



CAMBRIDGE HISTORICAL COMMISSION

831 Massachusetts Avenue, 2nd Fl., Cambridge, Massachusetts 02139

Telephone: 617 349 4683 TTY: 617 349 6112

E-mail: histcomm@cambridgema.gov URL: www.cambridgema.gov/Historic

APPLICATION FOR CERTIFICATE

1. The undersigned hereby applies to the Cambridge Historical Commission for a Certificate of (check one box): Appropriateness, Nonapplicability, or Hardship, in accordance with Chapter 40C of the Massachusetts General Laws and/or Chapter 2.78 of the Municipal Code.
2. Address of property: Peabody St (42.375319,-71.118427), Cambridge, Massachusetts
3. Describe the proposed alteration(s), construction or demolition in the space provided below:
(An additional page can be attached, if necessary).

Crown Castle is proposing to install a small cell installation along Peabody Street in the Old Cambridge Historic District. The proposed location is at an existing City of Cambridge Street light location. This work will involve replacing the existing light pole (27'-11") and replacing with a steel "look-a-like" pole (31'-8") for mounting the proposed equipment.

The proposed equipment will be (1) amphenol antenna, (1) apelio rcen-slim-361812 enclosure, (2) commscope ion-ml radios, and (1) PTS90X21 disconnect/load center. This proposed equipment will bring the total height of the pole to 32'-8". Please see attached Node Profile drawings for photo simulations and equipment cutsheets.

For the underground portion of the work, Crown Castle is proposing to install 124' of (2) 4" SCH 40 PVC for fiber from VZ manhole to proposed 12"x24" Crown Castle handhole. Then installing 9' of (1) 2" SCH 40 PVC from proposed CC handhole to intercept at point "A". For power CC is proposing 37' of (1) 2" SCH 40 PVC from EMH #C2999 to proposed intercept at point "A". Then from point A installing 5' of (2) 2" SCH 40 PVC for power 1 for fiber, the other for power to the final proposed CC handhole. Please see attached P-Plans for duct configuration diagrams & information on other infrastructure in the ROW.

I certify that the information contained herein is true and accurate to the best of my knowledge and belief.
The undersigned also attests that he/she has read the statements printed on the reverse.

Name of Property Owner of Record: Crown Castle Fiber LLC

Mailing Address: 3200 Horizon Drive Suite 150 King of Prussia, PA 19406

Telephone/Fax: 678-464-2027

E-mail: bryn.thornburgh@crowncastle.com

⇒ Signature of Property Owner of Record: _____

(Required field; the application will not be considered complete without the property owner's signature)

Name of proponent, if not record owner: _____

Mailing Address: _____

Telephone/Fax: _____ E-mail: _____

(for office use only):

Date Application Received: _____ Case Number: _____ Hearing Date: _____

Type of Certificate Issued: _____ Date Issued: _____

Instructions for Completing this Application:

An application must be filed with the Cambridge Historical Commission (CHC) before work begins. Twelve (12) copies of the application should be attached to twelve (12) copies of supplementary material such as sketches, scale drawings, site plans, specifications, or photographs sufficient to enable the CHC to understand the details of the work proposed and to make a determination on the application. Plans no larger than 11" x 17" are preferred. Please submit reduced copies of plans if the originals are of a larger dimension. Do not use spiral bindings, plastic covers, or heavy stock (these will be removed prior to mailing). Double sided copies are encouraged to save paper and postage. See our website or call for a list of meeting dates and deadlines.

The CHC staff welcomes advance inquiries for interpretations or advice. Call 617/349-4683 for appointment. An application is considered incomplete without accompanying plans and drawings. The CHC reserves the right to determine an application incomplete at the time of hearing the application if it determines that the plans, drawings and other information submitted are not sufficient to enable it to determine whether to grant or deny a certificate.

Owners are urged to appear before the CHC in person or to designate an agent to act for them. The CHC will deem the agent to be authorized by the owner to make decisions regarding the extension or waiver of the period within which the CHC is otherwise required to make a determination on the application. All meetings are open to the public.

Administration of Historic Districts, Landmarks, and Protected Properties:

The administration of historic districts and landmarks is guided by the provisions of Ch. 40C of the Mass. General Laws and by Ch. 2.78 of the Code of the City Of Cambridge. Other properties may also be subject to CHC jurisdiction including properties with conditional variances and properties governed by individual preservation restrictions.

Any new construction, alteration of exterior architectural features, or demolition within an historic district or on the premises of a protected property or a designated landmark must be reviewed by the CHC. No building permit for such work on a protected property, designated landmark, or property within a historic district may be issued by the Inspectional Services Department until a certificate has been issued. The CHC must approve the alteration or construction of all structures, including signs, fences, walls, terraces, walks, driveways, light fixtures and the like, which are "open to view from a public street, public way, public park or public body of water," whether or not a building permit is required, and must approve changes in exterior color for properties within a historic district or as otherwise agreed.

Prior to each hearing, the CHC staff will take slides or digital photographs of the subject property in daylight with ordinary camera equipment for the purpose of documenting the publicly visible conditions of buildings and exterior architectural features for the CHC and the public to view at the hearing. More information can be provided on request.

The CHC issues three types of certificates. A Certificate of Appropriateness will be issued when the CHC has determined that the construction or alteration will be appropriate for or compatible with the preservation or protection of the historic district, designated landmark, or other protected property. A Certificate of Nonapplicability may be issued when an application does not involve an exterior feature, or when the exterior feature is not then subject to CHC review. A Certificate of Hardship may be issued when failure to approve an otherwise inappropriate project would involve substantial hardship to the applicant and the CHC determines that the project can be accomplished without substantial detriment to the purposes of the district, preservation restriction, or landmark designation.

The CHC considers each application on its own merits, and does not apply specific architectural guidelines. Landscaping with plant materials is not subject to CHC review unless it is planned in conjunction with alterations or new construction. The CHC must approve projects that are not incongruous with the historic aspects or the architectural characteristics of the protected property, landmark, or historic district.



PROJECT:

VZW 4G NODE LOCATION

SITE CASCADE:

**HSQ-002
SCU# 464615**

SITE TYPE:

28'-7" STREETLIGHT POLE

DRAWING DESCRIPTION:

PERMIT DRAWING

SITE INFORMATION

LATITUDE (NAD83):
42° 22' 31.24"
42.375349°

LONGITUDE (NAD83):
-71° 07' 06.33"
-71.118427°

COUNTY:
MIDDLESEX

ZONING JURISDICTION
CITY OF CAMBRIDGE

ZONING DISTRICT:
88 - BUSINESS B

POWER COMPANY
VERIZON

TELEPHONE COMPANY
VERIZON NEW ENGLAND

ADA COMPLIANCE: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. ALL ADA SITE REQUIREMENTS ARE MET OR ARE NOT APPLICABLE.

PROJECT TEAM

BACKHAUL PROVIDER:
CROWN CASTLE FIBER

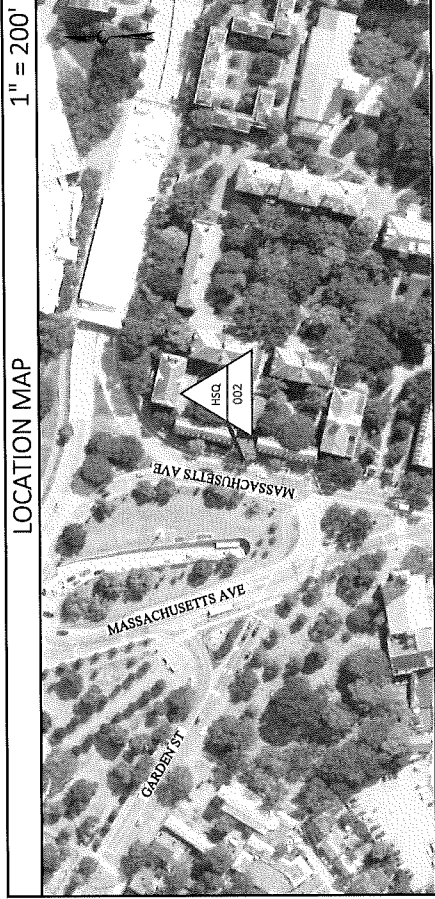
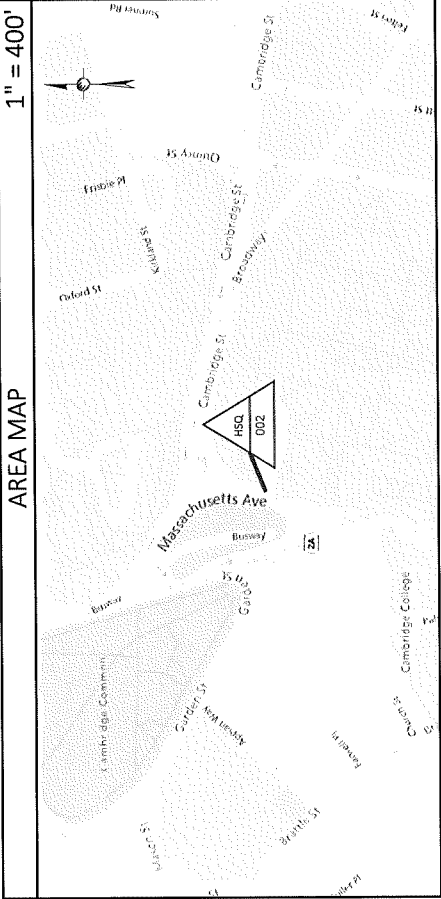
CROWN CASTLE PROJECT MANAGER:
NAME: SOPHIA BUCKLEY

CROWN CASTLE CONSTRUCTION MANAGER:
NAME: DAN WILLIAMS

CALL CROWN CASTLE SMALL CELL NOC AT (888) 632-0931 AND THE CROWN CASTLE CM PRIOR TO ACCESSING SITE

DO NOT SCALE DRAWINGS

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



DRAWING INDEX

SH #	TITLE DESCRIPTION
T-1	TITLE SHEET
GN-1,2,3,4	GENERAL NOTES
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A-2	PROFILE
A-3,4,5,6	PHOTOGRAPHIC SIMULATION
A-7	SHROUD DETAILS
A-8	EQUIPMENT DETAILS
A-9	48" MOUNT DETAILS
A-10	48" MOUNT DETAILS
A-11	EYE ANALYSIS AND SIGNAGE
A-12	RF CABLEING DIAGRAM
A-13	FIBER DIAGRAM
E-1	ELECTRICAL WIRING DIAGRAM
E-2	DISCONNECT DETAILS
P-1	POLE SPECS DETAIL
S-1	STRUCTURAL
F-1	FOUNDATION DETAIL

PROJECT EQUIPMENT

NEW CROWN CASTLE INSTALLED EQUIPMENT

- (1) AMPHENOL ZC4UMT360X06R0260 ANTENNA
- (1) APELO FCEN-SUM-361812 ENCLOSURE
- (2) COMMSCOPE ION-MIL RADIOS

APPLICABLE CODE

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

- INTERNATIONAL BUILDING CODE
- INTERNATIONAL MECHANICAL CODE
- ANSI / TIA-222 STRUCTURAL STANDARD
- NFPA 780 - LIGHTNING PROTECTION CODE
- UNIFORM PLUMBING CODE
- NATIONAL ELECTRICAL CODE
- 2017 NATIONAL ELECTRICAL SAFETY CODE

811 Dig Safe

KNOW WHAT'S BELOW CALL BEFORE YOU DIG IT'S FREE AND IT'S THE LAW
CALL 811 OR 1-888-DIG-SAFE

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

PLANS PREPARED FOR: **CROWN CASTLE**

PLANS PREPARED BY: **PIKE TELECOM**
21 Oxford Rd
Manchester, MA 02146
www.piketelcom.com
1-800-337-7426

FOR PERMITTING PURPOSES ONLY

ENGINEERING SEAL: **PAUL G. JONES**
REGISTERED PROFESSIONAL ENGINEER
COMMONWEALTH OF MASSACHUSETTS
No. 228497

7/21/2021

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REV	DESCRIPTION	BY	DATE
0	ORIGINAL	MS/BS/DZ/E	

SITE CASCADE:
**HSQ-002
SCU# 464615**

SITE ADDRESS:
**PEABODY ST
CAMBRIDGE, MA 02138**

SHEET DESCRIPTION:
TITLE SHEET

SHEET NUMBER:
T-1

8. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:

- CONCRETE CAST AGAINST FORMS 3 IN
- TO DIRT OR WEATHER
- #4 AND LARGER 2 IN
- #6 AND SMALLER AND WIRE 1 1/2 IN
- CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:
- BEAMS AND COLUMNS: 1 1/2 IN
- REINFORCEMENT SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE UNLESS OTHERWISE SPECIFIED IN SECTION 4.2.4.

9. A CHAMFER OF 1/2 IN SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE UNLESS OTHERWISE SPECIFIED IN SECTION 4.2.4.

10. REBAR SHALL BE CUT WITHOUT PRIOR ENGINEERING APPROVAL WHEN DRILLING HOLES IN CONCRETE.

11. DURING COMPOUND SHALL CONFORM TO ASTM C- 308.

12. ADJUSTURE SHALL CONFORM TO THE APPROPRIATE ASTM STANDARD AS REFERENCED IN ACHS-31.

13. CONCRETE FOR REPLACEMENT OF CONCRETE SHALL BE PLACED TO A THICKNESS NOT LESS THAN 4 INCHES AND NOT MORE THAN THE THICKNESS OF THE EXISTING CONCRETE.

14. DO NOT WELD OR FUSE REINFORCING STEEL.

15. ALL CORNERS, ANCHOR BOLTS, EMBEDMENT STEEL, ELECTRICAL CONDUITS, PIPE SLEEVES, GROUNDS AND ALL OTHER EMBEDDED ITEMS AND FORMED DETAILS SHALL BE IN PLACE BEFORE START OF CONCRETE PLACEMENT.

16. LOCATE ADDITIONAL CONSTRUCTION JOINTS REQUIRED TO FACILITATE CONSTRUCTION AS ACCEPTABLE TO ENGINEER. PLACE REINFORCEMENT CONTINUOUSLY THROUGH JOINTS.

17. REINFORCEMENT SHALL BE COLD BENT WHEN BENDING IS REQUIRED.

18. REINFORCEMENT SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE UNLESS OTHERWISE SPECIFIED IN SECTION 4.2.4.

19. DO NOT PLACE CONCRETE IN FROZEN WATER, ICE, OR ON FROZEN GROUND.

20. FOR COLD WEATHER AND HOT WEATHER CONCRETE PLACEMENT, CONFORM TO APPLICABLE ACHS CODES AND RECOMMENDATIONS. IN EITHER CASE, MATERIALS CONTAINING CHLORIDE, CALCIUM, SALTS, ETC. SHALL NOT BE USED. PROTECT FRESH CONCRETE FROM WEATHER FOR 7 DAYS MINIMUM.

21. FIBER REINFORCED CONCRETE MAX. IF SPECIFIED, SHALL INCLUDE 1 1/2 LBS. OF FIBER PER CUBIC YARD.

22. WASTE CEMENT FROM CLEANING OF CONCRETE DELIVERY TRUCKS SHALL NOT BE ALLOWED TO ENTER THE STORM DRAIN OR SEWER SYSTEM.

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52. DRILLED SHIELD: ALL DRILLED SHIELD SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING:

1. DRILLED SHIELD SHALL BE BRACED TO RESIST PROPER OVERBURDEN BURSTING HANGING AND THROUGHOUT PLACEMENT OF CONCRETE. WHEN TEMPORARY CAGES ARE UTILIZED, BRACING SHALL BE ADEQUATE TO PREVENT CRACKING OCCURRING FROM THE FLOWING CONCRETE DURING CASING EXTRACTION.

2. CONCRETE COVER FROM TOP OF FOUNDATION TO ENDS OF VERTICAL REINFORCEMENT SHALL NOT EXCEED 3 INCHES (76 MM) NOR BE LESS THAN 2 INCHES (51 MM).

3. SPACERS SHALL BE ATTACHED INTERMITTENTLY THROUGHOUT THE ENTIRE LENGTH OF VERTICAL REINFORCING CAGES TO INSURE CONCENTRIC PLACEMENT OF CAGES IN EXCAVATIONS.

4. FOUNDATION DESIGN MODIFICATIONS MAY BE REQUIRED IN THE EVENT OF THE FOLLOWING DESIGN PARAMETERS ARE NOT APPLICABLE FOR THE SUBSURFACE CONDITIONS:

• LOCATION OF SHAFT DIAMETER (MAX)

• FOUNDATION AND ANCHOR TOLERANCES REFER TO TOWER MANUFACTURER DRAWINGS FOR SPECIFIC JOB NUMBER AND DATE. IN ABSENCE OF MORE SPECIFIC INFORMATION, THE CONTRACTOR MAY USE THE FOLLOWING:

• CONCRETE CUT OFF ELEVATIONS: ± 1/2"

• CONCRETE CENTER POINT: ± 1/2"

• DRILLING FLUID, IF USED, SHALL BE FULLY DISPLACED BY CONCRETE AND SHALL NOT BE DETRIMENTAL TO CONCRETE OR SURROUNDING SOIL. CONTAMINATED CONCRETE SHALL NOT BE ADVERSELY DISTURBED UPON CASING REMOVAL.

• ANCHOR TOLERANCES REFER TO TOWER MANUFACTURER DRAWINGS FOR SPECIFIC JOB NUMBER AND DATE. IN ABSENCE OF MORE SPECIFIC INFORMATION, THE CONTRACTOR MAY USE THE FOLLOWING:

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PLANS PREPARED BY: PIRE TELECOM

FOR PERMITTING PURPOSES ONLY

ENGINEERING SEAL

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Table with columns: REV, DESCRIPTION, BY, DATE

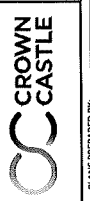
SHEET NO: HSQ-002 SCU# 464615

SITE ADDRESS: PEABODY ST CAMBRIDGE MA 02138

SHEET DESCRIPTION: GENERAL NOTES

SHEET NUMBER: GN-3

PLANS PREPARED FOR:



21 Oxford Rd
Manchester, MA 02148
www.piketelcom.com
1-800-231-7100

FOR PERMITTING
PURPOSES ONLY

ENGINEERING SEAL

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REV.	DESCRIPTION	BY	DATE
0	ORIGINAL		04/25/2024

— SITE ADDRESS: **H50-002**
SCU# 464615

— SITE ADDRESS: **PEABODY ST**
CAMBRIDGE, MA 02138
POLE# N/A

— SHEET DESCRIPTION: **GENERAL NOTES**

— SHEET NUMBER: **GN-4**

2. ALL DETAILS SHOWN ARE DIMENSIONAL. ACTUAL GROUNDING INSTALLATION AND CONSTRUCTION MAY VARY DUE TO SITE SPECIFIC CONDITIONS.

3. NOTIFY CONSTRUCTION MANAGERS IF THERE ARE ANY DIFFICULTIES INSTALLING THE GROUNDING SYSTEM DUE TO SITE-SPECIFIC CONDITIONS.

4. GROUND CONNECTIONS WHERE GROUND CONNECTIONS ARE MADE, THE CONTACT POINTS SHALL BE THOROUGHLY CLEANED AND MADE FREE OF FOREIGN MATERIAL, SUCH AS PAINT, GALVANIZATION, AND CORROSION, TO ENSURE ADEQUATE BOND. REFER TO EARTHING WELD LUGS, AND ANTI-OXIDATION COMPOUND NOTES FOR FURTHER DETAILS.

5. GROUND WIRE: OUTSIDE UNDERGROUND, MINIMUM NO. 4 AMERICAN WIRE GAUGE (AWG) BARE, STRANDED, ANNEALED, TINNED COPPER WIRE (B70W) BUT SIZED IN ACCORDANCE WITH NECTABLE 250.06. RESISTANCE MUST BE LOWER THAN ANY GROUNDING OR BONDING WIRE RUNS THROUGH CONCRETE. IT SHALL BE SLEAVED IN PVC GROUND WIRES SHALL NOT BE INSTALLED OR ROUTED THROUGH HOLES IN ANY METAL OBJECTS OR SUPPORTS.

6. GROUND WIRE - INSIDE WIRE SHALL BE NO. 8 AWG THIN OR THIN-2, CLASS 3 STRANDED COPPER CABLE RATED FOR 90°C (WET AND DRY) OPERATION, GREEN INSULATED (A HORN-STRAND COUNT WIRE IS PREFERRED).

7. EXOTHERMIC WELDING: EXOTHERMIC WELDS SHALL BE CROWNED & REGISTERED TRADEMARK OF ENCO PRODUCTS, INC. OF CLEVELAND, OHIO, OR THERMOWELD, A DIVISION OF ENCO PRODUCTS, INC. OF CLEVELAND, OHIO.

8. GROUND RODS: 8 FT. X 1/2" EARTH ANGIUM GALVANIZED STEEL WITH PURE COPPER JACKET NOT LESS THAN 0.012 INCHES THICK. GROUND RODS SHALL BE SPACED NO GREATER THAN 15 FT. O.C. AND NO LESS THAN 8 FT. O.C.

9. GROUND ROD COUPLING: 5/8" GROUND ROD COUPLING MADE OF THE SAME MATERIAL AS THE GROUND ROD TO PREVENT DISSIMILAR METAL HIGH CORROSION POINTS.

10. CHEMICAL GROUND ROD: COMPRISED OF A HOLLOW COPPER GROUND ROD, A GROUND TEST WELL, A 4-PT EXOTHERMICALLY WELDED PITCHAL AND CONDUCTIVE BACKFILL MATERIAL. THE CHEMICAL GROUND ROD LENGTH SHALL BE 10 FEET. THE CHEMICAL GROUND ROD SHALL BE AL LISTED. IN SITUATIONS WHERE DRILLING VERTICALLY IS TOO DIFFICULT OR COSTLY, HORIZONTAL L-SHAPE CHEMICAL GROUND RODS ARE ACCEPTABLE.

11. CUPS: WHEN SECURING ANY GROUND WIRES, SOLID OR STRANDED, INSULATED OR UNINSULATED, NEVER USE ANY CUPS OR OTHER DEVICES THAT ARE CONDUCTIVE AND FORM A CLOSED LOOP. METALLIC CLIPS ARE ACCEPTABLE IF THEY DO NOT FORM A CLOSED LOOP.

12. GROUND CLAMP: BURNED OR STYLE UL CLAMP WITH TWO-HOLE PROVISIONS FOR ROUND BARREL MULTIPLE GRAMP TWO-HOLE LUGS.

13. COAX GROUNDING: COAXIAL GROUND LUGS SHALL BE INSTALLED USING THE PROPER LUG TOOL, AND CIRCUMFERENTIAL HEAVY DUTY BRASS OR NYLON CLAMP TYPE SHALL NOT BE USED. SOLID COPPER STRAP TYPE WITH SINGLE HOLE LUGS SHALL NOT BE USED. ALL COAX CABLES ARE TO BE GROUNDED AT THEIR SECTOR CAB. THE COLLECTOR COIL IMPROVED COB (IF REQUIRED) BOTTOM COIL, WAVELENGTH BRIDGE COB (IF REQUIRED), AND MAIN SERVICE TO EQUIPMENT IS GREATER THAN 15 FEET.

14. WEATHERPROOFING: ALL COAX GROUND KITS SHALL BE WEATHERPROOFED, ONLY GROUND KITS APPROVED BY THE COAX MANUFACTURER SHALL BE USED.

15. METALLIC CONDUIT: ANY GROUND RODS WIRES, SOLID OR STRANDED, THAT PASS THROUGH CONDUIT, METALLIC SLEEVE, OR CABLE COVER, SHALL BE BONDED AT BOTH ENDS.

16. ANTENNA GROUNDING - ALL ANTENNAS (INCLUDING THE GPS ANTENNAS) ARE GROUNDED BY THE GROUND KITS ON THE COAXIAL CABLE CONNECTED TO THE COAX GROUND BARS. DO NOT USE ANY OTHER GROUNDING METHODS SUCH AS THE ANTENNAS MANUFACTURER, THE GPS MANUFACTURER, OR THE COAX MANUFACTURER'S RECOMMENDATIONS. THE COAXIAL GROUNDING SHALL BE MADE AT THE ANTENNA MANUFACTURER.

17. ANTIOXIDATION COMPOUND: ANTIOXIDATION COMPOUND SHALL BE THOMAS AND BETTS KORP-SHIELD (TM OF JET LUBE, INC) OR BURNEDY PENETROX - E. ANTI-OXIDATION COMPOUND SHALL BE APPLIED BETWEEN LUG AND GROUND BAR ONLY, DO NOT COVER THE LUG.

18. SERVICE DISCONNECT GROUNDING: IF THERE IS A SERVICE DISCONNECT SEPARATE FROM THE PPO MAIN CIRCUIT BREAKERS, THE NEUTRAL TO GROUND BOND SHALL BE MADE AT THE SERVICE DISCONNECT SWITCH. LOCATED SEPARATELY FROM THE SERVICE DISCONNECT SWITCH. THE SERVICE DISCONNECT SWITCH SHALL BE IN THE PPO. IT IS CRITICAL THAT ONLY ONE NEUTRAL TO GROUND BOND BE MADE AT THE SERVICE ENTRANCE EQUIPMENT AS DEFINED BY THE NATIONAL ELECTRICAL CODE.

8 RE-AND GROUND APPLICABLE INSTALLATION RELATED NOTES

1. GENERAL: PROVIDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY FOR RECEIVING, INSTALLING, TESTING, AND ADJUSTING ANTENNA CABLES FROM THE ANTENNA TO THE ANTENNA CABLES, CONNECTORS, AND FITTING SHALL BE THIRD PARTY FURNISHED COMPONENTS AS SHOWN ON THE BILL OF MATERIALS.

2. INSTALLATION

A. COAXIAL CABLE LENGTHS SHALL BE FIELD MEASURED. INSTALLER SHALL NOTIFY CARRIER PRIOR TO PURCHASE OF CABLE OF THE OVERALL LENGTH REQUIRED.

B. COAXIAL CABLE TYPE AND DIAMETER SHALL BE VERIFIED WITH CARRIER.

C. COAXIAL CABLES SHALL BE LABELED IN ACCORDANCE WITH CARRIER ELECTRICAL MATERIALS AND METHODS SPECIFICATIONS. ALL MAIN CABLES WILL BE COLOR CODED AT THREE LOCATIONS: A) AT ANTENNA PRIOR TO JUMPER, B) EXTERIOR PART OF THE WAVE GUIDE ENTRY PORT AT THE SHELTER/CABINET WALL, C) INTERIOR OF THE SHELTER/CABINET.

D. UPON SUCCESSFUL COMPLETION OF THE SWEEP TEST, THE CONTRACTOR SHALL PROVIDE A WEATHERTIGHT SEAL ON THE COAX CABLES AT THE ANTENNA CONNECTION ONLY.

F. THE MINIMUM BENDING RADIUS FOR ALL ANTENNA CABLES SHALL BE AS SHOWN BELOW OR PER THE MANUFACTURER, WHICHEVER IS MORE CONSERVATIVE.

CABLE	IN AIR	OR CABLE TRAY	IN CONDUIT
1/4"	1"	1"	1"
3/8"	1 1/2"	1 1/2"	1 1/2"
1/2"	1 1/2"	1 1/2"	1 1/2"
5/8"	2"	2"	2"
1-0"	3"	3"	3"

4. GROUNDING

A. GROUNDING KITS - AFTER INSTALLATION OF GROUND STRAPS, THE CONNECTIONS SHALL BE MADE WEATHER TIGHT USING WEATHERPROOF KITS AS IDENTIFIED. GROUND POINTS SHALL BE BROUGHT OUT IN THE DOWNWARD DIRECTION FROM THE CONNECTION SHALL BE MADE TO GROUNDING SYSTEM.

8.2 ANTENNA REQUIREMENTS:

1. ADJUSTERS ARE ORIENTED CLOCKWISE FROM TRUE NORTH.

2. CONTRACTOR SHALL VERIFY ANTENNA TYPE, ADJUSTERS, AND DOWNTILT(S) WITH THE CARRIER PRIOR TO CONSTRUCTION.

6.0 CONDUCTORS

1. CONDUCTORS FOR WIRE WITH TYPE SH422 INSULATION, 60 VOLT, COLOR CODED, USE SOLID CONDUCTORS FOR WIRE UP TO AND INCLUDING NO. 8 AWG, STRANDED TERMINAL LUGS FOR NO. 8 AWG AND SMALLER, INSULATED TWIN-OR TRIPLEX CONDUCTORS FOR NO. 10 AWG AND SMALLER, SOLIDLESS MECHANICAL TERMINAL LUGS FOR NO. 8 AWG AND LARGER, ALUMINUM CONDUCTORS SHALL NOT BE USED.

2. EACH END OF EVERY POWER, GROUNDING AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR CODED INSULATION OR ELECTRICAL TAPES OR BANS. 1/4 INCH MINIMUM SPACING, TYPE WITH UP PROTECTION, OR EQUAL, THE IDENTIFICATION METHODS SHALL COMPLY WITH NEC AND CSA AND MATCH EXISTING INSULATION REQUIREMENTS.

3. ALL THE WIRING SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL, REMOVE SHARP EDGES.

4. ALL CONDUIT SIZES SPECIFIED IN THIS DOCUMENT WERE DONE TAKING INTO ACCOUNT THE USE OF COPPER CONDUCTORS.

5. GENERAL COMPLIANCE WITH ALL REQUIREMENTS OF THE UTILITY COMPANY.

6. SHORT CIRCUIT RATINGS: PROVIDE EQUIPMENT WITH HIGHER FAULT CURRENT RATINGS AS NEEDED TO MATCH UTILITY COMPANY AVAILABLE FAULT CURRENT.

7. THE CONTRACTOR IS RESPONSIBLE FOR MAKING ARRANGEMENTS WITH THE ELECTRIC UTILITY RELATIVE TO A TIMELY INSTALLATION OF THE NEW SERVICE AND PAYING ALL FEES ASSOCIATED WITH THE INSTALLATION.

8. IDENTIFICATION: IDENTIFY SERVICE DISCONNECT MEANS WITH PERMANENT NAMEPLATE.

9. THE LOCATION SHOWN FOR A UTILITY POLE OR CONNECTION TO NEW UTILITIES IS FOR CONCEPTUAL USE ONLY; THE CONTRACTOR SHALL COORDINATE THE ACTUAL LOCATION WITH THE ELECTRIC UTILITY.

10. LOCATION AND ARRANGEMENTS: DRAWINGS INDICATE DESIRED LOCATION OF EQUIPMENT, FITTINGS, OUTLETS, ETC., AND ARE NOT TO BE SCALED. PROPER JUDGEMENT MUST BE EXERCISED IN THE DETERMINATION TO ENSURE THE BEST POSSIBLE INSTALLATION.

11. ALL ELECTRICAL EQUIPMENT SHALL BE IDENTIFIED WITH ENGRAVED, WHITE ON BLACK UNLAMINATED, RIGID PLASTIC NAMEPLATES WITH A HIGH CHARACTER, SECURELY AFFIXED TO FACE OF CABINET.

12. CHECKOUT, TESTING AND ADJUSTING

1. CONNECTION/REPLACEMENT: AFTER TESTING BY CONTRACTOR, OWNER OR ENGINEER, CORRECT ANY DEFICIENCIES AND REPLACE MATERIALS AND EQUIPMENT SHOWN TO BE DEFECTIVE OR UNABLE TO PERFORM AT DESIGN OR RATED CAPACITY.

2. POWER CONDUCTORS: CONTRACTOR SHALL CONDUCT A CONTINUITY AND INSULATION TEST ON CONDUCTORS BETWEEN SERVICE DISCONNECT SWITCH AND LOAD CENTER.

3. REPAIRS: ALL REPAIRS SHALL BE RETURNED TO THE OWNERS REPRESENTATIVE.

8.0 RACEWAY SYSTEMS/CONDUIT

1. UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC CONDUIT OR BETTER AS REQUIRED BY LOCAL JURISDICTION AND/OR UTILITY. UNDERGROUND PVC CONDUIT SHALL TRANSITION TO RIGID GALVANIZED STEEL CONDUIT OR SCHEDULE 40 PVC CONDUIT BEFORE RISING ABOVE GRADE OR CONCRETE SLAB. EXPOSED CONDUIT SHALL BE RIGID GALVANIZED STEEL CONDUIT OR SCHEDULE 40 PVC CONDUIT.

2. GBS CONDUITS, WHEN SPECIFIED, SHALL MEET UL-F OR GALVANIZED STEEL. ALL FITTINGS SHALL BE SUITABLE FOR USE WITH THREADED RIGID CONDUIT.

3. ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (RIGID PVC SCHEDULE 40, OR RIGID PVC SCHEDULE 40, OR FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.

4. ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (RIGID PVC SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.

5. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TIGHT FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.

6. PUG AND CAP EACH END OF SPARE AND EMPTY CONDUITS, AND PROVIDE TWO SEPARATE PULL STRINGS - 200 LB. TEST POLYETHYLENE COPOLYMER.

7. ALL CONDUIT BENDS SHALL BE MINIMUM OF 36-INCH RADIUS.

8. ALL METALLIC RACEWAYS SHALL BE GROUNDED PER NEC.

9. THE CONTRACTOR SHALL FIELD VERIFY THE BEST AND LEAST DISRUPTIVE ROUTING OF CONDUITS, CABLE TRAYS AND DUCTS. CONDUIT ROUTING IS SHOWN AS A GUIDE ONLY. CONDUIT ROUTING IS TO BE DONE IN A PROFESSIONAL MANNER.

10. CONDUIT SIZES

1. THIS SITE INCLUDES NEW CRITICAL UNDERGROUND ELECTRIC, TELEPHONE AND OTHER SERVICES IN THE VICINITY OF OTHER UNDERGROUND SERVICES AND EQUIPMENT SUPPORTS. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID SERVICE DISRUPTION TO THESE FACILITIES. THE CONTRACTOR SHALL ALSO CONTACT ELECTRIC AND TELEPHONE AND ALL OTHER SERVICE PROVIDERS TO VERIFY THE LOCATION OF EXISTING UNDERGROUND UTILITIES. ALL UNDERGROUND UTILITIES MUST BE LOCATED AND MARKED OUT PRIOR TO ANY EXCAVATION WORK BEING PERFORMED. PHOTOS SHALL BE TAKEN OF ALL UNDERGROUND WORK AND GIVEN TO THE OWNER OR OWNERS REPRESENTATIVE DURING THE SITES HANDOFF.

2. ALL TRENCHING AND EXCAVATION WITHIN EXISTING COMPOUNDS MUST BE PERFORMED BY HAND IN ACCORDANCE WITH THE OWNERS SPECIFICATIONS. ANY OTHER METHODS OF DIGGING MUST FIRST BE APPROVED BY THE CONSTRUCTION MANAGER.

3. ALL HIGH-VOLTAGE CONDUIT (80KV OR LESS) SHALL HAVE A MINIMUM BURIAL DEPTH OF 2'-0". ALL HIGH-VOLTAGE CONDUIT (80KV OR MORE) SHALL HAVE A MINIMUM BURIAL DEPTH OF 3'-0".

4. UNDERGROUND CONDUIT SHALL BE ENCASED IN REINFORCED CONCRETE IN AREAS OF VEHICLE TRAFFIC. CONCRETE ENCASEMENT SHALL BE 3" MINIMUM ALL AROUND AND BETWEEN CONDUITS.

5. ALL BURIED CONDUIT SHALL BE IDENTIFIED WITH ELECTRICAL MARKER TAPE. TAPE SHALL BE PLACED 12" ABOVE CONDUIT FOR EASY IDENTIFICATION.

6.11 EQUIPMENT

1. THE MAIN CIRCUIT BREAKERS SHALL BE RATED FOR STANDARD A.I.C. RATING HIGHER THAN INCOMING EQUIPMENT A.I.C.

2. ALL EQUIPMENT SHALL BE RATED FOR STANDARD A.I.C. RATING HIGHER THAN INCOMING FROM UTILITY CO.

3. ALL EQUIPMENT SHALL BE PROVIDED WITH PROTECTIVE HOUSING TO PROTECT FROM CONTACT WITH THE EQUIPMENT AND RELATED HARDWARE, SPECIFIED TO BE PURCHASED AND INSTALLED BY THE CONTRACTOR, WHOSE ORDERED WITHIN 24 HRS. OF THE NOTICE TO PROCEED.

4. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ITS VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR CAPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (E.G. PANELBOARD AND CIRCUIT ID'S).

5. METAL RECEPTACLE SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED OR NON-CORRODING. SHALL MEET OR EXCEED UL 51A AND NSM-A 05.1, AND BE RATED BETTER OUTDOORS.

6. NONMETALLIC RECEPTACLE SWITCH AND SERVICE BOXES SHALL MEET OR EXCEED NSM-A 05.2, AND BE RATED NSM-A 1 (OR BETTER) INDOORS OR WEATHER-PROTECTED (W/P OR BETTER) OUTDOORS.

6.12 TRANSIENT VOLTAGE SURGE SUPPRESSION (TVSS)

1. TVSS DEVICES FOR AC POWER SHALL BE INSTALLED IN ALL EXISTING FACILITIES THAT ARE MISSING TVSS DEVICES OR HAVE UNSUITABLE TVSS DEVICES.

2. THE AC POWER COMMON MODE SURGE SUPPRESSOR SHALL BE CONNECTED TO THE COMMERCIAL POWER INPUT SIDE OF THE MANUAL TRANSFER SWITCH.

3. IN MARKETS WITH LIGHTNING ZONE 2 OR 3, A TVSS SHALL BE INSTALLED AT THE ENTRANCE TO THE SHELTER OR AS CLOSE AS POSSIBLE TO THE BTS CABINET TO PROTECT THE SHELTER AND THE TRANSFER SWITCH.

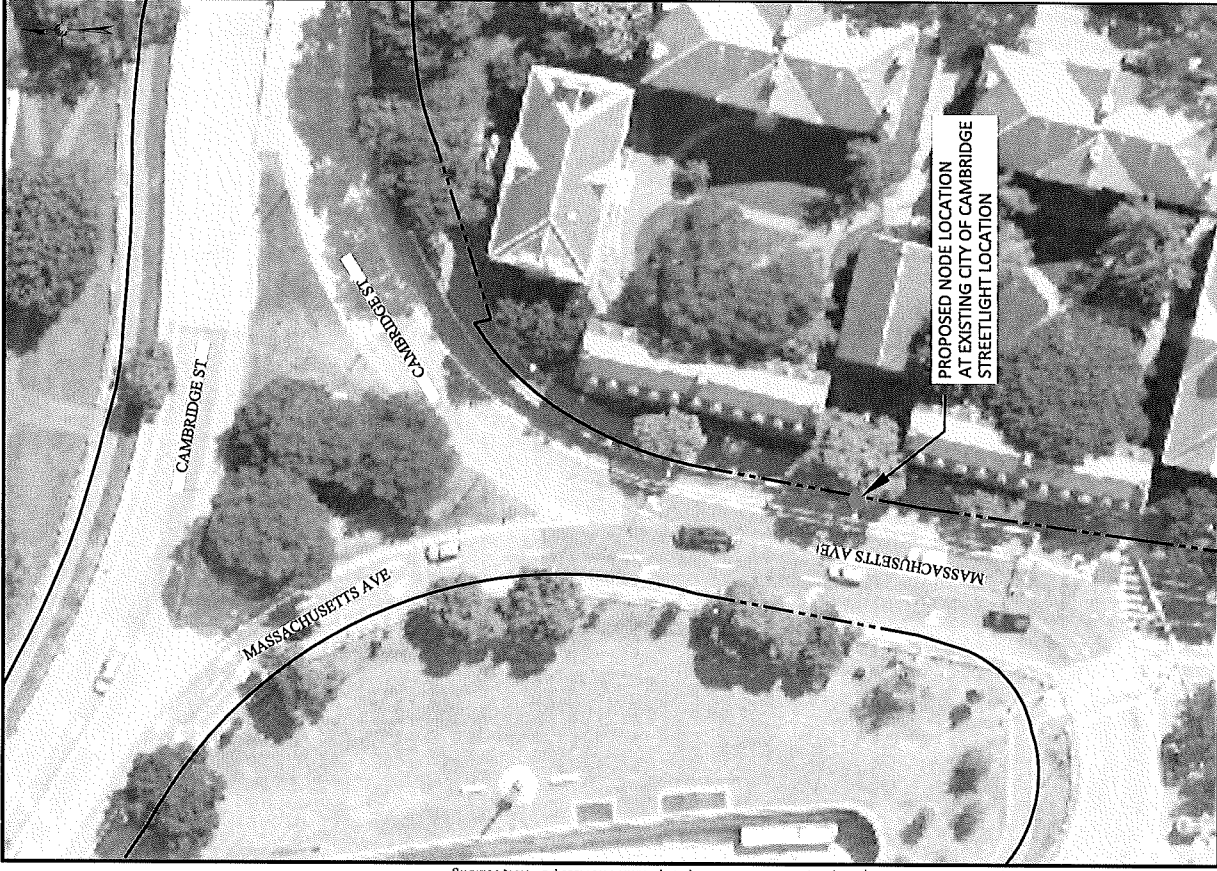
4. A T1 TRANSPORT TVSS DEVICES SHALL BE INSTALLED AT ALL SITES BETWEEN THE NTU AND THE BTS.

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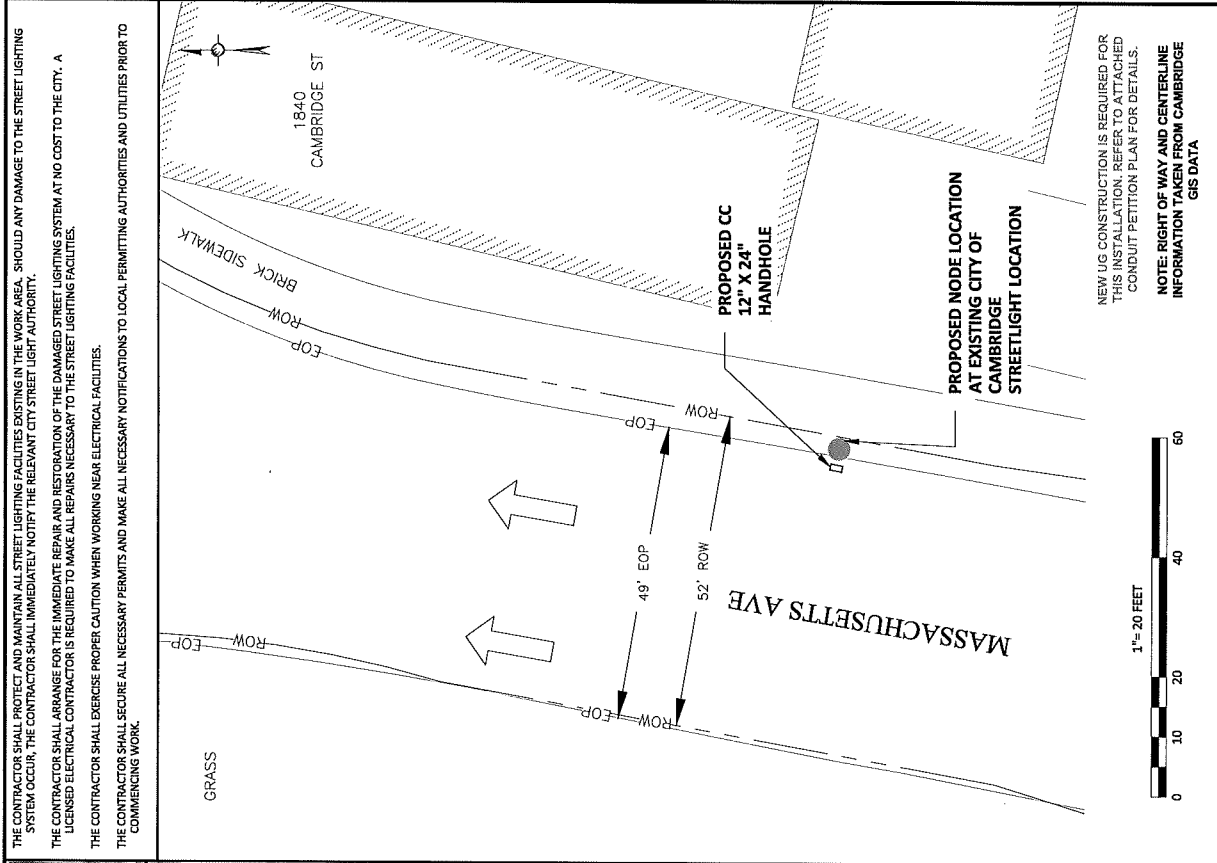
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AERIAL SITE LOCATION

1"=.50'



OVERALL SITE PLAN

2

THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL STREET LIGHTING FACILITIES EXISTING IN THE WORK AREA. SHOULD ANY DAMAGE TO THE 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 FACILITIES.

THE CONTRACTOR SHALL EXERCISE PROPER CAUTION 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 WORK.

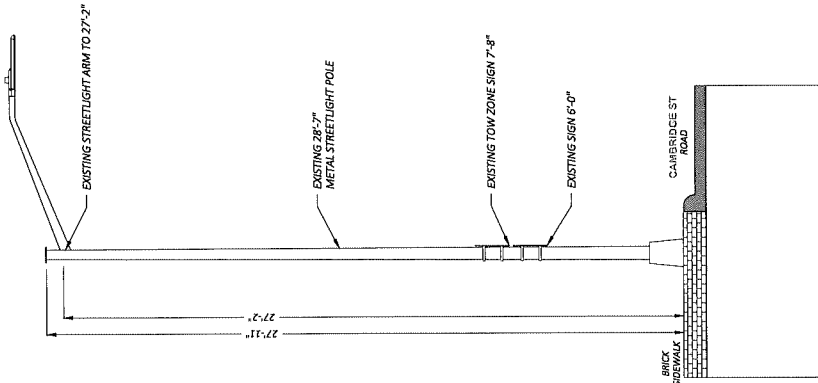
NEW UG CONSTRUCTION IS REQUIRED FOR THIS INSTALLATION. REFER TO ATTACHED CONDUIT PETITION PLAN FOR DETAILS.

NOTE: RIGHT OF WAY AND CENTERLINE INFORMATION TAKEN FROM CAMBRIDGE GIS DATA



<p>PLANS PREPARED FOR:</p> <p>CROWN CASTLE</p>		<p>PLANS PREPARED BY:</p> <p>PIKE TELECOM</p>	<p>21 Oxford Rd Methuen, MA 02846 www.piketelecom.com 1-800-337-9000</p>	<p>FOR PERMITTING PURPOSES ONLY</p>	<p>ENGINEERING SEAL:</p>	<p>DRAWING NOTICE: THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF CROWN CASTLE AND MAY NOT BE REPRODUCED, DISSEMINATED OR TRANSMITTED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF CROWN CASTLE.</p>	<table border="1"> <thead> <tr> <th>REV</th> <th>DESCRIPTION</th> <th>BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>ORIGINAL</td> <td>MS</td> <td>05/17/22</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	REV	DESCRIPTION	BY	DATE	0	ORIGINAL	MS	05/17/22																																									<p>SITE CASABADE: HSQ-002 SCU# 464615</p>	<p>SITE ADDRESS: PEABODY ST CAMBRIDGE, MA 02138 POLER N/A</p>	<p>SHEET DESCRIPTION: OVERALL SITE PLAN</p>	<p>SHEET NUMBER: A-1</p>
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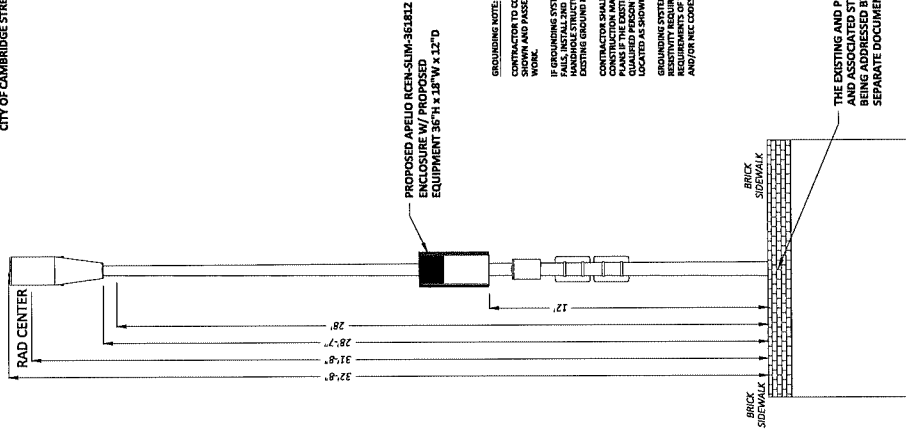
NOTE:
 1. ALL ATTACHMENTS INSTALLED SHALL MEET ALL CLEARANCE REQUIREMENTS FROM OVERHEAD POWER LINES AS SPECIFIED IN THE LATEST EDITION OF THE NESC AND BY LOCAL AGENCIES.
 2. ABSOLUTELY NO FIELD CORING / DRILLING / CUTTING OF METALLIC POLES TO BE ALLOWED.
 3. ALL SUPPLY SERVICE CONNECTIONS AND FIBER OPTIC CABLE CONNECTIONS TO BE MADE UNDERGROUND.
 4. ALL NEW EQUIPMENT/ UNITS SHALL BE PAINTED TO MATCH EXISTING LUMINAIRE POLE OR ARM OR BE WHITE, BROWN, GRAY OR BEIGE.
 5. THE COMMUNICATION UNITS SHALL BE A COLOR MATCHING THE EXISTING LUMINAIRE POLE OR ARM OR BE WHITE, BROWN, GRAY OR BEIGE.



EXISTING PROFILE
 FACING SOUTHWEST ALONG CAMBRIDGE ST
 EXISTING STREETLIGHT POLE

ENGINEERING NOTES:
 1. THIS DOCUMENT AND ALL DETAILS, DRAWINGS, AND PROPOSALS CONTAINED HEREIN ARE STRICTLY FOR PERMITTING PURPOSES ONLY. THIS DRAWING IS NOT TO BE USED AS A CONSTRUCTION DOCUMENT. BEFORE ANY WORK BEGINS, CONTRACTOR SHALL REQUEST FULL TECHNICAL ANALYSIS FOR THIS PROPOSED SITE FROM CROWN CASTLE CONSTRUCTION MANAGER AND/OR THEIR DESIGNATED ENGINEER.
 2. CONTRACTOR SHALL REVIEW EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. POLE FOUNDATION AND ACCOMPANYING HARDWARE SHALL BE EVALUATED FOR STRENGTH AND INTEGRITY. ALL FOUNDATION AND HARDWARE SHALL BE REPAIR OR REPLACED AS NECESSARY TO MEET PROPOSED CONDITION. ALL CONCERNS SHALL BE DISCUSSED WITH THE CONSTRUCTION PROJECT MANAGER OR ENGINEER AND MITIGATION AGREED UPON PRIOR TO CONSTRUCTION.
 3. HARDWARES MUST BE INSPECTED BY A RESPONSIBLE TECHNICIAN IN ORDER TO ASSURE THAT THEY ARE NOT DAMAGED OR DEFORMED AND ARE NOT LEAKING OR MOVING EXCESSIVELY BEFORE ANY WORKS IS STARTED.

NOTE:
 PLACE NEW CROWN CASTLE EQUIPMENT ON NEW CITY OF CAMBRIDGE STREETLIGHT POLE.



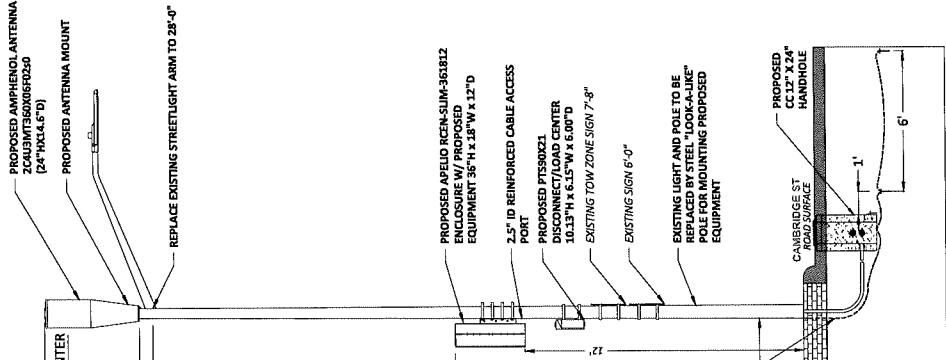
GROUNDING NOTE:
 CONTRACTOR TO CONFORM GROUNDING SYSTEM DETAILS AS SHOWN AND PASS RESISTIVITY TEST PRIOR TO STARTING WORK.
 IF GROUNDING SYSTEM EXISTS AS SHOWN AND RESISTIVITY TEST FALLS, INSTALL 3RD GROUND ROD AT LOWEST DEPTH OF EXISTING GROUND ROD AND AT MINIMUM 6' DISTANCE FROM EXISTING GROUND ROD.
 CONTRACTOR SHALL CEASE WORK AND NOTIFY CROWN CASTLE CONSTRUCTION MANAGER ON ENGINEER AND REQUEST UPDATED GROUNDING SYSTEM DETAILS FROM A QUALIFIED PERSON TO BE DAMAGED, CORRECTED, OR NOT LOCATED AS SHOWN IN THIS PLAN.
 GROUNDING SYSTEM MUST MEET MINIMUM CROWN CASTLE REQUIREMENTS AND ALL APPLICABLE LOCAL, STATE, FEDERAL, AND/OR NEC CODES.

THE EXISTING AND PROPOSED FOUNDATIONS AND ASSOCIATED STRUCTURAL ISSUES ARE BEING ADDRESSED BY OTHERS UNDER SEPARATE DOCUMENTATION

PROPOSED PROFILE
 FACING NORTHWEST TOWARDS CAMBRIDGE ST
 1" = 5 FEET
 0 5 10 15

TOP VIEW OF PROFILE
 12' 3" STREET SIDE
 1' 0" W/ W/ VERTICAL TWIST
 12' 3" STREET SIDE
 1' 0" W/ W/ VERTICAL TWIST

NOTES:
 FROM TIME TO TIME IT MAY BE NECESSARY TO MAKE MINOR ADJUSTMENTS TO THE DRAWING TO ACCOMMODATE CHANGES IN THE FIELD. SUCH EXAMPLES WOULD BE ADDING A WASHER OR SHIM TO LEVEL OUT A BRACKET OR MOUNT TO MEET FIELD CONDITIONS. SUCH CHANGES SHALL BE MADE BY THE CONTRACTOR AND SHALL BE APPROVED BY THE PROJECT MANAGER. ALL MATERIALS, NUTS, BOLTS, SHIMS OR SPACERS USED TO ACCOMMODATE ADJUSTMENTS TO ANTENNA MOUNTS AND HARDWARE SHALL BE APPROVED BY THE PROJECT MANAGER. ALL MATERIALS SHALL BE NEW UNLESS OTHERWISE NOTED. ALL MATERIALS SHALL BE GALVANNEZED. HARDWARES USED IN MINOR ADJUSTMENTS MUST BE EITHER STAINLESS STEEL OR GALVANNEZED. HARDWARES USED IN MAJOR ADJUSTMENTS MUST BE EITHER STAINLESS STEEL OR GALVANNEZED. ALL EQUIPMENT SHOULD BE DONE IN A PROFESSIONAL MANNER WITH SAFETY AND AESTHETICS IN MIND. SHOULD YOU HAVE ANY QUESTIONS CONTACT YOUR ASSIGNED CONSTRUCTION PROJECT MANAGER OR ENGINEER FOR ASSISTANCE.



PROPOSED PROFILE
 FACING SOUTHWEST ALONG CAMBRIDGE ST
 1" = 5 FEET
 0 5 10 15

INSTALL EQUIPMENT ON PROPOSED STREETLIGHT POLE

PLANS PREPARED FOR:



PLANS PREPARED BY:
PIKE TELECOM
 21 Oxford Rd
 Mansfield, MA 02148
 1-508-337-7600

FOR PERMITTING PURPOSES ONLY

ENGINEERING SEAL:

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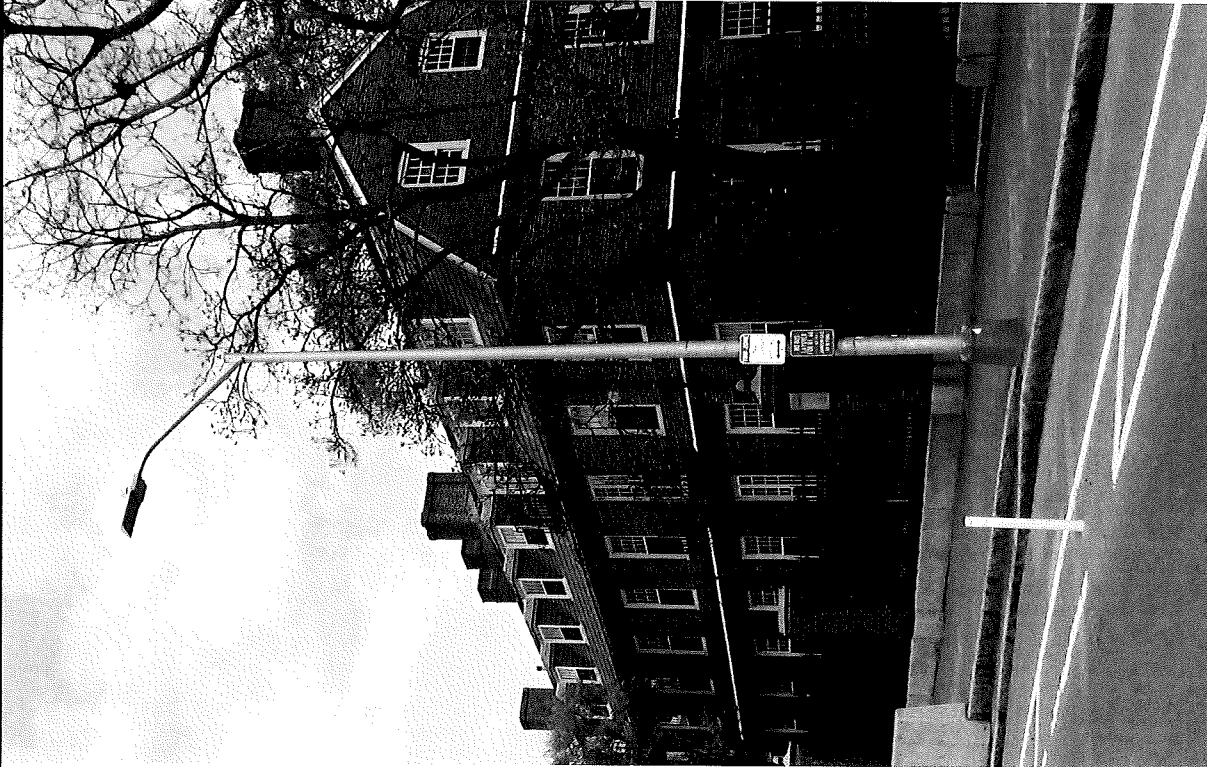
REVISIONS:	NO.	DESCRIPTION	BY	DATE
	0	ORIGINAL	MS	05/27/22

SITE CASCADE:
 HSQ-002
 SCU# 464615

SITE ADDRESS:
 PEABODY ST
 CAMBRIDGE, MA 02138
 POLE# N/A

SHEET DESCRIPTION:
 PROFILE

SHEET NUMBER:
 A-2



EXISTING PHOTOGRAPHIC VIEW - FACING NORTHEAST

1



PROPOSED AMPHERNO ANTENNA
2 COLUMN MOUNTS 600X600X250
(24" H X 14.6" D)

PROPOSED ANTENNA MOUNT
10.5" H X 15" W X 12" D

PROPOSED RACKED
ENCLOSURE
W/ PROPOSED EQUIPMENT
36" H X 18" W X 12" D

PROPOSED PDS002C1
DISCONNECT LOAD CENTER
10.13" H X 6.15" W X 6.00" D

PROPOSED PHOTOGRAPHIC SIMULATION - FACING NORTHEAST

2

PLANS PREPARED FOR: 		PLANS PREPARED BY: 		21 Oxford Rd Mansfield, MA 02048 508-337-7500 1-800-337-7500		FOR PERMITTING PURPOSES ONLY		ENGINEERING SEAL	
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REVISIONS: REV. 0 ORIGINAL		BY DATE MS 05/07/22		SITE ID: HSQ-002 SCU# 464615		SITE ADDRESS: PEABODY ST CAMBRIDGE, MA 02138 POLES# N/A		SHEET DESCRIPTION: PHOTOGRAPHIC SIMULATION	
SHEET NUMBER: A-3									



EXISTING PHOTOGRAPHIC VIEW - FACING EAST

1



PROPOSED AMPHENOL ANTENNA
2 COLUMN T350005FV2.0
(24" HX 14.4" D)

PROPOSED ANTENNA MOUNT

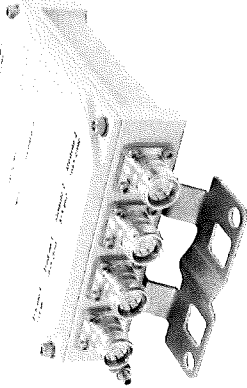
PROPOSED APELID
RCEN-SLIM-361812 ENCLOSURE
W/ PROPOSED EQUIPMENT
36"H x 18"W x 12"D

PROPOSED P158021
DISCONNECT/LOAD CENTER
10.13"H x 6.15"W x 6.00"D

PROPOSED PHOTOGRAPHIC SIMULATION - FACING EAST

2

<p>PLANS PREPARED FOR:</p> <p>CROWN CASTLE</p>	<p>PLANS PREPARED BY:</p> <p>PIKE TELECOM</p> <p>31 Oxford Rd Mansfield, MA 02048 www.piketecom.com 1-800-337-7900</p>	<p>FOR PERMITTING PURPOSES ONLY</p>	<p>ENGINEERING SEAL:</p> 	<p>DRAWING NOTICE:</p> <p>THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF CROWN CASTLE AND MAY NOT BE REPRODUCED, COPIED, DISSEMINATED OR USED FOR ANY OTHER PURPOSES WITHOUT THE WRITTEN CONSENT OF CROWN CASTLE.</p>																																																
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>REVISION:</th> <th>DESCRIPTION</th> <th>BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>ORIGINAL</td> <td>MAJ</td> <td>04/27/21</td> </tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>			REVISION:	DESCRIPTION	BY	DATE	0	ORIGINAL	MAJ	04/27/21																																								
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		<p>SITE CASCADE:</p> <p>HSQ-002 SCU# 464615</p>																																																		
		<p>SITE ADDRESS:</p> <p>PEABODY ST CAMBRIDGE, MA 02138 POLE# N/A</p>																																																		
		<p>SHEET DESCRIPTION:</p> <p>PHOTOGRAPHIC SIMULATION</p>																																																		
		<p>SHEET NUMBER:</p> <p style="text-align: right;">A-5</p>																																																		



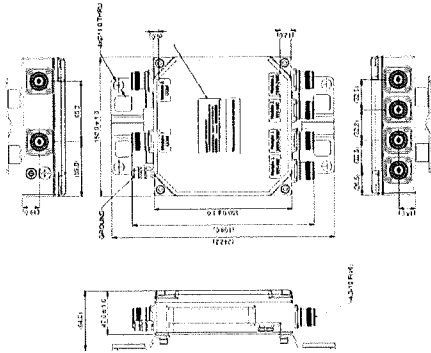
- CBC626T-DL-4310 | E11F13P04**
Twin Diplexer 555-960/1695-2690MHz,DC Low,4.3-10
- Full performance in a fraction of the size
 - High power handling
 - Includes 600 MHz and AWS-3/4 bands
 - New 4.3-10 connectors for improved PIM performance and size reduction
 - dc/AISG pass-through on low frequency port
 - Twin configuration

Mechanical Specifications

RF Connector Interface 4.3-10 Female
 RF Connector Interface Body Style Long neck
 Color Gray
 Finish Painted

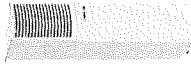
Dimensions

Height 150.0 mm | 5.9 in
 Width 150.0 mm | 5.9 in
 Depth 47.0 mm | 1.9 in
 Weight 1.8 kg | 4.0 lb



TWIN DIPLEXER (CBC626T-DL-4310 / E11F13P04)

7825719-0002 | CAP H 7E/80-85/17E/19 F-AC-F1



Carrier Access Point with 4-Band Support for High Power LMR 750, USA 700, USA 750, SMR 800, CEL 850, AWS 1700 and PCS 1900 Applications, Fiber Fed with Fan Kit

Product Classification

Product Type Access point
 Product Brand ERA®

General Specifications

Minimum Software Requirement ION-E SW V2.7
 Mounting Pole | Wall
 Note Detailed Product Specifications are available. Please contact your local CommScope representative.
 Power Type High
 RF Antenna Port Interface 4.3-10 Female
 RF Antenna Port, quantity 1

Dimensions

Height 824 mm | 32.441 in
 Width 176 mm | 6.929 in
 Depth 220 mm | 8.661 in

Electrical Specifications

ALC Default Threshold -45 dBm
 Electrical Safety Standard IEC 62368 | UL 62368
 Electrical Safety Standard Note This is not a consumer device. Additional information for US FCC on product label.
 Electromagnetic Compatibility (EMC) EN 301489
 Flatness, inband link ±2 dB
 Impedance 50 ohm
 License Band AWS 1700 | CEL 850 | LMR 750 | PCS 1900 | SMR 800 | USA 700 | USA

PLANS PREPARED FOR:

CROWN CASTLE

PLANS PREPARED BY:

PIKE TELECOM
 21 Oxford Rd
 Mansfield, MA 02048
 508-337-7600

FOR PERMITTING PURPOSES ONLY

ENGINEERING SEAL

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REVISION	DESCRIPTION	BY	DATE
0	ORIGINAL	MAS	10/27/21

SITE CAGECODE:
 HSQ-002
 SCU# 464615

SITE ADDRESS:
 PEABODY ST
 CAMBRIDGE, MA 02138
 POLE# N/A

SHEET DESCRIPTION:
 EQUIPMENT DETAILS

SHEET NUMBER:
 A-8



18-Port Canister Antenna

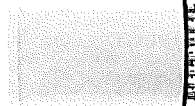
(2x) 696-960 | (4x) 1695-2700 | (2x) 3550-3700 | (1x) 5150-5925 MHz

OMNI | 24 IN | FIXED-TILT

2C4U3MT360X06FxyS0

Features

- 5G Pseudo Omni configuration with 18 connectors
- Ideal for Small Cell / DAS applications
- This antenna meets the requirements of the U-NII
- Available for order with a grey, brown or black radome



Frequency Range (MHz)	LOW	MID	HIGH	LAA
Array	R1	Y1	Y2	Y3
Connector	R2	Y4	P1	P2
Polarization	XPOL	XPOL	XPOL	XPOL
Azimuth Beamwidth (deg)	360°	360°	360°	360°
Electrical Down tilt	0°	2°, 4°, 6°	0°	0°
Configuration	OMNI CONFIGURATION			
Total Connector Count	18 PORTS			
Connector Type	4.3-10 FEMALE			
Dimensions	610 x Ø371 mm (24.0 x Ø14.6 in)			
Radome Color Options	GREY, BROWN or BLACK			

ELECTRICAL SPECIFICATIONS

Frequency Range	Low Band	Mid Band	High Band
Frequency Sub-Range	696-960	1695-2700	3550-3700
Polarization	XPOL	XPOL	XPOL
Gain	BASTA	4.2 ± 0.9	3.9 ± 0.7
	MAX	5.1	4.6
Azimuth Beamwidth (3 dB)	360°	360°	360°
Elevation Beamwidth (3 dB)	96.9° ± 26.7°	72.0° ± 21.7°	72.0° ± 21.7°
Electrical Down tilt	0°	0°	0°
Impedance	50	50	50
VSWR	< 1.5:1	< 1.5:1	< 1.5:1
Passive Intermodulation	< -153	< -153	< -153
3rd Order for 2420 W Carriers	N/A	N/A	N/A
Upper Sideband Suppression	25	25	25
Isolation	Intraband	> 28	> 28
	Interband	> 28	> 28
Input Power	500W	500W	500W

2C4U3MT360X06FxyS0 | 1.



PLANS PREPARED FOR:
CROWN CASTLE

PLANS PREPARED BY:
PKG TELECOM

21 Oxford Rd
Marlfield, MA 02048
www.pkgtelecom.com
781-331-7100

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REVISIONS	DESCRIPTION	BY	DATE
0	ORIGINAL	MS	10/27/21

SITE CASCADE:
H5Q-002
SCU# 464615

SITE ADDRESS:
PEABODY ST
CAMBRIDGE, MA 02138
POLE# N/A

SHEET DESCRIPTION:
4G ANTENNA DETAILS

SHEET NUMBER:
A-9

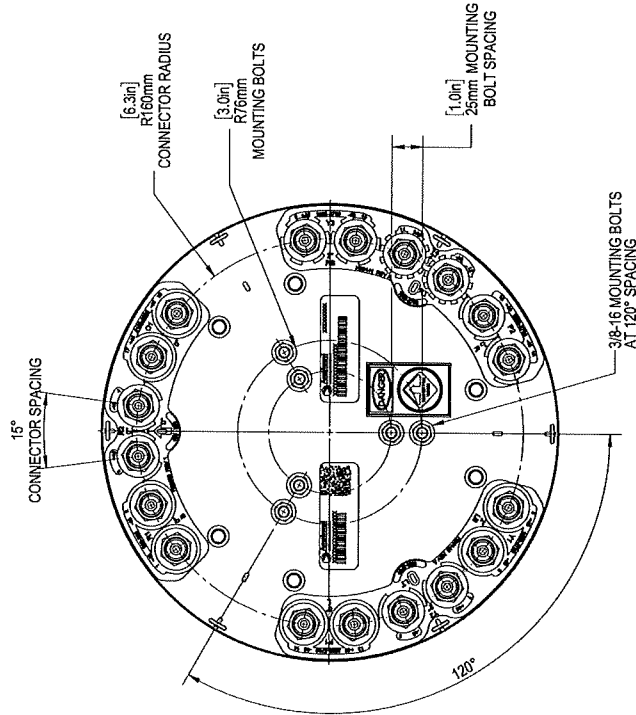
18-Port Canister Antenna
(2x) 696-960 | (4x) 1695-2700 | (2x) 3550-3700 | (1x) 5150-5925 MHz

OMNI | 24 IN | FIXED-TILT



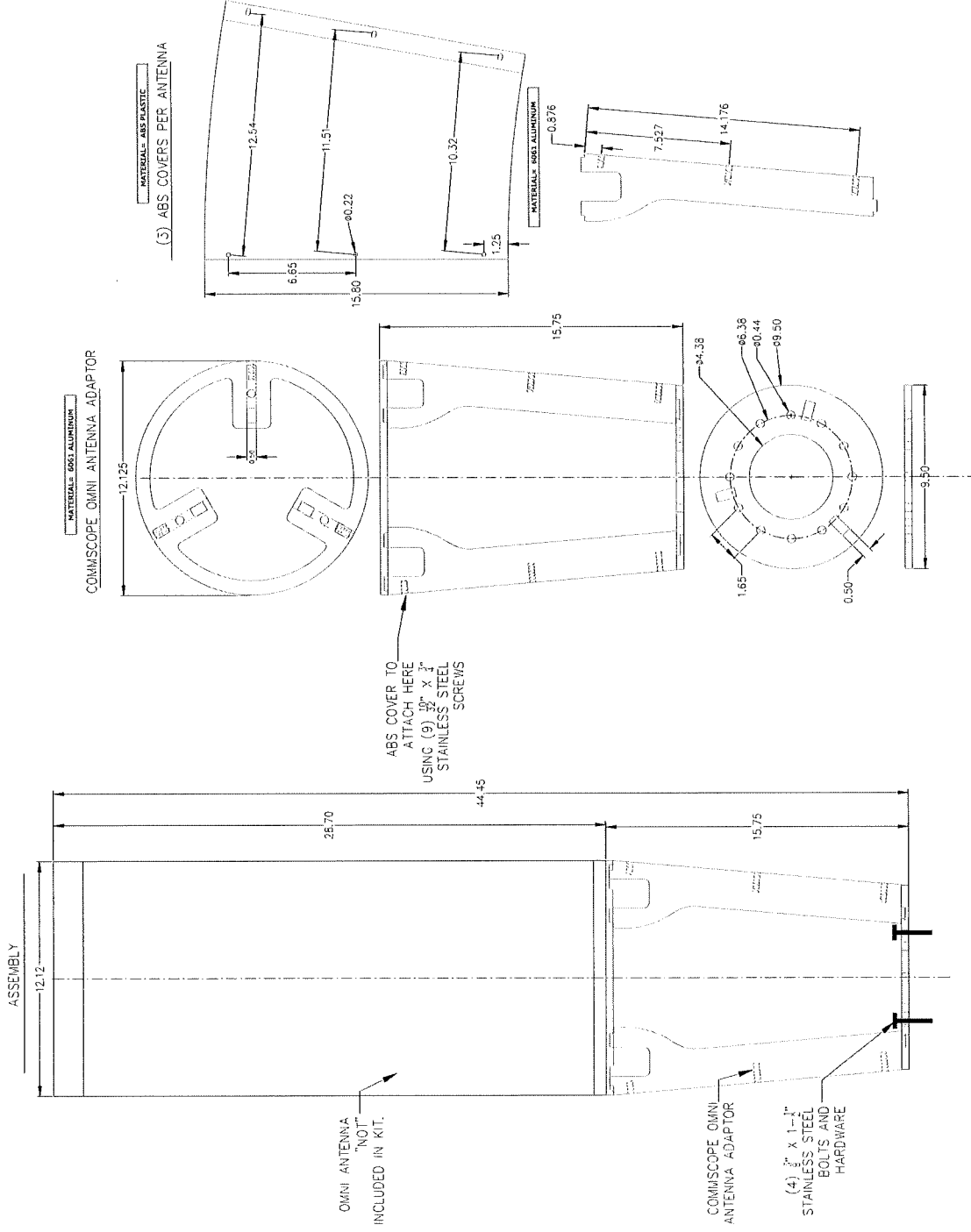
2C4U3MT360X06FxyS0

BOTTOM VIEW - CONNECTOR DIAGRAM



2C4U3MT360X06FxyS0 - PORT DIAGRAM | 2

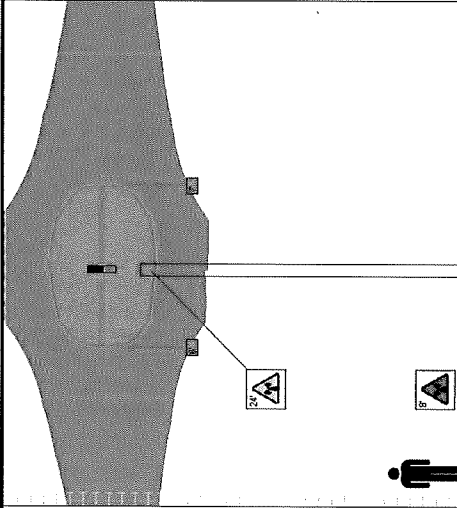
--- RED DOTTED LINES Represents any hole of an object that is hidden from view.
 --- BLUE SOLID LINES Represents any hole of an object that is visible in particular view.
 --- BLACK HIDDEN LINES Represents lines that are "not" included in KIT.



<p>PLANS PREPARED FOR:</p> <p>CROWN CASTLE</p>																																									
<p>PLANS PREPARED BY:</p> <p>PIKE TELECOM</p> <p>21 Oxford Rd Mansfield, MA 02048 www.piketelcom.com 1-800-337-7000</p>																																									
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<p>SITE ADDRESS: PEABODY ST CAMBRIDGE, MA 02138 POLE# N/A</p>																																									
<p>SHEET DESCRIPTION: 4G MOUNT BRACKET</p>																																									
<p>SHEET NUMBER: A-10</p>																																									

DocuSign Envelope ID: 02EDC79A-AF8F-4D81-B6FA-A8E1E54BF670

NOTE:
EME ANALYSIS PROVIDED BY CROWN CASTLE



Doc Limit Exceeded at: 2' AEL
GP Limit Exceeded at: 2' AEL
Control E-71814
Structure Type: Standard
Antenna Rod, Center Height: 28'

NOTICES
POLE WORKERS
There is an antenna operation high on this pole. Please follow guidance on signs near the antenna or call the number below.
Site ID #: CC-2022-888-632-0931

CAUTION
Keep Back 7 FT From this Antenna. FCC RF Public Exposure Limits May Be Exceeded Within This Distance. Call 888-632-0931 for Instructions. Qualified Workers: FCC Occupational Limits May Be Exceeded Within This Distance. Site ID #

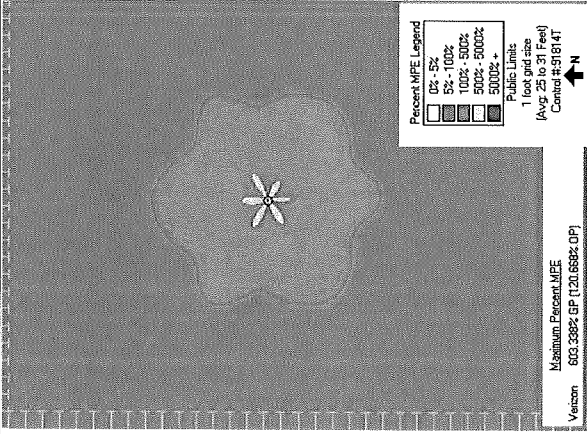
Percent MFE Legend
0% - 5%
5% - 100%
100% - 500%
500% - 5000%
5000% +

Public Limit:
1 foot grid size
(Avg. 25 to 31 Feet)
Control E-71814

Maximum Percent MFE
603.338% GP (120.668% OP)
Verizon

EME PROFILE GRAPHIC 1

NOTE:
COVERAGE ANALYSIS PROVIDED BY CROWN CASTLE



Maximum Percent MFE
603.338% GP (120.668% OP)
Verizon

COVERAGE MAP 2

CAUTION
Keep Back 7 FT From this Antenna. FCC RF Public Exposure Limits May Be Exceeded Within This Distance. Call 888-632-0931 for Instructions. Qualified Workers: FCC Occupational Limits May Be Exceeded Within This Distance. Site ID #

NOTE:
THESE "CAUTION" SIGNS MUST BE POSTED ON BOTH THE OMNI ANTENNA AND THE MOUNTING BRACKET SHROUD ANY TIME THERE IS AN AREA THAT EXCEEDS THE GENERAL PUBLIC (GP) EXPOSURE LIMIT.
THE KEEP-BACK DISTANCE FOR THE GP MUST BE FILLED IN ON THE SIGN.
THE EME REPORT MUST CLEARLY STATE THAT GP LIMIT KEEP-BACK DISTANCE WHEN IT IDENTIFIES THIS SIGN FOR POSTING.
IF SIGNS ARE MISSING OR ILLEGIBLE, CONTACT CROWN CASTLE ON PRIOR TO ACCESSING SITE.

(2) CAUTION SIGNS - POLE TOP 3

CAUTION
Keep Back 7 FT From this Antenna. FCC RF Public Exposure Limits May Be Exceeded Within This Distance. Call 888-632-0931 for Instructions. Qualified Workers: FCC Occupational Limits May Be Exceeded Within This Distance. Site ID #

NOTE:
THIS "CAUTION" SIGN MUST BE POSTED ON THE POLE AT 15' AGL AS DETERMINED BY CROWN CASTLE'S EME ANALYSIS ANY TIME THERE IS AN AREA THAT EXCEEDS THE GENERAL PUBLIC (GP) EXPOSURE LIMIT.
THE KEEP-BACK DISTANCE FOR THE GP MUST BE FILLED IN ON THE SIGN.
THE EME REPORT MUST CLEARLY STATE THAT GP LIMIT KEEP-BACK DISTANCE WHEN IT IDENTIFIES THIS SIGN FOR POSTING.
IF SIGN IS MISSING OR ILLEGIBLE, CONTACT CROWN CASTLE ON PRIOR TO ACCESSING SITE.

CAUTION SIGN - CABINET LEVEL 4

NOTICE
POLE WORKERS
There is an antenna operation high on this pole. Please follow guidance on signs near the antenna or call the number below.
Site ID #: CC-2022-888-632-0931

NOTE:
THE "NOTICE" SIGN MUST BE POSTED NEAR THE BOTTOM OF THE POLE OR ON THE SHROUD ANY TIME THERE IS A ZONE NEAR THE ANTENNA(S) THAT EXCEEDS THE GENERAL POPULATION (GP) LIMIT.
IF SIGN IS MISSING OR ILLEGIBLE, CONTACT CROWN CASTLE ON PRIOR TO ACCESSING SITE.

NOTICE SIGN - AFFIX TO CABINET 5

PLANS PREPARED FOR:
CROWN CASTLE

PLANS PREPARED BY:
PIKE TELECOM
21 Oxford Rd
Merrifield, MA 02046
Tel: 781-337-9200
Fax: 781-337-9200

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REV	DESCRIPTION	BY	DATE
0	ORIGINAL	MS	05/17/22

SITE LOGO/ID:
HSQ-002
SCU# 464615

SITE ADDRESS:
PEABODY ST
CAMBRIDGE, MA 02138
POLE# N/A

SHEET DESCRIPTION:
EME ANALYSIS AND SIGNAGE

SHEET NUMBER:
A-11



PETITION PLAN
FOR
PEABODY ST AT CAMBRIDGE ST
IN THE CITY OF CAMBRIDGE, MA

SMALL CELL POWER AND FIBER LATERAL
NODE HSQ_002



SHEET INDEX

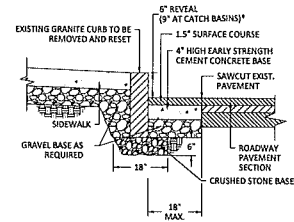
SHEET #	DESCRIPTION
1	COVER STREET
2	PETITION PLAN

GENERAL NOTES

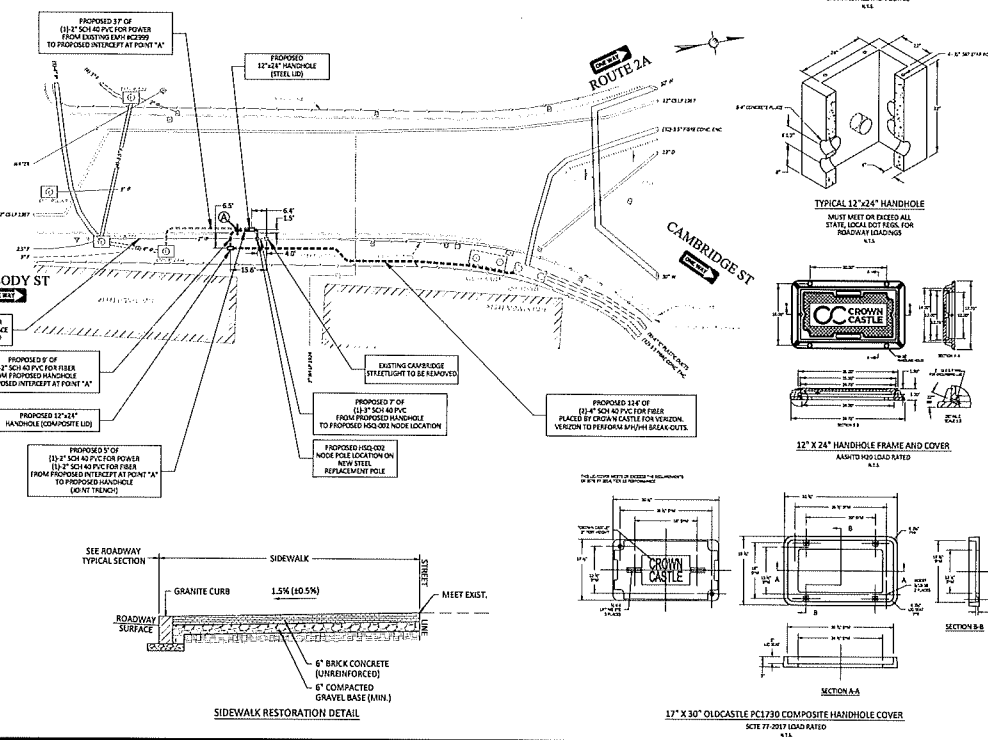
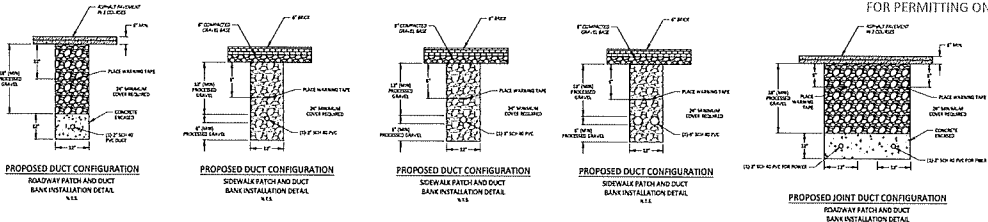
1. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND MUST NOT BE CONSIDERED AS GUARANTEED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
3. THE CONTRACTOR SHOULD MAINTAIN A SEPARATION OF 18 INCHES MIN. WHEN CROSSING EXISTING WATER FACILITIES.
4. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANY.
5. THE CONTRACTOR SHALL NOT DISTURB PUBLIC TIES AND SIGNAGE.
6. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT NO EXPENSE TO THE OWNER.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING AND MAINTAINING TEMPORARY TRAFFIC CONTROL DEVICES FOR ALL DEVIATIONS IN PAVED STREETS AND SIDEWALKS UNTIL PERMANENT RESURFACING IS COMPLETE.
8. JOINTS BETWEEN NEW BITUMINOUS CONCRETE ROADWAY PAVEMENT AND SAW CUT EXISTING PAVEMENT SHALL BE SEALED WITH BITUMEN AND BACK SAVED.
9. THE CONTRACTOR SHALL PROTECT AND SUPPORT ALL EXISTING UTILITY LINES THAT BECOME EXPOSED DUE TO DEVIATION REQUIRED TO INSTALL THE PROPOSED CONDUIT.
10. THE CONTRACTOR SHALL REPLACE ALL DISTURBED TRAFFIC SIGNAL LOOP DETECTORS TO GOOD WORKING CONDITION AS REQUIRED BY THE LATEST STANDARDS OF THE MUNICIPAL TRAFFIC DEPARTMENT.
11. ALL EXISTING STATE, COUNTY, CITY, AND TOWN LOCATION LINES AND PRIVATE PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE INFORMATION AND THEIR EXACT LOCATION ARE NOT GUARANTEED.
12. THE CONTRACTOR SHALL REFACE ALL PAVEMENT MARKINGS IN THEIR ENTIRETY THAT HAVE BEEN DAMAGED BY THESE OPERATIONS OR OPERATIONS OF THE CONTRACTOR WITH SIMILAR COLOR AND SIZE THERMOPLASTIC MARKINGS.

ALL FIELD DATA ACQUIRED USING TOTAL STATION SURVEY EQUIPMENT

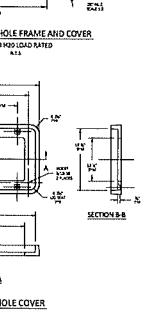
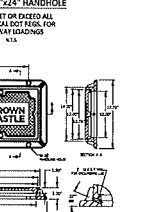
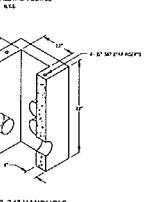
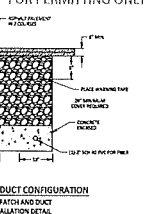
CONTRACTOR TO PRESERVE BRICK SIDEWALK AND RESTORE TO ORIGINAL CONDITION IN TRENCH AREA



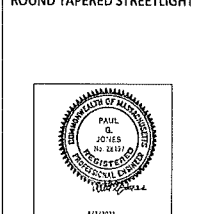
*6" REVEAL TYPICAL REVEAL MAY VARY FROM 3" TO 9" WITH PWD APPROVAL.



FOR PERMITTING ONLY



ROUND TAPERED STREETLIGHT



1" = 30 FEET (PRINTED 22x34)
1 1/2" = 40 FEET (PRINTED 11x17)

LEGEND

⊗	ELECTRIC POLE	⊗	WATER MAIN
⊙	CONCRETE PILE	⊙	SEWER MAIN
⊕	LAMP POST	⊕	DOWN-POSSIBLE
⊖	TRAFFIC LIGHT	⊖	ELECTRIC HANDHOLE
⊗	CONCRETE MANHOLE	⊗	PIPE PROTECT
⊙	SEWER MANHOLE	⊙	SEWER MANHOLE
⊕	ELECTRIC MANHOLE	⊕	GAS METES
⊖	TELEPHONE MANHOLE	⊖	PROPAGATION PILE
⊗	WATER MANHOLE	⊗	WATER METER
⊙	WATER MANHOLE	⊙	WATER METER
⊕	WATER MANHOLE	⊕	WATER METER
⊖	WATER MANHOLE	⊖	WATER METER
⊗	WATER MANHOLE	⊗	WATER METER
⊙	WATER MANHOLE	⊙	WATER METER
⊕	WATER MANHOLE	⊕	WATER METER
⊖	WATER MANHOLE	⊖	WATER METER

NOTES:
EXISTING UTILITIES SHOWN ARE APPROXIMATE AND NOT GUARANTEED TO BE CORRECT. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL PUBLIC AND PRIVATE UTILITIES PRIOR TO BEGINNING ANY EXCAVATION.

CALL BEFORE YOU DIG
UNDERGROUND SERVICE ALERT
72 HOURS NOTICE REQUIRED.
1-800-4-A-SHIELD



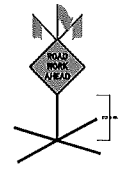
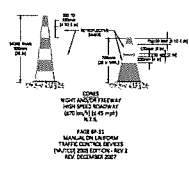
REV#	DESCRIPTION	DATE

TITLE: HSQ-002 - PEABODY ST AT CAMBRIDGE ST
CAMBRIDGE, MA
CROWN CASTLE - PITCH PLAN

DESIGNED BY: PIKE TELECOM DRAWING NO.: 101-1
DRAWN BY: RUF SCALE: AS NOTED
DATE: 02/01/21 04/01/21

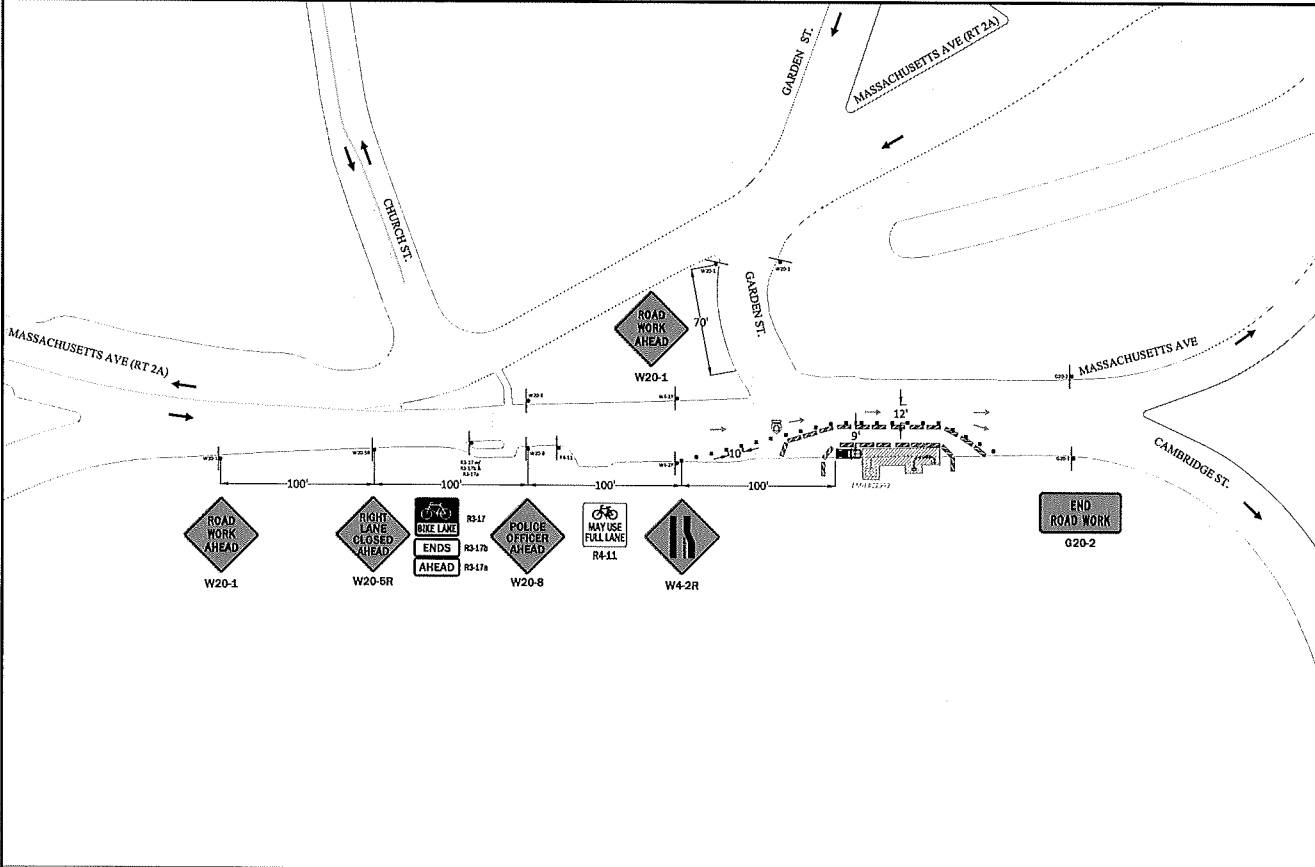
PHASE I

TRAFFIC LEGEND	
[Symbol]	WORK ZONE
[Symbol]	PROPOSED TRENCH
[Symbol]	CHANNELIZING DEVICE (CONE)
[Symbol]	DRUM
[Symbol]	SIGN
[Symbol]	POLICE DETAIL
[Symbol]	SINGLE PARKING METER
[Symbol]	DOUBLE PARKING METER
[Symbol]	VARIABLE MESSAGE BOARD
[Symbol]	ARROW BOARD
[Symbol]	TYPE 3 BARRICADE
[Symbol]	HIGH LEVEL WARNING DEVICE
[Symbol]	CONSTRUCTION TRUCK
[Symbol]	TRUCK MOUNTED ATTENUATOR
[Symbol]	TRAFFIC FLOW
[Symbol]	TRAFFIC FLOW
[Symbol]	TRAFFIC FLOW
[Symbol]	TRAFFIC FLOW
[Symbol]	2 WAY TRAFFIC



FREE STANDING SELF SUPPORT SIGN (TYPICAL) (NOT TO SCALE)

NOTE: ALL WORK SIGNAGE TO BE MOUNTED ON SELF-SUPPORTING STANDS OR BE ATTACHED TO EXISTING UTILITIES.



REV#	DESCRIPTION	DATE

NOTE: EXISTING UTILITIES SHOWN ARE APPROXIMATE AND NOT WARRANTED TO BE CORRECT. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL PUBLIC AND PRIVATE UTILITIES PRIOR TO BEGINNING ANY EXCAVATION.

KNOW WHAT'S BELOW CALL BEFORE YOU DIG IT'S FREE AND IT'S THE LAW CALL 811 OR 1-800-870-SAFE

NOTE: NODE HQ-002

SCALE: 1" = 30 FEET

PIKE TELECOM

CROWN CASTLE

TITLE	DATE
TRAFFIC MANAGEMENT PLAN - PHASE I	10/22/2022
PEARBOY ST AT CAMBRIDGE ST, CAMBRIDGE, MA	
DESIGNED BY: PAUL GLENN	DATE: 10/22/2022
CHECKED BY: BO	SCALE: 1"=30'
DATE: 06/24/21	