

CRAN ID / EXTENET ID:
 CRAN_RCTB_2HA4_093/NE-MA-BSTBSC01-093

LATITUDE / LONGITUDE:
 42.35368686° / -71.06820149°

SITE ADDRESS:
 CHARLES ST
 CITY, STATE, ZIP:
 BOSTON, MA 02108



CALL BEFORE YOU DIG
UNDERGROUND SERVICE ALERT
72 HOURS NOTICE REQUIRED.
ENTER 1-888-DIG-SAFE

NOTE:
 GENERAL CONTRACTOR IS REQUIRED TO CROSS CHECK COORDINATES, EXHIBIT PHOTO, AERIAL PHOTO AND SITE PLAN TO ENSURE PROPER POLE LOCATION PRIOR TO BREAKING GROUND, CONCERNS OR QUESTIONS SHOULD BE IMMEDIATELY DIRECTED TO ASSIGNED EXTENET PROJECT MANAGER.

Location and Design Approved
Boston Public Works
Street Lighting Department

By: *[Signature]*
 Date: 8/15/19



PLANS PREPARED BY:
UC SYNERGETIC
 Innovative Thinking. Engineered Solutions.
 21 OXFORD RD
 MANSFIELD, MA 02048
 www.ucseeng.com 1-508-337-7600

FOR PERMITTING PURPOSES ONLY

LOCATION:
 CHARLES ST
 BOSTON, MA 02108
 MIDDLESEX COUNTY

P.E. STAMP AREA:

GENERAL NOTES
 THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION, A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE.

SITE INFORMATION	
CRAN ID:	CRAN_RCTB_2HA4_093
EXTENET NODE ID:	NE-MA-BSTBSC01-093
LATITUDE:	42.35368686°
LONGITUDE:	-71.06820149°
SITE ADDRESS:	CHARLES ST
CITY, STATE ZIP:	BOSTON, MA 02108
COUNTY:	MIDDLESEX
JURISDICTION:	BOSTON
PROPERTY OWNER:	CITY OF BOSTON RIGHT-OF-WAY
APPLICANT:	EXTENET SYSTEMS 876 HAMMOND ST CHESTNUT HILL, MA 02467 (617) 232-4154

ENGINEER
 RICK ANGELINI
 3030 WARRENVILLE RD
 SUITE 340
 LISLE, IL 60532
 NOC: (866) 892-5327

DO NOT SCALE DRAWINGS
 CONTRACTORS SHALL VERIFY ALL PLANS, (EX.) DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT / ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



PROJECT DESCRIPTION
 INVOLVING INSTALLMENT:
 THESE PLANS REPRESENT A PORTION OF A PROPOSED SMALL CELL BUILD INVOLVING THE INSTALLMENT OF AN ANTENNA AND RADIO EQUIPMENT ON AN EXISTING WOODEN UTILITY OR REPLACEMENT METAL STREETLIGHT POLE.

CODES
 2019 INTERNATIONAL BUILDING CODE
 NATIONAL ELECTRIC SAFETY CODE
 TIA/EIA-222-G-2 OR LATEST EDITION
 LOCAL BUILDING / PLANNING CODE

DRAWING INDEX

SHEET NO:	SHEET TITLE
T-1	TITLE SHEET
A-1	SITE PLAN & EXHIBIT PHOTO
A-2	ELEVATIONS
A-3	ELEVATIONS
D-1	ANTENNA DETAILS
D-2	RADIO SHROUD DETAILS
D-3	FOUNDATION DETAILS
D-4	GROUNDING & WIRING DIAGRAMS
GN-1	GENERAL NOTES
GN-2	GENERAL NOTES

DRAWING NOTES:

ORIGINAL PLAN:	AS NOTED
SCALE:	
DRAWN BY:	JR
PLAN ORIG. DATE:	04/04/19

REVISIONS:			
REV	DESCRIPTION	BY	DATE

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 SHEET TITLE:
 TITLE SHEET

SHEET NUMBER:
T-1

NOTE:
EXHIBIT PHOTO IS FOR
REFERENCE USE ONLY AND
SHOULD NOT BE USED FOR
CONSTRUCTION PURPOSES.

1/10/19, 12
+42.353479,-71.1
4 Charl
Boston MA
United
Public



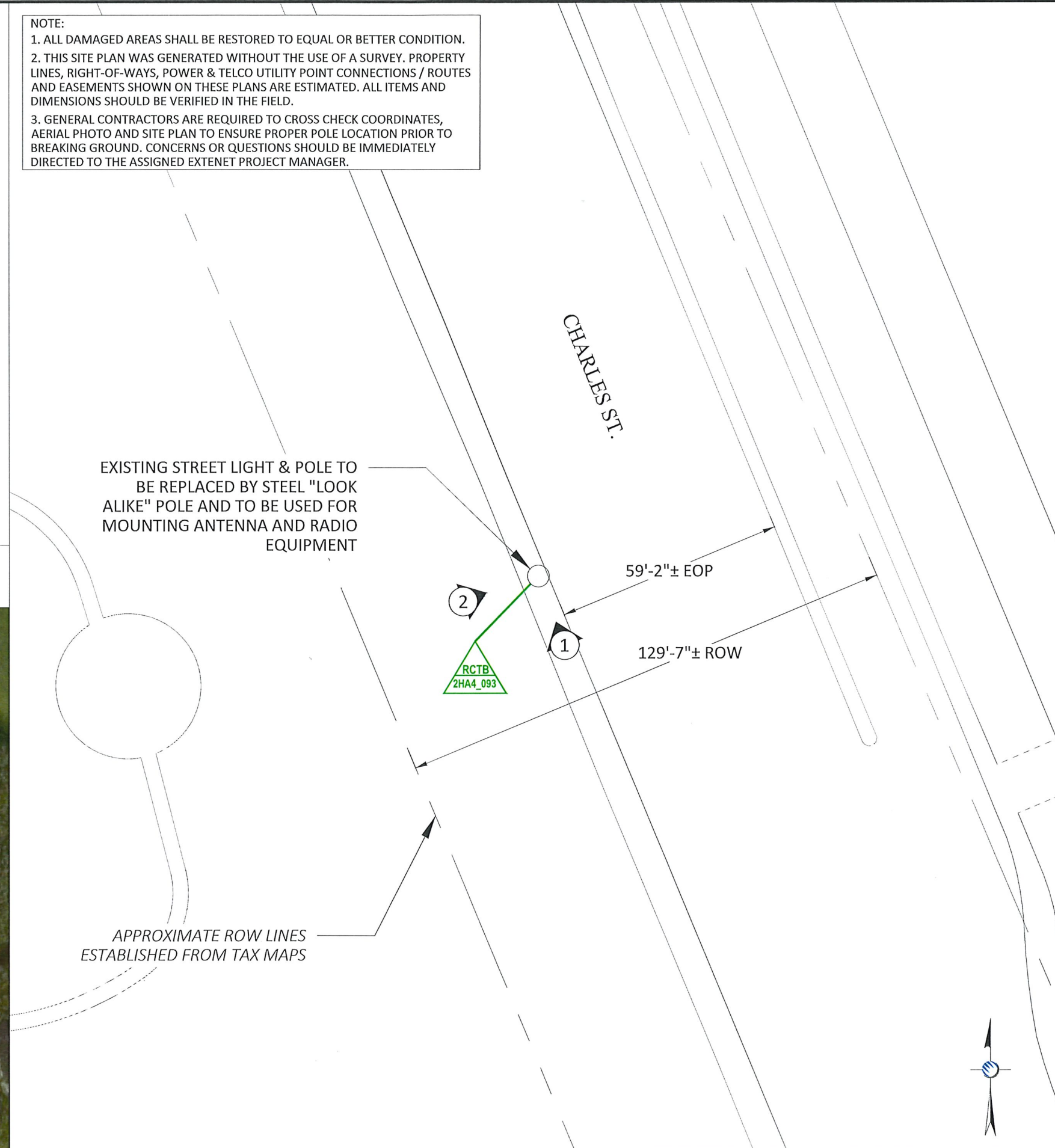
PROPOSED NODE POLE

EXHIBIT PHOTO

SCALE: NOT TO SCALE

1

NOTE:
1. ALL DAMAGED AREAS SHALL BE RESTORED TO EQUAL OR BETTER CONDITION.
2. THIS SITE PLAN WAS GENERATED WITHOUT THE USE OF A SURVEY. PROPERTY LINES, RIGHT-OF-WAYS, POWER & TELCO UTILITY POINT CONNECTIONS / ROUTES AND EASEMENTS SHOWN ON THESE PLANS ARE ESTIMATED. ALL ITEMS AND DIMENSIONS SHOULD BE VERIFIED IN THE FIELD.
3. GENERAL CONTRACTORS ARE REQUIRED TO CROSS CHECK COORDINATES, AERIAL PHOTO AND SITE PLAN TO ENSURE PROPER POLE LOCATION PRIOR TO BREAKING GROUND. CONCERNS OR QUESTIONS SHOULD BE IMMEDIATELY DIRECTED TO THE ASSIGNED EXTENET PROJECT MANAGER.



EXISTING STREET LIGHT & POLE TO
BE REPLACED BY STEEL "LOOK
ALIKE" POLE AND TO BE USED FOR
MOUNTING ANTENNA AND RADIO
EQUIPMENT

CHARLES ST.

59'-2"± EOP

129'-7"± ROW

APPROXIMATE ROW LINES
ESTABLISHED FROM TAX MAPS

1" = 30 FEET



ENLARGED SITE PLAN

SCALE: 1" = 30'

3

PLANS PREPARED FOR:



PLANS PREPARED BY:



**FOR PERMITTING
PURPOSES ONLY**

LOCATION:

CHARLES ST
BOSTON, MA 02108

MIDDLESEX COUNTY

P.E. STAMP AREA:

DRAWING NOTES:

ORIGINAL PLAN:

SCALE: AS NOTED

DRAWN BY: JR

PLAN ORIG. DATE: 04/04/19

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SITE ADDRESS:
CHARLES ST

SHEET TITLE:
SITE PLAN & EXHIBIT PHOTO

SHEET NUMBER:

A-1

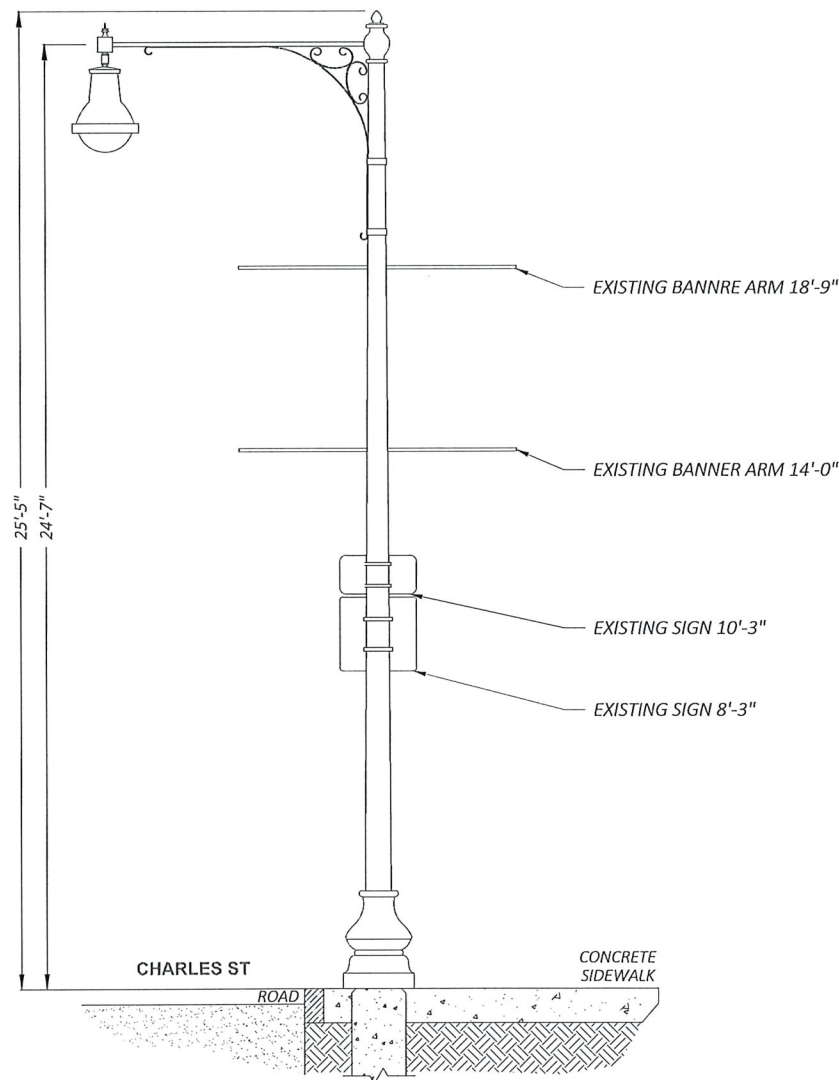
AERIAL SITE LOCATION

SCALE: 1" = 60'

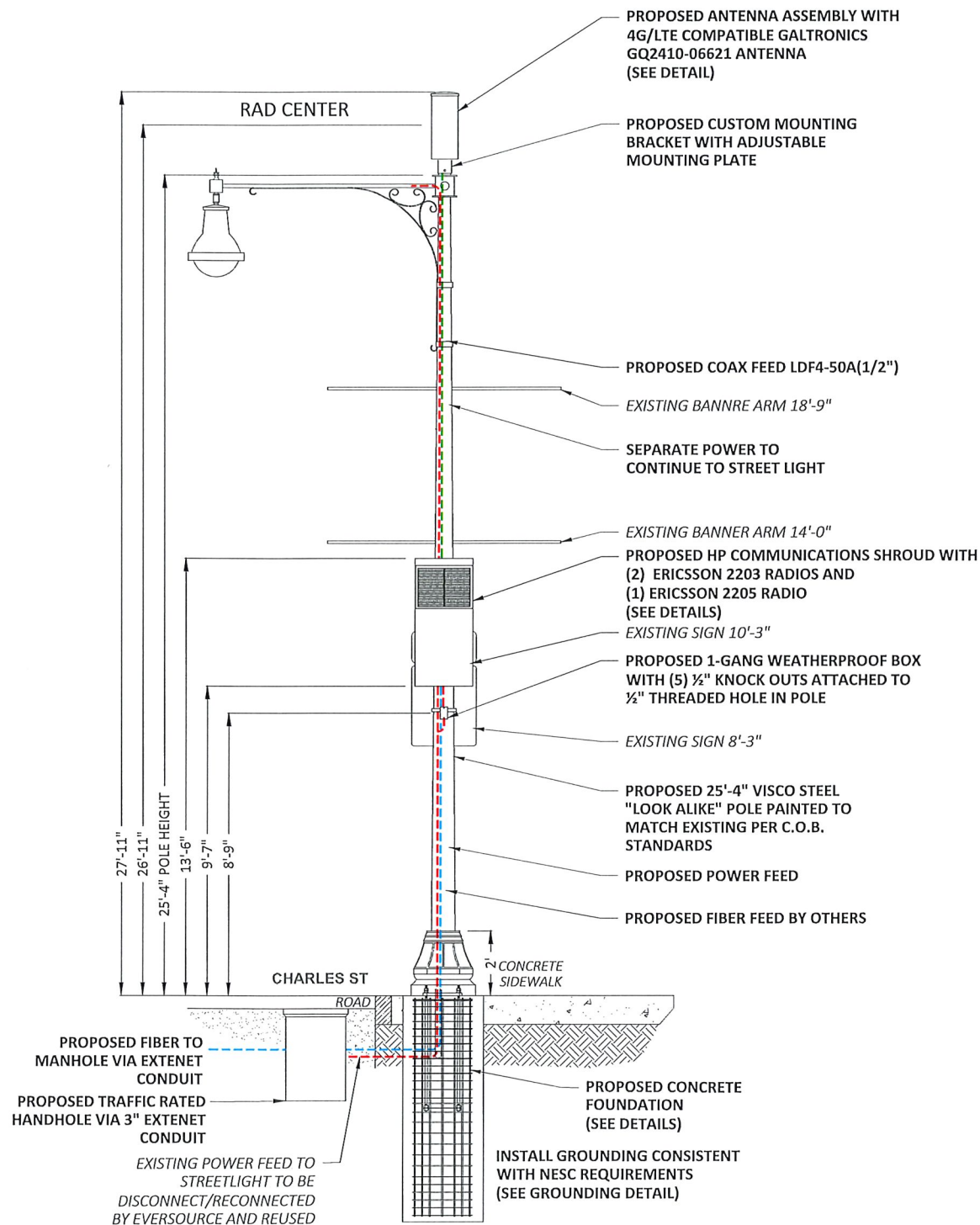
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DRAWINGS NOTES:

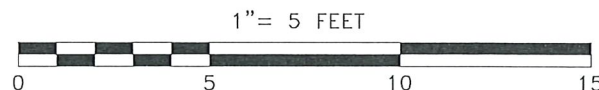
- NOTE 1:
40" MIN. WORKER SAFETY ZONE
BETWEEN LOWEST POWER & HIGHEST
COMMUNICATIONS CABLE
IN ACCORDANCE WITH NESC REGULATIONS.
- NOTE 2:
PROPOSED FIBER TO BE INSTALLED BY OTHERS.
- NOTE 3:
PROPOSED EQUIPMENT TO BE PAINTED TO BLEND
WITH POLE.
- NOTE 4:
FCC MANDATED SIGNAGE TO BE ATTACHED TO POLE.
- NOTE 5:
PROPOSED EQUIPMENT SHALL BE INSTALLED NO
HIGHER THAN 30" BELOW TELEPHONE UTILITY LINES.



① EXISTING PROFILE - SIDE VIEW
LOOKING SOUTHEAST ALONG CHARLES ST



① PROPOSED PROFILE - SIDE VIEW
LOOKING SOUTHEAST ALONG CHARLES ST



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DRAWN BY: JR
PLAN ORIG. DATE: 04/04/19

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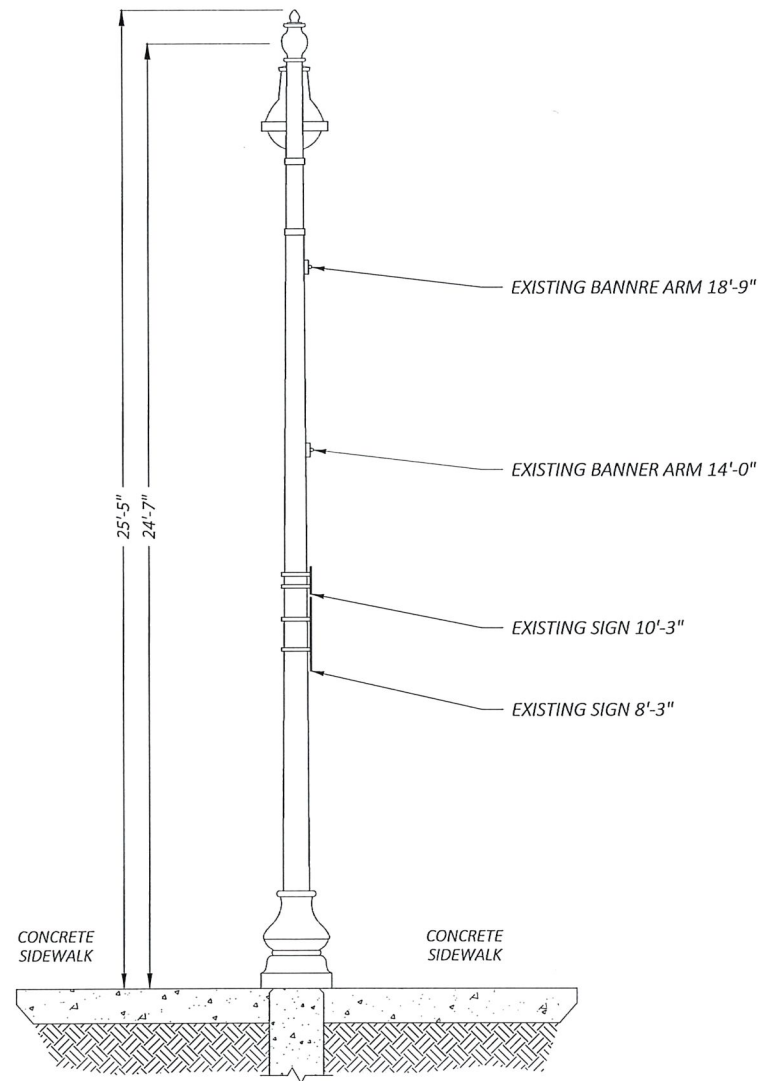
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CHARLES ST
SHEET TITLE:
POLE ELEVATIONS

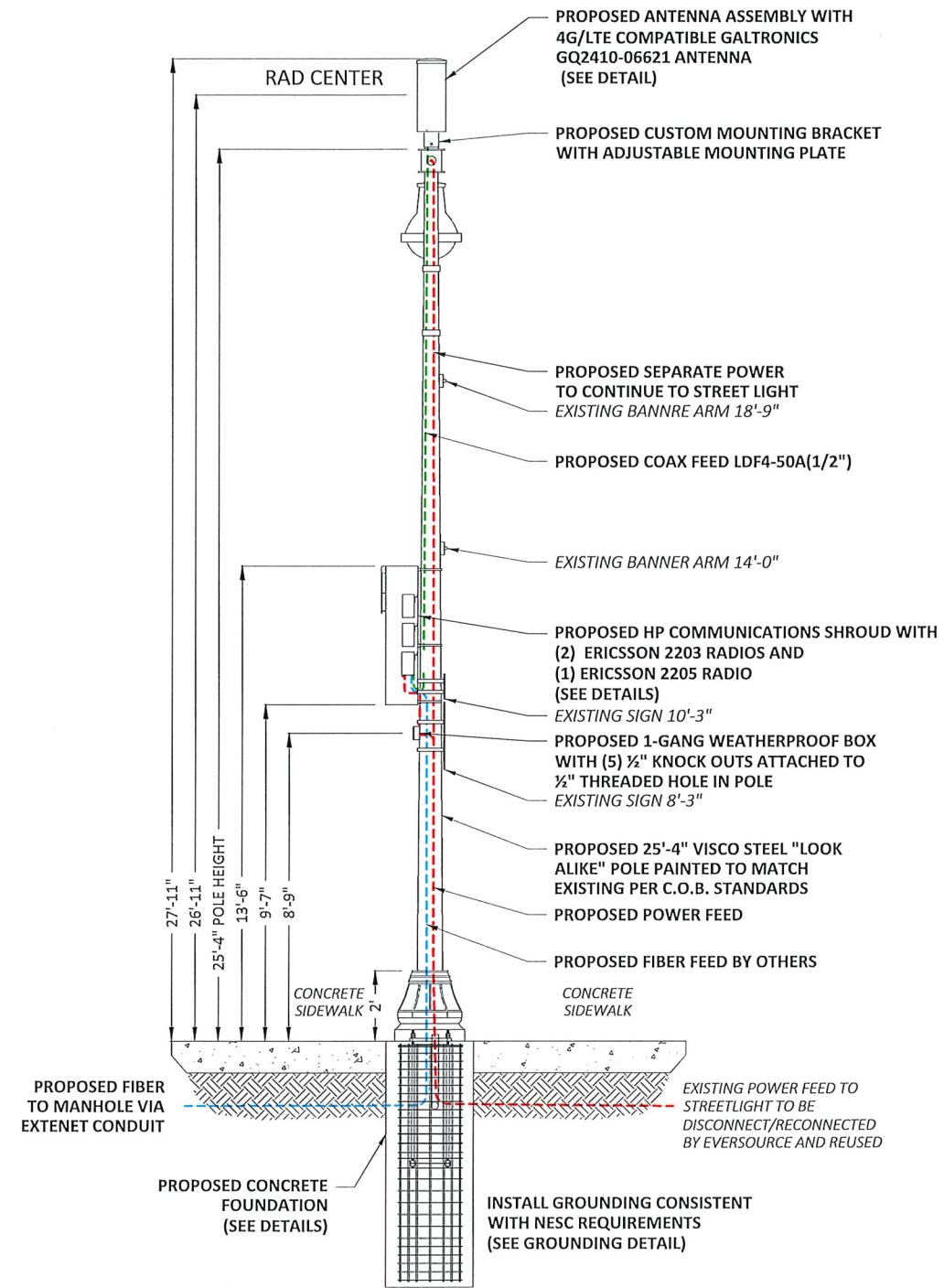
SHEET NUMBER:
A-2

DRAWINGS NOTES:

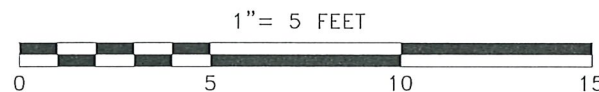
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② EXISTING PROFILE - REAR VIEW
LOOKING NORTHEAST TOWARD CHARLES ST



② PROPOSED PROFILE - REAR VIEW
LOOKING NORTHEAST TOWARD CHARLES ST



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SHEET TITLE:
POLE ELEVATIONS

SHEET NUMBER:
A-3

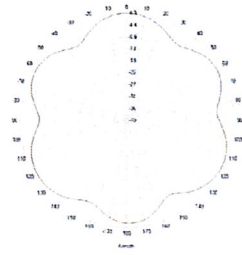


24"x 10" Pseudo Omni 10-Port Canister Antenna [1695-2360, 3550-3700 and 5150-5925 MHz]

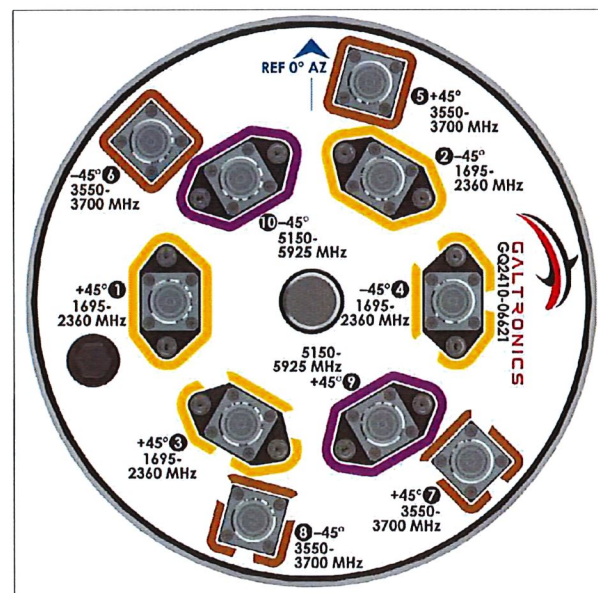
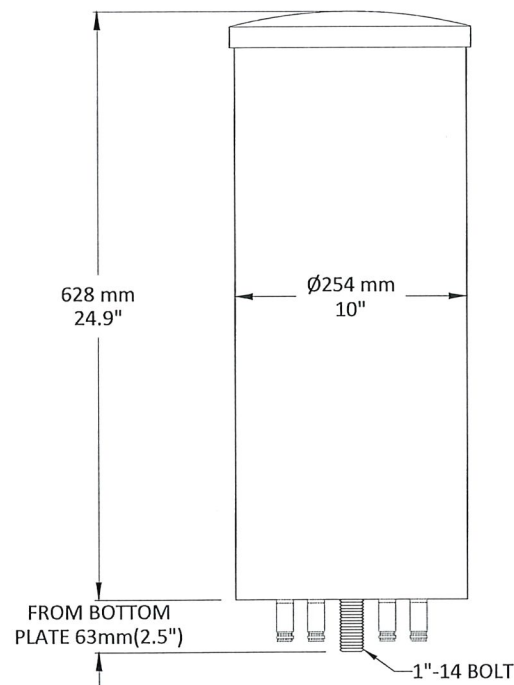
GQ2410-06621

Description:

- Pseudo Omni Canister Antenna for Outdoor DAS and Small Cells.
- 4x ports for AWS/PCS/WCS Band 1695-2360 MHz
- 4x ports for CBRS Band 3550-3700 MHz
- 2x ports for UNII Band 5150-5925 MHz*



1695-2360, 3550-3700 and 5150-5925 MHz Pseudo Omni Canister Antenna

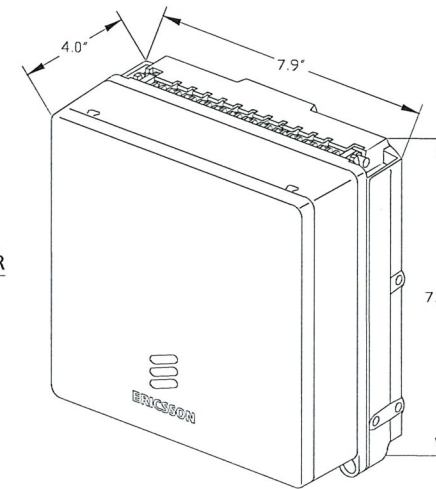


GALTRONICS GQ2410-06621 ANTENNA

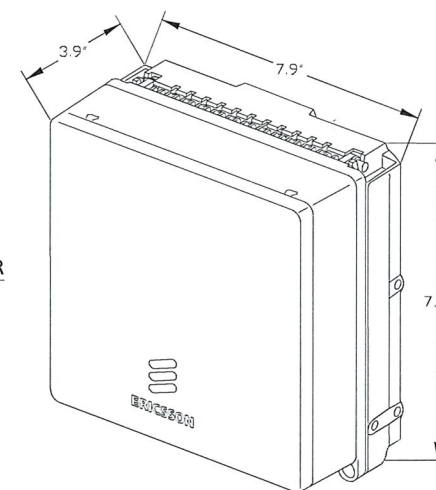
SCALE: NOT TO SCALE

1

ERICSSON RADIO 2205 WITH COVER



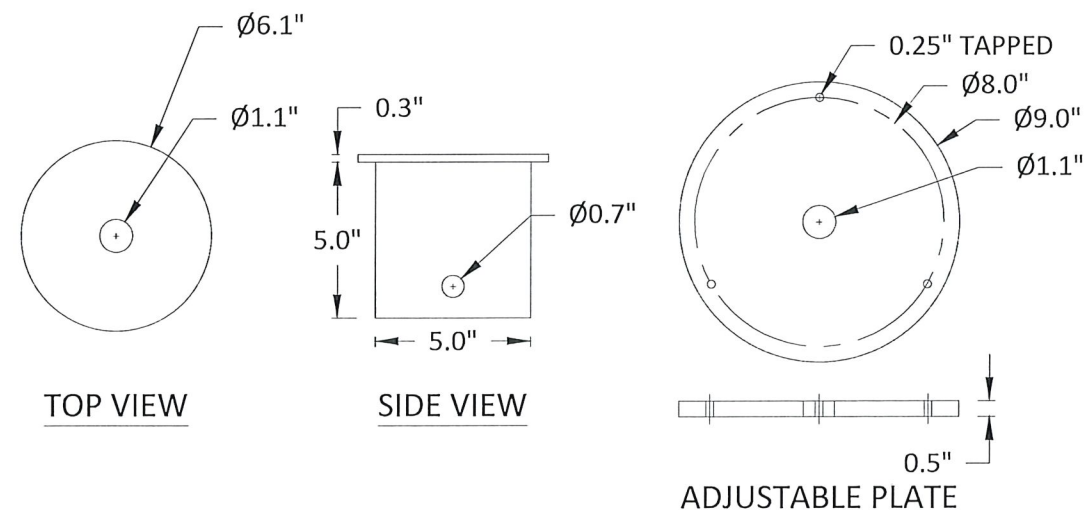
ERICSSON RADIO 2203 WITH COVER



ERICSSON 2203 & 2205 RADIOS WITH COVER
POLE MOUNT REMOTE UNIT

SCALE: NOT TO SCALE

2



CUSTOM MOUNTING BRACKET

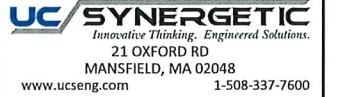
SCALE: NOT TO SCALE

3

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MIDDLESEX COUNTY

P.E. STAMP AREA:

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SCALE: AS NOTED

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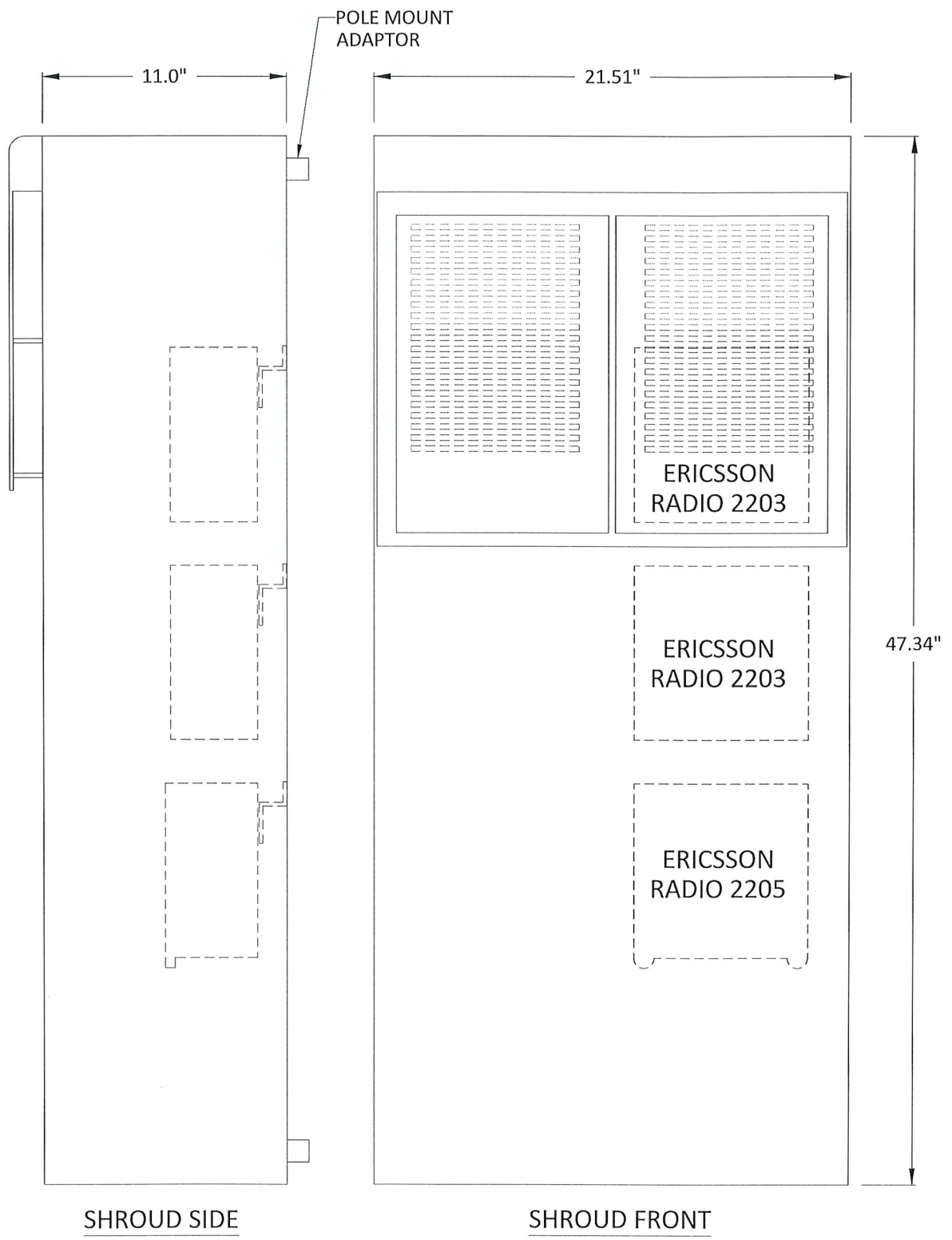
SITE ADDRESS:
CHARLES ST

SHEET TITLE:
ANTENNA DETAILS

SHEET NUMBER:

D-1

N:\Engineering\Extenet Systems\ATT 72 Nodes Boston\00 - AUTOCAD\AB-NPP\CRAN_RCTB_2HA4_093.dwg



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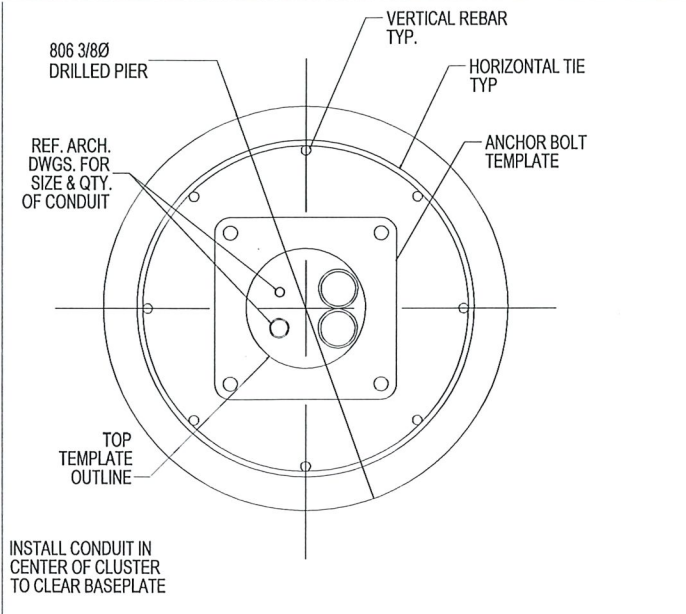
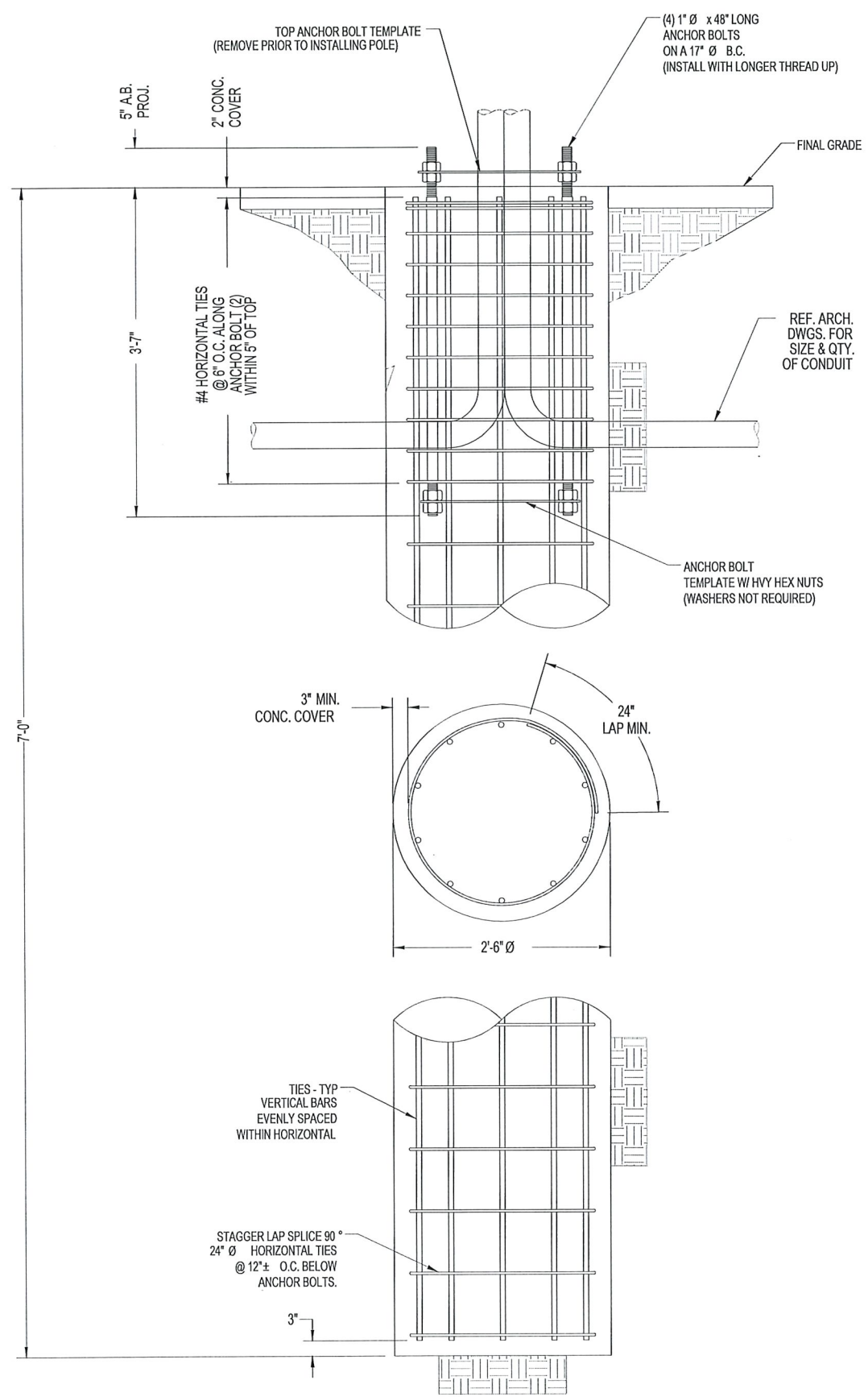
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 SITE ADDRESS:
 CHARLES ST
 SHEET TITLE:
 RADIO SHROUD DETAILS

SHEET NUMBER:
D-2

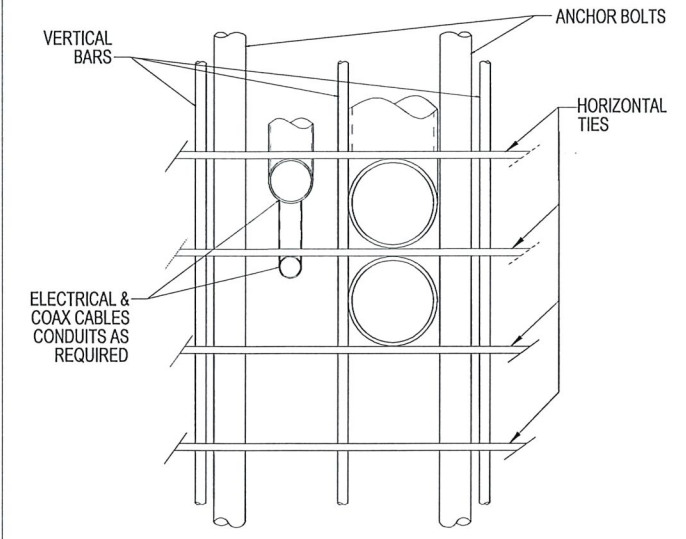
HP COMMUNICATIONS SHROUD - 6.48 CUBIC FEET
 SCALE: NOT TO SCALE

1

N:\Engineering\Extenet Systems\ATT 72 Nodes Boston\00 - AUTOCAD\AB-NPP\CRAAN_RCTB_2HA4_093.dwg

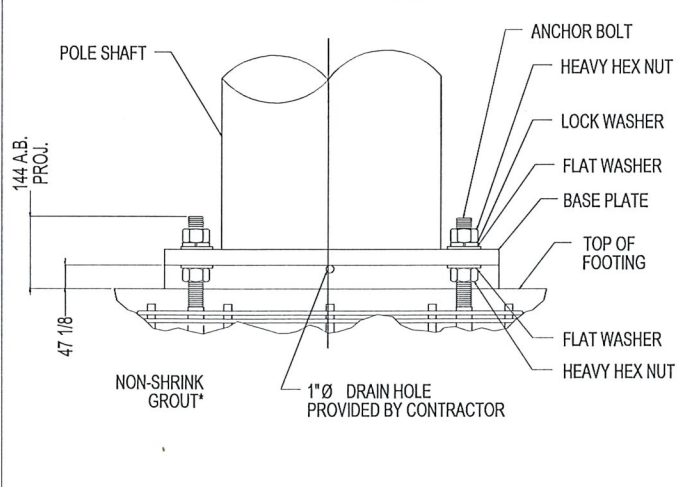


CONDUIT DETAIL @ PIER SECTION SCALE: NONE 1



* ADJUST REBAR AS NEEDED TO ACCOMMODATE CONDUIT. SEE REINFORCEMENT SUMMARY FOR SIZE, QUANTITY AND LOCATION OF VERTICAL BARS AND HORIZONTAL TIES.

CONDUIT DETAIL SCALE: NONE 2



* NON-SHRINK GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 6,000 PSI.

BASE PLATE SHALL NOT BE GROUTED UNTIL AFTER THE STRUCTURE HAS BEEN INSTALLED AND PLUMBED.

BASE GROUTING DETAIL SCALE: NONE 3

GENERAL NOTES

- CONTRACTOR IS RESPONSIBLE FOR CHECKING AREA FOR UNDERGROUND FACILITIES PRIOR TO EXCAVATING ANY MATERIALS.
- CONTRACTOR SHALL INSPECT AND REMOVE ALL DEBRIS FROM BOTTOM OF EXCAVATION.
- CONTRACTOR SHALL VERIFY ANCHOR BOLT LAYOUT PRIOR TO, AND IMMEDIATELY AFTER PLACING CONCRETE. ANCHOR BOLT LAYOUT IS CRITICAL FOR MONOPOLE INSTALLATION.
- CONTRACTOR SHALL USE AND PROVIDE DEFORMED REINFORCING BARS CONFORMING TO ASTM A615 GR. 60 (60,000 PSI MIN. YIELD). CONTRACTOR SHALL USE STEEL WIRE TO HOLD REINFORCING BARS TOGETHER. IF WELDING REBAR IS PREFERRED, SUBSTITUTE USING A706 GR. 60 DEFORMED BARS.
- CONTRACTOR SHALL USE AND PROVIDE CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI. CONCRETE SHALL USE 1" MAXIMUM STONE AGGREGATE. MIX DESIGN: 6 1/2 SACKS OF CEMENT MINIMUM PER CUBIC YARD. 5" MINIMUM AND 7" MAXIMUM CONCRETE SLUMP.
- CONCRETE SHALL BE CONSOLIDATED USING VIBRATORY METHODS THROUGHOUT DEPTH OF FOUNDATION. VIBRATING LOWER DEPTHS MAY BE ACCOMPLISHED BY TOUCHING REBAR CAGE WITH VIBRATOR.
- CONTRACTOR SHOULD ANTICIPATE THE USE OF A FULL-LENGTH TEMPORARY CASING TO STABILIZE THE EXCAVATION. THE CASING SHALL BE WITHDRAWN DURING THE PLACEMENT OF CONCRETE IN THE EXCAVATED HOLE. CONCRETE SHALL BE PLACED USING CONVENTIONAL METHODS TO MINIMIZE SEGREGATION OF CONCRETE AND AGGREGATE. CONCRETE SHALL NOT FREE FALL MORE THAN 5 FT. CONCRETE MAY BE PLACED BELOW WATER USING TREMIE METHODS.
- CONCRETE SHALL BE PLACED TO THE DEPTH INDICATED, AND THE ABOVE GRADE PORTION SHALL BE FORMED. THE REBAR CAGE, ANCHOR BOLTS, AND CONCRETE SHALL BE PLACED WITHIN 24 HOURS OF COMPLETING THE EXCAVATION. COLD JOINTS ARE NOT ALLOWED.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ADEQUATE CONCRETE COVERAGE OVER REINFORCING BARS TO MINIMIZE CORROSION POTENTIAL. UNLESS OTHERWISE NOTED, CONTRACTOR SHALL USE 3" CONCRETE COVER OVER REBAR. TOP OF FOOTING SHALL BE TROWELLED LEVEL AND SMOOTH.
- DRILLED PIER FOUNDATION DESIGN PER 2009/2012 IBC, TABLE 1806.2, CLASS 4 MATERIAL.
- TOTAL VOLUME OF CONCRETE REQUIRED FOR THIS FOUNDATION IS APPROXIMATELY 1.1 CU. YDS.

FACTORED BASE REACTIONS

MOMENT = 30.9 ft-kips
 SHEAR = 2.46 kips
 VERTICAL = 1.67 kips

SPECIAL INSPECTIONS

SPECIAL INSPECTION: THE FOLLOWING ELEMENTS OF CONSTRUCTION SHALL REQUIRE SPECIAL INSPECTION PER 2009/2012 IBC, SECTION 1704

ITEM	DESCRIPTION	INSPECTION BY	MATERIAL
1	PIER EXCAVATION LATERAL BEARING CAPACITY	SOILS ENGINEER	300 PSF/FT LATERAL
2	PIER CONSTRUCTION REINFORCING STEEL BAR SIZES AND INSTALLATION	SPECIAL INSPECTOR	ASTM A615 GR. 60
3	ANCHOR BOLTS BOLT SIZE AND LENGTHS INSTALLATION	SPECIAL INSPECTOR	ASTM F1554 GR. 55
4	CONCRETE TEST SPECIMENS PLACEMENT OF CONCRETE	SPECIAL INSPECTOR	f _c = 4,000 PSI TYPE II CEMENT

DESCRIPTION	QTY.	SIZE	LENGTH	WEIGHT	OVERLAP
VERTICAL BARS	8	#6	5'-6"	66 LBS.	N/A
HORIZONTAL TIES	10	#4	8'-4"	55 LBS.	2'-0"

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PLANS PREPARED BY:

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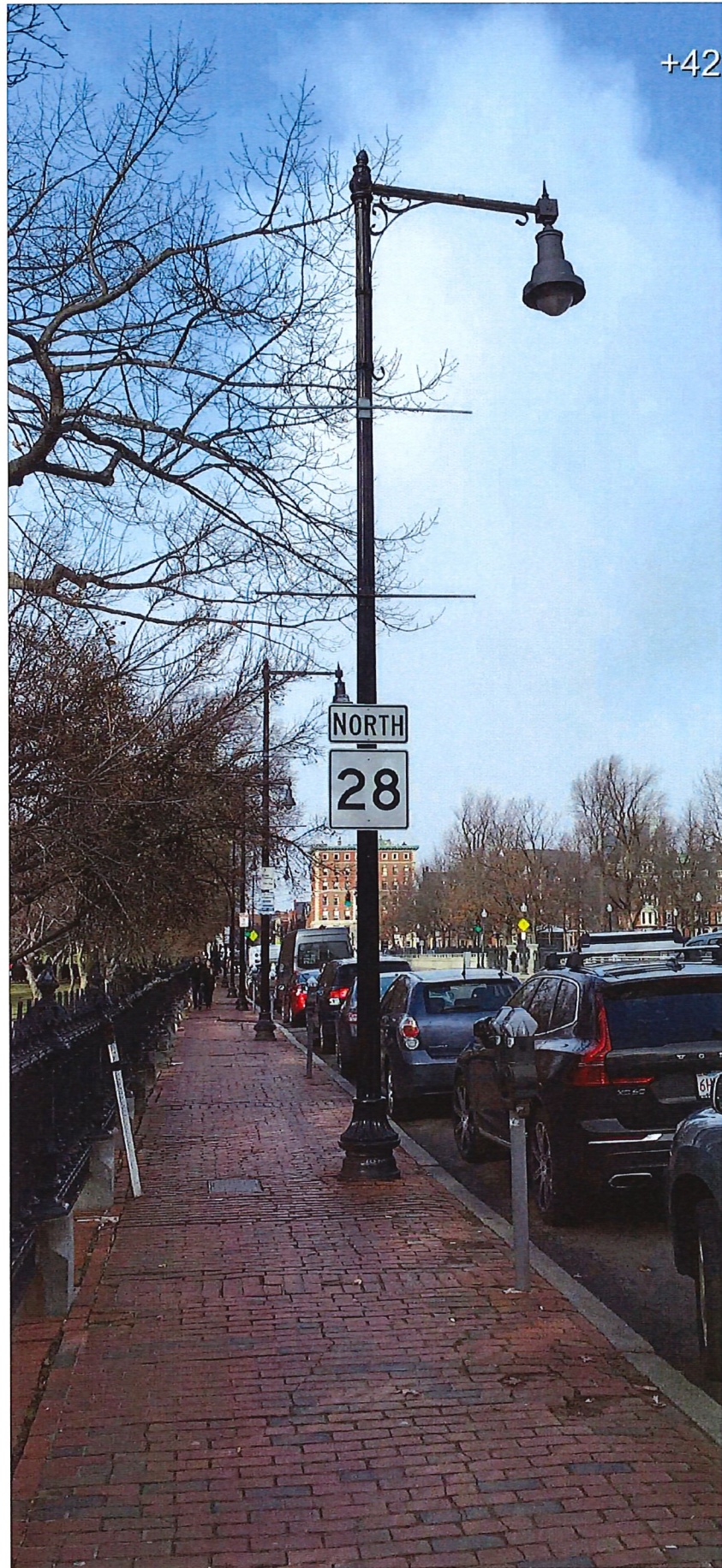
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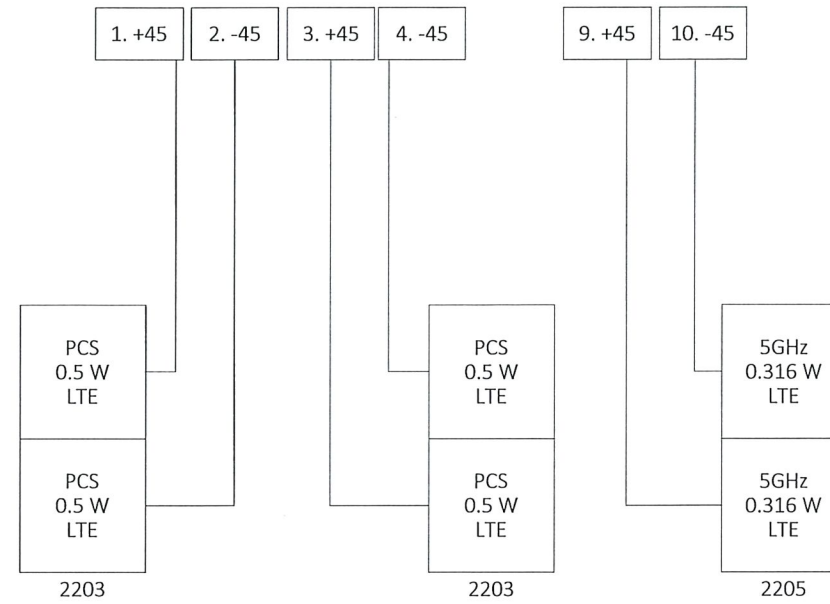
SHEET NUMBER:
D-3



EXISTING POLE
SCALE: NOT TO SCALE

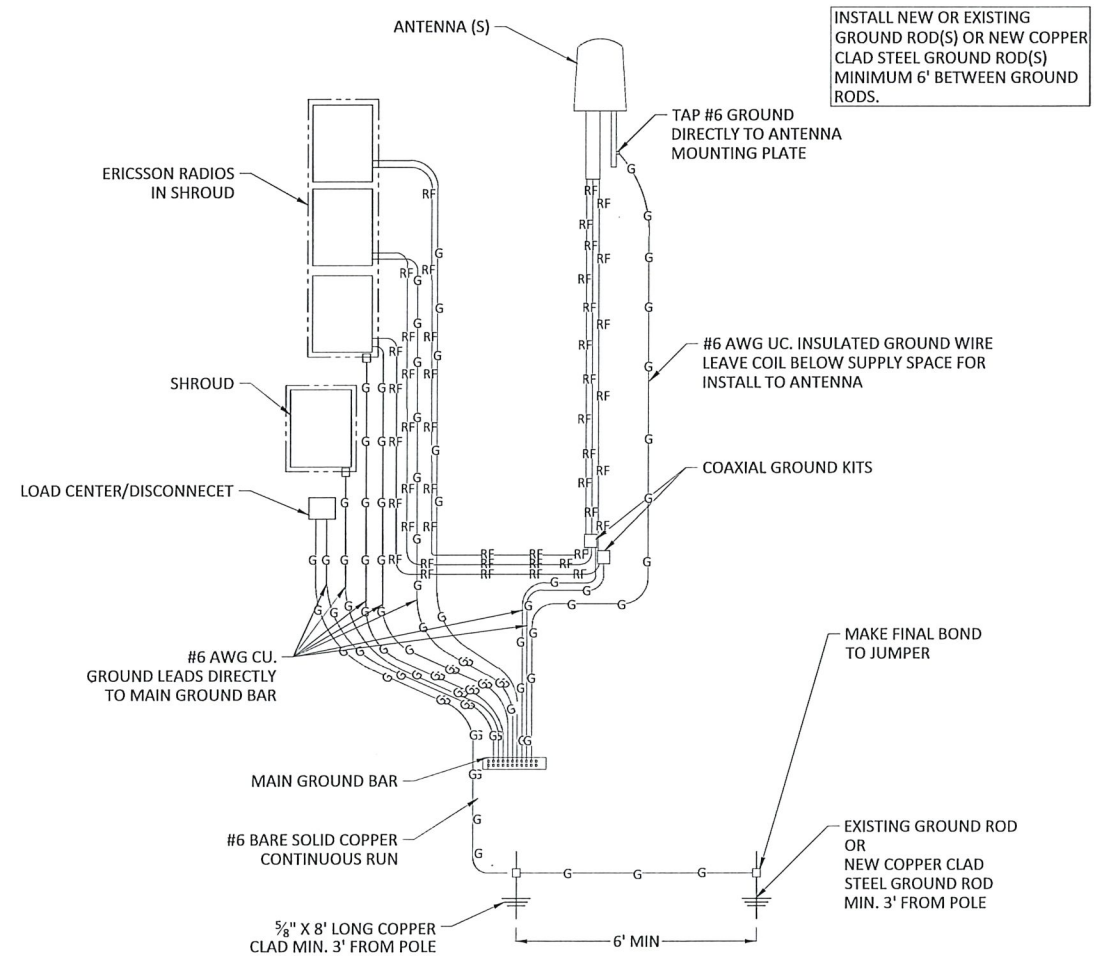
1

GALTRONICS GQ2410-06621 ANTENNA



WIRING DIAGRAM
SCALE: NOT TO SCALE

2



GROUNDING DIAGRAM
SCALE: NOT TO SCALE

3

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SHEET TITLE:
GROUNDING & WIRING DIAGRAMS

SHEET NUMBER:
D-4

1. GENERAL PROVISIONS

1.1. CONTRACT OVERVIEW

- 1. THE INTENTION OF THESE DOCUMENTS IS TO SHOW THE COMPLETE INSTALLATION AND TO INCLUDE ALL LABOR AND MATERIALS REASONABLY NECESSARY...
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITION OF THE FOLLOWING CODES, STANDARDS, AND SUPPLEMENTS:
- RULES AND SPECIFICATIONS FOR EXCAVATION ACTIVITY WITHIN THE CITY OF BOSTON
- IBC - INTERNATIONAL BUILDING CODE
- ACI - AMERICAN CONCRETE INSTITUTE
- AISC - AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATIONS
- IEEE - INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
- NEC - NATIONAL ELECTRICAL CODE
- NFPA - NATIONAL FIRE PROTECTION ASSOCIATION
- OSHA - OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
- ANSITVA - TELECOMMUNICATIONS INDUSTRY ASSOCIATION - 222-G STANDARD
- ALL GOVERNING STATE, COUNTY AND LOCAL CODES AND ORDINANCES

THE MOST STRINGENT CODE WILL APPLY IN THE CASE OF DISCREPANCIES OR DIFFERENCES IN THE CODE REQUIREMENTS.
3. THE ENGINEERING DRAWINGS SHOW PRINCIPAL AREAS WHERE WORK MUST BE ACCOMPLISHED UNDER THIS CONTRACT. INCIDENTAL WORK MAY ALSO BE NECESSARY IN AREAS NOT SHOWN ON THE ENGINEERING DRAWINGS...

4. DO NOT ESTIMATE DESIRED MEASUREMENTS BY MEASURING DRAWINGS. ALL SHOWN DIMENSIONS TAKE PRECEDENCE OVER SCALING.
5. MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE PLANS AND SPECIFICATIONS, AND NO CHANGE THAT ALTERS THE OBJECTIVE AND INTENT OF THE DESIGN WILL BE MADE OR PERMITTED BY THE OWNER WITHOUT A CHANGE ORDER.

6. GENERAL CIVIL, STRUCTURAL, ELECTRICAL, AND ANTENNA DRAWINGS ARE INTERRELATED. IN PERFORMANCE OF THE WORK, EACH CONTRACTOR MUST REFER TO ALL DRAWINGS. ALL COORDINATION SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
7. THE GENERAL NOTES CONTAINED HEREIN ARE PART OF THE PLANS AND SPECIFICATIONS, AND ARE TO BE COMPLIED WITH IN ALL RESPECTS. THE MOST RESTRICTIVE NOTES SPECIFIED ARE TO TAKE PRECEDENCE. CERTAIN SECTIONS OF THE GENERAL NOTES MAY NOT APPLY TO EVERY SITE. THE CONTRACTOR IS TO COMPLY WITH ALL APPLICABLE GENERAL NOTES IN ALL AREAS.

8. ALL GENERAL NOTES AND STANDARD DETAILS ARE THE MINIMUM REQUIREMENT TO BE USED IN CONDITIONS WHICH ARE NOT SPECIFICALLY SHOWN OTHERWISE.
9. REPRESENTATION OF THE TRUE NORTH OTHER THAN THOSE FOUND ON THE PLOT OF THE SURVEY DRAWING SHALL NOT BE USED TO IDENTIFY OR ESTABLISH THE BEARING OF THE TRUE NORTH AT THE SITE. THE CONTRACTOR SHALL RELY SOLELY ON THE PLOT OF THE SURVEY DRAWING AND SURVEYORS MARKINGS AT THE SITE FOR THE ESTABLISHMENT OF THE TRUE NORTH AND SHALL NOTIFY THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK IF ANY DISCREPANCY IS FOUND BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND THE TRUE NORTH ORIENTATION AS DEPICTED ON THE CIVIL SURVEY. THE CONTRACTOR SHALL ASSUME SOLE LIABILITY FOR ANY FAILURE TO NOTIFY THE ENGINEER.

10. THE CONTRACTOR SHALL USE ADEQUATE NUMBERS OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS, AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK.
11. THE CONTRACTOR SHALL BE RESPONSIBLE TO ASSURE SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT. THIS INCLUDES THE SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT IS MADE TO APPLY CONTINUOUSLY AND IS NOT LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR FURTHER AGREES TO INDEMNIFY AND HOLD THE DESIGN ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL SAFETY PRECAUTIONS AND REGULATIONS, SUCH AS OSHA COMPLIANCE, DURING THE PROGRESS OF WORK. THE ENGINEER WILL NOT ADVISE NOR PROVIDE DIRECTION AS TO SAFETY PRECAUTIONS AND PROGRAMS.
13. SAFETY MEETINGS SHALL TAKE PLACE EVERY MORNING BEFORE THE WORK DAY BEGINS.
14. THE CONTRACTOR SHALL ASSUME COMPLETE RESPONSIBILITY FOR THE SECURITY OF THE SITE UNTIL COMPLETION OF THE CONSTRUCTION.

15. IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE ALL PLAN SHEETS AND SPECIFICATIONS AND COORDINATE THEIR WORK WITH THE WORK OF ALL OTHER CONTRACTORS TO ENSURE THAT WORK PROGRESSION IS NOT INTERRUPTED.
16. THE CONTRACTOR IS INSTRUCTED TO COOPERATE WITH ANY AND ALL OTHER CONTRACTORS PERFORMING WORK ON THIS JOBSITE DURING THE PERFORMANCE OF THIS CONTRACT TO AVOID DELAYS IN THE SCHEDULE OR OTHER WORK PERFORMED IN THE VICINITY OF THE CONSTRUCTION AREA.

17. THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SCHEDULE TO THE PROPERTY OWNER WELL IN ADVANCE OF THE STARTING DATE OF THE WORK. THE OWNER SHALL ALSO BE NOTIFIED OF A CHANGE IN THE CONSTRUCTION SCHEDULE.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS.
19. EACH CONTRACTOR IS RESPONSIBLE FOR FULFILLING BUILDING PERMITS AT THE LOCAL JURISDICTION AS THE CONTRACTOR OF RECORD, AND SHALL PROVIDE THE JURISDICTION WITH ALL PROOF REQUIRED TO OPERATE AS CONTRACTOR IN THIS JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND INCURRING THE COST OF ALL REQUIRED PERMITS, INSPECTIONS, CERTIFICATIONS, ETC. PRIOR TO BEGINNING WORK.

20. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AMPLE NOTICE TO THE BUILDING INSPECTION DEPARTMENT TO SCHEDULE THE REQUIRED INSPECTIONS. A MINIMUM OF 48 HOURS OF NOTICE SHOULD BE GIVEN TO AUTHORITIES. AN EXTENSION IN THE CONTRACT SCHEDULE WILL NOT BE GRANTED DUE TO DELAY CAUSED BY INSPECTIONS.
21. EACH CONTRACTOR IS RESPONSIBLE FOR APPLICATION AND PAYMENT OF CONTRACTOR LICENSES, BONDS AND INSURANCES. DOCUMENTATION SHALL BE PROVIDED TO THE OWNER PRIOR TO WORK.

22. A COPY OF THE APPROVED PLANS SHALL BE KEPT IN A PLACE SPECIFIED BY THE GOVERNING AGENCY, AND BY LAW IS AVAILABLE FOR INSPECTION AT ALL TIMES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ALL CONSTRUCTION SETS REFLECT THE SAME INFORMATION AS THE APPROVED PLANS. THE CONTRACTOR SHALL ALSO MAINTAIN ONE SET OF PLANS AT THE SITE FOR PURPOSE OF DOCUMENTING ALL AS-BUILTS, CHANGES, REVISIONS, ADDENDA, OR CHANGE ORDERS.
23. THE CONTRACTOR IS TO PROVIDE THE OWNER WITH A FULL SET OF RECORD DRAWINGS WITH ACTUAL DIMENSIONS, ROUTING AND CIRCUITS UPON COMPLETION OF CONSTRUCTION.

24. THE CONTRACTOR IS TO CONTACT BOTH LOCAL POWER AND TELEPHONE UTILITY COMPANIES BEFORE CONSTRUCTION BEGINS TO ORDER SERVICE, OBTAIN AND PAY ALL FEES ASSOCIATED WITH THE CONSTRUCTION, SCHEDULE INSTALLATION OF SERVICE, COORDINATE CONDUIT RUN/TERMINATION POINTS AND OBTAIN ANY FIELD MATERIALS THAT MAY BE SUPPLIED BY THE UTILITY COMPANIES AND INSTALLED BY THE CONTRACTORS.
25. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY BRACING, SHORING, TIES, FORM WORK AND THE PROTECTION OF ALL WORK DURING CONSTRUCTION TO AVOID DAMAGE, COLLAPSE, DISTORTION, MISALIGNMENT AND ALTERATION OF EXISTING WARRANTIES.

26. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE TEMPORARY POWER, WATER AND TOILET FACILITIES AS REQUIRED BY THE PROPERTY OWNER OR GOVERNING AGENCY.
27. THE CONTRACTOR SHALL MONITOR ALL EXISTING STRUCTURES DURING CONSTRUCTION.
28. THE CONTRACTOR SHALL COORDINATE THE FINAL DIMENSIONS OF ANY TYPE OF STRUCTURAL LAYOUT WITH THE FOOTPRINT OF THE NEW EQUIPMENT BEFORE ORDERING ANY MATERIALS.

29. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN SAFE CONDITION PRIOR TO INSTALLATION, AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT, FOR EACH CLASS, GROUP, OR EQUIPMENT.
30. ALL MATERIALS MUST BE STORED ON A LEVEL AND DRY LOCATION AND IN A MANNER THAT WILL NOT OBSTRUCT THE FLOW OF OTHER WORK RELATED OR NOT RELATED TO THIS CONTRACT. ANY EQUIPMENT OR MATERIAL STORAGE MUST MEET ALL RECOMMENDATIONS OF THE MANUFACTURER. THE CONTRACTOR SHALL INSPECT THOROUGHLY ALL MATERIALS AND EQUIPMENT PRIOR TO FINAL INSTALLATION. DAMAGED EQUIPMENT OR MATERIALS SHALL NOT BE INSTALLED.

31. ALL MATERIALS SHALL BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS.
32. EXCEPT FOR WARNING SIGNS SUCH AS "NO TRESPASSING" AND SIGNS THAT STATE OWNERSHIP AND EMERGENCY TELEPHONE NUMBERS, NO SIGN SHALL BE LOCATED ON THE PROPERTY. EXISTING SIGNS WILL BE MAINTAINED AND PROTECTED.
33. ALL EQUIPMENT SHALL BE INSTALLED LEVEL AND PLUMB.

1.2 EXISTING CONDITIONS AND STRUCTURES

1. BEFORE BEGINNING WORK AT THE SITE, THE CONTRACTOR SHALL INSPECT THE EXISTING PROPERTY OR BUILDING AND DETERMINE THE EXTENT OF EXISTING FINISHES, SPECIALTIES, EQUIPMENT AND OTHER ITEMS WHICH MUST BE REMOVED AND REINSTALLED IN ORDER TO PERFORM THE WORK UNDER THIS CONTRACT. THE CONTRACTOR MUST VERIFY ALL DIMENSIONS, CONDITIONS AND ELEVATIONS BEFORE STARTING WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCES BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWINGS. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER IN ACCORDANCE WITH ACCEPTED CONSTRUCTION PRACTICES.

2. BY SUBMITTING A BID FOR THIS WORK, THE CONTRACTOR ACKNOWLEDGES THAT HE HAS THOROUGHLY REVIEWED AND UNDERSTOOD THE CONSTRUCTION DOCUMENTS, VISITED THE SITE, AND IS FAMILIAR WITH THE CONDITIONS ENCOUNTERED AT THE SITE.
3. THE CONTRACTOR, IF AWARDED THE CONTRACT, WILL NOT BE ALLOWED ANY EXTRA COMPENSATION BY REASON OF ANY WATER OR THING WHICH THE CONTRACTOR MIGHT NOT HAVE FULLY EXPLORED PRIOR TO BIDDING.

4. NO PLEA OF IGNORANCE OF CONDITIONS THAT EXIST, OR OF DIFFICULTIES THAT MAY BE ENCOUNTERED OR OF ANY OTHER RELEVANT MATTER CONCERNING THE WORK TO BE PERFORMED WILL BE ACCEPTED AS A REASON FOR ANY FAILURE OR OMISSION ON THE PART OF THE CONTRACTOR TO FULFILL THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
5. IT IS UNDERSTOOD BY THE OWNER THAT THE CONTRACTOR IN SUBMITTING HIS BID, WARRANTS THAT HE HAS CAREFULLY EXAMINED THE SITE OF THE PROJECT TO BECOME ACQUAINTED WITH THE SURROUNDING PROPERTIES, THE MEANS OF APPROACH TO THE SITE, THE CONDITIONS OF THE ACTUAL JOB SITE, THE FACILITIES FOR DELIVERING, STORING, PLACING, HANDLING, AND THE REMOVAL OF MATERIALS AND EQUIPMENT AND ANY AND ALL DIFFICULTIES THAT MAY BE ENCOUNTERED DURING THE EXECUTION OF ALL THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

6. THE LOCATIONS OF EXISTING UTILITIES HAVE NOT BEEN VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR IS RESPONSIBLE FOR HAVING ALL UNDERGROUND UTILITIES LOCATED WITH THE LIMITS OF CONSTRUCTIONS AND ACCEPTS FULL RESPONSIBILITY FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY THE CONTRACTOR'S FAILURE TO LOCATE ALL UNDERGROUND UTILITIES BEFORE COMMENCING WORK.
7. SHOULD ANY ERROR OR INCONSISTENCY APPEAR IN THE DRAWINGS OR SPECIFICATIONS, THE CONTRACTOR, BEFORE PROCEEDING WITH THE WORK, MUST MAKE MENTION OF THE SAME TO THE ENGINEER AND OWNER FOR PROPER ADJUSTMENT AND IN NO CASE PROCEED WITH THE WORK IN UNCERTAIN OR WITH INSUFFICIENT INSTRUCTION.

8. THE CONTRACTOR AND EACH SUBCONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL MEASUREMENTS AT THE SITE BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCES BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY IN DIMENSIONS WHICH MAY BE FOUND SHALL BE SUBMITTED TO THE ENGINEER AND THE OWNER REPRESENTATIVE FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS. THE CONTRACTOR'S WORK SHALL NOT VARY FROM THE PLANS WITHOUT THE EXPRESSED APPROVAL OF THE OWNER OR OWNER REPRESENTATIVE.

9. TRADE, PRODUCT NAMES, MANUFACTURER NAMES, CATALOG NUMBERS, AND INDICATIONS OF EXISTING PRODUCT TYPES SHOWN ON THE DRAWINGS ARE BELIEVED TO BE ACCURATE. IF THEY ARE DISCOVERED TO BE INACCURATE, NOTIFY OWNERS/ENGINEERS IMMEDIATELY AND DO NOT PROCEED WITHOUT INSTRUCTIONS.
10. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL PROTECT ALL AREAS FROM DAMAGES WHICH MAY OCCUR DURING CONSTRUCTION. ANY DAMAGES TO NEW OR EXISTING SURFACES, STRUCTURES, PROPERTY, SHRUBBERY, TREES, OR EQUIPMENT, SHALL BE IMMEDIATELY REPAIRED OR REPLACED TO THE SATISFACTION OF THE PROPERTY OWNER. THE CONTRACTOR SHALL BEAR THE COST OF REPAIRING OR REPLACING ANY DAMAGED AREAS.

11. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES AND EFFORTS TO PROTECT THE STRUCTURAL INTEGRITY OF EXISTING STRUCTURES AND PROPERTIES. WHEN WORK IS PERFORMED IN THE VICINITY OF EXISTING STRUCTURES, THE STRUCTURAL INTEGRITY AND STABILITY SHALL BE MONITORED AT ALL TIMES DURING EVERY PHASE OF THE CONSTRUCTION.
12. THE CONTRACTOR SHALL PROTECT EXISTING PROPERTY LINE MONUMENTATION. ANY MONUMENTATION DISTURBED OR DESTROYED, AS JUDGED BY THE OWNER OR OWNER'S REPRESENTATIVE SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE UNDER SUPERVISION OF A LICENSED LAND SURVEYOR.

13. NEW CONSTRUCTION ADDED TO EXISTING CONSTRUCTION SHALL BE MATCHED IN FORM, TEXTURE, MATERIAL AND PAINT COLOR EXCEPT AS NOTED IN THE PLANS.
14. WHERE INDICATED ON THE PLANS, THE CONTRACTOR SHALL PAINT ALL NEW ANTENNAS, SHROUDS, AND RELATED MOUNTING HARDWARE TO MATCH THE EXISTING ADJACENT SURFACES. THE CONTRACTOR SHALL NOT USE A METAL BASED PAINT FOR ANTENNAS. ALL SURFACE CONTAMINATION SHALL BE REMOVED PRIOR TO PAINTING NEW SURFACES.
15. THE PLANS SHOW SOME KNOWN SUBSURFACE STRUCTURES, ABOVE GROUND STRUCTURES, AND/OR UTILITIES BELIEVED TO EXIST IN THE WORKING AREA. THE EXACT LOCATIONS MAY VARY FROM THE LOCATIONS INDICATED. IN PARTICULAR, THE CONTRACTOR IS WARNED THAT THE EXACT OR EVEN APPROXIMATE LOCATION OF SUCH PIPELINES, SUBSURFACE STRUCTURES, AND/OR UTILITIES IN THE WORKING AREA MAY BE SHOWN OR MAY NOT BE SHOWN, AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROCEED WITH GREAT CARE IN EXECUTING ANY WORK BEFORE DIGGING, DRILLING OR BLASTING, CALL THE UNDERGROUND SERVICES ALERT NUMBER WELL IN ADVANCE OF THE COMMENCEMENT OF WORK. THE PERIOD OF ADVANCE NOTICE PROVIDED SHALL NOT BE LESS THAN THE MINIMUM REQUIRED BY LAW.

16. IN THE EVENT THAT THE CONTRACTOR DAMAGES ANY EXISTING WATER, SEWER, DRAINAGE, ELECTRICAL, GAS, TRAFFIC SYSTEM, COMMUNICATIONS OR OTHER UTILITY STRUCTURES, DUCTS, PIPES, OR OTHER FACILITIES, THE CONTRACTOR SHALL NOTIFY THE RELEVANT LOCAL JURISDICTION AND THE UTILITY OWNER IMMEDIATELY AND CONFORM TO ANY PROCEDURES REQUIRED BY THE LOCAL JURISDICTIONS.
17. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK SHALL BE PROTECTED AT ALL TIMES. WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, THEY SHALL BE RELOCATED AS DIRECTED BY ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR PIER DRILLING AROUND OR NEAR UTILITIES. THE CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW.

18. IF AN INACTIVE ELECTRICAL, TELEPHONE, SEWER, WATER, OR ANY OTHER UTILITY ARE ENCOUNTERED AND INTERFERES WITH THE EXECUTION OF THE WORK, THE CONTRACTOR IS TO REMOVE THE UTILITY AND CAP, PLUG, OR OTHERWISE PROPERLY TERMINATE THE UTILITY AT A POINT WHERE IT NO LONGER CONFLICTS WITH THE WORK. THE UTILITY WORK SHALL BE DONE IN ACCORDANCE WITH THE UTILITY COMPANY'S RECOMMENDATIONS AND PER LOCAL AUTHORITY HAVING JURISDICTION.
19. ALL UTILITY WORK INVOLVING CONNECTIONS TO EXISTING SYSTEMS SHALL BE COORDINATED WITH THE OWNER OR OWNERS REPRESENTATIVE AND THE UTILITY OWNER BEFORE EACH AND EVERY CONNECTION TO EXISTING SYSTEMS IS MADE.

20. MAINTAIN FLOW FOR ALL EXISTING UTILITIES.
21. THE CONTRACTOR SHALL RESTORE ALL PUBLIC OR PRIVATE PROPERTY DAMAGED OR REMOVED TO AT LEAST AS GOOD CONDITION AS BEFORE DISTURBED AS DETERMINED BY THE OWNER OR OWNERS REPRESENTATIVE.
22. PROTECT FINISHED SURFACES INCLUDING JAMBS AND HEADS OF OPENINGS AND ASSEMBLIES THROUGH WHICH EQUIPMENT AND MATERIALS WILL PASS.

23. PROVIDE PROTECTION FOR EQUIPMENT ROOM SURFACES PRIOR TO ALLOWING EQUIPMENT OR MATERIALS TO BE MOVED OVER, AROUND, OR WITHIN SURFACES.
24. KEEP FINISHED SURFACES CLEAN, UNHARMED AND SUITABLY PROTECTED UNTIL JOB SITE IS ACCEPTED BY THE OWNER.
25. IN THE EVENT OF DAMAGE TO AN EXISTING STRUCTURE, THE CONTRACTOR SHALL NOTIFY THE OWNER OR OWNERS REPRESENTATIVE IMMEDIATELY, AND THEN PROMPTLY MAKE ALL REPLACEMENTS AND REPAIRS TO THE SATISFACTION OF THE OWNER. THE OWNER MAY ELECT TO USE A THIRD-PARTY CONTRACTOR TO PERFORM THE REPAIRS. ALL EXPENSES ASSOCIATED WITH THE REPAIRS AND REPLACEMENTS SHALL BE PAID BY THE GENERAL CONTRACTOR SELECTED FOR THIS CONTRACT.

26. ALL CUTS ON CONCRETE SIDEWALKS SHALL BE MADE FROM THE NEAREST JOINT OR SCORE LINE ON ONE SIDE OF THE EXCAVATION, TO THE NEAREST JOINT OR SCORE LINE ON THE OTHER SIDE OF THE EXCAVATION.
27. ALL CUTS ON BRICK SIDEWALKS SHALL BE MADE BY NEATLY SQUARING ALL EDGES OF THE EXCAVATION TO THE NEAREST LINE OF FULL SIZE BRICKS. ALL BRICKS IN THE WAY OF THE EXCAVATION SHALL BE NEATLY REMOVED BY THE CONTRACTOR PRIOR TO ANY WORK BEING PERFORMED, AND SAFELY STORED. SAFE STORAGE BY THE CONTRACTOR OR WITH ANOTHER FACILITY AS DIRECTED BY THE LOCAL JURISDICTION. BRICK SIDEWALK RESTORATION AFTER CONSTRUCTION SHALL CONFORM TO LOCAL JURISDICTION REQUIREMENTS.

28. ALL CUTS ON ASPHALT SIDEWALKS SHALL BE MADE BY NEATLY SQUARING ALL EDGES TO FORM A RECTANGULAR SHAPE AT A 90 DEGREE ANGLE.
29. ANY PAVEMENT OR LAWS MARKINGS THAT ARE DISRUPTED BY THE WORK SHALL BE RESTORED ACCORDING TO LOCAL JURISDICTION REQUIREMENTS.
30. ANY TRAFFIC LOOPS OR OTHER SIGNAL SYSTEMS EMBEDDED IN THE PUBLIC RIGHT-OF-WAY DISRUPTED BY THE WORK SHALL BE RESTORED ACCORDING TO LOCAL JURISDICTION REQUIREMENTS.

31. ADDITIONAL TIME REQUIRED TO SECURE REPLACEMENT AND MAKE REPAIRS WILL NOT BE CONSIDERED BY THE OWNER TO JUSTIFY AN EXTENSION IN THE CONTRACT TIME FOR COMPLETION.
32. ABSOLUTELY NO FIELD CORING / DRILLING / CUTTING OF METALLIC POLES TO BE ALLOWED.

1.1 ACCESS

- 1. COORDINATE WITH THE SITE OWNER AND/OR LOCAL JURISDICTION REGARDING THE CONSTRUCTION SCHEDULE & SITE ACCESS. ENSURE THAT THE OWNER OF PARENT PARCEL IS NOTIFIED IN WRITING OF CONSTRUCTION ACTIVITIES.
2. THE CONTRACTOR SHALL COORDINATE ALL SPECIAL CONSIDERATIONS OF CONSTRUCTION SUCH AS NOISY OPERATION, INTERRUPTION OF ANY MECHANICAL AND/OR ELECTRICAL SERVICES, MATERIAL DELIVERIES AND STORAGE, STAGING AREA, CRANE LIFTS, ETC. WITH THE PROPERTY OWNER, OWNERS REPRESENTATIVE, AND/OR LOCAL JURISDICTION PRIOR TO THE START OF WORK.
3. CONTRACTOR SHALL COORDINATE WITH A PROPERTY OWNER REPRESENTATIVE, THE TEMPORARY REMOVAL OF FENCE, LANDSCAPING & ANY EXPECTED DAMAGE TO ACCESS ROAD OR ADJACENT REPAIR OF PROPERTY PRIOR TO COMMENCING THE WORK.
4. THE CONTRACTOR SHALL COORDINATE WORK HOURS & STAGING AREAS WITH PROPERTY OWNER, PROPERTY OWNERS REPRESENTATIVE, AND/OR LOCAL JURISDICTION.
5. CONTRACTOR TO NOTIFY PROPERTY OWNER OF THE CONSTRUCTION START DATE WELL IN ADVANCE OF CONSTRUCTION.

1.2 SITE MAINTENANCE

- 1. REMOVE STANDING OR REACTIVE MATERIALS FROM NEW AND EXISTING SURFACES IMMEDIATELY. REMOVE HAZARDOUS ACCUMULATIONS OF DEBRIS PROMPTLY, AT LEAST DAILY, CONFINE DUST PRODUCING OPERATIONS DURING CUTTING, DRILLING, PAINTING AND FINISHING. THERE SHOULD BE NO OVER SPRAYING PAINT IN PARKING AREA. VACUUM IMMEDIATELY AFTER COMPLETION.
2. THERE SHALL NOT BE ANY CREATION OF NOISE OUTSIDE THE NORMAL HOURS MANDATED BY THE LOCAL JURISDICTION AND THE PROPERTY OWNER OR OWNERS REPRESENTATIVE, UNLESS OTHERWISE AGREED UPON WITH THE LOCAL JURISDICTION AND PROPERTY OWNER OR OWNERS REPRESENTATIVE. NOISE SHOULD BE KEPT TO A MINIMUM THROUGHOUT CONSTRUCTION.
3. NOISE AND EXISTING BUILDING STRUCTURE VIBRATION GENERATED BY THE CONSTRUCTION PROCEDURES, EQUIPMENT, TOOLS AND OPERATIONS ARE TO BE KEPT TO A PRACTICABLE MINIMUM. WHERE USE OF HIGH NOISE LEVEL EQUIPMENT IS UNAVOIDABLE, AND CAN BE HEARD, CONFINE TO HOURS MANDATED BY THE LOCAL JURISDICTION AND THE PROPERTY OWNER OR OWNERS REPRESENTATIVE, UNLESS OTHERWISE AGREED UPON WITH THE LOCAL JURISDICTION AND PROPERTY OWNER OR OWNERS REPRESENTATIVE.

4. THE CONTRACTOR IS TO PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A OR 2-ABC WITHIN 75FT OF TRAVEL TO ALL PORTIONS OF THE CONSTRUCTION AREA.
5. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A NEAT AND ORDERLY SITE, YARD AND GROUNDS. REMOVE AND DISPOSE, LEGALLY OFF SITE, ALL RUBBISH, WASTE MATERIALS, LITTER AND ALL FOREIGN SUBSTANCES. REMOVE PETROCHEMICAL SPILLS, STAINS AND OTHER FOREIGN DEPOSITS. RAKE GROUNDS TO A SMOOTH EVEN TEXTURED SURFACE AT PROJECT COMPLETION. REMOVE TEMPORARY SERVICES, CONSTRUCTION EQUIPMENT, TOOLS AND FACILITIES, MUCKUPS, TEMPORARY STRUCTURES, SURPLUS MATERIALS, DEBRIS, AND RUBBISH FROM PROPERTY OWNERS PROPERTY. PUT SITE IN NEAT, ORDERLY CONDITION, READY FOR USE. LEAVE ROOF AREAS, PIPE SPACES AND OTHER SPACES CLEAN AND FREE FROM DEBRIS ON A DAILY BASIS.

6. THE SITE AND/OR BUILDING SECURITY SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION IN ORDER TO PREVENT UNAUTHORIZED PERSONS FROM ENTERING THE PREMISES. EXISTING AND NEW EQUIPMENT AND MATERIALS REMAIN THE CONTRACTOR'S RESPONSIBILITY AT ALL TIMES DURING CONSTRUCTION.
7. THE TENANT'S INGRESS AND EGRESS OF THE SITE AND/OR BUILDING SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
8. THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO MAINTAIN POLLUTION CONTROL, COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION, AND PROMPTLY REMOVE ALL DEBRIS AND ACCUMULATION OF MATERIALS RESULTING FROM THE WORK.

2. DEMOLITION AND EXISTING STRUCTURAL ALTERATION

1. DEMOLITION SPECIFICS
GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR SHORING, BRACING, PROVIDING LATERAL SUPPORT, AND FOR MAINTAINING THE INTEGRITY OF THE EXISTING STRUCTURE DURING ALL PHASES OF THE DEMOLITION AND CONSTRUCTION AND SHALL PROVIDE, IF REQUIRED, SIGNED AND SEALED SHOP DRAWINGS, BY A REGISTERED PROFESSIONAL ENGINEER, FOR THE SHORING OF ALL WALLS, BEAMS, SLABS, ROOF JOISTS, OR OTHER ELEVATED STRUCTURAL ITEMS, THAT ARE HAVING SUPPORT NOTED FOR DEMOLITION.
2. ANY DAMAGE DUE TO DEMOLITION, OR OTHER CONSTRUCTION ACTIVITIES, DONE TO ANY EXISTING SURFACE TO REMAIN SHALL BE REPAIRED TO MATCH EXISTING AT NO ADDITIONAL COST TO THE OWNER.

1.2 CUTTING & PATCHING

- 1. DO NOT DRILL OR CUT EXISTING FLOOR JOISTS, BEAMS, COLUMNS OR OTHER STRUCTURAL ELEMENTS UNLESS SPECIFICALLY INDICATED. DRILL SLABS WHERE APPROVED. CORE DRILL CIRCULAR OPENINGS THROUGH CONCRETE SLAB. LINE DRILL FOR RECTANGULAR OPENINGS. MAKE OPENINGS OF PROPER SIZE FOR CONDUIT, DUCTS, PIPES AND OTHER ITEMS PASSING THROUGH OPENINGS. MAKE ALL NEW HOLES OR OPENINGS WEATHER TIGHT AND/OR FIRE SAFE AS REQUIRED BY LOCAL BUILDING CODES & ORDINANCES.
2. WHERE CUTTING OF EXISTING SURFACES OR REMOVAL OF EXISTING FINISHES IS REQUIRED TO PERFORM THE WORK UNDER THIS CONTRACT AND A NEW FINISH IS NOT INDICATED, FILL RESULTING OPENINGS AND PATCH THE SURFACE AFTER DOING THE WORK AND FINISH TO MATCH ADJACENT EXISTING SURFACES.
3. EXCEPT IN SPACES WHERE NO WORK UNDER THIS CONTRACT IS REQUIRED, ENCLOSE EXISTING AND NEW CONDUITS, DUCTS, PIPES, AND SIMILAR ITEMS IN FURRING WHERE SUCH ITEMS PASS THROUGH FINISHED SPACES WHETHER OR NOT FURRING IS INDICATED.

4. REPAIR PATCH FINISH AND/OR REFINISH AS APPLICABLE TO MATCH ADJACENT EXISTING FINISHES. ANY EXISTING SURFACES DAMAGED DURING PERFORMANCE OF THE WORK UNDER THIS CONTRACT.
5. REPAIR ALL METAL SURFACES THAT HAVE BEEN CUT OR DAMAGED BY REMOVING ANY EXISTING RUST AND APPLYING COLD GALVANIZATION.
6. SITE WORKS

3.1 CLEARING AND CRUBBING

1. CLEARING OF TREES AND VEGETATION ON THE SITE SHOULD BE HELD TO A MINIMUM. ONLY TREES NECESSARY FOR THE CONSTRUCTION OF THE FACILITY SHALL BE REMOVED. ANY DAMAGES TO PROPERTY OUTSIDE THE CONSTRUCTION UNIT SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
2. THE CONTRACTOR SHALL PROTECT EXISTING TREES, VEGETATION, LANDSCAPING, MATERIALS AND SITE IMPROVEMENTS NOT SCHEDULED FOR CLEARING OR REMOVAL WHICH MIGHT BE DAMAGED BY CONSTRUCTION ACTIVITIES.

3. TRIM EXISTING TREES AND VEGETATION AS RECOMMENDED BY THE ARBORIST FOR PROTECTION DURING CONSTRUCTION.
4. CLEAR AND GRUB STUMPS, VEGETATION, DEBRIS, RUBBISH, DESIGNATED TREES REQUIRED FOR THE SITE IMPROVEMENT.
5. STRIP AND STOCKPILE TOPSOIL.
6. PROTECT TEMPORARILY ADJACENT PROPERTY, STRUCTURES, BENCHMARKS, AND MONUMENTS.
7. MARK DESIGNATED TREES AND VEGETATION DURING CONSTRUCTION ACTIVITIES.

8. PROVIDE TEMPORARY EROSION CONTROL, SILTATION CONTROL, AND DUST CONTROL.
9. REMOVE AND LEGALLY DISPOSE OF CLEARED MATERIALS.
10. EXCAVATION AND BACKFILL

1. ALL SUITABLE BORROW MATERIAL FOR BACK FILL OF THE SITE SHALL BE INCLUDED IN THE BID. EXCESS TOPSOIL AND UNSUITABLE MATERIAL SHALL BE DISPOSED OF OFF-SITE AT A LOCATION APPROVED BY GOVERNING AGENCIES PRIOR TO DISPOSAL.
2. BROKEN PAVEMENT, STONES GREATER THAN THREE (3) INCHES IN DIAMETER, ROOTS AND OTHER DEBRIS SHALL NOT BE USED IN BACKFILL. NO MATERIAL SHALL BE LEFT IN THE PUBLIC RIGHT-OF-WAY ONCE WORK HAS BEEN COMPLETED.
3. EXCAVATED MATERIAL SHALL BE REMOVED FROM THE WORK SITE AND DISPOSED OF IN A MANNER SUCH THAT INTERFERENCE WITH AND OBSTRUCTION TO VEHICULAR AND PEDESTRIAN TRAFFIC IS MINIMIZED.

4. PRIOR TO BACKFILLING, THE CONTRACTOR SHALL NOTIFY THE LOCAL JURISDICTION IF REQUIRED AND ALLOW ADEQUATE TIME FOR INSPECTION.
5. BACKFILLING SHALL OCCUR ON THE SAME DAY AS THE EXCAVATION. IF THIS IS NOT POSSIBLE DUE TO THE COMPLEX NATURE OF THE WORK, EMERGENCY, OR UNPREVENTABLE CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE LOCAL JURISDICTION(S) AND TAKE APPROPRIATE MEASURES TO PROTECT PUBLIC SAFETY AND INFRASTRUCTURE UNTIL WORK COMMENCES.
6. UNDER NO CIRCUMSTANCES SHALL AN OPEN EXCAVATION BE LEFT UNATTENDED OVERNIGHT, UNLESS PROPERLY BARRICADED IN A MANNER MEETING WITH APPROVAL FROM LOCAL JURISDICTIONS.

7. ALL PAVEMENT BACKFILL MATERIAL SHALL BE PROCESSED GRAVEL. PAVEMENT BACKFILL SHALL MEET THE SELECTED FILL STANDARDS AS SHOWN BELOW, UNLESS STRICTER REQUIREMENTS ARE IMPOSED BY THE OWNER'S REPRESENTATIVE, GEOTECHNICAL REPORT RECOMMENDATIONS, OR THE REQUIREMENTS OF THE LOCAL JURISDICTION, WHICHEVER IS MORE STRINGENT.

Table with 2 columns: SIEVE DESIGNATION, PERCENT PASSING. Rows include 3 INCH, 1-1/2 INCH, 3/4 INCH, NO. 4, NO. 200.

8. THE USE OF CONTROLLED DENSITY FILL (CDF) MAY BE MANDATED BY THE OWNERS REPRESENTATIVE, GEOTECHNICAL REPORT RECOMMENDATION, OR BY THE LOCAL JURISDICTION. IF CONTROLLED DENSITY FILL IS MANDATED, IT SHALL CONFORM TO THE REQUIREMENTS SPECIFIED BY OWNERS REPRESENTATIVE, GEOTECHNICAL REPORT RECOMMENDATIONS, OR THE REQUIREMENTS OF THE LOCAL JURISDICTION, WHICHEVER IS MORE STRINGENT.

A. THE CDF INGREDIENTS SHALL COMPLY WITH THE FOLLOWING:
I. PORTLAND CEMENT AASHTO M85
II. FLY ASH AASHTO M292, CLASS F
III. FINE AGGREGATE AASHTO M 4.02.02
IV. AIR ENTRAINING ADMIXTURES: AASHTO M 4.02.05

B. THE CDF MUST MEET THE FOLLOWING REQUIREMENTS:
I. COMPRESSIVE STRENGTH AT 28 DAYS: 30-40 PSI (210-3500 KPa)
II. COMPRESSIVE STRENGTH AT 90 DAYS: 100 PSI MAX. (700 kPa MAX)
III. SLUMP: 10-12 INCHES (250-300 MM)
IV. AIR: 1%-3%

9. THE PROJECT INCLUDES:
- EXCAVATION, TRENCHING, FILLING, COMPACTING AND GRADING FOR STRUCTURES.
- ALL MATERIALS FOR SUB-BASE, DRAINAGE FILL, BACK FILL, GRAVEL FOR SLABS, PAVEMENT AND IMPROVEMENTS.
- ROCK EXCAVATION WITHOUT BLASTING.
- SUPPLY OF ADDITIONAL MATERIALS FROM OFF SITE AS REQUIRED.

4. FILL LAYERS THAT REQUIRE COMPACTION SHALL HAVE A MAXIMUM THICKNESS OF 6 INCHES.
5. THE COMPACTING UNDER STRUCTURES, BUILDING SLABS, STEPS, PAVEMENT AND WALKWAYS SHALL BE 95% MAXIMUM DENSITY, ASTM D-1557. TESTED IN EACH OF THE COMPACTING LAYERS AT EACH COMPACTING SITE, OR AT LEAST IN EACH 100 CU. YARDS OF MATERIAL VOLUME.
6. IF A LAYER OF CONCRETE, COBBLESTONE, GRANITE PAVERS, OR OTHER SUPPORTING MATERIAL EXISTS, CONTRACTOR SHALL INSTALL CONCRETE TO MATCH THE EXISTING DEPTH PRIOR TO INSTALLATION OF TEMPORARY PAVEMENT.

7. WHEN BACKFILL CANNOT EFFECTIVELY BE COMPACTED TO 95% MAXIMUM DENSITY DUE TO MULTIPLE CONDUITS, DUCTS OR PIPES, CONTROLLED DENSITY FILL (CDF) MAY BE REQUIRED.
8. THE COMPACTING UNDER LAWS OR UNPAVED AREAS SHALL BE 95% MAXIMUM DENSITY, ASTM D1557.

1. GRAVEL SHALL BE PLACED UP TO THREE (3) INCHES BELOW GRADE OF EXISTING ASPHALT, TO ALLOW ROOM FOR THREE (3) INCHES OF COMPACTED HMA TEMPORARY SURFACE.
2. CONCRETE SIDEWALKS SHALL BE PLACED ON A BED OF SIX (6) INCHES OF COMPACTED GRAVEL.
3. CURB STONES MUST BE PLACED ON A BED OF SIX (6) INCHES OF CRUSHED STONE.

9. THE COMPACTED LAYERS SHALL NOT EXCEED 6 INCHES.
10. AREAS THAT DO NOT MEET ASTM D-1557 REQUIREMENTS MUST BE RECOMPACTED AT THE CONTRACTOR'S EXPENSE.
11. ALL TRENCH EXCAVATIONS AND ANY REQUIRED SHEETING AND SHORING SHALL BE DONE IN ACCORDANCE WITH OSHA REGULATIONS FOR CONSTRUCTION.
12. WHERE UNSTABLE SOIL CONDITIONS EXIST, LINE THE GRUBBED AREAS WITH GEOTEXTILE FABRIC (MIRAFLEX 500X OR APPROVED EQUIVALENT) PRIOR TO PLACING FILL OR BASE MATERIAL.

13. THE USE OF EXPLOSIVES IS PROHIBITED ON SITE.
14. ALL EXCAVATION ON WHICH CONCRETE IS TO BE PLACED SHALL BE SUBSTANTIAL HORIZONTAL, UNDISTURBED AND BE FREE FROM LOOSE MATERIAL AND EXCESS GROUND WATER. DEWATERING FOR EXCESS GROUND WATER SHALL BE PROVIDED IF REQUIRED.
15. ANY EXCAVATION OVER THE REQUIRED DEPTH SHALL BE FILLED WITH OTHER MECHANICALLY COMPACTED GRANULAR MATERIAL OR CONCRETE OF THE SAME QUALITY SPECIFIED FOR THE FOUNDATION. CRUSHED STONE MAY BE USED TO STABILIZE THE BOTTOM OF THE EXCAVATION. STONE, IF USED, SHALL NOT BE USED AS COMPILING CONCRETE THICKNESS.

16. BACK FILL SHALL USE APPROVED MATERIALS CONSISTING OF LOAM, SANDY CLAY, SAND, GRAVEL, OR SOFT SHALE AND SHALL BE FREE FROM CLOSOS OR STONES OVER 2".
17. AFTER COMPLETION OF THE FOUNDATION AND OTHER CONSTRUCTION BELOW GRADE AND BEFORE BACKFILLING, ALL EXCAVATIONS SHALL BE CLEAN OF UNSUITABLE MATERIALS SUCH AS VEGETATION, WOOD, DEBRIS, TRASH, AND ANY FOREIGN MATERIAL.

3.3 DRAINAGE

1. THE CONTRACTOR SHALL PROTECT ALL STORM DRAIN AND SEWER APPURTENANCES ADJACENT TO AND WITHIN THE CONSTRUCTION SITE. THE PROTECTION USED SHALL PREVENT THE DISCHARGE OF POLLUTANTS, SEDIMENT, AND/OR DEBRIS INTO ANY PORTION OF THE STORM DRAIN AND/OR SEWER SYSTEM.
2. CONSTRUCTION DEBRIS SUCH AS DIRT, TRASH, ROCK, SEDIMENT, SAND, AND OTHER POLLUTANTS SHALL NOT BE ALLOWED TO ACCUMULATE IN THE STORM DRAIN OR SEWER CONVEYANCE SYSTEMS.

3. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE AWAY FROM BUILDING OR EQUIPMENT ON THE SITE AT ALL TIMES. SILT AND EROSION CONTROL SHALL BE MAINTAINED ON THE DOWNSTREAM SIDE OF THE SITE AT ALL TIMES. STORM WATER FLOW SHALL NOT BE IMPEDED. ANY DAMAGE TO ADJACENT PROPERTIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING AND THE MAINTENANCE OF SURFACE DRAINAGE DURING THE COURSE OF WORK.
5. ANY DRAIN, FIELD TILE, OR DRAINAGE STRUCTURE ENCOUNTERED DURING CONSTRUCTION SHALL BE RETURNED TO ITS ORIGINAL OR BETTER CONDITIONS AFTER CONSTRUCTION AND BE NOTED ON THE RECORD DOCUMENTS.

PLANS PREPARED FOR:



PLANS PREPARED BY:



FOR PERMITTING PURPOSES ONLY

LOCATION:

CHARLES ST
BOSTON, MA 02108
MIDDLESEX COUNTY

P.E. STAMP AREA:

DRAWING NOTES:

Table with 2 columns: ORIGINAL PLAN: SCALE: AS NOTED; DRAWN BY: JR; PLAN ORIG. DATE: 04/04/19

REVISIONS:

Table with 4 columns: REV, DESCRIPTION, BY, DATE

SITE INFO:

LAT: 42.35368686°
LONG: -71.06820149°

CRAN ID:
CRAN_RCTB_2HA4_093
EXTENET NODE ID:
NE-MA-BSTBSC01-093

SITE ADDRESS:
CHARLES ST

SHEET TITLE:
GENERAL NOTES

SHEET NUMBER:

GN-1

