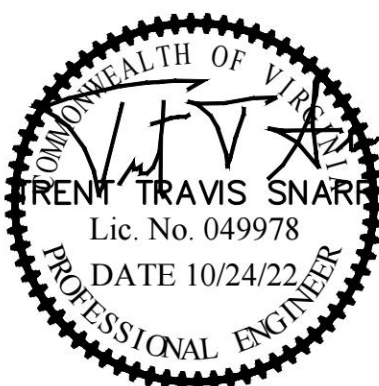
TRENT T. SNARR, P.E.
VA PROFESSIONAL ENGINEER LIC. #49978

**EQUIPMENT
SPECIFICATIONS
& DETAILS**

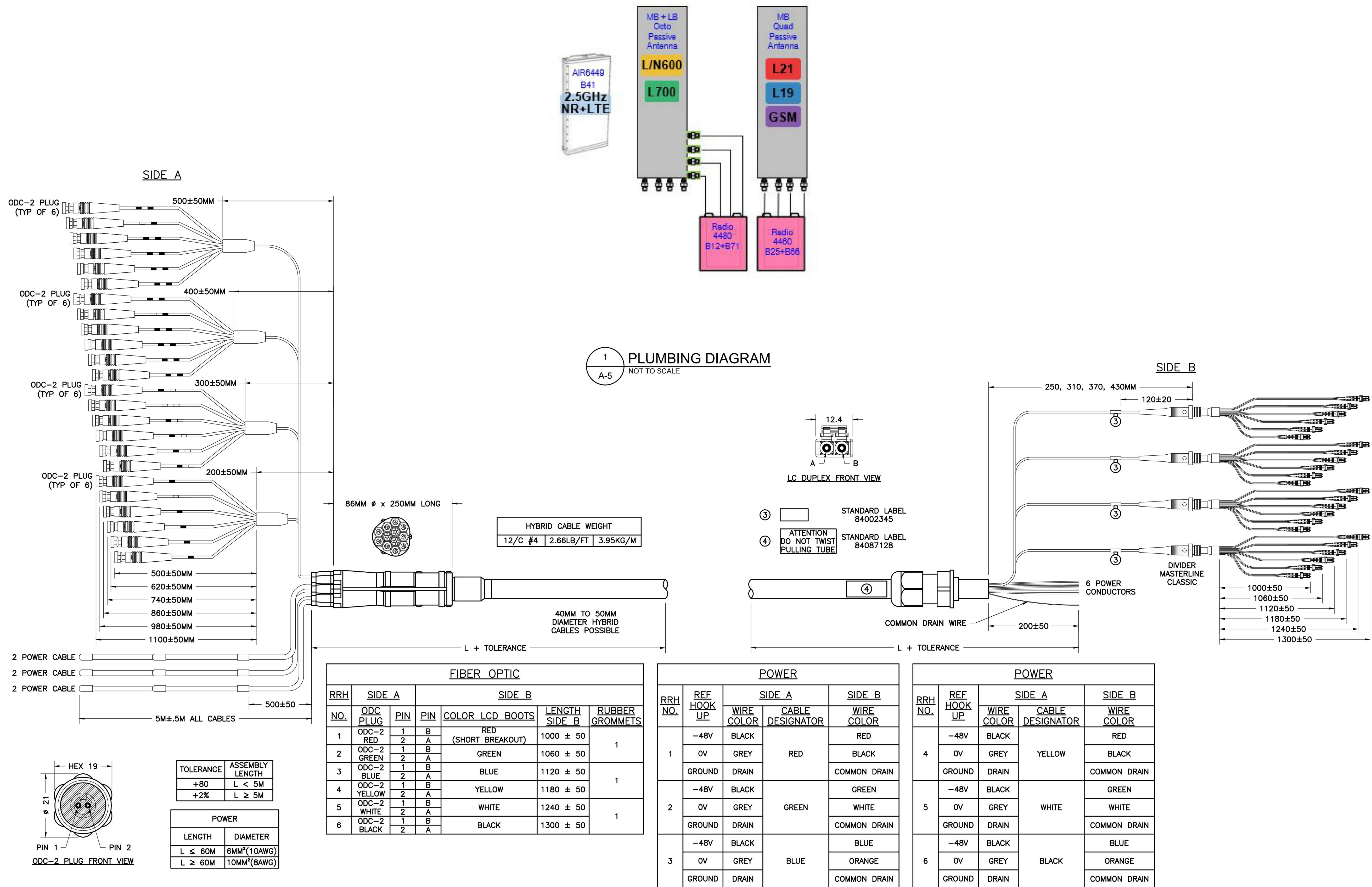
A-4

REVISIONS

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A	03/09/22	PRELIMINARY CDs	CDE



CABLING DETAILS
& RF PLUMBING
DIAGRAM



NOTE:
CABLE INFORMATION IS SHOWN FOR ONLY (12) OF
(24) FIBER PAIRS PER CABLE. REMAINING (12)
PAIRS ARE SPARES WITH IDENTICAL COLOR CODES.

Shentel Keep Hybrid Plumbing (4) 6x24 Hybrids										
TRUNK COLOR CODE	PAIR #	AIR/RRU END		RBS END		RADIO (TECHNOLOGY)	AIR/RRU END COLOR CODE	RBS END FIBER LABELS		SECTOR
		ODC	PIN	PIN	LC BOOT					
RED 1	1	RED	1	B	RED	Radio 4460 B25+B66 (G19 CPRI1)	RED 1 + LC Boot Color	ALPHA B2 G19 CPRI1		ALPHA
			2	A						
	2	GREEN	1	B	GREEN	Radio 4460 B25+B66 (L19 CPRI2)	RED 1 + LC Boot Color	ALPHA B25 L19 CPRI2		ALPHA
			2	A						
	3	BLUE	1	B	BLUE	Radio 4460 B25+B66 (L21 CPRI3)	RED 1 + LC Boot Color	ALPHA B66 L21 CPRI3		ALPHA
			2	A						
	4	YELLOW	1	B	YELLOW	Radio 4460 B25+B66 (L21 CPRI4)	RED 1 + LC Boot Color	ALPHA B66 L21 CPRI4		ALPHA
			2	A						
	5	WHITE	1	B	WHITE	Radio 4460 B25+B66 (G19 CPRI1)	YELLOW 1 + LC Boot Color	BETA B2 G19 CPRI1		BETA
			2	A						
	6	BLACK	1	B	BLACK	Radio 4460 B25+B66 (L19 CPRI2)	YELLOW 1 + LC Boot Color	BETA B25 L19 CPRI2		BETA
			2	A						
	7	RED	1	B	RED	Radio 4460 B25+B66 (L21 CPRI3)	YELLOW 1 + LC Boot Color	BETA B66 L21 CPRI3		BETA
		WHITE	2	A	WHITE					
	8	GREEN	1	B	GREEN	Radio 4460 B25+B66 (L21 CPRI4)	YELLOW 1 + LC Boot Color	BETA B66 L21 CPRI4		BETA
		WHITE	2	A	WHITE					
	9	BLUE	1	B	BLUE	Radio 4460 B25+B66 (G19 CPRI1)	BLUE 1 + LC Boot Color	GAMMA B2 G19 CPRI1		GAMMA
		WHITE	2	A	WHITE					
	10	YELLOW	1	B	YELLOW	Radio 4460 B25+B66 (L19 CPRI2)	BLUE 1 + LC Boot Color	GAMMA B25 L19 CPRI2		GAMMA
		WHITE	2	A	WHITE					
	11	WHITE	1	B	WHITE	Radio 4460 B25+B66 (L21 CPRI3)	BLUE 1 + LC Boot Color	GAMMA B66 L21 CPRI3		GAMMA
		WHITE	2	A	WHITE					
	12	BLACK	1	B	BLACK	Radio 4460 B25+B66 (L21 CPRI4)	BLUE 1 + LC Boot Color	GAMMA B66 L21 CPRI4		GAMMA
		WHITE	2	A	WHITE					

TRUNK COLOR CODE	PAIR #	AIR/RRU END		RBS END		RADIO (TECHNOLOGY)	AIR/RRU END COLOR CODE	RBS END FIBER LABELS		SECTOR
		ODC	PIN	PIN	LC BOOT					
RED 2	1	RED	1	B	RED	Radio 4480 B71+B85A CPRI1	RED 2 + LC Boot Color	Alpha L700/L600 CPRI1		ALPHA
			2	A						
	2	GREEN	1	B	GREEN	Radio 4480 B71+B85A CPRI2	RED 2 + LC Boot Color	Alpha N600 CPRI2		ALPHA
			2	A						
	3	BLUE	1	B	BLUE	Radio 4480 B71+B85A CPRI1	YELLOW 2 + LC Boot Color	Beta L700/L600 CPRI1		BETA
			2	A						
	4	YELLOW	1	B	YELLOW	Radio 4480 B71+B85A CPRI2	YELLOW 2 + LC Boot Color	Beta N600 CPRI2		BETA
			2	A						
	5	WHITE	1	B	WHITE	Radio 4480 B71+B85A CPRI1	BLUE 2 + LC Boot Color	Gamma L700/L600 CPRI1		GAMMA
			2	A						
	6	BLACK	1	B	BLACK	Radio 4480 B71+B85A CPRI2	BLUE 2 + LC Boot Color	Gamma N600 CPRI2		GAMMA
			2	A						
	7	RED	1	B	RED					
		WHITE	2	A	WHITE					
	8	GREEN	1	B	GREEN					
		WHITE	2	A	WHITE					
	9	BLUE	1	B	BLUE					
		WHITE	2	A	WHITE					
	10	YELLOW	1	B	YELLOW					
		WHITE	2	A	WHITE					
	11	WHITE	1	B	WHITE					
		WHITE	2	A	WHITE					
	12	BLACK	1	B	BLACK					
		WHITE	2	A	WHITE					

TRUNK COLOR CODE	PAIR #	AIR/RRU END		RBS END		RADIO (TECHNOLOGY)	AIR/RRU END COLOR CODE	RBS END FIBER LABELS		SECTOR
		ODC	PIN	PIN	LC BOOT					
RED 3	1	RED	1	B	RED	Radio 4460 B25+B66 (G19 CPRI1)	RED 3 + LC Boot Color	DELTA B2 G19 CPRI1		DELTA
			2	A						
	2	GREEN	1	B	GREEN	Radio 4460 B25+B66 (L19 CPRI2)	RED 3 + LC Boot Color	DELTA B25 L19 CPRI2		DELTA
			2	A						
	3	BLUE	1	B	BLUE	Radio 4460 B25+B66 (L21 CPRI3)	YELLOW 3 + LC Boot Color	DELTA B66 L21 CPRI3		DELTA
			2	A						
	4	YELLOW	1	B	YELLOW	Radio 4460 B25+B66 (L21 CPRI4)	YELLOW 3 + LC Boot Color	DELTA B66 L21 CPRI4		DELTA
			2	A						
	5	WHITE	1	B	WHITE	Radio 4480 B71+B85A CPRI1	BLUE 3 + LC Boot Color	DELTA L700/L600 CPRI1		DELTA
			2	A						
	6	BLACK	1	B	BLACK	Radio 4480 B71+B85A CPRI2	BLUE 3 + LC Boot Color	DELTA N600 CPRI2		DELTA
			2	A						
	7	RED	1	B	RED					
		WHITE	2	A	WHITE					
	8	GREEN	1	B	GREEN					
		WHITE	2	A	WHITE					
	9	BLUE	1	B	BLUE					
		WHITE	2	A	WHITE					
	10	YELLOW	1	B	YELLOW					
		WHITE	2	A	WHITE					
	11	WHITE	1	B	WHITE					
		WHITE	2	A	WHITE					
	12	BLACK	1	B	BLACK					
		WHITE	2	A	WHITE					

DC Power							
PAIR #	REF HOOKUP	PIN LETTER	AIR/RRU END		RADIO (TECHNOLOGY)	SECTOR	SPD LABELS
1	-48	A	BLACK	RED	Radio 4460 B66aA	ALPHA	Alpha 4460 P1
	OV	B	RED				
2	-48	A	BLACK	GREEN	Radio 4460 B25	ALPHA	Alpha 4460 P2
	OV	B	RED				
3	-48	A	BLACK	BLUE	Radio 4460 B66aA	BETA	Beta 4460 P1
	OV	B	RED				
4	-48	A	BLACK	YELLOW	Radio 4460 B25	BETA	Beta 4460 P2
	OV	B	RED				
5	-48	A	BLACK	WHITE	Radio 4460 B66aA	GAMMA	Gamma 4460 P1
	OV	B	RED				
6	-48	A	BLACK	BLACK	Radio 4460 B25	GAMMA	Gamma 4460 P2
	OV	B	RED				

PAIR #	REF HOOKUP	PIN LETTER	AIR/RRU END		RADIO	SECTOR	SPD LABELS
1	-48	A	BLACK	RED	Radio 4480	ALPHA	Alpha 4480
	OV	B	RED				
2	-48	A	BLACK	GREEN			
	OV	B	RED				
3	-48	A	BLACK	BLUE	Radio 4480	BETA	Beta 4480
	OV	B	RED				
4	-48	A	BLACK	YELLOW			
	OV	B	RED				
5	-48	A	BLACK	WHITE	Radio 4480	GAMMA	Gamma 4480
	OV	B	RED				
6	-48	A	BLACK	BLACK			
	OV	B	RED				

PAIR #	REF HOOKUP	PIN LETTER	AIR/RRU END		RADIO	SECTOR	SPD LABELS
1	-48	A	BLACK	RED	Radio 4460	ALPHA	Delta 4460 P1
	OV	B	RED				
2	-48	A	BLACK	GREEN	Radio 4460	BETA	Delta 4460 P2
	OV	B	RED				
3	-48	A	BLACK	BLUE	Radio 4460	GAMMA	Delta 4480
	OV	B	RED				
4	-48	A	BLACK	YELLOW			
	OV	B	RED				
5	-48	A	BLACK	WHITE			
	OV	B	RED				
6	-48	A	BLACK	BLACK			
	OV	B	RED				

Alpha RF Jumper Color Code							
Radio 4460				Radio 4480			
port 1	port 2	port 3	port 4	port 1	port 2	port 3	port 4
RED 1	RED 2	RED 3	RED 4	RED 5	RED 6	RED 7	RED 8

Beta RF Jumper Color Code							
Radio 4460				Radio 4480			
port 1	port 2	port 3	port 4	port 1	port 2	port 3	port 4
YELLOW 1	YELLOW 2	YELLOW 3	YELLOW 4	YELLOW 5	YELLOW 6	YELLOW 7	YELLOW 8

Gamma RF Jumper Color Code							
Radio 4460				Radio 4480			
port 1	port 2	port 3	port 4	port 1	port 2	port 3	port 4
BLUE 1	BLUE 2	BLUE 3	BLUE 4	BLUE 5	BLUE 6	BLUE 7	BLUE 8

Delta RF Jumper Color Code							
Radio 4460				Radio 4480			
port 1	port 2	port 3	port 4	port 1	port 2	port 3	port 4
GREEN 1	GREEN 2	GREEN 3	GREEN 4	GREEN 5	GREEN 6	GREEN 7	GREEN 8

ENGINEER

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TOTALLY COMMITTED.
NB+C ENGINEERING SERVICES, LLC.
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GLEN ALLEN, VA 23059
(804) 548-4079

T-Mobile
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NORFOLK, VA 23510
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VA72505A
RIO ROAD EAST (DUNLORA)
NB+C PROJECT #100838
1225 EAST RIO ROAD
CHARLOTTESVILLE, VA 22901
ALBEMARLE COUNTY

REVISIONS			
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1	06/14/22	RFDS	JQG
0	03/14/22	FINAL CDs	LTA
A	03/09/22	PRELIMINARY CDs	CDE
REV	DATE	DESCRIPTION	BY



TRENT T. SNARR, P.E.
VA PROFESSIONAL ENGINEER LIC. #49978

**HYBRID COLOR
CODES**

A-6

Shentel Keep Hybrid Plumbing (4) 6x24 Hybrids										
TRUNK COLOR CODE	PAIR #	AIR/RRU END		RBS END		RADIO (TECHNOLOGY)	AIR/RRU END COLOR CODE	RBS END FIBER LABELS	SECTOR	
		ODC	PIN	PIN	LC BOOT					
RED 4	1	RED		1 B	RED	AIR 6449 (L41 CPRI 1)	RED 1 + LC Boot Color	ALPHA L41 CPRI1	ALPHA	
				2 A						
	2	GREEN		1 B	GREEN	AIR 6449 (L41 CPRI 2)	RED 1 + LC Boot Color	ALPHA L41 CPRI2	ALPHA	
				2 A						
	3	BLUE		1 B	BLUE	AIR 6449 (N41 CPRI 3)	RED 1 + LC Boot Color	ALPHA N41 CPRI3	ALPHA	
				2 A						
	4	YELLOW		1 B	YELLOW	AIR 6449 (N41 CPRI 4)	RED 1 + LC Boot Color	ALPHA N41 CPRI4	ALPHA	
				2 A						
	5	WHITE		1 B	WHITE	AIR 6449 (L41 CPRI 1)	YELLOW 1 + LC Boot Color	BETA L41 CPRI1	BETA	
				2 A						
	6	BLACK		1 B	BLACK	AIR 6449 (L41 CPRI 2)	YELLOW 1 + LC Boot Color	BETA L41 CPRI2	BETA	
				2 A						
	7	RED	WHITE	1 B	RED	WHITE	YELLOW 1 + LC Boot Color	BETA N41 CPRI3	BETA	
				2 A						
	8	GREEN	WHITE	1 B	GREEN	WHITE	YELLOW 1 + LC Boot Color	BETA N41 CPRI4	BETA	
				2 A						
	9	BLUE	WHITE	1 B	BLUE	WHITE	BLUE 1 + LC Boot Color	GAMMA L41 CPRI1	GAMMA	
				2 A						
	10	YELLOW	WHITE	1 B	YELLOW	WHITE	BLUE 1 + LC Boot Color	GAMMA L41 CPRI2	GAMMA	
				2 A						
	11	WHITE	WHITE	1 B	WHITE	WHITE	BLUE 1 + LC Boot Color	GAMMA N41 CPRI3	GAMMA	
				2 A						
	12	BLACK	WHITE	1 B	BLACK	WHITE	BLUE 1 + LC Boot Color	GAMMA N41 CPRI4	GAMMA	
				2 A						

DC Power							
PAIR #	REF HOOKUP	PIN LETTER	AIR/RRU END		RADIO (TECHNOLOGY)	SECTOR	SPD LABELS
1	-48	A	BLACK	RED	AIR 6449	ALPHA	Alpha L/N41
	OV	B	RED				
2	-48	A	BLACK	GREEN	AIR 6449	BETA	Beta L/N41
	OV	B	RED				
3	-48	A	BLACK	BLUE	AIR 6449	Gamma	Gamma L/N41
	OV	B	RED				
4	-48	A	BLACK	YELLOW			
	OV	B	RED				
5	-48	A	BLACK	WHITE			
	OV	B	RED				
6	-48	A	BLACK	BLACK			
	OV	B	RED				

1

A-7

HYBRID COLOR CODE DETAIL

NOT TO SCALE

ENGINEER

APPLICANT

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ENGINEER

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VA72505A
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1225 EAST RIO ROAD
CHARLOTTESVILLE, VA 22901
ALBEMARLE COUNTY

REVISIONS

3	10/24/22	REVISED	CCC
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1	06/14/22	RFDS	JQG
0	03/14/22	FINAL CDs	LTA
A	03/09/22	PRELIMINARY CDs	CDE
REV	DATE	DESCRIPTION	BY

COMMONWEALTH OF VIRGINIA

TRENT TRAVIS SNARR

Lic. No. 049978

DATE 10/24/22

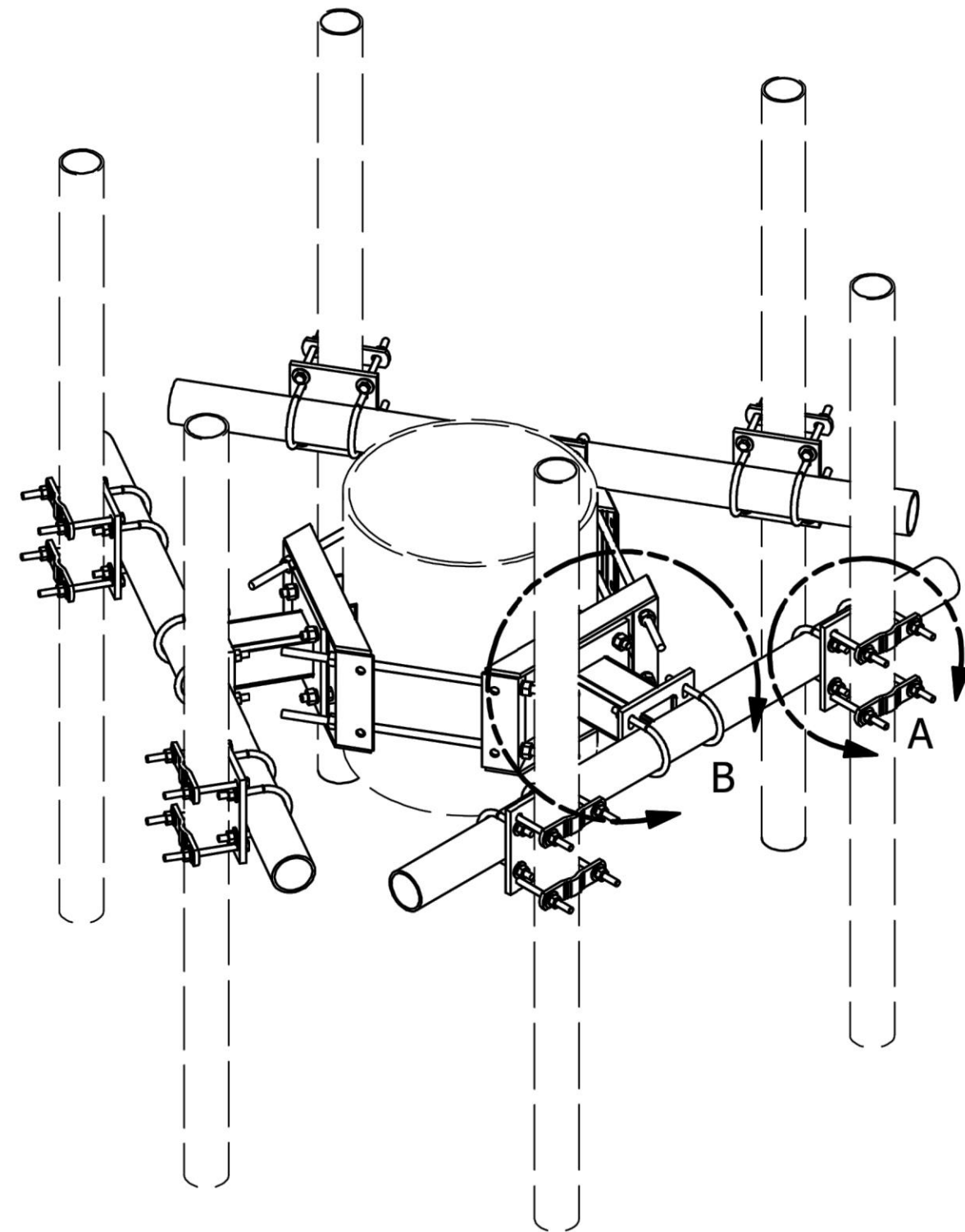
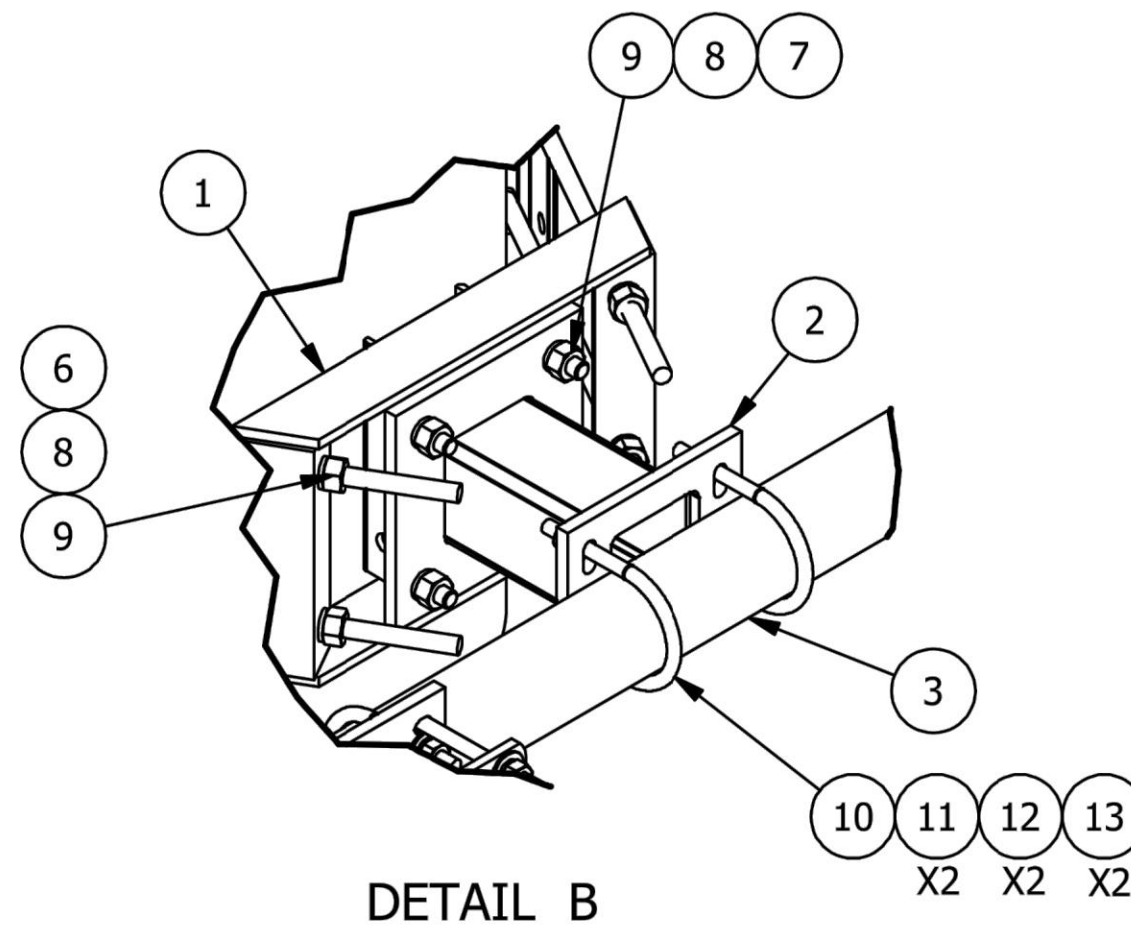
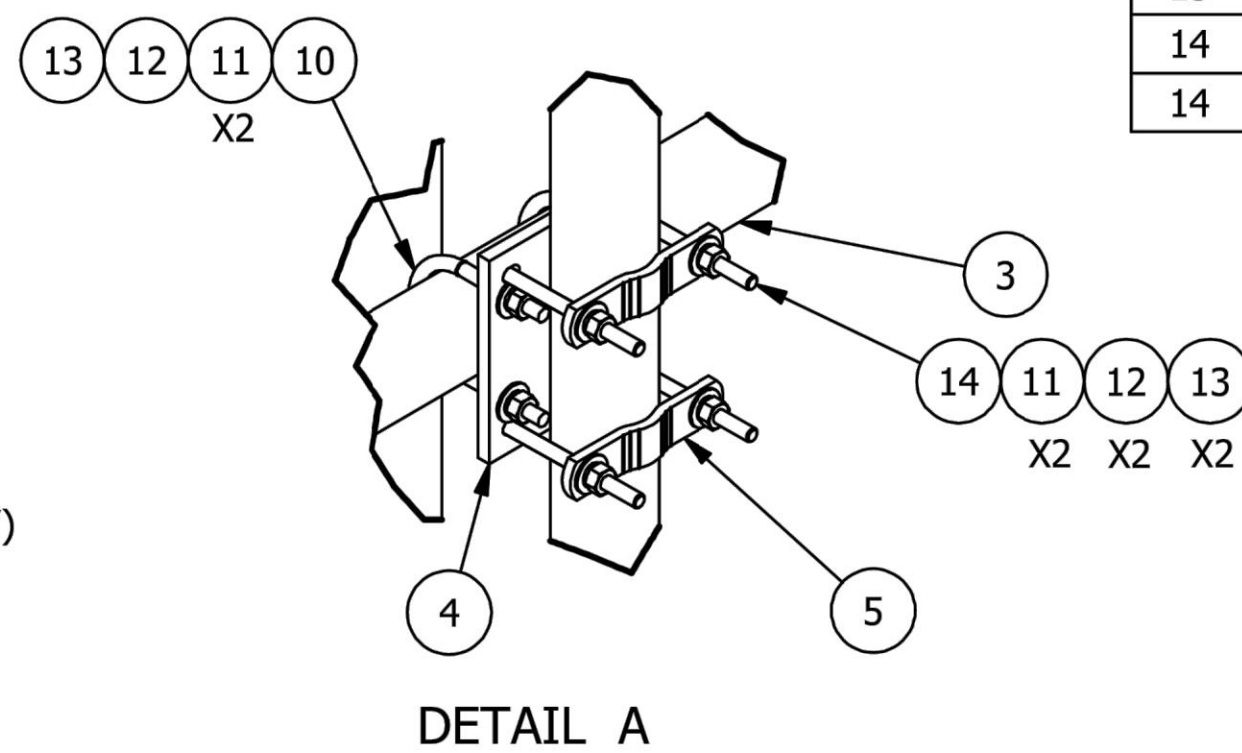
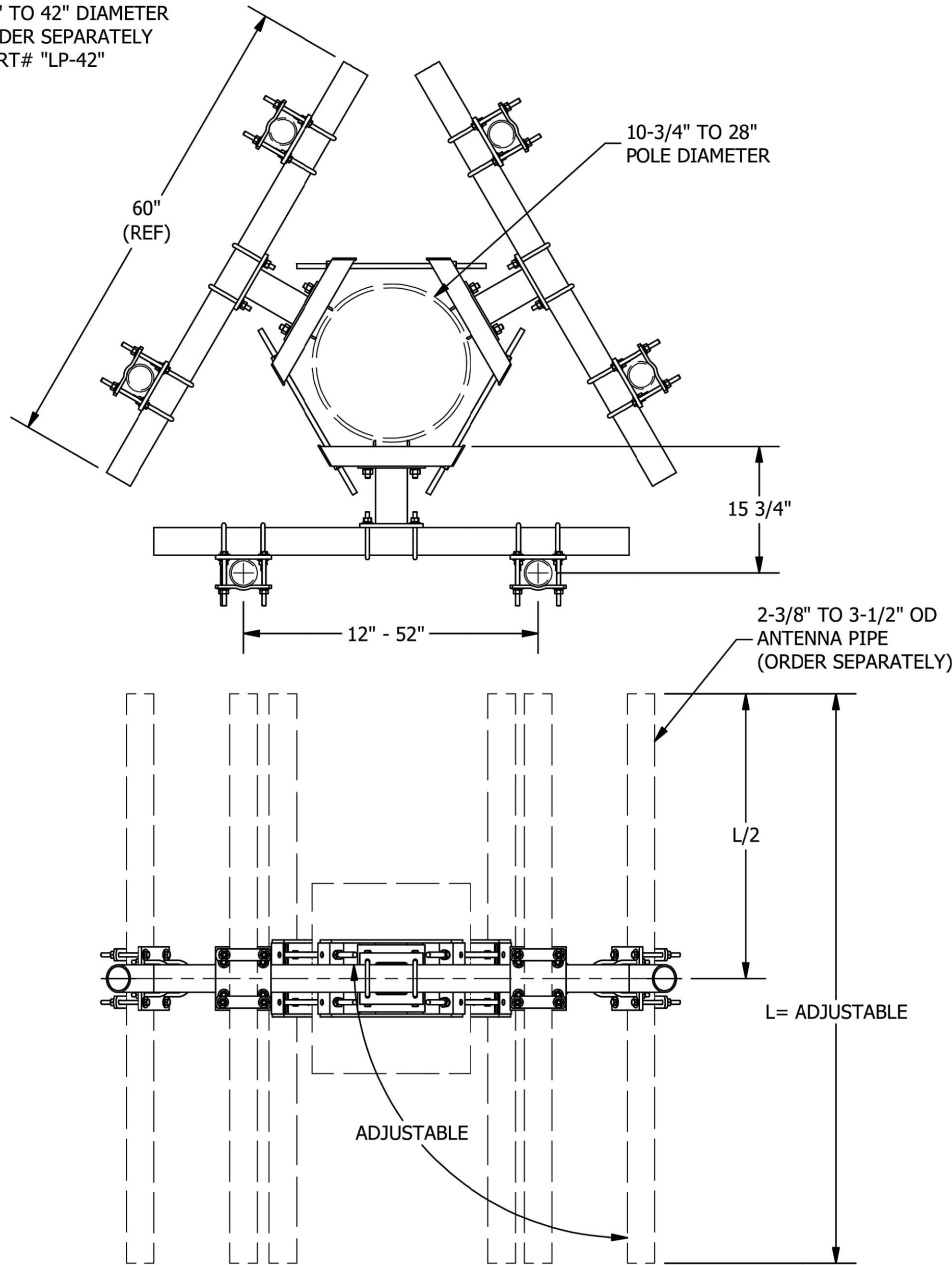
PROFESSIONAL ENGINEER

TRENT T. SNARR, P.E.
VA PROFESSIONAL ENGINEER LIC. #49978

HYBRID COLOR CODES

A-7

NOTE:
FOR POLE SIZES
28" TO 42" DIAMETER
OPDER SEPARATELY
PART# "LP-42"



PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	3	X-UGLM	MINI RING MOUNT WELDMENT		21.67	65.00
2	3	X-WWM01	8" STAND-OFF ARM / WALL MOUNT		18.12	54.37
3	3	P360	3-1/2" X 60" (3" SCH 40) GALVANIZED PIPE	60 in	37.97	113.90
4	6	SCX7	CROSSOVER PLATE	8 in	7.55	45.29
5	12	X-115765	5" V-CLAMP	7 1/16 in	1.03	12.31
6	6	G58R-14	5/8" x 14" THREADED ROD (HDG.)	14 in	0.40	2.39
6	6	G58R-24	5/8" x 24" THREADED ROD (HDG.)	24 in	0.40	2.39
7	12	G5802	5/8" x 2" HDG HEX BOLT GR5	2 in	0.27	3.24
8	24	G58LW	5/8" HDG LOCKWASHER		0.03	0.63
9	24	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	3.12
10	18	X-UB1358	1/2" X 3-5/8" x 5-1/2" X 3" U-BOLT	5 1/2 in	0.77	13.90
11	84	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	2.86
12	60	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	0.83
13	60	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	4.30
14	24	G12065	1/2" x 6-1/2" HDG HEX BOLT GR5 FULL THREAD	6 1/2 in	0.41	9.83
14	24	G12045	1/2" x 4.5" HDG HEX BOLT GR5 FULL THREAD	4 1/2 in	0.30	7.15
TOTAL WT. #						356.53

A	REDRAWN IN INV.		KC8	8/27/2012	
REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE	
REVISION HISTORY					

<div>TOLERANCE NOTES</div> <div>TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE: SAWED, SHEARED AND GAS CUT EDGES (± 0.030") DRILLED AND GAS CUT HOLES (± 0.030") - NO CONING OF HOLES LASER CUT EDGES AND HOLES (± 0.010") - NO CONING OF HOLES BENDS ARE ± 1/2 DEGREE ALL OTHER MACHINING (± 0.030") ALL OTHER ASSEMBLY (± 0.060")</div> <div>PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.</div>				<div>DESCRIPTION</div> <div>DUAL ANTENNA POLE MOUNT ASSEMBLY 15-3/4" STANDOFF 10-3/4" TO 28" MONOPOLE DIAMETER</div>				<div><div><div><div>SITE PRO</div><div>1</div></div><div>A valmont COMPANY</div></div><div>Locations: New York, NY Atlanta, GA Los Angeles, CA Plymouth, IN Salem, OR Dallas, TX</div><div>Engineering Support Team: 1-888-753-7446</div></div>			
CPD NO.		DRAWN BY		ENG. APPROVAL		PART NO.		1 OF 1 PAGE			
		BMC 1/24/2011				UDS-NP					
CLASS	SUB	DRAWING USAGE		CHECKED BY		DWG. NO.					
81	01	CUSTOMER		CEK 8/27/2012		UDS-NP					

ENGINEER

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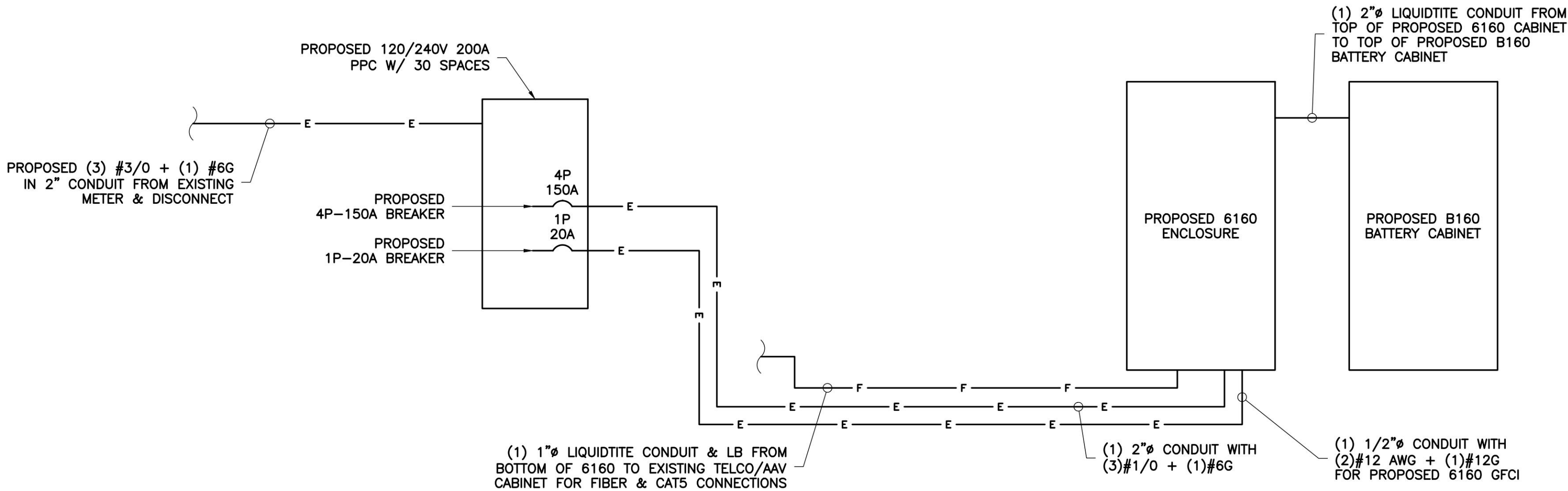
VA72505A
RIO ROAD EAST (DUNLORA)
NB+C PROJECT #100838
1225 EAST RIO ROAD
CHARLOTTESVILLE, VA 22901
ALBEMARLE COUNTY

REVISIONS

TRENT T. SNARR, P.E.
VA PROFESSIONAL ENGINEER LIC. #49978

ANTENNA
MOUNT DETAILS

A-8



1
E-1

POWER DIAGRAM
NOT TO SCALE

NOTE:
PANEL SCHEDULE IS SHOWN WITH PROPOSED CIRCUITS ONLY. EXISTING 12 SPACE PPC DOES NOT HAVE ADEQUATE SPACE. AFTER CUT OVER, ALL REMAINING ACTIVE CIRCUITS TO BE MIGRATED TO PROPOSED PPC & EXISTING PPC TO BE REMOVED.

PPC PANEL													
MAIN BREAKER RATING (A):			200		SYSTEM VOLTAGE (V):			240		PHASE: 1 WIRE: 3 BRANCH CB: 30			
C K T	CIRCUIT DESCRIPTION	WATTAGE		POLE	B R K	LOAD PER PHASE		B R K	POLE	WATTAGE		CIRCUIT DESCRIPTION	C K T
		C	NC			A	B			NC	C		
1	TVSS	0	0	2	60	0				0	0		2
3		0	0				0		0	0		4	
5	*6160 CABINET	0	6125	4	150	6125				0	0		6
7		0	6125				6125		0	0		8	
9		0	6125			6125		0	0		10		
11		0	6125				6125		0	0		12	
13	**6160 GFCI	0	180	1	20	180				0	0		14
15		0	0				0			0	0		16
17		0	0			0				0	0		18
19		0	0				0			0	0		20
21		0	0			0				0	0		22
23		0	0				0			0	0		24
25		0	0			0				0	0		26
27		0	0				0			0	0		28
29		0	0			0				0	0		30
						TOTAL LOADS PER PHASE							
						12430	12250						
						SUBTOTAL CONTINUOUS		125% TOTAL CONTINUOUS (VA)		0			
						0		100% TOTAL NON-CONTINUOUS (VA)		24680			
						SUBTOTAL NON-CONTINUOUS		TOTAL AMPS		102.83			
						24680		TOTAL CONNECTED LOAD (KVA)		24.68			
								SPARE CAPACITY (A)		97.17			
NOTES													
*INSTALL (1) NEW 4P-150A BREAKER FOR PROPOSED 6160													
**INSTALL (1) NEW 1P-20A BREAKER FOR PROPOSED 6160 GFCI													
***WATTAGE SHOWN FOR PROPOSED EQUIPMENT CABINET(S) ARE BASED ON THE CONNECTED EQUIPMENT PER THE LATEST RFDS													

2
E-1

PROPOSED PANEL SCHEDULE
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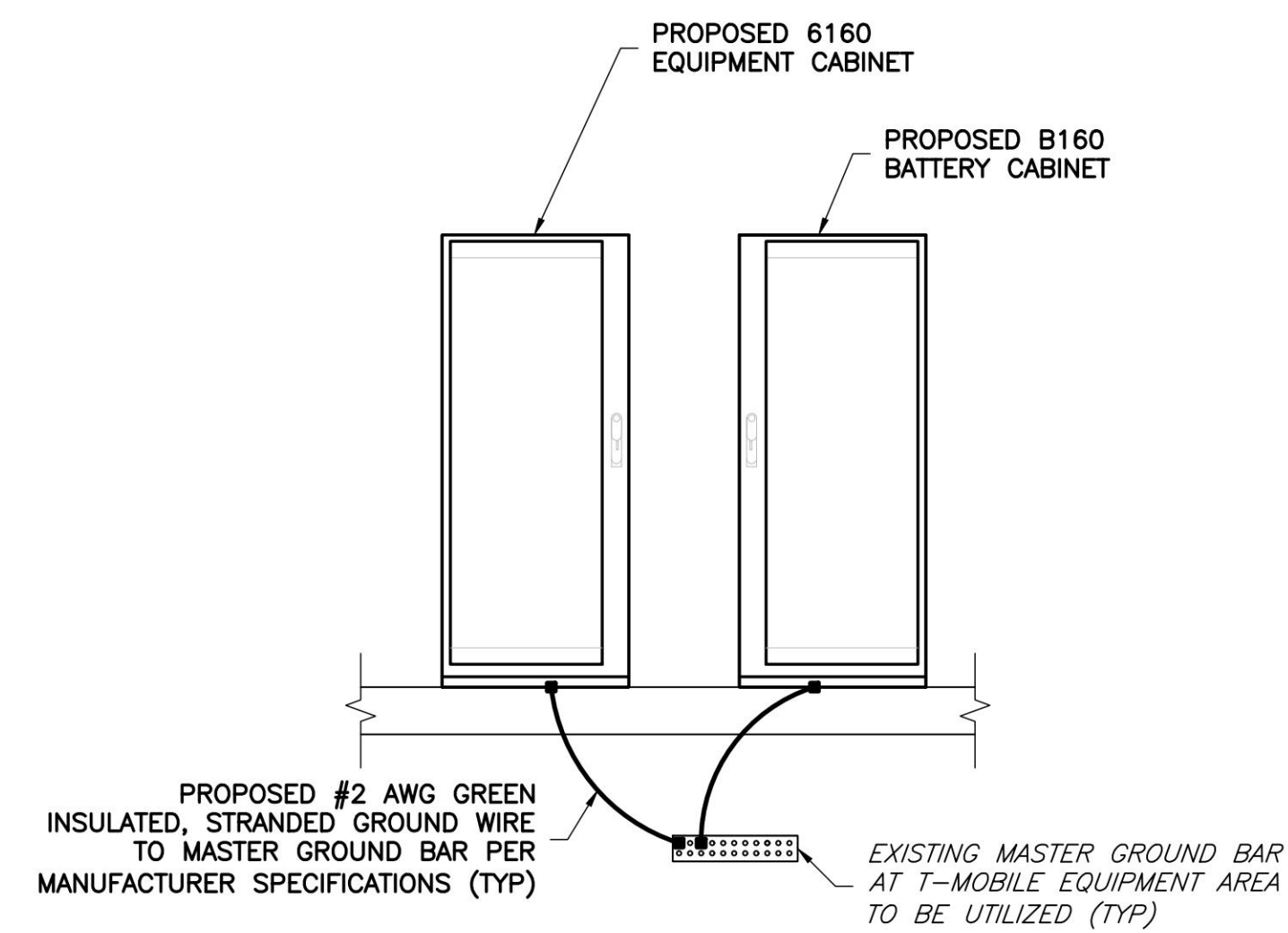
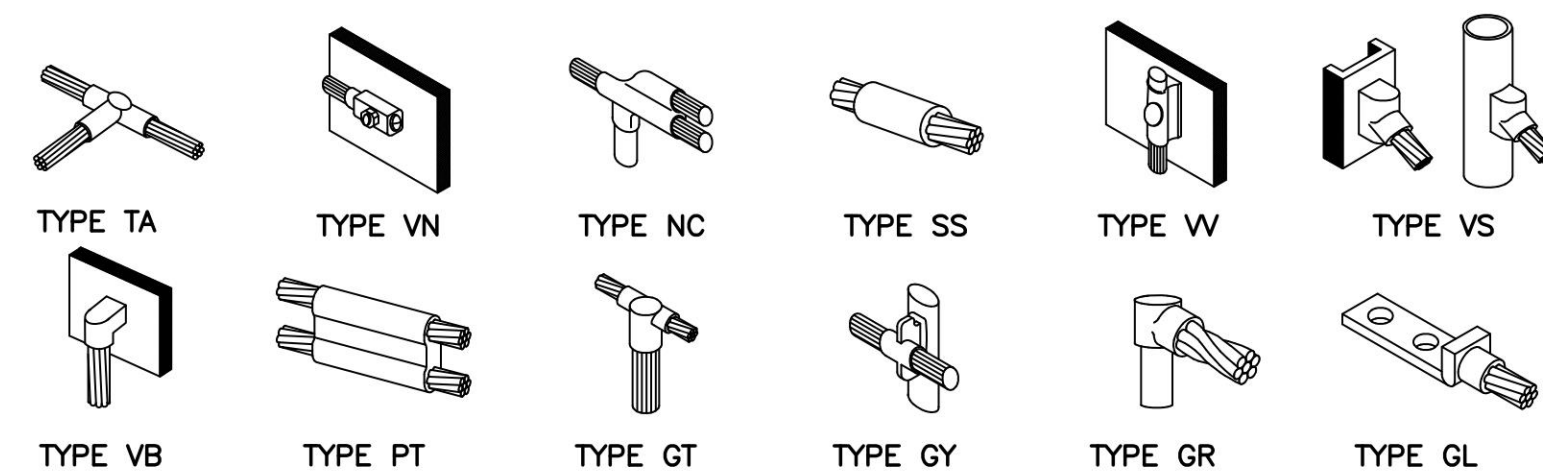
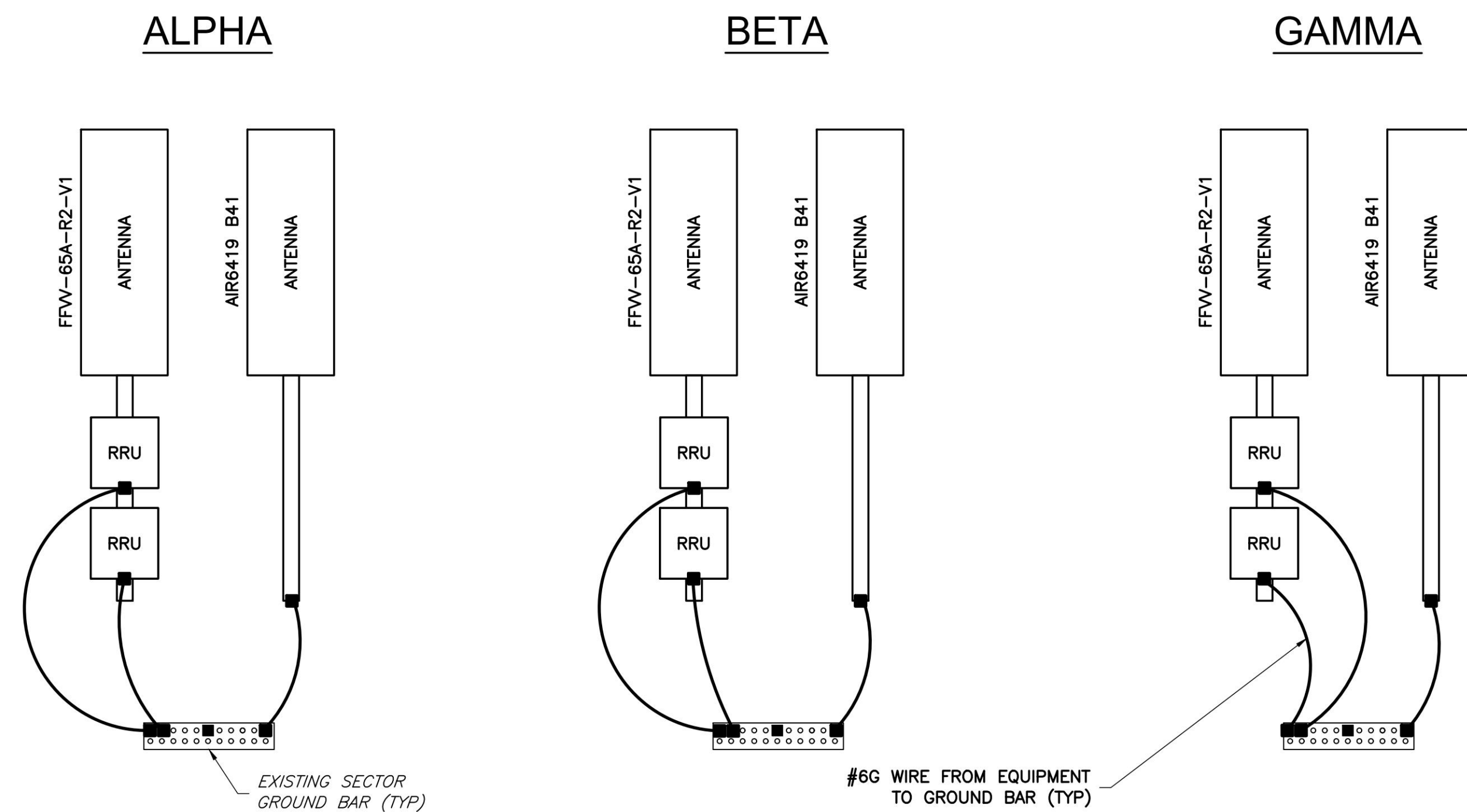
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TRENT T. SNARR, P.E.
VA PROFESSIONAL ENGINEER LIC. #49978

**ELECTRICAL
DETAILS**

E-1



GROUNDING LEGEND	
■	MECHANICAL COMPRESSION CONNECTION
▲	CADWELD CONNECTION
●	EXOTHERMIC WELD CONNECTION
—————	PROPOSED GROUND WIRING
- - - - -	EXISTING GROUND WIRING

ENGINEER



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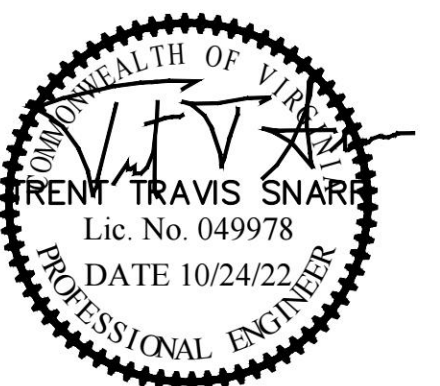
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PROFESSIONAL STAMP



ENGINEER

TRENT T. SNARR, P.E.
VA PROFESSIONAL ENGINEER LIC. #49978

SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER

G-1