



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

BUSINESS LICENSE APPLICATION - Small Wireless Facility

File #: 24-002515
License #: BL24-000020
Address: 223 SCHOOL ST
Licensee: Ana Semashka Crown Castle
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: 0

of installations on new poles: 1

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

Approval Conditions:

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

Malik Drayton, Approved with Conditions

APPROVAL CONDITION: MD20240808: Contractor shall take all necessary precautions to avoid damaging any tree or tree part with equipment.

APPROVAL CONDITION: MD20240808: 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: MD20240808: 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

Joshua Manion, Approved

Kimberly M. Wells, Approved



CITY OF SOMERVILLE, MASSACHUSETTS
CITY CLERK'S OFFICE
KATJANA BALLANTYNE
MAYOR

KIMBERLY M. WELLS
CITY CLERK

August 13, 2024

NOTICE OF PUBLIC HEARING

You are hereby notified that the Somerville City Council will hold a Public Hearing on the following Petition. You are receiving this Notice because the Petitioner has reported that you own property that abuts the work that is being proposed. You and other members of the public are invited to attend and be heard at this Hearing.

This meeting of the City Council will also be conducted via remote participation, online in a webinar hosted on the Zoom platform.

You have three ways to be heard at this meeting:

1. To attend and be heard, enter the link exactly as it appears below into your internet browser any time before the meeting. You will then be asked to register for the meeting. After registering, you will receive an email with instructions to join the webinar when it starts.
2. You may also testify in person in the City Council Chamber, City Hall, 2nd Floor, 93 Highland Avenue, Somerville, MA 02143
3. If you are unable to attend but wish to be heard, you may send written comments by US mail to the City Clerk at the address below, or by email to cityclerk@somervillema.gov. Your comments must arrive no later than 12 Noon on the day of the Hearing, in order to be sure they are conveyed to the Council.

PETITION: Crown Castle Fiber seeks a Small Wireless Facility to replace existing street light pole and install a small cell wireless antenna on a new street light pole located at the intersection of Evergreen Avenue and School Street.

PLACE: https://us02web.zoom.us/webinar/register/WN_rTQmfy-RQCG_QqKLjtYHsA or
City Council Chambers, City Hall, 2nd Floor, 93 Highland Avenue, Somerville, MA 02143

TIME: Thursday, August 22, 2024, at 7:00 PM.

PURPOSE: The work is necessary to provide or improve wireless communication to the immediate area.

PROPOSED SMALL CELL NODE

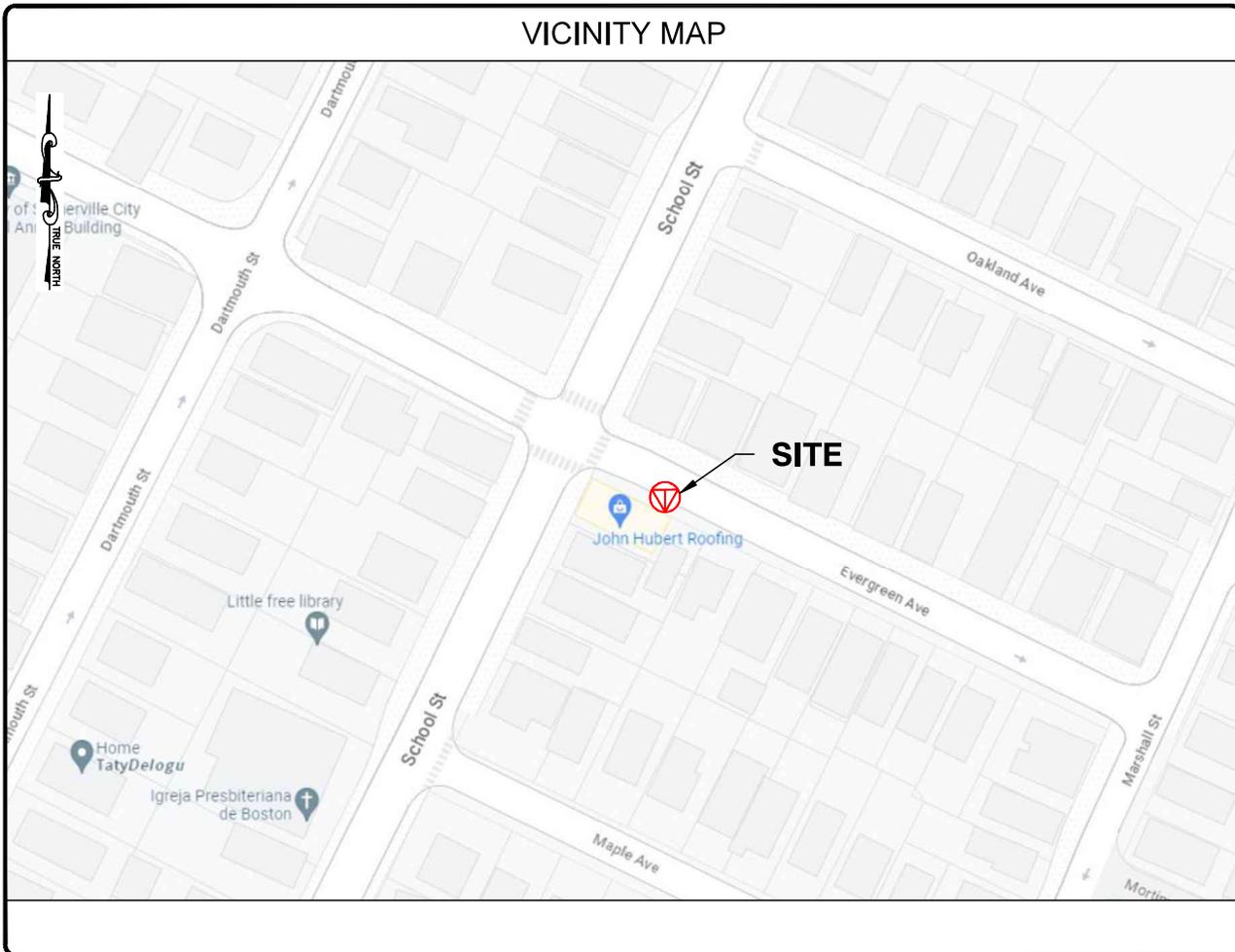
NODE ID: ODAS_2D

T-MOBILE ID: NE0512BA

SCU#: 406421

**17 EVERGREEN AVE, SOMERVILLE,
MIDDLESEX COUNTY**

VICINITY MAP



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 FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THIS PERMIT SHALL BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING:

- | | |
|--|--|
| <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 AND ELECTRONICS ENGINEERS • IEEE C2 NATIONAL ELECTRIC SAFETY CODE • TELECORDIA GR-1275 • ANSI/T 311 |
|--|--|

GENERAL NOTES:

1. THE CONTRACTOR SHALL GIVE ALL NOTICE AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES.
2. THE ARCHITECT/ENGINEER HAS MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.
3. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE CROWN CASTLE CONSTRUCTION MANAGER OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
4. THE SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT AS DESCRIBED HEREIN, EXCEPT FOR FIBER OPTIC CABLE AND OTHER MATERIALS IDENTIFIED BY CROWN CASTLE.
5. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
6. THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWING/CONTRACT DOCUMENTS.
7. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S/VENDOR'S SPECIFICATION UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
8. THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDUMS OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.
9. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTIONS MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING, AND KEEPING A COPY ON SITE, ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE ARCHITECT/ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.
11. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY TO ORIGINAL OR BETTER CONDITION.
12. THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
13. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.
14. THE CONTRACTOR SHALL NOTIFY THE CROWN CASTLE CONSTRUCTION MANAGER WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL IS RESOLVED BY THE CROWN CASTLE CONSTRUCTION MANAGER.
15. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE PROJECT.
16. OWNER/CONTRACTOR SHALL CONTACT ONE CALL MINIMUM 72 HOURS PRIOR TO THE START OF CONSTRUCTION FOR LOCATION OF EXISTING UNDERGROUND UTILITIES.
17. SUBMITTAL OF BID INDICATES THAT THE CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
18. THESE PLANS ARE DIAGRAMMATIC ONLY, FOLLOW AS CLOSELY AS POSSIBLE.
19. CONTRACTOR SHALL COORDINATE ALL WORK BETWEEN TRADES AND ALL OTHER SCHEDULING AND PROVISIONARY CIRCUMSTANCES SURROUNDING THE PROJECT.
20. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION CONSTRUCTION TOOLS, TRANSPORTATION, ETC., FOR COMPLETE AND FUNCTIONALLY OPERATING SYSTEMS ENERGIZED AND READY FOR USE THROUGHOUT AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
21. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION. LEGALLY DISPOSE OF ALL REMOVED, UNUSED AND EXCESS MATERIAL GENERATED BY THE WORK OF THIS CONTRACT. DELIVER ITEMS INDICATED ON THE DRAWINGS TO THE OWNER IN GOOD CONDITION. OBTAIN SIGNED RECEIPT UPON DELIVERY.
22. AFTER COMPLETION OF CONSTRUCTION, RED LINED AS-BUILT PLANS SHALL BE PROVIDED TO CROWN CASTLE CONSTRUCTION MANAGER.

ELECTRICAL NOTES:

1. CONTRACTOR SHALL PERFORM ALL VERIFICATIONS, OBSERVATION TESTS, AND EXAMINATION WORK PRIOR TO ORDERING OF ANY EQUIPMENT AND THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE PROJECT MANAGER LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT AND DISCREPANCIES.
2. VERIFY HEIGHTS WITH PROJECT MANAGER PRIOR TO INSTALLATION.
3. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. ELECTRICAL MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORIES AND SHALL BEAR THE INSPECTION LABEL "U" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF ALL GOVERNING BODIES HAVING JURISDICTION OVER THE CONSTRUCTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH ALL CURRENT APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA AND NFPA. ALL MATERIALS AND EQUIPMENT SHALL BE APPROVED FOR THEIR INTENDED USE AND LOCATION.
4. ALL WORK SHALL COMPLY WITH ALL APPLICABLE GOVERNING STATE, COUNTY AND CITY CODES AND OSHA, NFPA, NEC & ASHRAE REQUIREMENTS.
5. ENTIRE JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE. ALL WORK, MATERIAL AND EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE CONTRACTOR.
6. PROPERLY SEAL ALL PENETRATIONS. PROVIDE UL LISTED FIRE-STOPS WHERE PENETRATIONS ARE MADE THROUGH FIRE-RATED ASSEMBLIES. WATER-TIGHT USING SILICONE SEALANT.
7. DELIVER ALL BROCHURES, OPERATING MANUALS, CATALOGS AND SHOP DRAWINGS TO THE PROJECT MANAGER AT JOB COMPLETION. PROVIDE MAINTENANCE MANUALS FOR MECHANICAL EQUIPMENT. AFFIX MAINTENANCE LABELS TO MECHANICAL EQUIPMENT.
8. ALL CONDUCTORS SHALL BE COPPER. MINIMUM CONDUCTOR SIZE SHALL BE #12 AWG., UNLESS OTHERWISE NOTED. CONDUCTORS SHALL BE TYPE THW, RATED IN ACCORDANCE WITH NEC 110-14(C).
9. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THAN THE MAXIMUM INTERRUPTING CURRENT TO WHICH THEY MAY BE SUBJECTED.
10. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE; ARTICLES 250 & 810 AND THE UTILITY COMPANY STANDARDS.
11. **CONDUIT:**
 - A. RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED EXTERIOR. RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.
 - B. ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTINGS SHALL BE GLAND RING COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.
 - C. LIQUID-TIGHT FLEXIBLE METAL CONDUIT SHALL BE U.L. LISTED AND SHALL BE USED AT FINAL CONNECTIONS TO MECHANICAL EQUIPMENT & RECTIFIERS AND WHERE PERMITTED BY CODE. ALL CONDUIT IN EXCESS OF SIX FEET IN LENGTH SHALL CONTAIN A FULL-SIZE GROUND CONDUCTOR.

- D. CONDUIT RUNS SHALL BE SURFACE MOUNTED ON CEILINGS OR WALLS UNLESS OTHERWISE NOTED. CONDUIT SHALL RUN PARALLEL OR PERPENDICULAR TO WALLS, FLOOR, CEILING OR ROOF. ROUTING OF ALL EXPOSED CONDUIT WITH THE PROJECT MANAGER PRIOR TO INSTALLATION.
 - E. PVC CONDUIT MAY BE PROVIDED ONLY WHERE SHOWN, OR IN UNDERGROUND UNRESISTANT CONDUIT WHERE EXPOSED TO THE ATMOSPHERE. PROVIDE GROUNDING AND LABELS; EXCEPT WHERE PERMITTED BY CODE TO OMIT.
12. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLATE. LABELS SHALL BE BLACK WITH WHITE LETTERS; EXCEPT AS REQUIRED BY CODE TO FOLLOW.
 13. UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL OF POTENTIAL TEST REPORTS TO PROJECT MANAGER. GROUNDING SYSTEMS SHALL EXCEED 5 OHMS. IF THE RESISTANCE VALUE IS EXCEEDED, NOTIFY THE PROJECT MANAGER FOR INSTRUCTION ON METHODS FOR REDUCING THE RESISTANCE VALUE.
 14. COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT TEMPORARY POWER AND ALL HOOKUP COSTS SHALL BE PAID BY THE CONTRACTOR.
 15. VERIFY ALL EXISTING CIRCUITRY PRIOR TO REMOVAL AND NEW WORK. MAINTAIN POWER TO ALL CIRCUITS NOT SCHEDULED FOR REMOVAL.

GROUNDING NOTES:

1. GROUNDING SHALL COMPLY WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.
2. ALL GROUNDING DEVICES SHALL BE U.L. APPROVED OR LISTED FOR THEIR INTENDED USE.
3. ALL WIRES SHALL BE AWG THHN/THWN COPPER UNLESS NOTED OTHERWISE.
4. GROUNDING CONNECTIONS TO GROUND RODS, GROUND RING WIRE, TOWER BASE EXOTHERMIC ("CADWELDS") UNLESS NOTED OTHERWISE. CLEAN SURFACES TO BE CLEANED AND CADWELDED TO GALVANIZED SURFACES, SPRAY CADWELD WITH GALVANIZED COPPER.
5. GROUNDING CONNECTIONS TO GROUND BARS ARE TO BE TWO-HOLE BRASS MINIMUM STAINLESS STEEL HARDWARE (INCLUDING SCREW SET) CLAD GROUND BAR TO SHIELD CONNECTION, TREAT WITH PROTECTIVE ANTI-OXIDANT COATING.
6. GROUND COAXIAL CABLE SHIELDS AT BOTH ENDS WITH MANUFACTURER'S GROUNDING CLAMP.
7. ROUTE GROUNDING CONDUCTORS THE SHORTEST AND STRAIGHTEST PATH POSSIBLE WITH A MINIMUM 12" RADIUS.
8. INSTALL #6 AWG GREEN-INSULATED STRANDED WIRE FOR ABOVE GRADE GROUNDING COPPER WIRE FOR BELOW GRADE GROUNDING UNLESS OTHERWISE NOTED.
9. REFER TO GROUNDING PLAN FOR GROUND BAR LOCATIONS. GROUNDING CONNECTIONS TO ANTENNA MOUNTS AND GROUND RING. REMAINING GROUNDING CONNECTIONS TO COMPRESSION FITTINGS. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO-HOLE BRASS MINIMUM STAINLESS STEEL HARDWARE (INCLUDING SCREW SET) CLAD GROUND BAR TO SHIELD CONNECTION, TREAT WITH PROTECTIVE ANTI-OXIDANT COATING.
10. THE GROUND ELECTRODE SYSTEM SHALL CONSIST OF DRIVEN GROUND RODS OR GROUNDING PLAN. THE GROUND RODS SHALL BE 5/8"x8"-0" COPPER CLAD STEEL TINNED SOLID COPPER WIRE BURIED 36" BELOW GRADE. BURY GROUND RODS A MINIMUM OF 6' APART (SECOND GROUND ROD ONLY REQUIRED IF RESISTIVITY TEST INDICATES).
11. IF ROCK IS ENCOUNTERED GROUND RODS SHALL BE PLACED AT AN OBLIQUE ANGLE TO THE SURFACE.
12. EXOTHERMIC WELDS SHALL BE MADE IN ACCORDANCE WITH ERICO PRODUCTS BULLETIN 100.
13. CONSTRUCTION OF GROUND RING AND CONNECTIONS TO EXISTING GROUND RING SYSTEM SHALL BE PHOTOGRAPHED PRIOR TO BACKFILLING SITE. PROVIDE PHOTOS TO THE PROJECT MANAGER.
14. ALL GROUND LEADS EXCEPT THOSE TO THE EQUIPMENT ARE TO BE #2 TINNED COPPER WIRE EXTERIOR GROUND BARS TINNED COPPER.
15. PRIOR TO INSTALLING LUGS ON GROUND WIRES, APPLY THOMAS & BETTS KOPR-SHIELD TO BOLTING GROUND WIRE LUGS TO GROUND BARS, APPLY KOPR-SHIELD TO EQUIPMENT LUGS.
16. ENGAGE AN INDEPENDENT ELECTRICAL TESTING FIRM TO TEST AND VERIFY THAT THE GROUNDING SYSTEM IS LESS THAN FIVE OHMS TO GROUND BY MEANS OF "FALL OF POTENTIAL TEST".
17. WHERE BARE COPPER GROUND WIRES ARE ROUTED FROM ANY CONNECTION ABOVE GROUND, INSTALL WIRE IN 3/4" PVC SLEEVE, FROM 1' BELOW GRADE AND SEAL TOP WITH SLEEVE.
18. PREPARE ALL BONDING SURFACES FOR GROUNDING CONNECTIONS BY REMOVING OXIDATION AND CLEANING DOWN TO SHINY METAL. FOLLOWING CONNECTION, APPLY APPROPRIATE ANTI-OXIDANT COMPOUND.
19. ANY SITE WHERE THE EQUIPMENT (BTS, CABLE BRIDGE, PPC, GENERATOR, ETC.) IS NOT GROUNDED TO THE GROUND RING SHALL BE BONDED TO THE NEAREST FENCE OR GROUND ROD WITH BARE TINNED COPPER WIRE.

GROUNDING GUIDELINES:

ALL EQUIPMENT THAT IS INSTALLED AND MAY CAUSE ANY KIND OF ELECTRICAL CHARGE MUST BE GROUNDED TO THE GROUND. PROVIDE PROPER AND ADEQUATE GROUNDING IN PLACE TO PREVENT FROM EQUIPMENT DAMAGE.

RRHS

MUST BE GROUNDED TO A MAIN BUSS BAR OR HOME RUN GROUND FROM THE GROUNDING CHASSIS. IF ANY EQUIPMENT HAS A GROUND POINT ON IT, IT SHOULD BE GROUNDED TO THE BUSS BAR. SIZE SHOULD FOLLOW LOCAL GUIDELINES ON EQUIPMENT GROUNDING. NORMALLY THE SIZE OF THE GROUND CABLE TO BE USED ON RRHS'S. THE LUG NEEDS TO FIT THE PROPER HOLE SIZE FOR THE STUD. IF IT'S A SINGLE STUD IT SHOULD BE A ONE HOLE LUG. IF IT'S A TWO HOLE LUG THEN THAT SHOULD BE USED. (I.E. COMSCOPE ION M HAS A SINGLE HOLE LUG FOR A 2 HOLE LUG). DO NOT CUT THE LUGS TO FIT. THEY MAKE LUGS TO ORDER THE CORRECT ONE AND ATTACH IT PROPERLY.

COAX GROUNDS

IN LINE GROUNDS SHOULD BE INSTALLED WITH THE PROPER SIZE GROUND KITS ON ALL ALARMS. IF INSTALLED ON FRONT AND BACK OF COAX RUNS OVER APPROXIMATELY 15 FEET, IT NEEDS AN ADDITIONAL GROUND AROUND THE 150 FOOT MARK.

SURGE ARRESTORS

IF IT HAS A PLACE FOR A GROUND - GROUND IT.

MAST PIPES

ALL MAST PIPES SHOULD BE GROUNDED WITH BEAR METAL. ON THE PLACE THE GROUNDING GALVANIZATION OVER THE BARE METAL TO PREVENT RUST. THE GROUND CAN BE ATTACHED TO THE MAST PIPE WITH AN EXOTHERMIC WELD (CAD WELD) MAY BE USED. IF THE MAST PIPE IS THE TALLEST POINT ON THE SITE, ALSO HAVE A LIGHTNING ROD ATTACHED TO IT AS WELL.

DIPLEXERS/DUPLEXERS/SPLITTERS/PASSIVE COMPONENTS

IF IT HAS A PLACE FOR A GROUND TO BE INSTALLED - INSTALL IT.

ANY STRUCTURE OR FRAME SHOULD HAVE 2 GROUND WIRE, I.E. MAST PIPES, OUTSIDE BUSS BAR HOME RUN TO EARTH GROUND. ALL EQUIPMENT HAS 6 TO BUSS BARS.

ALL BUSS BARS NEED TO HAVE A LINK TO AN EARTH GROUND SYSTEM AND MUST BE GROUNDED TO THE GROUND. ANYTHING THAT MAY RETAIN AN ELECTRIC CHARGE. NO EXCEPTIONS. ALL EQUIPMENT SHALL BE GROUNDED TO THE BUSS BARS. ALL BUSS BARS SHOULD HAVE FRONT AND BACK FLAT WASHERS SANDWICHING THEM TOGETHER. THE LUGS ON BUSS BARS SHOULD HOLD OR PIN DOWN OTHER LUGS ON THE BAR. THE LUG WASHER CLOSEST TO THE NUT ON THE BOLT FOR A LUG. NEVER IS IT OK TO SANDWICH A LUG BETWEEN TWO OTHER LUGS. IF THERE IS NOT ENOUGH SPACE, GET A BIGGER BUSS BAR. THEY SHOULD ALL BE GROUNDED TO A BUSS BAR WITH NO-OX COATED BETWEEN THE LUG AND THE BUSS BAR. ALL GROUNDING LUGS SHOULD BE GROUNDED TO THE BUSS BAR WITH NO-OX COATED (UNLESS IT'S NON-JACKETED WIRE). ALL LUGS NEED TO BE CRIMPED WITH THE PROPER DYE AND TOOL (NOT CHANNEL LOCK CRIMPED). THERE SHOULD BE NO OXIDATION (SHINER) BETWEEN THE JACKET AND THE LUG. INSIDE LUGS SHOULD BE INSPECTED FOR CRIMPS AND SHINERS. INSIDE LUGS SHOULD HAVE INSPECTION WINDOWS. INSIDE LUGS SHOULD BE GROUNDED TO THE BUSS BAR WITH NO-OX COATED. INSPECTION WINDOWS IS INSERTED INTO THE LUG ALL THE WAY AND IS PROPERLY INSTALLED. OUTDOOR LUGS SHOULD BE GREEN HEAT SHRINK.

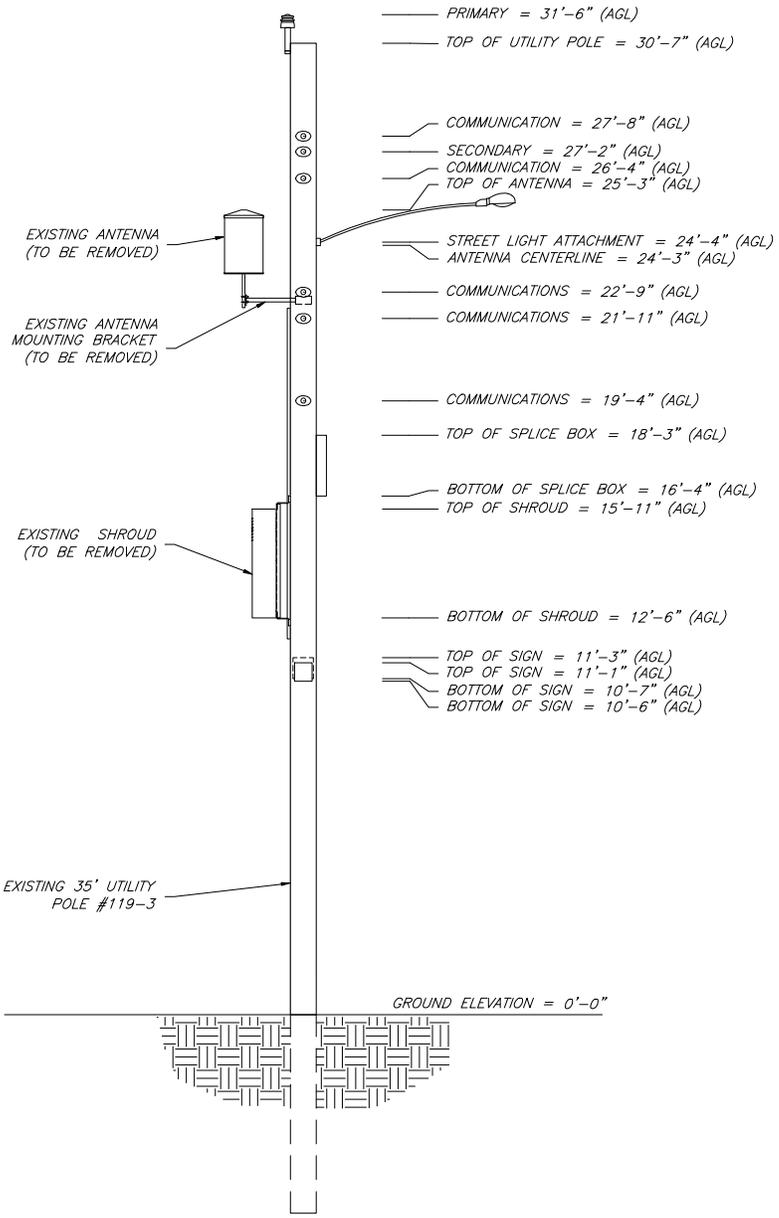


SITE PLAN

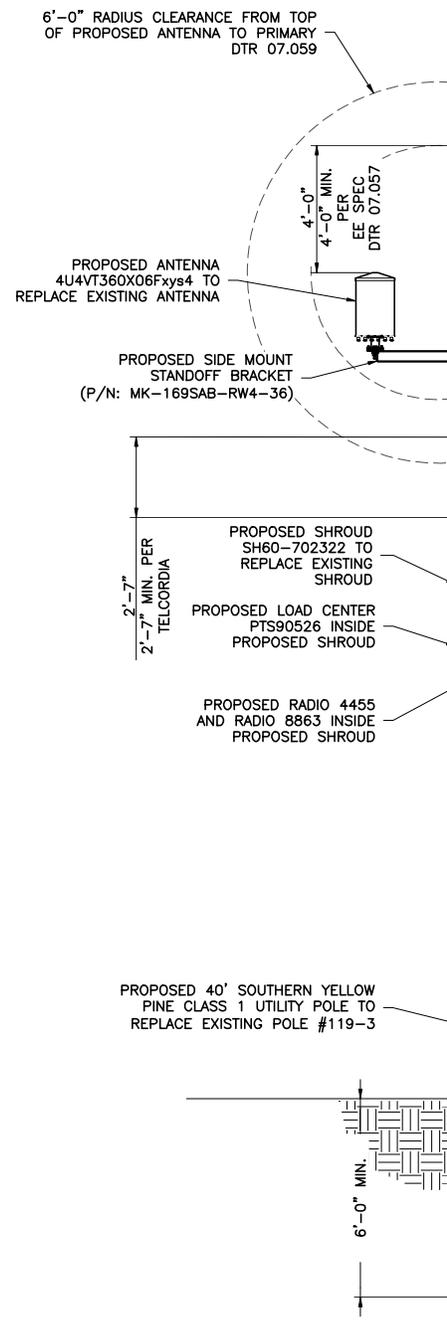
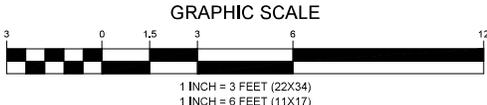
GRAPHIC SCALE



1 INCH = 10 FEET (22X34)
1 INCH = 20 FEET (11X17)



EXISTING ELEVATION (LOOKING NORTHWEST)

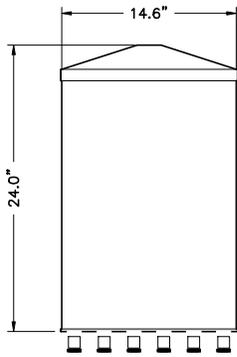


PROPOSED ELEVATION

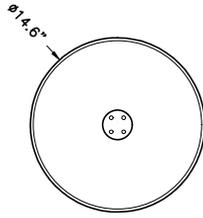




EXISTING CONDITIONS



ELEVATION

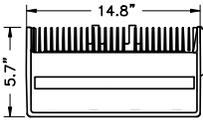
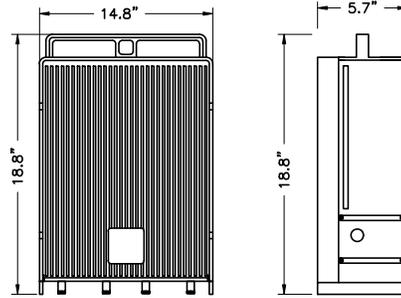


PLAN

MECHANICAL SPECIFICATIONS

AMPHENOL PART# - 4U4VT360X06F_{ys}4
 HEIGHT: 24.00 IN
 DIAMETER: 14.60 IN
 WEIGHT: 29 LBS

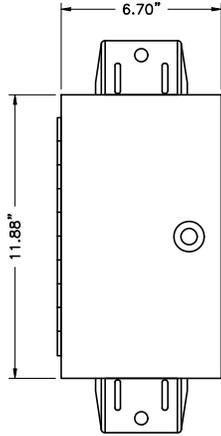
1 ANTENNA DETAIL
 06 NTS



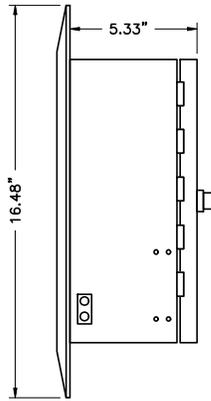
SIZE AND WEIGHT TABLE

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

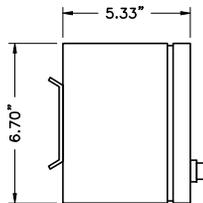
2 ERICSSON REMOTE RADIO UNIT (RRU)
 06 NTS



FRONT



SIDE

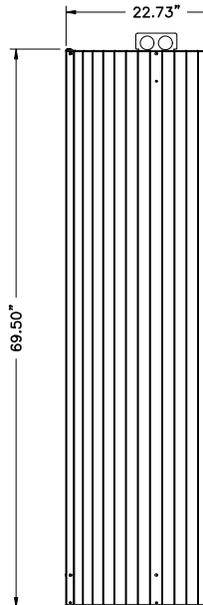
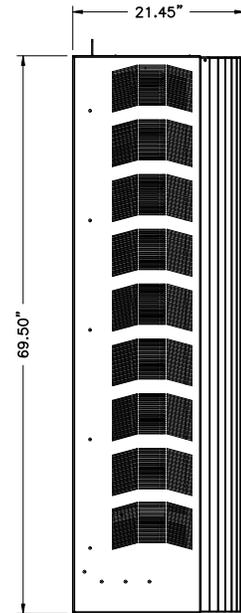
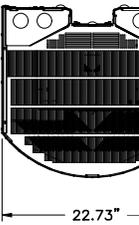


TOP

PTS AC DISTRIBUTION PANEL:
 PART NO. PTS90526

4 AC LOAD CENTER DETAIL
 06 NTS

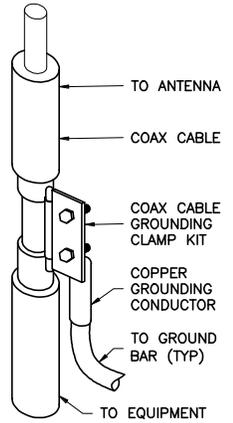
CHARLES INDUSTRIES INC. SHROUD
 PART NO. COLO-702322
 HEIGHT: 69.50 IN
 WIDTH: 22.73 IN
 DEPTH: 21.45 IN



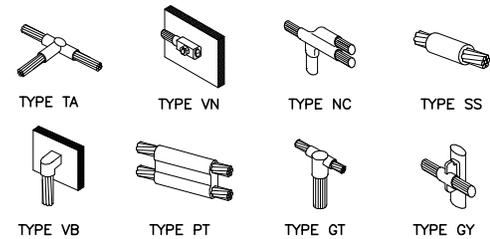
5 SHROUD DETAIL
 06 NTS

GENERAL NOTES:

1. METAL TO METAL CONTACT IS NOT ALLOWED WITHOUT AN INTENTIONAL BOND.
2. DISSIMILAR METALS IN DIRECT CONTACT, CAUSE CHEMICAL REACTION BETWEEN THE METALS, LEADING TO CORROSION.
3. ALL ABOVE GROUND CONNECTIONS TO THE VERTICAL GROUND RISER (VGR) SHALL BE IRREVERSIBLE CLAMP TYPE AND WEATHER PROOFED.
4. WHERE APPLICABLE EARTH GROUND RESISTANCE OF 5 OHMS OR LESS IS PREFERRED. 25 OHMS IS ACCEPTABLE SEE NEC 250.53.
5. 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.
6. 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.
7. WHEN A NEW FOUNDATION IS INSTALLED, BOND THE AVAILABLE REBAR TO THE SITE GROUNDING.
8. 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.
9. 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.
10. 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.
11. WHEN SITE IS POWERED UP, BEFORE ACCEPTANCE, TEST FOR OBJECTIONABLE CURRENT AND FOREIGN VOLTAGE.



1 COAX CABLE GROUND
07 NTS



2 GROUNDING CONNECT
07 NTS

92 SPRING ST LLC
93 BROADWAY
SOMERVILLE, MA 02145

DAVIS ALAN
223 SCHOOL ST UNIT 2
SOMERVILLE, MA 02145 USA

MOINUDDIN ABUL R
223 SCHOOL ST #1
SOMERVILLE, MA 02143