



E911 ADDRESS YES ☐ NO ☒

INSTALLATION AND OPERATION OF ANTENNAS AND ASSOCIATED EQUIPMENT IN AN EXISTING WIRELESS COMPOUND

CALL BEFORE YOU DIG

A red circular sign with a diagonal slash over a black silhouette of a shovel and a wheelbarrow, indicating that digging is prohibited.

CALL 911

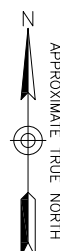
JURISDICTION: ALBEMARLE COUNTY
LOCAL FIRE AND RESCUE: (434) 977-9041
LOCAL POLICE: (434) 296-5833

CONSTRUCTION DRAWINGS

1	06/30/26	POWER PATH AND FENCE
0	06/23/26	FOR CONSTRUCTION



N.T.S



N.T.S

PROJECT SUMMARY

<u>PROPERTY OWNER:</u>	<u>TOWER OWNER:</u>
ROY THOMAS III AND	HARMONI TOWERS LLC
LISA M. FITZGERALD	11101 ANDERSON DRIVE
2415 SOUTHSIDE DR	SUITE 200
NORTH GARDEN, VA 22959	LITTLE ROCK, AR 72212

PROJECT INFO:
CANDIDATE NAME: RED HILL
FUZE PROJECT ID: 17565444

APPLICANT INFO:
VERIZON WIRELESS
1831 RADY COURT
RICHMOND, VA 23222
PHONE: 804.543.7313
CONTACT: STEVEN FANSHAW

PROJECT DATA:
ZONING: RURAL AREAS/ENTRANCE CORRIDORS OVERLAY
PARCEL ID: 087000000022E0
ACREAGE: 5.01 AC (CALCULATED)
JURISDICTION: ALBEMARLE COUNTY
SITE TYPE: COLOCATION
TOWER TYPE: MONOPOLE
TOWER HEIGHT: +105' AGL
OVERALL HEIGHT: +107' AGL
PREMISES: 500 SF
AREA OF DISTURBANCE: 580 SF

CENTER OF EXISTING TOWER*:
 LATITUDE: 37° 58' 06.81" N / 37.968558
 LONGITUDE: 78° 38' 00.89" W / -78.633581
 GROUND ELEVATION: ±717.1' AMSL
 *PER FAA 1-A SURVEY CERTIFICATION PREPARED BY POINT TO
 POINT LAND SURVEYORS, INC. DATED MARCH 10, 2026

- BY THE GOVERNING AUTHORITIES:
- 2021 INTERNATIONAL BUILDING CODE (IBC)
- 2020 NATIONAL ELECTRIC CODE (NEC)
- 2018 NFPA 101, LIFE SAFETY CODE
- MANUAL OF STEEL CONSTRUCTION, 14th EDITION
- AMERICAN CONCRETE INSTITUTE
- ANSI/TIA-222-H
- ANTENNA SUPPORTING STRUCTURES AND ANTENNAS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE IBC 2021 SECTION 1609 WIND LOADS, EXCEPTION #5 REFERENCING TIA-222
- LOCAL BUILDING CODE
- CITY/COUNTY ORDINANCES

A.D.A. COMPLIANCE: FACILITY IS UNMANNED
AND NOT FOR HUMAN HABITATION.

INDEX OF DRAWINGS

[illegible]

DRAWN BY: LMW

REVIEWED BY:	JYY
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CHECKED BY: HGS

PROJECT NUMBER:	50190722
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SITE ADDRESS:

2415 SOUTHSIDE DRIVE
NORTH GARDEN, VA 22959

SHEET TITLE

TITLE
SHEET

SHEET NUMBER

T-1

GENERAL CONSTRUCTION NOTES:

1. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH VERIZON WIRELESS SPECIFICATIONS.
2. CONTRACTOR SHALL CONTACT "MISS UTILITY" (1-800-552-7001) FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
4. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
5. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
6. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
7. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
9. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
10. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE OWNER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO PROCEEDING.
11. EACH CONTRACTOR SHALL COOPERATE WITH THE OWNER'S REPRESENTATIVE, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
12. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE VERIZON WIRELESS CONSTRUCTION MANAGER.
13. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
14. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR WILL NOTIFY ENGINEER, VERIZON WIRELESS PROJECT CONSTRUCTION MANAGER, AND LANDLORD IMMEDIATELY.
15. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
16. ALL ROOF WORK SHALL BE DONE BY A QUALIFIED AND EXPERIENCED ROOFING CONTRACTOR IN COORDINATION WITH ANY CONTRACTOR WARRANTING THE ROOF TO ENSURE THAT THE WARRANTY IS MAINTAINED.
17. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
18. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH LANDLORD AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
19. CONTRACTOR SHALL FURNISH VERIZON WIRELESS WITH THREE AS-BUILT SETS OF DRAWINGS UPON COMPLETION OF WORK.
20. ANTENNAS AND CABLES ARE TYPICALLY PROVIDED BY VERIZON WIRELESS. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON WIRELESS PROJECT MANAGER TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED BY VERIZON WIRELESS. ALL ITEMS NOT PROVIDED BY VERIZON WIRELESS SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED BY VERIZON WIRELESS.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR WILL COORDINATE WITH VERIZON WIRELESS PROJECT MANAGER TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY VERIZON WIRELESS. ALL REQUIRED PERMITS NOT OBTAINED BY VERIZON WIRELESS MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
22. GENERAL CONTRACTOR SHALL HAVE A LICENSED HVAC CONTRACTOR START THE HVAC UNITS, SYNCHRONIZE THE THERMOSTATS, ADJUST ALL SETTINGS ON EACH UNIT ACCORDING TO VERIZON WIRELESS CONSTRUCTION MANAGER'S SPECIFICATIONS, AND THOROUGHLY TEST AND BALANCE EACH UNIT TO ENSURE PROPER OPERATION PRIOR TO TURNING THE SITE OVER TO OWNER.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH VERIZON WIRELESS SPECIFICATIONS AND REQUIREMENTS.
24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. UNLESS OTHERWISE NOTED VERIZON WIRELESS SHALL PROVIDE ALL REQUIRED RF MATERIAL FOR CONTRACTOR TO INSTALL, INCLUDING ANTENNAS, TMA'S, BIAS-T'S, COMBINERS, PDU, DC BLOCKS, SURGE ARRESTORS, GPS ANTENNA, GPS SURGE ARRESTOR, COAXIAL CABLE.
26. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL VERIFY ALL EQUIPMENT TO BE PROVIDED BY VERIZON WIRELESS FOR INSTALLATION BY CONTRACTOR.
27. CONTRACTOR SHALL FURNISH AND INSTALL ANTENNA PLATFORM.
28. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO VERIZON WIRELESS SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
29. EQUIPMENT CABINET FRAME/SHELTER SHALL BE ANCHORED TO FOUNDATION PER MANUFACTURER'S SPECIFICATIONS AND IN ACCORDANCE WITH THE VIRGINIA STATE BUILDING CODE.
30. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER CONTRACT.
31. CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF 48 HOURS IN ADVANCE PRIOR TO CONSTRUCTION START, MORE SPECIFICALLY BEFORE; SEALING ANY FLOOR, WALL OR ROOF PENETRATION, FINAL UTILITY CONNECTIONS, POURING CONCRETE, BACKFILLING UTILITY TRENCHES AND STRUCTURAL POST OR MOUNTING CONNECTIONS, FOR ENGINEERING REVIEW AND INSPECTION.

32. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
33. DETECTION WIRE SHALL BE BURIED DIRECTLY ABOVE NON-METALLIC PIPING AT A DISTANCE NOT TO EXCEED TWELVE (12) INCHES ABOVE THE TOP OF PIPE. THE WIRE SHALL EXTEND CONTINUOUSLY AND UNBROKEN FROM POINT OF ACCESS TO POINT OF ACCESS. THE ENDS OF THE WIRE SHALL TERMINATE WITH A MINIMUM OF THREE (3) FEET OF WIRE, COILED, REMAINING ACCESSIBLE AT TERMINATION POINTS. DETECTION WIRE SHALL BE 12 GAUGE FOR A BURIED DEPTH OF LESS THAN 4 FEET AND 4 GAUGE FOR A BURIED DEPTH GREATER THAN OR EQUAL TO 4 FEET.

STRUCTURAL NOTES:

1. AS REQUIRED UNDER THE STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNA, ANSI/TIA-222-H, TOWER OWNER SHALL PROVIDE A STRUCTURAL ANALYSIS OF THE TOWER PREPARED BY A LICENSED STRUCTURAL ENGINEER (LICENSED IN THE PROJECT STATE) CERTIFYING THAT THE TOWER AND ANY REQUIRED IMPROVEMENTS AND REINFORCEMENTS HAVE SUFFICIENT CAPACITY TO SUPPORT ALL FUTURE ANTENNAS, SUPPORTS AND APPURTENANCES AND COMPLIES WITH THE CURRENT STATE BUILDING CODE AND EIA/TIA CRITERIA. THE CONTRACTOR IS RESPONSIBLE TO CONFIRM THAT ANY IMPROVEMENTS AND REINFORCEMENTS REQUIRED BY THE STRUCTURAL ANALYSIS CERTIFICATION ARE PROPERLY INSTALLED PRIOR TO THE ADDITION OF FUTURE ANTENNAS, SUPPORTS AND APPURTENANCES SHOWN ON THESE DRAWINGS OR OTHERWISE NOTED IN THE STRUCTURAL ANALYSIS.
2. FOR STRUCTURAL MODIFICATIONS REQUIRING FIELD WELDING; THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS AND IMPLEMENTING ALL INDUSTRY STANDARDS FOR PROTECTION OF ALL EXISTING PROPERTY AND PERSONNEL FOR DAMAGE OR HARM. ALL PROPERTY DAMAGED DURING CONSTRUCTION OF THIS PROJECT SHALL BE REPLACED OR REPAIRED TO THE SATISFACTION OF THE OWNER.

FOUNDATION NOTES:

1. BEAR NEW FOUNDATION ON EXISTING SOIL. REMOVE ANY LOOSE FILL AND ORGANIC MATERIAL. PROOF COMPACT PREPARED FOOTING BOTTOM WITH MINIMUM OF 4 PASSES OF A VIBRATORY PLATE COMPACTOR. REMOVE ANY LOOSE OR SOFT AREAS AND REPLACE WITH STRUCTURAL FILL.
2. STRUCTURAL FILL MATERIAL BENEATH SLABS-ON-GRADE SHALL CONSIST OF WELL-GRADED GRANULAR SOIL WITH LESS THAN 15% NON-PLASTIC FINES AND A MAXIMUM PARTICLE SIZE OF 4-INCHES. FILL SHOULD BE PLACED IN MAXIMUM LIFT HEIGHTS OF 8-INCHES (LOOSE) AND COMPACTED TO 95% OF ITS MAXIMUM DRY DENSITY AT ±2% OF OPTIMUM MOISTURE CONTENT AS DETERMINED BY THE STANDARD PROCTOR TEST.
3. FOUNDATION SHALL BE LOCATED ON SOIL WITH A MINIMUM BEARING CAPACITY OF 2000 PSF (e.g., UNITED SOIL CLASSIFICATION SYSTEM [ASTM DESIGNATION D-2487] GROUP SYMBOLS: GW, GP, GM, GC, SW, SP, SM, SC). ENGINEER SHALL BE NOTIFIED IF SOIL BEARING CAPACITY IS LESS THAN 2000 PSF.

CONCRETE AND REINFORCING STEEL NOTES:

1. DESIGN AND CONSTRUCTION OF ALL CONCRETE ELEMENTS SHALL CONFORM TO THE LATEST EDITIONS OF ALL APPLICABLE CODES INCLUDING: ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", AND ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE".
2. MIX DESIGN SHALL BE APPROVED BY OWNER'S REPRESENTATIVE AND SUBMITTED TO ENGINEER PRIOR TO PLACING CONCRETE.
3. CONCRETE SHALL BE NORMAL WEIGHT, 6% AIR ENTRAINED (+/- 1.5%) WITH A MAXIMUM 4" SLUMP AND HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI UNLESS OTHERWISE NOTED.
4. THE FOLLOWING MATERIALS SHALL BE USED:
PORTLAND CEMENT: ASTM C-150, TYPE 1 OR 2
REINFORCEMENT: ASTM A-185, PLAIN STEEL WELDED WIRE FABRIC
REINFORCEMENT BARS: ASTM A615, GRADE 60, DEFORMED
NORMAL WEIGHT AGGREGATE: ASTM C-33
WATER: DRINKABLE
ADMIXTURES: NON-CHLORIDE CONTAINING
5. MINIMUM CONCRETE COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS (UNLESS OTHERWISE NOTED):
a. CONCRETE CAST AGAINST EARTH: 3"
b. ALL OTHER CONCRETE: 2"
6. A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE IN ACCORDANCE WITH ACI 301 SECTION 4.2.4, UNLESS NOTED OTHERWISE.
7. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL, OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR ENGINEERING APPROVAL WHEN DRILLING HOLES IN CONCRETE.
8. ADMIXTURES SHALL CONFORM TO THE APPROPRIATE ASTM STANDARD AS REFERENCED IN ACI 301.
9. DO NOT WELD OR TACK WELD REINFORCING STEEL.
10. ALL DOWELS, ANCHOR BOLTS, EMBEDDED STEEL, ELECTRICAL CONDUITS, PIPE SLEEVES, GROUNDS AND ALL OTHER EMBEDDED ITEMS AND FORMED DETAILS SHALL BE IN PLACE BEFORE START OF CONCRETE PLACEMENT.
11. REINFORCEMENT SHALL BE COLD BENT WHENEVER BENDING IS REQUIRED.
12. DO NOT PLACE CONCRETE IN WATER, ICE, OR ON FROZEN GROUND.
13. DO NOT ALLOW CONCRETE OR SUBBASE TO FREEZE DURING CONCRETE CURING AND SETTING PERIOD, OR FOR A MINIMUM OF 3 DAYS AFTER PLACEMENT.
14. FOR COLD-WEATHER AND HOT-WEATHER CONCRETE PLACEMENT, CONFORM TO APPLICABLE ACI CODES AND RECOMMENDATIONS. IN EITHER CASE, MATERIALS CONTAINING CHLORIDE, CALCIUM, SALTS, ETC. SHALL NOT BE USED. PROTECT FRESH CONCRETE FROM WEATHER FOR 7 DAYS, MINIMUM.
15. CONCRETE SHALL BE RUBBED TO A ROUGH GROUT FINISH. PADS SHALL BE SEALED BY STEEL TROWEL.
16. UNLESS OTHERWISE NOTED:
a. ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60.
b. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
17. SPLICING OF REINFORCEMENT IS PERMITTED ONLY AT LOCATIONS SHOWN IN THE CONTRACT DRAWINGS OR AS ACCEPTED BY THE ENGINEER. UNLESS OTHERWISE SHOWN OR NOTED REINFORCING STEEL SHALL BE SPLICED TO DEVELOP ITS FULL TENSILE CAPACITY (CLASS A) IN ACCORDANCE WITH ACI 318.
18. REINFORCING BAR DEVELOPMENT LENGTHS, AS COMPUTED IN ACCORDANCE WITH ACI 318, FORM THE BASIS FOR BAR EMBEDMENT LENGTHS AND BAR SPLICED LENGTHS SHOWN IN THE DRAWINGS. APPLY APPROPRIATE MODIFICATION FACTORS FOR TOP STEEL, BAR SPACING, COVER AND THE LIKE.
19. DETAILING OF REINFORCING STEEL SHALL CONFORM TO "ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" (ACI 315).
20. ALL SLAB CONSTRUCTION SHALL BE CAST MONOLITHICALLY WITHOUT HORIZONTAL CONSTRUCTION JOINTS, UNLESS SHOWN IN THE CONTRACT DRAWINGS.
21. LOCATION OF ALL CONSTRUCTION JOINTS ARE SUBJECT TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS, CONFORMANCE WITH ACI 318, AND ACCEPTANCE OF THE ENGINEER. DRAWINGS SHOWING LOCATION OF DETAILS OF THE PROPOSED CONSTRUCTION JOINTS SHALL BE SUBMITTED WITH REINFORCING STEEL PLACEMENT DRAWINGS
22. SPLICES OF WWF, AT ALL SPLICED EDGES, SHALL BE SUCH THAT THE OVERLAP MEASURED BETWEEN OUTERMOST CROSS WIRES OF EACH FABRIC SHEET IS NOT LESS THAN THE SPACING OF THE CROSS WIRE PLUS 2 INCHES, NOR LESS THAN 8".
23. BAR SUPPORTS SHALL BE ALL GALVANIZED METAL WITH PLASTIC TIPS.
24. ALL REINFORCEMENT SHALL BE SECURELY TIED IN PLACE TO PREVENT DISPLACEMENT BY CONSTRUCTION TRAFFIC OR CONCRETE. TIE WIRE SHALL BE 16 GAUGE CONFORMING TO ASTM A82.
25. SLAB ON GROUND
a. COMPACT STRUCTURAL FILL TO 95% DENSITY AND THEN PLACE 6" (COMPACTED) GRAVEL BENEATH SLAB.
b. PROVIDE VAPOR BARRIER BENEATH SLAB ON GROUND.

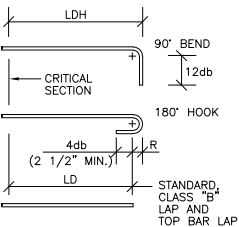
REBAR SPLICE AND HOOK SCHEDULE

REBAR SPLICE AND HOOK DIMENSIONS IN REINF. CONCRETE
F'c = 3,000 PSI

ASTM BAR SIZE	LD	CLASS B LAP	TOP BAR LAP	LDH
3	12"	13"	17"	8 1/2"
4	14"	18"	23"	11"
5	17"	22"	28"	14"
6	20"	26"	34"	16 1/2"
7	29"	38"	49"	19 1/2"
8	33"	43"	56"	22"

REBAR SPLICE AND HOOK DIMENSIONS IN REINF. CONCRETE
F'c = 4,000 PSI

ASTM BAR SIZE	LD	CLASS B LAP	TOP BAR LAP	LDH
3	12"	12"	16"	7 1/2"
4	12"	15"	20"	9 1/2"
5	15"	19"	24"	12"
6	18"	23"	29"	14 1/2"
7	25"	33"	43"	17"
8	29"	37"	49"	19"



LD - STANDARD DEVELOPMENT LENGTH OF BAR
LDH - STANDARD DEVELOPMENT LENGTH OF HOOK
F'c - SPECIFIED COMPRESSIVE STRENGTH OF CONCRETE
db - BAR DIAMETER PER ASTM

NOTES:

TOP BAR - DEFINED AS A BAR LOCATED SUCH THAT 12 IN. OR MORE OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE SPLICE.
MINIMUM OUTSIDE RADIUS OF BEND, R, SHALL BE 4db.



VERIZON WIRELESS
1831 RADY COURT
RICHMOND, VA 23222

RED HILL

CONSTRUCTION DRAWINGS

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Dewberry Engineers Inc.

4805 Lake Brook Drive, Suite 200
Glen Allen, VA 23060
Phone: 804.290.7957
Fax: 804.290.7928
www.dewberry.com



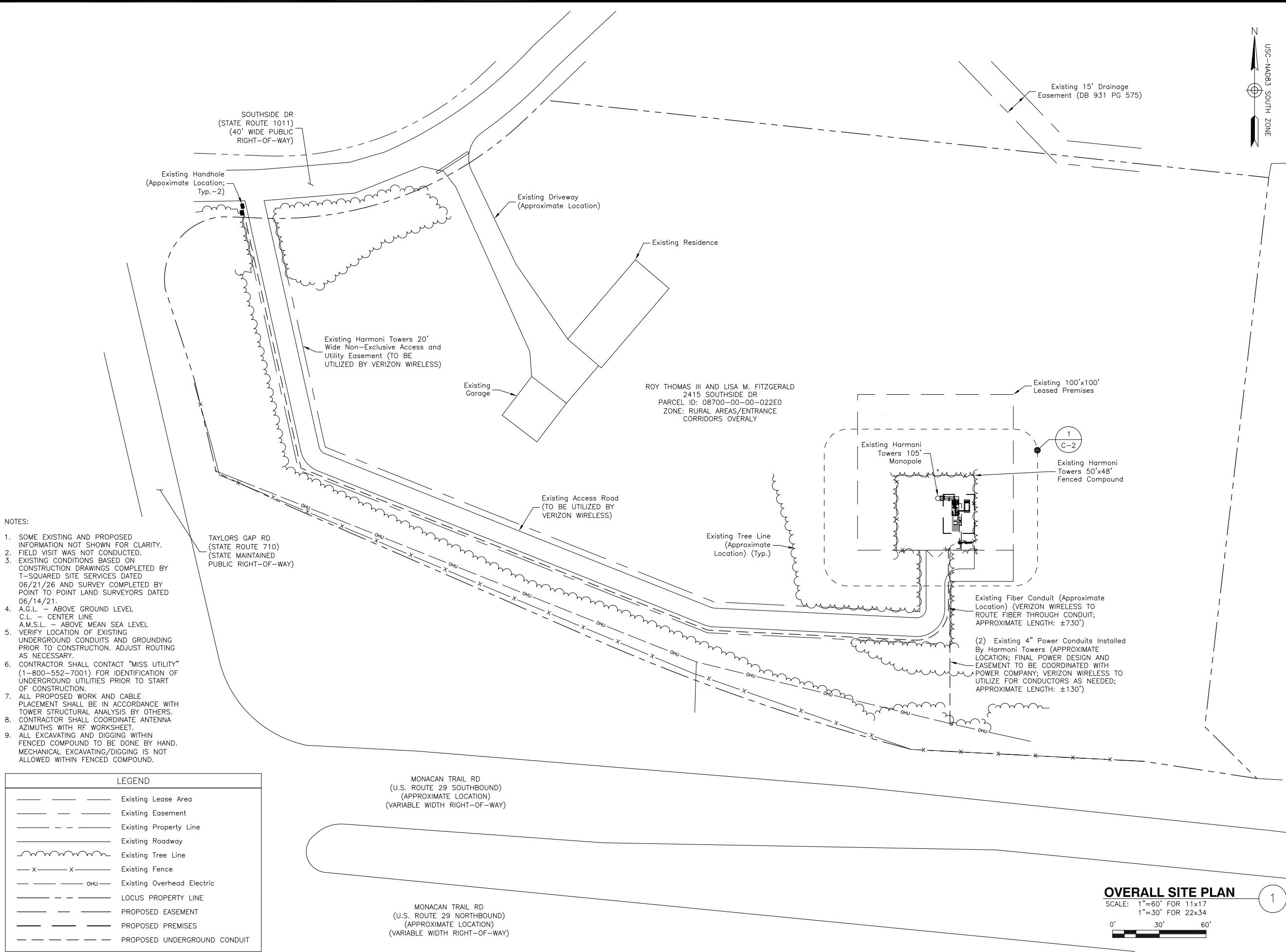
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PROJECT NUMBER:	50190722
SITE ADDRESS:	

2415 SOUTHSIDE DRIVE
NORTH GARDEN, VA 22959

SHEET TITLE

GENERAL
NOTES

SHEET NUMBER



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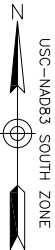
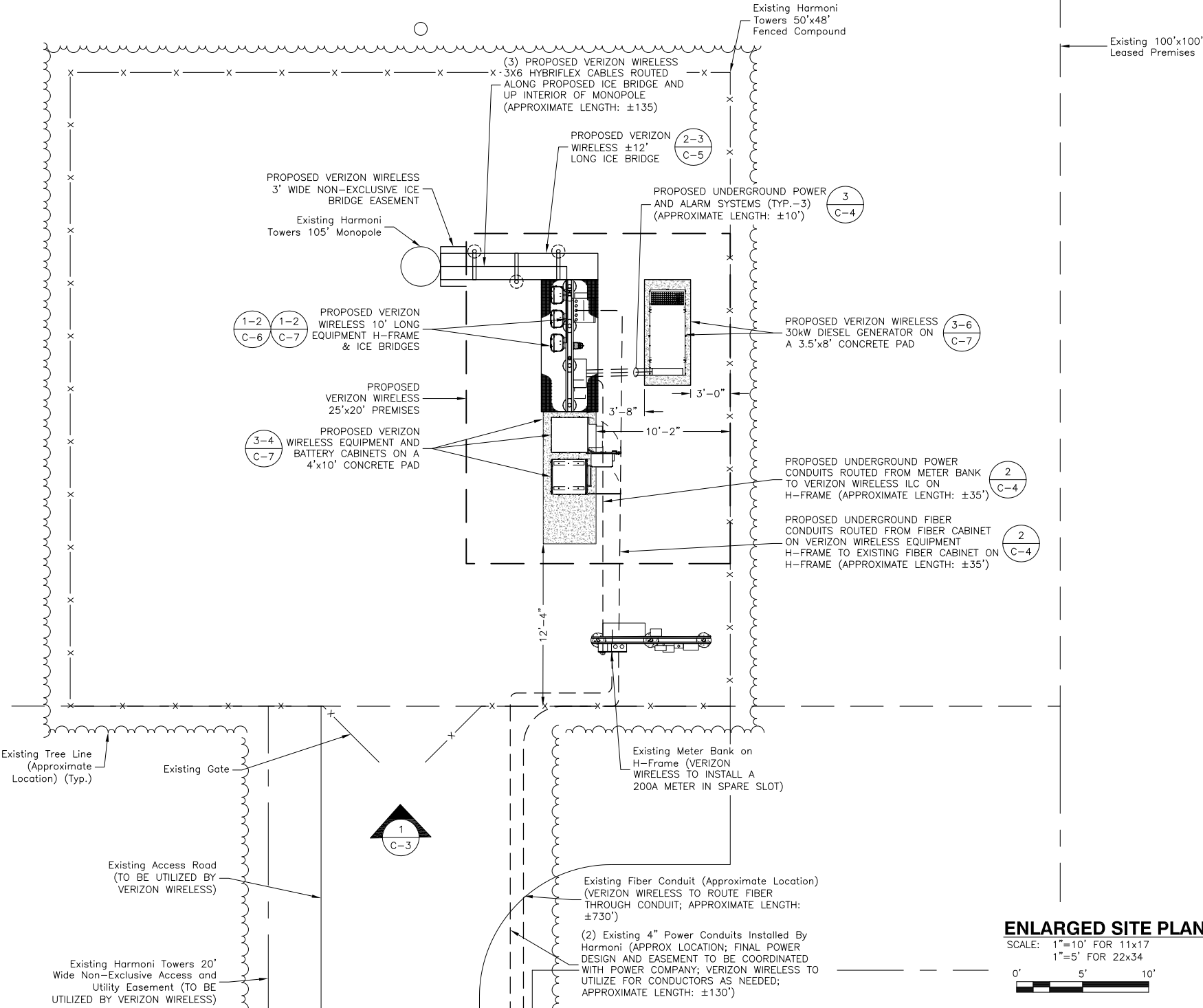
OVERALL
SITE PLAN

SHEET NUMBER

C-1

LEGEND	
	Existing Lease Area
	Existing Easement
	Existing Roadway
	Existing Tree Line
	Existing Fence
	PROPOSED EASEMENT
	PROPOSED PREMISES
	PROPOSED UNDERGROUND CONDUIT

- NOTES:
- SOME EXISTING AND PROPOSED INFORMATION NOT SHOWN FOR CLARITY.
 - FIELD VISIT WAS NOT CONDUCTED.
 - EXISTING CONDITIONS BASED ON CONSTRUCTION DRAWINGS COMPLETED BY T-SQUARED SITE SERVICES DATED 06/21/26 AND SURVEY COMPLETED BY POINT TO POINT LAND SURVEYORS DATED 06/14/21.
 - A.G.L. - ABOVE GROUND LEVEL
C.L. - CENTER LINE
A.M.S.L. - ABOVE MEAN SEA LEVEL
 - VERIFY LOCATION OF EXISTING UNDERGROUND CONDUITS AND GROUNDING PRIOR TO CONSTRUCTION. ADJUST ROUTING AS NECESSARY.
 - CONTRACTOR SHALL CONTACT "MISS UTILITY" (1-800-552-7001) FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
 - ALL PROPOSED WORK AND CABLE PLACEMENT SHALL BE IN ACCORDANCE WITH TOWER STRUCTURAL ANALYSIS BY OTHERS.
 - CONTRACTOR SHALL COORDINATE ANTENNA AZIMUTHS WITH RF WORKSHEET.
 - ALL EXCAVATING AND DIGGING WITHIN FENCED COMPOUND TO BE DONE BY HAND. MECHANICAL EXCAVATING/DIGGING IS NOT ALLOWED WITHIN FENCED COMPOUND.



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SHEET TITLE

ENLARGED
SITE PLAN

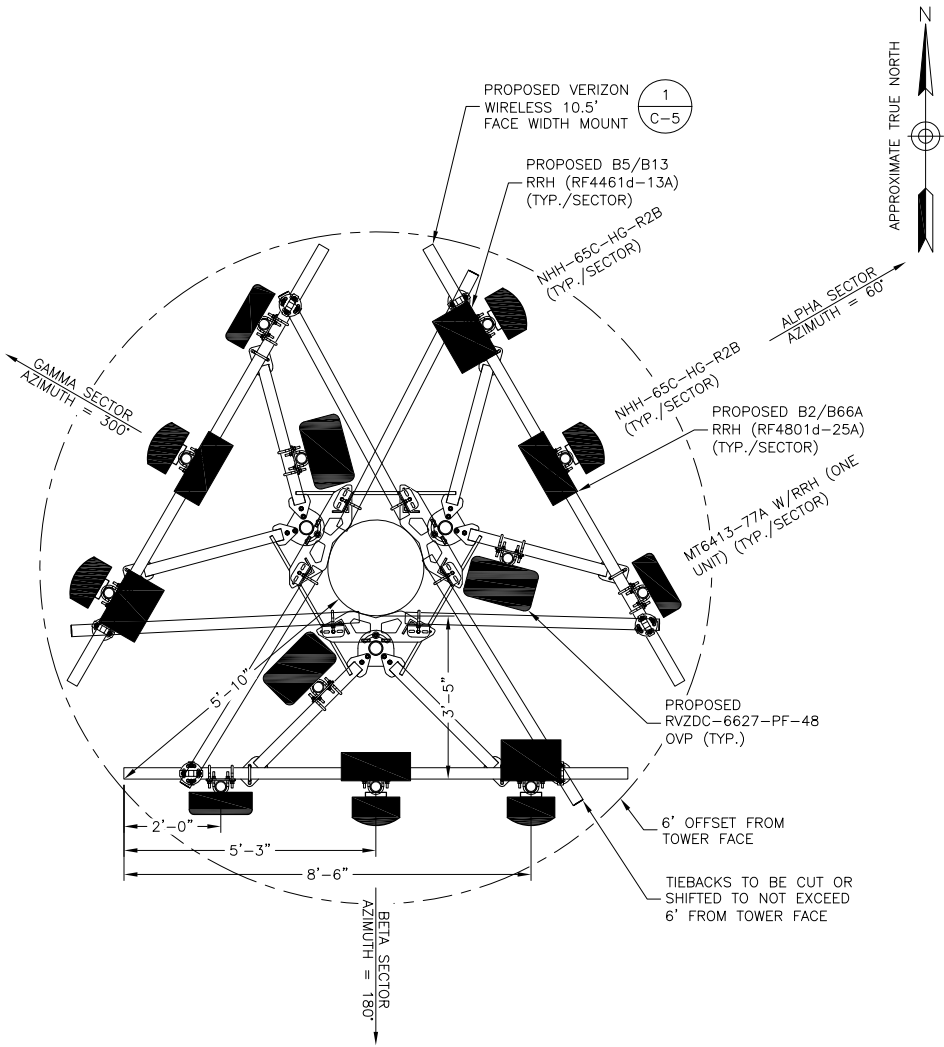
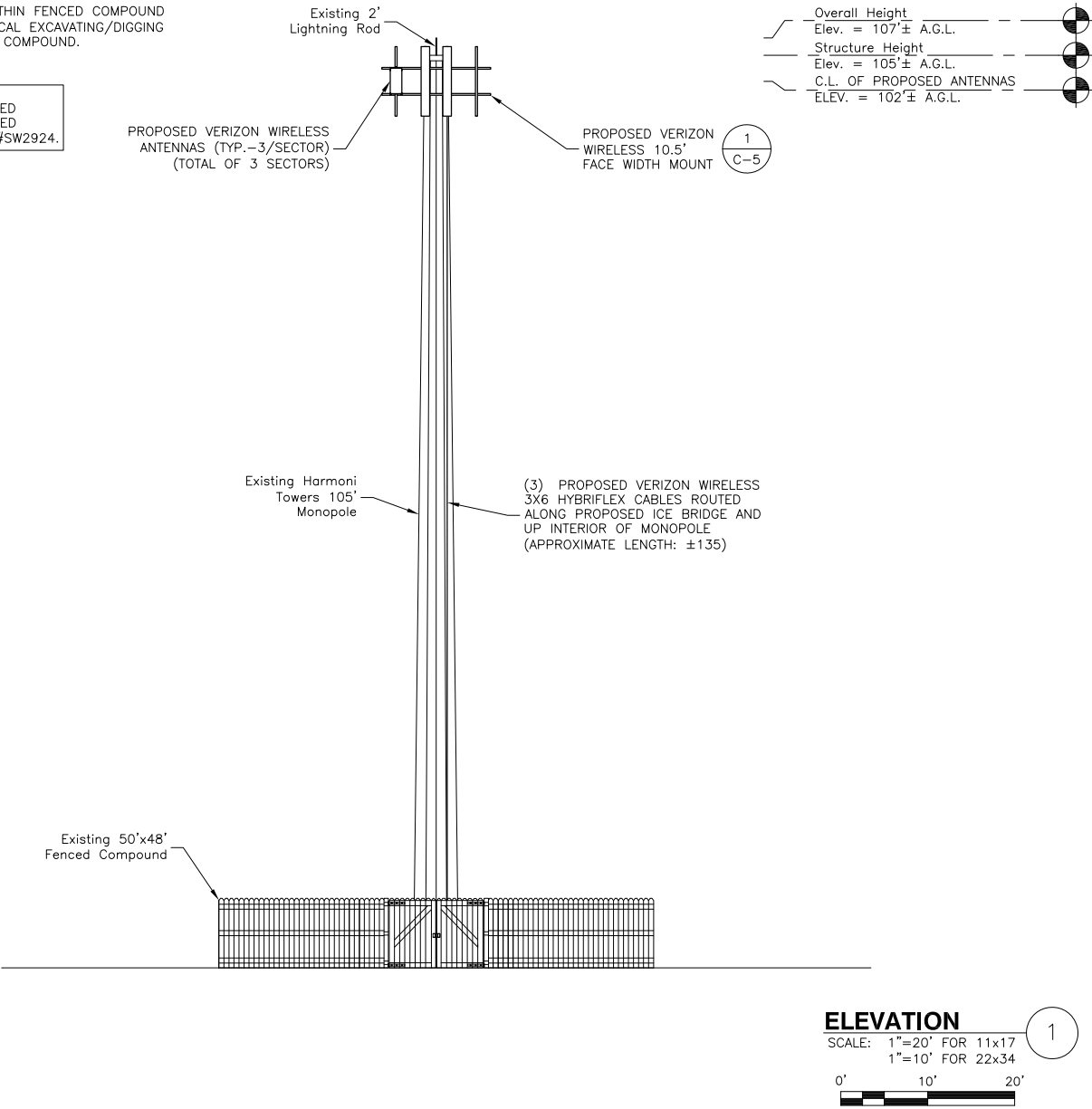
SHEET NUMBER

C-2

LEGEND		
A.G.L.	-	ABOVE GROUND LEVEL
C.L.	-	CENTER LINE

- NOTES:
- SOME EXISTING AND PROPOSED INFORMATION NOT SHOWN FOR CLARITY.
 - FIELD VISIT WAS NOT CONDUCTED.
 - EXISTING CONDITIONS BASED ON CONSTRUCTION DRAWINGS COMPLETED BY T-SQUARED SITE SERVICES DATED 06/21/26 AND SURVEY COMPLETED BY POINT TO POINT LAND SURVEYORS DATED 06/14/21.
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 - CONTRACTOR SHALL COORDINATE ANTENNA AZIMUTHS WITH RF WORKSHEET.
 - ALL EXCAVATING AND DIGGING WITHIN FENCED COMPOUND TO BE DONE BY HAND. MECHANICAL EXCAVATING/DIGGING IS NOT ALLOWED WITHIN FENCED COMPOUND.

NOTE:
ANTENNAS, RRHS, AND ALL ASSOCAITED MOUNTING EQUIPMENT WILL BE PAINTED SHERWIN WILLIAMS WOODSY BROWN #SW2924.



MOUNT ORIENTATION DETAIL

- NOTES:
- AZIMUTHS ARE SHOWN PER THE RF DESIGN AT THE TIME OF SITE PLANS. EQUIPMENT LAYOUT SHOWN IS GENERIC. CONTRACTOR TO CONFIRM EQUIPMENT AND AZIMUTHS WITH THE LATEST RFDS PRIOR TO INSTALLATION.
 - INSTALL EQUIPMENT PER MANUFACTURERS RECOMMENDATIONS OR AS SHOWN ABOVE.
 - PENDING MOUNT ANALYSIS BY TES. CONTRACTOR TO CONFIRM ANTENNA AND EQUIPMENT PLACEMENT WITH MOUNT ANALYSIS.
 - ANTENNAS TO BE INSTALLED SUCH THAT THEY ARE CENTERED VERTICALLY BETWEEN THE HORIZONTAL TOP & BOTTOM RAIL.
 - RRH(s) & OVP(s) TO BE INSTALLED BEHIND EXISTING/PROPOSED ANTENNAS OR ON MOUNT AS SHOWN.
 - ALL EQUIPMENT SHALL BE GROUNDED PER VERIZON WIRELESS STANDARDS AND MANUFACTURERS RECOMMENDATIONS.

EQUIPMENT SCHEDULE

PROPOSED		
QTY	RAD C/L	ANTENNA MODEL #
3	102'-0"	MT6413-77A W/RRH (ONE UNIT)
6	102'-0"	NHH-65C-HG-R2B
3	102'-0"	B2/B66A RRH (RF4801d-25A)
3	102'-0"	B5/B13 RRH (RF4461d-13A)
3	102'-0"	RVZDC-6627-PF-48 OVP
3	102'-0"	3X6 4AWG HYBRID CABLE



VERIZON WIRELESS
1831 RADY COURT
RICHMOND, VA 23222

RED HILL

CONSTRUCTION DRAWINGS

1	06/30/26	POWER PATH AND FENCE
0	06/23/26	FOR CONSTRUCTION



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Glen Allen, VA 23060
Phone: 804.290.7957
Fax: 804.290.7928
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DRAWN BY: LMW

REVIEWED BY: JYY

CHECKED BY: HGS

PROJECT NUMBER: 50190722

SITE ADDRESS:

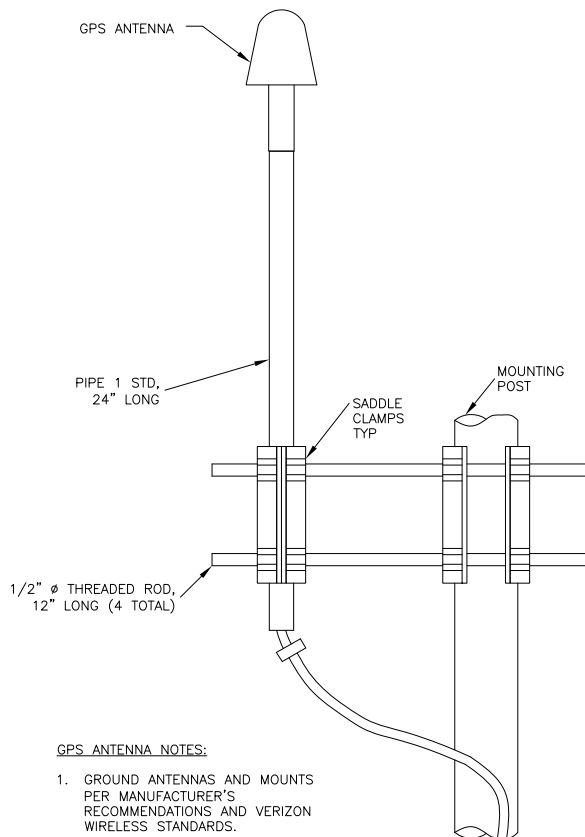
2415 SOUTHSIDE DRIVE
NORTH GARDEN, VA 22959

SHEET TITLE

TOWER ELEVATION

SHEET NUMBER

C-3



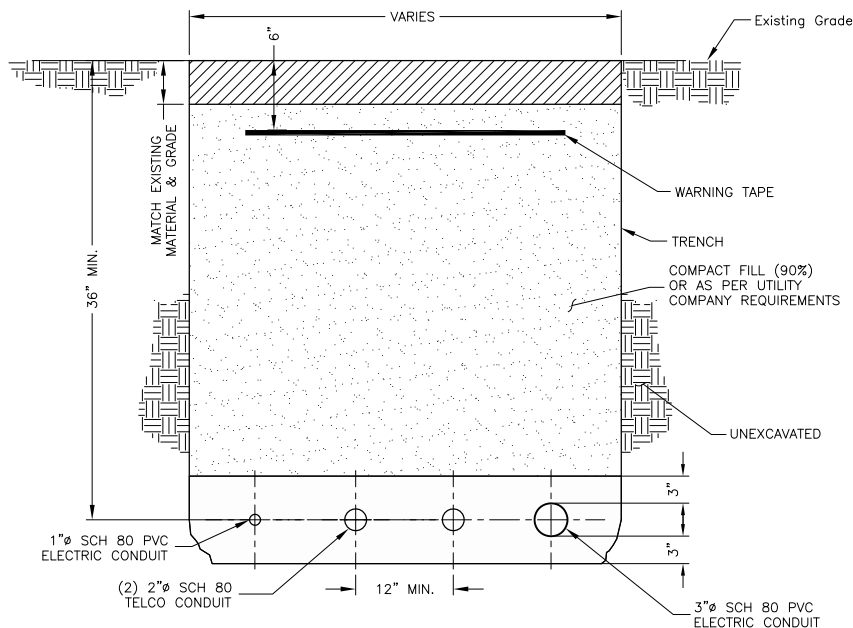
GPS ANTENNA NOTES:

1. GROUND ANTENNAS AND MOUNTS PER MANUFACTURER'S RECOMMENDATIONS AND VERIZON WIRELESS STANDARDS.

GPS POLE MOUNTED

SCALE: N.T.S.

1



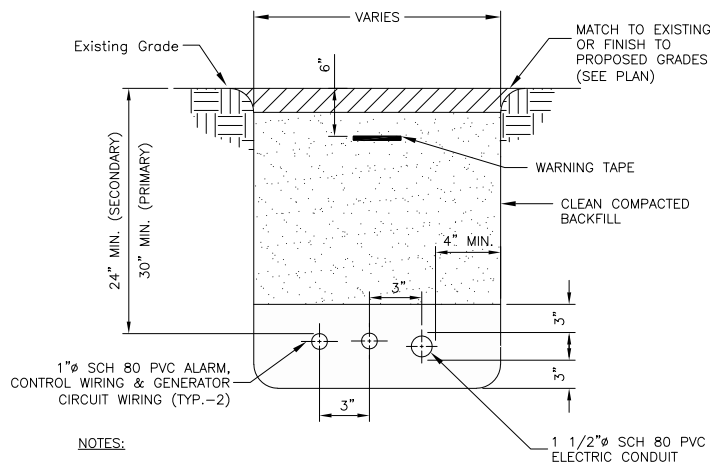
NOTES:

1. IF FREE OF ORGANIC OR OTHER DELETERIOUS MATERIAL, EXCAVATED MATERIAL MAY BE USED FOR BACKFILL.
2. SAND BACKFILL SHALL BE CLEAN, WASHED AND FREE OF DEBRIS OR ROCKS LARGER THAN 1/8".
3. IF NOT, PROVIDE CLEAN, COMPACTIBLE MATERIAL. COMPACT IN 8" LIFTS. REMOVE ANY LARGE ROCKS PRIOR TO BACKFILLING. CONTRACTOR TO VERIFY LOCATION OF EXISTING U/G UTILITIES PRIOR TO DIGGING.
4. IF CURRENT AS-BUILT DRAWINGS ARE NOT AVAILABLE SUBCONTRACTOR SHALL HAND DIG U/G TRENCHING.
5. INSTALLATION PER THE NEC.
6. DETECTION WIRE SHALL BE BURIED DIRECTLY ABOVE NON-METALLIC PIPING AS INDICATED IN THE CONSTRUCTION DOCUMENTS AND AS DIRECTED BY THE CONSTRUCTION MANAGER.

JOINT SERVICE TRENCH

SCALE: N.T.S.

2



NOTES:

1. IF FREE OF ORGANIC OR OTHER DELETERIOUS MATERIAL, EXCAVATED MATERIAL MAY BE USED FOR BACKFILL.
2. IF NOT, PROVIDE CLEAN, COMPACTIBLE MATERIAL. COMPACT IN 8" LIFTS. REMOVE ANY LARGE ROCKS PRIOR TO BACKFILLING. SUBCONTRACTOR TO VERIFY LOCATION OF EXISTING U/G UTILITIES PRIOR TO DIGGING.
3. IF CURRENT AS-BUILT DRAWINGS ARE NOT AVAILABLE SUBCONTRACTOR SHALL HAND DIG U/G TRENCHING.
4. DETECTION WIRE SHALL BE BURIED DIRECTLY ABOVE NON-METALLIC PIPING AS INDICATED IN THE CONSTRUCTION DOCUMENTS AND AS DIRECTED BY THE CONSTRUCTION MANAGER.

GENERATOR SERVICE TRENCH CONDUIT

SCALE: N.T.S.

3

verizon

VERIZON WIRELESS
1831 RADY COURT
RICHMOND, VA 23222

RED HILL

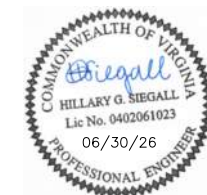
CONSTRUCTION DRAWINGS

NO.	DATE	DESCRIPTION
1	06/30/26	POWER PATH AND FENCE
0	06/23/26	FOR CONSTRUCTION

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PROJECT NUMBER: 50190722

SITE ADDRESS:

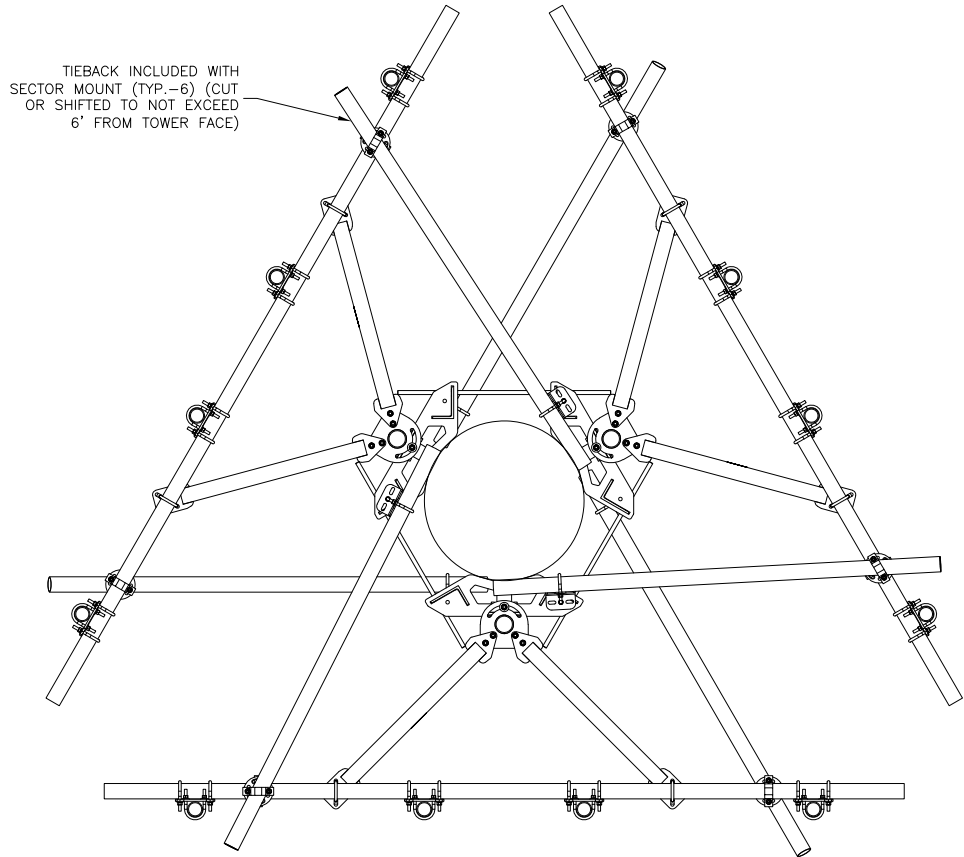
2415 SOUTHSIDE DRIVE
NORTH GARDEN, VA 22959

SHEET TITLE

**CONSTRUCTION
DETAILS**

SHEET NUMBER

C-4



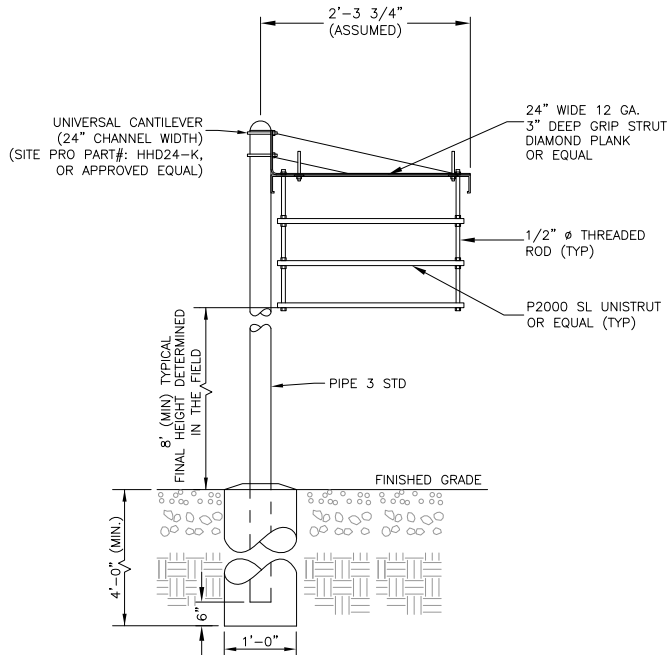
HIGH CAPACITY MONOPOLE SECTOR FRAME

SCALE: N.T.S.

1

COMMSCOPE P/N: MCG23HDX-10M1296
OR APPROVED EQUAL. COORDINATE WITH CONSTRUCTION MANAGER.

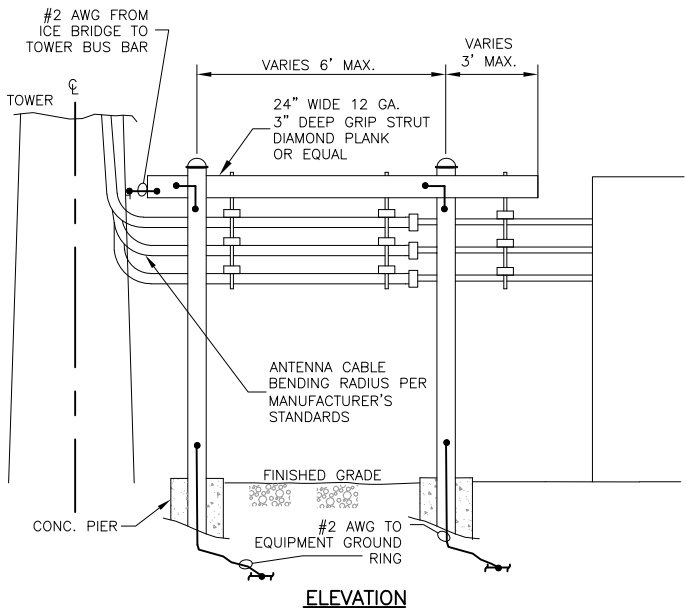
- NOTES:
1. PENDING MOUNT ANALYSIS BY TES. CONTRACTOR TO CONFIRM ANTENNA AND EQUIPMENT PLACEMENT WITH MOUNT ANALYSIS.
 2. GC TO ORDER MOUNT IDENTIFIED IN MOUNT ANALYSIS, TO BE COMPLETED BY TES.



ICE BRIDGE DETAIL

SCALE: N.T.S.

2



ICE BRIDGE DETAIL

SCALE: N.T.S.

3

ICE BRIDGE NOTES:

1. #2 AWG TO BE IN 3/4\"/>



VERIZON WIRELESS
1831 RADY COURT
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CONSTRUCTION DRAWINGS

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SITE ADDRESS:

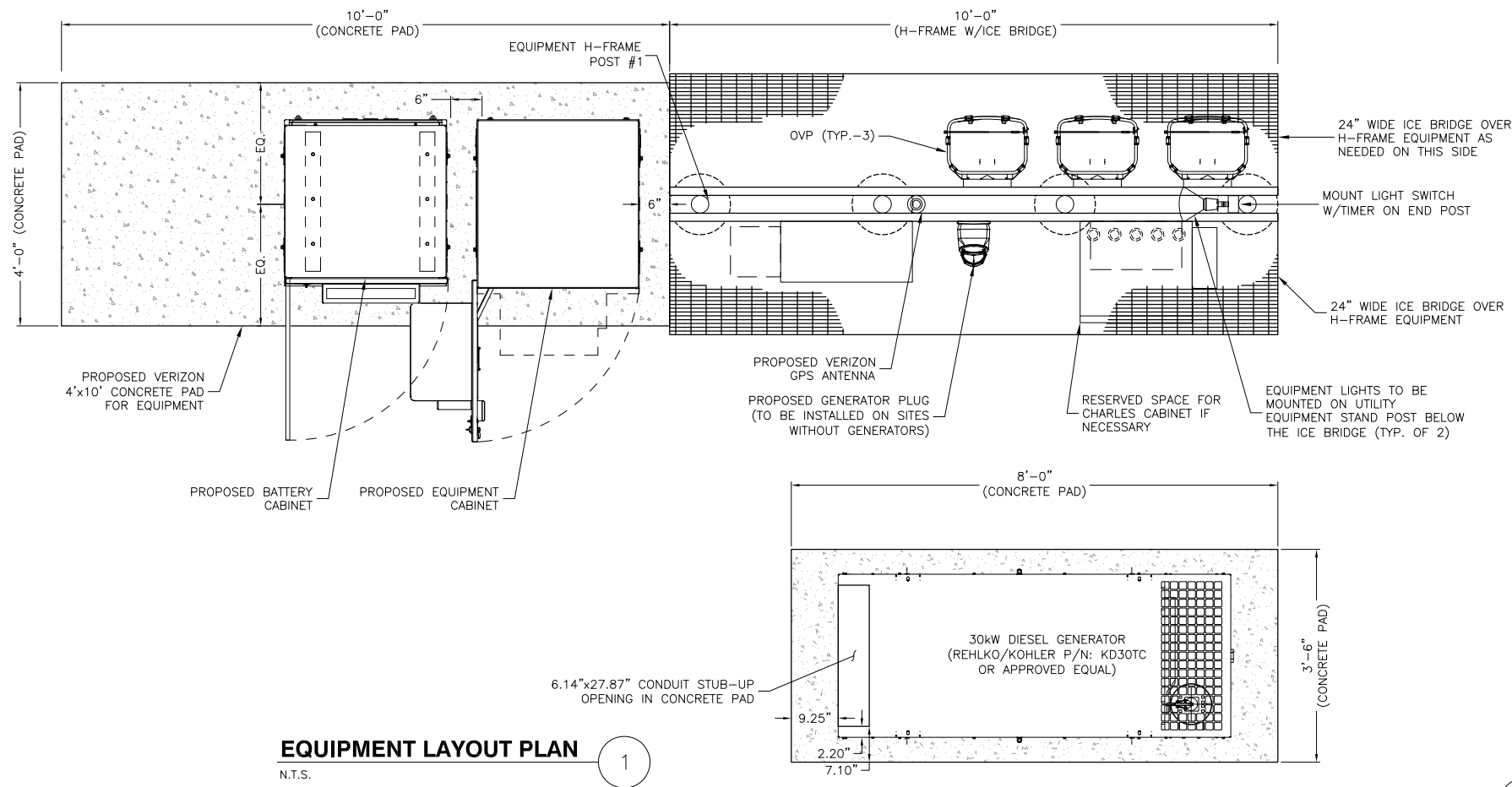
2415 SOUTHSIDE DRIVE
NORTH GARDEN, VA 22959

SHEET TITLE

CONSTRUCTION
DETAILS

SHEET NUMBER

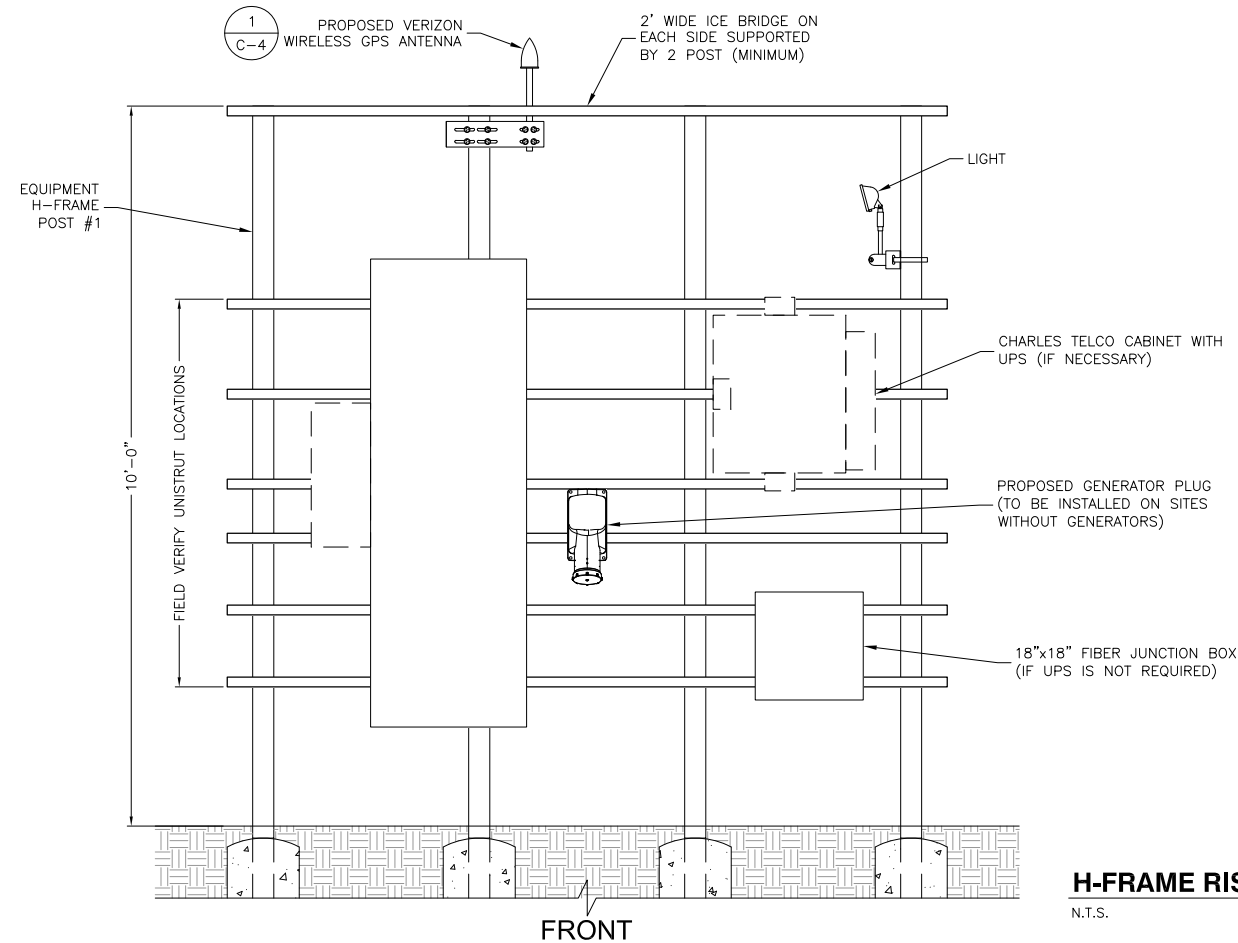
C-5



EQUIPMENT LAYOUT PLAN

N.T.S.

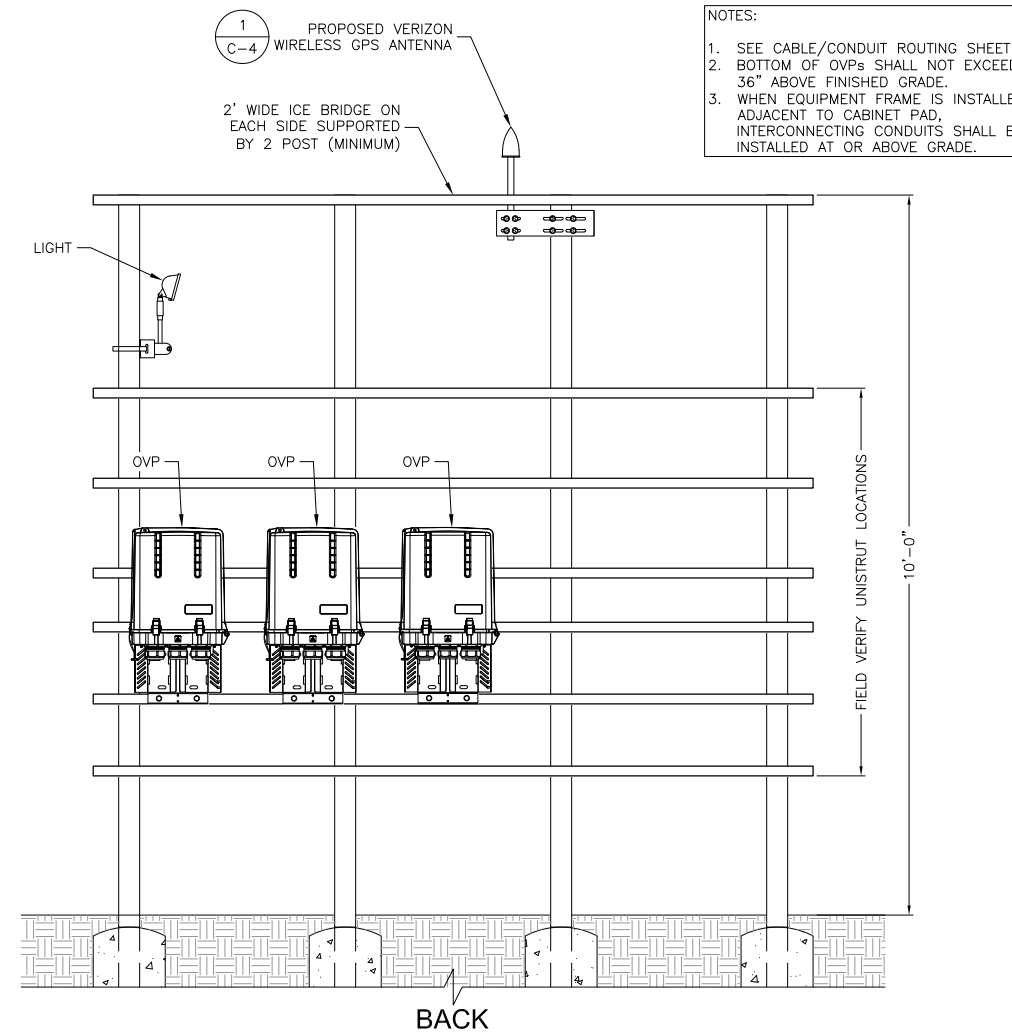
1



H-FRAME RISER DETAILS

N.T.S.

2



BACK

EQUIPMENT SPECIFICATIONS:

VERIZON WIRELESS PROVIDED EQUIPMENT:

1. CHARLES INDUSTRIES CUBE-SS4B231PX2 EQUIPMENT CABINET WITH BATTERY INCLUDED.
2. CHARLES INDUSTRIES CUBE-BB48E2HNA BATTERY CABINET INCLUDED.
3. RAYCAP OVP

CONTRACTOR PROVIDED EQUIPMENT*:

1. 18"x18" FIBER JUNCTION BOX, NEMA 3R, CABINET ENCLOSURE WITH WOODEN BACKBOARD, PADLOCK LATCH, AND COMBINATION LOCK (USE FOR DARK FIBER SITES).
2. 26" WIDE x 78" TALL x 12" DEEP ASCO D300L SERIES POWER TRANSFER LOAD CENTER MODEL AA300G-1PH-N-3R INTEGRATED LOAD CENTER "ILC" WITH COMBINATION PADLOCK.
3. 22" WIDE x 26" TALL x 20" DEEP CHARLES INDUSTRIES CUBE-RL1003A-A (EQUIPMENT CHAMBER 14RU WITH 19" RACK MOUNTING AND HEAT EXCHANGER). ORDER DUAL FEED DC FUSE PANEL TELECT 96-TLHPGMT10FA IN CONJUNCTION.
4. COORDINATE ADDITIONAL ENTRY GATE LOCK(S) WITH CONSTRUCTION MANAGER.

THIS IS NOT A COMPREHENSIVE LIST. IT SHOULD BE ASSUMED BY THE CONTRACTOR THAT ALL OTHER ITEMS DETAILED IN THIS SET OF DRAWINGS SHALL BE PROVIDED BY THE CONTRACTOR.

GENERATOR SPECIFICATIONS

	ITEM ID	SPECIFICATION SHEET	MODEL NO.	DRAWING NO.	DESCRIPTION
DIESEL	50104206	KD30TC	S4S-Y361K GBE	ADV-10037	KOHLER-GENSET-30KW-DSL-WP-ALM-1PH120/240-147G
DIESEL (TRIPLE CONTAINMENT)	21177357	g5436	30REOZK	15-32604	KOH-GENSET-WP-30KW-DIESEL-1PH120/240-DR E-TANK
GASEOUS LP	21415832	g4275	30CCL	ADV-9095	KOH-GENSET-WP-30KW-LPV-1PH120/240
GASEOUS NG	21415821	g4275	30CCL	ADV-9095	KOH-GENSET-WP-30KW-NG-1PH120/240

NOTES:

1. SEE CABLE/CONDUIT ROUTING SHEET.
2. BOTTOM OF OVPS SHALL NOT EXCEED 36" ABOVE FINISHED GRADE.
3. WHEN EQUIPMENT FRAME IS INSTALLED ADJACENT TO CABINET PAD, INTERCONNECTING CONDUITS SHALL BE INSTALLED AT OR ABOVE GRADE.

verizon

VERIZON WIRELESS
1831 RADY COURT
RICHMOND, VA 23222

RED HILL

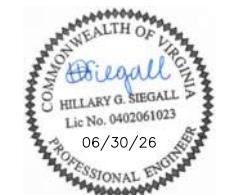
CONSTRUCTION DRAWINGS

1	06/30/26	POWER PATH AND FENCE
0	06/23/26	FOR CONSTRUCTION

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REVIEWED BY: JYY

CHECKED BY: HGS

PROJECT NUMBER: 50190722

SITE ADDRESS:

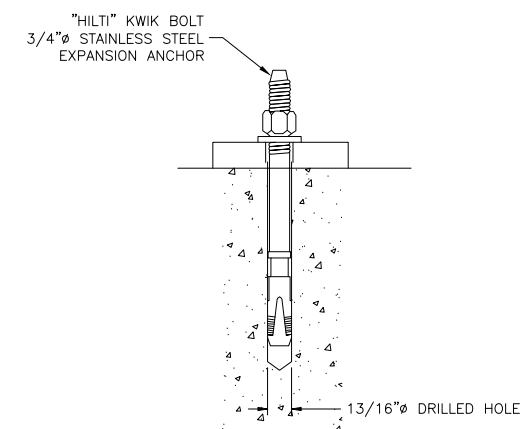
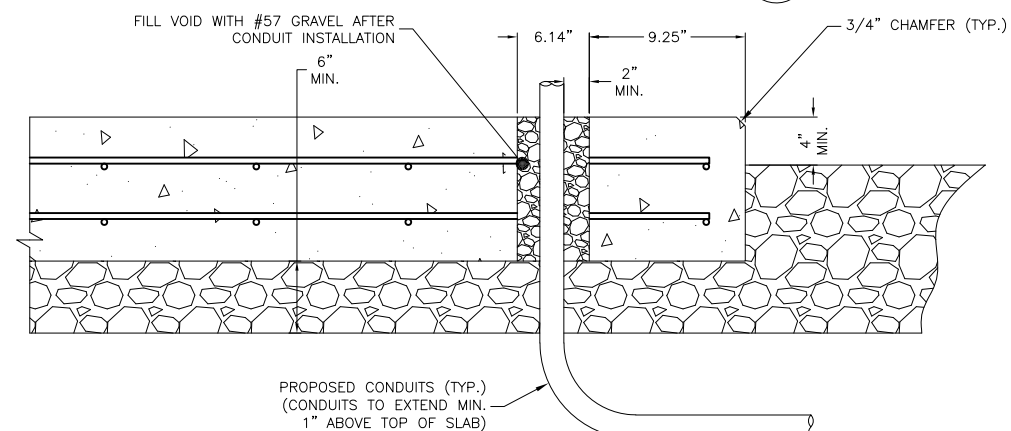
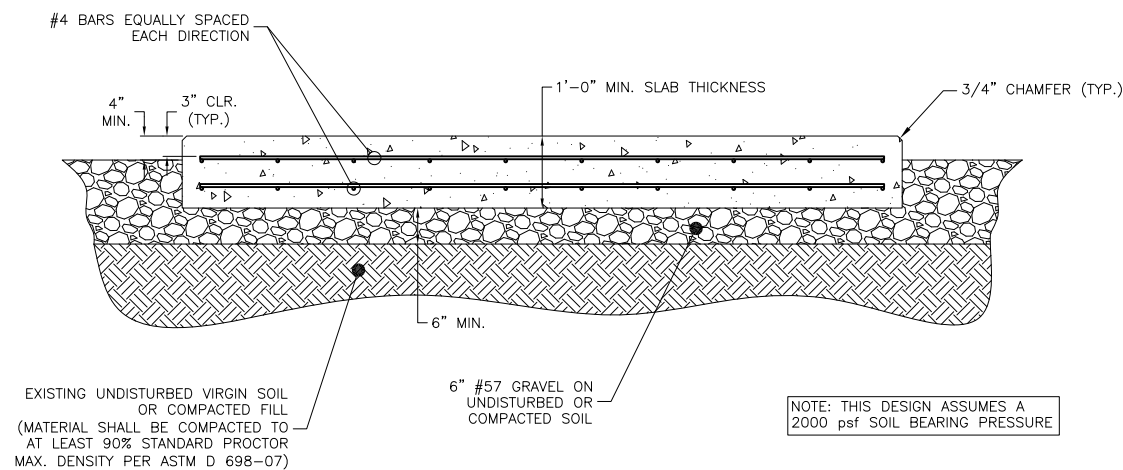
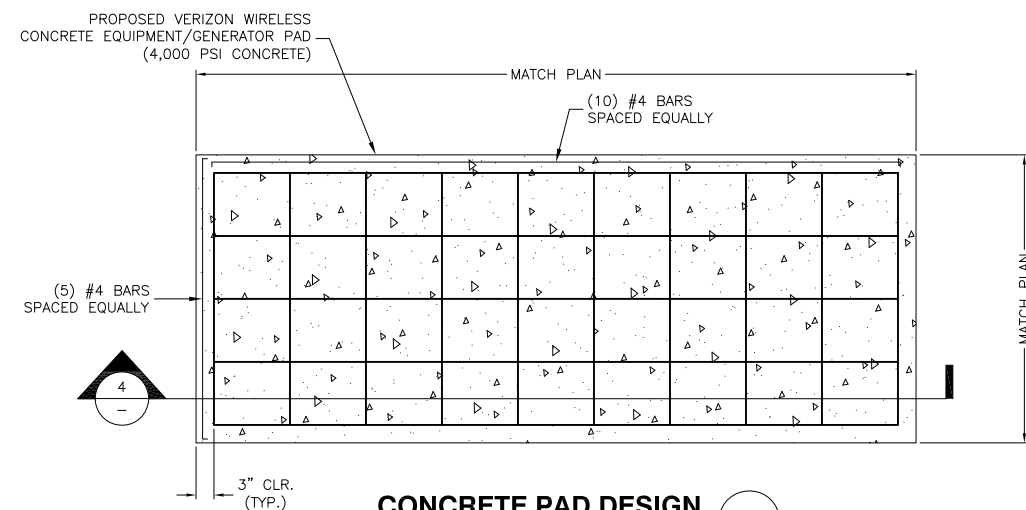
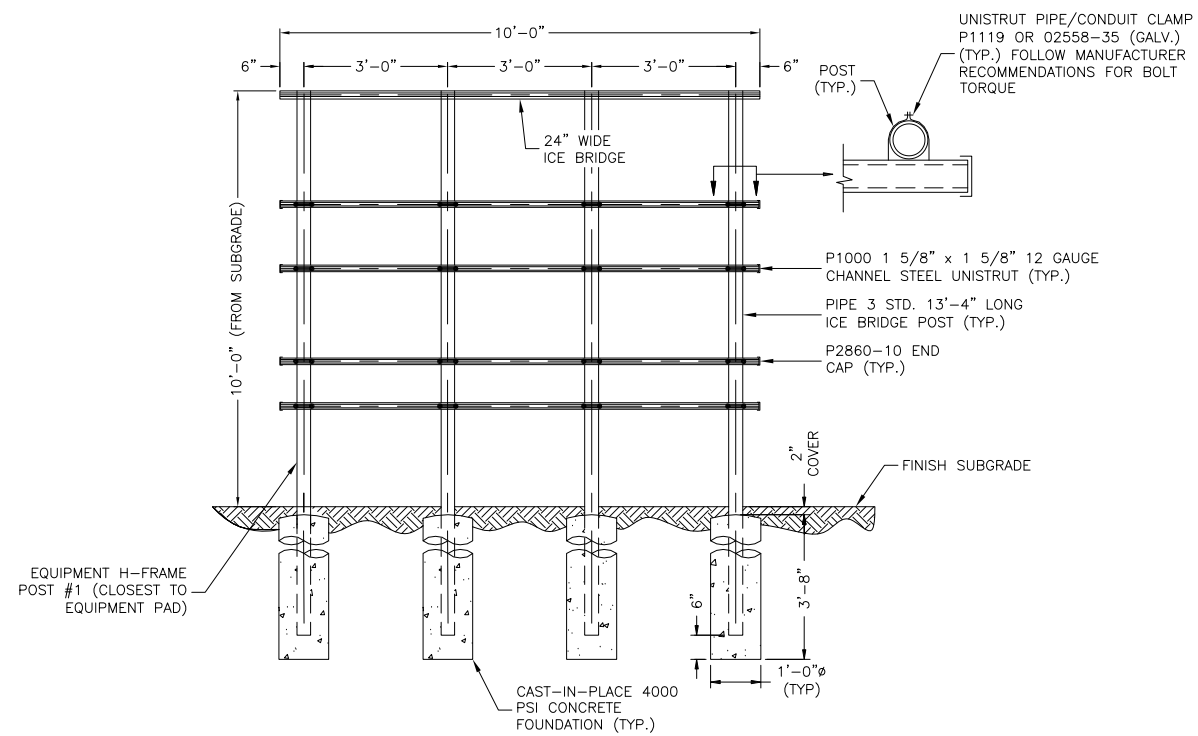
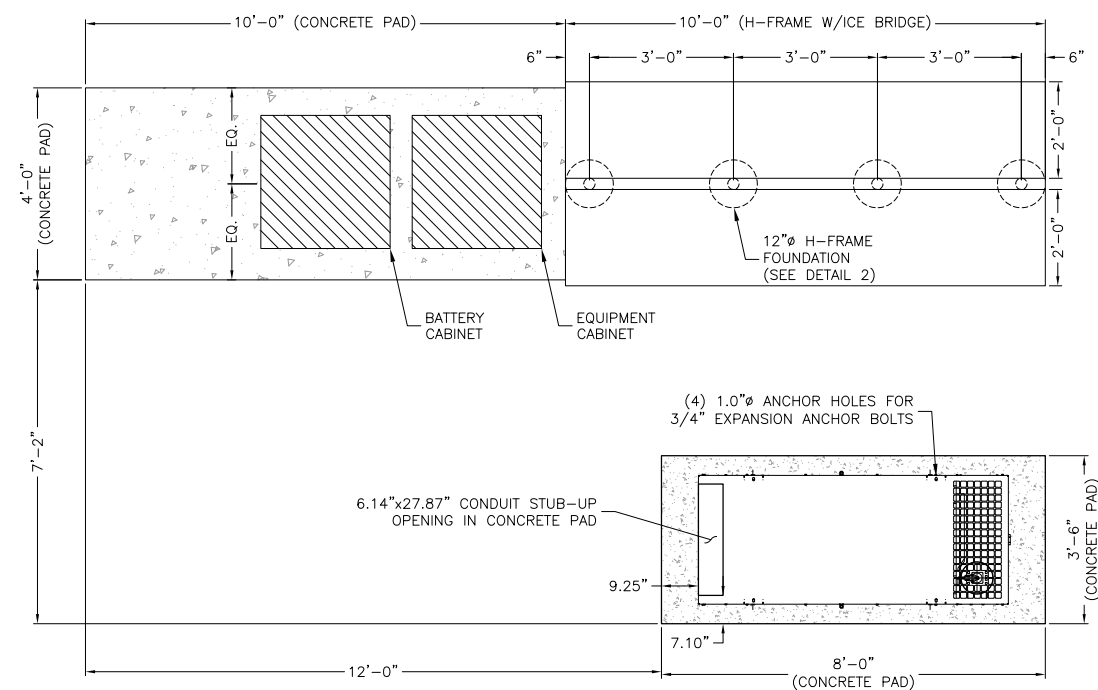
2415 SOUTHSIDE DRIVE
NORTH GARDEN, VA 22959

SHEET TITLE

EQUIPMENT MOUNTING
DETAILS

SHEET NUMBER

C-6



VERIZON WIRELESS
1831 RADY COURT
RICHMOND, VA 23222

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CONSTRUCTION DRAWINGS

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REVIEWED BY:	JYY
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CHECKED BY:	HGS
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PROJECT NUMBER:	50190722
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SITE ADDRESS:

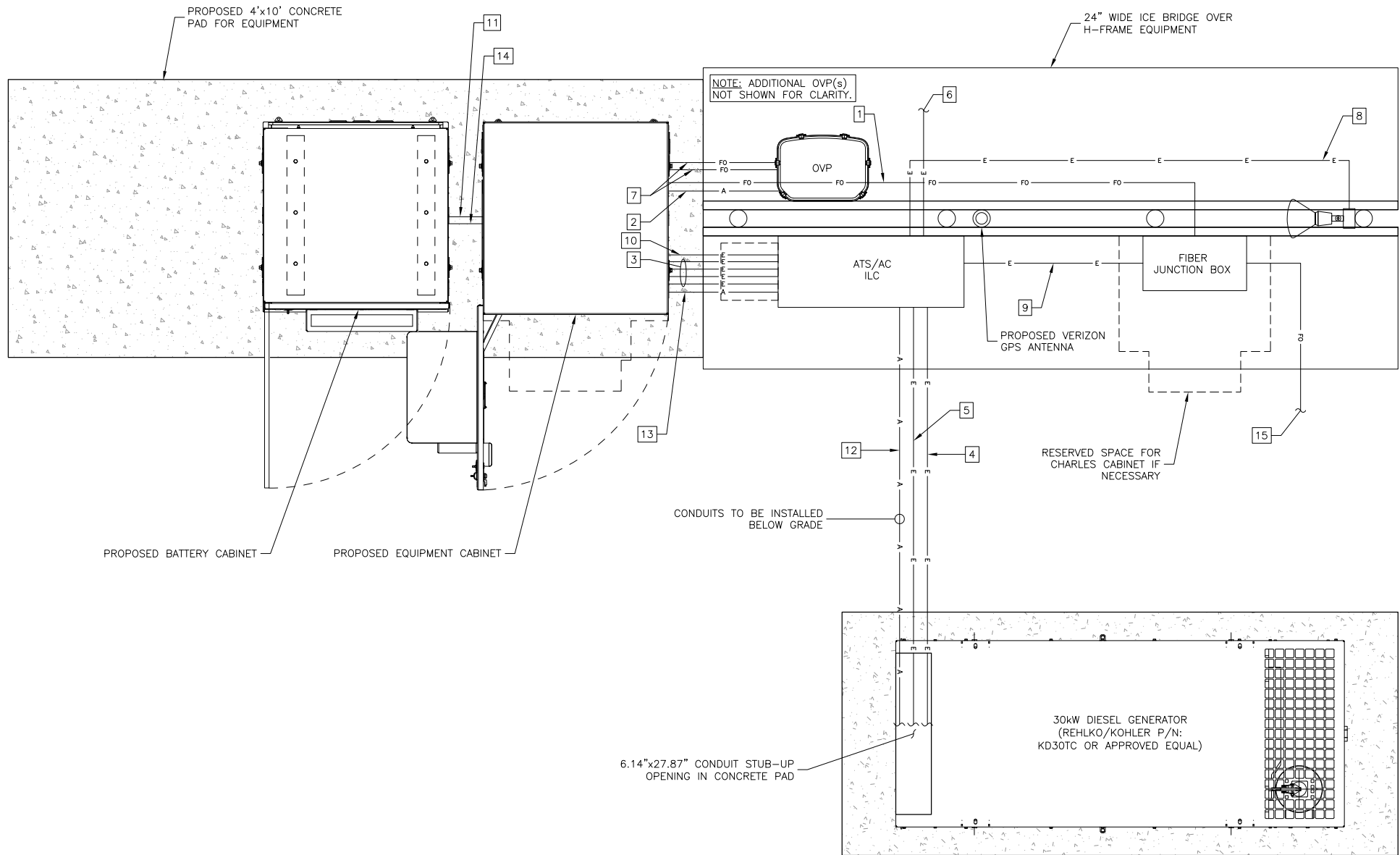
2415 SOUTHSIDE DRIVE
NORTH GARDEN, VA 22959

SHEET TITLE

CONCRETE PAD DETAILS

SHEET NUMBER

FOR SCHEMATIC PURPOSES ONLY. VERIFY EXACT EQUIPMENT LAYOUT WITH SITE PLAN.



NOTES:

1. WHEN EQUIPMENT FRAME IS INSTALLED ADJACENT TO CABINET PAD, INTERCONNECTING CONDUITS SHALL BE INSTALLED AT OR ABOVE GRADE.
2. BELOW GRADE CONDUIT SHALL BE SCHEDULE 80 PVC. ABOVE GRADE CONDUIT SHALL BE GALVANIZED RIGID CONDUIT. BELOW GRADE PVC CONDUIT SHALL TRANSITION TO GRC PRIOR TO RISING ABOVE GRADE. ALL BENDS SHALL HAVE A MINIMUM 24\"/>

EQUIPMENT CONDUIT SCHEDULE:

FIBER CONDUITS:

- 1 (1) 2\"/>
- 2 (1) 1-1/2\"/>

AC POWER CONDUITS:

- 3 (4) 1\"/>
- 4 (1) 1-1/2\"/>
- 5 (1) 1\"/>
- 6 (1) 3\"/>
- 7 (2) 1-1/2\"/>
- 8 (1) 1\"/>
- 9 (1) 1\"/>
- 10 (1) 1\"/>
- 11 (2) 2\"/>

ALARM/MISCELLANEOUS CONDUITS:

- 12 (1) 1\"/>
- 13 (1) 1\"/>
- 14 (1) 1\"/>

POWER AND FIBER SUPPLY CONDUITS:

- 6 (1) 3\"/>
- 15 (2) 2\"/>



VERIZON WIRELESS
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CONSTRUCTION DRAWINGS

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CHECKED BY: HGS

PROJECT NUMBER: 50190722

SITE ADDRESS:

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NORTH GARDEN, VA 22959

SHEET TITLE

CONDUIT ROUTING
PLAN

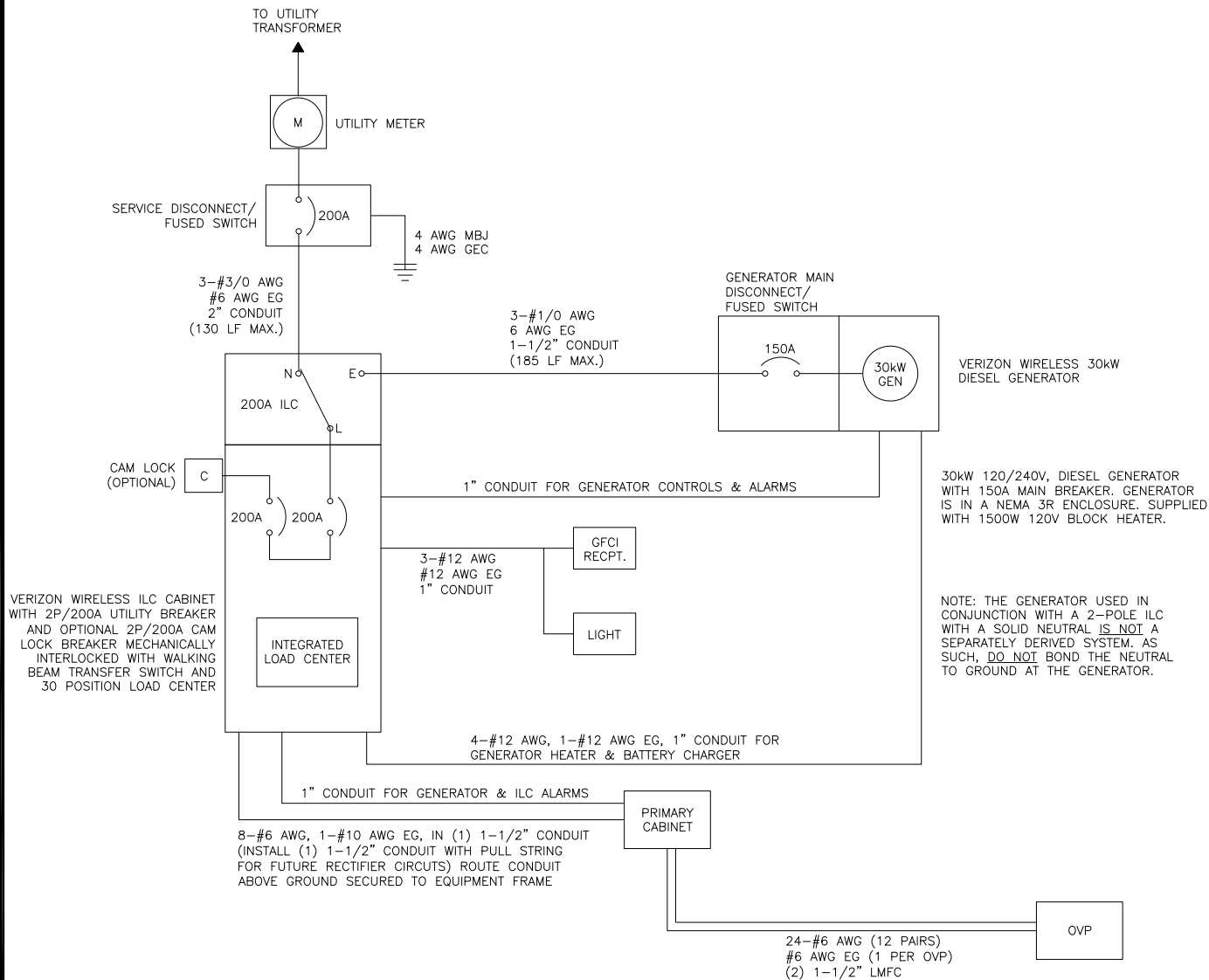
SHEET NUMBER

CONDUIT ROUTING PLAN

SCALE: N.T.S.

NOTE: PANEL SCHEDULE AND SINGLE LINE DIAGRAM REPRESENT A SITE WITH A NEW GE POWER PLANT, 30kW DIESEL GENERATOR, AND TWO SOURCE ILC (THREE SOURCE ILC OPTIONAL AS NEEDED). ADJUST AS NECESSARY PER LOCAL SITE CONDITIONS.

LOAD CALCULATION	
LOAD	AMPS
PROPOSED LOAD:	151.38
TOTAL DEMAND:	151.38
VOLTAGE: 120/240V SINGLE PHASE 3W 200A	



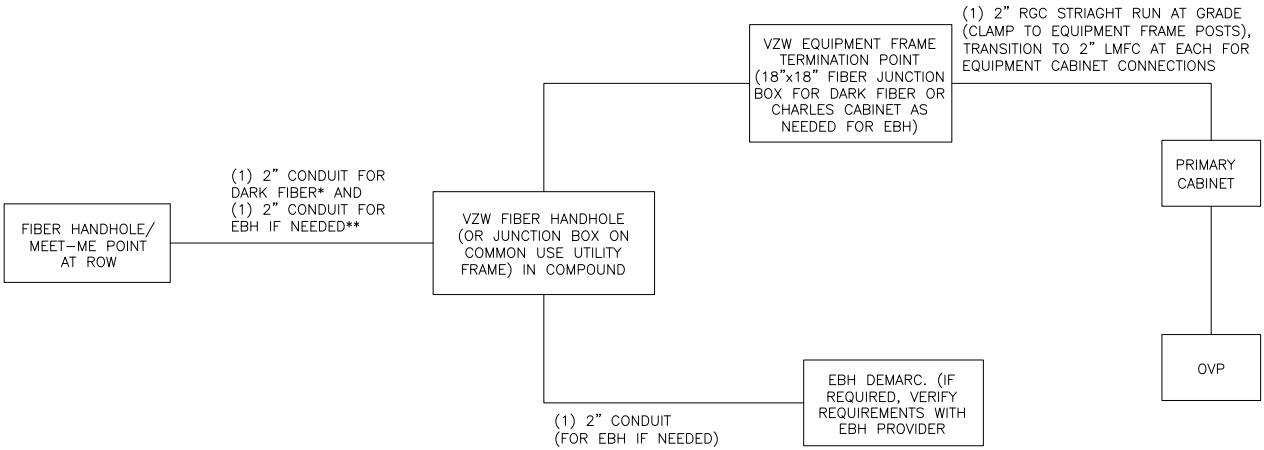
ELECTRICAL SINGLE LINE DIAGRAM
SCALE: N.T.S.

- NOTES:
- ALL EQUIPMENT SHALL BE NEMA 3R RATED.
 - ALL EQUIPMENT SHALL BE LIGHTNING PROTECTED IN ACCORDANCE WITH TIA-222-H AND VERIZON WIRELESS STANDARDS.
 - CONDUCTOR SIZES AND DISTANCES HAVE BEEN SIZED FOR 3% MAX VOLTAGE DROP (TOTAL SYSTEM VOLTAGE DROP ON BOTH FEEDERS AND BRANCH CIRCUITS TO THE FARTHEST DEMAND SHALL NOT EXCEED 5%).
 - WIRE SIZING AND MAXIMUM DISTANCE FROM GENERATOR TO ILC ASSUMES POWER FACTOR OF 0.9.
 - BELOW GRADE CONDUIT SHALL BE SCHEDULE 80 PVC. ABOVE GRADE CONDUIT SHALL BE GALVANIZED RIGID CONDUIT. BELOW GRADE PVC CONDUIT SHALL TRANSITION TO GRC PRIOR TO RISING ABOVE GRADE. ALL BENDS SHALL HAVE A MINIMUM 24" RADIUS. ALL FITTINGS SHALL BE SUITABLE FOR USE WITH THREADED RIGID CONDUIT. VERIFY CONDUIT TYPE WITH LOCAL CONSTRUCTION MANAGER AND ADJUST IF NECESSARY. ALL CONDUIT SHALL MEET NEC, STATE, AND LOCAL CODE REQUIREMENTS AS REQUIRED.

PANEL NAME:		VZW ILC			MODEL NUMBER:		ASCO D300L SERIES										
RATED VOLTAGE:		240	120	VOLTS	PHASE/WIRE:		1	3									
MAIN BREAKER:		200	AMPS		BUS RATING:		200			KEY DOOR LATCH:		YES					
MOUNT:		SURFACE			NEUTRAL BAR:		YES			HINGED DOOR:		YES					
ENCLOSURE TYPE:		NEMA 3R			AIC:		42K										
POS	USAGE FACTOR	BUS AMPS		LOAD	POLES	AMPS	L1	L2	AMPS	POLES	LOAD	BUS AMPS		USAGE FACTOR	POS		
		L1	L2									L1	L2				
1	1	18		RECTIFIER	2	30A			30A	2	RECTIFIER	18		1	2		
3	1		18										18	1	4		
5	1	18		RECTIFIER	2	30A			30A	2	RECTIFIER	18		1	6		
7	1		18										18	1	8		
9	1	18		RECTIFIER	2	30A			30A	2	RECTIFIER	18		1	10		
11	1		18										18	1	12		
13	1	18		RECTIFIER	2	30A			30A	2	RECTIFIER (SPARE)	18		1	14		
15	1		18										18	1	16		
17	1.25	16		GFCI RECPT./LIGHT	1	20A									18		
19	1		16	BLOCK HEATER	1	20A									20		
21	1	16		BATTERY CHARGER	1	20A									22		
23															24		
25															26		
27															28		
29															30		
		104	88	:SUB TOTAL AMPS							SUB TOTAL AMPS:		72	72			
								FACTORED TOTAL AMPS:						176	160		

- NOTES:
- ALL CONDUCTORS ARE TYPE THWN (75°C) COPPER.
 - MAXIMUM LENGTH OF RUN FOR RECTIFIER CIRCUITS IS 50 FT.
 - ASCO INTEGRATED LOAD CENTER INCLUDES 200 AMP MAIN DISCONNECT AND TRANSFER SWITCH FOR PORTABLE OR PERMANENT GENERATOR.
 - RECTIFIER LOADS ARE CONSIDERED TO BE NON-CONTINUOUS.
 - IF ADDITIONAL FUTURE LOADS ARE ADDED WHICH CAUSE TOTAL DEMAND TO EXCEED GENERATOR BREAKER SIZE, BACKUP POWER SYSTEM SHALL BE EVALUATED AND UPGRADED AS NECESSARY.

PANEL SCHEDULE
SCALE: N.T.S.



FIBER SINGLE LINE DIAGRAM
SCALE: N.T.S.

- NOTES:
- * ADD (1) ADDITIONAL 2" CONDUIT FOR DARK FIBER (2 TOTAL) IF REQUIRED BY LOCAL MARKET FACILITIES. VERIFY PRIOR TO CONSTRUCTION. (ADD 2 PULL STRINGS TO EACH CONDUIT)
 - ** VERIFY EBH REQUIREMENTS WITH TELCO PROVIDER PRIOR TO CONSTRUCTION. (ADD 2 PULL STRINGS TO EACH CONDUIT)



VERIZON WIRELESS
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RED HILL

CONSTRUCTION DRAWINGS

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DRAWN BY:	LMW
REVIEWED BY:	JYY
CHECKED BY:	HGS
PROJECT NUMBER:	50190722
SITE ADDRESS:	

2415 SOUTHSIDE DRIVE
NORTH GARDEN, VA 22959

SHEET TITLE

PANEL SCHEDULE
& ONE-LINE

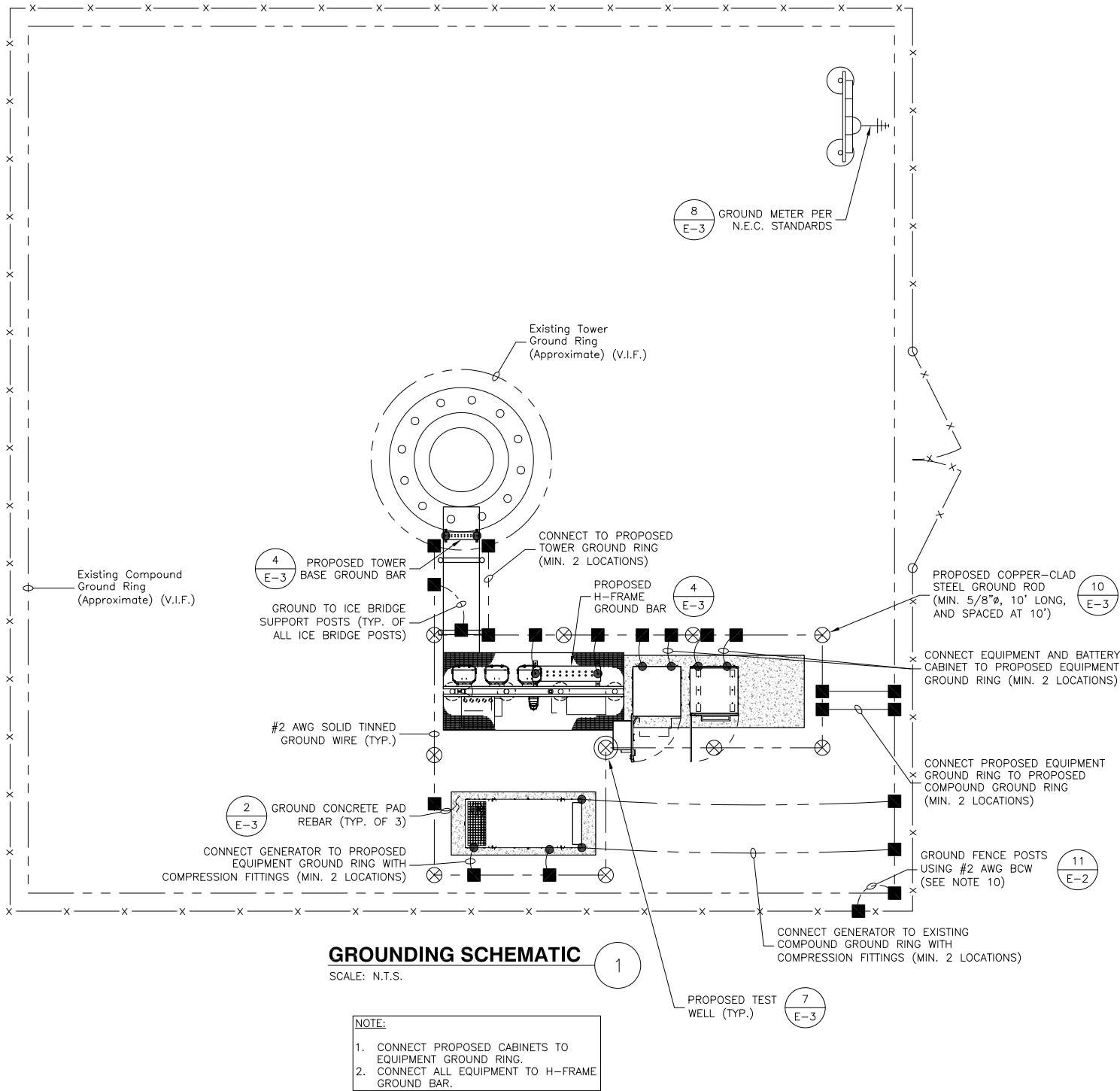
SHEET NUMBER

GROUNDING LEGEND	
	GROUND BAR
	GROUND COPPER WIRE, SIZE AS NOTED
	MECHANICAL GROUND CONNECTION
	5/8"X10' COPPER CLAD STEEL GROUND ROD
	TEST WELL
	EXOTHERMIC (CADWELD) CONNECTION
	PROPOSED GROUND RING
	Existing Ground Ring (V.I.F.)

GROUNDING NOTES:

- GROUNDING SYSTEM RESISTANCE SHALL NOT EXCEED 5 OHMS. IF THE RESISTANCE VALUE IS EXCEEDED, NOTIFY THE OWNER FOR FURTHER INSTRUCTION ON METHODS FOR REDUCING THE RESISTANCE VALUE. CONTRACTOR SHALL SUBMIT TO THE PROJECT MANAGER ALL TEST REPORTS AND ONE COMPLETE SET OF PRINTS SHOWING "INSTALLED WORK".
- UPON COMPLETION OF WORK, CONDUCT CONTINUITY, AND FALL POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.
- ALL EXPOSED GROUND WIRES ROUTED ALONG THE SIDE OF EQUIPMENT CABINETS OR ROUTED OVER CONCRETE FOUNDATIONS OR OTHER EXISTING STRUCTURES SHALL BE INSTALLED IN PROPERLY ANCHORED 3/4" (MIN.) PVC CONDUIT.
- CONTRACTOR SHALL NOT DISTURB EXISTING GROUNDING SYSTEM. ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY AT NO ADDITIONAL COST.
- ALL ELEMENTS OF ICE BRIDGE AND VERIZON WIRELESS UTILITY BACKBOARD MUST BE BONDED AND JUMPERED TO GROUNDED COMPONENTS OF THESE SYSTEMS.
- ALL INTERIOR CABLES AND WIRING SHALL BE NEATLY ROUTED IN OVERHEAD LADDER RACK AND FASTENED TO LADDER RACK WITH WAX COATED STRING PER LUCENT TECHNOLOGIES INSTALLATION STANDARDS. PLASTIC CABLE TIES SHALL NOT BE USED.
- ALL GROUNDING CONDUCTORS SHALL BE ROUTED DOWNWARDS FROM POINT OF ORIGIN TO TERMINATION POINT (GROUND BAR, GROUND RING, ETC.). CONNECTIONS TO OVERHEAD HALO GROUND SHALL BE THE ONLY EXCEPTION.
- GROUNDING CONDUCTORS SHALL NOT REVERSE DIRECTION (EXCEPT HALO AND BURIED GROUND RINGS). OTHER EXCEPTIONS NEED TO BE APPROVED BY VERIZON WIRELESS PROJECT MANAGER PRIOR TO INSTALLATION.
- GROUNDING CONDUCTORS SHALL HAVE A MINIMUM BENDING RADIUS OF 8".
- EACH CORNER FENCE POST AND ANY FENCE POST WITHIN 10' OF ANY VERIZON WIRELESS EQUIPMENT (EQUIPMENT CABINETS, GENERATOR, FUEL TANK, ICE BRIDGE, ETC.) SHALL BE BONDED TO THE VERIZON WIRELESS EQUIPMENT CABINETS GROUND RING OR COMPOUND GROUND RING.
- VERIZON WIRELESS EQUIPMENT CABINETS GROUND RING SHALL BE BONDED TO TOWER AND COMPOUND GROUND RINGS IN 2 PLACES EACH.
- PRIOR TO POURING CONCRETE, ALL REBAR LOCATED NEAR THE BOTTOM OF THE FOUNDATION SHALL BE BONDED TOGETHER TO FORM A SINGLE GROUNDING ELECTRODE, BY STEEL TIES OR OTHER EFFECTIVE MEANS APPROVED BY NEC 2020 AND STRUCTURAL ENGINEER, AND BONDED TO THE GROUND RING AS DETAILED IN THESE PLANS. (INSPECTION MAY BE REQUIRED PRIOR TO POURING CONCRETE AND MUST BE COORDINATED BY CONTRACTOR.)
- IN ACCORDANCE WITH NEC 2020 REQUIREMENTS, ALL GROUNDING ELECTRODES PRESENT ON SITE SHALL BE BONDED TOGETHER (REFERENCE 2020 NEC ARTICLE 250.50)

GROUNDING IS FOR SCHEMATIC PURPOSES ONLY. VERIFY EXACT LAYOUT WITH SITE PLAN.



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DRAWN BY:	LMW
REVIEWED BY:	JYY
CHECKED BY:	HGS
PROJECT NUMBER:	50190722
SITE ADDRESS:	

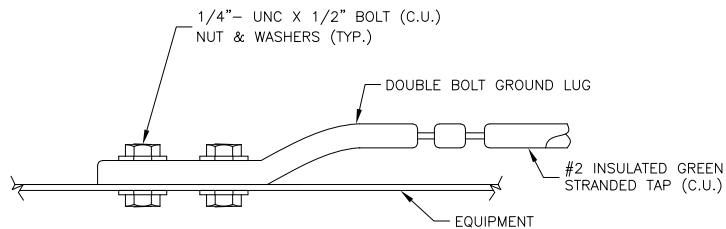
2415 SOUTHSIDE DRIVE
NORTH GARDEN, VA 22959

SHEET TITLE

GROUNDING
SCHEMATIC

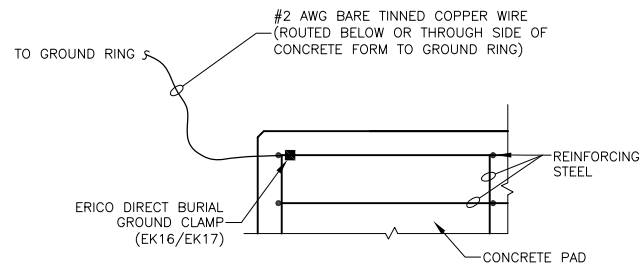
SHEET NUMBER

E-2



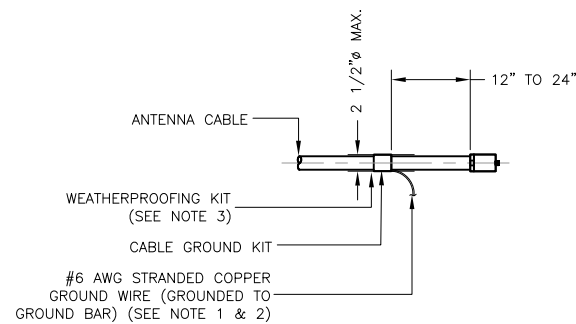
CONNECTION TO EQUIPMENT DETAIL

SCALE: N.T.S.



REBAR GROUNDING DETAIL

SCALE: N.T.S.

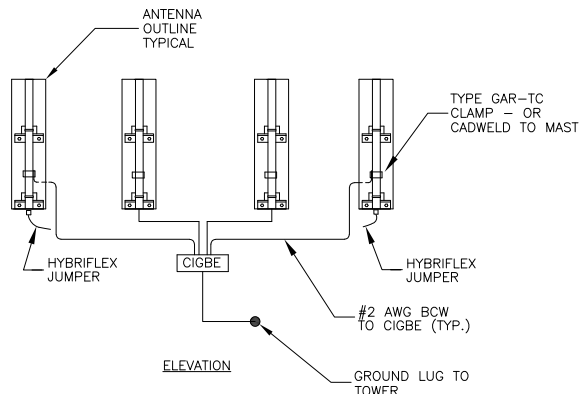


NOTES:

- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
- GROUNDING KIT SHALL BE ANDREW SUREGROUND TYPE KIT WITH TWO-HOLE LUG.
- WEATHER PROOFING SHALL BE ANDREW TWO-PART TAPE SUPPLIED WITH KIT. COLD SHRINK SHALL NOT BE USED.

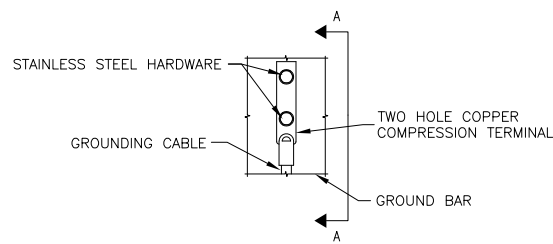
CONNECTION OF CABLE GROUND KIT TO ANTENNA CABLE DETAIL

SCALE: N.T.S.

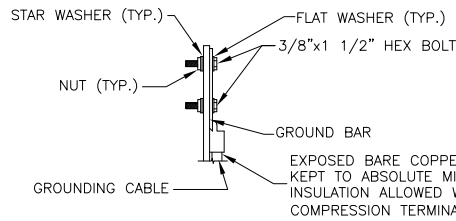


ANTENNA MOUNT GROUNDING DETAIL

SCALE: N.T.S.



ELEVATION



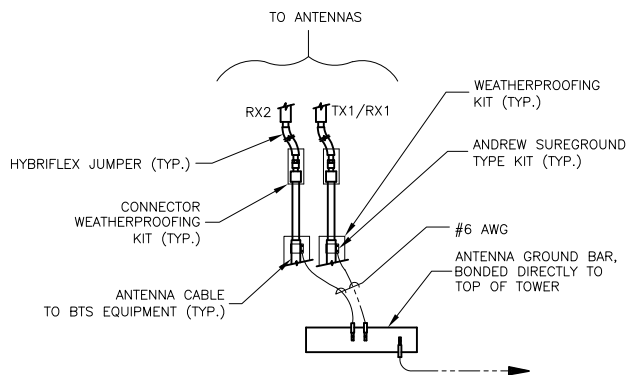
SECTION 'A-A'

NOTES:

- DOUBLING UP OR STACKING OF CONNECTIONS IS NOT PERMITTED.
- OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.

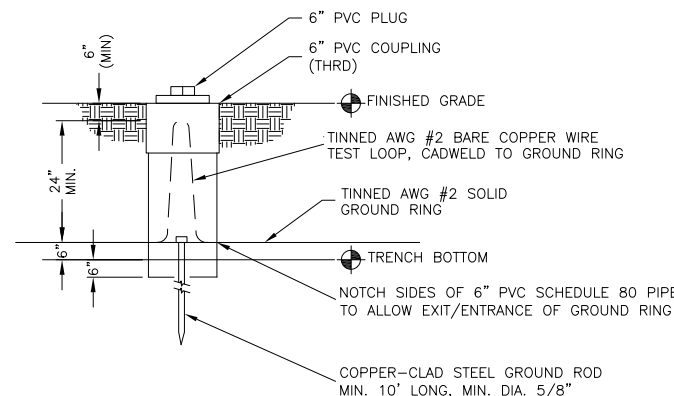
TYPICAL GROUND BAR MECHANICAL CONNECTION DETAIL

SCALE: N.T.S.



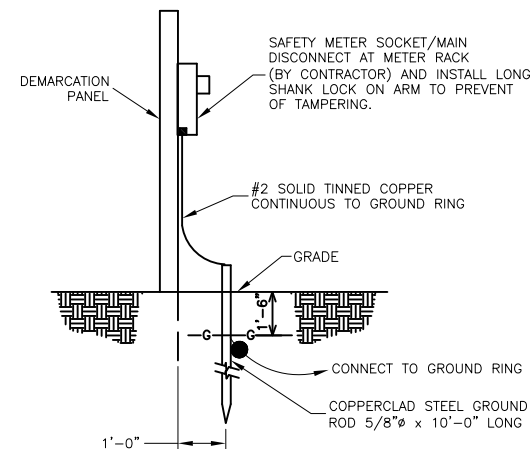
CONNECTION OF GROUND WIRE TO GROUNDING BAR DETAIL

SCALE: N.T.S.



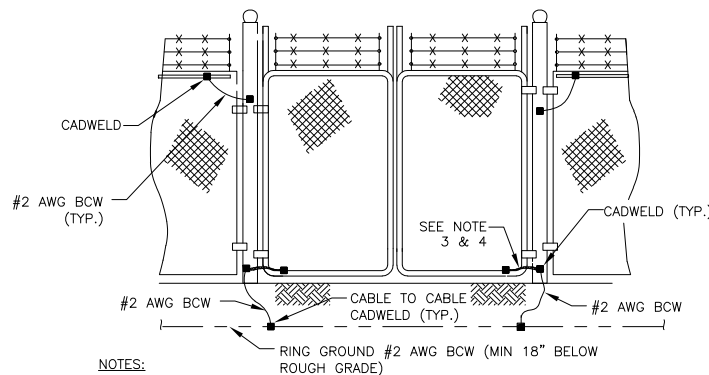
GROUND SYSTEM TESTING WELL

SCALE: N.T.S.



METER SOCKET GROUNDING

SCALE: N.T.S.

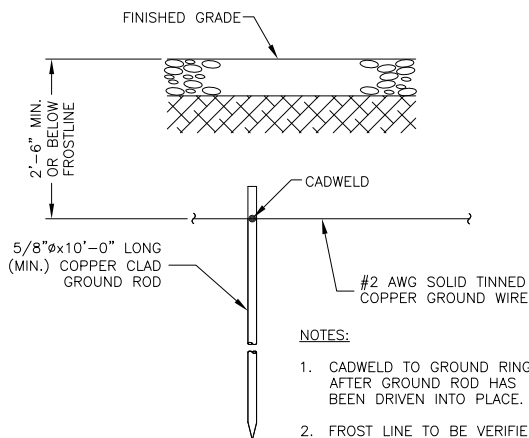


NOTES:

- THE #2 AWG, BCW, FROM THE RING GROUND SHALL BE CADWELDED TO THE POST ABOVE GRADE.
- BOND EACH HORIZONTAL POLE/BRACE TO EACH OTHER AND TO EACH VERTICAL POLE BONDED TO THE EXTERIOR GROUND RING.
- GATE JUMPER SHALL BE #4/0 AWG WELDING CABLE OR FLEXIBLE COPPER BRAID BURNDY TYPE B WITH SLEEVES ON EACH END DESIGNED FOR EXOTHERMIC WELDING.
- GATE JUMPER SHALL BE INSTALLED SO THAT IT WILL NOT BE SUBJECTED TO DAMAGING STRAIN WHEN GATE IS FULLY OPEN IN EITHER DIRECTION.

FENCE GROUNDING DETAIL

SCALE: N.T.S.



NOTES:

- CADWELD TO GROUND RING AFTER GROUND ROD HAS BEEN DRIVEN INTO PLACE.
- FROST LINE TO BE VERIFIED.

GROUND ROD

SCALE: N.T.S.

verizon

VERIZON WIRELESS
1831 RADY COURT
RICHMOND, VA 23222

RED HILL

CONSTRUCTION DRAWINGS

1	06/30/26	POWER PATH AND FENCE
0	06/23/26	FOR CONSTRUCTION

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SHEET TITLE

GROUNDING
DETAILS

SHEET NUMBER

E-3