

# T-Mobile®

T-MOBILE NORTHEAST LLC

**T-MOBILE SITE #: 4DE7040A**  
**SITE NAME: BO040/51 BRATTLE ST.**  
**51 BRATTLE ST.**  
**CAMBRIDGE, MA 02138**

# 011993-2516

1/12/17

11SAE

T-Mobile

T-MOBILE NORTHEAST LLC  
 A DELAWARE LIMITED LIABILITY COMPANY  
 15 COMMERCE WAY, SUITE B  
 NORTON, MA 02746  
 PHONE: (508) 286-2740  
 FAX: (508) 286-2833

Dewberry®

Dewberry Engineers Inc.  
 290 SUMMER STREET  
 10TH FLOOR  
 BOSTON, MA 02210  
 PHONE: 617.695.3400  
 FAX: 617.695.9310

smartlink

1997 ANNUAL RENEWAL EXCHANGE



SITE OF REGISTRATION:  
 702CU  
 APPROVALS  
 LANDLORD \_\_\_\_\_  
 LEASING \_\_\_\_\_  
 R.F. \_\_\_\_\_  
 ZONING \_\_\_\_\_  
 CONSTRUCTION \_\_\_\_\_  
 A/E \_\_\_\_\_

PROJECT NO: 50063157

JOB NO: 50063193

DRAWN BY: SK

CHECKED BY: OAS

SUBMITTALS

2	11/09/16	FOR CONSTRUCTION
1	11/08/16	FOR CONSTRUCTION
0	08/04/15	FOR CONSTRUCTION
B	07/27/15	FOR REVIEW
A	06/25/15	FOR REVIEW

4DE7040A  
 51 BRATTLE STREET  
 51 BRATTLE STREET  
 CAMBRIDGE, MA 02138

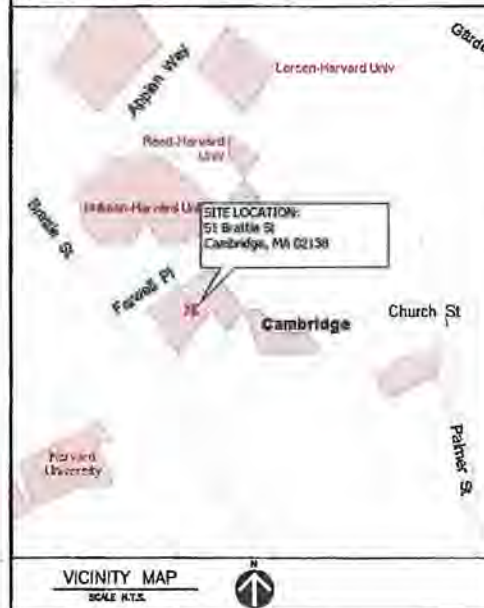
SHEET TITLE  
 TITLE SHEET

SHEET NUMBER  
 T-1

## GENERAL NOTES

- THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.
- THE ARCHITECT/ENGINEER HAVE MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.
- THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE LESSEE REPRESENTATIVE OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
- THE SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT AS DESCRIBED HEREIN.
- THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS / CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S / VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
- THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDUMS OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.
- THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY CONSTRUCTION CONTROL SURVEYS, ESTABLISHING AND MAINTAINING ALL LINES AND GRADES REQUIRED TO CONSTRUCT ALL IMPROVEMENTS AS SHOWN HEREIN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.
- THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY.
- THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
- THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.
- THE CONTRACTOR SHALL NOTIFY THE LESSEE REPRESENTATIVE WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED BY THE LESSEE REPRESENTATIVE.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE JOB.
- ALL UNDERGROUND UTILITY INFORMATION WAS DETERMINED FROM SURFACE INVESTIGATIONS AND EXISTING PLANS OF RECORD. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES IN THE FIELD PRIOR TO ANY SITE WORK. CALL THE FOLLOWING FOR ALL PRE-CONSTRUCTION NOTIFICATION 72-HOURS PRIOR TO ANY EXCAVATION ACTIVITY: DIG SAFE SYSTEM (MA, ME, NH, RI, VT): 1-888-344-7233 CALL BEFORE YOU DIG
- PER FCC MANDATE, ENHANCED EMERGENCY (E911) SERVICE IS REQUIRED TO MEET NATIONWIDE STANDARDS FOR WIRELESS COMMUNICATIONS SYSTEMS. PROJECT OWNER IMPLEMENTATION REQUIRES DEPLOYMENT OF EQUIPMENT AND ANTENNAS GENERALLY DEPICTED ON THIS PLAN, ATTACHED TO OR MOUNTED IN CLOSE PROXIMITY TO THE BTS RADIO CABINETS. THE PROJECT OWNER RESERVES THE RIGHT TO MAKE REASONABLE MODIFICATIONS TO E911 EQUIPMENT AND LOCATION AS TECHNOLOGY EVOLVES TO MEET REQUIRED SPECIFICATIONS.

## VICINITY MAP



VICINITY MAP  
 SCALE N.T.S.

## DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE T-MOBILE NORTHEAST LLC, REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T-MOBILE NORTHEAST LLC. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.

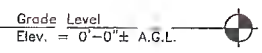
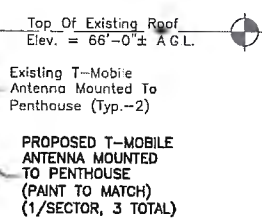
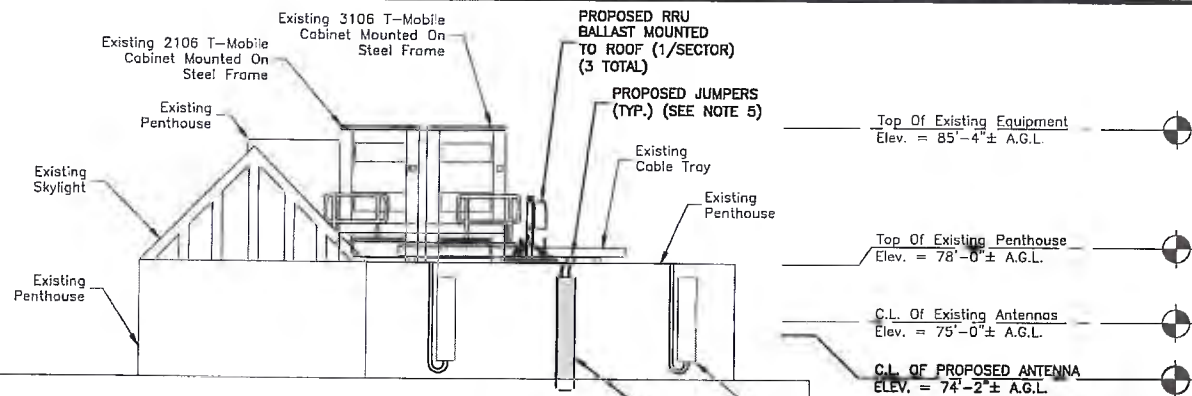
## SHEET INDEX

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A-2	ELEVATION	2
A-3	CONSTRUCTION DETAILS I	2
A-4	CONSTRUCTION DETAILS II	2
E-1	GROUNDING DETAILS, PARTIAL DIAGRAM & NOTES	2

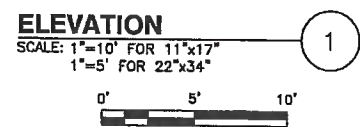
## PROJECT SUMMARY

SITE NUMBER: 4DE7040A  
 SITE NAME: BO040/51 BRATTLE STREET  
 SITE ADDRESS: 51 BRATTLE STREET  
 CAMBRIDGE, MA 02138  
 ZONING DISTRICT: BA  
 MAP/LOT NO.: 169/14  
 CONSTRUCTION TYPE: ROOF TOP  
 PROPERTY OWNER: PRESIDENT & FELLOWS OF HARVARD COLLEGE  
 C/O HARVARD REAL ESTATE, INC.  
 HOLYOKE CENTER ROOM 1000  
 1350 MASSACHUSETTS AVE.  
 CAMBRIDGE, MA 02138  
 APPLICANT, LESSEE/LICENSEE, PROJECT OWNER: T-MOBILE NORTHEAST LLC,  
 15 COMMERCE WAY, SUITE B  
 NORTON, MA 02766  
 THIS DOCUMENT WAS DEVELOPED TO REFLECT A SPECIFIC SITE AND ITS SITE CONDITIONS AND IS NOT TO BE USED FOR ANOTHER SITE OR WHEN OTHER CONDITIONS PERTAIN. REUSE OF THIS DOCUMENT IS AT THE SOLE RISK OF THE USER.  
 A.D.A. COMPLIANCE:  
 FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.





- NOTES:**
- ELEVATIONS SHOWN AS APPROXIMATE.
  - SOME EXISTING & PROPOSED INFORMATION NOT SHOWN FOR CLARITY.
  - INSPECT MOUNTS FOR DAMAGE OR DECAY AND REPLACE AS NEEDED.
  - PLAN BASED ON CONSTRUCTION DRAWINGS BY PROTERRA DESIGN GROUP, LLC, DATED 5/28/12 AND SITE VISIT BY DEWBERRY ENGINEERS INC. ON 5/22/15.
  - CONTRACTOR IS TO NEATLY BUNDLE AND SECURE COAX BEHIND ANTENNA. PAINT TO MATCH COAX TO BUILDING FACADE.



**T-Mobile**

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FAX: 617.695.3310

**smartlink**

1997 ANTI-CORRUPTION CHANGE  
COMMISSIONER, MD

**BENJAMIN B. REVETTE CIVIL**  
No. 48220

SITE CONFIGURATION:  
**702CU**

APPROVALS

LANDLORD \_\_\_\_\_

LEASING \_\_\_\_\_

R.F. \_\_\_\_\_

ZONING \_\_\_\_\_

CONSTRUCTION \_\_\_\_\_

A/E \_\_\_\_\_

PROJECT NO: 50063157

JOB NO: 50063193

DRAWN BY: SK

CHECKED BY: OAS

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4DE7040A

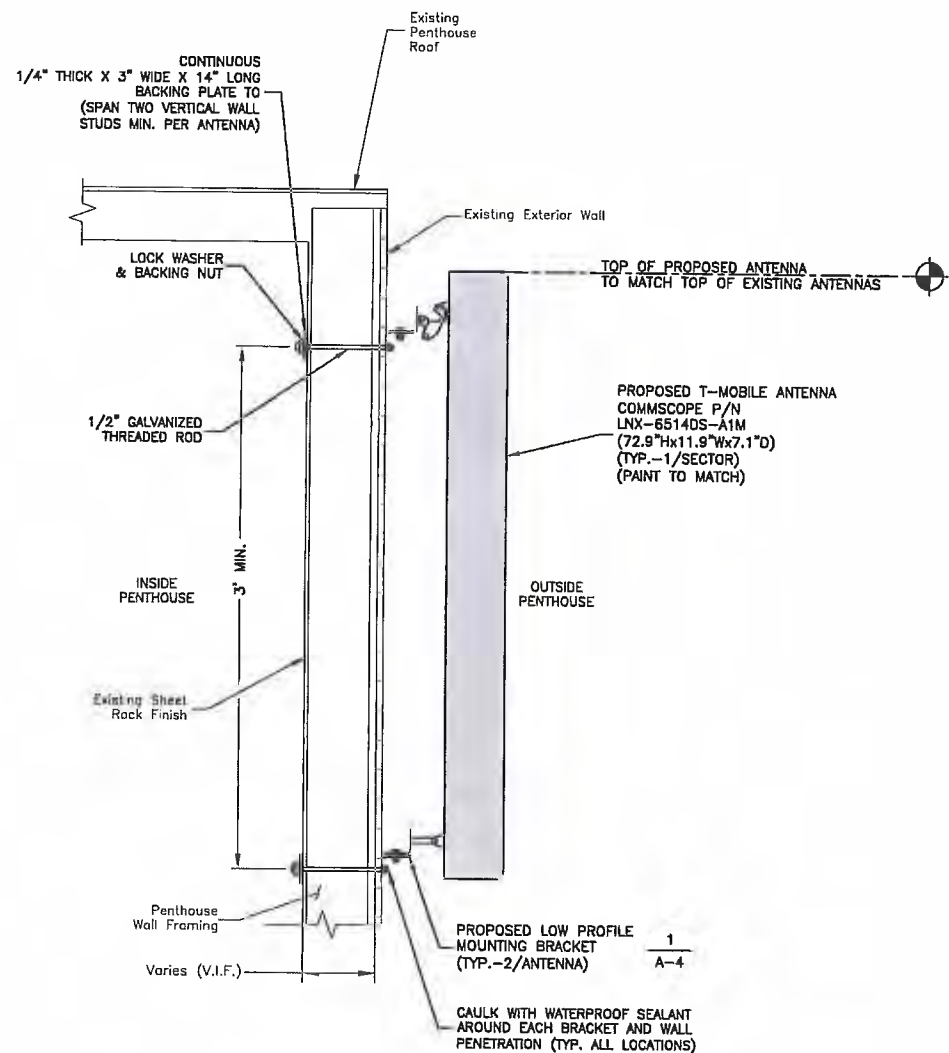
51 BRATTLE STREET  
51 BRATTLE STREET  
CAMBRIDGE, MA 02138

SHEET TITLE

ELEVATION

SHEET NUMBER

A-2

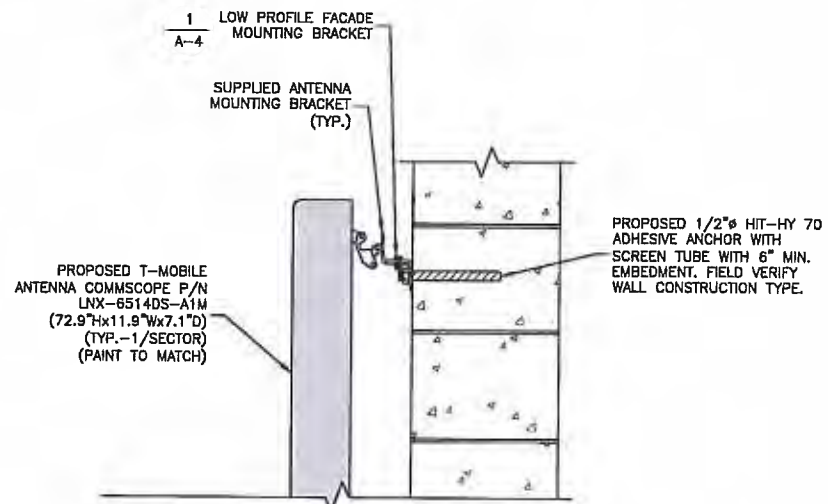


**\*NOTES:**

1. VERIFY VERTICAL CENTER TO CENTER MEASUREMENT WITH ANTENNA MANUFACTURER.
2. CONTRACTOR IS TO NEATLY BUNDLE AND SECURE COAX BEHIND ANTENNA. PAINT TO MATCH COAX TO BUILDING FACADE.

**FACADE MOUNT DETAIL**  
SCALE: N.T.S.

1



**\*NOTES:**

1. NO MORE THAN 1 ANCHOR PER CELL.
2. MIN. DESISTANCE TO FREE EDGE 12".
3. ANCHORS TO BE INSTALLED THROUGH THE CMU BLOCK AND NOT AT THE GROUTS JOINTS.
4. CONTRACTOR IS TO NEATLY BUNDLE AND SECURE COAX BEHIND ANTENNA. PAINT TO MATCH COAX TO BUILDING FACADE.

**ANCHOR DETAIL FOR HOLLOW MASONRY**  
SCALE: N.T.S.

2

**T-MOBILE RF SYSTEM SCHEDULE\***

SECTOR	EXISTING ANTENNA		EXISTING/PROPOSED ANTENNA	
	QTY.	ANTENNA MODEL & DIMENSIONS	QTY.	ANTENNA MODEL & DIMENSIONS
ALPHA	1	ERICSSON AIR21 B2A/B4P (56"Hx12"Wx7.9"D)	1	ERICSSON AIR21 B2A/B4P (56"Hx12"Wx7.9"D)
	1	ERICSSON AIR21 B4A/B2P (56"Hx12"Wx7.9"D)	1	COMMSCOPE LNX-6514DS-A1M (72.9"Hx11.9"Wx7.1"D)
	-	-	1	ERICSSON AIR21 B4A/B2P (56"Hx12"Wx7.9"D)
BETA	1	ERICSSON AIR21 B2A/B4P (56"Hx12"Wx7.9"D)	1	ERICSSON AIR21 B2A/B4P (56"Hx12"Wx7.9"D)
	1	ERICSSON AIR21 B4A/B2P (56"Hx12"Wx7.9"D)	1	COMMSCOPE LNX-6514DS-A1M (72.9"Hx11.9"Wx7.1"D)
	-	-	1	ERICSSON AIR21 B4A/B2P (56"Hx12"Wx7.9"D)
GAMMA	1	ERICSSON AIR21 B2A/B4P (56"Hx12"Wx7.9"D)	1	ERICSSON AIR21 B2A/B4P (56"Hx12"Wx7.9"D)
	1	ERICSSON AIR21 B4A/B2P (56"Hx12"Wx7.9"D)	1	COMMSCOPE LNX-6514DS-A1M (72.9"Hx11.9"Wx7.1"D)
	-	-	1	ERICSSON AIR21 B4A/B2P (56"Hx12"Wx7.9"D)

\*VERIFY ALL INFORMATION WITH LATEST RF DATA SHEET AND T-MOBILE RF PRIOR TO CONSTRUCTION

**RF SCHEDULE**  
SCALE: N.T.S.

3

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smartlink

1997



SITE CONFIGURATION:  
702CU  
APPROVALS

LANDLORD \_\_\_\_\_  
LEASING \_\_\_\_\_  
R.F. \_\_\_\_\_  
ZONING \_\_\_\_\_  
CONSTRUCTION \_\_\_\_\_  
A/E \_\_\_\_\_

PROJECT NO: 50063157

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DRAWN BY: SK

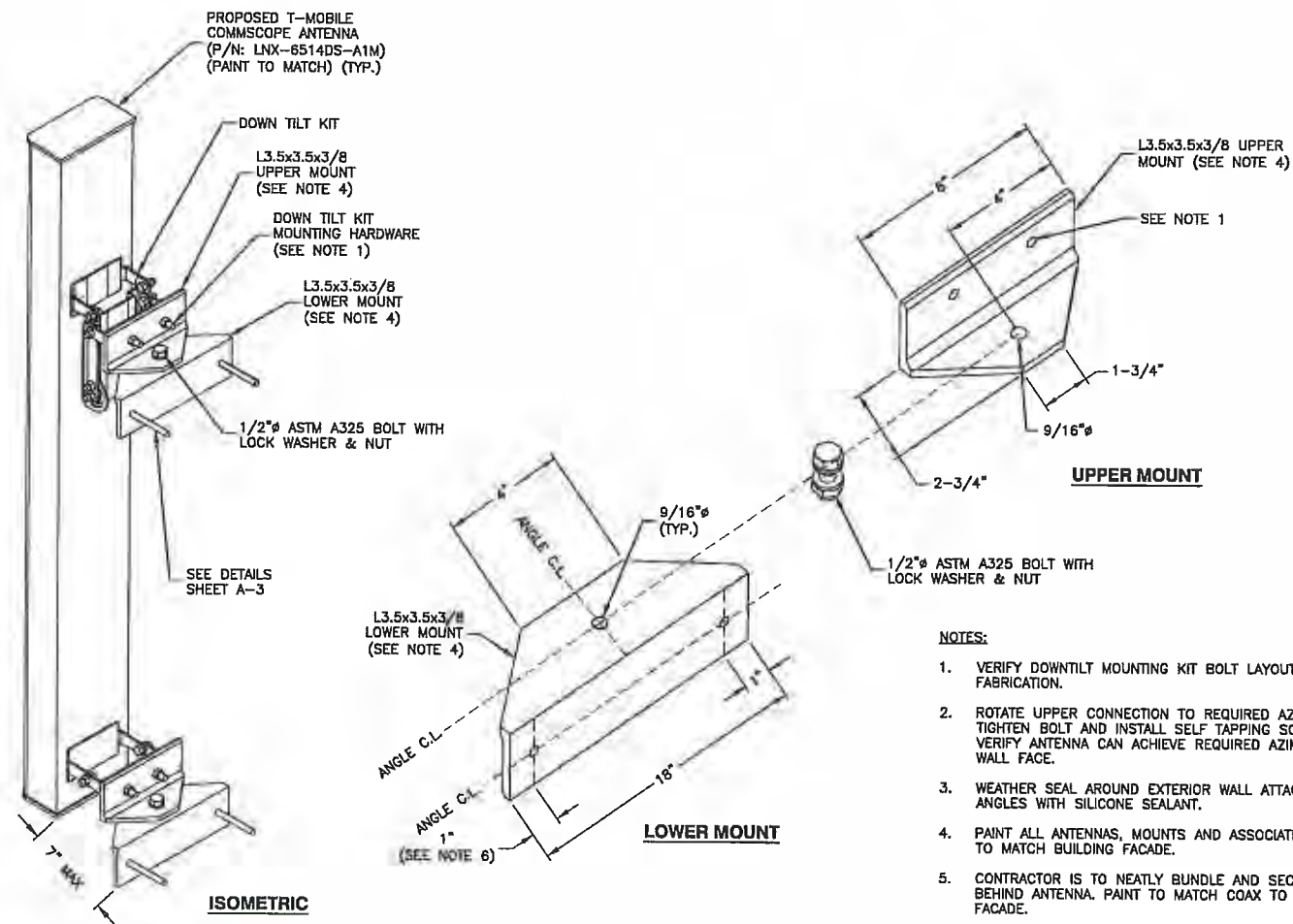
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4DE7040A  
51 BRATTLE STREET  
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SHEET TITLE  
CONSTRUCTION DETAILS I

SHEET NUMBER  
A-3



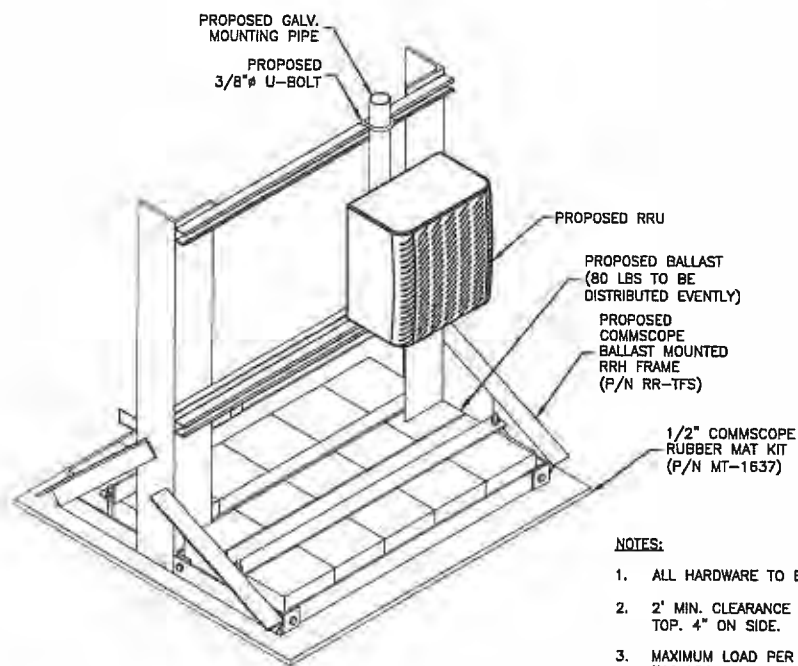
**NOTES:**

1. VERIFY DOWNTILT MOUNTING KIT BOLT LAYOUT PRIOR TO FABRICATION.
2. ROTATE UPPER CONNECTION TO REQUIRED AZIMUTH. TIGHTEN BOLT AND INSTALL SELF TAPPING SCREWS. SHOP VERIFY ANTENNA CAN ACHIEVE REQUIRED AZIMUTH FROM WALL FACE.
3. WEATHER SEAL AROUND EXTERIOR WALL ATTACHMENT ANGLES WITH SILICONE SEALANT.
4. PAINT ALL ANTENNAS, MOUNTS AND ASSOCIATED EQUIPMENT TO MATCH BUILDING FACADE.
5. CONTRACTOR IS TO NEATLY BUNDLE AND SECURE COAX BEHIND ANTENNA. PAINT TO MATCH COAX TO BUILDING FACADE.
6. VERIFY WITH ANTENNA BRACKET PRIOR TO CONSTRUCTION.

**LOW PROFILE FACADE MOUNT**

SCALE: N.T.S.

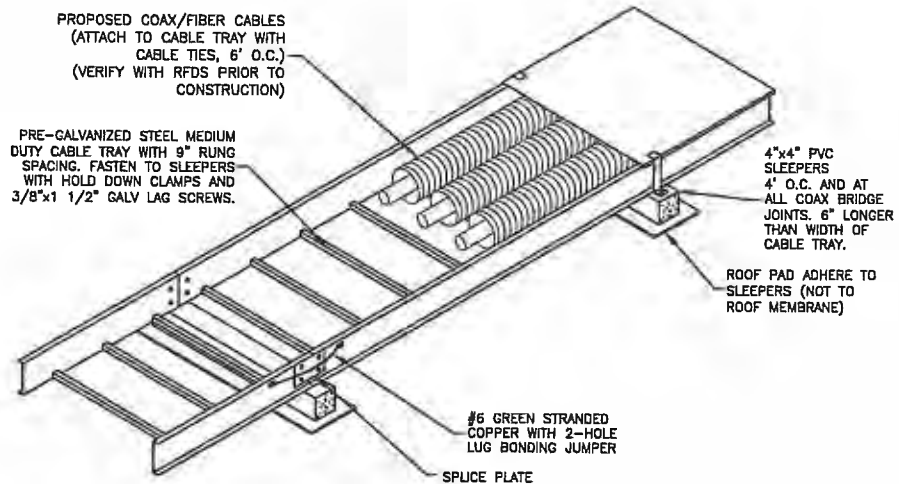
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**RRH BALLAST FRAME DETAIL**

SCALE: N.T.S.

2



**CABLE TRAY DETAIL**

SCALE: N.T.S.

3

**T-Mobile**

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1997 ANTENNA EXCHANGE



SITE CONFIGURATION:  
702CU  
APPROVALS

LANDLORD \_\_\_\_\_

LEASING \_\_\_\_\_

R.F. \_\_\_\_\_

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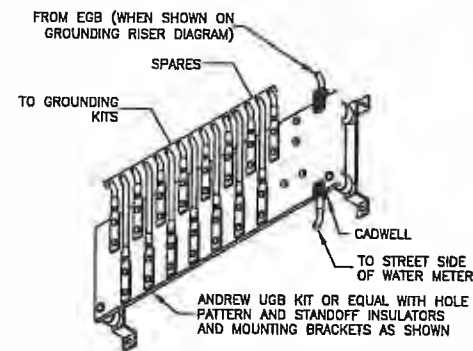
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SHEET TITLE  
CONSTRUCTION DETAILS II

SHEET NUMBER  
A-4

## ELECTRICAL & GROUNDING NOTES

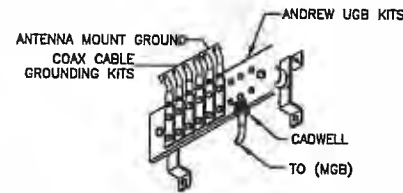
- ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
- ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
- THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
- GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
- ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS OR SCHEDULE 80 PVC (AS PERMITTED BY CODE) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.
- RIGID STEEL CONDUITS SHALL BE GROUNDED AT BOTH ENDS.
- ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THIN INSULATION.
- RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL UTILITY DEMARCATION POINT AND LESSEE/LICENSEE CELL SITE PPC AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.
- RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATION POINT AND LESSEE/LICENSEE CELL SITE TELCO CABINET AND BTS CABINET AS INDICATED ON THIS DRAWING PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE AT EACH END.
- ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
- GROUNDED SHALL COMPLY WITH NEC ART. 250.
- GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURER'S COAX CABLE GROUNDING KITS SUPPLIED BY LESSEE/LICENSEE.
- USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.
- ALL GROUND CONNECTIONS TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
- ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 6 FEET OF LESSEE/LICENSEE EQUIPMENT OR CABINET TO MASTER GROUND BAR OR GROUNDING RING.
- CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
- APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.
- BOND ANTENNA MOUNTING BRACKETS, COAXIAL CABLE GROUND KITS, AND ALNA TO EGB PLACED NEAR THE ANTENNA LOCATION.
- BOND ANTENNA EGBS AND MGB TO GROUND RING.
- TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION. 5 OHMS MINIMUM RESISTANCE REQUIRED.
- BOND ANY METAL OBJECT WITHIN 7 FEET OF THE PROPOSED EQUIPMENT OR CABINET TO MASTER GROUND BAR.
- VERIFY PROPOSED SERVICE UPGRADE WITH LOCAL UTILITY COMPANY PRIOR TO CONSTRUCTION.



**MASTER GROUND BAR (MGB)**

SCALE: N.T.S.

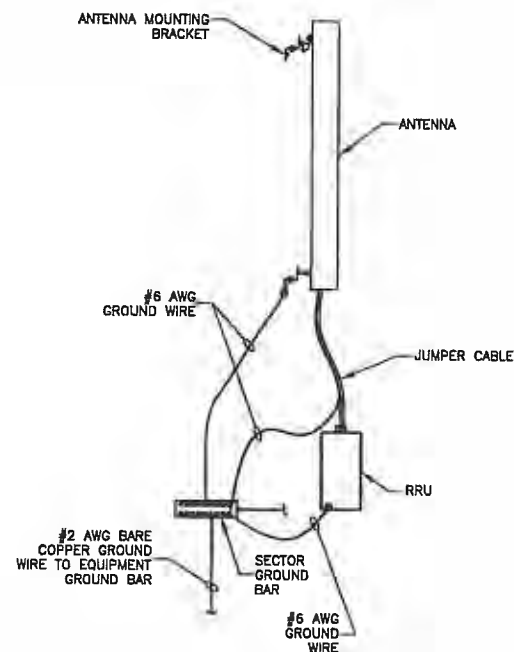
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**EQUIPMENT GROUND BAR (EGB)**

SCALE: N.T.S.

2



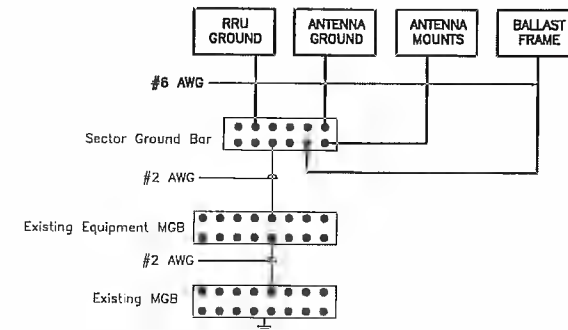
**NOTES:**

- DO NOT INSTALL CABLE GROUND KIT AT A BEND. ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
- GROUNDING KIT LOCATION & QUANTITY PER CARRIER SPECIFICATIONS.
- WEATHER PROOFING SHALL BE PER CARRIER REQUIREMENTS.

**TYPICAL ANTENNA GROUNDING DETAIL**

SCALE: N.T.S.

4



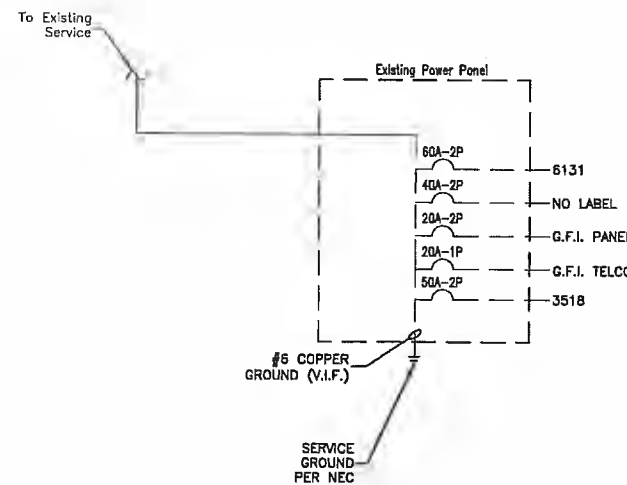
**NOTES:**

- ALL PROPOSED EQUIPMENT TO BE GROUNDED TO SECTOR GROUND BAR.
- TYPICAL FOR FOR ALL SECTORS.
- GROUNDED SHALL COMPLY WITH NEC ART. 250 & T-MOBILE SPECIFICATIONS.

**SCHEMATIC GROUNDING DIAGRAM**

SCALE: N.T.S.

3



**NOTE:**

- VERIFY REQUIRED BREAKER SIZE WITH T-MOBILE CM FOR UPGRADE. CONTRACTOR TO VERIFY EXISTING PANEL CONDITIONS AND ALL EXISTING WIRING PRIOR TO INSTALLATION. CONTRACTOR TO CONFIRM EXISTING PANEL HAS CAPACITY FOR BREAKER REQUIREMENTS AND EXISTING CONDUITS/WIRING ARE SUITABLE FOR ANY UPGRADE.

**ONE LINE POWER DIAGRAM**

SCALE: N.T.S.

5

**T-Mobile**

T-MOBILE NORTHEAST LLC  
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15 COMMERCIAL WAY, SUITE B  
BOSTON, MA 02256  
PHONE: (508) 246-2700  
FAX: (508) 246-2893

**Dewberry**

Dewberry Engineers Inc.  
280 SUMMER STREET  
10TH FLOOR  
BOSTON, MA 02210  
PHONE: 617.695.3400  
FAX: 617.695.3310

smartlink



SITE CONFIGURATION:  
702CU  
APPROVALS

LANDLORD \_\_\_\_\_  
LEASING \_\_\_\_\_  
R.F. \_\_\_\_\_  
ZONING \_\_\_\_\_  
CONSTRUCTION \_\_\_\_\_  
A/E \_\_\_\_\_

PROJECT NO: 50063157

JOB NO: 50063193

DRAWN BY: SK

CHECKED BY: OAS

**SUBMITTALS**

NO.	DATE	DESCRIPTION
2	11/09/16	FOR CONSTRUCTION
1	11/08/16	FOR CONSTRUCTION
0	08/04/15	FOR CONSTRUCTION
B	07/27/15	FOR REVIEW
A	06/25/15	FOR REVIEW

4DE7040A  
51 BRATTLE STREET  
51 BRATTLE STREET  
CAMBRIDGE, MA 02138

SHEET TITLE  
GROUNDING DETAILS,  
PARTIAL DIAGRAM & NOTES

SHEET NUMBER  
E-1

## Photographic Simulation Package

Proposed Upgrade to Existing Wireless  
Telecommunications Facility:

4DE7040A - BO0040  
51 Brattle Street  
Cambridge, MA 02140

- proposed changes to existing Rooftop Mount Antenna Structure
- documentation photographs taken 10/14/16

Simulation package prepared by:

Virtual Site Simulations, LLC  
9 walts way  
Narragansett, Rhode Island 02882

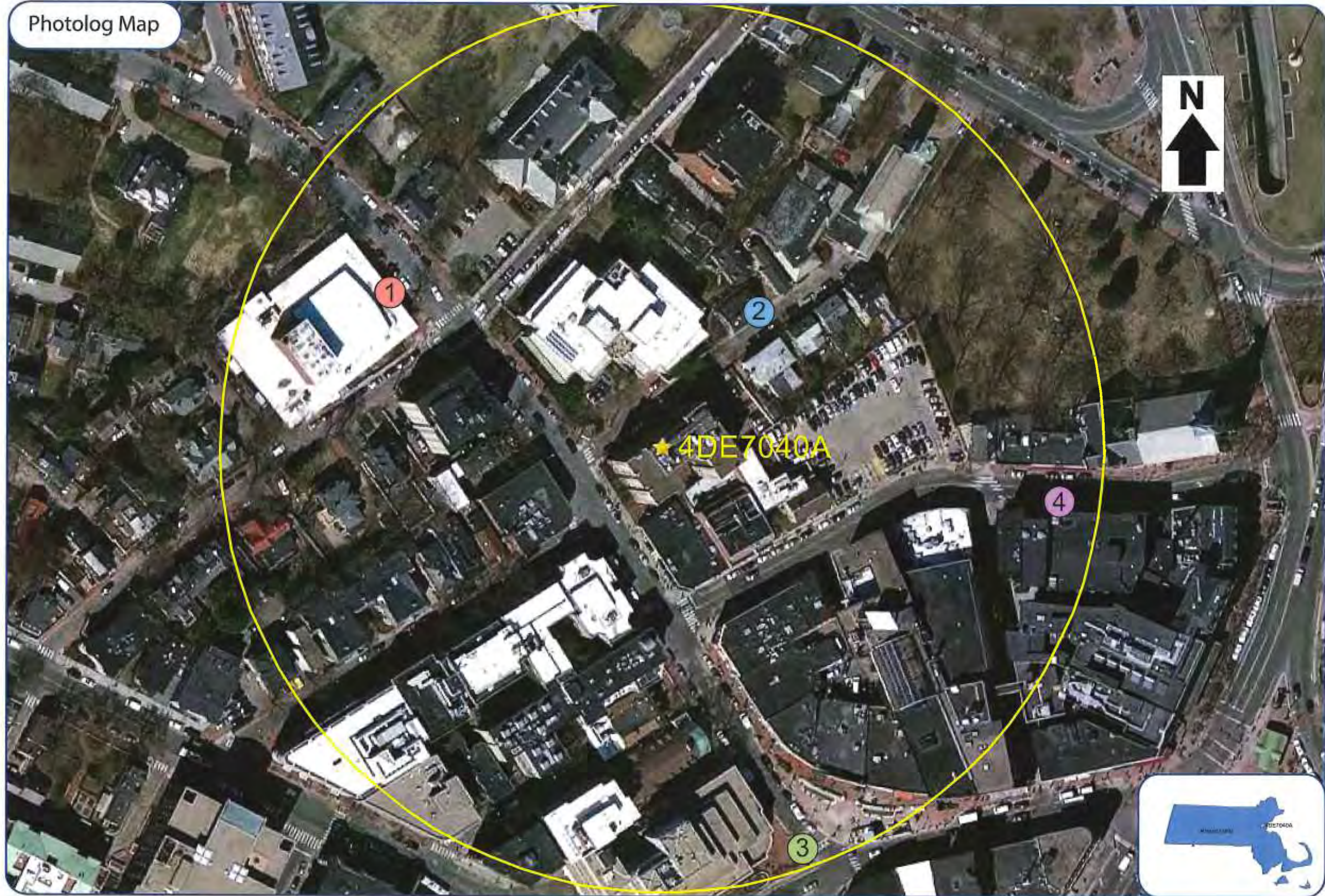
[www.VirtualSiteSimulations.com](http://www.VirtualSiteSimulations.com)



Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



Photolog Map



Proposed Upgrade to Existing Wireless Telecommunications Facility:  
4DE7040A - BO0040  
51 Brattle Street  
Cambridge, MA 02140

Legend:

- ☆ Facility Location
- ⊗ Photo Documentation location
- 1000 Ft Radius

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VSS smartlink T-Mobile

2 of 10



Existing



Photo #	Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
1	Brattle St. North	42.37497 -71.12265	+/- 0.07 Miles	North East	115.1	Year Round

Site: 4DE7040A - BO0040 51 Brattle Street

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Simulation



Photo #	Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
1	Brattle St. North	42.37497 -71.12265	+/- 0.07 Miles	North East	115.1	Year Round

Site: 4DE7040A - BO0040 51 Brattle Street

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Existing



Photo #	Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
2	Farwell Pl.	42.37492 -71.12111	+/- 0.04 Miles	North West	227.74	Year Round

Site: 4DE7040A - BO0040 51 Brattle Street

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Simulation



Photo #	Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
2	Farwell Pl.	42.37492 -71.12111	+/- 0.04 Miles	North West	227.74	Year Round

Site: 4DE7040A - BO0040 51 Brattle Street

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Existing



Photo #	Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
3	Brattle St. South	42.37326 -71.12091	+/- 0.09 Miles	South West	337.43	Year Round

Site: 4DE7040A - BO0040 51 Brattle Street

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Simulation



Photo #	Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
3	Brattle St. South	42.37326 -71.12091	+/- 0.09 Miles	South West	337.43	Year Round

Site: 4DE7040A - BO0040 51 Brattle Street

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Existing



Photo #	Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
4	Chruch St.	42.37433 -71.11985	+/- 0.09 Miles	West	279.86	Year Round

Site: 4DE7040A - BO0040 51 Brattle Street

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Simulation



Photo #	Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
4	Chruch St.	42.37433 -71.11985	+/- 0.09 Miles	West	279.86	Year Round

Site: 4DE7040A - BO0040 51 Brattle Street

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