

AT&T MOBILITY PROJECT:

CRAN_RCTB_00011_20 SITE CASCADE: CROWN ID: LT-SC-MA 0314

SCU #495057

SITE TYPE: 25'-6" METAL STREETLIGHT

DRAWING DESCRIPTION: PERMIT DRAWING

SITE INFORMATION

EXISTING NODE:

	LONGITUDE		
42°20'31.3"N	71°04'31.8"W		
42.3420152757	-71.075493197		

PROPOSED NODE:

LATITUDE	LONGITUDE
42°20'31.2"N	71°04'31.9"W
42.3420115799	-71.0755245128

COUNTY:

SUFFOLK

ZONING JURISDICTION:

CITY OF BOSTON

ZONING DISTRICT:

SOUTH END

POWER COMPANY:

EVERSOURCE

LOCUS MAP Liquid Hair Studios Michael Dobler Architect N.T.S

PROJECT TEAM

BACKHAUL PROVIDER:

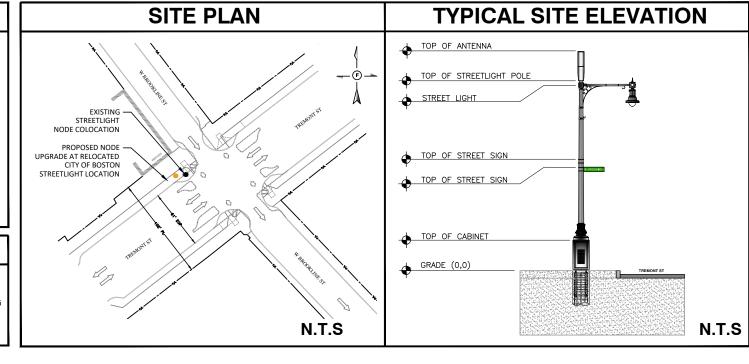
CROWN CASTLE

CROWN CASTLE PROJECT MANAGER:

JOHN KROGUL

DO NOT SCALE DRAWING

SUBCONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME,



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PROJECT EQUIPMENT

NEW CROWN CASTLE INSTALLED EQUIPMENT

- 30'-0" TALL BOX MOUNTED 12 FLAT FLUTE DECORATIVE ANTENNA / LIGHT POLE
- K805 CHICAGO SR. LED (SHALLOW GLASS)

APPLICABLE CODE

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING AUTHORITIES, NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING WITH THESE CODES

- INTERNATIONAL BUILDING CODE
- INTERNATIONAL MECHANICAL CODE
- ANSI /TIA-222 STRUCTURAL STANDARD
- NFPA 782 LIGHTING PROTECTION
- UNIFORM PLUMBING CODE NATIONAL ELECTRICAL CODE
- 2017 NATIONAL ELECTRICAL SAFETY

SERVICE ALERT 1-888-DIG-SAFE (344-7233) CALL BEFORE YO

72 HOURS NOTICE

UNDERGROUND

THE UTILITIES AS SHOWN ON THIS SET OF DRAWINGS WERE DEVELOPED FROM THE INFORMATION AVAILABE. THE INFORMATION PROVIDED IS NOT IMPLIED NOR INTENDED TO BE THE COMPLETE INVENTORY OF UTILITIES IN THIS AREA. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY THE LOCATION OF ALL UTILITIES (WHETHER SHOWN OR NOT) AND PROTECT SAID UTILITIES FROM ANY DAMAGE CASED BY

PLANS PREPARED FOR:



PLANS PREPARED BY:



FOR PERMITTING PURPOSES ONLY

ENGINEERING SEAL:

DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF CROWN CASTLE AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF CROWN

REVISIONS:

- 1				
	REV	DESCRIPTION	BY	DATE

SITE CASCADE:

CRAN RCTB 00011 20 CROWN ID: LT-SC-MA 0314 SCU #495057

SITE 659 TREMONT ST:

659 TREMONT ST **BOSTON. MA 02210**

SHEET DESCRIPTION:

TITLE SHEET

SHEET:

GENERAL PLAN NOTES:

- 1. THE CONTRACTOR SHALL BE PREPARED TO REPAIR/REPLACE ANY WORK DEEMED TO BE SUBSTANDARD OR ONE WITHOUT INSPECTION SIGN-OFF BY THE GOVERNING DIVISION OF ENGINEERING AND
- 2. STREET OPENING PERMIT FOR RIGHT OF WAY CONSTRUCTION

- DEFINITION;
 ANY CONSTRUCTION IN THE PUBLIC RIGHT-OF-WAY FOR THE ANY CONSTRUCTION IN THE PUBLIC RIGHT-OF-WAY FOR THE PURPOSES OF INSTALLING NEW OR REPAIRING/UPGRADING EXISTING PRIVATE AND PUBLIC FACILITIES SHALL BE GOVERNED BY THE REQUIREMENTS OF THIS PERMIT. THE STREET OPENING PERMIT IS REQUIRED FOR THE REMOVAL OR REPLACEMENT OF ANY AND ALL EXISTING CITY INFRASTRUCTURE. INCLUDING ROADWAYS, SIDEWALKS, CURB, ADA RAMPS, TRAFFIC SIGNALIZATION AND APPURTENANCES, PUBLIC OWNED SEWER, WATER AND ELECTRICAL UTILITIES NECESSARY FOR THE PURPOSES OF CONSTRUCTION OR DAMAGED DURING CONSTRUCTION, PRIOR TO MEETING THE REQUIREMENTS AND ACQUIRING THIS PERMIT, THE CONTRACTOR DOES NOT HAVE THE PERMISSION TO REMOVE AND/OR REPLACE ANY PORTION OF SAID "INFRASTRUCTURE". A SIDEWALK PERMIT IS REQUIRED FOR THE REPAIR AND REPLACEMENT OF EXCENSIVE SURPING SIDEWALK SA PRONS CIRRING SIDEWAL SA PROPORT CIRRING SIDEWALS AND REPLACEMENT OF EXIGIRANCE AND REPLACEMENT. ND REPLACEMENT OF EXISTING SIDEWALKS, APRONS, CURBING, AND
- 3. NO OBSTRUCTIONS SHALL BE PLACED IN FRONT OR INTERFERE WITH
- 4. INTERSECTION CROSSOVERS MUST BE SQUARED OFF AND MAY INCLUDE GRINDING AND RESURFACING OF THE ENTIRE INTERSECTION
- 5. ADA COMPLIANT CURB RAMPS SHALL BE CONSTRUCTED AT NTERSECTIONS ADJACENT TO ROADWAY AND SIDEWALK PAVEMENT RESTORATION WORK AND AS PER THE DIRECTION OF THE COMMISSIONER OF ENGINEERING AND CONSTRUCTION.
- AND BACKFILLING, AT LEAST 5 BUSINESS DAYS IN ADVANCE.
- PRIVATE/PUBLIC UTILITIES AND TRAFFIC SIGNALS: CARE SHALL BE TAKEN TO NOT DAMAGE UNDERGROUND UTILITIES.
- 8. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING, DIGSAFE, 611.
- DIRECTION DRILLING/BORING RESTRICTIONS;
 DIRECTIONAL DRILLING AND/OR BORING IS NOT PERMITTED WITHOUT SPECIAL APPROVAL FROM THE LOCAL AUTHORITIES.
- 10. AS-BUILT DRAWING REQUIREMENTS:
 AS-BUILT DRAWINGS WILL BE SUBMITTED TO CROWN CASTLE AND THE
- 11. SIDEWALK AND OBSTRUCTION PERMITS
 ALL REPAIRS ARE TO BE PERFORMED PER THE LOCAL CITY STANDARDS AND DETAIL DRAWINGS WHICH WILL BE PROVIDED WITH THE SIDEWALK PERMIT OR UPON REQUEST.
- SIDEWALK, DRIVE WALK AND APRON REPLACEMENTS ARE TO BE DONE IN CONCRETE WITH AN IRE INTRAINED CONCRETE MIX THAT HAS A MINIMUM OF 690 LBS. CEMENT PER CUBIC YARD, FULL SLAB REPAIRS ARE REQUIRED, JOINT-TO-JOINT WITH A BROOM FINISH AND TO LOCAL CODE SPECIFICATIONS. CONCRETE SHALL BE PLACED ON COMPACTED 2 THICK BASE OF SAND OR GRAVEL PREMIUM FILL MATERIAL SHALL BE PLACED AND COMPACTED IN LIFTS OF 6 INCHES AT ALL AREAS UNDER THE SIDEWALK THAT THE SUB GRADE HAS BEEN EXCAVATED. NEW BRICK, CONCRETE OR GRAVITE PAVERS MUST HAVE APPROVAL PRIOR TO INSTITUTION, FULL SANDSTONE SLASS MAY 9E RELAYED/RESET IF NOT BROKEN OR IF THE SUPPACE IS DISHED OR WORN SMOOTH, ALL SENERGY BEDSIES IN THE FEATURE SIDEWALK STATES. SIDEWALK REPAIRS IN THE CENTRAL BUSINESS DISTRICT MUST BE INCH THICKNESS, SIDEWALK REPAIRS IN RESIDENTIAL AREAS ARE TO SE 4-INCH THICKNESS AND ALL RESIDENTIAL DRIVEWAYS AND APRON ARE TO BE 6-INCH THICKNESS. AT ALL CHANGES IN SLAB THICKNESS, 1/2"THICK EXPANSION JOINT MATERIAL SHALL BE PLACED AND ALSO AT MINIMUM OF 30' INTERVALS, ALL AREAS OF NEW CONSTRUCTION SHALL BE PROTECTED AND BARRICADED UNTIL THE AREA CAN BE OPENED TO EDESTRIAN OR VEHICLE TRAFFIC WITHOUT DAMAGE, ALSO, REFER TO LOCAL JURISDICTION SPECIFICATIONS.

- 13. CURB REPAIRS
 MAY BE CONCRETE OR IN KIND MATERIAL; THIS VARIES IN WHICH CITY
- STRUCTURES AND/OR OTHER FEATURES FROM FIELD MEASUREMENTS
 AND RECORD MAPPING, EXACT LOCATION OF WHICH MAY VARY
 FROM THE LOCATION INDICATED. IN PARTICULAR THE CONTRACTOR IS
- 15. CONTRACTOR SHALL CONTACT A SUBSURFACE UTILITY LOCATOR FOR LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL VERIFY EXISTING UTILITY LOCATIONS BY TEST PIT AS NECESSARY. LOCATION OF
- 16. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND
- 17. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY CONDITIONS THAT VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTORS WORK SHALL NOT VARY FROM THE PLANS WITHOUT THE EXPRESSED APPROVAL OF THE ENGINEER.
- 18. WORK SHALL COMPLY WITH CURRENT ISSUES OF ALL APPLICABLE STATE AND LOCAL CODES, ORDINANCES, AND REGULATIONS, THE LATEST EDITION THEREOF.
- 19. CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR THIS PROJECT FROM ALL APPLICABLE GOVERNMENTAL AGENCIES. THE RIGHT OF MAY PERMIT HAS BEEN APPLED FOR BY CROWN CASTLE WILL BE PICKED UP BY THE CONTRACTOR AT THE PERMITS OFFICE
- 20. ANY PERMITS WHICH MUST BE OBTAINED SHALL BE THE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS
- 21. THE ENGINEER HAS NOT CONDUCTED. NOR DOES IT INTEND TO
- CONDUCT ANY INVESTIGATION TO DETERMINE THE PRESENCE OF ANY HAZARDOUS MATERIAL INCLUDING BUT NOT LIMITED TO ASBESTOS,

- LEAD PAINT, AND PCB'S WITHIN THE CONFINES OF THIS PROJECT. THE LEAD PAINT, AND PCES WITHIN THE CONTINES OF THIS PMOJECT. THE
 ENGINEER WILL NOT ACCEPT ANY RESPONSIBILITY FOR THE ABATEMENT
 OR RESULTING CLAIMS FOR DAMAGES OR LOSSES AS A RESULT OF
 THE PRESENCE OF HAZAPROUS MATERIALS. IF EVIDENCE OF
 HAZARDOUS MATERIALS IS DISCOVERED, SUSPEND WORK AS
 REQUIRED BY GOVERNING STATUTES, AND NOTIFY CROWN CASTLE
 REPRESENTATIVE. DO NOT PROCEED WITH WORK UNTIL INSTRUCTED
 BY CROWN CASTLE REPRESENTATIVE.
- 22. ALL MATERIAL FURNISHED UNDER THIS CONTRACT SHALL BE NEW UNLESS OTHERWISE MOTED. ALL WORK SHALL BE GUARANTEED AGAINST DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF TWELVE MONTHS FOLLOWING SUBSTANTIAL COMPLETION OF PROJECT OR AS SPECIFIED. THE CONTRACTOR SHALL REPAIR OR REPLACE AT IIS EXPENSE ALL WORK THAT MAY DEVELOP DEFECTS IN MATERIALS
- 23 THE GENERAL CONTRACTOR AND EACH SUBCONTRACTOR ARE TO BE RESPONSIBLE FOR VERIFYING EXISTING SITE CONDITIONS DIMENSIONS, AND THE LOCATION OF BURIED UTILITIES AT THE JOB SITE PRIOR TO THE COMMENCEMENT OF WORK, NO CLAIMS FOR EXTRA COMPENSATION FOR WORK RESULTING FROM CONFLICTS AND OMISSIONS WHICH COULD HAVE BEEN DISCOVERED BY FIELD VERIFICATION AND INSPECTION. WHETHER INDICATED IN TH CONTRACT DOCUMENTS OR NOT WILL BE ENTERTAINED OR PAID.
- 24. FOLLOW MANUFACTURERS' PRINTED SPECIFICATION AND INSTRUCTIONS EXCEPT WHERE SPECIFIED OR INDICATED ON CONTRACT DOCUMENTS. COMPLY WITH THE MOST STRINGENT
- SE THE CONTRACTOR CHALL VERIEV THAT THERE ARE NO CONFLICTO THE CONTRACTOR SHALL VEHIFY THAT I THERE ARE NO CONF AMONG THE LOCATIONS OF ANY MECHANICAL, ELECTRICAL, OR STRUCTURAL ELEMENTS AND THAT ALL REQUIRED CLEAR AND CONSTRUCTIONS TOLERANCES FOR INSTALLATION AND MAINTENANCE ARE PROVIDED. NOTIFY CROWN CASTL REPRESENTATIVE OF ANY CONFLICTS. CROWN CASTLE REPRESENTATIVE RESERVES THE RIGHT TO MAKE MINOR MODIFICATIONS TO THE DESIGN WITHOUT ALTERING CONTRACT PRICE.
- 27.DO NOT SCALE DRAWINGS, DIMENSIONS ARE EIGHER TO THE FACE OF FINISHED ELEMENTS OR TO THE CENTERLINE OF ELEMENTS, UNLESS NOTED OTHERWISE, CRITICAL DIMENSIONS SHALL BE CONFIRMED WITH SITE MEASUREMENTS, VERIFY WITH THE CUSTOMER'S REPRESENTATIVE AS APPLICABLE.
- 28. THE CONTRACTOR IS RESPONSIBLE FOR DAILY CLEANUP OF THE SITE AND REMOVAL AND DISPOSAL OF ALL CONSTRUCTION DEBRIS. AT COMPLETION OF THE PROJECT THE CONTRACTOR SHALL THOROUGHLY CLEAN THE SITE AND ANY OTHER SURROUNDING AREAS TO THE SATISFACTION OF CROWN CASTLE AND THE LANDLORD.
- 29. THE CONTRACTOR IS RESPONSIBLE FOR ADEQUATELY BRACING AND PROTECTING ALL WORK DURING CONSTRUCTION. AGAINST DAMAGE BREAKAGE, COLLAPSE, ETC. ACCORDING TO APPLICABLE CODES, STANDARDS, AND GOOD CONSTRUCTION PRACTICES.
- WORK SHALL BE DONE IN STRICT COMPLIANCE WITH A LICABLE NATIONAL (OSHA). STATE AND LOCAL CODES. STANDARDS, INANCES. RULES AND REGULATIONS.
- 31 THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR DAMAGES TO THE EXISTING FACILITY AND INSTILLATION RESULTING FROM CONSTRUCTION AND GENERAL NEGLIGENCE. REPAIR ALL DAMAGES AND RESTORE FACILITY AND INSTALL ATIONS TO THE SATISFACTION O CROWN CASTLE AND LANDLORD AT NO EXTRA CHARGE, NOTIFY THE CUSTOMER'S REPRESENTATIVE AND TOWER OWNER OF ANY SUCI AGES PROMPTLY, REPAIR TO 10D% SATISFACTION IMMEDIATELY
- 32. WHERE ONE DETAIL IS SHOWN FOR ONE CONDITION, UNLESS NOTED OTHERWISE, IT SHALL APPLY FOR ALL LIKE OR SIMILAR CONDITIONS EVEN THOUGH NOT SPECIFICALLY MARKED IN THE DRAWINGS.
- 33. THE CUSTOMER'S REPRESENTATIVE IS RESPONSIBLE FOR APPLYING FOR COMMERCIAL POWER CONNECTION. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF UTILITY INSPECTIONS AND POWER COMPANY INSTALLATION. THE GENERAL CONTRACTOR IS WRITTEN AND VERBAL DISCUSSIONS WITH THE POWER
- 34. THE CUSTOMER'S REPRESENTATIVE SHALL OBTAIN WRITTEN CONFIRMATION OF THE EXPECTED DATE OF COMPLETION OF THE POWER COMPACTION FOR THE POWER COMPANY. CONTRACTOR WILL PROVIDE TEMPORARY POWER FOR CONSTRUCTION AND HIS SUBCONTRACTOR ARE NOT ALLOWED TO
- 35 DRAWINGS FORMING THIS SET ARE COMPLIMENTARY AND MUST BE READ AS ONE TOTAL DOCUMENT. DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF CROWN CASTLE. THESE DRAWING WERE PREPARED TO SUBMITTED TO GOVERNMENTAL BUILDING AUTHORITIES FOR REVIEW FOR COMPLIANCE WITH APPLICABLE BUILDING CODES. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO EXECUTE CONSTRUCTION INDICATED HEREIN ACCORDING TO APPLICABLE BUILDING CODES
- 36. THESE CONSTRUCTION DOCUMENTS AND SPECIFICATIONS SHALL BE 5. IHESE CONSTRUCTION DOCUMENTS AND SPECIFICATIONS STALL BE INTERPRETED TO BE A MINIMUM ACCEPT FABLE ESTANDARD FOR CONSTRUCTION_THESE DOCUMENTS SHALL NOT RELIEVE THE CONTRACTOR, SUBCONTRACTOR, AND/OR SUPPLIER/MANUFACTURER FROM PROVIDING A COMPLETE AND CORRECT INSTILLATION SHOULD ADDITIONAL HEMS AND DETAILS BE REQUIRED FOR PROPER AND SAFE
- 37. THESE CONTRACT DOCUMENTS AND SPECIFICATIONS DO A CONTRACTUAL RELATIONSHIP OF ANY KIND BETWEEN CASTLE REPRESENTATIVE AND THE CONTRACTOR.
- 38.THE SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS EQUIPMENT, AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT DESCRIBED HERON.
- 39 THE CONTRACTOR SHALL ORTAIN ALITHORIZATION FROM THE CROWN CASTLE REPRESENTATIVE TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE
- 40 THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS TECHNIQUES, SEQUENCES, PROCEDURES, AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER CONTRACT
- 41. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROJECT AND MAINTAIN EXISTING CONDITIONS, EASEMENTS, PAVEMENTS, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK,
- 42. THE CONTRACTOR SHALL MAINTAIN ALL TRAFFIC IN ALL AREAS IN ACCORDANCE WITH THE STATE'S DEPARTMENT OF TRANSPORTATION

- 43. THE CONTRACTOR SHALL NOTIFY THE CROWN CASTLE REPRESENTATIVE WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER
- PORTION OF THE WORK THAT IS IN CONFLICT UNTIL IT IS RESOLVED BY THE CROWN CASTLE REPRESENTATIVE. CONTRACTOR SHALL FOLLOW ALL APPLICABLE CROWN CASTLE SMALL CELL DESIGN AND
- 44. CONTRACTOR TO PROVIDE TEMPORARY TOILET FACIUTIES FOR
- 45. CONTRACTOR SHALL COORDINATE ALL UTILITY CONNECTIONS WITH APPROPRIATE UTILITY OWNERS
- 46. THESE PLANS ARE NOT FOR RECORDATION OR CONVEYANCE.

GENERAL UTILITY NOTES:

- CONTRACTOR SHALL CONTACT ALL UTIUTY COMPANIES IMMEDIATELY AFTER BID IS AWARDED AND ENSURE THE UTILITY COMPANIES HAVE THE ESSENTIALS REQUIRED FOR COMPLETE SERVICE INSTALLATION. CONTRACTOR SHALL NOTIFY CONSTRUCTION MANAGER AND ENGINEER OF ANY TIME FRAMES ESTABLISHED BY UTILITY COMPANIES WHICH WILL NOT MEET OPENING DATE.
- 2. CONTRACTOR SHALL VERIFY THE SIZE, LOCATION, INVERT ELEVATION, AND CONDITION OF EXISTING UTILITIES WHICH ARE INTENDED TO BE UTILIZED AS A CONNECTION POINT FOR ALL PROPOSED UTILITIES, PRIOR TO ANY CONSTRUCTION. CONTRACTOR TO ENSURE EXISTING UTILITIES ARE IN GOOD CONDITION AND FREE FLOWING (IF APPUCABLE). IF ELEVATIONS, SIZE OR LOCATION DIFFROM WHAT IS SHOWN, CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY.
- WHERE PLANS PROVIDE FOR PROPOSED WORK TO BE CONNECTED TO CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING THE PROPOSED WORK, IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT. OF EXISTING APPURTENANCE RESULTS IN A CHANGE IN THE PLAN. THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED WORK WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY. PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT ITEM.

MAINTENANCE OF ACCESS AND TRAFFIC

- DURING THE CONSTRUCTION PERIOD; SIDEWALKS, SHOULDERS, TRAVEL LANE(S), OR STREETS MAY HAVE TO BE TEMPORARILY CLOSE OR RESTRICTED FOR THE UNLOADING OF EQUIPMENT OR A RESULT OF CONSTRUCTION ACTIVITIES THEMSELVES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE DIRECTLY WITH THILL LOCAL GOVERNING AUTHORITIES ON ANY SUCH CLOSURES AND MUSOBITAN WRITTEN PERMISSION FROM THE APPROPRIATE AUTHORITIES PRIOR TO IMPLEMENTING SUCH CLOSURES OR RESTRICTIONS. ANY CLOSURE OR RESTRICTION MUST COMPLY WITH THE STATE MANUAL OF UNIFORM CONTROL DEVICES (MUTCD) FOR STREETS AND
 HIGHWAYS (LATEST EDITION AND REVISION), AND WITH ANY AND ALL
- 2. IF TRAFFIC PLANS NOT INCLUDED IN THE CONSTRUCTION DRAWING SET. THE CONTRACTOR SHALL PREPARE AND SUBMIT A FORMAL TRAFFIC CONTROL / MOT PLAN TO THE LOCAL GOVERNING AUTHORITIES IF REQUESTED, ALL REQUIRED CONSTRUCTION TRAFFIC MAINTENANCE DEVICES SHALL BE PROVIDED. FRECTED AND MAINTAINED, AND ULTIMATELY REMOVED BY THE CONTRACTOR, THE CONTRACTOR SHALL MAINTAIN SAFE AND SAITSFACTORYACCESS TO ALL ABUTTING PROPERTIES AND INTERSECTING STREET AT ALL TIMES DURING THE CONSTRUCTION OF THE IMPROVEMENTS ANTICIPATED. DRIVEWAYS MUST BE MAINTAINED AND ALL TRENCHES SHALL BE BACKFILLED AT THE END OF EACH WORK DAY. PER THE STATE MUTCD ND OTHER APPUCABLE APPROPRIATE GOVERNING REQUIREMENTS THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAFEGUARDS SUCH AS BARRICADES, SATISFACTORY BARRIERS, CONES, SIGNAGE BARRELS, MESSAGE BOARDS, LIGHTING, FLAGMEN, LAW ENFORCEMENT OFFICERS, ETC. TO AVOID DAMAGE AND / OR INJURY

GENERAL NOTES:

FLECTRIC 120V POWER SUPPLY TO NODE:

- 1. CONTRACTOR SHALL CO-ORDINATE WITH POWER COMPANY AND VERIFY EXISTING TRANSFORMER SHOR CIRCUIT RATING CAI CUI ATE FAUI T CURRENT AT PANEI AND VERIFY AI 1 EXISTING BREAKERS AND NEW BREAKERS AND VEHILL AT EACHED SHALL CURRENT AT SOURCE, CONTRACTOR SHALL INFORM CONSTRUCTION MANAGER AND FOR IF EXISTING BREAKERS ARE NOT RATED FOR AVAILABLE SHORT CIRCUIT.

- 4 CROWN CASTLE CONTRACTOR SHALL BE RESPONSIBLE HIS OWN LABOR, EQUIPMENT, MEASUREMENTS AND MATERIALS TO COMPLETE THE POWER SUPPLY CIRCUIT
- 5. CROWN CASTLE CONTRACTOR TO PLACE MULETAPE WITH SEQUENTIAL FOOTAGE MARKINGS MINIMUM 1800 LBS
- PROTECTION OF THE NEW CABLE AND TO THE MOTORING FIGURE S' THECABLE DURING THE PLACEMENT PROCESS
- WHERE APPUCABLE, UPON COMPLETION OF PLACEMENT OF CABLE AT EACH MANHOLE THE NEW CROWN CASTLE CABLE ENTERING AND EXITING THE MANHOLE IS TO BE CAREFULLY POSITIONED TO THE APPROPRIATE WALL OF THE MANHOLE, POSITIONED ON THE MANHOLE WALL WITH MANHOLE RACK HOOK(S) AND SECURED TO THE HOOK(S)
- CROWN CASTLE CONTRACTOR IS RESPONSIBLE FOR ACCURATELY RECORDING THE CABLE FOOTAGE MARKING OF THE NEW CABLE AT BOTH THE TERMINATION POINT AND ORIGIN AND PLACING THAT INFORMATION ON THE FIELD PRINTS TO BE GIVEN TO CROWN CASTLE
- WHERE APPUCABLE, CROWN CASTLE CONTRACTOR IS RESPONSIBLE FOR ACCURATELY RECORDING THE STORAGE LOOP FOOTAGE PLACED AT EACH SPECIFIED OCATION AND PLACING THAT INFORMATION ON THE HELD PRINTS TO BE GIVEN TO CROWN CASTLE.
- 10. CROWN CASTLE CONTRACTOR SHALL BE RESPONSIBLE OR HIS OWN LABOR, MEASUREMENTS AND THE FURNISHING AND INSTALLING OF ALL NECESSARY MATERIALS TO COMPLETE THE COMMUNICATION CONDUIT PATH BETWEEN THE PROPOSED NODE LOCATION AND EXISTING SERVICE POINT.
- 12. THE INSTALLATION OF 12OV ELECTRICAL SUPPLY CONDUIT & CABLES, INSTALLATION OF COMMUNICATION CONDUIT & CABLE, ALL 1E51 ING, INCLUDING BUT NOT LIMITED TO ALL MATERIAL CABLE TERMINATIONS. SPILCES, GROUND CABLE CONNECTIONS, TRENCHING AND RESTORATION ARE TO MEET AND/OR EXCECEDED THE GREATER OF THE FOLLOWING GOVERNING AUTHORITY, THE NATIONAL ELECTRIC SAFETY CODE LAIESI ADDITION, ALL OSH SAFETY BEQUIREMENTS, ALL GOVERNING RIGHTS-POLICIES AND PROCEDURES AND THE POUCY AND PRACTICES SET FORTH BY CROWN CASTLE
- 13. CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN ABOR, EQUIPMENT, SAFETY, TRAFFIC CONTROL. MEASUREMENTS AND THE FURNISHING AND INSTALLING OF ALL NECESSARY MATERIALS REQUIRED, TOO FULLY ISTALL AND EXECUTE THE INSTALLMENT OF THE CROWN
- 14. CONTRACTOR IS RESPONSIBLE FOR THE CONTACTING OF ND COORDINATION WITH: LOCAL UTILITY PROTECTION SERVICES ELECTRIC POWER PROVIDER GOVERNING MSION OF ENGINEERING & CONSTRUCTION GOVERNING DMSION OF TRAFFIC & ENGINEERING GOVERNING DMSION OF POLICE & TRAFFIC AND ALL PRIVATE UTILITIES 48 HOURS BEFORE YOU DIG. CONTRACTOR TO SUPPLY CROWN CASTLE DIG TICKET NUMBER BEFORE START OF
- 15. ALL ITEMS REFERENCED THROUGHOUT (-THIS RAW) ARE ONLY A GUIDELINE AND AS SUCH DOES NOT COVER EVERY POSSIBLE CONTINGENCY THAT MAY OCCUR. THIS GUIDEUNE/PLAN IF PROPERLY FOLLOWED SHOULD ALLOW THE CONTRACTOR TO PLAN AND EXECUTE THE OPERATIONS TO CONSTRUCT THE GROWN CASTLE PROJECT. HOWEVER, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ITS OPERATION AND SHALL REIMAIN SOLELY LIABLE INCLUDING BUT LIMITED TO THE OLLOWING ITEMS: ALL SAFETY REQUIREM NCLUDING BUT NOT UMITED TO PUBLIC AND WORKER SAFETY, SAFETY OF EXISTING AND PUBUC UTIUTIES, CONTACTING THE OHIO UTILITY PROTECTION SERVICE BEFORE WORK BEGINS, LOCATING AND VERIFYING AL PUBLIC AND PRIVATE UTILITIES. MAINTENANCE OF TE HEN APPUCABLE, ALL REQUIRED PERMITS AND/OR FEES PERMANENT TRAFFIC CONTROL ITEMS, WATERSHED ROTECTION. SEDIMENT AND EROSION CONTROL ROTECTION OF ENDANGERED SPECIES, QUALITY OF MATERIAL, CRAFTSMANSHIP, RESTORATION OF EXISTING UTILITIES FACILITIES, RESTORATION TO THE ENVIRONMENT EQUAL TO OR BETTER THAN ORIGINAL CONDITION BEFORE CONSTRUCTION ACTIVITIES BEGAN, AND TO ALL ADVERSE PUBLIC AND PRIVATE ENVIRONMENTAL IMPACTS CAUSED
- 16. INFORMATION ON THESE SI-ILE IS HAVE BEEN PREPARED FROM THE BEST AVAILABLE INFORMATION AND SOURCES. EXISTING UTILITIES FACULITIES LOCATIONS ARE BASED ON RECORDS/VERBAL INFORMATION AND PHYSICAL FEATURES

GROUNDING NOTES: REFERENCE CROWN STANDARD - 337910 GROUNDING AND

- 1. ALL CROWN PLANTS SHALL BE GROUNDED IN COMPLIANCE /ITH NEC. NESC AND/OR G095 (CALIFORNIA). LOCAL ORDINANCES, STATE CODES OR UTILITY STANDARDS MAY XCEED NESC/NEC/G095 AND CROWN GROUNDING
- 2. ALWAYS COMPLY WITH THE REQUIREMENTS OF THE UTILITY POLE OWNER:
- 3. CROWN CASTLE REQUIRES (1) MAIN VERTICAL GROUND

(VGR) CONDUCTOR FROM THE ANTENNA MOUNTING BRACKET AT THE TOP/SIDE OF THE POLE TO THE GROUNDING ELECTRODE SYSTEM AT THE BASE OF THE POLE MAIN WAG SHALL CONSIST OF A MINIMUM #6 AWA CONDUCTOR. THE MAIN VGR SHALL BE PROTECTED FOR THE FIRST 8 FEET OF THE POLE WITH A U - AUAND OR NON-CONDUCTIVE CONDUIT. THE VGR SHALL EXTEND TO THE TOP OF THE POLE AND STAPLED EVERY 24 WITH CORROSION RESISTANT (DIPPED GALVANIZED) STAPLES ON WOODEN POLES. FOR CONDUCTIVE POLES, SECURE THE VGR USING A NON-CONDUCTIVE CONDUIT SYSTEM. STRAIN BELIEF AND NON-CONDUCTIVE ATTACHMENT METHODS WHERE POSSIBLE MAINTAIN A MINIMLIM 2 SEPARATION BETWEEN THE VGR AND ANY OTHE CONDUCTOR. ALWAYS USE JACKETED CABLE VGR ON

- 4. GROUND ROD(S) SHALL BE A MINIMUM 5/8' DIAMETER, 8' IN LENGTH, AND COPPER-CLAD STEEL, WHEN ADDING A SECOND GROUND BOD, INSTALL THE ADDITIONAL BOD A MINIMUM OF 6' APART FROM THE FIRST BOD. GROUND ROD(S) SHALL BE INSTALLED IN ACCORDANCE WITH NESC/NEC/G095 (CALIFORNIA) CODES WITH REGARDS TO DEPTH AND DISTANCE FROM POLE. AT A MINIMUM, 8 FT. OF GROUND ROD(S) MUST BE INSTALLED BELOW THE FROST UNE. FOR EXAMPLE, INSTALL A 10 FT. ROD FOR FROST LINE OF 2 FT. OTHERWISE, TOP OF THE GROUND ROD(S) AND ASSOCIATED BONDING CONDUCTORS SHALL BE BURIED MINIMUM OF 4" BELOW GRADE. A MINIMUM #8 AWG MAIN VERTICAL GROUND RISER SHALL BE ATTACHED DIRECTLY TO THE CLOSEST GROUND ROD.
- WHERE A MAIN GROUND BAR (MGB) IS INSTALLED IN ORDER TO TERMINATE AVAILABLE GROUNDING CONDUCTORS, THE MGB SHALL BE PRE-CONFIGURED TO ACCEPT 24-HOLE GROUND LUGS. THE MGB SHOULD BE MOUNTED UTILIZING INSULATING STANDOFFS TO AVOID UNWANTED GROUND LOOP CURRENTS AND CONTACT
- THE VERTICAL GROUND RISER (VGR) SHALL BE ATTACHED DIRECTLY TO THE ANTENNA BRACKET VIA A 316-STAINLESS STEEL BOLT. DISSIMILAR METALS SHOULD NOT BE IN DIRECT CONTACT, WITHOUT A LISTED COMPONENT, SUCH AS STAINLESS-STEEL COMPONENTS. REMOVE PAINT AS REQUIRED TO CREATE A PROPER BOND TO THE CONDUCTIVE SURFACE, IF THE ANTENNA HAS A GROUND FERMINAL, BOND THE ANTENNA TO THE VGR WITH A #6AWG GROUND CONDUCTOR, IF THE ANTENNA DOES NOT AVE A FACTORY GROUND TERMINAL, THEN DO NOT ADD ONE. IN THIS CASE, GROUND THE ANTENNA BRACKET.
- COAXIAL CABLES SHALL BE GROUNDED USING A GROUND KIT INSTALLED BEFORE THE ORIP LOOP ATTHE ENTRY TO THE RADIO CABINET. FOR TOP ENTRY RADIOS WHERE RF SURGE PROTECTIVE DEVICES (SPDS) ARE INSTALLED, GROUNDING THE SPD WILL SUFFICE
- MGB SHALL BE MOUNTED ADJACENT TO OR WITHIN THE MGB SHALL BE MOUNTED ADJACENT TO OR WITHIN THE RADIO EQUIPMENT CABINET ON A NON-CONDUCTIVE POLE. ON A CONDUCTIVE POLE. ON A CONDUCTIVE POLE. ON A CONDUCTIVE POLE. THE MGB MAY BE MOUNTED INSIDE THE POLE WITHIN THE RADIO CABINET OR ON THE EXTERIOR SURFACE OF THE POLE. MOUNT THE MGB WHERE IT BEST SUITES THE APPLICATION, SUCH AS UNDER THE RADIO CABINET AND NOT AT A HEIGHT LOWER THAN AN 9 ELEVATION. WHEN GROUNDING EQUIPMENT INSIDE A SHROUD, CONNECT TO THE SHROUD MANUFACTURERS A GROUND BUS ON MGB IF LOCATED THERE.
- 9 ALL POLE MOUNTED DEVICES INCLUDING BUT ANTENNA MOUNTS, ANTENNAS WITH FACTORY GROUND TERMINAL MOUNTING BRACKETS, AND RADIO EQUIPMENT CABINETS SHALL BE BONDED WITH A #6 AWG STRAP/ILIMPER TO TH MAIN VGR CONDUCTOR WITH IRREVERSIBLE COMPRESSIO CLAMPS. INSTALL BONDING JUMPER TO THE VGR WITH MINIMUM 8' BENDING RADIUS AND IN A DOWN DIRECTION TOWARD THE MGB AND ITS ASSOCIATED SITE GROUNDING ELECTRODE SYSTEM. ALL METALLIC AVOID GROUND LOOPS FROM THE EQUIPMENT CHASSIS TO THE CONDUCTIVE SHROUD VIA NON-CONDUCTIVE
- WHERE AN MGB IS INSTALLED, ALL CONNECTIONS TO THE MGB SHALL UTIUZE 2-HOLE CONNECTOR LUG(S).
- 10.2. STACKING OF CONNECTOR LUGS IS PROHIBITED.
- 10.3. ANY MODIFICATION TO THE CONNECTOR LUGS IS PROHIBITED, INCLUDING BUT NOT LIMITED TO GRINDING,
- 10.4. CONNECTOR LUGS MUST BE PLACED WITH EVEN SPACING AND MUST NOT COME IN CONTACT WITH ANOTHER CONNECTOR LUG.
- 10.5. SLOTTED HOLE OF THE CONNECTOR LUG SHOULD BE PLACED ON THE SLOTTED HOLE OF THE MOB. 10.6. IF POSSIBLE, ALL CONNECTOR LUGS SHALL HAVE TWO
- (2) COMPRESSIONS PER LUG. 10.7. ALL CONNECTOR LUGS MUST HAVE NO-OX APPLIED TO WHEN CONTACTING ANOTHER METAL SURFACE, SUCH AS THE MGB OR ANY OTHER METALLIC SURFACES, TO REDUCE
- 10.7.1. ONLY SIMILAR METALS CAN BE IN DIRECT CONTACT.
 10.7.2. USTED MATERIALS, SUCH AS STAINLESS STEEL,
 SHALL BE USED WHEN DISSIMILAR METALS ARE IN DIRECONTACT, SUCH AS COPPER TO STEEL, OR COPPER TO
- 10.8 ALL CONNECTOR LUGS SHOULD BE ATTACHED LISING IMUM 3/8" HARDWARE X 2 PER EACH LUG AND IN THE
- 10.8.1. PLACE CONNECTOR LUG ON FRONT SIDE OF MOB AND IN DIRECT CONTACT WITH MGB.
- 10.8.2. PLACE BOLT THROUGH THE BACK THROUGH MOB AND NECTOR LUG. SIZE BOLT HEAD TO AVOID THE NEED OF A FLAT WASHER.
- 10.8.3. PLACE NUT AND LOCK WASHER ON BOLT, ALL NUTS ON CONNECTOR BOLTS MUST BE TIGHTENED SO THAT THE LOCK WASHERS ARE COMPLETELY COMPRESSED. FOLLOW PROPER TORQUE SPECIFICATIONS.
- 12 ALL BONDING ABOVE GRADE LEVEL TO THE VERTICAL ALL BONDING ABOVE GRADE LEVEL TO THE VERTICAL GROUND RISER, SHALL BE MADE WITH IRREVERSIBLE CLAMPS, EXOTHERMIC WELD IS PREFERRED TO CONNECT THE VERTICAL GROUND RISER TO THE SITE'S GROUNDING

- 13. FOR CONDUCTIVE POLES. ALL METALUC COMPONENTS FOR CONDUCTIVE POLES ALL METALLO COMPONENTS AND THE CONDUCTIVE POLES THE SELF SHOULD HAVE AN INTENTIONAL BOND TO THE VOR. FOR ELECTRIC, METALE SERVICE DISCONNECT AND RADIO EQUIPMENT INSTALL ON CONDUCTIVE POLES, AVOID UNINTENTIONAL BOND THROUGH THE CHASSIS AND THE METAL POLE BY NISTALLING NON-CONDUCTIVE ATTACHMENT HARDWAR AND A NON-CONDUCTIVE ATTACHMENT HARDWAR AND
- 14 ONLY ONE NEUTRAL GROUND BOND IS TO BE MADE AT ONE OF THE THREE ALLOWABLE LOCATIONS: (1) AT SERVICE ENTRANCE (WEATHERHEAD IF AERIAL, POWER HANDHOLE IF UNDERGROUND) (2) IN THE METER ENCLOSURE OR (3) AT THE SERVICE DISCONNECT, FIRST DISCONNECTING MEANS: LOCATION (3) IS ALWAYS PREFERRED, WHERE LOCATIONS (1) OR (2) ARE SELECTED BY THE AUTHORITY HAVING JURISDICTION (AHJ). AN EQUIPMENT GROUNDING CONDUCTOR (EGC) SHALL BE STALLED FROM THE NEUTRAL - GROUND BOND TO T GROUND BUS IN THE ELECTRICAL SERVICE DISCONNECT WHERE AN EGC IS INSTALLED, IT MUST BE ENCLOSED IN THE SAME NON-CONDUCTIVE CONDUIT BODY ALONG WITH ITS ASSOCIATED PHASE AND NEUTRAL CONDUCTORS

PART 2 - TESTING AND DOCUMENTATION

- 1. THE FIRST TEST TO BE CONDUCTED IS THE EARTH GROUND RESISTANCE MEASUREMENT. FOR A NEWLY INSTALLED GROUND ELECTRODE SYSTEM. THE METHOD TO CONDUCT EARTH GROUND RESISTANCE READINGS STARTS FIRST WITH THE USE OF 8-3-POINT, 62% FALL POTENTIAL GROUND METER. THE METER IS SETUP TO READ THE SITE GROUND RESISTANCE OF INSTALLE GROUND ROD(S) IN OHMS, PRIOR TO ATTACHING THE MAIN VERTICAL GROUND RISER TO THE SITE GROUNDING ELECTRODE SYSTEM. IF THE READING RESULT IS GREATER THAN 25 OHMS, THEN THE INSTALLER WILL NEED TO ADD AND BOND A CODE COMPLIANT ELECTRODE SUCH AS GROUND ROD A MINIMUM OF 6' AWAY, IN ORDER TO BE NEC COMPLIANT.
- A SECOND TEST OF THE EARTH GROUND RESISTANCE MEASUREMENT SHOULD BE CONDUCTED ONCE THE MAIN VERTICAL GROUND RISER IS CONNECTED AND BONDED WITH THE ELECTRICAL GRID SERVICE AND ALL OTHER EQUIPMENT ON THE POLE. IF ALL BONDING CONNECTIONS ARE PROPERLY MADE, USING 3-POINT, 62% FALL POTENTIAL GROUND METER THE GROUND RESISTANCE
- THE THIRD TEST IS A BONDING AND OBJECTIONABLE CURRENT TEST THAT MUST BE PERFORMED BEFORE SITE ACCEPTANCE WITH SITE POWER HOT AND EQUIPMENT ENERGIZED. THE TEST CAN BE CONDUCTED WITH A

CLAMBON EARTH GROUND METER, THE READING AT EACH ABOVE GRADE GROUND BONDING CONDUCTOR (GREEI WIRE) SHOULD YIELD A 'LOOP' READING, ANY READING BELOW 1 OHM IS ALSO AN ACCEPTABLE BONDING READING
OR EQUIVALENT TO A 'LOOP, MORE THAN ONE BOND READING SHOULD BE TAKEN AT OTHER GROUND ARE PRESENT AND THAT THE SITE IS SAFE FOR FUTURI

- 3.1 OBJECTIONABLE CURRENT IS DEFINED AS ANY CURREN FLOW OVER CONDUCTORS NOT DESIGNED TO NORMALLY
- 3.2. OBJECTIONABLE CURRENT ON GROUNDING AND BONDING PATHS OCCUR WHEN AN IMPROPER NEUTRAL-TO-CHASSIS BOND CREATES A PARALLEL PATH FOR NEUTRAL CURRENT TO RETURN TO THE POWER SUPPLY VIA METAL PARTS OF THE ELECTRICAL SYSTEM IN VIOLATION OF NEC 250.142.
- OUT SMALL CELL AND OLDS NOIDES, OSSIECTIONABLE
 CORRENT WILL BE PRESENT WHEN MORE THAN ONE
 NEUTRAL TO GROUND BOND IS INSTALLED ON THE NODE
 EQUIPMENT. A CORRECT NOEW WIRING AND
 GROUNDING, BONDING DESIGN IF IMPLEMENTED BY THE
 NODE CONTRACTOR AS SPECIFIED WILL PREVENT THE
 OCCURRENCE OF OBJECTIONABLE CURRENT AT THE NODE

GHOUNDING AND BONDING PATHS SHALL BE TESTED FL OBJECTIONABLE CURRENT BEFORE NODE ACCEPTANCE CLAMP ON AMMETER IS USED TO 1E51 GROUNDING AND BONDING CONDUCTORS. ANY CURRENT MORE THAN 250 MILLIAMPS SHOULD BE ADDRESSED AND CORRECTED

4. THE FOURTH TEST IS A CONTACT VOLTAGE TEST

- CONTACT VOLTAGE IS DEFINED BY THE IEEE AS FOLLOWS: 'A VOLTAGE RESULTING FROM ABNORMAL POWER SYSTEM CONDITIONS THAT MAY BE PRESENT BETWEEN TWO CONDUCTIVE SURFACES THAT CAN BE SIMULTANEOUSLY CONTACTED BY MEMBERS OF THE GENERAL PUBLIC AND/OR THEIR ANIMALS. CONTACT VOLTAGE IS CAUSED BY POWER SYSTEM FAULT CURRENT AS IT FLOWS THROUGH THE MPEDANCE OF AVAILABLE FAULT CURRENT PATHWAYS CONTACT VOLTAGE IS NOT RELATED TO NORMAL SYSTEM ODITIAL VOLLAGE IS NOT RELATED I SHOWARD, STSTEM OPERATION AND CAN EXIST AT LEVELS THAT MAY BE HAZARDOUS, NOT: "CONDUCTIVE SURFACES" AS USED IN THIS DEFINITION ARE INTENDED TO INCLUDE THE EARTH AND/OR EXTENSIONS OF THE EARTH SUCH AS CONCRETE SIDEWALKS AND METAL FLOOR DRAINS.
- CONTACT VOLTAGE CAN OCCUR ANYWHERE BUT IS MORE UKELY TO BE PRESENT IN URBAN ENVIRONMENTS WITH AGING ELECTRICAL INFRASTRUCTURE, AT SPUCE POINTS IN UNDERGROUND WIRE INSTALLATIONS NEAR SIDEWALKS, STREETLIGHTS AND MANHOLE COVERS.
- 4.2 THE DANGER FROM CONTACT VOLTAGE IS A FLINCTION OF BODY RESISTANCE, (HOW CONDUCTIVE YOU ARE) DURATION OF EXPOSURE, AND HOW MUCH CURRENT CAN BE SUPPLIED. BEING BAREFOOT OR WET CAN INCREASE THE
- 4.3. CONTACT VOLTAGE WILL RESULT FROM UNINTENTIONAL ENERGIZATION OF A METALLIC OBJECT WHEN AN ELECTRICAL OR PHASE CONDUCTOR COMES IN CONTACT. THE RESULTING ELECTRICAL POTENTIAL CAN RANG ANYWHERE FROM A FEW VOLTS UP TO THE PHASE VOLTAGE
- ALL AVAILABLE CONDUCTIVE (INCLUDING CONCRETE)
 SURFACES VIA A HANDHELD FOREIGN VOLTAGE DETECTOR,
 BY ALL PERSONNEL UPON APPROACHING A NODE LOCATION.
- 4.5. WHEN PERFORMING THIS TEST IF ANY VOLTAGE PRESENT IT SHOULD BE REPORTED, INVESTIGATED BEFORE LEAVING THE SITE.

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ENGINEERING GROUP

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REV	DESCRIPTION	BY	DATE

SITE CASCADE:

CRAN RCTB 00011 20 CROWN ID: LT-SC-MA 0314 SCU #495057

SITE 659 TREMONT ST:

659 TREMONT ST BOSTON, MA 02210

SHEET DESCRIPTION:

GENERAL NOTES

SHEET:

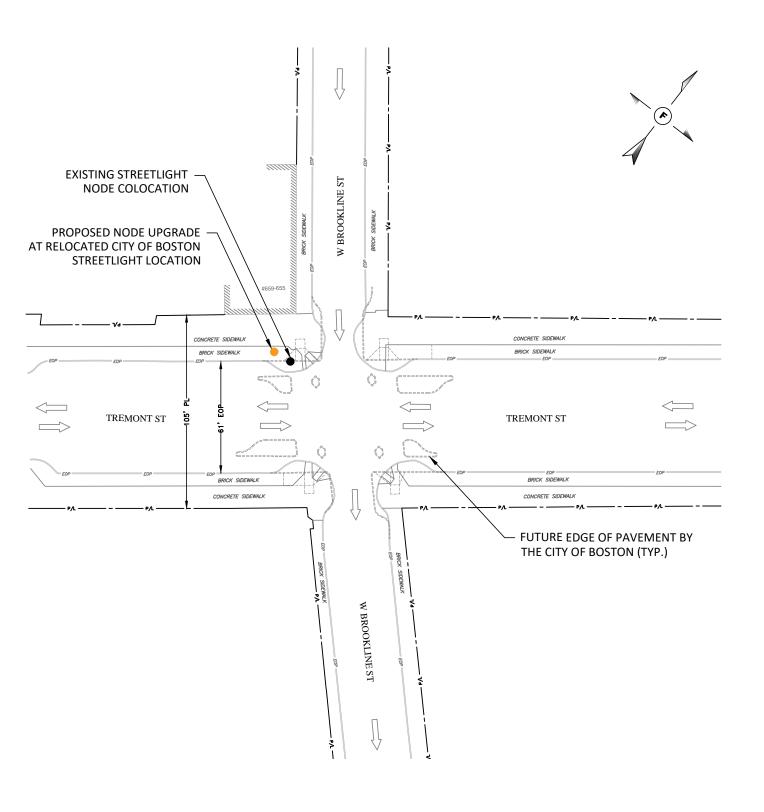
NOTE:

THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL STREET LIGHTING FACILITIES EXISTING IN THE WORK AREA, SHOULD DAMAGE TO STREET LIGHTING SYSTEM OCCUR, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE RELEVANT CITY STREET LIGHT AUTHORITY.

THE CONTRACTOR SHALL ARRANGE FOR THE IMMEDIATE REPAIR AND RESTORATION OF THE DAMAGED STREET LIGHTING SYSTEM AT NO COST TO THE CITY. A LICENSED ELECTRICAL CONTRACTOR IS REQUIRED TO MAKE ALL REPAIRS NECESSARY TO THE STREET LIGHTING

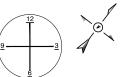
THE CONTRACTOR SHALL EXERCISE PROPER CAUTIOIN WHEN WORKING NEAR ELECTRICAL FACILITIES.

THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS AND MAKE ALL NECESSARY NOTIFICATIONS TO LOCAL PERMITTING AUTHORITIES AND UTILITIES PRIOR TO COMMENCING



1"= 20 FEET (22X34) 1"= 40 FEET (11X17)

QUADRANT LOCATION EQUIPMENT



STREET SIDE

RIGHT OF WAY AND CENTER LINE INFORMATION TAKEN FROM BOSTON GIS DATA

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SITE CASCADE:

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SITE 659 TREMONT ST:

659 TREMONT ST BOSTON, MA 02210

SHEET DESCRIPTION:

OVERALL SITE PLAN

SHEET

NOTES

ALL ATTACHMENTS INSTALLED SHALL MEET ALL CLEARANCE REQUIREMENTS FROM OVERHEAD POWER LINES AS SPECIFIED IN THE LATEST EDITION OF THE NESC AND BY LOCAL UTILITY REGULATIONS.

- LOCAL UTILITY REGULATIONS.

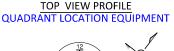
 2. ABSOLUTELY NO FIELD CORING / DRILLING / CUTTING OR METALLIC POLES TO BE
- ALLOWED.

 3. POWER SUPPLY SERVICE CONNECTION AND FIBER OPTIC CABLE CONNECTION TO BE FED UNDERGROUND.

 4. NO EXISTING OR FUTURE AERIAL SPANNING ATTACHMENTS ARE TO BE MADE TO THIS
- POLE.

 5. ALL NEW EQUIPMENT / UNITS SHALL BE PAINTED TO MATCH EXISTING LUMINAIRE, POLE OR ARM TO COMPLY WITH THE CURRENTS SURROUNDING AESTHETICS / REQUIREMENTS.

 6. THE COMMUNICATIONS UNITS SHALL BE A COLOR MATCHING THE EXISTING LUMINAIRE, POLE OR ARM OR BE WHITE, BROWN, GRAY OR BEIGE.



TREET SIDE

EW PROFILE ENGINEERING NOTES:

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- 3. CONTRACTOR SHALL REVIEW EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION, POLE, FOUNDATION AND ACCOMPANYING HARDWARE SHALL BE EVALUATED FOR STRUCTURAL SOUNDNESS. CONTRACTOR SHALL CEASE CONSTRUCTION IF A DETERMINATION IS MADE BY A QUALIFIED PERSON THAT THE POLE FOUNDATION, OR ACCOMPANYING HARDWAY IS UNABLE TO ACCOMMODATE THE MITIGATION AGREED UPON PRIOR TO CONSTRUCTION.
- 4. EXISTING POLES, FOUNDATION, AND ACCOMPANYING HARDWARE MUST BE INSPECTED BY A RESPONSIBLE TECHNICIAN IN ORDER TO ENSURE THAT THEY ARE NOT DAMAGED OR DECAYED AND ARE NOT LEANING OR MOVING EXCESSIVELY BEFORE ANY WORK IS STARTED.

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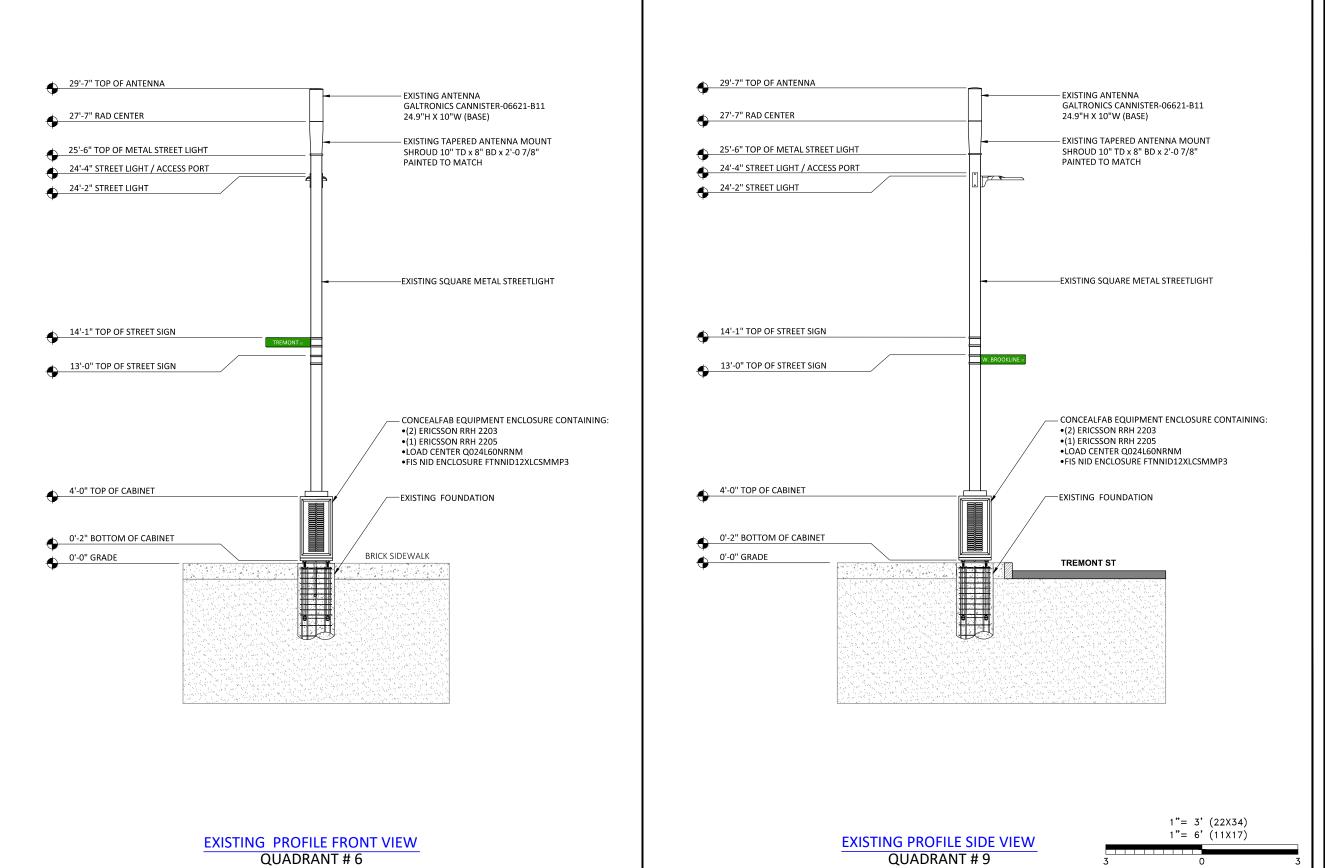
SITE 659 TREMONT ST:

659 TREMONT ST BOSTON, MA 02210

SHEET DESCRIPTION:

EXISTING POLE DETAILS

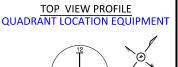
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- B. POWER SUPPLY SERVICE CONNECTION AND FIBER OPTIC CABLE CONNECTION TO BE I. NO EXISTING OR FUTURE AERIAL SPANNING ATTACHMENTS ARE TO BE MADE TO THIS
- FOLE.

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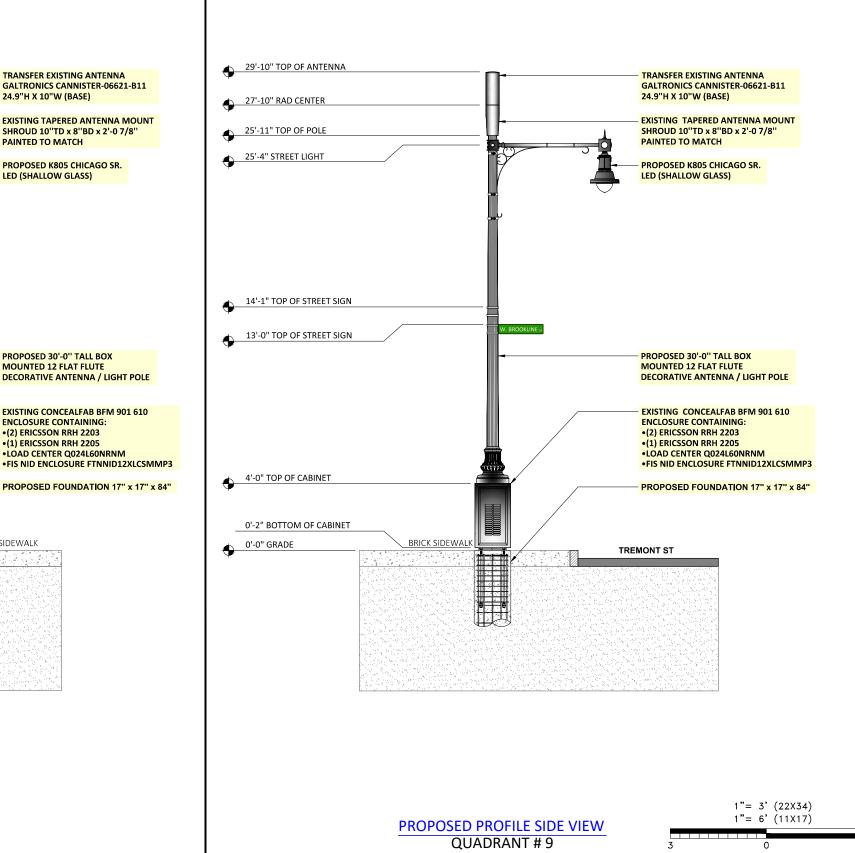
SITE 659 TREMONT ST:

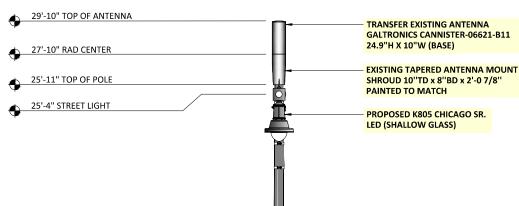
659 TREMONT ST **BOSTON, MA 02210**

SHEET DESCRIPTION:

PROPOSED POLE DETAILS

05





MOUNTED 12 FLAT FLUTE DECORATIVE ANTENNA / LIGHT POLE EXISTING CONCEALFAB BFM 901 610

•(2) ERICSSON RRH 2203 •(1) ERICSSON RRH 2205

•LOAD CENTER Q024L60NRNM •FIS NID ENCLOSURE FTNNID12XLCSMMP3

PROPOSED FOUNDATION 17" x 17" x 84"

BRICK SIDEWALK

GROUNDING NOTE: CONTRACTOR TO CONFIRM GROUNDING SYSTEM EXISTS AS SHOWN AND PASSES RESISTIVITY TEST PRIOR TO 14'-1" TOP OF STREET SIGN

13'-0" TOP OF STREET SIGN

4'-0" TOP OF CABINET

0'-2" BOTTOM OF CABINET

0'-0" GRADE

STARTING WORK. IF GROUNDING SYSTEM EXISTS AS SHOWN AND RESISTIVITY TEST FAILS, INSTALL 2ND GROUND ROD AT LOWEST DEPTH OF HANDHOLE STRUCTURE AND AT

CONTRACTOR SHALL CEASE WORK AND NOTIFY CROWN CASTLE CONSTRUCTION MANAGER OR ENGINEER AND REQUEST UPDATED PLANS IF THE EXISTING GROUNDING SYSTEM IS FOUND BY A QUALIFIED PERSON TO BE DAMAGED, CORRODED, OR NOT LOCATED AS SHOWN IN

MINIMUM 6' DISTANCE FROM EXISTING GROUND ROD.

GROUNDING SYSTEM MUST MEET MINIMUM CROWN CASTLE RESISTIVITY REQUIREMENTS AND BE COMPLIANT WITH ALL REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION, NESC AND/OR NEC CODES.

> PROPOSED PROFILE FRONT VIEW QUADRANT # 6





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SITE 659 TREMONT ST:

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SHEET DESCRIPTION:

PHOTOGRAPHIC SIMULATION

SHEE

2