



CITY OF SOMERVILLE
Commonwealth of Massachusetts
93 Highland Avenue
Somerville, MA 02143
(617) 625-6600

BUSINESS LICENSE APPLICATION - Small Wireless Facility

File #: 24-002324
License #: BL24-000013
Address: 45 PERRY ST
Licensee: Ana Semashka Crown Castle LLC
DBA Name: Crown Castle Fiber LLC

Business Ownership Type: LLC
Legal Name of Entity: Crown Castle Fiber LLC
Owners/Officers: , , ,

License Information:

Do you believe this to be a 6409(a) application?: Yes

Describe the reason for the work, and the intended beneficiaries: Upgrade existing small cell wireless equipment at existing locations, licensed in 2008, no trenching/excavation required, to provide improved service to the community, and emergency services coverage

Provide the detailed description of the work that should appear on the License: Upgrade existing small cell wireless equipment at existing locations

of installations on existing poles: 1

of installations on new poles: 0

Provide the legal name of the entity that will own the License: Crown Castle Fiber LLC

Approved By:

William Cahill, Approved with Conditions

Electrical Review approved, conditional upon electrical permit applications/approvals for scope of work are obtained.

Isabela Maia, Approved with Conditions

APPROVAL CONDITION IMM 240820: Any work requiring the use of the street and/or sidewalk will require a Street/Sidewalk Occupancy Permit from the Engineering Department. Apply via Citizen Serve before occupancy of the public right of way.

Malik Drayton, Approved with Conditions

APPROVAL CONDITION: MD20240823: Contractor shall take all necessary precautions to avoid damaging any tree or tree part with equipment.

APPROVAL CONDITION: MD20240823: All nearby street tree(s) shall be protected prior to and during all construction activities using TREE BOX or TREE WRAPS. . TREE BOX shall be constructed from 2 in. x 4 in. lumber creating a box around the border of the tree pit with 2 in. x 4 in. lumber standing straight up at the corners and wrapped with orange snow fence. Detail attached. . TREE WRAPS (TREE TRUNK WRAPPING PROTECTION LUMBER) shall consist of 2 in. x 4 in. and 8 ft. height lumber wired together in close spacing with zip ties or 16 gauge galvanized steel wire to form a protective enclosure around tree trunks. Use burlap to separate the wood from the bark if necessary to prevent wood from scraping or bruising bark. Do not use staples or puncture the trunk in any way.

APPROVAL CONDITION: MD20240823: Contractor shall take all necessary precautions to avoid damaging any tree or tree part with equipment. APPROVAL CONDITION: MD20240823: All nearby street tree(s) shall be protected prior to and during all construction activities using TREE BOX or TREE WRAPS. . TREE BOX shall be constructed from 2 in. x 4 in. lumber creating a box around the border of the tree pit with 2 in. x 4 in. lumber standing straight up at the corners and wrapped with orange snow fence. Detail attached. . TREE WRAPS (TREE TRUNK WRAPPING PROTECTION LUMBER) shall consist of 2 in. x 4 in. and 8 ft. height lumber wired together in close spacing with zip ties or 16 gauge galvanized steel wire to form a protective enclosure around tree trunks. Use burlap to separate the wood from the bark if necessary to prevent wood from scraping or bruising bark. Do not use staples or puncture the trunk in any way. APPROVAL CONDITION: MD20240823: Any tree roots less than two (2) inches in diameter that cannot be avoided during construction shall be carefully and cleanly cut with a clean pair of pruning shears or loppers. Roots are to be cut back flush with the edge of the trench. If any tree roots greater than two (2) inches in diameter are encountered, stop work immediately and contact the City Urban Forester. Any and all pruning of roots greater than 2 inches in diameter must be completed under the supervision of the City Urban Forester.

Eric Weisman, Approved

Matt Sarcione, Approved

Kimberly M. Wells, Approved



PROPOSED SMALL CELL NODE UPGRADE

NODE ID: ODAS_2D-13
T-MOBILE ID: NE0509BA_21LAB
SCU#: 406386
 45 PERRY ST, SOMERVILLE, MA 02143
 MIDDLESEX COUNTY

LATITUDE: 42.377769°
N 42° 22' 40.0"
LONGITUDE: -71.101603°
W 71° 06' 05.8"



Know what's below.
 Call before you dig.

ENGINEERING FIRM



APPLICANT



SITE INFORMATION

ODAS_2D-13
 45 PERRY ST
 SOMERVILLE, MA 02143
 MIDDLESEX COUNTY

DESIGN RECORD

REVISIONS

REV	DATE	DESCRIPTION	BY
1	08/05/24	REVISED PER COMMENTS	KN
0	09/18/23	FINAL	RAL

PROFESSIONAL STAMP



ENGINEER

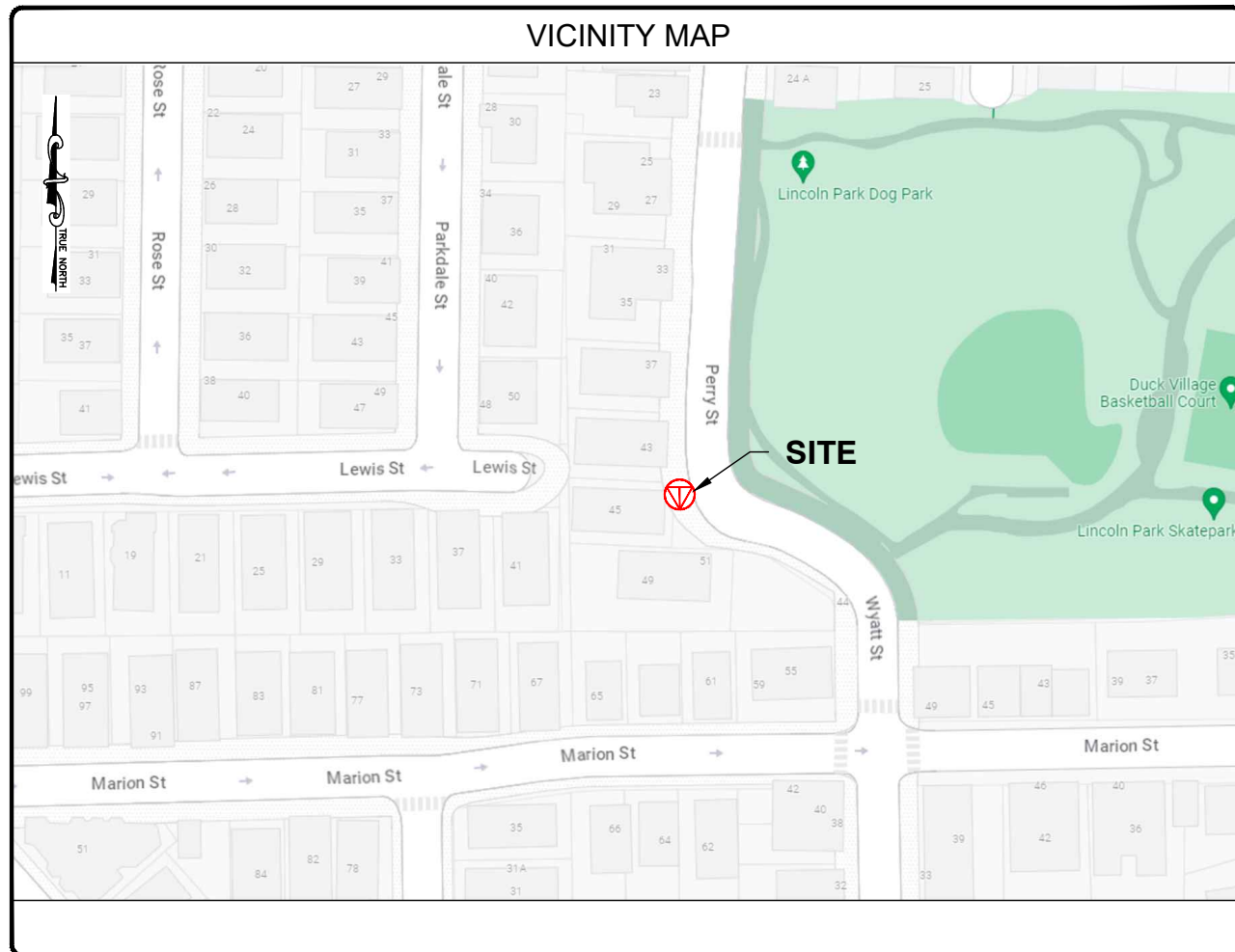
DANIEL J. CORNING, P.E.
 MA PROFESSIONAL ENGINEER LIC #53767

SHEET TITLE

TITLE SHEET

SHEET NUMBER

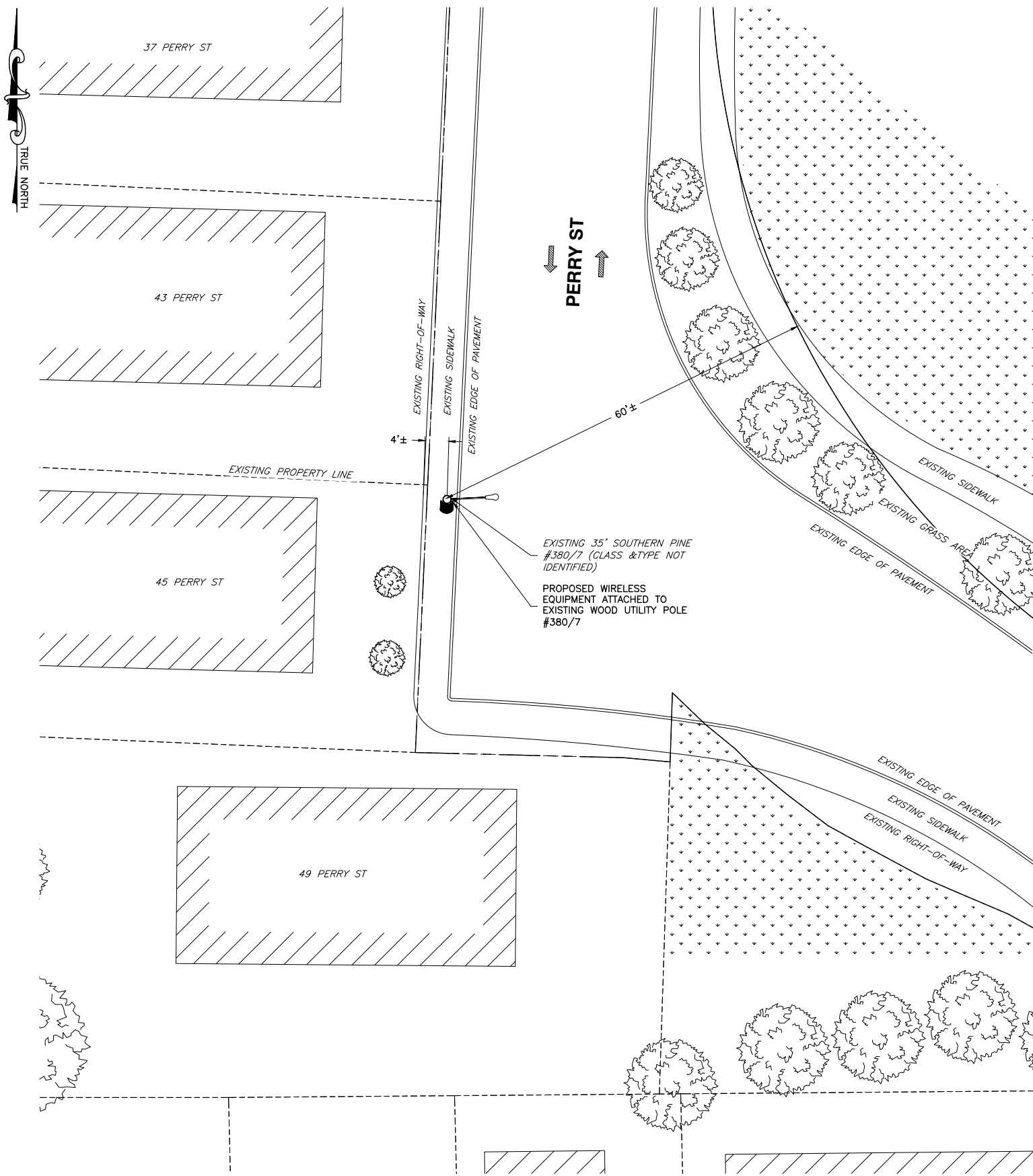
SHEET 01 OF 08



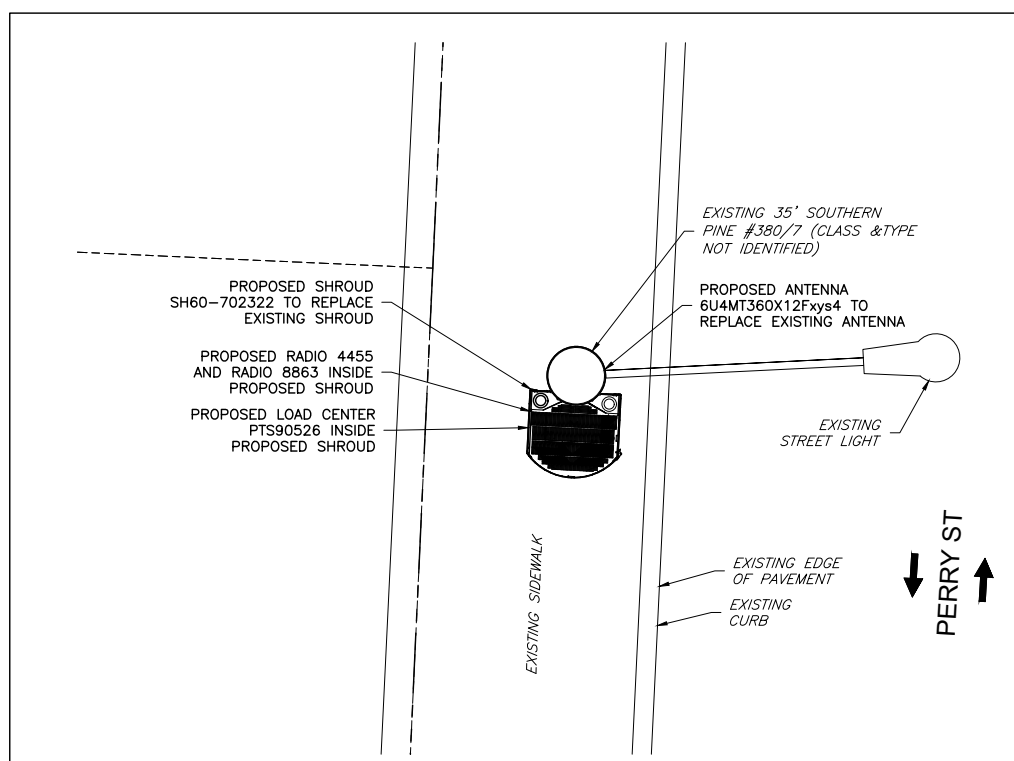
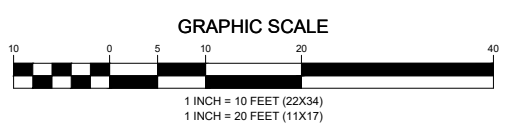
PROJECT INFORMATION	
PROJECT NAME:	CAMBRIDGE MA TID_00035_69 NODES
JURISDICTION:	SOMERVILLE
CROWN CASTLE PROJECT MANAGER:	ERIC PECKHAM 1800 W PARK DRIVE WESTBOROUGH, MA 01581 (401) 473-8630
ELECTRIC COMPANY:	EVERSOURCE
TELEPHONE COMPANY:	VERIZON

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.	
<ul style="list-style-type: none"> 2015 INTERNATIONAL BUILDING CODE (MASSACHUSETTS AMENDED 9TH EDITION) 2023 NATIONAL ELECTRICAL CODE NFPA 1-2015 EDITION 2015 IFC - REFERENCE 527 CMR AMERICAN CONCRETE INSTITUTE AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL OF STEEL CONSTRUCTION 13TH EDITION 	<ul style="list-style-type: none"> ANSI/TIA-222-G TIA 607 INSTITUTE FOR ELECTRICAL & ELECTRONICS ENGINEER 81 IEEE C2 NATIONAL ELECTRIC SAFETY CODE LATEST EDITION TELECORDIA GR-1275 ANSI/T 311

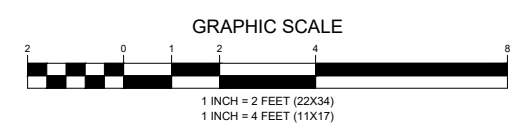
DRAWING INDEX	
01	TITLE SHEET
02	NOTES
03	SITE PLAN & EQUIPMENT ORIENTATION PLAN
04	ELEVATIONS & NOTES
05	PHOTO SIMULATION
06	ANTENNA & EQUIPMENT DETAILS
07	GROUNDING DETAILS & WIRING DIAGRAM
08	TRAFFIC MANAGEMENT PLAN



SITE PLAN



EQUIPMENT ORIENTATION PLAN



ENGINEERING FIRM

NB+C
TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.
100 APOLLO DRIVE, SUITE 303
CHELMSFORD, MA 01824
(978) 556-5108

APPLICANT

CROWN CASTLE

CROWN CASTLE FIBER, LLC
1800 W PARK DRIVE
WESTBOROUGH, MA 01581
(508) 621-9144

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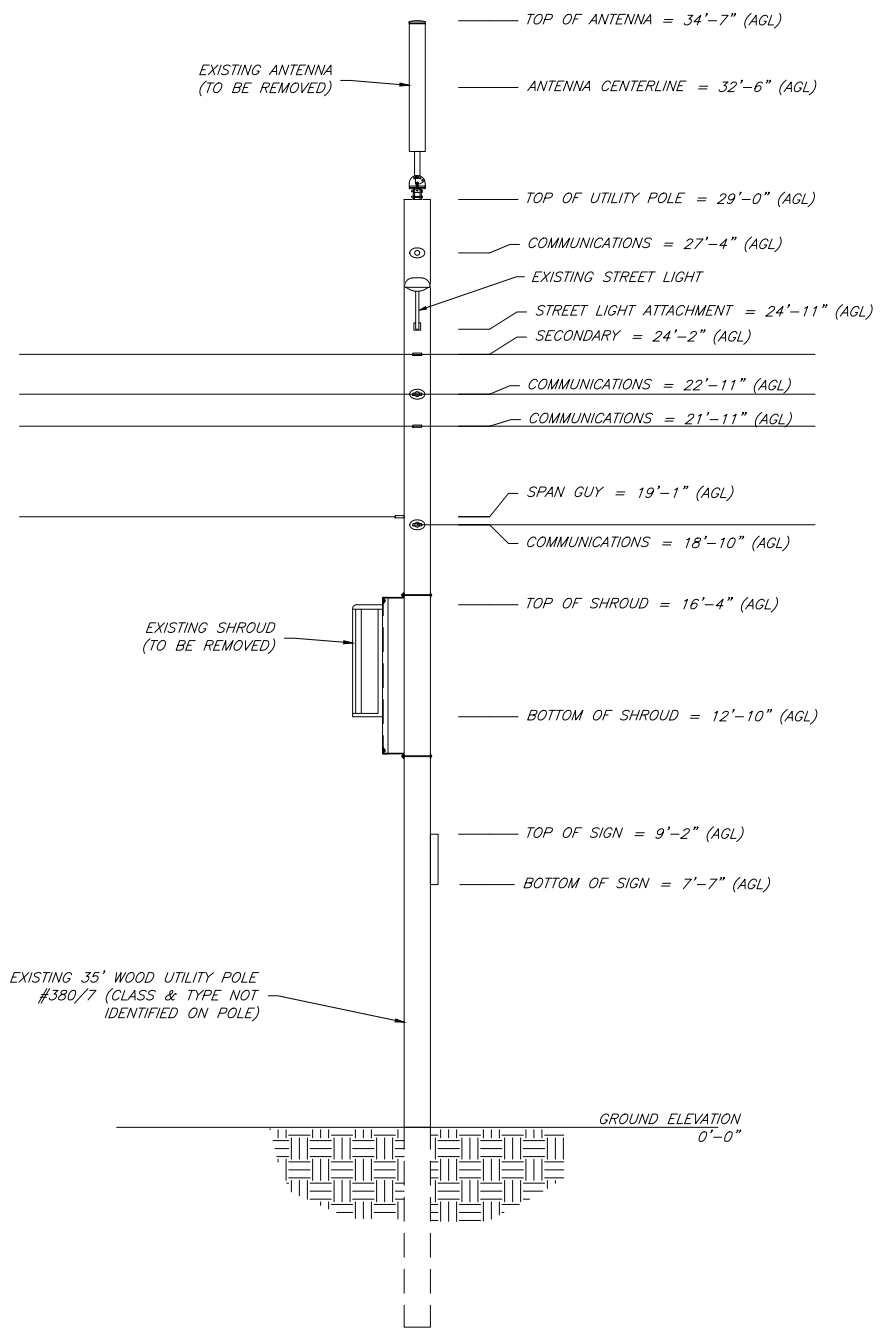
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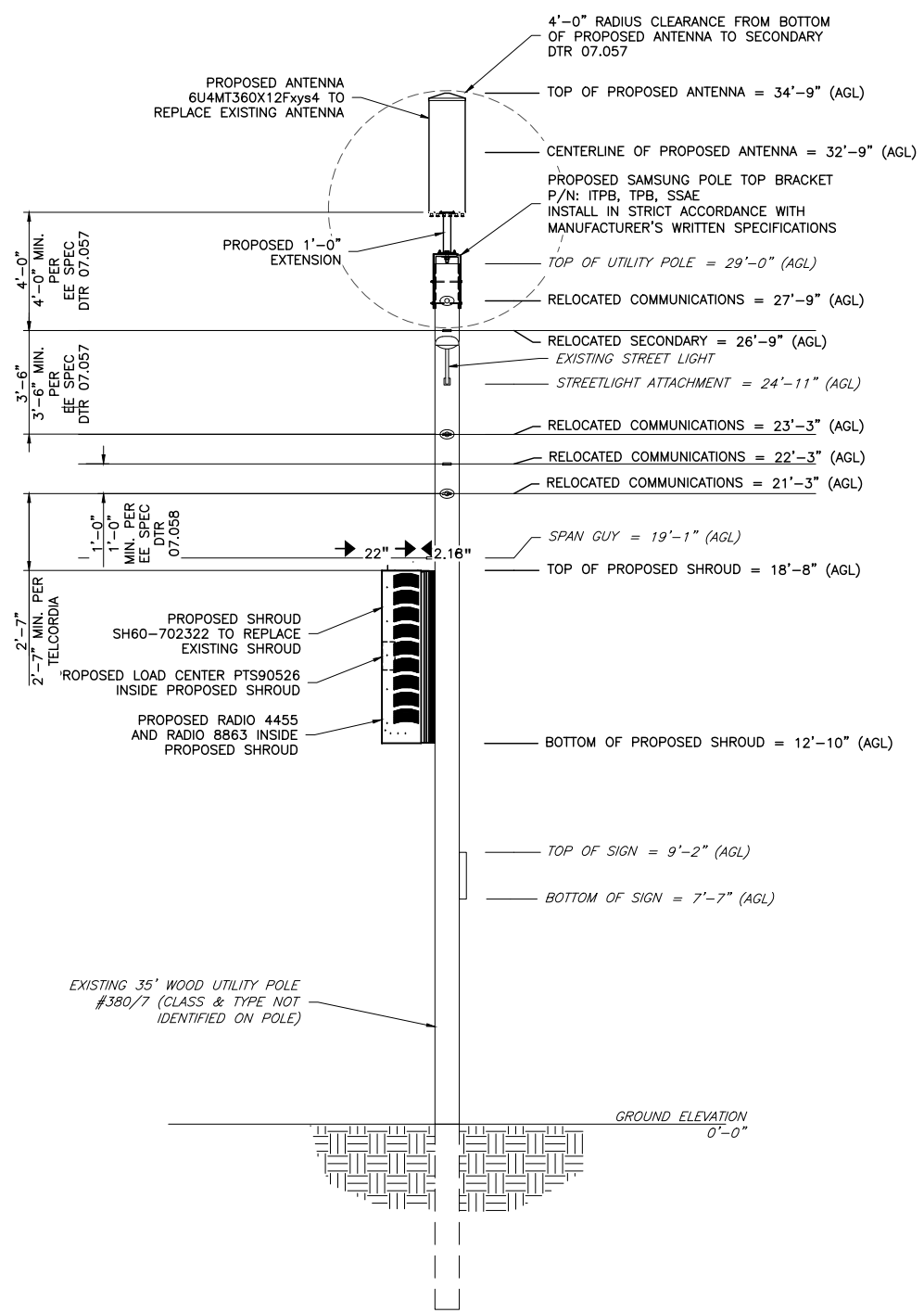
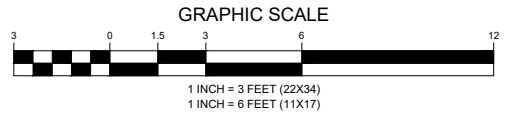
SITE PLAN & EQUIPMENT ORIENTATION PLAN

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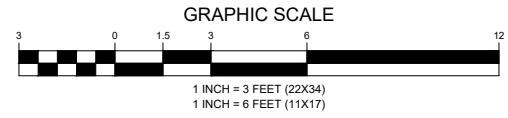
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EXISTING ELEVATION (LOOKING WEST)



PROPOSED ELEVATION (LOOKING WEST)



NOTES:

- EQUIPMENT ELEVATION IS SUBJECT TO MAKE READY PERFORMED BY POLE OWNER.
- NEW PLACARD SHALL BE OSHA COMPLIANT AND DISPLAY THE FOLLOWING INFORMATION: TRANSMITTING SYSTEM, EQUIPMENT OWNER & PROPER CONTACT INFORMATION. INSTALL PER UTILITY COMPANY REQUIREMENTS AND VERIFY EXACT MOUNTING HEIGHT IN FIELD.
- MAINTAIN MINIMUM OF 42" FROM TOP COMMUNICATION ATTACHMENT TO BOTTOM SECONDARY POWER ATTACHMENT.
- MAINTAIN MINIMUM OF 48" CLEARANCE IN ANY DIRECTION FROM ANTENNA AND MOUNTING BRACKET TO NEAREST SECONDARY POWER CONNECTION.
- MAINTAIN MINIMUM OF 12" FROM TOP COMMUNICATIONS LINE TO ANY ADDITIONAL COMMUNICATIONS LINE.
- MAINTAIN MINIMUM OF 5' FROM GROUND LEVEL TO CENTER OF METER SOCKET.
- MAINTAIN MINIMUM OF 6' CLEARANCE IN ANY DIRECTION FROM ANTENNA AND MOUNTING BRACKET TO NEAREST PRIMARY POWER CONNECTION.
- EQUIPMENT TO BE INSTALLED ON OPPOSITE SIDE OF TRAFFIC FLOW.
- POWER SUPPLY & WEATHERHEAD SHOULD BE INSTALLED ON THE SAME SIDE OF THE POLE WITH THE SECONDARY(S) AND COMMUNICATION CABLE(S) TO ACCOMMODATE CLIMBING OF THE POLE.
- PRIOR TO THE INSTALLATION OF THE PROPOSED EQUIPMENT OR MODIFICATION TO THE EXISTING STRUCTURE, CONTRACTOR SHALL REFER TO THE LATEST STRUCTURAL ANALYSIS COMPLETED BY: NETWORK BUILDING + CONSULTING, LLC.

ENGINEERING FIRM

APPLICANT

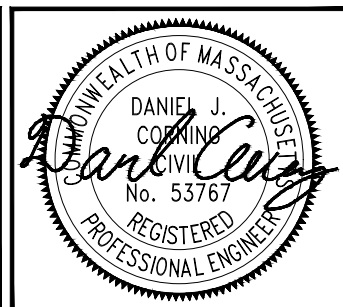
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ENGINEER

DANIEL J. CORNING, P.E.
MA PROFESSIONAL ENGINEER LIC #53767

SHEET TITLE

ELEVATIONS & NOTES

SHEET NUMBER

SHEET
04 OF 08



EXISTING CONDITIONS



PROPOSED CONDITIONS

ENGINEERING FIRM

NB+C
TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.
100 APOLLO DRIVE, SUITE 303
CHELMSFORD, MA 01824
(978) 556-6300

APPLICANT

CROWN CASTLE

CROWN CASTLE FIBER, LLC
1800 W PARK DRIVE
WESTBOROUGH, MA 01581
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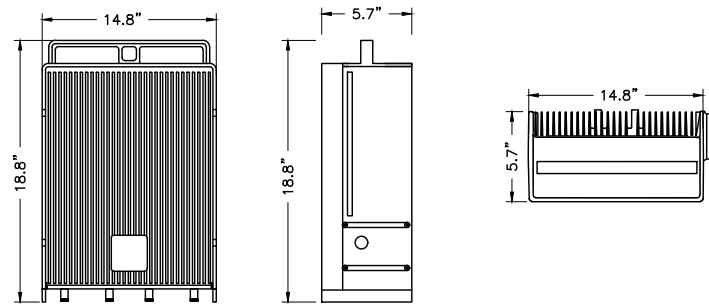
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PHOTO
SIMULATION

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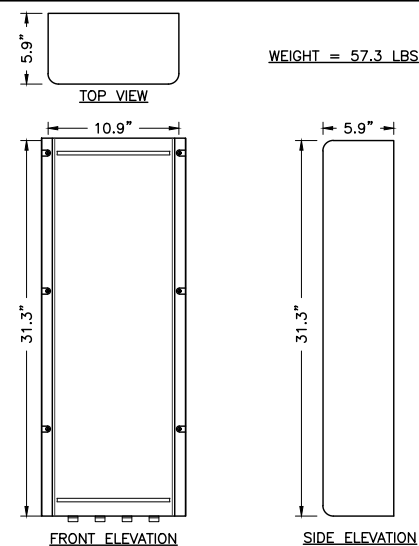
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SIZE AND WEIGHT TABLE

RRU	HEIGHT	WIDTH	DEPTH	WEIGHT (W/FAN UNIT)
RADIO 8863 B41	18.8"	14.8"	5.7"	50.9 LBS.

1 ERICSSON REMOTE RADIO UNIT (RRU)
06 NTS

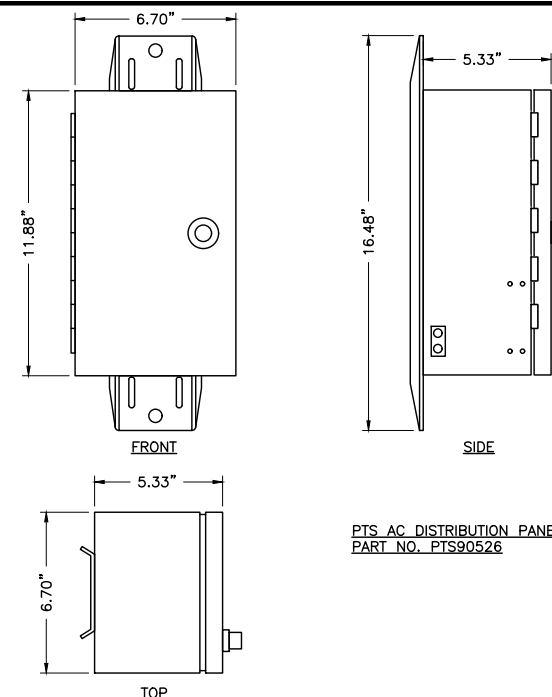


WEIGHT = 57.3 LBS

SIZE AND WEIGHT TABLE

RRH	WIDTH	DEPTH	HEIGHT	WEIGHT
RADIO 4455 B2/B25	10.9"	5.9"	31.3"	57.3 LBS

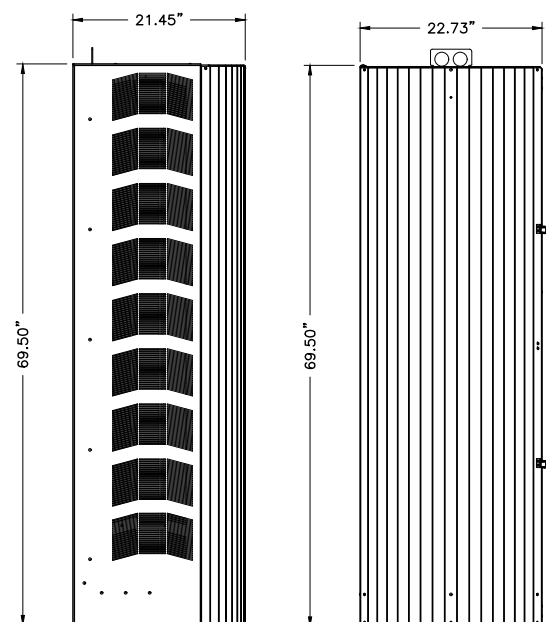
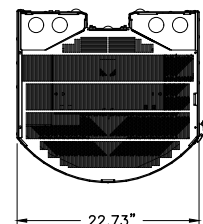
2 RADIO 4455 DETAIL
06 NTS



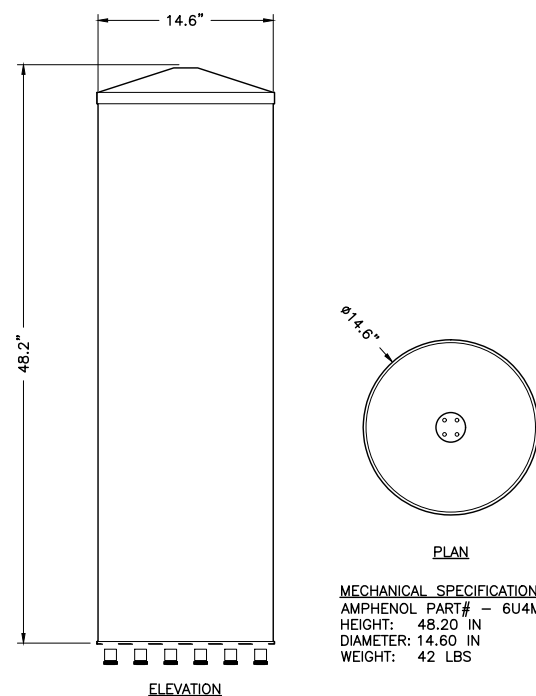
PTS_AC DISTRIBUTION PANEL:
PART NO. PTS90526

3 AC LOAD CENTER DETAIL
06 NTS

CHARLES INDUSTRIES, INC. SHROUD
PART NO. COLO-702322
HEIGHT: 69.50 IN
WIDTH: 22.73 IN
DEPTH: 21.45 IN

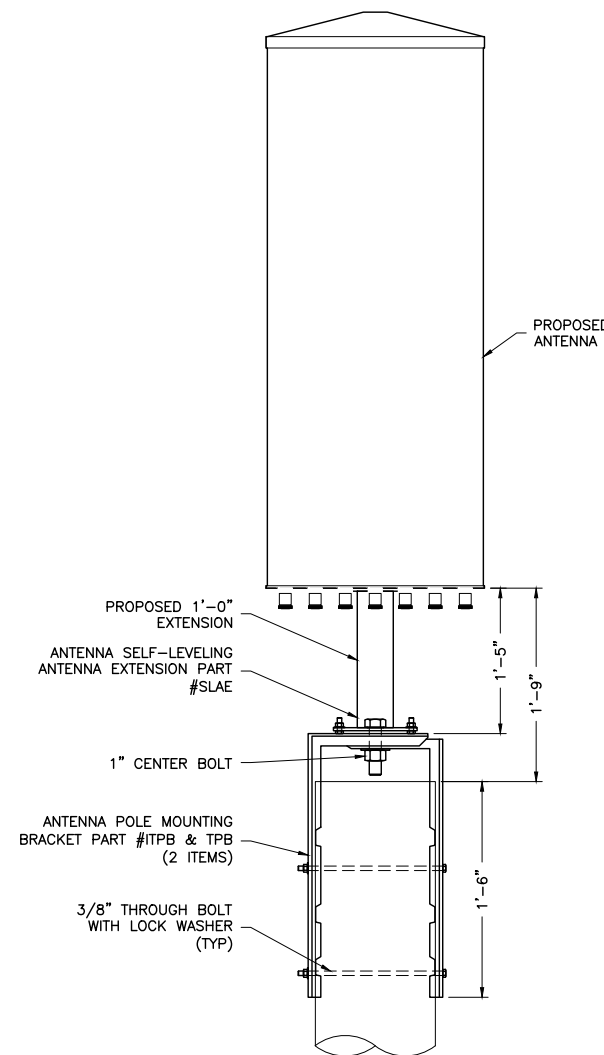


4 SHROUD DETAIL
06 NTS



MECHANICAL SPECIFICATIONS
AMPHENOL PART# - 6U4MT360X12Fxy4
HEIGHT: 48.20 IN
DIAMETER: 14.60 IN
WEIGHT: 42 LBS

5 ANTENNA DETAIL
06 NTS



6 ANTENNA MOUNTING DETAIL
06 NTS

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MA PROFESSIONAL ENGINEER LIC #53767

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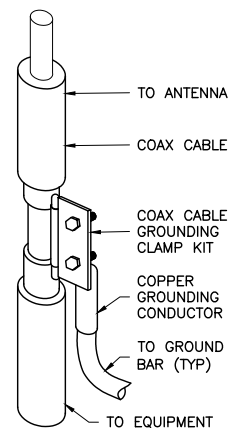
ANTENNA & EQUIPMENT DETAILS

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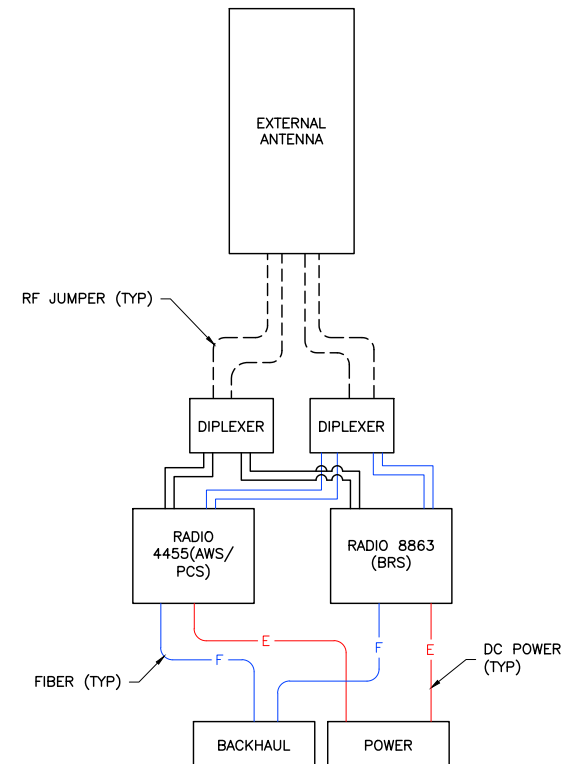
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GENERAL NOTES:

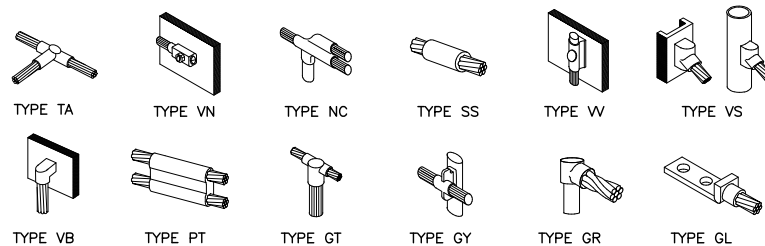
- METAL TO METAL CONTACT IS NOT ALLOWED WITHOUT AN INTENTIONAL BOND.
- DISSIMILAR METALS IN DIRECT CONTACT, CAUSE CHEMICAL REACTION BETWEEN THE METALS, LEADING TO CORROSION.
- ALL ABOVE GROUND CONNECTIONS TO THE VERTICAL GROUND RISER (VGR) SHALL BE IRREVERSIBLE CLAMP TYPE AND WEATHER PROOFED.
- WHERE APPLICABLE EARTH GROUND RESISTANCE OF 5 OHMS OR LESS IS PREFERRED. 25 OHMS IS ACCEPTABLE SEE NEC 250.53.
- ALL METALLIC SURFACES AND/OR GROUND COMPONENTS INSTALLED W/IN 6" OF EACH OTHER MUST BE PROPERLY BONDED TO VGR, INCLUDING BUT NOT LIMITED TO, RADIO SHROUD, ANTENNA BRACKETS, STREET LIGHTS AND THE METER/LOAD CENTER OF THE AC SERVICE.
- RF GROUND KITS ARE NOT REQUIRED WHERE RF SURGE PROTECTION DEVICES (SPDS) ARE INSTALLED AHEAD OF THE RF CABLES ENTRY POINT INTO THE SHROUD. GROUND AVAILABLE SPDS TO VGR.
- WHEN A NEW FOUNDATION IS INSTALLED, BOND THE AVAILABLE REBAR TO THE SITE GROUNDING.
- WHEN GROUNDING EQUIPMENT INSIDE A SHROUD, CONNECT TO THE SHROUD MANUFACTURER'S GROUND BUSS BAR, AND WATERFALL THE GROUND WIRE FROM THE SHROUD IN A DOWNWARD SWEEPING MOTION TO THE VGR. AVOID GROUND LOOPS THROUGH THE EQUIPMENT CHASSIS TO THE METALLIC SHROUD.
- FOR METAL POLES BOND THE POLE TO THE VGR. FOR ELECTRIC METERS INSTALLED ON METAL POLES, AVOID UNINTENTIONAL BONDING THROUGH THE CHASSIS OF THE METER AND THE METAL POLE. ALL BONDS SHOULD BE INTENTIONAL.
- THE NEUTRAL GROUND BOND SHOULD IDEALLY BE AT THE FIRST LOAD CENTERING MEANS AFTER THE ELECTRICAL SERVICE. SEE NEC CODE 250.24 FOR NEUTRAL GROUND BONDING CONNECTION.
- WHEN SITE IS POWERED UP, BEFORE ACCEPTANCE, TEST FOR OBJECTIONABLE CURRENT AND FOREIGN VOLTAGE.



1 COAX CABLE GROUNDING
07 NTS



3 WIRING DIAGRAM
07 NTS



2 GROUNDING CONNECTION DETAILS
07 NTS

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**GROUNDING
DETAILS & WIRING
DIAGRAM**

SHEET NUMBER

SHEET
07 OF 08