



## CITY OF SOMERVILLE

Commonwealth of Massachusetts

93 Highland Avenue

Somerville, MA 02143

(617) 625-6600

### BUSINESS LICENSE APPLICATION - Small Wireless Facility

File #: 19-014842

License #: BL19-000092

Address: 64 TEMPLE ST

Licensee: Matthew Pricco Network Building + Consulting

DBA Name: ExteNet Systems, Inc.

Business Ownership Type: Corporation

Legal Name of Entity: ExteNet Systems, Inc.

Owners/Officers: James A. Hyde, H. Anthony Lehv, Daniel L. Timm,

#### License Information:

**Do you believe this to be a 6409(a) application?:** No

**Describe the reason for the work, and the intended beneficiaries:** Installation of a small cell wireless facility on a wood utility pole in the public right-of-way. The facility will improve wireless communications services for residents, businesses, and visitors in the vicinity.

**Provide the detailed description of the work that should appear on the License:** Extenet proposes to install a small cell wireless facility on an existing wood utility pole. The principal elements of the proposed facility are an antenna housed in a 24" long shroud side-mounted on the pole, including an additional 6' of base mounting equipment, and three radios in a shroud also mounted on the pole.

**# of installations on existing poles:** 1

**# of installations on new poles:** 0

**Provide the legal name of the entity that will own the License:** ExteNet Systems, Inc.

**Approval Conditions:** Contractor shall take all necessary precautions to avoid damaging any tree or tree part with equipment.

**All nearby street tree(s) shall be protected prior to and during all construction activities using TREE BOX or TREE WRAPS. This includes the Large Norway maple south of the Pole and the Serviceberry North of the Pole. 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.**

**Any tree roots less than 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 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.**

**Approved By:**

**John Power, Approved**

**Karla Cuarezma, Approved**

**Malik Drayton, Approved with Conditions**

APPROVAL CONDITION: MD20200205: Contractor shall take all necessary precautions to avoid damaging any tree or tree part with equipment.

APPROVAL CONDITION: MD20200205: All nearby street tree(s) shall be protected prior to and during all construction activities using TREE BOX or TREE WRAPS. This includes the Large Norway maple south of the Pole and the Serviceberry North of the Pole. 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: MD20200205: Any tree roots less than 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 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.

**Peter Lew, Approved**

**Mark Lawhorne, Approved**

**John J. Long, Approved**



**NE-MA-BSTN3N01-TMO**

**NE-MA-BSTN3N01-03333 / NE3204BA\_31LAB**

**PROPOSED SMALL CELL NODE**

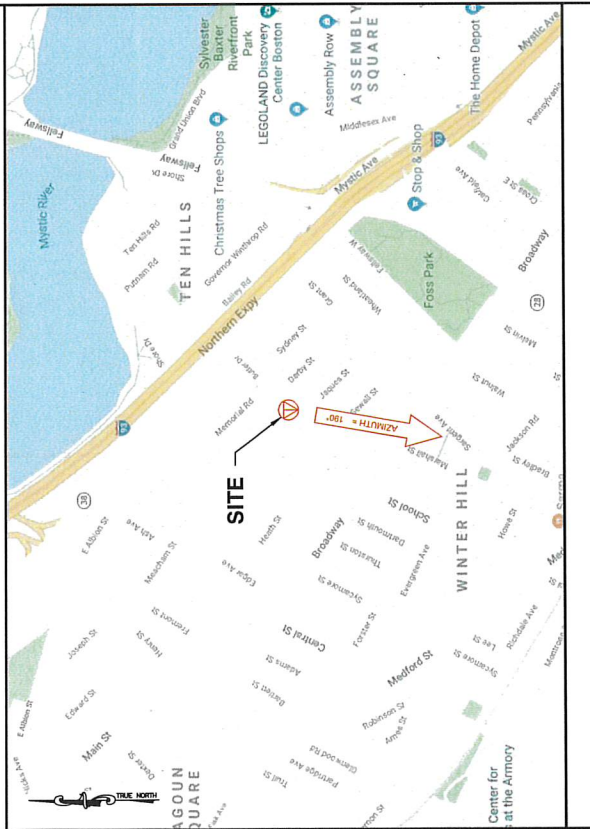
64 TEMPLE STREET, SOMERVILLE, MA 02145  
CITY OF SOMERVILLE, MIDDLESEX COUNTY

LATITUDE: 42.394632°  
LONGITUDE: -71.091946°

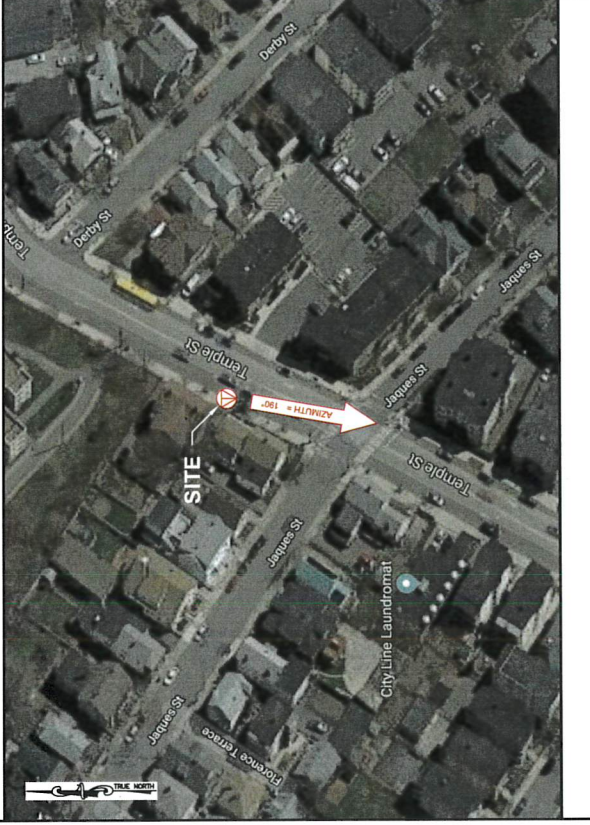


Know what's below.  
Call before you dig.

VICINITY MAP



AERIAL MAP



**PROJECT INFORMATION**

PROJECT NAME: NE-MA-BSTN3N01-TMO  
POLE TAG: 330/J5  
LATITUDE: 42.394632°  
LONGITUDE: -71.091946°  
JURISDICTION: CITY OF SOMERVILLE, MIDDLESEX COUNTY  
EXTENET PROJECT MANAGER: RICK ANSELINI  
300 WARRENVILLE RD, SUITE 340  
SOMERVILLE, MA 02145  
HUB LOCATION: HUB: 48503659  
422 MARKET AVENUE  
SOMERVILLE, MA 02145  
ELECTRIC COMPANY: EVERSOURCE

**CODE COMPLIANCE**

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

- 2015 INTERNATIONAL BUILDING CODE (MIDDLESEX COUNTY AMENDED EDITION)
- 2015 NATIONAL ELECTRICAL CODE
- NFPA 1-2015 EDITION
- 2015 IFC - REFERENCE 527 OMR
- AMERICAN CONCRETE INSTITUTE
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION
- MANUAL OF STEEL CONSTRUCTION 13TH EDITION
- ANSITIA-222-G
- INSTITUTE FOR ELECTRICAL & ELECTRONICS ENGINEER 81
- IEEE C2 NATIONAL ELECTRIC SAFETY CODE LATEST EDITION
- TELECORDIA GR-1275
- ANSIT 311

**DRAWING INDEX**

01	TITLE SHEET
02	NOTES
03	ELEVATION
04	ANTENNA & EQUIPMENT DETAILS
05	ELECTRICAL & GROUNDING DETAILS

**REVISIONS**

REV	DATE	DESCRIPTION	BY
1	08/15/19	PRELIMINARY	ALM
2	08/29/19	FOR REVISION	MSB
3	08/29/19	FOR REVISION	MSB
4	07/20/20	FOR REVISION	DRG

TITLE SHEET

SHEET NUMBER  
**01 OF 05**



ENGINEER  
KRUPAKARAN KOLLANDAVELU, P.E.  
MA PROFESSIONAL ENGINEER LIC. #30019



ENGINEERING FIRM



APPLICANT

SITE INFORMATION  
NE-MA-BSTN3N01-03333  
TMO ID: NE3204BA\_31LAB  
64 TEMPLE STREET  
SOMERVILLE, MA 02145  
MIDDLESEX COUNTY

DESIGN RECORD

PROFESSIONAL STAMP

SHEET TITLE

SHEET NUMBER







**REVISIONS**

REV	DATE	DESCRIPTION	BY
1	04/17/19	PRELIMINARY	ALM
2	04/17/19	POC REVISION	NBR
3	06/20/19	STAMP ADDED	CVE
4	07/20/19	MOUNT REVISION	DRG
5	09/23/19	REVISION	NBR



KRUPAKARAN KOLLANDAVELU, P.E.  
 MA PROFESSIONAL ENGINEER LIC. #59019

**ELEVATION**

SHEET NUMBER  
**03 OF 05**

ENGINEERING FIRM

APPLICANT

SITE INFORMATION

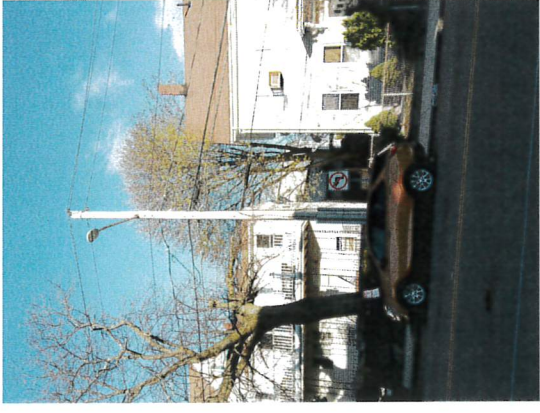
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PROFESSIONAL STAMP

ENGINEER

SHEET TITLE

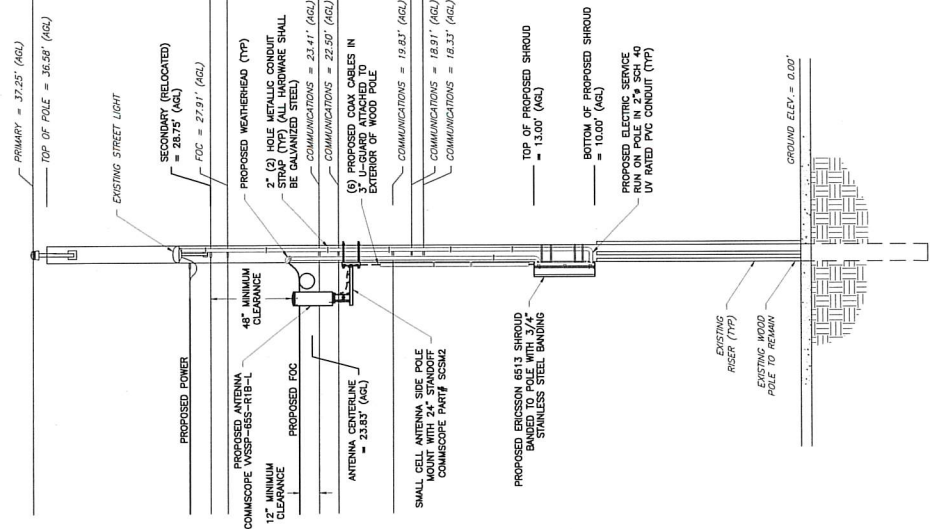
SHEET NUMBER



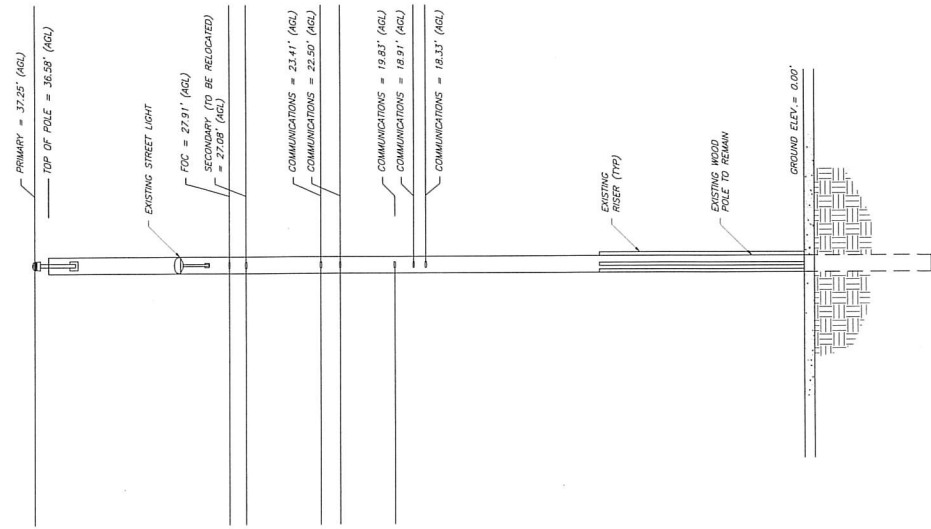
**EXISTING CONDITIONS**

- NOTES:**
- EQUIPMENT ELEVATION IS SUBJECT TO MAKE READY PERFORMED BY POLE OWNER.
  - NEW Poles SHALL BE ASYM. COMPLIANT AND BASED ON THE FOLLOWING INFORMATION: TRANSMITTING SYSTEM EQUIPMENT OWNER & PROPER CONTACT MOUNTING HEIGHT IN FIELD.
  - MAINTAIN MINIMUM OF 8'-6" FROM GROUND LEVEL TO BOTTOM OF PROPOSED SHROUD.
  - 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 METER LOCATION.
  - 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 CUMING OF THE POLE.

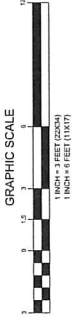
**ATTACHMENT HEIGHTS, ANTENNA AND EQUIPMENT LOCATIONS  
 PENDING MAKE-READY AND STRUCTURAL ANALYSIS**



**PROPOSED ELEVATION (LOOKING NORTHWEST)**



**EXISTING ELEVATION (LOOKING NORTHWEST)**





NE-MA-BSTN3(N)1-033333  
 TMO ID: NE32048A\_31LAB  
 64 TEMPLE STREET  
 SOMERVILLE, MA 02145  
 MIDDLESEX COUNTY

REV	DATE	DESCRIPTION	BY
4	01/20/20	MOUNT REVISED	DRG
3	09/20/19	REVISED	NSB
2	08/06/19	STAMP ADDED	CHE
1	05/15/19	POC REVISED	NSB
0	04/17/19	PRELIMINARY	ALM



KRUPAKARAN KOLLANDAVELU, P.E.  
 MA PROFESSIONAL ENGINEER LIC. #55019

**ANTENNA & EQUIPMENT DETAILS**

SHEET NUMBER  
**04 OF 05**

ENGINEERING FIRM

APPLICANT

SITE INFORMATION

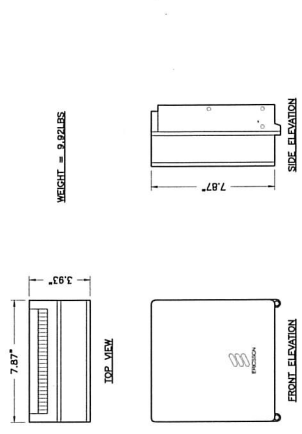
DESIGN RECORD

PROFESSIONAL STAMP

ENGINEER

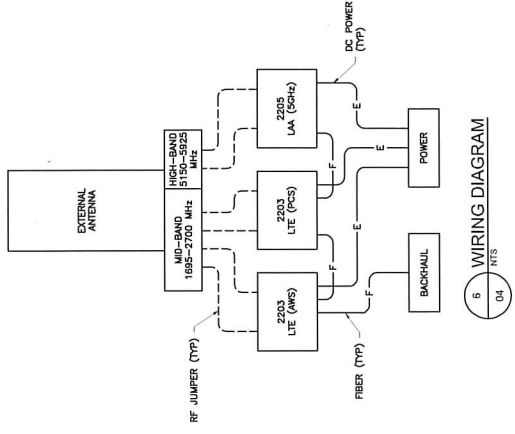
SHEET TITLE

SHEET NUMBER

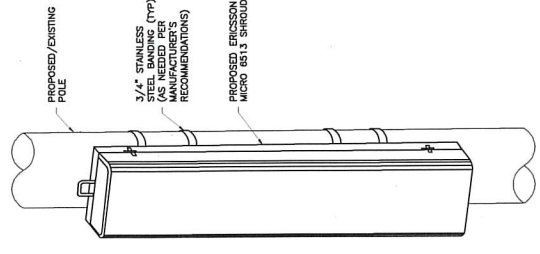


ERICSSON RADIO		
2203 B86 & B25	AC: 100-250V NORMAL VOLTAGE RANGE AT RADIO INPUT CONNECTOR DC: -36 TO -58.5	NOMINAL VOLTAGE: -48V DC 95W TYPICAL 130W MAX
2205 B46	AC: 100-250V NORMAL VOLTAGE RANGE AT RADIO INPUT CONNECTOR DC: -36 TO -58.5	NOMINAL VOLTAGE: -48V DC 75W TYPICAL 130W MAX

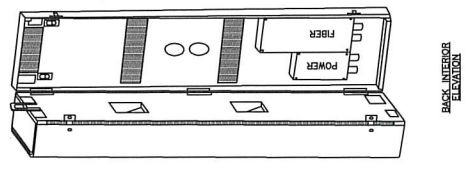
3 ERICSSON REMOTE RADIO UNIT (RRU)  
 04 NTS



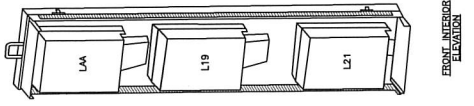
6 WIRING DIAGRAM  
 04 NTS



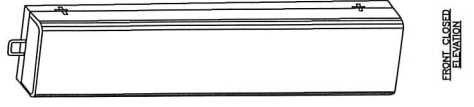
2 EQUIPMENT MOUNTING DETAIL  
 04 NTS



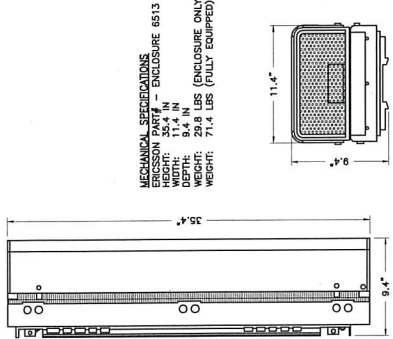
BACK INTERIOR ELEVATION



FRONT INTERIOR ELEVATION



FRONT CLOSED ELEVATION

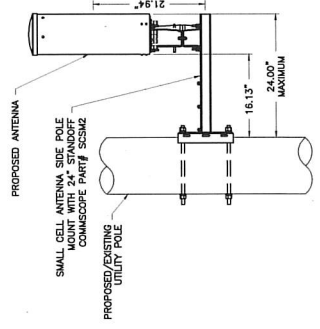


BOTTOM PLAN

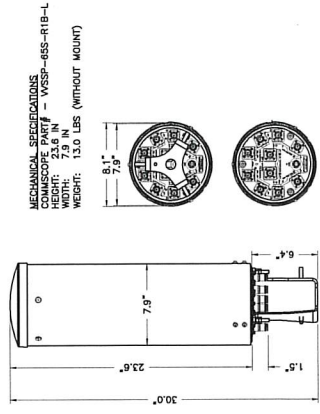
SIDE ELEVATION

MECHANICAL SPECIFICATIONS  
 ERICSSON PART# - ENCLOSURE 6513  
 HEIGHT: 35.4 IN  
 WIDTH: 11.4 IN  
 DEPTH: 9.4 IN  
 WEIGHT: 71.4 LBS (ENCLOSURE ONLY)  
 WEIGHT: 71.4 LBS (FULLY EQUIPPED)

1 ERICSSON MICRO 6513 SHROUD DETAIL  
 04 NTS



5 ANTENNA MOUNT DETAIL  
 04 NTS

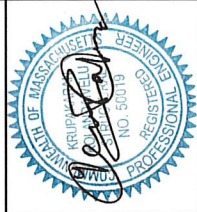


4 ANTENNA DETAIL  
 04 NTS



NE-MA-BSTN3N01-03333  
 TMO ID: NE3204BA\_31LAB  
 64 TEMPLE STREET  
 SOMERVILLE, MA 02145  
 MIDDLESEX COUNTY

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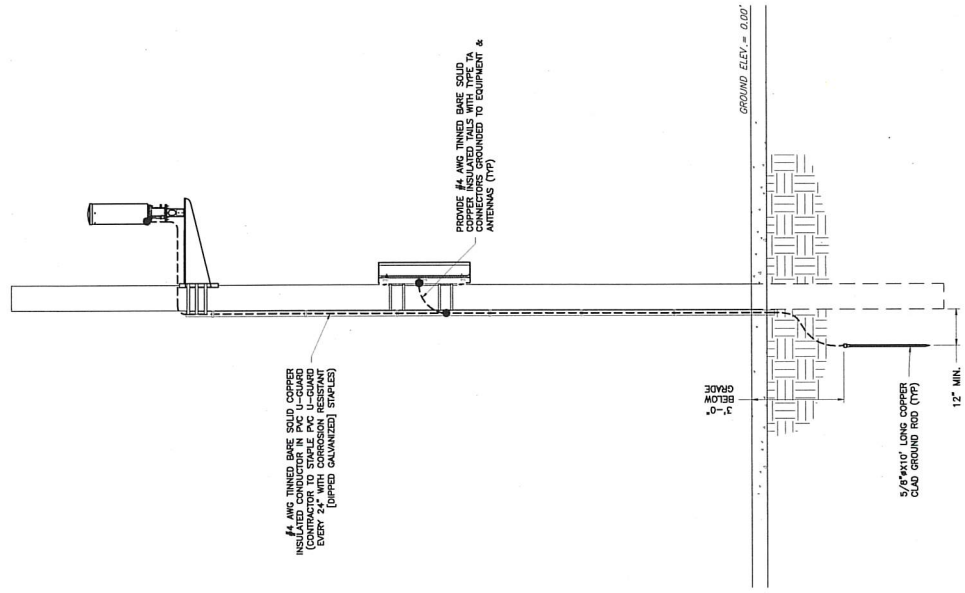


KRUPAKARAN KOLLANDAVELU, P.E.  
 MA PROFESSIONAL ENGINEER LIC. #50019

**ELECTRICAL & GROUNDING DETAILS**

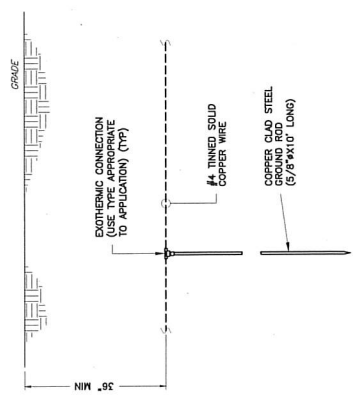
SHEET NUMBER  
**05 OF 05**

ENGINEERING FIRM APPLICANT SITE INFORMATION DESIGN RECORD PROFESSIONAL STAMP ENGINEER SHEET TITLE SHEET NUMBER

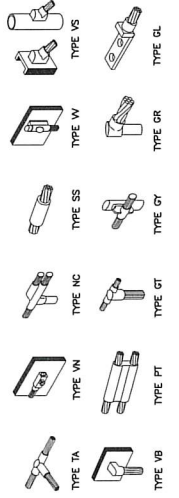


3 ELECTRICAL & GROUNDING RISER DIAGRAM  
 05 NTS

NOTE: CONTRACTOR VERIFY WIRE SIZES AND EXISTING EQUIPMENT NOT SHOWN FOR CLARITY.



1 TYPICAL GROUND ROD DETAIL  
 05 NTS



2 GROUNDING CONNECTION DETAILS  
 05 NTS