

BZA APPLICATION FORM

GENERAL INFORMATION

The undersigned hereby petitions the Board of Zoning Appeal for the following:

Special Permit: ☒ Variance: _____
and relief pursuant to Section 6409 of the Middle Class Tax Relief Act

Appeal: _____

2019 MAY 31 AM 10:22
OFFICE OF THE CITY CLERK
CAMBRIDGE, MASSACHUSETTS

PETITIONER: T-Mobile Northeast LLC

PETITIONER'S ADDRESS: Prince Lobel Tye, LLP, Attn. Adam F. Brailard, Esq., One International Place, Suite 3700, Boston, MA

LOCATION OF PROPERTY: 1221 Cambridge Street

TYPE OF OCCUPANCY: Telecommunications ZONING DISTRICT: BA

REASON FOR PETITION:

<input type="checkbox"/> Additions	<input type="checkbox"/> New Structure
<input type="checkbox"/> Change in Use/Occupancy	<input type="checkbox"/> Parking
<input type="checkbox"/> Conversion to Addi'l Dwelling Unit's	<input type="checkbox"/> Sign
<input type="checkbox"/> Dormer	<input type="checkbox"/> Subdivision
<input checked="" type="checkbox"/> Other: Section 6409(a) of the Spectrum Act relief for Special Permit for the collocation of a Wireless Facility	

DESCRIPTION OF PETITIONER'S PROPOSAL:

The Applicant proposes to modify its existing wireless facility currently operating on the rooftop of the Building by replacing three (3) panel antennas, façade mounted to the existing building, with three (3) like kind panel antennas, and by replacing three (3) remote radio units with three (3) like kind RRUs. All replaced antennas and supporting equipment will be painted to match the building. The Applicants proposal complies with Section 6409 of the Spectrum Act as the collocation of antennas is not a substantial change to the existing base station. Moreover, the Applicants proposal complies with Section 4.32 and 10.4 of the Cambridge Zoning Code.

SECTIONS OF ZONING ORDINANCE CITED:

Article 4.00 Section 4.32 (g)(1) Utilities - Telephone Exchange

Article 10.00 Section 10.4 - Special Permit

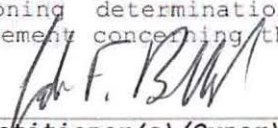
Article 6409 Section Middle Class Tax Relief Act

Applicants for a Variance must complete Pages 1-5

Applicants for a Special Permit must complete Pages 1-4 and 6

Applicants for an Appeal to the BZA of a Zoning determination by the Inspectional Services Department must attach a statement concerning the reasons for the appeal

Original Signature(s):


(Petitioner(s)/Owner)

Adam F. Brailard, Esq.

(Print Name)

Address: One International Place, Suite 3700

Boston, MA 02110

Tel. No.: 617-456-8153

E-Mail Address: abraillard@princelobel.com

Date: 5/21/19

BZA APPLICATION FORM - OWNERSHIP INFORMATION

To be completed by OWNER, signed before a notary and returned to The Secretary of the Board of Zoning Appeals.

I/We Jane Carbone
(OWNER)

Address: 280 Franklin St Cambridge

State that I/We own the property located at 1221 Cambridge St.
which is the subject of this zoning application.

The record title of this property is in the name of Innen Cast LLC

*Pursuant to a deed of duly recorded in the date 4/01/2011, Middlesex South
County Registry of Deeds at Book 1398, Page 19; or
Middlesex Registry District of Land Court, Certificate No. _____
Book _____ Page _____.

Jane Carbone
SIGNATURE BY LAND OWNER OR
AUTHORIZED TRUSTEE, OFFICER OR AGENT*

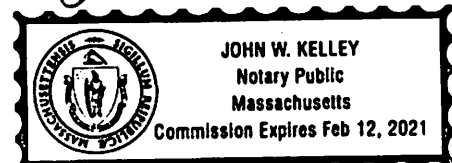
***Written evidence of Agent's standing to represent petitioner may be requested.**

Commonwealth of Massachusetts, County of MIDDLESEX

The above-name JANE CARBONE personally appeared before me,
this 22ND of MAY, 2019, and made oath that the above statement is true.

John W. Kelley Notary

My commission expires FEB 12, 2021 (Notary Seal).



- If ownership is not shown in recorded deed, e.g. if by contract, recent deed, or inheritance, please include documentation.

BZA APPLICATION FORM
DIMENSIONAL INFORMATION

APPLICANT: T-Mobile Northeast **PRESENT USE/OCCUPANCY:** Wireless Telecommunications

LOCATION: 1221 Cambridge Street **ZONE:** BA

PHONE: 617-456-8153 **REQUESTED USE/OCCUPANCY:** Wireless Telecommunications

	<u>EXISTING CONDITIONS</u>	<u>REQUESTED CONDITIONS</u>	<u>ORDINANCE REQUIREMENTS¹</u>
<u>TOTAL GROSS FLOOR AREA:</u>	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (max.)
<u>LOT AREA:</u>	<u>N/A</u>		<u>N/A</u> (min.)
<u>RATIO OF GROSS FLOOR AREA TO LOT AREA:²</u>	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (max.)
<u>LOT AREA FOR EACH DWELLING UNIT:</u>	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (min.)
<u>SIZE OF LOT:</u>			
<u>WIDTH</u>	<u>N/A</u>		<u>N/A</u> (min.)
<u>DEPTH</u>			
<u>Setbacks in Feet:</u>			
<u>FRONT</u>	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (min.)
<u>REAR</u>	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (min.)
<u>LEFT SIDE</u>	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (min.)
<u>RIGHT SIDE</u>	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (min.)
<u>SIZE OF BLDG.:</u>			
<u>HEIGHT</u>	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (max.)
<u>LENGTH</u>			
<u>WIDTH</u>			
<u>RATIO OF USABLE OPEN SPACE TO LOT AREA:³</u>	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (min.)
<u>NO. OF DWELLING UNITS:</u>	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (max.)
<u>NO. OF PARKING SPACES:</u>	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (min./max)
<u>NO. OF LOADING AREAS:</u>	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (min.)
<u>DISTANCE TO NEAREST BLDG. ON SAME LOT:</u>	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (min.)

Describe where applicable, other occupancies on same lot, the size of adjacent buildings on same lot, and type of construction proposed, e.g.; wood frame, concrete, brick, steel, etc.

The proposed installation involves a modification of an existing Wireless Telecommunications Facility,

more commonly referred to as a "collocation".

1. SEE CAMBRIDGE ZONING ORDINANCE ARTICLE 5.000, SECTION 5.30 (DISTRICT OF DIMENSIONAL REGULATIONS).
2. TOTAL GROSS FLOOR AREA (INCLUDING BASEMENT 7'-0" IN HEIGHT AND ATTIC AREAS GREATER THAN 5') DIVIDED BY LOT AREA.
3. OPEN SPACE SHALL NOT INCLUDE PARKING AREAS, WALKWAYS OR DRIVEWAYS AND SHALL HAVE A MINIMUM DIMENSION OF 15'.

May 21, 2019

City of Cambridge
Board of Zoning Appeals
831 Massachusetts Avenue
Cambridge, MA 02139

Re: Eligible Facilities Request pursuant to Section 6409 of the
Spectrum Act and an Application for Special Permit, in the
alternative
Property Address: 1221 Cambridge Street
Assessor's Map 82, Lot 8 (the "Property")
Applicant: T-Mobile Northeast LLC (the "Applicant")

Dear Honorable Members of the Board of Zoning Appeals:

This firm represents T-Mobile Northeast LLC ("T-Mobile") (hereinafter, the "Applicant") in connection with an application for a special permit from the City of Cambridge Board of Zoning Appeals (the "Board"), to modify an existing wireless communications facility on the Property. The Property is located in the Business A (BA) zoning district. To the extent that the Board determines that the requirements of Article 4 Section 4.32G.1 of the City of Cambridge Zoning Ordinance (the "Ordinance") apply, the use of the Property for a wireless telecommunications facility is permitted by special permit from the Board¹. The Applicant's proposal satisfies the requirements for the grant of a special permit pursuant to Section 10-43 of the Ordinance.

The Applicant's Proposed Facility (as defined herein) is subject to Section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012, more commonly known as the "Spectrum Act" (47 U.S.C. § 1455). As such, we respectfully submit that in the event that the Board determines that the application does not comply with the Spectrum Act, the Applicant hereby states that the special permit requirements set forth in the Ordinance are hereby met by the Applicant, and that relief must be granted to the Applicant. The compliance with the Spectrum Act is shown on the Eligible Facilities Request permit application form attached hereto and incorporated herein by reference (the "EFR").

¹ Pursuant to Section 6409(a) of the Spectrum Act, state and local governments "may not deny and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station." As such, the Applicant submits that they need not apply for a special permit from the board. To the extent that this Board determines that the Applicants' proposed wireless facility must comply with special permit requirements set forth in Section 10-43 of the Ordinance, the Applicants submit that they have complied with said requirements, without waiving the argument that such relief is not required.

Prince Lobel Tye LLP
One International Place
Suite 3700
Boston, MA 02110
TEL: 617 456 8000
FAX: 617 456 8100

www.princelobel.com

The Applicant seeks to modify its existing wireless communications facility by replacing three (3) panel antennas mounted to the façade of the existing building, with three (3) like kind panel antennas, and by replacing three (3) Remote Radio Head Units (“RRU”) with three (3) like kind RRU antennas, and supporting equipment (the “Proposed Facility”). All of the proposed antennas will be installed in the location of the removed antennas and painted to match the existing building (the “Building”). The Applicant’s facilities are shown on the Plans attached hereto and incorporated herein by reference (the “Plans”).

I. Background

The Applicant is licensed by the Federal Communications Commission (the “FCC”) to construct and operate a wireless telecommunications network in various markets throughout the country, including the Commonwealth of Massachusetts and in particular in the City of Cambridge. A copy of the Applicant’s FCC license is attached hereto. The Applicant is in the process of designing and constructing a telecommunications system to serve all of the Commonwealth of Massachusetts. One of the key design objectives of its systems is to provide seamless coverage. Such a system requires a grid of radio transmitting and receiving links located approximately .5 to 2 miles apart, depending on the location of existing and proposed installations in the surrounding area, the existing use of the network and the existing topography. The radio transmitting and receiving facilities operate on a line-of-sight basis, requiring a clear path from the facility to the user on the ground. This dynamic requires the antennas to be located in a location where the signal is not obstructed or degraded by other buildings or by topographical features such as hills.

II. Project Description

As noted above, the Applicant proposes to modify its existing wireless facility currently operating on the rooftop of the Building by replacing three (3) panel antennas, façade mounted to the existing Building, with three (3) like kind panel antennas, and by replacing three (3) RRUs with three (3) like kind RRUs. All replaced antennas and supporting equipment will be painted to match the Building. Moreover, all replacement antennas will be installed to be consistent with the previous decisions of the Board for this facility, the first of which is dated August 9, 2006 (Case No. 9306) (the “Original Decision”), the second dated November 16, 2012 (Case No. 10325) (the “2nd Decision”) and the third dated November 1, 2016 (Case No. BZA-011008-2016) (the “3rd Decision”) (together, the Original Decision, the 2nd Decision and the 3rd Decision shall hereafter be referred to as the “Decisions”). Consequently, the visual change to the Applicant’s existing facility will be de minimus.

After installation, the Proposed Facility will be unmanned and will only require twice a month maintenance visits per carrier. The only utilities required to operate this Proposed Facility are standard 120-volt electrical power as well as telephone service. These are presently in place at the Property. The traffic generated by the Proposed Facility will be approximately two vehicle trips per month by maintenance personnel who will inspect the Proposed Facility to ensure it remains in good working order. The Proposed Facility will comply with all applicable local, state and federal safety codes.

III. Legal Arguments

A. The Applicant complies with the Wireless Communications provisions set forth in Section 4.32(g), footnote 49 of the Ordinance

Pursuant to Section 4.32(g) of the Ordinance, the Applicant's proposed use for a wireless communications facility in the BA zoning district is permitted by special permit. The Applicant's Proposed Facility further complies with the provisions set forth in Section 4.32(g), footnote 49 of the Ordinance:

1. **The Board of Zoning Appeal shall consider the scope of or limitations imposed by any license secured from any state or federal agency having jurisdiction over such matters.**

Enclosed herewith is the Applicant's FCC license. The Applicant meets all requirements imposed by governmental authorities having jurisdiction over the Proposed Facility, including by the FCC, to provide wireless communications in this market area.

The intent of the U.S. Congress, when it enacted the Telecommunications Act of 1996 ("TCA") was to institute a framework to promote competition and innovation within the telecommunications industry. Under its license from the FCC, T-Mobile is obligated to provide a reliable "product" (i.e. wireless communications service) to the population of the City of Cambridge. Likewise, consumer expectations for increasingly robust and reliable service requires competing service providers (including T-Mobile) to identify and remedy existing gaps in reliable network coverage, or gaps that result from increasing subscriber voice and data traffic beyond the limits of existing network infrastructure. A carrier's failure to remedy network gaps in a timely fashion can result in a significant loss of subscribers to competing telecommunications carriers. The Proposed Facility and corresponding relief requested are necessary to remedy a gap in reliable service coverage within T-Mobile's existing network infrastructure.

T-Mobile investigated alternative sites in and around the defined geographic area within which its engineers determined that a facility must be located to fill the gap in service coverage and to function effectively within its network of existing and planned facilities. This is an existing location that is being upgraded with new technology to provide the necessary coverage to the subject area of the City of Cambridge. Therefore, the Proposed Facility in the BA zoning district is necessary to close the coverage gap that is illustrated on the propagation maps submitted herewith. Consequently, T-Mobile is unable to close a gap in its wireless network without obtaining the requested relief under Section 6409 of the Spectrum act or a Special Permit to modify its existing wireless facility in the BA zoning district.

Furthermore, Section 6409(a) of the Spectrum Act mandates that state and local governments "*may not deny, and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station.*" Under Section 6409(a)(2)(A)-(C) an Eligible

Facilities Request is any request to modify a Tower or Base Station that involves “collocations of new Transmission Equipment,” “removal,” or “replacement” of Transmission Equipment.

Because federal law now preempts many of the permit application requirements that this jurisdiction would previously have required from an Applicant, we have provided, on the attached EFR, only the information that federal law allows this jurisdiction to consider when reviewing an EFR. As such, we submit that the Wireless Communications set forth in Section 4.32(g), footnote 49 of the Ordinance, provisions are not applicable to Proposed Facility and relief must be granted pursuant to Section 6409(a) of the Spectrum Act.

- 2. The Board of Zoning Appeal shall consider the extent to which the visual impact of the various elements of the proposed facility is minimized: (1) through the use of existing mechanical elements on the building's roof or other features of the building as support and background, (2) through the use in materials that in texture and color blend with the materials to which the facilities are attached, or (3) other effective means to reduce the visual impact of the facility on the site.**

The Applicant's Proposed Facility has no additional visual impact on the existing facility and Building. The Proposed Facility will be installed entirely within the existing faux chimney and as such will have no change on the existing visual conditions of the Building.

As stated above, federal law now preempts many of the permit applications requirements that the Ordinance sets forth. To the extent that this Board determines that the Applicants' proposed wireless facility must comply with the Wireless Communications provisions set forth in Section 4.32(g), footnote 49 of the Ordinance, the Applicants submit that they have complied with said requirements, without waiving the argument that such relief is not required.

- 3. Where it is proposed to erect such a facility in any residential zoning district, the extent to which there is a demonstrated public need for the facility at the proposed locations, the existence of alternative, functionally suitable sites in nonresidential locations, the character of the prevailing uses in the area, and the prevalence of other existing mechanical systems and equipment carried on or above the roof of nearby structures. The Board of Zoning Appeal shall grant a special permit to erect such a facility in a residential zoning district only upon a finding that nonresidential uses predominate in the vicinity of the proposed facility's location and that the telecommunications facility is not inconsistent with the character that does prevail in the surrounding neighborhood.**

This is not applicable to the Proposed Facility. The Applicant proposes to install its facility within the BA zoning district.

B. The Applicant complies with the Special Permit Criteria set forth in Section 10-43 of the Ordinance²:

1. The requirements of the Ordinance can be met:

As provided above, the Applicant has met the requirements set forth in Section 4.32(g), footnote 49 of the Ordinance.

2. Traffic generated or patterns of access or egress would not cause congestion hazard, or substantial change in established neighborhood character for the following reasons:

The proposed installation will not obstruct existing rights-of-way or pedestrian access and will not change the daily conditions of access, egress, traffic, congestion hazard, or character of the neighborhood. The installation will not require the addition of any new parking or loading spaces. The use is passive and will not change the current conditions or appearance surrounding the Building. The facility will not produce any odors, fumes, noise or waste. There will be no need for water, sewer, or other municipal services.

As mentioned above, once modified, the facility will be unmanned and will only require infrequent visits by a technician, typically two times per month for routine diagnostics and/or maintenance, except in cases of emergency. These infrequent visits will not result in any material increase in traffic or disruption to patterns of access or egress that will cause congestion hazards or cause a substantial change in the established neighborhood character. The Applicant's maintenance personnel will make use of the existing access roads and parking at the Building.

3. The continued operation of or the development of adjacent uses as permitted in the Zoning Ordinance would not be adversely affected by the nature of the proposed use for the following reasons:

As described above and illustrated on the attached photograph simulations, the modification of the existing facility will produce a minimal change in the appearance of the Building. The modification of the existing facility will blend with the existing characteristics of the Building and the surrounding neighborhood. Moreover, the proposed installation will not generate any traffic, smoke, dust, heat, glare, discharge of noxious substances, nor will it pollute waterways or groundwater. Conversely, the surrounding properties and general public will benefit from the potential to enjoy improved wireless communication.

² Pursuant to Section 6409(a) of the Spectrum Act, state and local governments "may not deny and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station." As such, the Applicant submits that they need not apply for a special permit from the board. To the extent that this Board determines that the Applicants' proposed wireless facility must comply with special permit requirements set forth in Section 10-43 of the Ordinance, the Applicants submit that they have complied with said requirements, without waiving the argument that such relief is not required.

4. Nuisance or hazard would not be created to the detriment of the health, safety, and/or welfare of the occupant of the proposed use or the citizens of the City for the following reasons:

The operations of the proposed telecommunications facility will not adversely impact the health, safety, and the welfare of the residents of the City of Cambridge. On the contrary, the proposed use will benefit the City and promote the safety and welfare of its residents, businesses and drivers by providing reliable state-of-the-art digital wireless voice and data services. Further, the site will improve the reliability of emergency communications with the police and fire departments by eliminating dropped or blocked calls due to inadequate signal strength or insufficient network capacity to handle call volume, particularly important during emergency situations.

The Proposed Facility will comply with all federal, state and local safety requirements including the standards established by the FCC, Federal Aviation Administration (FAA), the American Standards Institute (ANSI), and the Massachusetts Department of Public Health (MDPH).

Accordingly, the Proposed Facility will not adversely impact the health, safety and/or welfare of the neighborhood or the residents of the City of Cambridge.

5. For other reasons, the proposed installation will not impair the integrity of the district or adjoining district or otherwise derogate from the intent or purpose of this ordinance for the following reasons:

The Proposed Facility is designed to blend with the existing characteristics of the Property, reducing any visual impacts to the surrounding area. Accordingly, the Proposed Facility's design results in a minimal impact on the underlying and adjacent zoning district and is consistent with the Ordinance's intention to allow for less intrusive wireless telecommunications facilities in all districts (other than Open Space), including the BA zoning districts.

As mentioned above, the proposed modifications to the existing installation will not generate any traffic, smoke, dust, heat, glare, discharge or noxious substances, nor will it pollute waterways or groundwater.

6. The new use of the building construction is consistent with the Urban Design Objective set for in Section 19.30 of the Ordinance:

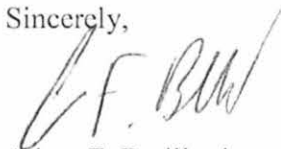
Not Applicable. The Applicant is not proposing to construct a new building or structure.

IV. Summary

The Applicant hereby requests that the Board determine that the City of Cambridge has the right to authorize the construction of the Proposed Facility through the issuance of a Building Permit, pursuant to Section 6409(a) of the Spectrum Act. Or, in the alternative, its proposed modifications to the existing telecommunications facility will not have any adverse effect on the neighborhood within which the Property is located in particular, and the City of Cambridge as a whole. The findings are made in view of the particular characteristics of the Property and of the Applicant's proposed siting and equipment, as detailed above. This Property is the most appropriate location for the installation and operation of the wireless communications facility.

For the foregoing reasons the Applicant respectfully requests that the Board grant the foregoing relief pursuant to Section 6409(a) of the Spectrum Act or, in the alternative, zoning relief in the form of a Special Permit and such other relief as the Board deems necessary to allow the installation and operation of the Applicant's Proposed Facility.

Sincerely,



Adam F. Braillard

Direct: 617-456-8153

Email: abraillard@princelobel.com

May 29, 2019

City of Cambridge
Board of Zoning Appeals
831 Massachusetts Avenue
Cambridge, MA 02139

Re: Eligible Facilities Request pursuant to Section 6409 of the
Spectrum Act and an Application for Special Permit, in the
alternative
Property Address: 1221 Cambridge Street
Assessor's Map 82, Lot 8 (the "**Property**")
Applicant: T-Mobile Northeast LLC (the "**Applicant**")

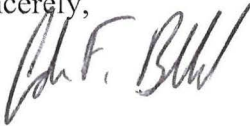
Dear Honorable Members of the Board of Zoning Appeals:

This firm represents the Applicant in connection with an application for a special permit from the City of Cambridge Board of Zoning Appeals, to modify an existing wireless communications facility on the Property.

Enclosed, in connection with this application, please find three (3) application packages along with an application filing fee in the amount of \$500.00 made payable to the City of Cambridge.

Please contact me with any questions or if you need additional information. Thank you for your attention to this matter.

Sincerely,



Adam F. Braillard
Direct: 617-456-8153
Email: abraillard@princelobel.com

Prince Lobel Tye LLP
One International Place
Suite 3700
Boston, MA 02110
TEL: 617 456 8000
FAX: 617 456 8100

www.princelobel.com

J. LEE ASSOCIATES

17536

Vendor 1045 City of Cambridge Check 17536 05/21/19

Trx No	Invoice No	Inv Date	Description	Gross	Discount	Check Amount
8842		05/21/19		500.00		500.00
				500.00		500.00

THE REVERSE SIDE OF THIS DOCUMENT INCLUDES MICROPRINTED ENDORSEMENT LINES AND ARTIFICIAL WATERMARK - HOLD AT AN ANGLE TO VIEW



420 NORTHBORO ROAD CENTRAL
MARLBOROUGH, MA 01752
508-597-1330

PEOPLE'S UNITED
51-7218/2211

CHECK NO. 17536
17536

*****FIVE HUNDRED DOLLARS AND 00 CENTS*****

DATE AMOUNT

05/21/19 *****500.00

CITY OF CAMBRIDGE

PAY
TO THE
ORDER
OF

MEMO: 4DE7031B Zoning Application

[Signature]
AUTHORIZED SIGNATURE



⑈017536⑈ ⑆221172186⑆ 0035409261⑈

**APPLICATION FOR RELIEF UNDER
SECTION 6409(a) OF THE SPECTRUM ACT
OR FOR SPECIAL PERMIT
For a Modification to a
WIRELESS COMMUNICATION FACILITY**

T-Mobile Northeast LLC

**c/o Adam F. Braillard, Esq.
Prince Lobel Tye LLP
One International Place, Suite 3700
Boston, MA 02110**

Applicant

**Property Location:
1221 Cambridge Street
Cambridge, MA 02139
Map 82, Lot 8**

**Prepared by: Adam F. Braillard, Esq.
Prince Lobel Tye LLP
One International Place, Suite 3700
Boston, MA 02110
Telephone: (617) 456-8153
Facsimile: (617) 456-8100**

May 21, 2019

TABLE OF CONTENTS

APPLICATION TO THE BOARD OF ZONING APPEALS For Relief under Section 6409 of the Spectrum Act Or For a Special Permit for a WIRELESS COMMUNICATION FACILITY

Property located at:

**1221 Cambridge Street
Cambridge, MA 02139**

Map 82, Lot 8

Board of Zoning Appeals Special Permit Application	Tab 1
Zoning Supporting Statement	Tab 2
Plans	Tab 3
Photograph Simulations	Tab 4
FCC License	Tab 5
Previous Decisions	Tab 6
Eligible Facilities Request	Tab 7

1

BZA APPLICATION FORM

CHECK LIST

PROPERTY LOCATION: 1221 Cambridge Street DATE: 5/21/19

PETITIONER OR REPRESENTATIVE: Adam F. Braillard Esq. for T-Mobile Northeast LLC

ADDRESS & PHONE: One International Place, Suite 3700, Boston, MA 02110

BLOCK: 82 LOT: 8

PLEASE CHECK THAT YOU HAVE INCLUDED THE FOLLOWING WITH YOUR APPLICATION. APPLICATIONS WILL NOT BE ACCEPTED FOR PROCESSING & SCHEDULING UNLESS ALL REQUIRED DOCUMENTS ARE PROVIDED.

PLEASE INCLUDE THIS CHECKLIST WITH YOUR APPLICATION.
ALL DOCUMENTS ARE TO BE TYPED OR WRITTEN LEGIBLY.

<u>DOCUMENTS</u>	<u>REQUIRED</u>	<u>ENCLOSED</u>
Application Form	<u>X</u>	<u>X</u>
3 Forms with Original Signatures		
Supporting Statements - Scanned & 1 set to Zoning	<u>X</u>	<u>X</u>
Application Fee (You will receive invoice online)	<u>X</u>	<u>X</u>
Assessor's GIS "Block Map" (Available on line or At Engineering Dept. - 147 Hampshire Street)	<u>X</u>	<u>X</u>
Dimensional Form - Refer to Cambridge Zoning Ordinance - Scanned & 1 set to Zoning (Subject to further review by Zoning Specialist)	<u>X</u>	<u>X</u>
Ownership Certificate, Notarized - Scanned & 1 set to Zoning	<u>X</u>	<u>X</u>
Floor Plans - Scanned & 1 set to Zoning	<u>X</u>	<u>X</u>
Elevations - Scanned & 1 set to Zoning	<u>X</u>	<u>X</u>
Certified Plot Plan - Scanned & 1 set to Zoning (By Registered Land Surveyor)	<u>N/A</u>	<u>N/A</u>
Photographs of Property - Scanned & 1 set to Zoning	<u>X</u>	<u>X</u>
Parking Plan (if relevant to your application) Scanned & 1 set to Zoning	<u>N/A</u>	<u>N/A</u>
<u>FOR SUBDIVISION ALSO INCLUDE:</u> Scanned & 1 set to Zoning		
Proposed Deeds	<u>N/A</u>	<u>N/A</u>
Evidence of Separate Utilities **	<u>N/A</u>	<u>N/A</u>
Proposed Subdivision Plan	<u>N/A</u>	<u>N/A</u>

Petitioners are advised to refer to Attachment A (Procedures for applying to the Board of Zoning Appeal) & consult zoning staff for review.

It is advisable for the Petitioner to discuss the petition with the abutters as listed in the Zoning BZA Case file.

* For Special Permits under Art. 4.32.G.1 (Communication Towers and Antennas), include a photo simulation.

** Can be submitted after subdivision has been approved.

BZA APPLICATION FORM - OWNERSHIP INFORMATION

To be completed by OWNER, signed before a notary and returned to The Secretary of the Board of Zoning Appeals.

I/We Jane Carbone (OWNER)

Address: 280 Franklin St. Cambridge

State that I/We own the property located at 1221 Camb St., which is the subject of this zoning application.

The record title of this property is in the name of Inman Cast LLC

*Pursuant to a deed of duly recorded in the date 4/1/2011, Middlesex South County Registry of Deeds at Book 1398, Page 19; or Middlesex Registry District of Land Court, Certificate No. _____ Book _____ Page _____.

Jane Carbone
SIGNATURE BY LAND OWNER OR
AUTHORIZED TRUSTEE, OFFICER OR AGENT*

*Written evidence of Agent's standing to represent petitioner may be requested.

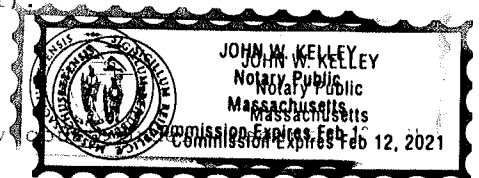
Commonwealth of Massachusetts, County of MIDDLESEX

The above-name JANE CARBONE personally appeared before me, this 22ND of MAY, 2019, and made oath that the above statement is true.

John W. Kelley Notary

My commission expires FEB 12, 2021 (Notary Seal).

- If ownership is not shown in recorded deed, e.g. if by deed, or inheritance, please include documentation.



BZA APPLICATION FORM
DIMENSIONAL INFORMATION

APPLICANT: T-Mobile Northeast **PRESENT USE/OCCUPANCY:** Wireless Telecommunications

LOCATION: 1221 Cambridge Street **ZONE:** BA

PHONE: 617-456-8153 **REQUESTED USE/OCCUPANCY:** Wireless Telecommunications

	<u>EXISTING CONDITIONS</u>	<u>REQUESTED CONDITIONS</u>	<u>ORDINANCE REQUIREMENTS¹</u>
<u>TOTAL GROSS FLOOR AREA:</u>	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (max.)
<u>LOT AREA:</u>	<u>N/A</u>		<u>N/A</u> (min.)
<u>RATIO OF GROSS FLOOR AREA TO LOT AREA:²</u>	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (max.)
<u>LOT AREA FOR EACH DWELLING UNIT:</u>	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (min.)
<u>SIZE OF LOT:</u>			
WIDTH	<u>N/A</u>		<u>N/A</u> (min.)
DEPTH			
<u>Setbacks in Feet:</u>			
FRONT	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (min.)
REAR	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (min.)
LEFT SIDE	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (min.)
RIGHT SIDE	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (min.)
<u>SIZE OF BLDG.:</u>			
HEIGHT	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (max.)
LENGTH			
WIDTH			
<u>RATIO OF USABLE OPEN SPACE TO LOT AREA:³</u>	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (min.)
<u>NO. OF DWELLING UNITS:</u>	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (max.)
<u>NO. OF PARKING SPACES:</u>	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (min./max)
<u>NO. OF LOADING AREAS:</u>	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (min.)
<u>DISTANCE TO NEAREST BLDG. ON SAME LOT:</u>	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (min.)

Describe where applicable, other occupancies on same lot, the size of adjacent buildings on same lot, and type of construction proposed, e.g.; wood frame, concrete, brick, steel, etc.

The proposed installation involves a modification of an existing Wireless Telecommunications Facility,

more commonly referred to as a "collocation".

1. SEE CAMBRIDGE ZONING ORDINANCE ARTICLE 5.000, SECTION 5.30 (DISTRICT OF DIMENSIONAL REGULATIONS).
2. TOTAL GROSS FLOOR AREA (INCLUDING BASEMENT 7'-0" IN HEIGHT AND ATTIC AREAS GREATER THAN 5') DIVIDED BY LOT AREA.
3. OPEN SPACE SHALL NOT INCLUDE PARKING AREAS, WALKWAYS OR DRIVEWAYS AND SHALL HAVE A MINIMUM DIMENSION OF 15'.

BZA APPLICATION FORM

SUPPORTING STATEMENT FOR A VARIANCE

EACH OF THE FOLLOWING REQUIREMENTS FOR A VARIANCE MUST BE ESTABLISHED AND SET FORTH IN COMPLETE DETAIL BY THE APPLICANT IN ACCORDANCE WITH MGL 40A, SECTION 10:

- A)** A Literal enforcement of the provisions of this Ordinance would involve a substantial hardship, financial or otherwise, to the petitioner or appellant for the following reasons:

N/A

- B)** The hardship is owing to the following circumstances relating to the soil conditions, shape or topography of such land or structures and especially affecting such land or structures but not affecting generally the zoning district in which it is located for the following reasons:

N/A

- C)** **DESIRABLE RELIEF MAY BE GRANTED WITHOUT EITHER:**

- 1)** Substantial detriment to the public good for the following reasons:

N/A

- 2)** Relief may be granted without nullifying or substantially derogating from the intent or purpose of this Ordinance for the following reasons:

N/A

- *** If You have any questions as to whether you can establish all of the applicable legal requirements, you should consult with your own attorney.

BZA APPLICATION FORM

SUPPORTING STATEMENT FOR A SPECIAL PERMIT

Please describe in complete detail how you meet each of the following criteria referring to the property and proposed changes or uses which are requested in your application. Attach sheets with additional information for special permits which have additional criteria, e.g.; fast food permits, comprehensive permits, etc., which must be met.

Granting the Special Permit requested for 1221 Cambridge Street (location) would not be a detriment to the public interest because:

- A) Requirements of the Ordinance can or will be met for the following reasons:

Please see the attached supporting statement.

- B) Traffic generated or patterns of access or egress would not cause congestion hazard, or substantial change in established neighborhood character for the following reasons:

Please see the attached supporting statement.

- C) The continued operation of or the development of adjacent uses as permitted in the Zoning Ordinance would not be adversely affected by the nature of the proposed use for the following reasons:

Please see the attached supporting statement.

- D) Nuisance or hazard would not be created to the detriment of the health, safety and/or welfare of the occupant of the proposed use or the citizens of the City for the following reasons:

Please see the attached supporting statement.

- E) For other reasons, the proposed use would not impair the integrity of the district or adjoining district or otherwise derogate from the intent or purpose of this ordinance for the following reasons:

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May 21, 2019

City of Cambridge
Board of Zoning Appeals
831 Massachusetts Avenue
Cambridge, MA 02139

Re: Eligible Facilities Request pursuant to Section 6409 of the
Spectrum Act and an Application for Special Permit, in the
alternative
Property Address: 1221 Cambridge Street
Assessor's Map 82, Lot 8 (the "Property")
Applicant: T-Mobile Northeast LLC (the "Applicant")

Dear Honorable Members of the Board of Zoning Appeals:

This firm represents T-Mobile Northeast LLC ("T-Mobile") (hereinafter, the "Applicant") in connection with an application for a special permit from the City of Cambridge Board of Zoning Appeals (the "Board"), to modify an existing wireless communications facility on the Property. The Property is located in the Business A (BA) zoning district. To the extent that the Board determines that the requirements of Article 4 Section 4.32G.1 of the City of Cambridge Zoning Ordinance (the "Ordinance") apply, the use of the Property for a wireless telecommunications facility is permitted by special permit from the Board¹. The Applicant's proposal satisfies the requirements for the grant of a special permit pursuant to Section 10-43 of the Ordinance.

The Applicant's Proposed Facility (as defined herein) is subject to Section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012, more commonly known as the "Spectrum Act" (47 U.S.C. § 1455). As such, we respectfully submit that in the event that the Board determines that the application does not comply with the Spectrum Act, the Applicant hereby states that the special permit requirements set forth in the Ordinance are hereby met by the Applicant, and that relief must be granted to the Applicant. The compliance with the Spectrum Act is shown on the Eligible Facilities Request permit application form attached hereto and incorporated herein by reference (the "EFR").

¹ Pursuant to Section 6409(a) of the Spectrum Act, state and local governments "may not deny and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station." As such, the Applicant submits that they need not apply for a special permit from the board. To the extent that this Board determines that the Applicants' proposed wireless facility must comply with special permit requirements set forth in Section 10-43 of the Ordinance, the Applicants submit that they have complied with said requirements, without waiving the argument that such relief is not required.

Prince Lobel Tye LLP
One International Place
Suite 3700
Boston, MA 02110
TEL: 617 456 8000
FAX: 617 456 8100

www.princelobel.com

The Applicant seeks to modify its existing wireless communications facility by replacing three (3) panel antennas mounted to the façade of the existing building, with three (3) like kind panel antennas, and by replacing three (3) Remote Radio Head Units (“RRU”) with three (3) like kind RRU antennas, and supporting equipment (the “Proposed Facility”). All of the proposed antennas will be installed in the location of the removed antennas and painted to match the existing building (the “Building”). The Applicant’s facilities are shown on the Plans attached hereto and incorporated herein by reference (the “Plans”).

I. Background

The Applicant is licensed by the Federal Communications Commission (the “FCC”) to construct and operate a wireless telecommunications network in various markets throughout the country, including the Commonwealth of Massachusetts and in particular in the City of Cambridge. A copy of the Applicant’s FCC license is attached hereto. The Applicant is in the process of designing and constructing a telecommunications system to serve all of the Commonwealth of Massachusetts. One of the key design objectives of its systems is to provide seamless coverage. Such a system requires a grid of radio transmitting and receiving links located approximately .5 to 2 miles apart, depending on the location of existing and proposed installations in the surrounding area, the existing use of the network and the existing topography. The radio transmitting and receiving facilities operate on a line-of-sight basis, requiring a clear path from the facility to the user on the ground. This dynamic requires the antennas to be located in a location where the signal is not obstructed or degraded by other buildings or by topographical features such as hills.

II. Project Description

As noted above, the Applicant proposes to modify its existing wireless facility currently operating on the rooftop of the Building by replacing three (3) panel antennas, façade mounted to the existing Building, with three (3) like kind panel antennas, and by replacing three (3) RRUs with three (3) like kind RRUs. All replaced antennas and supporting equipment will be painted to match the Building. Moreover, all replacement antennas will be installed to be consistent with the previous decisions of the Board for this facility, the first of which is dated August 9, 2006 (Case No. 9306) (the “Original Decision”), the second dated November 16, 2012 (Case No. 10325) (the “2nd Decision”) and the third dated November 1, 2016 (Case No. BZA-011008-2016) (the “3rd Decision”) (together, the Original Decision, the 2nd Decision and the 3rd Decision shall hereafter be referred to as the “Decisions”). Consequently, the visual change to the Applicant’s existing facility will be de minimus.

After installation, the Proposed Facility will be unmanned and will only require twice a month maintenance visits per carrier. The only utilities required to operate this Proposed Facility are standard 120-volt electrical power as well as telephone service. These are presently in place at the Property. The traffic generated by the Proposed Facility will be approximately two vehicle trips per month by maintenance personnel who will inspect the Proposed Facility to ensure it remains in good working order. The Proposed Facility will comply with all applicable local, state and federal safety codes.

III. Legal Arguments

A. The Applicant complies with the Wireless Communications provisions set forth in Section 4.32(g), footnote 49 of the Ordinance

Pursuant to Section 4.32(g) of the Ordinance, the Applicant's proposed use for a wireless communications facility in the BA zoning district is permitted by special permit. The Applicant's Proposed Facility further complies with the provisions set forth in Section 4.32(g), footnote 49 of the Ordinance:

1. **The Board of Zoning Appeal shall consider the scope of or limitations imposed by any license secured from any state or federal agency having jurisdiction over such matters.**

Enclosed herewith is the Applicant's FCC license. The Applicant meets all requirements imposed by governmental authorities having jurisdiction over the Proposed Facility, including by the FCC, to provide wireless communications in this market area.

The intent of the U.S. Congress, when it enacted the Telecommunications Act of 1996 ("TCA") was to institute a framework to promote competition and innovation within the telecommunications industry. Under its license from the FCC, T-Mobile is obligated to provide a reliable "product" (i.e. wireless communications service) to the population of the City of Cambridge. Likewise, consumer expectations for increasingly robust and reliable service requires competing service providers (including T-Mobile) to identify and remedy existing gaps in reliable network coverage, or gaps that result from increasing subscriber voice and data traffic beyond the limits of existing network infrastructure. A carrier's failure to remedy network gaps in a timely fashion can result in a significant loss of subscribers to competing telecommunications carriers. The Proposed Facility and corresponding relief requested are necessary to remedy a gap in reliable service coverage within T-Mobile's existing network infrastructure.

T-Mobile investigated alternative sites in and around the defined geographic area within which its engineers determined that a facility must be located to fill the gap in service coverage and to function effectively within its network of existing and planned facilities. This is an existing location that is being upgraded with new technology to provide the necessary coverage to the subject area of the City of Cambridge. Therefore, the Proposed Facility in the BA zoning district is necessary to close the coverage gap that is illustrated on the propagation maps submitted herewith. Consequently, T-Mobile is unable to close a gap in its wireless network without obtaining the requested relief under Section 6409 of the Spectrum act or a Special Permit to modify its existing wireless facility in the BA zoning district.

Furthermore, Section 6409(a) of the Spectrum Act mandates that state and local governments "*may not deny, and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station.*" Under Section 6409(a)(2)(A)-(C) an Eligible

Facilities Request is any request to modify a Tower or Base Station that involves “collocations of new Transmission Equipment,” “removal,” or “replacement” of Transmission Equipment.

Because federal law now preempts many of the permit application requirements that this jurisdiction would previously have required from an Applicant, we have provided, on the attached EFR, only the information that federal law allows this jurisdiction to consider when reviewing an EFR. As such, we submit that the Wireless Communications set forth in Section 4.32(g), footnote 49 of the Ordinance, provisions are not applicable to Proposed Facility and relief must be granted pursuant to Section 6409(a) of the Spectrum Act.

- 2. The Board of Zoning Appeal shall consider the extent to which the visual impact of the various elements of the proposed facility is minimized: (1) through the use of existing mechanical elements on the building’s roof or other features of the building as support and background, (2) through the use in materials that in texture and color blend with the materials to which the facilities are attached, or (3) other effective means to reduce the visual impact of the facility on the site.**

The Applicant’s Proposed Facility has no additional visual impact on the existing facility and Building. The Proposed Facility will be installed entirely within the existing faux chimney and as such will have no change on the existing visual conditions of the Building.

As stated above, federal law now preempts many of the permit applications requirements that the Ordinance sets forth. To the extent that this Board determines that the Applicants’ proposed wireless facility must comply with the Wireless Communications provisions set forth in Section 4.32(g), footnote 49 of the Ordinance, the Applicants submit that they have complied with said requirements, without waiving the argument that such relief is not required.

- 3. Where it is proposed to erect such a facility in any residential zoning district, the extent to which there is a demonstrated public need for the facility at the proposed locations, the existence of alternative, functionally suitable sites in nonresidential locations, the character of the prevailing uses in the area, and the prevalence of other existing mechanical systems and equipment carried on or above the roof of nearby structures. The Board of Zoning Appeal shall grant a special permit to erect such a facility in a residential zoning district only upon a finding that nonresidential uses predominate in the vicinity of the proposed facility’s location and that the telecommunications facility is not inconsistent with the character that does prevail in the surrounding neighborhood.**

This is not applicable to the Proposed Facility. The Applicant proposes to install its facility within the BA zoning district.

B. The Applicant complies with the Special Permit Criteria set forth in Section 10-43 of the Ordinance²:

1. The requirements of the Ordinance can be met:

As provided above, the Applicant has met the requirements set forth in Section 4.32(g), footnote 49 of the Ordinance.

2. Traffic generated or patterns of access or egress would not cause congestion hazard, or substantial change in established neighborhood character for the following reasons:

The proposed installation will not obstruct existing rights-of-way or pedestrian access and will not change the daily conditions of access, egress, traffic, congestion hazard, or character of the neighborhood. The installation will not require the addition of any new parking or loading spaces. The use is passive and will not change the current conditions or appearance surrounding the Building. The facility will not produce any odors, fumes, noise or waste. There will be no need for water, sewer, or other municipal services.

As mentioned above, once modified, the facility will be unmanned and will only require infrequent visits by a technician, typically two times per month for routine diagnostics and/or maintenance, except in cases of emergency. These infrequent visits will not result in any material increase in traffic or disruption to patterns of access or egress that will cause congestion hazards or cause a substantial change in the established neighborhood character. The Applicant's maintenance personnel will make use of the existing access roads and parking at the Building.

3. The continued operation of or the development of adjacent uses as permitted in the Zoning Ordinance would not be adversely affected by the nature of the proposed use for the following reasons:

As described above and illustrated on the attached photograph simulations, the modification of the existing facility will produce a minimal change in the appearance of the Building. The modification of the existing facility will blend with the existing characteristics of the Building and the surrounding neighborhood. Moreover, the proposed installation will not generate any traffic, smoke, dust, heat, glare, discharge of noxious substances, nor will it pollute waterways or groundwater. Conversely, the surrounding properties and general public will benefit from the potential to enjoy improved wireless communication.

² Pursuant to Section 6409(a) of the Spectrum Act, state and local governments "may not deny and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station." As such, the Applicant submits that they need not apply for a special permit from the board. To the extent that this Board determines that the Applicants' proposed wireless facility must comply with special permit requirements set forth in Section 10-43 of the Ordinance, the Applicants submit that they have complied with said requirements, without waiving the argument that such relief is not required.

4. Nuisance or hazard would not be created to the detriment of the health, safety, and/or welfare of the occupant of the proposed use or the citizens of the City for the following reasons:

The operations of the proposed telecommunications facility will not adversely impact the health, safety, and the welfare of the residents of the City of Cambridge. On the contrary, the proposed use will benefit the City and promote the safety and welfare of its residents, businesses and drivers by providing reliable state-of-the-art digital wireless voice and data services. Further, the site will improve the reliability of emergency communications with the police and fire departments by eliminating dropped or blocked calls due to inadequate signal strength or insufficient network capacity to handle call volume, particularly important during emergency situations.

The Proposed Facility will comply with all federal, state and local safety requirements including the standards established by the FCC, Federal Aviation Administration (FAA), the American Standards Institute (ANSI), and the Massachusetts Department of Public Health (MDPH).

Accordingly, the Proposed Facility will not adversely impact the health, safety and/or welfare of the neighborhood or the residents of the City of Cambridge.

5. For other reasons, the proposed installation will not impair the integrity of the district or adjoining district or otherwise derogate from the intent or purpose of this ordinance for the following reasons:

The Proposed Facility is designed to blend with the existing characteristics of the Property, reducing any visual impacts to the surrounding area. Accordingly, the Proposed Facility's design results in a minimal impact on the underlying and adjacent zoning district and is consistent with the Ordinance's intention to allow for less intrusive wireless telecommunications facilities in all districts (other than Open Space), including the BA zoning districts.

As mentioned above, the proposed modifications to the existing installation will not generate any traffic, smoke, dust, heat, glare, discharge or noxious substances, nor will it pollute waterways or groundwater.

6. The new use of the building construction is consistent with the Urban Design Objective set for in Section 19.30 of the Ordinance:

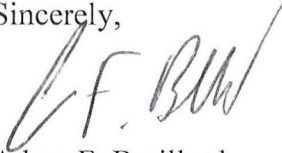
Not Applicable. The Applicant is not proposing to construct a new building or structure.

IV. Summary

The Applicant hereby requests that the Board determine that the City of Cambridge has the right to authorize the construction of the Proposed Facility through the issuance of a Building Permit, pursuant to Section 6409(a) of the Spectrum Act. Or, in the alternative, its proposed modifications to the existing telecommunications facility will not have any adverse effect on the neighborhood within which the Property is located in particular, and the City of Cambridge as a whole. The findings are made in view of the particular characteristics of the Property and of the Applicant's proposed siting and equipment, as detailed above. This Property is the most appropriate location for the installation and operation of the wireless communications facility.

For the foregoing reasons the Applicant respectfully requests that the Board grant the foregoing relief pursuant to Section 6409(a) of the Spectrum Act or, in the alternative, zoning relief in the form of a Special Permit and such other relief as the Board deems necessary to allow the installation and operation of the Applicant's Proposed Facility.

Sincerely,

A handwritten signature in dark ink, appearing to read 'A.F. Braillard', is written over the typed name.

Adam F. Braillard

Direct: 617-456-8153

Email: abraillard@princelobel.com

3

B0031/1221 CAMBRIDGE STREET

1221 CAMBRIDGE STREET
CAMBRIDGE, MA 02139

SITE NO.: 4DE7031B

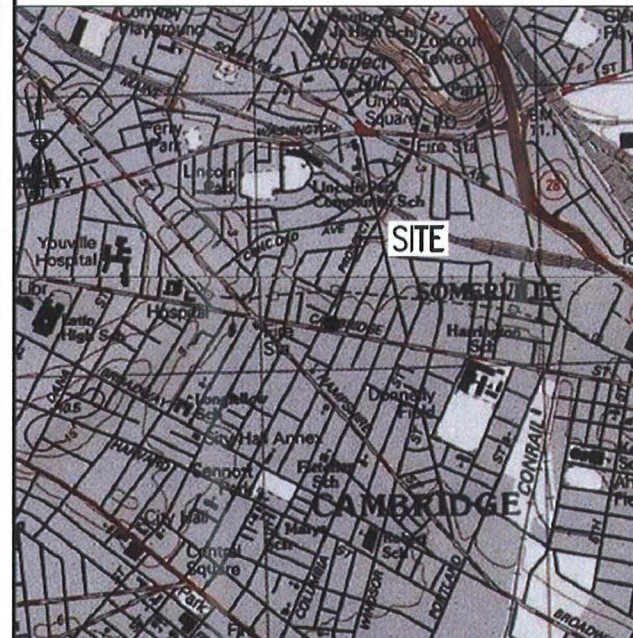
SITE TYPE: L700 4x2 - 67D92D UPGRADE

GENERAL NOTES

1. 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.
2. 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.
3. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE PROJECT OWNER'S 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.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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.
10. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY CONSTRUCTION CONTROL SURVEYS, ESTABLISHING AND MAINTAINING ALL LINES AND GRADES REQUIRED TO CONSTRUCT ALL IMPROVEMENTS AS SHOWN HEREIN.
11. 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.
12. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBS, 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.
13. 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 SHADES OF ANY NATURE.
14. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.
15. THE CONTRACTOR SHALL NOTIFY THE PROJECT OWNER'S 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 PROJECT OWNER'S REPRESENTATIVE.
16. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE JOB.
17. 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 (CT): 1-800-922-4455

VICINITY MAP:

1"=1000'



DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE PROJECT OWNER'S REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SHEET INDEX

SHT. NO.	DESCRIPTION	VER.
T-1	TITLE SHEET	2
GN-1	GENERAL NOTES	2
A-1	ROOF PLAN	2
A-2	ELEVATIONS	2
A-3	ANTENNA DETAILS	2
A-4	EQUIPMENT PLAN	2
S-1	STRUCTURAL DETAILS	2
E-1	ELECTRIC & GROUNDING DETAILS	2

PROJECT SUMMARY

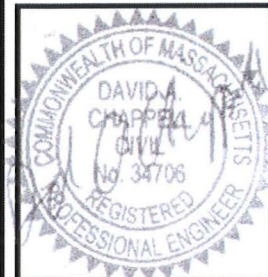
SITE NUMBER: 4DE7031B
SITE NAME: B0031/1221 CAMBRIDGE STREET
SITE ADDRESS: 1221 CAMBRIDGE STREET
CAMBRIDGE, MA 02139
ASSESSOR'S PARCEL NO.: 84-20
ZONING DISTRICT: BA (BUSINESS A)
CONSTRUCTION TYPE: SITE UPGRADE L700 4x2
LESSOR: INMAN SQUARE APARTMENTS COMPANY
1221 CAMBRIDGE STREET
CAMBRIDGE, MA 02139
APPLICANT: T-MOBILE NORTHEAST LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
ARCHITECT: CHAPPELL ENGINEERING ASSOCIATES, LLC
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752
STRUCTURAL ENGINEER: CHAPPELL ENGINEERING ASSOCIATES, LLC
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752

..T..Mobile..

T-MOBILE NORTHEAST LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
OFFICE: (508) 286-2700

CHAPPELL
ENGINEERING
ASSOCIATES, LLC
Civil • Structural • Land Surveying

R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST
SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com



APPROVALS

LESSOR _____
LEASING _____
R.F. _____
ZONING _____
CONSTRUCTION _____
A/E _____

PROJECT NO: 4DE7031B

DRAWN BY: MAM

CHECKED BY: JMT

VERSION

NO.	DATE	DESCRIPTION
2	11/26/18	REVISED CONSTRUCTION
1	11/19/18	ISSUED FOR CONSTRUCTION
0	09/20/18	CONSTRUCTION REVIEW

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4DE7031B
B0031/1221
CAMBRIDGE STREET
1221 CAMBRIDGE STREET
CAMBRIDGE, MA 02139

SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR – T-MOBILE
SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
OWNER – T-MOBILE
OEM – ORIGINAL EQUIPMENT MANUFACTURER
2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.
4. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL, STATE AND FEDERAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
5. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CONTRACTOR.
9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER, T1 CABLES AND GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR AND/OR LANDLORD PRIOR TO CONSTRUCTION.
10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY.
12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION AND RETURN DISTURBED AREAS TO ORIGINAL CONDITIONS.
13. THE SUBCONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
14. SUBCONTRACTOR SHALL NOTIFY CHAPPELL ENGINEERING ASSOCIATES, LLC 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING TRENCHES, SEALING ROOF AND WALL PENETRATIONS AND POST DOWNS, FINISHING NEW WALLS OR FINAL ELECTRICAL CONNECTIONS FOR ENGINEERING REVIEW.
15. CONSTRUCTION SHALL COMPLY WITH ALL T-MOBILE STANDARDS AND SPECIFICATIONS.
16. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
17. THE EXISTING CELL SITES ARE IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
18. IF THE EXISTING CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.

SITE WORK GENERAL NOTES:

1. THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
2. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION.
3. ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.
4. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
5. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BITS EQUIPMENT AND TOWER AREAS.
6. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
7. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
8. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF ENGINEERING, OWNER AND/OR LOCAL UTILITIES.
9. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE AND STABILIZED TO PREVENT EROSION AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
10. SUBCONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
11. THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE T-MOBILE SPECIFICATION FOR SITE SIGNAGE.

CONCRETE AND REINFORCING STEEL NOTES:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. A HIGHER STRENGTH (400PSI) MAY BE USED. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 381 CODE REQUIREMENTS
3. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
4. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
CONCRETE CAST AGAINST EARTH.....3 IN.
CONCRETE EXPOSED TO EARTH OR WEATHER:
#6 AND LARGER2 IN.
#5 AND SMALLER & WWF1½ IN.
CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:
SLAB AND WALL¾ IN.
BEAMS AND COLUMNS½ IN.
5. A CHAMFER ¾" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
6. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHORS SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO THE MANUFACTURERS RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS. ALL EXPANSION/WEDGE ANCHORS SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED. EXPANSION BOLTS SHALL BE PROVIDED BY SIMPSON OR APPROVED EQUAL.
7. CONCRETE CYLINDER TIES ARE NOT REQUIRED FOR SLAB ON GRADE WHEN CONCRETE IS LESS THAN 50 CUBIC YARDS (IBC1905.6.2.2.3) IN THAT EVENT THE FOLLOWING RECORDS SHALL BE PROVIDED BY THE CONCRETE SUPPLIER:
(A) RESULTS OF CONCRETE CYLINDER TEST PERFORMED AT THE SUPPLIERS PLANT.
(B) CERTIFICATION OF MINIMUM COMPRESSIVE STRENGTH FOR THE CONCRETE GRADE SUPPLIED.
FOR GREATER THAN 50 CUBIC YARDS THE GC SHALL PERFORM THE CONCRETE CYLINDER TEST.
8. AS AN ALTERNATIVE TO ITEM 7. TEST CYLINDERS SHALL BE TAKEN INITIALLY AND THEREAFTER FOR EVERY 50 YARDS OF CONCRETE FROM EACH DIFFERENT BATCH PLANT.
9. EQUIPMENT SHALL NOT BE PLACED ON NEW PADS FOR SEVEN DAYS AFTER PAD IS POURED, UNLESS IT IS VERIFIED BY CYLINDER TESTS THAT COMPRESSIVE STRENGTH HAS BEEN ATTAINED.

STRUCTURAL STEEL NOTES:

1. ALL STEEL WORK SHALL BE PAINTED OR GALVANIZED IN ACCORDANCE WITH THE DRAWINGS AND T-MOBILE SPECIFICATIONS UNLESS OTHERWISE NOTED. STRUCTURAL STEEL SHALL BE ASTM-A-36 UNLESS OTHERWISE NOTED ON THE SITE SPECIFIC DRAWINGS. STEEL DESIGN, INSTALLATION AND BOLTING SHALL BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "MANUAL OF STEEL CONSTRUCTION".
2. ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AWS D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 9TH EDITION. PAINTED SURFACES SHALL BE TOUCHED UP.
3. BOLTED CONNECTIONS SHALL USE BEARING TYPE ASTM A325 BOLTS (¾") AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE. ALL BOLTS SHALL BE GALVANIZED OR STAINLESS STEEL.
4. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE ¾" DIA. ASTM A 307 BOLTS (GALV) UNLESS NOTED OTHERWISE.
5. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER REVIEW & APPROVAL ON PROJECTS REQUIRING STRUCTURAL STEEL.
6. ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC SPECIFICATIONS.

SOIL COMPACTION NOTES FOR SLAB ON GRADE:

1. EXCAVATE AS REQUIRED TO REMOVE VEGETATION AND TOPSOIL TO EXPOSE NATURAL SUBGRADE AND PLACE CRUSHED STONE AS REQUIRED.
2. COMPACTION CERTIFICATION: AN INSPECTION AND WRITTEN CERTIFICATION BY A QUALIFIED GEOTECHNICAL TECHNICIAN OR ENGINEER IS ACCEPTABLE.
3. AS AN ALTERNATE TO INSPECTION AND WRITTEN CERTIFICATION, THE "UNDISTURBED SOIL" BASE SHALL BE COMPACTED WITH "COMPACTION EQUIPMENT", LISTED BELOW, TO AT LEAST 90% MODIFIED PROCTOR MAXIMUM DENSITY PER ASTM D 1557 METHOD C.
4. COMPACTED SUBBASE SHALL BE UNIFORM AND LEVELED. PROVIDE 6" MINIMUM CRUSHED STONE OR GRAVEL COMPACTED IN 3" LIFTS ABOVE COMPACTED SOIL. GRAVEL SHALL BE NATURAL OR CRUSHED WITH 100% PASSING #1 SIEVE.
5. AS AN ALTERNATE TO ITEMS 2 AND 3, THE SUBGRADE SOILS WITH 5 PASSES OR A MEDIUM SIZED VIBRATORY PLATE COMPACTOR (SUCH AS BOMAG BPR 30/38) OR HAND-OPERATED SINGLE DRUM VIBRATORY ROLLER (SUCH AS BOMAG BW 55E), AND SOFT AREAS THAT ARE ENCOUNTERED SHOULD BE REMOVED AND REPLACED WITH A WELL-GRADED GRANULAR FILL AND COMPACTED AS STATED ABOVE.

COMPACTION EQUIPMENT:

1. HAND OPERATED DOUBLE DRUM, VIBRATORY ROLLER, VIBRATORY PLATE COMPACTOR OR JUMPING JACK COMPACTOR.

CONSTRUCTION NOTES:

1. FIELD VERIFICATION:
SUBCONTRACTOR SHALL FIELD VERIFY SCOPE OF WORK, T-MOBILE ANTENNA PLATFORM LOCATION AND UTILITY TRENCHWORK.
2. COORDINATION OF WORK:
SUBCONTRACTOR SHALL COORDINATE RF WORK AND PROCEDURES WITH CONTRACTOR.
3. CABLE LADDER RACK:
SUBCONTRACTOR SHALL FURNISH AND INSTALL CABLE LADDER RACK, CABLE TRAY AND/OR ICE BRIDGE, AND CONDUIT AS REQUIRED TO SUPPORT CABLES TO THE NEW BITS LOCATION.

ELECTRICAL INSTALLATION NOTES:

1. WIRING, RACEWAY, AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.
2. SUBCONTRACTOR SHALL MODIFY OR INSTALL CABLE TRAY SYSTEM AS REQUIRED TO SUPPORT RF AND TRANSPORT CABLEING TO THE NEW BITS EQUIPMENT. SUBCONTRACTOR SHALL SUBMIT MODIFICATIONS TO CONTRACTOR FOR APPROVAL.
3. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC AND TELCORDIA.
4. CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
5. EACH END OF EVERY POWER, GROUNDING, AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA, AND MATCH INSTALLATION REQUIREMENTS.
6. POWER PHASE CONDUCTORS (I.E., HOTS) SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, ¾ INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). PHASE CONDUCTOR COLOR CODES SHALL CONFORM WITH THE NEC AND OSHA.
7. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANELBOARD AND CIRCUIT ID'S).
8. PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.
9. ALL THE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
10. POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#34 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
11. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#6 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2 GREEN INSULATION, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
12. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED OUTDOORS, OR BELOW GRADE, SHALL BE SINGLE CONDUCTOR #2 AWG SOLID TINNED COPPER CABLE, UNLESS OTHERWISE SPECIFIED.
13. POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#34 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; WITH OUTER JACKET; LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.
14. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRENUTS BY HARGER (OR EQUAL). LUGS AND WIRENUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75°C (90°C IF AVAILABLE).
15. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
16. NEW RACEWAY OR CABLE TRAY WILL MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
17. ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
18. ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
19. GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (MC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.
20. RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND; DIRECT BURIED, IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY VEHICLE TRAFFIC.
21. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
22. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SETSCREW FITTINGS ARE NOT ACCEPTABLE.
23. CABINETS, BOXES AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
24. CABINETS, BOXES AND WIREWAYS TO MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
25. WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
26. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
27. METAL RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED, OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
28. NONMETALLIC RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
29. THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
30. THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.
31. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
32. CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.

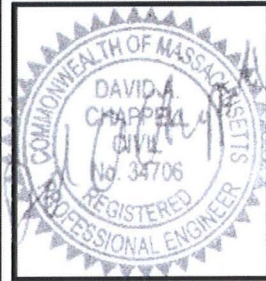
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APPROVALS

LESSOR _____
LEASING _____
R.F. _____
ZONING _____
CONSTRUCTION _____
A/E _____

PROJECT NO: 4DE7031B

DRAWN BY: MAM

CHECKED BY: JMT

VERSION

2	11/26/18	REVISED CONSTRUCTION
1	11/19/18	ISSUED FOR CONSTRUCTION
0	09/20/18	CONSTRUCTION REVIEW

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B0031/1221
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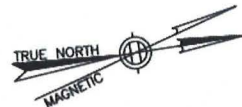
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GENERAL NOTES

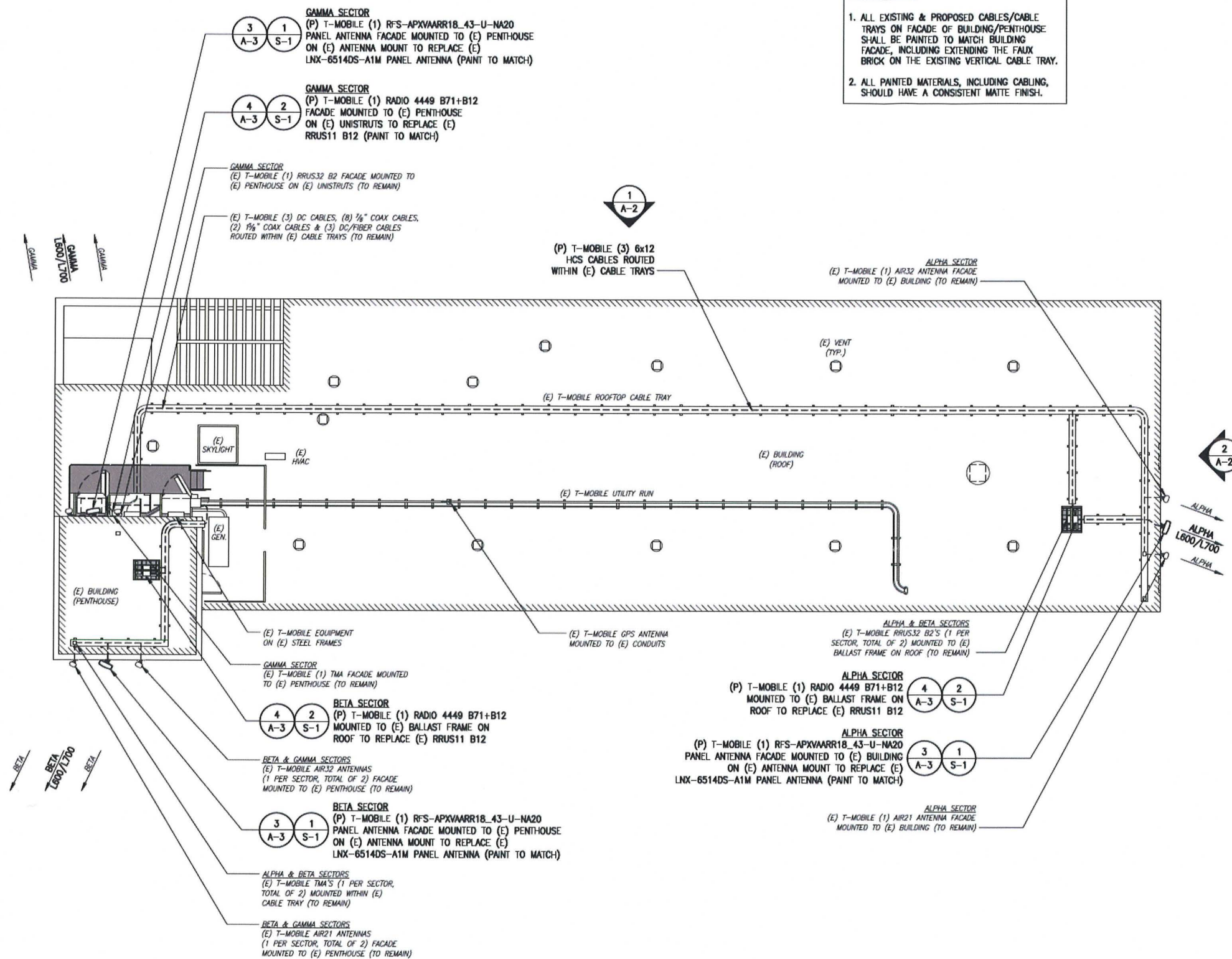
SHEET NUMBER

GN-1



PAINTING NOTES:

1. ALL EXISTING & PROPOSED CABLES/CABLE TRAYS ON FACADE OF BUILDING/PENTHOUSE SHALL BE PAINTED TO MATCH BUILDING FACADE, INCLUDING EXTENDING THE FAUX BRICK ON THE EXISTING VERTICAL CABLE TRAY.
2. ALL PAINTED MATERIALS, INCLUDING CABLING, SHOULD HAVE A CONSISTENT MATTE FINISH.



EQUIPMENT SCHEDULE

CURRENT EQUIPMENT

- THREE (3) ERICSSON AIR21 B2A/B4P ANTENNAS
- THREE (3) ERICSSON AIR32 B4A/B2P ANTENNAS
- THREE (3) COMMSCOPE LNX-6514DS-A1M 6' PANEL ANTENNAS
- THREE (3) UMS TMA'S
- THREE (3) RRUS11 B12
- THREE (3) RRUS32 B2
- THREE (3) DC CABLES
- EIGHT (8) 7/8" COAX CABLES
- TWO (2) 1 1/2" COAX CABLES
- THREE (3) DC/FIBER CABLES
- ONE (1) GPS ANTENNA AND ASSOCIATED 1/2" COAX CABLE
- ONE (1) ERICSSON RBS 2106 EQUIPMENT CABINET (DARK)
- ONE (1) ERICSSON RBS 6131 EQUIPMENT CABINET
- ONE (1) PURCELL CABINET
- ONE (1) NORTHERN TECHNOLOGIES 200A PPC CABINET

EQUIPMENT TO BE REMOVED

- THREE (3) COMMSCOPE LNX-6514DS-A1M 6' PANEL ANTENNAS
- THREE (3) RRUS11 B12

EQUIPMENT TO BE ADDED

- THREE (3) RFS-APXVAARR18_43-U-NA20 PANEL ANTENNAS
- THREE (3) RADIO 4449 B71+B12
- THREE (3) 6x12 HCS CABLES

FINAL EQUIPMENT CONFIGURATION

- THREE (3) ERICSSON AIR21 B2A/B4P ANTENNAS
- THREE (3) ERICSSON AIR32 B4A/B2P ANTENNAS
- THREE (3) RFS-APXVAARR18_43-U-NA20 PANEL ANTENNAS
- THREE (3) UMS TMA'S
- THREE (3) RADIO 4449 B71+B12
- THREE (3) RRUS32 B2
- THREE (3) DC CABLES
- EIGHT (8) 7/8" COAX CABLES
- TWO (2) 1 1/2" COAX CABLES
- THREE (3) DC/FIBER CABLES
- THREE (3) 6x12 HCS CABLES
- ONE (1) GPS ANTENNA AND ASSOCIATED 1/2" COAX CABLE
- ONE (1) ERICSSON RBS 2106 EQUIPMENT CABINET (DARK)
- ONE (1) ERICSSON RBS 6131 EQUIPMENT CABINET
- ONE (1) PURCELL CABINET
- ONE (1) NORTHERN TECHNOLOGIES 200A PPC CABINET

EXISTING EQUIPMENT SPACE REQUIREMENTS WILL NOT CHANGE

RF CONFIGURATION
67D92D

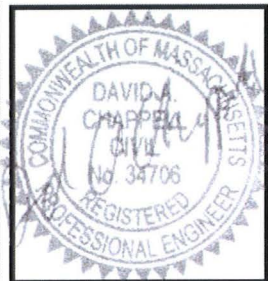
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Civil-Structural-Land Surveying

R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST
SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com



APPROVALS

LESSOR _____
LEASING _____
R.F. _____
ZONING _____
CONSTRUCTION _____
A/E _____

PROJECT NO: 4DE7031B

DRAWN BY: MAM

CHECKED BY: JMT

VERSION

NO.	DATE	DESCRIPTION
2	11/26/18	REVISED CONSTRUCTION
1	11/19/18	ISSUED FOR CONSTRUCTION
0	08/20/18	CONSTRUCTION REVIEW

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4DE7031B
B0031/1221
CAMBRIDGE STREET

1221 CAMBRIDGE STREET
CAMBRIDGE, MA 02139

SHEET TITLE

ROOF PLAN

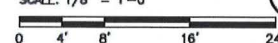
SHEET NUMBER

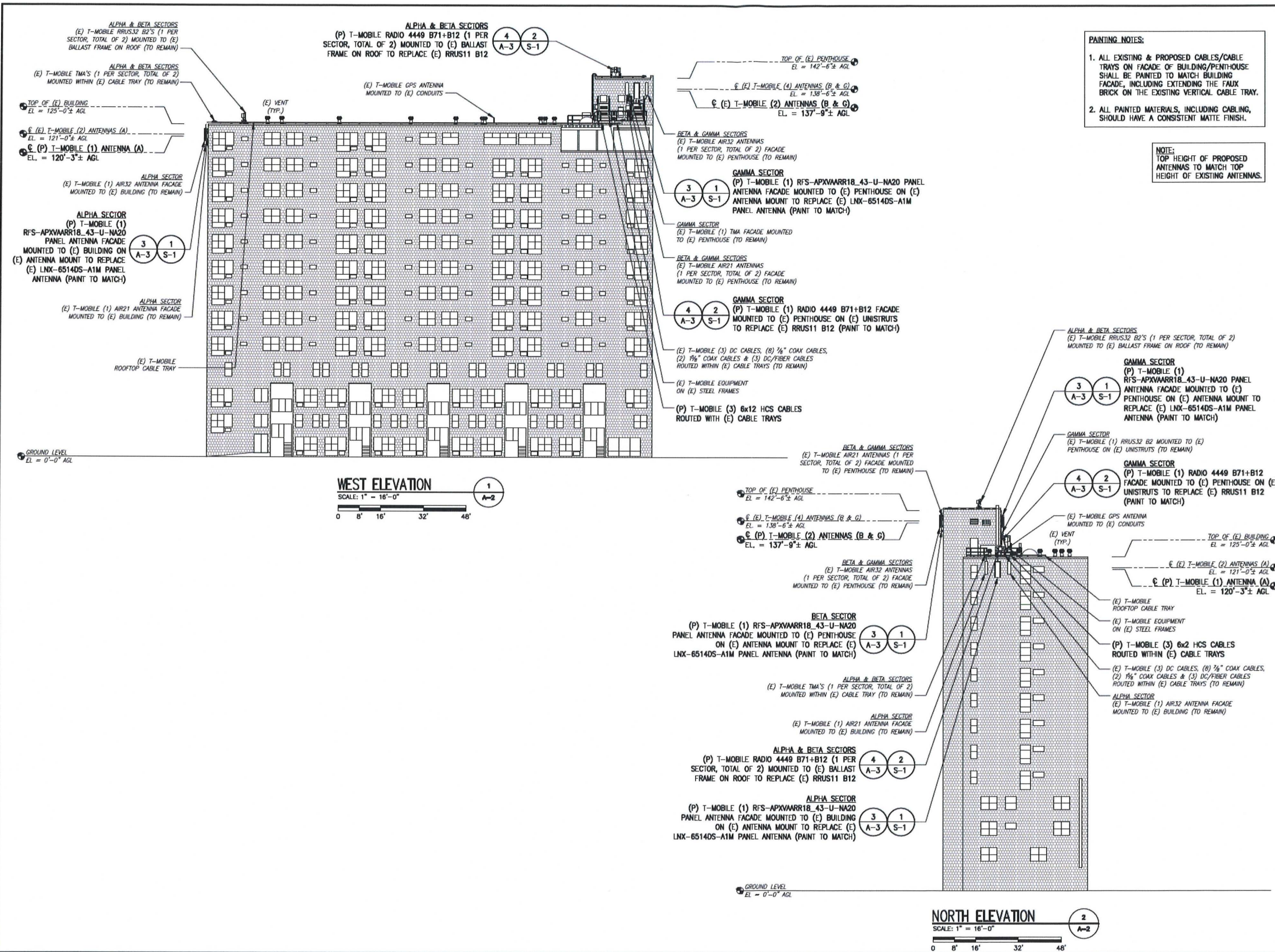
A-1

SEA 206 WS: 1817.03

ROOF PLAN

SCALE: 1/8" = 1'-0"





- PAINTING NOTES:**
1. ALL EXISTING & PROPOSED CABLES/CABLE TRAYS ON FACADE OF BUILDING/PENTHOUSE SHALL BE PAINTED TO MATCH BUILDING FACADE, INCLUDING EXTENDING THE FAUX BRICK ON THE EXISTING VERTICAL CABLE TRAY.
 2. ALL PAINTED MATERIALS, INCLUDING CABLING, SHOULD HAVE A CONSISTENT MATTE FINISH.

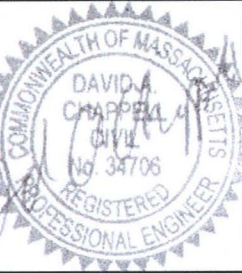
NOTE:
TOP HEIGHT OF PROPOSED ANTENNAS TO MATCH TOP HEIGHT OF EXISTING ANTENNAS.

T-Mobile

T-MOBILE NORTHEAST LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
OFFICE: (508) 286-2700

CHAPPELL ENGINEERING ASSOCIATES, LLC
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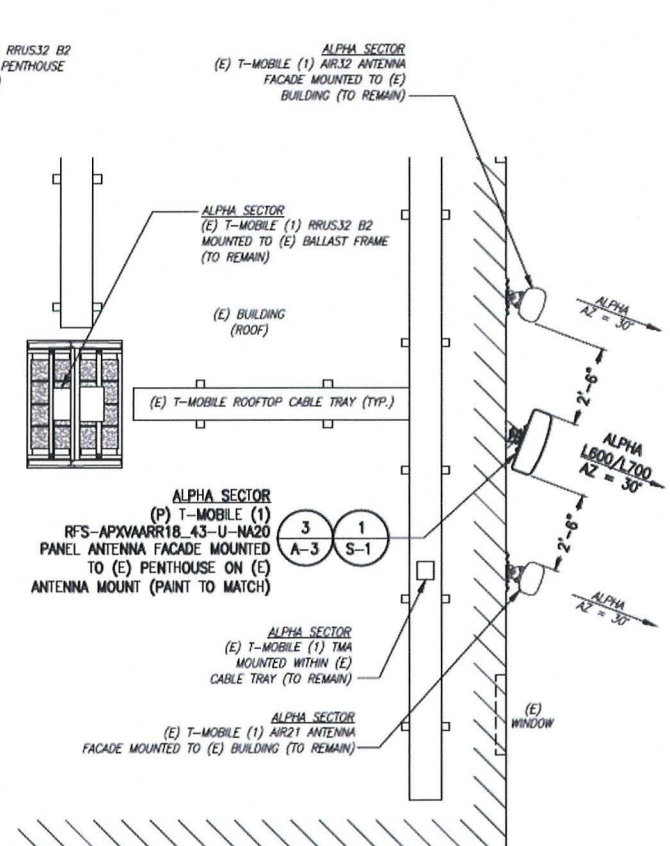
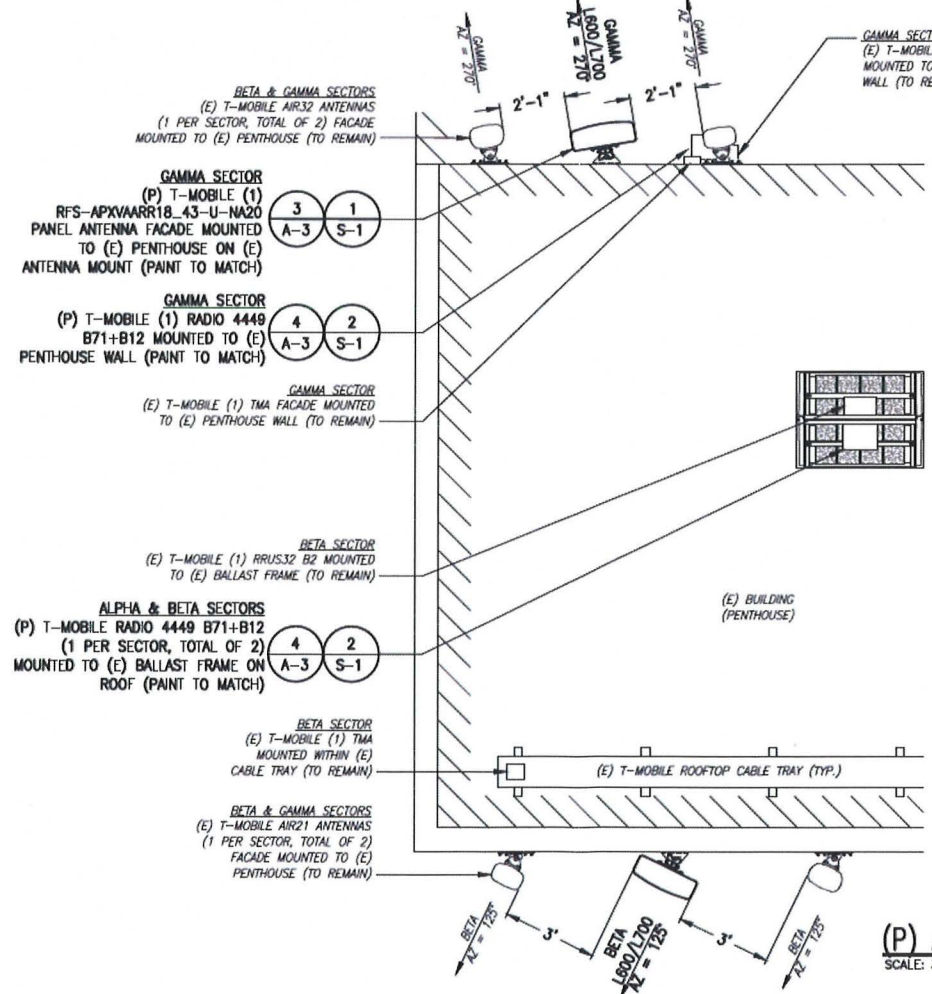
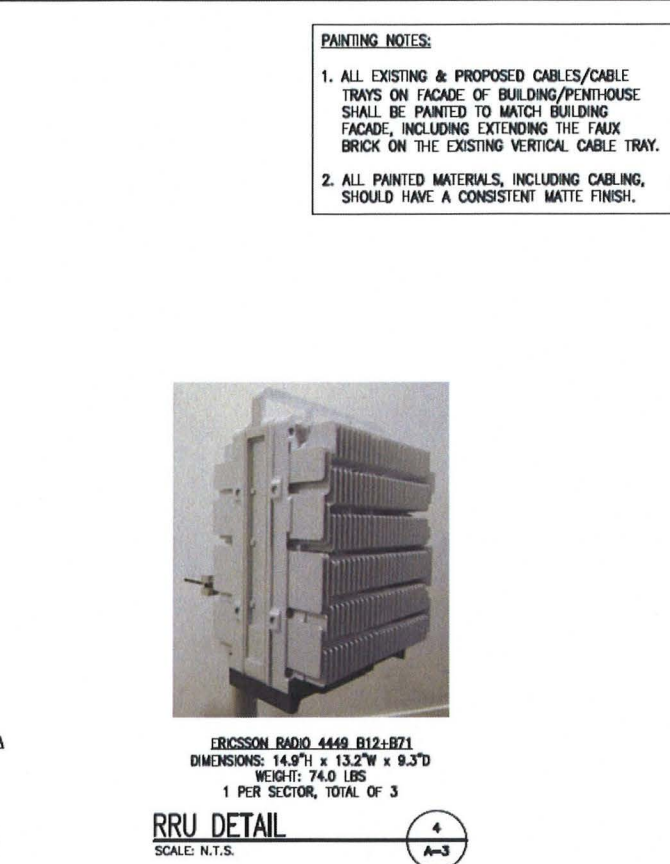
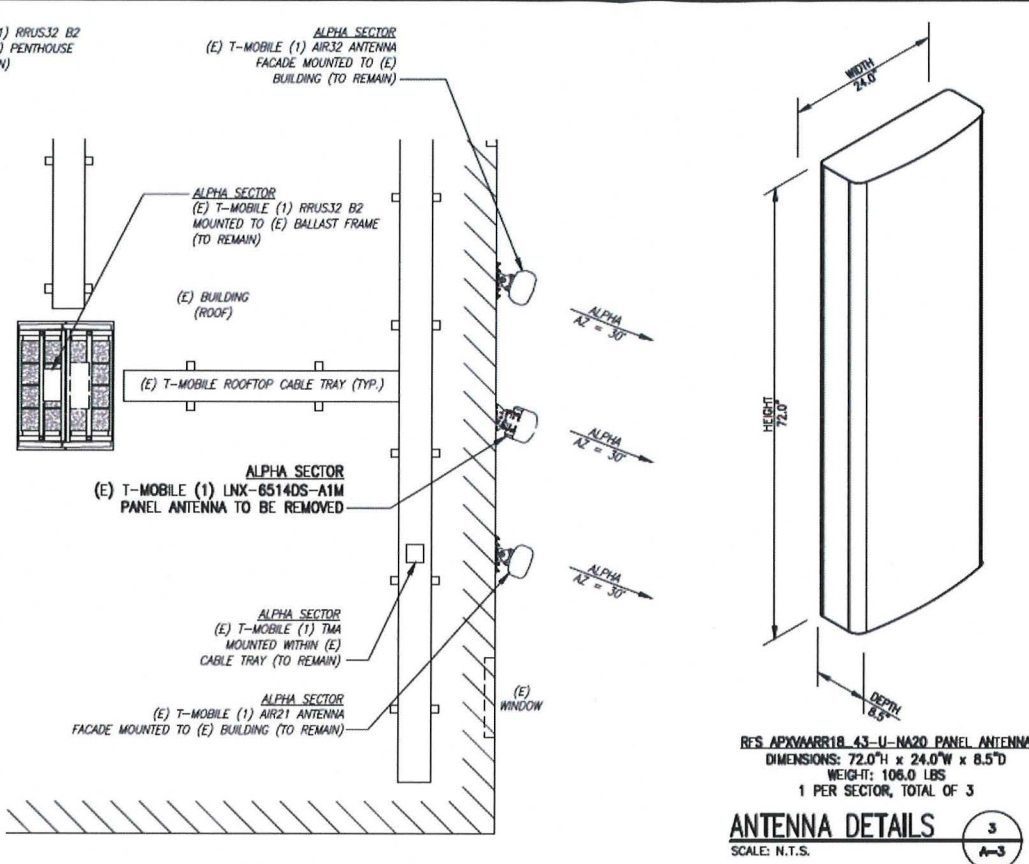
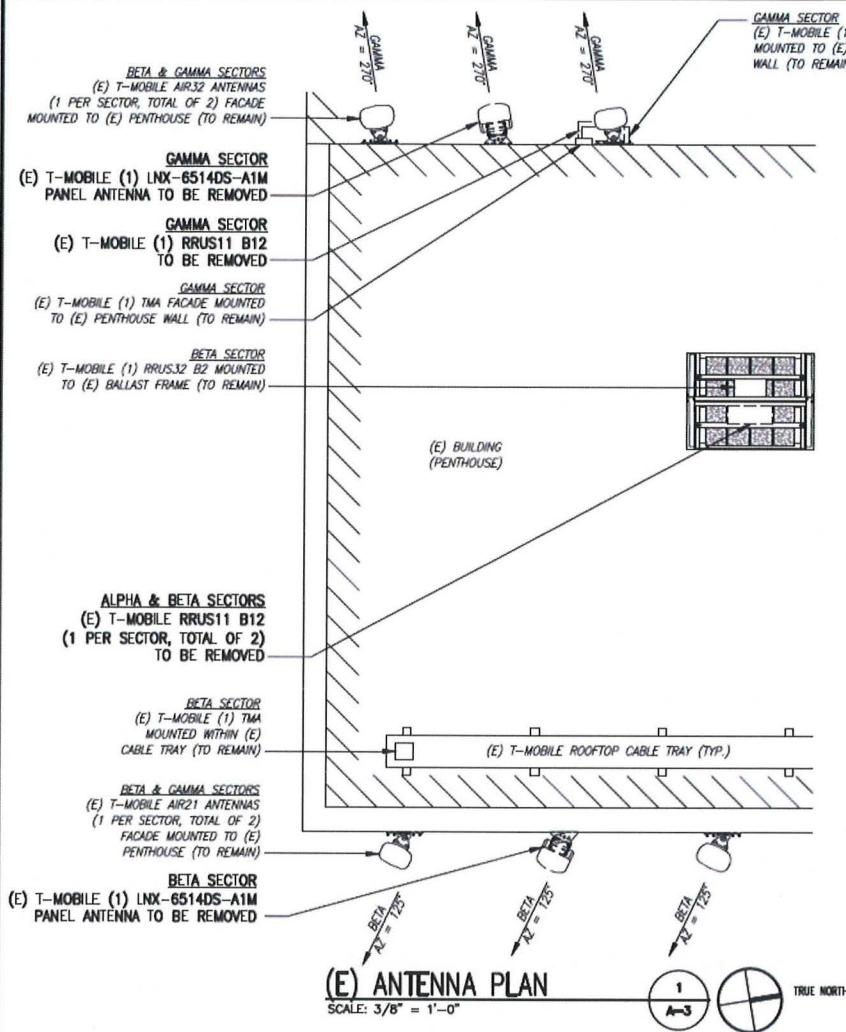
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B0031/1221
CAMBRIDGE STREET
1221 CAMBRIDGE STREET
CAMBRIDGE, MA 02139

SHEET TITLE
ELEVATIONS

SHEET NUMBER
A-2

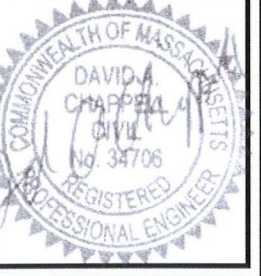


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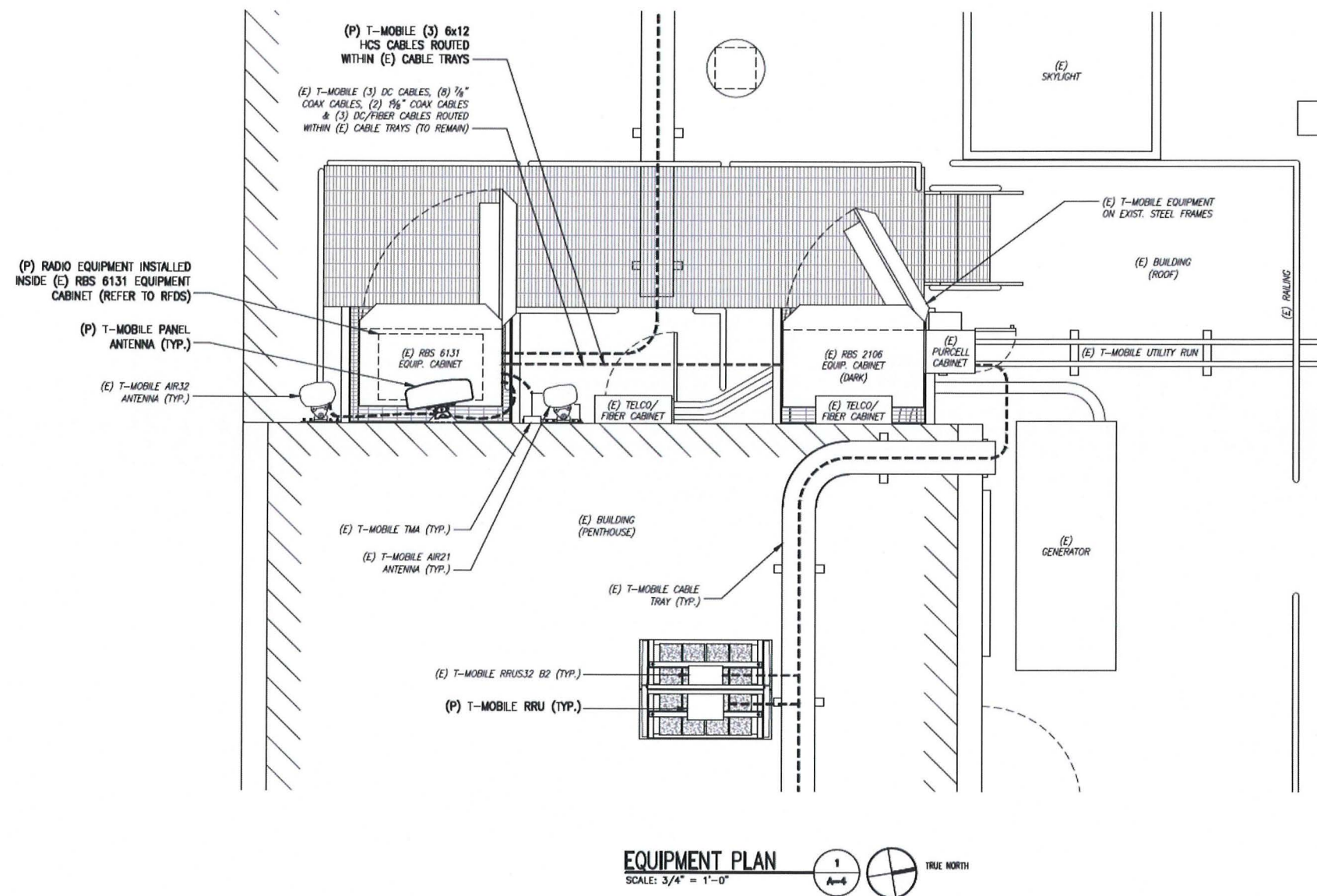
4DE7031B
B0031/1221
CAMBRIDGE STREET
1221 CAMBRIDGE STREET
CAMBRIDGE, MA 02139

SHEET TITLE

ANTENNA DETAILS

SHEET NUMBER

A-3



PAINTING NOTES:

1. ALL EXISTING & PROPOSED CABLES/CABLE TRAYS ON FACADE OF BUILDING/PENTHOUSE SHALL BE PAINTED TO MATCH BUILDING FACADE, INCLUDING EXTENDING THE FAUX BRICK ON THE EXISTING VERTICAL CABLE TRAY.
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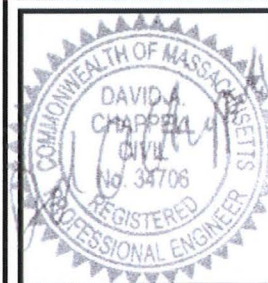
..T..Mobile

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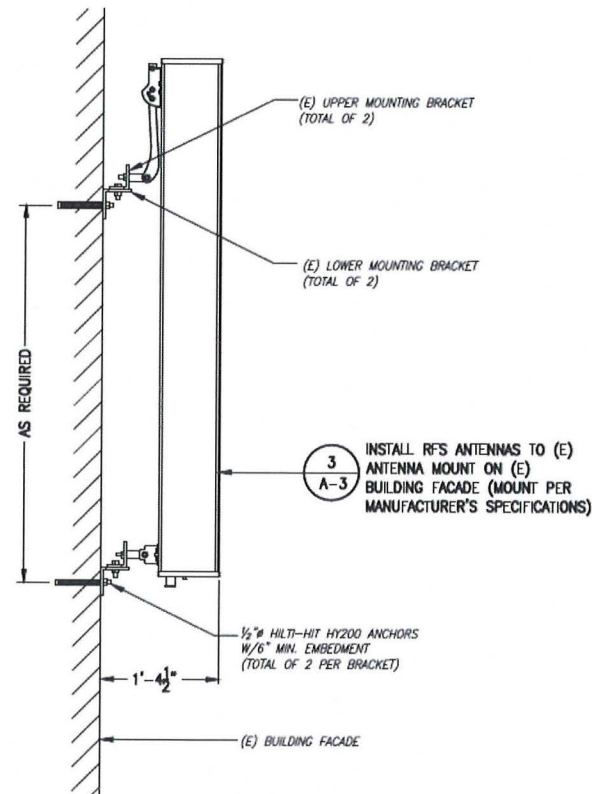
4DE7031B
B0031/1221
CAMBRIDGE STREET
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CAMBRIDGE, MA 02139

SHEET TITLE

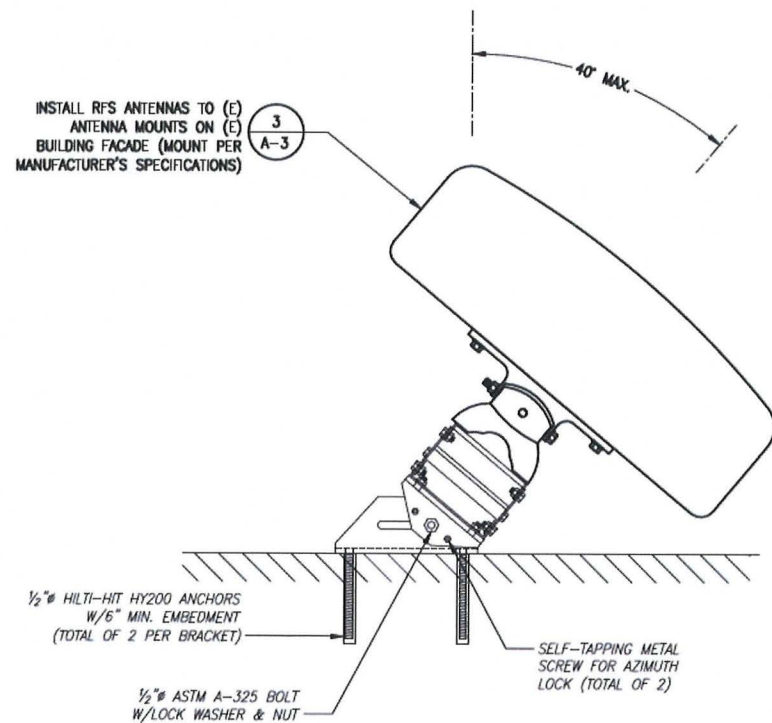
EQUIPMENT PLAN

SHEET NUMBER

A-4



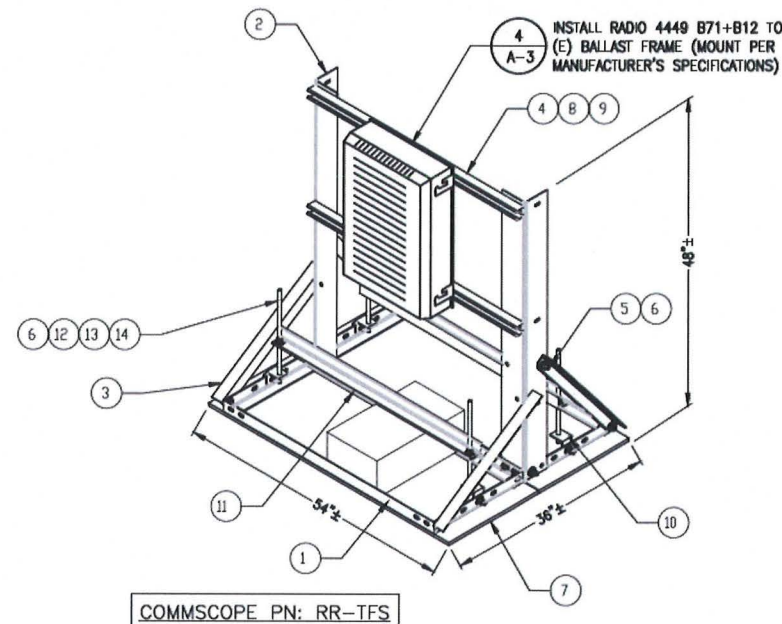
SIDE VIEW



TOP VIEW

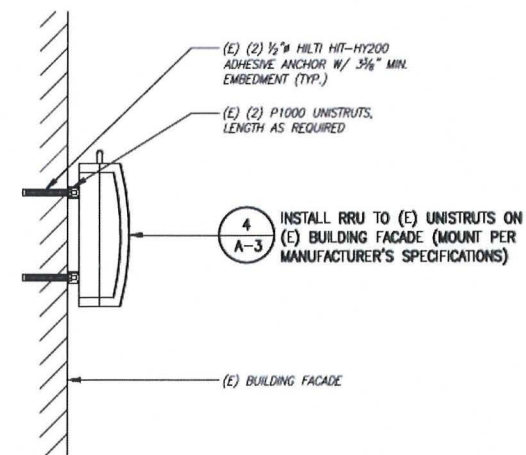
L600/L700 ANTENNA MOUNTING DETAIL 1
SCALE: N.T.S. S-1

ITEM	PART NO.	DESCRIPTION	QTY.	WEIGHT
1	MT41610	WELDMNT BALLAST SLED FRAME	2	22.40 LBS
2	MTC329420	VERTICAL ANGLE	2	13.93 LBS
3	MTC329421	BRACE ANGLE	4	4.71 LBS
4	MTC329414	1 5/8" UNISTRUT	2	6.25 LBS
5	GB-04145	1/2" X 1-1/2" GALV BOLT KIT	18	0.13 LBS
6	GW-04	1/2" GALV FLAT WASHER	28	0.06 LBS
7	MT-F1637	RUBBER MAT 5' X 18' X 48'	2	15.61 LBS
8	GW-03	3/8" GALV FLAT WASHER	8	0.01 LBS
9	GB-03145	3/8" X 1-1/2" GALV BOLT KIT	4	0.07 LBS
10	MTC32601	CLIP ANGLE	4	0.478 LBS
11	MTC329422	BRACE ANGLE	2	7.92 LBS
12	GW-04	1/2" GALV LOCK WASHER	8	0.09 LBS
13	GN-04	1/2" GALV HEX NUT	8	0.04 LBS
14	MT-379-16	1/2" X 16" GALV THREADED ROD	4	0.88 LBS



ALPHA & BETA SECTORS

RRU MOUNTING DETAIL 2
SCALE: N.T.S. S-1

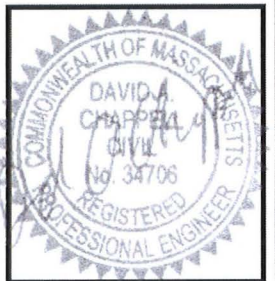


GAMMA SECTOR

- 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.
 3. WEATHER SEAL AROUND EXTERIOR WALL ATTACHMENT ANGLES WITH SILICONE SEALANT.
 4. PAINT ALL ANTENNAS, MOUNTS AND ASSOCIATED EQUIPMENT TO MATCH BUILDING FACADE.
 5. ALL EXISTING & PROPOSED CABLES/CABLE TRAYS ON FACADE OF BUILDING/PENTHOUSE SHALL BE PAINTED TO MATCH BUILDING FACADE, INCLUDING EXTENDING THE FAUX BRICK ON THE EXISTING VERTICAL CABLE TRAY.
 6. ALL PAINTED MATERIALS, INCLUDING CABLING, SHOULD HAVE A CONSISTENT MATTE FINISH.
 7. VERIFY WITH ANTENNA BRACKET PRIOR TO CONSTRUCTION.

T-Mobile
T-MOBILE NORTHEAST LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
OFFICE: (508) 286-2700

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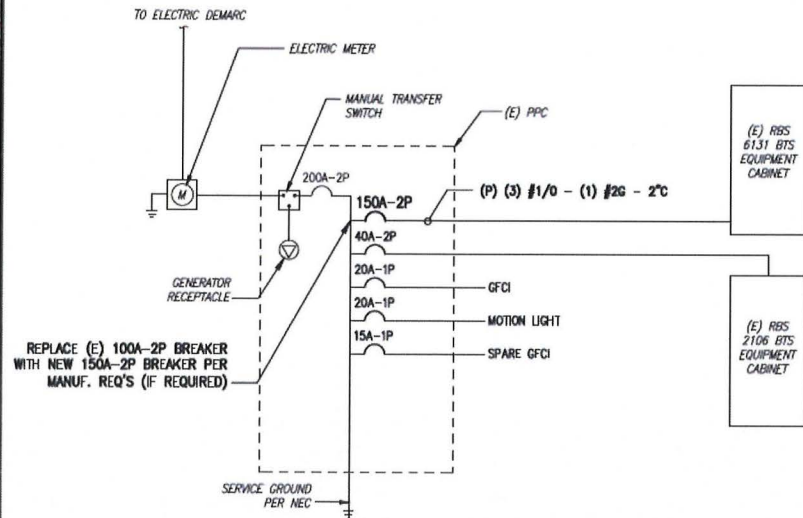
4DE7031B
B0031/1221
CAMBRIDGE STREET
1221 CAMBRIDGE STREET
CAMBRIDGE, MA 02139

SHEET TITLE

STRUCTURAL DETAILS

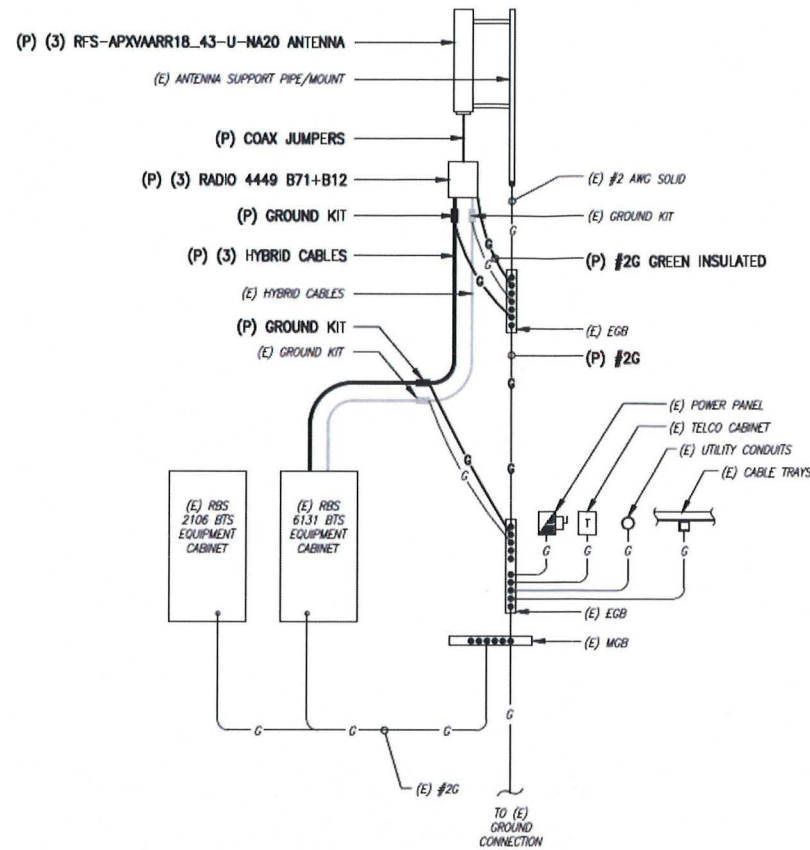
SHEET NUMBER

S-1



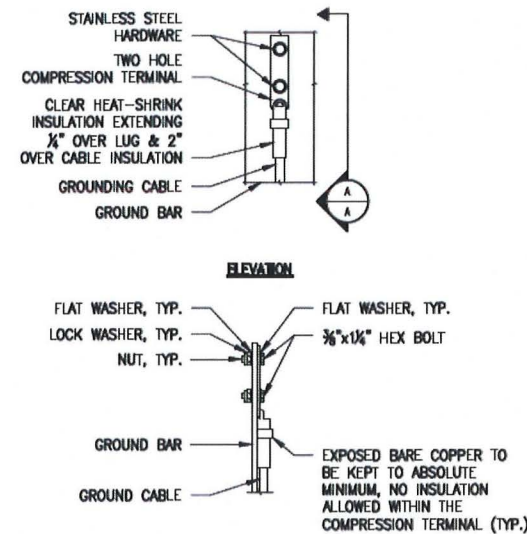
ONE LINE DIAGRAM
SCALE: NOT TO SCALE

1
E-1



GROUNDING RISER DIAGRAM
SCALE: NOT TO SCALE

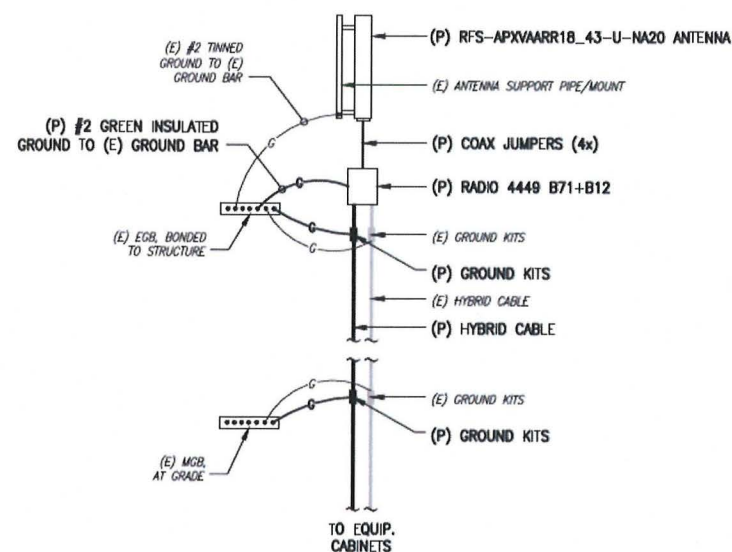
2
E-1



- NOTES:
- "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED.
 - OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.
 - CADWELL DOWNLEADS FROM UPPER EGB, LOWER EGB AND MGB.

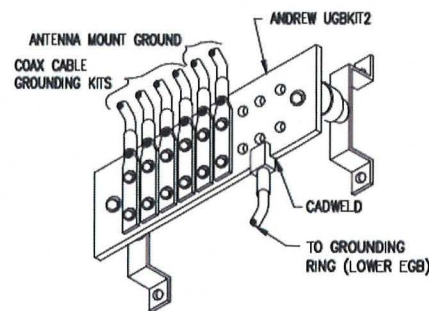
TYPICAL GROUND BAR
CONNECTIONS DETAIL
SCALE: NOT TO SCALE

3
E-1



COAX CABLE CONNECTION
AND GROUNDING DETAIL
SCALE: NOT TO SCALE

4
E-1



GROUND BAR (EGB)
SCALE: NOT TO SCALE

5
E-1

ELECTRICAL AND 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.
- BURIED CONDUIT SHALL BE SCHEDULE 40 PVC.
- ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THHN, OR THHNS INSULATION.
- RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL UTILITY DEMARCATION POINT AND PROJECT OWNER 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 PROJECT OWNER 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.
- WHERE CONDUIT BETWEEN BTS AND PROJECT OWNER CELL SITE PPC AND BETWEEN BTS AND PROJECT OWNER CELL SITE TELCO SERVICE CABINET ARE UNDERGROUND USE PVC, SCHEDULE 40 CONDUIT. ABOVE THE GROUND PORTION OF THESE CONDUITS SHALL BE PVC CONDUIT.
- ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
- PPC SUPPLIED BY PROJECT OWNER.
- GROUNDING SHALL COMPLY WITH NEC ART. 250. ADDITIONALLY, GROUNDING, BONDING AND LIGHTNING PROTECTION SHALL BE DONE IN ACCORDANCE WITH T-MOBILE BTS SITE GROUNDING STANDARDS.
- GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS COAX CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.
- USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE 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 BURIED HYDROGEN COMPRESSION TYPE CONNECTORS OR CADWELL 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. #8 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 6 FEET OF PROJECT OWNER 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.
- CONTRACTOR SHALL PROVIDE AND INSTALL OMNI DIRECTIONAL ELECTRONIC MARKER SYSTEM (EMS) BALLS OVER EACH GROUND ROD AND BONDING POINT BETWEEN EXISTING TOWER/ MONOPOLE GROUNDING RING AND EQUIPMENT GROUNDING RING.
- CONTRACTOR SHALL TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION. 5 OHMS MINIMUM RESISTANCE REQUIRED.
- CONTRACTOR SHALL CONDUCT ANTENNA, COAX, AND LNA RETURN-LOSS AND DISTANCE- TO-FAULT MEASUREMENTS (SWEEP TESTS) AND RECORD RESULTS FOR PROJECT CLOSE-OUT.

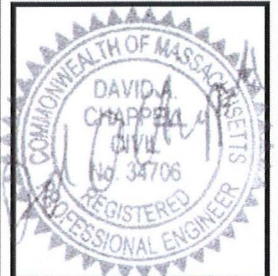
..T..Mobile..

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PROJECT NO: 4DE7031B

DRAWN BY: MAM

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4DE7031B
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CAMBRIDGE STREET
1221 CAMBRIDGE STREET
CAMBRIDGE, MA 02139

SHEET TITLE

ELECTRIC & GROUNDING
DETAILS

SHEET NUMBER

E-1

4

T-Mobile

PHOTO SIMULATIONS

**SITE NAME: 4DE7031B
BO031/1221 CAMBRIDGE STREET**

PROJECT TYPE: L700 4X2 – 67D92D UPGRADE

Address:

**1221 CAMBRIDGE STREET
CAMBRIDGE, MA 02139**

Date:

APRIL 11, 2019 (REVISION 1)

Prepared by:



R.K. Executive Centre ■ 201 Boston Post Road West ■ Suite 101 ■ Marlborough, MA 01752

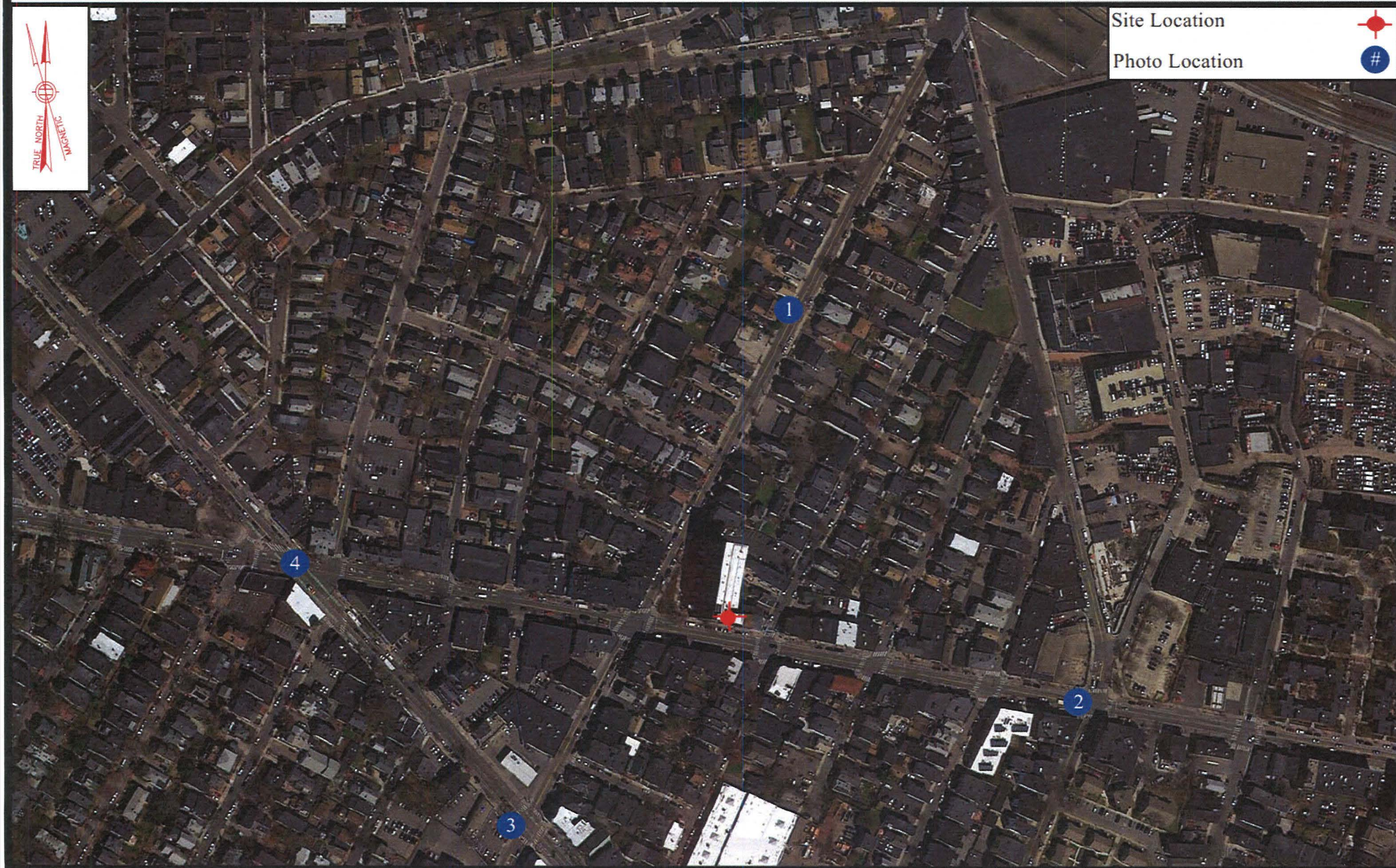
t. 508.481.7400 ■ www.chappellengineering.com ■ f. 508.481.7406

PHOTO LOCATION MAP



Site Location

Photo Location



T-Mobile



4DE7031B
B0031/1221 Cambridge Street
1221 Cambridge Street
Cambridge, MA 02139

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EXISTING CONDITIONS - PHOTO LOCATION 1

Existing RRUs mounted to existing ballast frame on the penthouse roof.

Existing T-Mobile panel antennas mounted to the penthouse/building facade.

	<p>4DE7031B BO031/1221 Cambridge Street 1221 Cambridge Street, Cambridge, MA 02139 Photo Taken 630' +/- North-Northeast of Site</p>	 <p>CHAPPELL ENGINEERING ASSOCIATES, LLC Civil • Structural • Land Surveying WWW.CHAPPELLENGINEERING.COM</p>
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PROPOSED CONDITIONS - PHOTO LOCATION 1

Proposed Radio 449 B17+B12 mounted to existing ballast frame on the penthouse roof.

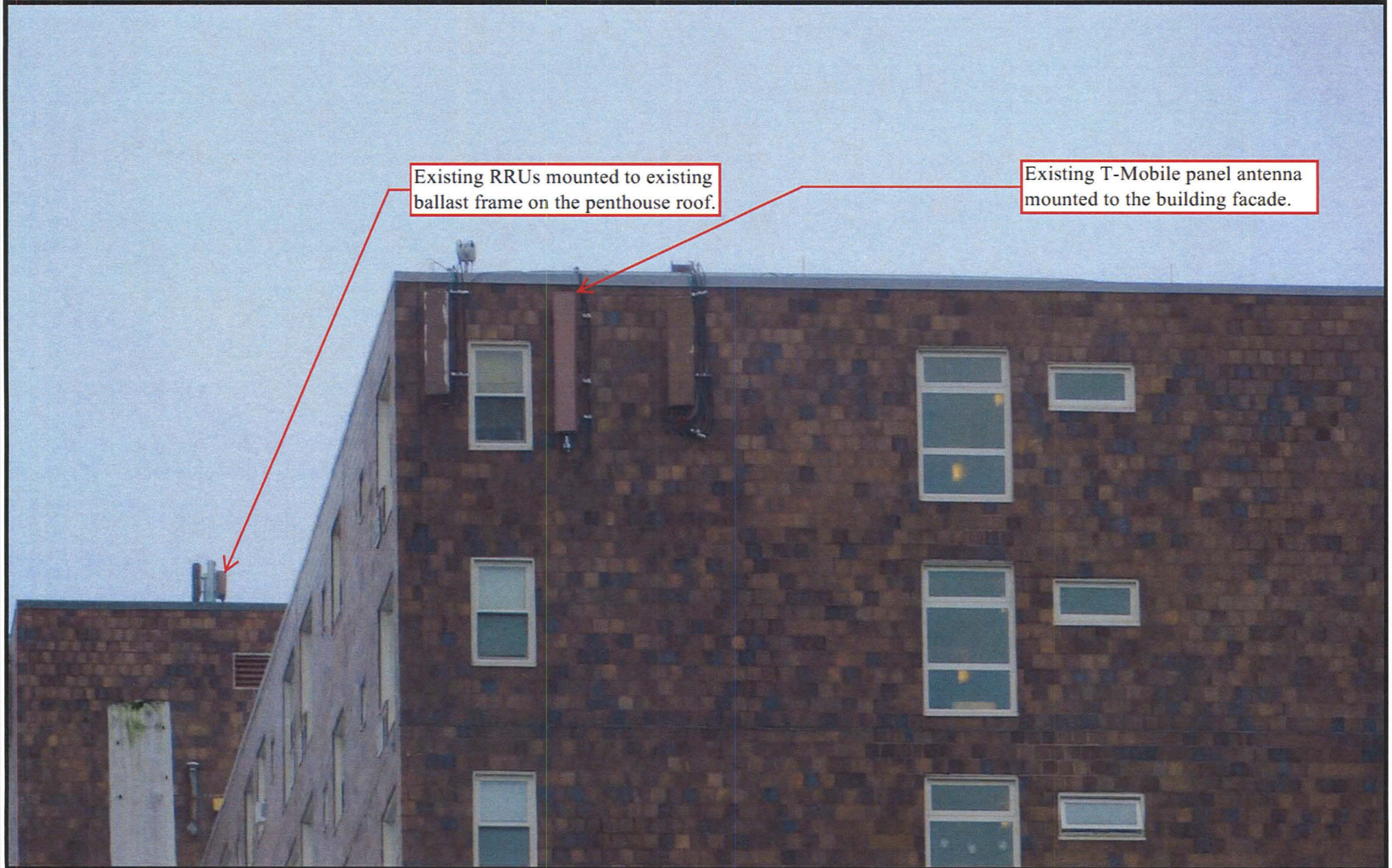
Proposed T-Mobile panel antennas mounted to the penthouse/building facade.

T · · Mobile ·

4DE7031B
BO031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Simulation from 630' +/- North-Northeast of Site

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EXISTING CONDITIONS CLOSE-UP - PHOTO LOCATION 1



Existing RRUs mounted to existing ballast frame on the penthouse roof.

Existing T-Mobile panel antenna mounted to the building facade.



4DE7031B
BO031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Taken 630' +/- North-Northeast of Site

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PROPOSED CONDITIONS CLOSE-UP - PHOTO LOCATION 1

Proposed Radio 449 B17+B12 mounted to existing ballast frame on the penthouse roof.

Proposed T-Mobile panel antenna mounted to the building facade.



4DE7031B
BO031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Simulation from 630' +/- North-Northeast of Site

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EXISTING CONDITIONS - PHOTO LOCATION 2



Existing RRUs mounted to existing ballast frame on the penthouse roof.

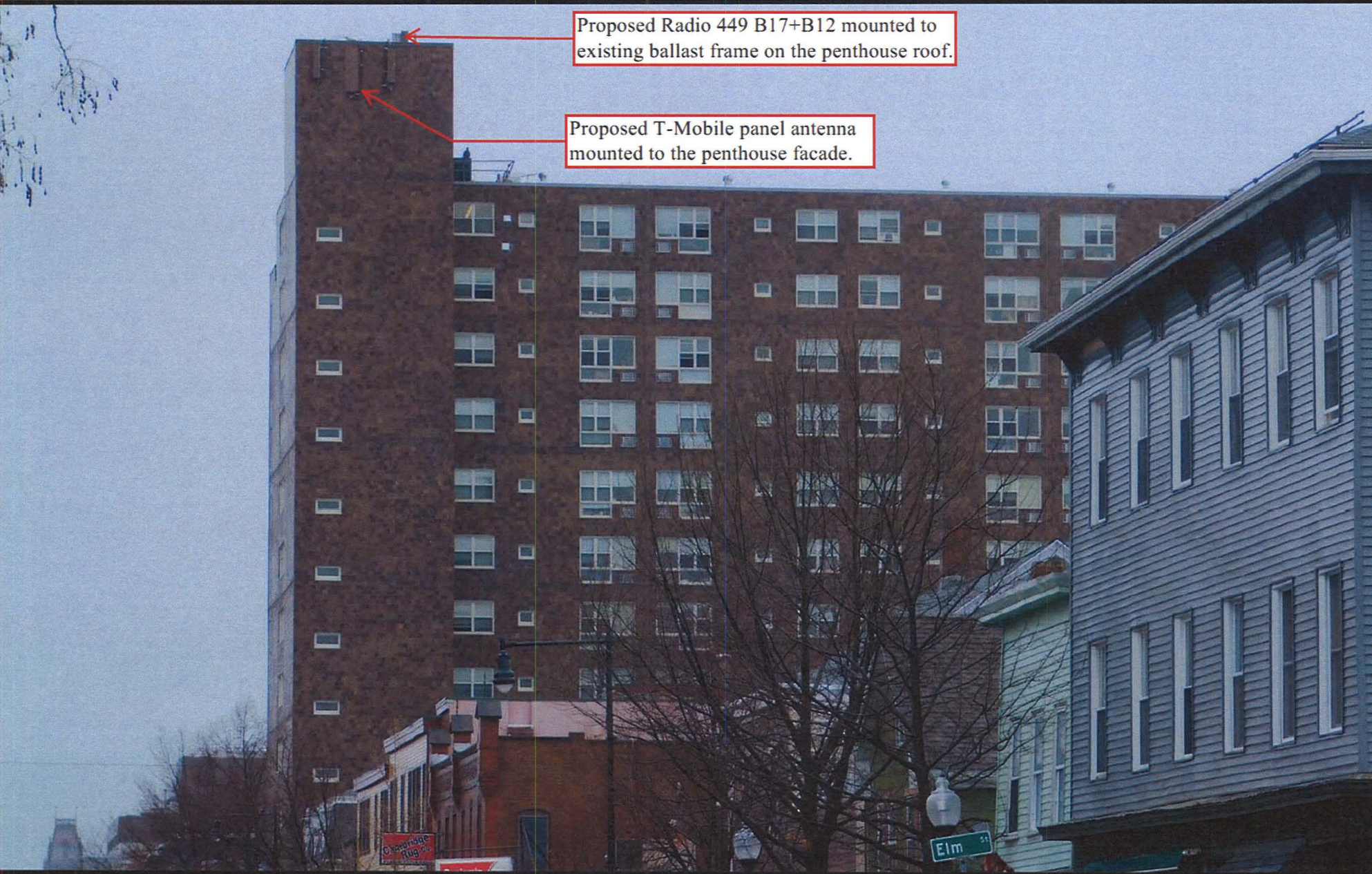
Existing T-Mobile panel antenna mounted to the penthouse facade.

T · · Mobile ·

4DE7031B
BO031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Taken 760' +/- East-Southeast of Site

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PROPOSED CONDITIONS - PHOTO LOCATION 2



Proposed Radio 449 B17+B12 mounted to existing ballast frame on the penthouse roof.

Proposed T-Mobile panel antenna mounted to the penthouse facade.

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4DE7031B
B0031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Simulation from 760' +/- East-Southeast of Site

 **CHAPPELL
ENGINEERING
ASSOCIATES, LLC**
Civil • Structural • Land Surveying
WWW.CHAPPELLENGINEERING.COM

EXISTING CONDITIONS CLOSE-UP - PHOTO LOCATION 2

Existing T-Mobile panel antenna mounted to the building facade.

Existing RRUs mounted to existing ballast frame on the penthouse roof.



T · · Mobile ·

4DE7031B
B0031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Taken 760' +/- East-Southeast of Site

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PROPOSED CONDITIONS CLOSE-UP - PHOTO LOCATION 2

Proposed T-Mobile panel antenna mounted to the penthouse facade.

Proposed Radio 449 B17+B12 mounted to existing ballast frame on the penthouse roof. No noticeable visual change.



T · · Mobile ·

4DE7031B
BO031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Simulation from 760' +/- East-Southeast of Site

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EXISTING CONDITIONS - PHOTO LOCATION 3



Existing T-Mobile panel antenna mounted to the penthouse facade.

Existing RRUs mounted to the penthouse facade.

T · · Mobile ·

4DE7031B
BO031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Taken 640' +/- Southwest of Site

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PROPOSED CONDITIONS - PHOTO LOCATION 3

Proposed Radio 449 B17+B12 not visible.

Proposed T-Mobile panel antenna mounted to the penthouse facade.

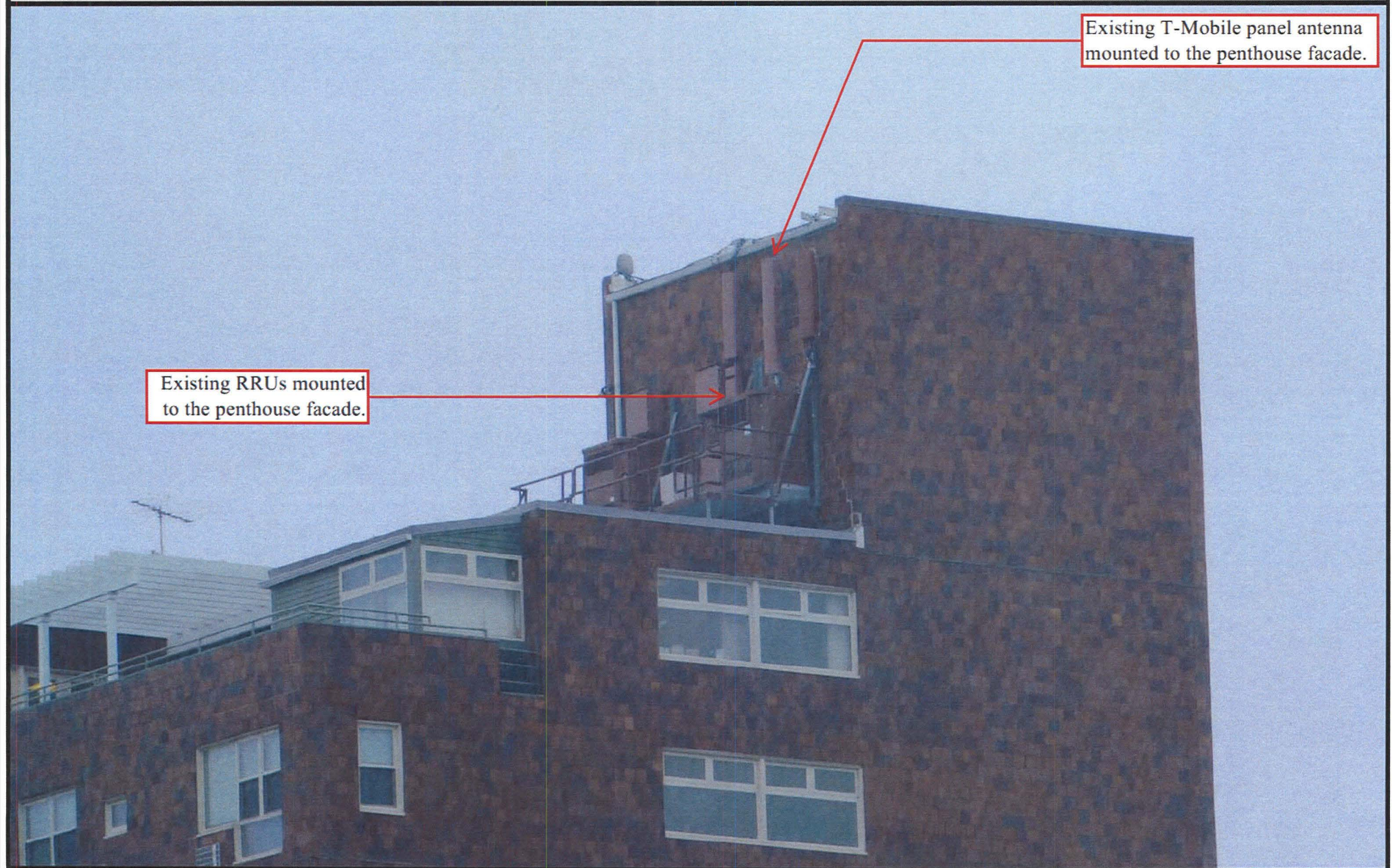


T · · Mobile ·

4DE7031B
BO031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Simulation from 640' +/- Southwest of Site

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EXISTING CONDITIONS CLOSE-UP - PHOTO LOCATION 3



Existing T-Mobile panel antenna mounted to the penthouse facade.

Existing RRUs mounted to the penthouse facade.

T · · Mobile ·

4DE7031B
BO031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Taken 640' +/- Southwest of Site

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PROPOSED CONDITIONS CLOSE-UP - PHOTO LOCATION 3

Proposed Radio 449 B17+B12 not visible.

Proposed T-Mobile panel antenna mounted to the penthouse facade.

T · · Mobile ·

4DE7031B
BO031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Simulation from 640' +/- Southwest of Site

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EXISTING CONDITIONS - PHOTO LOCATION 4

Existing RRUs mounted to the penthouse facade & ballast frame on the penthouse roof.

Existing T-Mobile panel antenna mounted to the penthouse facade.

T · · Mobile ·

4DE7031B
BO031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Taken 900' +/- West-Northwest of Site

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ENGINEERING
ASSOCIATES, LLC
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WWW.CHAPPELLENGINEERING.COM

PROPOSED CONDITIONS - PHOTO LOCATION 4

Proposed Radio 449 B17+B12 mounted to the penthouse facade & ballast frame on the penthouse roof.

Proposed T-Mobile panel antenna mounted to the penthouse facade.

T · · Mobile ·

4DE7031B
B0031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Simulation from 900' +/- West-Northwest of Site

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ENGINEERING
ASSOCIATES, LLC
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EXISTING CONDITIONS CLOSE-UP - PHOTO LOCATION 4

Existing RRUs mounted to the penthouse facade & ballast frame on the penthouse roof.

Existing T-Mobile panel antenna mounted to the penthouse facade.

T · · Mobile ·

4DE7031B
B0031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Taken 900' +/- West-Northwest of Site

CHAPPELL
ENGINEERING
ASSOCIATES, LLC
Civil • Structural • Land Surveying
WWW.CHAPPELLENGINEERING.COM

PROPOSED CONDITIONS CLOSE-UP - PHOTO LOCATION 4

Proposed Radio 449 B17+B12 mounted to the penthouse facade & ballast frame on the penthouse roof.

Proposed T-Mobile panel antenna mounted to the penthouse facade.



4DE7031B
BO031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Simulation from 900' +/- West-Northwest of Site

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5



Universal Licensing System

[FCC](#) > [WTB](#) > [ULS](#) > [Online Systems](#) > License Search

[FCC Site Map](#)

ULS License

AWS (1710-1755 MHz and 2110-2155 MHz) License - WQPG202 [\[?\] HELP](#) - T-Mobile License LLC

[New Search](#) [Refine Search](#) [Return to Results](#) [Printable Page](#) [Reference Copy](#)

MAIN	ADMIN	MARKET	MAP
Call Sign	WQPG202	Radio Service	AW - AWS (1710-1755 MHz and 2110-2155 MHz)
Status	Active	Auth Type	Regular
Market			
Market	BEA003 - Boston-Worcester-Lawrence-Lowell-Brockton, MA-NH-RI-VT	Channel Block	C
Submarket	4	Associated Frequencies (MHz)	001730.00000000-001735.00000000-002130.00000000-002135.00000000

Dates

Grant	04/18/2012	Expiration	11/29/2021
Effective	04/18/2012	Cancellation	

Buildout Deadlines

1st	2nd
-----	-----

Notification Dates

1st	2nd
-----	-----

FRN	0001565449 (View Ownership Filing)	Type	Limited Liability Company
-----	---	------	---------------------------

Licensee

T-Mobile License LLC 12920 SE 38th Street Bellevue, WA 98006 ATTN Dan Menser	P:(425)383-4000 F:(425)383-4840 E:fccregulatorycompliancecontact@t-mobile.com
---	---

Contact

Wiley Rein LLP 1776 K Street, NW Washington, DC 20006 ATTN Nancy J. Victory	P:(202)719-7344 F:(202)719-7049 E:nvictory@wileyrein.com
--	--

Radio Service Type Mobile
 Regulatory Status Common Carrier Interconnected Yes

Alien Ownership

Is the applicant a foreign government or the representative of any foreign government? No

Is the applicant an alien or the representative of an alien? No

Is the applicant a corporation organized under the laws of any foreign government? No

Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country? No

Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country? Yes

The Alien Ruling question is not answered.

Basic Qualifications

The Applicant answered "No" to each of the [Basic Qualification](#) questions.

Tribal Land Bidding Credits

This license did not have tribal land bidding credits.

Race

Ethnicity

Gender

ULS Help

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Basic Search

By Call Sign

▼ =

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Federal Communications Commission
 445 12th Street SW
 Washington, DC 20554

Phone: 1-877-480-9201
 TTY: 1-717-338-2824
[Submit Help Request](#)

ULS License

AWS (1710-1755 MHz and 2110-2155 MHz) License - WQGB373 - T-Mobile License LLC

Call Sign	WQGB373	Radio Service	AW - AWS (1710-1755 MHz and 2110-2155 MHz)
Status	Active	Auth Type	Regular
Market			
Market	REA001 - Northeast	Channel Block	E
Submarket	1	Associated Frequencies (MHz)	001740.00000000- 001745.00000000- 002140.00000000- 002145.00000000

Dates

Grant	11/29/2006	Expiration	11/29/2021
Effective	06/26/2012	Cancellation	

Buildout Deadlines

1st	2nd
-----	-----

Notification Dates

1st	2nd
-----	-----

FRN	0001565449	Type	Limited Liability Company
-----	------------	------	---------------------------

Licensee

T-Mobile License LLC 12920 SE 38th St. Bellevue, WA 98006 ATTN Dan Menser	P:(425)383-4000 F:(425)378-4040 E:FCCRegulatoryComplianceContact@t-mobile.com
--	---

Contact

T-Mobile License LLC Kathleen O Ham 12920 SE 38th St. Bellevue, WA 98006 ATTN Dan Menser	P:(425)383-4000 F:(202)654-5963 E:FCCRegulatoryComplianceContact@t-mobile.com
--	---

Radio Service Type	Mobile
Regulatory Status	Common Carrier Interconnected Yes

Alien Ownership

Is the applicant a foreign government or the representative of any foreign government?	No
Is the applicant an alien or the representative of an alien?	No
Is the applicant a corporation organized under the laws of any foreign government?	No
Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their	No

6/9/2017

ULS License - AWS (1710-1755 MHz and 2110-2155 MHz) License - WQGB373 - T-Mobile License LLC

representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?

Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country? **Yes**

The Alien Ruling question is not answered.

Basic Qualifications

The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits

This license did not have tribal land bidding credits.

Race

Ethnicity

Gender

ULS License

700 MHz Lower Band (Blocks A, B & E) License - WQIZ578 - T-Mobile License LLC

Call Sign	WQIZ578	Radio Service	WY - 700 MHz Lower Band (Blocks A, B & E)
Status	Active	Auth Type	Regular
Market			
Market	BEA003 - Boston-Worcester-Lawrence-Lowell-Brockton, MA-NH-RI-VT	Channel Block	A
Submarket	0	Associated Frequencies (MHz)	000698.00000000-000704.00000000-000728.00000000-000734.00000000

Dates

Grant	06/26/2008	Expiration	06/13/2019
Effective	12/02/2013	Cancellation	

Buildout Deadlines

1st	2nd	06/13/2019
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Notification Dates

1st	2nd
-----	-----

FRN	0001565449	Type	Limited Liability Company
Licensee			
T-Mobile License LLC		P:(425)383-8401	
12920 SE 38th Street		F:(425)383-4840	
Bellevue, WA 98006		E:FCCregulatorycompliancecontact@t-mobile.com	
ATTN FCC Regulatory Compliance			

Contact

T-Mobile License LLC	P:(425)383-5178
Shannon Kraus	F:(425)383-4840
12920 SE 38th Street	E:shannon.reilly@t-mobile.com
Bellevue, WA 98006	
ATTN Shannon Kraus	

Radio Service Type	Fixed, Mobile		
Regulatory Status	Common Carrier	Interconnected	Yes

Alien Ownership

Is the applicant a foreign government or the representative of any foreign government?	No
Is the applicant an alien or the representative of an alien?	No
Is the applicant a corporation organized under the laws of any foreign government?	No

6/9/2017

ULS License - 700 MHz Lower Band (Blocks A, B & E) License - WQIZ578 - T-Mobile License LLC

Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country? **Yes**

Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country? **Yes**

If the answer to the above question is 'Yes', has the applicant received a ruling(s) under Section 310(b)(4) of the Communications Act with respect to the same radio service involved in this application? **Yes**

Basic Qualifications

The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits

This license did not have tribal land bidding credits.

Race

Ethnicity

Gender

ULS License

AWS (1710-1755 MHz and 2110-2155 MHz) License - WQGA731 - T-Mobile License LLC

Call Sign	WQGA731	Radio Service	AW - AWS (1710-1755 MHz and 2110-2155 MHz)
Status	Active	Auth Type	Regular
Market			
Market	REA001 - Northeast	Channel Block	D
Submarket	1	Associated Frequencies (MHz)	001735.00000000-001740.00000000-002135.00000000-002140.00000000

Dates

Grant	11/29/2006	Expiration	11/29/2021
Effective	12/10/2015	Cancellation	

Buildout Deadlines

1st	2nd
-----	-----

Notification Dates

1st	2nd
-----	-----

FRN	0001565449	Type	Limited Liability Company
-----	------------	------	---------------------------

Licensee

T-Mobile License LLC 12920 SE 38th Street Bellevue, WA 98006 ATTN FCC Regulatory Compliance	P:(425)383-8401 F:(425)383-4840 E:FCCregulatorycompliancecontact@t-mobile.com
--	---

Contact

T-Mobile License LLC 12920 SE 38th Street Bellevue, WA 98006 ATTN FCC Regulatory Compliance	P:(425)383-8401 F:(425)383-4840 E:FCCregulatorycompliancecontact@t-mobile.com
--	---

Radio Service Type	Mobile
Regulatory Status	Common Carrier Interconnected Yes

Alien Ownership

Is the applicant a foreign government or the representative of any foreign government?	No
Is the applicant an alien or the representative of an alien?	No
Is the applicant a corporation organized under the laws of any foreign government?	No
Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their	Yes

6/9/2017

ULS License - AWS (1710-1755 MHz and 2110-2155 MHz) License - WQGA/31 - 1-Mobile License LLC

representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?

Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country? **Yes**

If the answer to the above question is 'Yes', has the applicant received a ruling(s) under Section 310(b)(4) of the Communications Act with respect to the same radio service involved in this application? **Yes**

Basic Qualifications

The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits

This license did not have tribal land bidding credits.

Race

Ethnicity

Gender

ULS License

PCS Broadband License - WPZY689 - T-Mobile License LLC

Call Sign	WPZY689	Radio Service	CW - PCS Broadband
Status	Active	Auth Type	Regular
Market			
Market	BTA051 - Boston, MA	Channel Block	C
Submarket	2	Associated Frequencies (MHz)	001895.00000000- 001910.00000000- 001975.00000000- 001990.00000000

Dates

Grant	12/06/2016	Expiration	01/03/2027
Effective	12/06/2016	Cancellation	

Buildout Deadlines

1st	12/07/2003	2nd	01/03/2007
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Notification Dates

1st	01/30/2002	2nd	12/22/2006
-----	------------	-----	------------

FRN	0001565449	Type	Limited Liability Company
Licensee			
T-Mobile License LLC		P:(425)383-8401	
12920 SE 38th Street		F:(425)383-4840	
Bellevue, WA 98006		E:FCCregulatorycompliancecontact@t-mobile.com	
ATTN FCC Regulatory Compliance			

Contact

T-Mobile License LLC	P:(425)383-8401
	F:(703)584-8696
12920 SE 38th ST.	E:fccregulatorycompliancecontact@t-mobile.com
Bellevue, WA 98006	
ATTN FCC Regulatory Comp	

Radio Service Type	Mobile		
Regulatory Status	Common Carrier	Interconnected	Yes

Alien Ownership

Is the applicant a foreign government or the representative of any foreign government?	No
Is the applicant an alien or the representative of an alien?	No
Is the applicant a corporation organized under the laws of any foreign government?	No
Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	No

Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country? **Yes**

The Applicant has received a declaratory ruling(s) approving its foreign ownership, and the application involves only the acquisition of additional spectrum for the provision of a wireless service in a geographic coverage area for which the Applicant has been previously authorized. ✓

Basic Qualifications

The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits

This license did not have tribal land bidding credits.

Race

Ethnicity

Gender

6/9/2017

ULS License - PCS Broadband License - KNLH310 - T-Mobile License LLC

ULS License

PCS Broadband License - KNLH310 - T-Mobile License LLC

Call Sign	KNLH310	Radio Service	CW - PCS Broadband
Status	Active	Auth Type	Regular
Market			
Market	BTA051 - Boston, MA	Channel Block	E
Submarket	0	Associated Frequencies (MHz)	001885.00000000- 001890.00000000- 001965.00000000- 001970.00000000
Dates			
Grant	06/08/2017	Expiration	06/27/2027
Effective	06/08/2017	Cancellation	
Buildout Deadlines			
1st	06/27/2002	2nd	
Notification Dates			
1st	04/01/1999	2nd	
FRN	0001565449	Type	Limited Liability Company
Licensee			
T-Mobile License LLC 12920 S.E. 38th Street Bellevue, WA 98006 ATTN FCC Regulatory Compliance		P:(425)383-8401 E:FCCRegulatoryComplianceContact@t-mobile.com	
Contact			
T-Mobile License LLC FCC REGULATORY COMPLIANCE 12920 S.E. 38th Street Bellevue, WA 98006 ATTN FCC Regulatory		P:(425)383-8401 E:FCCRegulatoryComplianceContact@t-mobile.com	

Radio Service Type	Fixed, Mobile		
Regulatory Status	Common Carrier	Interconnected	Yes

Alien Ownership

Is the applicant a foreign government or the representative of any foreign government?	No
Is the applicant an alien or the representative of an alien?	No
Is the applicant a corporation organized under the laws of any foreign government?	No
Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	No

Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country? **Yes**

If the answer to the above question is 'Yes', has the applicant received a ruling(s) under Section 310(b)(4) of the Communications Act with respect to the same radio service involved in this application? **Yes**

Basic Qualifications

The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits

This license did not have tribal land bidding credits.

Race

Ethnicity

Gender

6



City of Cambridge

MASSACHUSETTS

BOARD OF ZONING APPEAL

831 Mass Avenue, Cambridge, MA.
(617) 349-6100

Omnipoint Communications, Inc.
C/o Peter Cooke
50 Vision Blvd.
E. Providence, RI 02914

AUG 09 2006

Case No. 9306

Dear: Mr. Cooke,

We enclose the decision of the Board of Zoning Appeal as it pertains to the premises located at 1221 Cambridge Street, Cambridge, Mass.

A copy of this decision has been filed with office of the City Clerk, this date. When twenty days have passed you **MUST**:

1. HAVE THIS DECISION COMPLETED AND SIGNED BY THE CITY CLERK, CITY HALL – 795 Mass Avenue, Cambridge, Ma. (In the space provided on the decision)
 2. FILE THE DECISION WITH THE REGISTRY OF DEEDS
Middlesex County Courthouse, 208 Cambridge Street, Cambridge, MA. (There is usually a fee, payable to the Registry of Deeds, and the book and page number is required by the Registry).
 3. SUPPLY THE BOARD OF ZONING APPEAL WITH DOCUMENTATION OF SUCH FILING – (with the Registry of Deeds).
- THE DIVISION OF INSPECTIONAL SERVICES WILL NOT ISSUE BUILDING PERMITS
 - UNLESS THE ABOVE ITEMS HAVE BEEN COMPLETED.

Any person aggrieved by a decision of the Board of Zoning Appeal may appeal to the Superior Court or Land Court. Appeals, if any, shall be made pursuant to Section 17, Chapter 40A, Massachusetts General Laws and shall be filed within twenty days of the above date, and a copy thereof shall be filed with the Cambridge City Clerk's office by that same date.

If you have any questions, please phone me at 349-6100.

Sincerely yours,

Maria L. Pacheco
Secretary

Section 10.35 of the Zoning Ordinances:

If the rights authorized by a variance are not exercised within one year of the date of granting of such variance (two years for a special permit), they shall lapse and may be reestablished only after notice and new hearing pursuant to this Section 10.30.



City of Cambridge

MASSACHUSETTS

BOARD OF ZONING APPEAL

831 Mass Avenue, Cambridge, MA.
(617) 349-6100

2006 AUG -9 A 10:55

OFFICE OF THE CITY CLERK
CAMBRIDGE, MASSACHUSETTS

CASE NO: 9306

LOCATION: 1221 Cambridge Street Business A Zone
Cambridge, MA

PETITIONER: Omnipoint Communications Inc.
C/o Peter Cooke

PETITION: Special Permit: Modification of existing wireless communication facility
to allow for relocation of one antenna array.

VIOLATIONS: Art. 4.000, Sec. 4.32.G (Telecommunication Facility).

DATE OF PUBLIC NOTICE: June 2 & 9, 2006

DATE OF PUBLIC HEARING: June 22, 2006

MEMBERS OF THE BOARD:	THOMAS SIENIEWICZ – CHAIR	<input checked="" type="checkbox"/>
	JENNIFER PINCK – VICE CHAIR	<input type="checkbox"/>
	SUSAN SPURLOCK	<input checked="" type="checkbox"/>
	KEEFE B. CLEMONS	<input type="checkbox"/>
	CONSTANTINE ALEXANDER	<input checked="" type="checkbox"/>

ASSOCIATE MEMBERS:	BRENDAN SULLIVAN	<input checked="" type="checkbox"/>
	CHRISTOPHER CHAN	<input type="checkbox"/>
	PAUL D. GRIFFIN	<input type="checkbox"/>
	EDWARD W. WAYLAND	<input type="checkbox"/>
	TIMOTHY HUGHES	<input type="checkbox"/>
	STACYJHON THOMAS	<input checked="" type="checkbox"/>

Members of the Board of Zoning Appeal heard testimony and viewed materials submitted regarding the above request for relief from the requirements of the Cambridge Zoning Ordinance. The Board is familiar with the location of the petitioner's property, the layout and other characteristics as well as the surrounding district.

Case No. 9306
Location: 1221 Cambridge Street
Petitioner: Omnipoint Communications Inc. c/o Peter Cooke

On June 22, 2006, Petitioner Peter Cooke appeared before the Board of Zoning Appeal requesting a special permit to modify the existing wireless communications facility to allow for the relocation of one antenna array. The Petitioner submitted plans and photographs.

Mr. Cooke stated that there existed a previously granted special permit for a telecommunications site at the property and that the proposal was to relocate one antennae. He stated that this relocation would solve a coverage problem. He stated that the antennae would be painted to camouflage it.

Jacqueline Schwartz, a tenant in the building, reviewed the plans without comment. The Chair noted that the proposed modification would not intensify the use at this site.

After discussion, the Chair moved that the Board grant the special permit based on findings consistent with previous findings made by the Board in the previous special permit case #7540 where the current proposed modification shows attempts to camouflage it at the roofline and where the impact on the community is no more than exists today. The Chair moved that, based on those findings, the Board grant the special permit on the following conditions:

1. that the work be in approximate conformance with drawings submitted in support of the application, entitled Job No. 4DE-7031B, consisting of Sheets T1, A1, A2, A3, and dated the 29th of September 2000, with a revision date of the 11th of January 2006, entitled Zoning File, and
2. that, should the equipment be abandoned or the lease expire at the location, it be removed from the location.

The five member Board voted unanimously in favor of granting the special permit (Sieniewicz, Spurlock, Sullivan, Alexander, and Thomas) with the above conditions. Therefore, the special permit is granted.

The Board based its decision upon the above findings and upon the following:

- 1) The meeting of the requirements of the Ordinance;
- 2) Traffic generated or patterns of access or egress would not cause congestion, hazard, or substantial change in the established neighborhood character;
- 3) The continued operation of or the development of adjacent uses as permitted in the Ordinance would not be adversely affected by the nature of the proposed uses:

- 4) Nuisance or hazard would not be created to the detriment of the health, safety and /or welfare of the occupants of the proposed use;
- 5) The proposed use would not impair the integrity of the district or adjoining district or otherwise derogate from the Ordinance, and in fact would be a significant improvement to the structure and benefit the neighborhood, and;
- 6) The new use or building construction is not inconsistent with the Urban Design Objectives set forth in Section 19.30 of the Cambridge Zoning Ordinance.

The Board of Zoning Appeal is empowered to waive local zoning regulations only. This decision therefore does not relieve the petitioner in any way from the duty to comply with local ordinances and regulation of the other local agencies, including, but not limited to the Historical Commission, License Commission and/or compliance with requirements pursuant to the Building Code and other applicable codes.



Thomas Sieniewicz, Chair

Attest: A true and correct copy of decision filed with the offices of the City Clerk and Planning Board on 8/9/06 by Nana Pacheco, Clerk.

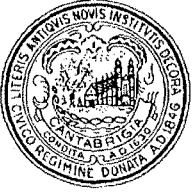
Twenty days have elapsed since the filing of this decision.

No appeal has been filed _____.

Appeal has been filed and dismissed or denied.

Date: _____ City Clerk.

40670316



City of Cambridge

MASSACHUSETTS

BOARD OF ZONING APPEAL

831 Mass Avenue, Cambridge, MA.
(617) 349-6100

NOTICE OF DECISION

DECISION FILED WITH THE OFFICE OF THE CITY CLERK ON AUG 09 2006

Any person aggrieved by a decision of the Board of Zoning Appeal may appeal to the Superior Court or Land Court. Appeals, if any, shall be made pursuant to Section 17, Chapter 40A, Massachusetts General Laws and shall be filed within twenty calendar days from the above date, and a copy thereof shall be filed with the Cambridge City Clerk's office by that same date.

PREMISES: 1221 Cambridge Street
Cambridge, MA

PETITIONER: Omnipoint Communications Inc.
C/o Peter Cooke

PETITION: Special Permit: Modification of existing wireless communication
facility to allow for relocation of one antenna array.

DECISION: **GRANTED W/ CONDITIONS**

CASE NO: 9306

*For full details, please refer to the decision available at Inspectional Services Dept.



City of Cambridge

MASSACHUSETTS

BOARD OF ZONING APPEAL

831 Mass Avenue, Cambridge, MA.
(617) 349-6100

12/19/12 AM 10 28
OFFICE OF THE CITY CLERK
CAMBRIDGE, MASSACHUSETTS

CASE NO: 10325

LOCATION: 1221 Cambridge Street
Cambridge, MA

Business A Zone

PETITIONER: T-Mobile Northeast, LLC
C/o Jackie Slaga, Agent



2012 00280012
Bk: 60778 Pg: 22 Doc: DECIS
Page: 1 of 3 12/19/2012 02:29 PM

PETITION: Special Permit: In-kind replacement of existing 6 antennas with new antennas; addition of 1 small footprint cabinet adjacent to existing cabinets. All antennas will be mounted in the same location and painted to match façade of building.

VIOLATION: Art. 4.000, Sec. 4.32.G.1 & 4.10 (Footnote 49) (Telecommunication Facility). Art. 10.000, Sec. 10.40 (Special Permit).

DATE OF PUBLIC NOTICE: September 13 & 20, 2012

DATE OF PUBLIC HEARING: September 27, 2012

MEMBERS OF THE BOARD:

BRENDAN SULLIVAN - CHAIR
CONSTANTINE ALEXANDER - VICE-CHAIR
TIMOTHY HUGHES
THOMAS SCOTT

✓

ASSOCIATE MEMBERS:

MAHMOOD R. FIROUZBAKHT
DOUGLAS MYERS
SLATER W. ANDERSON
TAD HEUER
JANET GREEN
ANDREA A. HICKEY
KEVIN C. McAVEY

✓
✓
✓
✓

Members of the Board of Zoning Appeal heard testimony and viewed materials submitted regarding the above request for relief from the requirements of the Cambridge Zoning Ordinance. The Board is familiar with the location of the petitioner's property, the layout and other characteristics as well as the surrounding district.

1221 Cambridge St.
Cambridge, MA

Case No. 10325
Location: 1221 Cambridge Street
Petitioner: T-Mobile NE, LLC c/o Jackie Slaga

On September 27, 2012, Petitioner's attorney Ricardo Sousa appeared before the Board of Zoning Appeal requesting a special permit in order to replace six existing antennas with new antennas mounted in the same location with low profile mounts and painted to match the façade and to add one small footprint cabinet. The Petitioner requested relief from Article 4, Section 4.32.G.1 of the Cambridge Zoning Ordinance ("Ordinance"). The Petitioner submitted application materials including information about the project, plans, and photographs.

Mr. Sousa stated that the Petitioner wished to upgrade its existing specially permitted wireless facility as part of a system wide upgrade. He stated that new antennas would simply replace existing ones and that everything would be painted so as to reduce visual impacts, and that there would be at least a one foot clearance from the top of the roof line to the top of the antennae. He also agreed to replace the pole mounts with low profile mounts. He stated that there was an increasing need for more coverage. He stated that the Petitioner was FCC licensed.

The Chair stated that this installation was not in a residential zoning district. The Chair also stated that should the Petitioner later wish to replace or upgrade its equipment that it return to the Board. The Chair asked if anyone wished to be heard on the matter, no one indicated such.

After discussion, the Chair moved that the Board grant the special permit for relief in order to replace six existing antennas with new antennas mounted in the same location and painted to match the façade and to add one small footprint cabinet based on the finding that the requirements of the Ordinance were met. The Chair moved that the Board find that traffic generated and patterns of access and egress would not cause congestion, hazard or substantial change in the established neighborhood character. The Chair moved that the Board find that there was an existing telecommunications facility on the building, which had not created any deleterious effects. The Chair moved that the Board find that the continued operation of or development of adjacent uses as permitted under the Ordinance would not be adversely affected, but would rather be enhanced by the upgraded equipment. The Chair moved that the Board find that there would not be any nuisance or hazard created to the detriment of the health, safety or welfare of the occupants of the proposed use or to the citizens of the city, and that the proposed use would not impair the integrity of the district or adjoining districts, or otherwise derogate from the intent and purpose of the Ordinance. The Chair moved that the


Board grant the special permit on the condition that the work be performed as per the photo simulations and plans submitted.

The five member Board voted unanimously in favor of granting the special permit (Sullivan, Green, Myers, Anderson, and Firouzbakht) with the above condition. Therefore, the special permit is granted.

The Board based its decision upon all the information presented, the above findings and upon the following:

- 1) The meeting of the requirements of the Ordinance;
- 2) Traffic generated or patterns of access or egress would not cause congestion, hazard, or substantial change in the established neighborhood character;
- 3) The continued operation of or the development of adjacent uses as permitted in the Ordinance would not be adversely affected by the nature of the proposed uses;
- 4) Nuisance or hazard would not be created to the detriment of the health, safety and /or welfare of the occupants of the proposed use;
- 5) The proposed use would not impair the integrity of the district or adjoining district or otherwise derogate from the Ordinance, and in fact would be a significant improvement to the structure and benefit the neighborhood, and;
- 6) The new use or building construction is not inconsistent with the Urban Design Objectives set forth in Section 19.30 of the Cambridge Zoning Ordinance.

The Board of Zoning Appeal is empowered to waive local zoning regulations only. This decision therefore does not relieve the petitioner in any way from the duty to comply with local ordinances and regulations of the other local agencies, including, but not limited to the Historical Commission, License Commission and/or compliance with requirements pursuant to the Building Code and other applicable codes.


Brendan Sullivan, Chair

Attest: A true and correct copy of decision filed with the offices of the City Clerk and Planning Board on 11-16-12 by Maria P. Lopez, Clerk.

Twenty days have elapsed since the filing of this decision.

No appeal has been filed ✓.

Appeal has been filed and dismissed or denied.

Date: December 19, 2012 Donna P. Lopez City Clerk.



CITY OF CAMBRIDGE
MASSACHUSETTS
BOARD OF ZONING APPEAL
831 MASSACHUSETTS AVENUE
CAMBRIDGE, MA 02139
617 349-6100

2015 NOV - 1 AM 11:56

CASE NO: BZA-011008-2016 Business A Zone

LOCATION: 1221 Cambridge St
Cambridge, MA 02139

PETITIONER: T-Mobile Northeast LLC - C/O Ricardo M. Sousa, Esq.

PETITION: Special Permit: To modify its existing Wireless Telecommunications Facility by collocating three (3) new L700 antennas on the existing building, together with supporting equipment. All three (3) proposed antennas will be facade mounted to the existing building, adjacent to the existing antennas and painted to match the existing building. All work will be done pursuant to the plans provided herein. The Applicants proposal complies with Section 6409 of the Spectrum Act as the collocation of antennas is not a substantial change to the existing base station. Moreover, the Applicants proposal complies with Section 4.32 and 10.4 of the Cambridge Zoning Code.

VIOLATION :

Article 4.000	Section 4.32.G.1 (Telecommunications Facility).
Article 4.000	Section 4.40 (Footnote 49) (Telecommunication Facility).
Article 6409	Section Middle Class Tax Relief & Job Creation Act.
Article 10.000	Section 10.40 (Special Permit).

DATE OF PUBLIC NOTICE: August 11 & 18, 2016

DATE OF PUBLIC HEARING: August 25, 2016; September 29, 2016;

MEMBERS OF THE BOARD:

CONSTANTINE ALEXANDER - CHAIR	✓
BRENDAN SULLIVAN - VICE-CHAIR	✓
JANET O. GREEN	✓
PATRICK TEDESCO	✓
ANDREA A. HICKEY	✓

ASSOCIATE MEMBERS:

DOUGLAS MYERS	_____
SLATER W. ANDERSON	_____
ALISON HAMMER	_____
JIM MONTEVERDE	_____
GEORGE BEST	_____
LAURA WERNICK	_____

Members of the Board of Zoning Appeal heard testimony and viewed materials submitted regarding the above request for relief from the requirements of the Cambridge Zoning Ordinance. The Board is familiar with the location of the petitioner's property, the layout and other characteristics as well as the surrounding district.

Case No. BZA-011008-2016
Location: 1221 Cambridge Street
Petitioner: T-Mobile Northeast LLC – c/o Ricardo Sousa, Esq.

On September 29, 2016, Petitioner's attorney Daniel Glissman appeared before the Board of Zoning Appeal requesting a special permit in order to modify its existing wireless telecommunications facility by collocating three new L700 antennas on the existing building, together with supporting equipment, where all three proposed antennas will be facade mounted to the existing building, adjacent to the existing antennas and painted to match the existing building. The Petitioner requested relief under Article 4, Section 4.32.G.1 and Article 10, Section 10.40 of the Cambridge Zoning Ordinance ("Ordinance") and Section 6409 of the Middle Class Tax Relief & Job Creation Act. The Petitioner submitted materials in support of their application including information about the project, plans, and photographs.

Mr. Glissman stated that as part of a system wide upgrade, the Petitioner wished to add three new antennas to an existing telecommunications site. He stated that the plan had been revised in response to Planning Board suggestions. He stated that the Petitioner was FCC licensed.

The Chair asked if anyone wished to be heard on the matter, no one indicated such. The Chair read a letter of support from the Planning Board.

After discussion, the Chair moved that the Board make the following findings based upon the application materials submitted and all evidence before the Board and that based upon the findings the Board grant the requested relief as described in the Petitioner's submitted materials and the evidence before the Board: that the Board find that the requirements of the Ordinance could not be met without a Special Permit sought; that the Board find that traffic generated or patterns of access or egress would not cause congestion, hazard, or substantial change in established neighborhood character; that the Board find that the continued operation of or development of adjacent uses as permitted in the Ordinance would not be adversely affected by the nature of the proposed use; that the Board find that no nuisance or hazard would be created to the detriment of the health, safety, and/or welfare of the occupants of the proposed use or the citizens of the City; that the Board find that what was being proposed would not impair the integrity of the district or adjoining district or otherwise derogate from the intent and purpose of the Ordinance; and that the Board find that the proposed modification of the petitioner's existing telecommunication facility would not substantially change the physical dimensions of the existing wireless tower or base station at such facility within the meaning of the Section 6409(a) of The Middle Class Tax Relief and Job Creation Act of 2012, also known as The Spectrum Act.

The Chair further moved that based upon all the information presented the Board grant the requested relief as described in the Petitioner's submitted materials and the evidence before the Board on the following conditions:


1. that the work proceed in accordance with plans submitted by the petitioner, dated 8/22/16, as initialed by the Chair,
2. that upon completion of the work, the physical appearance and visual impact of the proposed work be consistent with the photo simulations submitted by the petitioner, as initialed by the Chair,
3. that the petitioner at all times maintain the proposed work so that its physical appearance and visual impact remain consistent with the photo simulations previously referred to,
4. that should the petitioner cease to utilize the equipment approved tonight for a continuous period of six months or more, it promptly thereafter remove such equipment and restore the building on which it was located to its prior condition and appearance to an extent reasonably practicable,
5. that the petitioner continue to comply with the conditions imposed by the Board with respect to previous Special Permits granted to the petitioner with regard to the site in question,
6. that inasmuch as the health effects of the transmission of electromagnetic energy waves is a matter of ongoing societal concern and scientific study, the Special Permit is also subject to the following conditions:
 - A. that the petitioner shall file with the Inspectional Services Department each report it files with the federal authorities regarding electromagnetic energy wave emissions emanating from all of the petitioner's equipment on the site. Each such report shall be filed with the Inspectional Services Department no later than ten business days after the report has been filed with the federal authorities. Failure to timely file any such report with the Inspectional Services Department shall ipso facto terminate the Special Permit granted tonight.
 - B. that in the event that at any time federal authorities notify the petitioner that its equipment on the site, including, but not limited to the special permit granted tonight, fails to comply with the requirements of law or governmental regulations, whether with regard to the emissions of electromagnetic energy waves or otherwise, the petitioner, within ten business days of receipt of such notification of such failure, shall file with the Inspectional Services Department a report disclosing in reasonable detail that such failure has occurred and the basis for such claimed failure. The special permit shall ipso facto terminate if any of the petitioner's federal licenses are suspended, revoked, or terminated.
 - C. that to the extent a special permit has terminated pursuant to the foregoing paragraphs A and B, the petitioner may apply to this Board for a new special permit provided that the public notice containing such application discloses in reasonable detail that the application has been

filed because of a termination of the special permit pursuant to paragraphs A or B above. Any such new application shall not be deemed a repetitive petition and therefore will not be subject to the two-year period during which repetitive petitions may not be filed.

- D. that within ten business days after receipt of a Building Permit for installation of equipment subject to this petition, the petitioner shall file with the Inspectional Services Department a sworn Affidavit of the person in charge of the installation of equipment by the petitioner of the geographical area that includes Cambridge. Stating that A, he or she has such responsibility, and B that the equipment being installed pursuant to the special permit will comply with all federal safety rules and will be situated and maintained in locations with appropriate barricades and other protections, such that individuals, including nearby residents and occupants of nearby structures, will be sufficiently protected from excessive radio frequency radiation under federal law.

The five member Board voted unanimously in favor of granting the special permit with the above conditions (Alexander, Sullivan, Green, Hickey, and Tedesco). Therefore, the special permit is granted as conditioned.

The Board of Zoning Appeal is empowered to waive local zoning regulations only. This decision therefore does not relieve the petitioner in any way from the duty to comply with local ordinances and regulations of the other local agencies, including, but not limited to the Historical Commission, License Commission and/or compliance with requirements pursuant to the Building Code and other applicable codes.



Constantine Alexander, Chair

Attest: A true and correct copy of decision filed with the offices of the City Clerk and Planning Board on 11/1/16 by Maria Pacheco, Clerk.

Twenty days have elapsed since the filing of this decision.

No appeal has been filed _____.

Appeal has been filed and dismissed or denied.

Date: _____ City Clerk.



CITY OF CAMBRIDGE
MASSACHUSETTS
BOARD OF ZONING APPEAL
831 MASSACHUSETTS AVENUE
CAMBRIDGE, MA 02139
617 349-6100

NOTICE OF DECISION

DECISION FILED WITH THE OFFICE OF THE CITY CLERK ON November 01, 2016

Any person aggrieved by a decision of the Board of Zoning Appeal may appeal to the Superior Court or Land Court. Appeals, if any, shall be made pursuant to Section 17, Chapter 40A, Massachusetts General Laws and shall be filed within twenty calendar days from the above date, and a copy thereof shall be filed with the Cambridge City Clerk's office by that same date

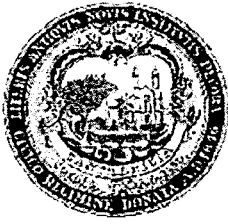
PREMISES: 1221 Cambridge St
Cambridge, MA 02139

PETITIONER: T-Mobile Northeast LLC - C/O Ricardo M. Sousa, Esq.

PETITION: Special Permit: To modify its existing Wireless Telecommunications Facility by collocating three (3) new L700 antennas on the existing building, together with supporting equipment. All three (3) proposed antennas will be facade mounted to the existing building, adjacent to the existing antennas and painted to match the existing building. All work will be done pursuant to the plans provided herein. The Applicants proposal complies with Section 6409 of the Spectrum Act as the collocation of antennas is not a substantial change to the existing base station. Moreover, the Applicants proposal complies with Section 4.32 and 10.4 of the Cambridge Zoning Code.

DECISION: **Approved**

CASE NO: BZA-011008-2016



CITY OF CAMBRIDGE
MASSACHUSETTS
BOARD OF ZONING APPEAL
831 MASSACHUSETTS AVENUE
CAMBRIDGE, MA 02139
617 349-6100

November 01, 2016

T-Mobile Northeast LLC - C/O Ricardo M. Sousa, Esq.
1 International Place, Suite 3700
Boston MA, 02110

Case No: BZA-011008-2016

Dear Ricardo M. Sousa, Esq.

We enclose the decision of the Board of Zoning Appeal as it pertains to the premises located at
1221 Cambridge St Cambridge, MA 02139

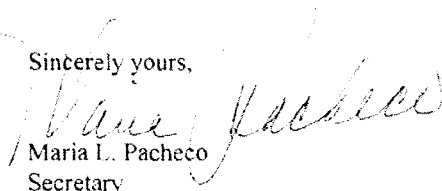
A copy of this decision has been filed with office of the City Clerk, this date. When twenty days have passed you MUST:

1. HAVE THIS DECISION COMPLETED AND SIGNED BY THE CITY CLERK, CITY HALL -
795 Mass Avenue, Cambridge, Ma. (In the space provide on the decision)
 2. FILE THE DECISION WITH THE REGISTRY OF DEEDS
Middlesex County Courthouse, 208 Cambridge Street, Cambridge, MA. (There is usually a
fee, payable to the Registry of Deeds and the book and page number is required by the Registry).
 3. SUPPLY THE BOARD OF ZONING APPEAL WITH DOCUMENTATION OF SUCH
FILING - (with the Registry of Deeds).
- THE DIVISION OF INSPECTIONAL SERVICES WILL NOT ISSUE BUILDING PERMITS
 - UNLESS THE ABOVE ITEMS HAVE BEEN COMPLETED.

Any person aggrieved by a decision of the Board of Zoning Appeal may appeal to the Superior Court or Land Court.
Appeals, if any, shall be made pursuant to Section 17, Chapter 40A, Massachusetts General Laws and shall be filed within
twenty days of the above date, and a copy thereof shall be filed with the Cambridge City Clerk's office by that same date.

If you have any questions, please phone me at 349-6100.

Sincerely yours,


Maria L. Pacheco
Secretary

Section 10.35 of the Zoning Ordinances:

If the rights authorized by a variance are not exercised within one year of the date of granting of such variance (two years
for a special permit), they shall lapse and may be reestablished only after notice and new hearing pursuant to this Section
10.30.

7

May 21 2019

VIA HAND DELIVERY

Ranjit Singanayagam
Commissioner of Inspectional Services/Building Commissioner
City of Cambridge
831 Massachusetts Avenue
Cambridge, MA 02139

Re: Eligible Facilities Request to Modify Transmission Equipment at an Existing Base
Station located at **1221 Cambridge Street, Cambridge, MA 02139.**

Dear Mr. Singanayagam:

A. T-Mobile is Filing an Eligible Facilities Request

Prince Lobel Tye LLP, on behalf of T-Mobile Northeast LLC is submitting the attached Eligible Facilities Request application to add, remove, modify, or replace Transmission Equipment at an Existing Base Station located at 1221 Cambridge Street, Cambridge, MA 02139.

Because this jurisdiction has not yet developed an Eligible Facilities Request permit application form that complies with Section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012, commonly known as the "Spectrum Act" (Pub. Law No. 112-96, 126 Stat 156) (codified at 47 U.S.C. § 1455), this Eligible Facilities Request is attached to the Building Permit Application form which was customarily used by this jurisdiction when reviewing requests to collocate or modify wireless telecommunications facilities. Because federal law now preempts many of the permit application requirements that this jurisdiction would previously have required from an applicant, this Eligible Facilities Request application provides only the information that federal law allows this jurisdiction to consider when reviewing an Eligible Facilities Request.

Section 6409(a) of the Spectrum Act mandates that state and local governments "*may not deny, and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station.*" Under Section 6409(a)(2)(A)-(C) an Eligible Facilities Request is any request to modify a Tower or Base Station that involves "collocations of new Transmission Equipment," "removal," or "replacement" of Transmission Equipment.

Prince Lobel Tye LLP
One International Place
Suite 3700
Boston, MA 02110
TEL: 617 456 8000
FAX: 617 456 8100

www.princelobel.com

2015.3
National Development

B. Why this Eligible Facilities Request Must Be Granted

This Eligible Facilities Request involves an effort to collocate, remove, modify, or replace Transmission Equipment at an existing Base Station operated by an FCC licensed wireless carrier. The FCC has defined Base Station as “the equipment and non-tower supporting structure at a fixed location that enable Commission-licensed or authorized wireless communications between user equipment and a communications network . . . the term includes equipment associated with wireless communications service including, but not limited to, radio transceivers, antennas, coaxial or fiber-optic cable, regular and backup power supply, and comparable equipment.” The term existing base station also includes a structure that currently houses or supports an antenna, transceiver or other associated equipment that constitutes part of a Base Station at the time the application is filed even if the structure was not built solely or primarily to provide such support. The existing Base Station in this application is approximately one hundred and forty feet and nine inches (140’ 9”) high and presently contains wireless facilities. The existing Base Station meets the Federal Communications Commission (“FCC”) definition of a Base Station.

The list of equipment identified in the Eligible Facilities Request application that will be collocated, removed, or replaced at the Base Station also is Transmission Equipment as determined by the FCC. The FCC has defined Transmission Equipment as “any equipment that facilitates transmission for any Commission-licensed or authorized wireless communication service, including, but not limited to, radio transceivers, antennas and other relevant equipment associated with and necessary to their operation, including coaxial or fiber-optic cable, and regular and back-up power supply. This definition includes equipment used in any technological configuration associated with any Commission-authorized wireless transmission, licensed or unlicensed, terrestrial or satellite, including commercial mobile, private mobile, broadcast and public safety services, as well as fixed wireless services such as microwave backhaul or fixed broadband.”

The FCC, in a Report and Order adopted on October 17, 2014, determined that any modification to an existing telecommunications Base Station that meets the following six criteria does not substantially change the physical dimensions of the existing Base Station and therefore is an Eligible Facilities Request which must be granted:

1. *The modifications to the Transmission Equipment do not increase the height of the Base Station by more than 10 percent (10%) or ten (10) feet, whichever is greater.*
 - a. The height of the Base Station is approximately one hundred and forty feet and nine inches (140’ 9”) high. The proposed replacement of three (3) panel antennas will not affect the height of the Base Station.
2. *The modifications to the Transmission Equipment do not protrude from the edge of the support structure by more than six (6) feet.*
 - a. The replacement of three (3) panel antennas will not protrude from the edge of the building and therefore will not exceed the six (6) foot limitation. All of

the proposed antennas will be façade mounted and together with the mounting equipment will extend no more than one (1) foot from the existing building. As such, the proposed modification will not protrude from the edge of the building by more than six (6) feet.

3. *The modifications to the Transmission Equipment do not involve the installation of more than the standard number of equipment cabinets for the technology involved, not to exceed four.*
 - a. There are currently three (3) equipment cabinets existing at the Base Station. The Applicant does not propose to install any additional equipment cabinets.
4. *The modifications to the Transmission Equipment do not entail any excavation or deployment outside of the Base Station site.*
 - a. The Applicant is proposing to replace three (3) panel antennas with like kind panel antennas. There will be no excavation or deployment outside of the Base Station site.
5. *The modifications to the Transmission Equipment do not defeat any existing concealed or stealth-design.*
 - a. Pursuant to the original decision by the Zoning Board of Appeal for the City of Cambridge (the “Board”) for this facility, dated August 9, 2006 (Case No. 9306) (the “Original Decision”), the second decision dated November 16, 2012 (Case No. 10325) (the “2nd Decision”), and a third decision dated November 1, 2016 (Case no. BZA-011008-2016) (the 3rd Decision”) (together, the Original Decision, the 2nd Decision and the 3rd Decision shall hereafter be referred to as the “Decisions”), all of which are attached hereto, the existing antennas are located in the preferred location on the building and comply with the required conditions for a stealth design. The replacement of the antennas with like kind antennas will not defeat the existing stealth design all antennas will be painted to match the existing building, mounted on low-profile mounts and installed one (1) foot below the top of the roof line. All equipment will be designed to blend into the existing building. As such, the proposed modification will not defeat any existing concealed or stealth design.
6. *The modifications to the Transmission Equipment comply with prior conditions of approval of the Base Station, unless the non-compliance is due to an increase in height, increase in width, addition of equipment cabinets, or new excavation that does not exceed the corresponding “substantial change” thresholds in numbers 1-4.*
 - a. Based on the foregoing, the proposed modifications to the Base Station fully conform to Section 6409(a) of the Spectrum Act and comply with the prior conditions of approval of the Base Station.

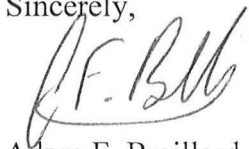
There is a certification attached to the accompanying Eligible Facilities Request that identifies how each of the six review criteria identified by the FCC is met. The modifications to the Transmission Equipment at the Base Station located at 1221 Cambridge Street, Cambridge, MA 02139 contained in this Eligible Facilities Request fully conform to Section 6409(a) as enacted by Congress and as interpreted by the FCC. Accordingly, this Eligible Facilities Request must be approved within 60 days, as required by federal law and FCC implementing regulations.

C. Notice of Federal Law Expedited Permit Processing and Deemed Granted

Under federal law, an Eligible Facilities Request is deemed granted sixty (60) days after a complete application is filed with a local jurisdiction. If sixty days pass after the submission of T-Mobile's accompanying Eligible Facilities Request and the City of Cambridge has not acted to grant or deny the request, it will be deemed granted. At that time, the applicant may advise the City of Cambridge that the application has been deemed granted. If the City of Cambridge wishes to contest whether the Eligible Facilities Request has been deemed granted, the burden is on the City of Cambridge to file a lawsuit in a court of competent jurisdiction within 30 days after receipt of a written communication notifying it that the Eligible Facilities Request has been deemed granted. Failure to file a lawsuit in a timely manner may forever bar this jurisdiction from contesting that this Eligible Facilities Request has been deemed granted.

T-Mobile is committed to working cooperatively with you, and all jurisdictions around the country, to secure expeditious approval of requests to modify existing personal wireless service facilities. Please do not hesitate to contact me if you have questions.

Sincerely,



Adam F. Braillard

Direct: 617-456-8153

Email: abraillard@princelobel.com

ELIGIBLE FACILITIES REQUEST CERTIFICATION FOR NON-SUBSTANTIAL CHANGES TO AN EXISTING BASE STATION

“Base Station” means the equipment and non-tower supporting structure at a fixed location that allow Commission-licensed or authorized wireless communications between user equipment and a communications network. The term base station includes any equipment associated with wireless communications services including but not limited to radio transceivers, antennas, coaxial or fiber-optic cables, regular or back up power supply, and comparable equipment. The term existing base station also includes a structure that currently houses or supports an antenna, transceiver or other associated equipment that constitutes part of a base station at the time the application is filed even if the structure was not built solely or primarily to provide such support. “Base Station” includes the relevant equipment in any technological configuration, including small cells and DAS. Remember “Base Station” has two separate meanings: (1) the supporting structure that houses FCC licensed or authorized wireless equipment and (2) the wireless equipment itself. Keep this distinction in mind when calculating a substantial change in physical dimensions.

“Transmission Equipment” means any equipment that facilitates transmission for any FCC licensed or authorized wireless communication service, including but not limited to, radio transceivers, antennas and other relevant equipment associated with and necessary to their operation, including coaxial or fiber-optic cable, and regular and back-up power supply. This definition includes equipment used in any technological configuration associated with any Commission-authorized wireless transmission, licensed or unlicensed, terrestrial or satellite, including commercial mobile, private mobile, broadcast and public safety services, as well as fixed wireless services such as microwave backhaul or fixed broadband.

“Collocation” means the addition, removal or replacement of Transmission Equipment to an existing tower or a base station. This means that the existing support structure, be it a tower or a building or some other structure, must presently support FCC licensed or authorized wireless facilities. The FCC further requires that the site (tower, building, or other structure) was previously approved by the appropriate agency of government to house wireless facilities. Illegal wireless installations cannot be the basis for an eligible facilities request. However, if a communications Tower was erected at a time when it was exempt from zoning, the Tower can be modified through the Eligible Facilities Request process even if the Tower is no longer exempt from zoning.

Site Address: 1221 Cambridge Street

Existing Facilities

The Existing Facility is comprised of nine (9) panel antennas all mounted to the façade of the existing building, together with supporting equipment.

Height of Base Station

Height above ground level of the tallest point on the existing base station: 140' 9" (feet)

Height above ground level of the tallest point of the existing base station after the installation of the *proposed* equipment: 140' 9"(feet)

- 1) Does the height above ground level of the proposed equipment exceed the height of the tallest point on the existing base station by more than 10 percent (10%) or ten (10) feet, whichever is greater?

☐ Yes ☒ No

Width of Base Station

- 2) Will any of the proposed equipment protrude from the edge of the support structure by more than six (6) feet?

☐ Yes ☒ No

Excavation or Equipment Placement

- 3) Will the proposed changes in Transmission Equipment involve excavation or placement of new equipment outside the existing Base Station site or outside any access or utility easements currently related to the site?

☐ Yes ☒ No

Equipment Cabinets

- 4) Will the proposed modification in Transmission Equipment involve installation of more than the standard number of new equipment cabinets for the technology involved, but not to exceed four?

☐ Yes ☒ No

Concealed or Stealth-Designed Wireless Facilities

5)

- a) Is the existing wireless facility concealed or stealth- designed?

☒ Yes ☐ No

- b) If the answer to 5a) is "Yes," will the proposed modification in Transmission Equipment defeat the existing concealed or stealth-design?

☐ Yes ☒ No

Compliance with Preexisting Conditions of Approval for the Base Station

6)

- a) Were there any conditions of approval stated in the original government approval of the Base Station?

☒ Yes ☐ No

- b) Will the proposed modification in Transmission Equipment comply with conditions of approval imposed on the Base Station prior to February 22, 2012?

☒ Yes ☐ No

- c) If the answer to 6b) is "No," is the non-compliance due solely to any of the conditions addressed in Questions 1-5 above?

☒ Yes ☐ No

If the answers to questions 1-4 are "No," the answer to either 5a) or b) is "No," and the answers to 6a) is "No" or the answers to either 6b) or 6c) are "Yes," then the proposed modifications do not substantially change the physical dimensions of the existing Base Station.

Explanatory Comments:

N/A

This certification is dated this 21th day of May, 2019.

Signature

Adam F. Brailard, Esq., Attorney for T-Mobile Northeast LLC.

Name & Title

Eligible Facilities Request (EFR) Application Form

[Attach this EFR form to the local jurisdiction form used to process cell site modifications.]

Date of Submittal: May 21, 2019

Submitted by:

Name: Adam F. Braillard, Esq.

Title: Attorney for the T-Mobile Northeast LLC (the "Applicant")

Contact information: 617-456-8153, abraillard@princelobel.com

Name of Jurisdiction: City of Cambridge

Address of Jurisdiction: 831 Massachusetts Avenue, Cambridge MA 02139

Contact Name for Jurisdiction: Ranjit Singanayagam

Name of Local Government Permit Application: Building Permit

Local Government File #: _____

Street Address of Site: 1221 Cambridge Street

Tax Parcel # of Site: Map 82, Lot 8

Latitude/Longitude of Site: _____

List Each Piece of Transmission Equipment that will be Collocated or Added:

The Applicant proposes to modify its existing Wireless Telecommunications Facility by replacing three (3) panel antennas and three (3) Remote Radio Units (RRUs) on the roof of the existing building, with like kind panel and

antennas and RRUs, together with supporting equipment. All of the proposed antennas and RRUs will be facade mounted to the existing Building, in the same locations as the replaced antennas, and all will be painted to match the existing building.

List Each Piece of Transmission Equipment that will be Removed:

None

List Cabinets that will be Collocated or Added at the Site:

None

List Cabinets that will be Removed at the Site:

None

Permit Application Deposit Amount: _____

Municipal Consultant Review Fee Deposit (if applicable): _____

B0031/1221 CAMBRIDGE STREET

1221 CAMBRIDGE STREET
CAMBRIDGE, MA 02139

SITE NO.: 4DE7031B

SITE TYPE: L700 4x2 – 67D92D UPGRADE

GENERAL NOTES

1. 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.

2. 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.

3. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE PROJECT OWNER'S 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.

4. 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.

5. 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.

6. 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.

7. 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.

8. 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.

9. 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.
10. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY CONSTRUCTION CONTROL SURVEYS, ESTABLISHING AND MAINTAINING ALL LINES AND GRADES REQUIRED TO CONSTRUCT ALL IMPROVEMENTS AS SHOWN HEREIN.

11. 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.

12. 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.

13. 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.

14. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.

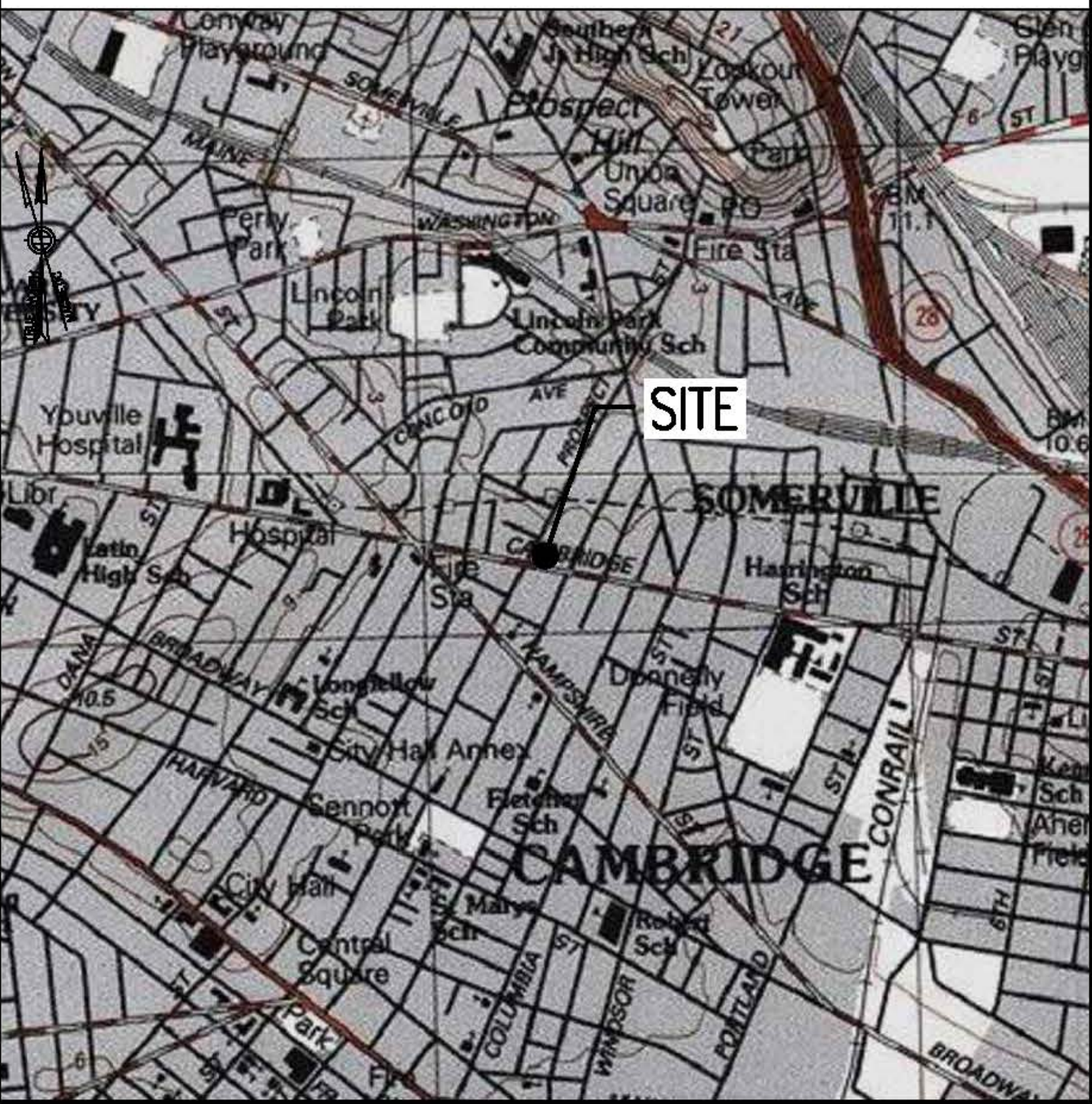
15. THE CONTRACTOR SHALL NOTIFY THE PROJECT OWNER'S REPRESENTATIVE WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED BY THE PROJECT OWNER'S REPRESENTATIVE.

16. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE JOB.

17. 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 (CT): 1-800-922-4455

VICINITY MAP:

1"=1000'



DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE PROJECT OWNER'S REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SHEET INDEX

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PROJECT SUMMARY

SITE NUMBER:

4DE7031B

SITE NAME:

B0031/1221 CAMBRIDGE STREET

SITE ADDRESS:

1221 CAMBRIDGE STREET
CAMBRIDGE, MA 02139

ASSESSOR'S PARCEL NO.:

84-20

ZONING DISTRICT:

BA (BUSINESS A)

CONSTRUCTION TYPE:

SITE UPGRADE L700 4x2

LESSOR:

INMAN SQUARE APARTMENTS COMPANY
1221 CAMBRIDGE STREET
CAMBRIDGE, MA 02139

APPLICANT:

T-MOBILE NORTHEAST LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766

ARCHITECT:

CHAPPELL ENGINEERING ASSOCIATES, LLC
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752

STRUCTURAL ENGINEER:

CHAPPELL ENGINEERING ASSOCIATES, LLC
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752

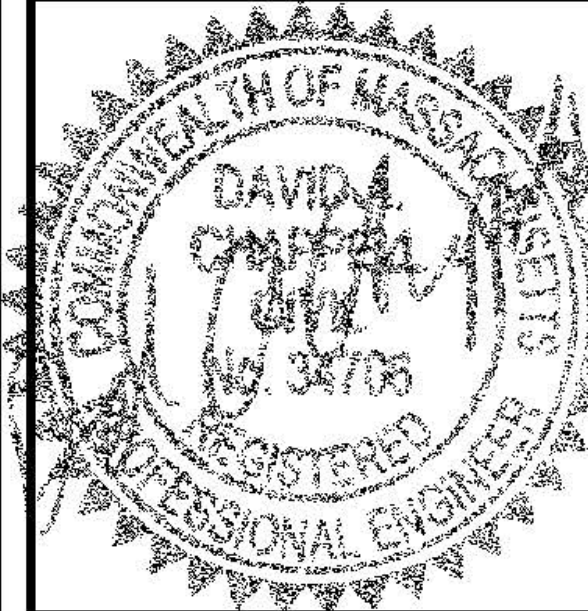
..T..Mobile..

T-MOBILE NORTHEAST LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
OFFICE: (508) 286-2700



Civil · Structural · Land Surveying

R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST
SUITE 101
MARLBOROUGH, MA 01752
(508)481-7400
www.chappellengineering.com



APPROVALS

LESSOR

LEASING

R.F.

ZONING

CONSTRUCTION

A/E

PROJECT NO: 4DE7031B

DRAWN BY: MAM

CHECKED BY: JMT

VERSION

2	11/26/18	REVISED CONSTRUCTION
1	11/19/18	ISSUED FOR CONSTRUCTION
0	09/20/18	CONSTRUCTION REVIEW

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4DE7031B
B0031/1221
CAMBRIDGE STREET

1221 CAMBRIDGE STREET
CAMBRIDGE, MA 02139

SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR – T–MOBILE
SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
OWNER – T–MOBILE
OEM – ORIGINAL EQUIPMENT MANUFACTURER
2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.
4. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL, STATE AND FEDERAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
5. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CONTRACTOR.
9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER, T1 CABLES AND GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR AND/OR LANDLORD PRIOR TO CONSTRUCTION.
10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY.
12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION AND RETURN DISTURBED AREAS TO ORIGINAL CONDITIONS.
13. THE SUBCONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
14. SUBCONTRACTOR SHALL NOTIFY CHAPPELL ENGINEERING ASSOCIATES, LLC 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING TRENCHES, SEALING ROOF AND WALL PENETRATIONS AND POST DOWNS, FINISHING NEW WALLS OR FINAL ELECTRICAL CONNECTIONS FOR ENGINEERING REVIEW.
15. CONSTRUCTION SHALL COMPLY WITH ALL T–MOBILE STANDARDS AND SPECIFICATIONS.
16. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
17. THE EXISTING CELL SITES ARE IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
18. IF THE EXISTING CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.

SITE WORK GENERAL NOTES:

1. THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
2. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION.
3. ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.
4. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
5. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.
6. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
7. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
8. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF ENGINEERING, OWNER AND/OR LOCAL UTILITIES.
9. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE AND STABILIZED TO PREVENT EROSION AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
10. SUBCONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
11. THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE T–MOBILE SPECIFICATION FOR SITE SIGNAGE.

CONCRETE AND REINFORCING STEEL NOTES:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST–IN–PLACE CONCRETE.
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. A HIGHER STRENGTH (400PSI) MAY BE USED. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 381 CODE REQUIREMENTS
3. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
4. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
CONCRETE CAST AGAINST EARTH.....3 IN.
CONCRETE EXPOSED TO EARTH OR WEATHER:
#6 AND LARGER2 IN.
#5 AND SMALLER & WWF1½ IN.
CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:
SLAB AND WALL¾ IN.
BEAMS AND COLUMNS1½ IN.
5. A CHAMFER ¾" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
6. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHORS SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO THE MANUFACTURERS RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS. ALL EXPANSION/WEDGE ANCHORS SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED. EXPANSION BOLTS SHALL BE PROVIDED BY SIMPSON OR APPROVED EQUAL.
7. CONCRETE CYLINDER TIES ARE NOT REQUIRED FOR SLAB ON GRADE WHEN CONCRETE IS LESS THAN 50 CUBIC YARDS (IBC1905.6.2.3) IN THAT EVENT THE FOLLOWING RECORDS SHALL BE PROVIDED BY THE CONCRETE SUPPLIER;
(A) RESULTS OF CONCRETE CYLINDER TEST PERFORMED AT THE SUPPLIERS PLANT.
(B) CERTIFICATION OF MINIMUM COMPRESSIVE STRENGTH FOR THE CONCRETE GRADE SUPPLIED.
FOR GREATER THAN 50 CUBIC YARDS THE GC SHALL PERFORM THE CONCRETE CYLINDER TEST.
8. AS AN ALTERNATIVE TO ITEM 7. TEST CYLINDERS SHALL BE TAKEN INITIALLY AND THEREAFTER FOR EVERY 50 YARDS OF CONCRETE FROM EACH DIFFERENT BATCH PLANT.
9. EQUIPMENT SHALL NOT BE PLACED ON NEW PADS FOR SEVEN DAYS AFTER PAD IS POURED, UNLESS IT IS VERIFIED BY CYLINDER TESTS THAT COMPRESSIVE STRENGTH HAS BEEN ATTAINED.

STRUCTURAL STEEL NOTES:

1. ALL STEEL WORK SHALL BE PAINTED OR GALVANIZED IN ACCORDANCE WITH THE DRAWINGS AND T–MOBILE SPECIFICATIONS UNLESS OTHERWISE NOTED. STRUCTURAL STEEL SHALL BE ASTM–A–36 UNLESS OTHERWISE NOTED ON THE SITE SPECIFIC DRAWINGS. STEEL DESIGN, INSTALLATION AND BOLTING SHALL BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "MANUAL OF STEEL CONSTRUCTION".
2. ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AWS D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 9TH EDITION. PAINTED SURFACES SHALL BE TOUCHED UP.
3. BOLTED CONNECTIONS SHALL USE BEARING TYPE ASTM A325 BOLTS (¾"Ø) AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE. ALL BOLTS SHALL BE GALVANIZED OR STAINLESS STEEL.
4. NON–STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE ¾" DIA. ASTM A 307 BOLTS (GALV) UNLESS NOTED OTHERWISE.
5. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER REVIEW & APPROVAL ON PROJECTS REQUIRING STRUCTURAL STEEL
6. ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC SPECIFICATIONS.

SOIL COMPACTION NOTES FOR SLAB ON GRADE:

1. EXCAVATE AS REQUIRED TO REMOVE VEGETATION AND TOPSOIL TO EXPOSE NATURAL SUBGRADE AND PLACE CRUSHED STONE AS REQUIRED.
2. COMPACTION CERTIFICATION: AN INSPECTION AND WRITTEN CERTIFICATION BY A QUALIFIED GEOTECHNICAL TECHNICIAN OR ENGINEER IS ACCEPTABLE.
3. AS AN ALTERNATE TO INSPECTION AND WRITTEN CERTIFICATION, THE "UNDISTURBED SOIL" BASE SHALL BE COMPACTED WITH "COMPACTION EQUIPMENT", LISTED BELOW, TO AT LEAST 90% MODIFIED PROCTOR MAXIMUM DENSITY PER ASTM D 1557 METHOD C.
4. COMPACTED SUBBASE SHALL BE UNIFORM AND LEVELED. PROVIDE 6" MINIMUM CRUSHED STONE OR GRAVEL COMPACTED IN 3" LIFTS ABOVE COMPACTED SOIL. GRAVEL SHALL BE NATURAL OR CRUSHED WITH 100% PASSING #1 SIEVE.
5. AS AN ALTERNATE TO ITEMS 2 AND 3, THE SUBGRADE SOILS WITH 5 PASSES OR A MEDIUM SIZED VIBRATORY PLATE COMPACTOR (SUCH AS BOMAG BPR 30/38) OR HAND–OPERATED SINGLE DRUM VIBRATORY ROLLER (SUCH AS BOMAG BW 55E). AND SOFT AREAS THAT ARE ENCOUNTERED SHOULD BE REMOVED AND REPLACED WITH A WELL–GRADED GRANULAR FILL AND COMPACTED AS STATED ABOVE.

COMPACTION EQUIPMENT:

1. HAND OPERATED DOUBLE DRUM, VIBRATORY ROLLER, VIBRATORY PLATE COMPACTOR OR JUMPING JACK COMPACTOR.

CONSTRUCTION NOTES:

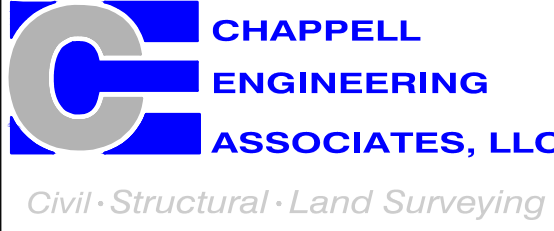
1. FIELD VERIFICATION:
SUBCONTRACTOR SHALL FIELD VERIFY SCOPE OF WORK, T–MOBILE ANTENNA PLATFORM LOCATION AND UTILITY TRENCHWORK.
2. COORDINATION OF WORK:
SUBCONTRACTOR SHALL COORDINATE RF WORK AND PROCEDURES WITH CONTRACTOR.
3. CABLE LADDER RACK:
SUBCONTRACTOR SHALL FURNISH AND INSTALL CABLE LADDER RACK, CABLE TRAY AND/OR ICE BRIDGE, AND CONDUIT AS REQUIRED TO SUPPORT CABLES TO THE NEW BTS LOCATION.

ELECTRICAL INSTALLATION NOTES:

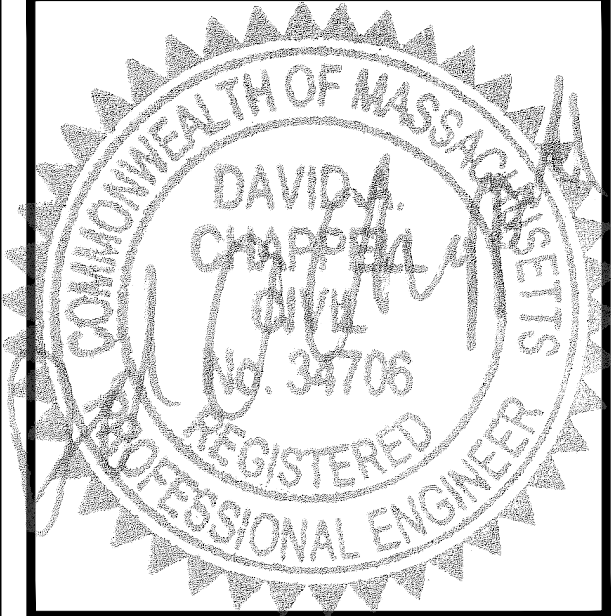
1. WIRING, RACEWAY, AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.
2. SUBCONTRACTOR SHALL MODIFY OR INSTALL CABLE TRAY SYSTEM AS REQUIRED TO SUPPORT RF AND TRANSPORT CABLEING TO THE NEW BTS EQUIPMENT. SUBCONTRACTOR SHALL SUBMIT MODIFICATIONS TO CONTRACTOR FOR APPROVAL.
3. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC AND TELCORDIA.
4. CABLES SHALL NOT BE ROUTED THROUGH LADDER–STYLE CABLE TRAY RUNGS.
5. EACH END OF EVERY POWER, GROUNDING, AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR–CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA, AND MATCH INSTALLATION REQUIREMENTS.
6. POWER PHASE CONDUCTORS (I.E., HOTS) SHALL BE LABELED WITH COLOR–CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, ½ INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). PHASE CONDUCTOR COLOR CODES SHALL CONFORM WITH THE NEC AND OSHA.
7. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANELBOARD AND CIRCUIT ID'S).
8. PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.
9. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
10. POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#34 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN–2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
11. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#6 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN–2 GREEN INSULATION, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
12. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED OUTDOORS, OR BELOW GRADE, SHALL BE SINGLE CONDUCTOR #2 AWG SOLID TINNED COPPER CABLE, UNLESS OTHERWISE SPECIFIED.
13. POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI–CONDUCTOR, TYPE TC CABLE (#34 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN–2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; WITH OUTER JACKET; LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.
14. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP–STYLE, COMPRESSION WIRE LUGS AND WIRENUTS BY HARGER (OR EQUAL). LUGS AND WIRENUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75°C (90°C IF AVAILABLE).
15. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
16. NEW RACEWAY OR CABLE TRAY WILL MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
17. ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
18. ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
19. GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.
20. RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND; DIRECT BURIED, IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY VEHICLE TRAFFIC.
21. LIQUID–TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID–TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
22. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION–TYPE AND APPROVED FOR THE LOCATION USED. SETSCREW FITTINGS ARE NOT ACCEPTABLE.
23. CABINETS, BOXES AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
24. CABINETS, BOXES AND WIREWAYS TO MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
25. WIREWAYS SHALL BE EPOXY–COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PAINDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
26. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY–COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
27. METAL RECEPACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY–COATED, OR NON–CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
28. NONMETALLIC RECEPACLE, SWITCH, AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
29. THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
30. THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.
31. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
32. CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.



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APPROVALS

LESSOR _____
LEASING _____
R.F. _____
ZONING _____
CONSTRUCTION _____
A/E _____

PROJECT NO: 4DE7031B

DRAWN BY: MAM

CHECKED BY: JMT

VERSION

2	11/26/18	REVISED CONSTRUCTION
1	11/19/18	ISSUED FOR CONSTRUCTION
0	09/20/18	CONSTRUCTION REVIEW

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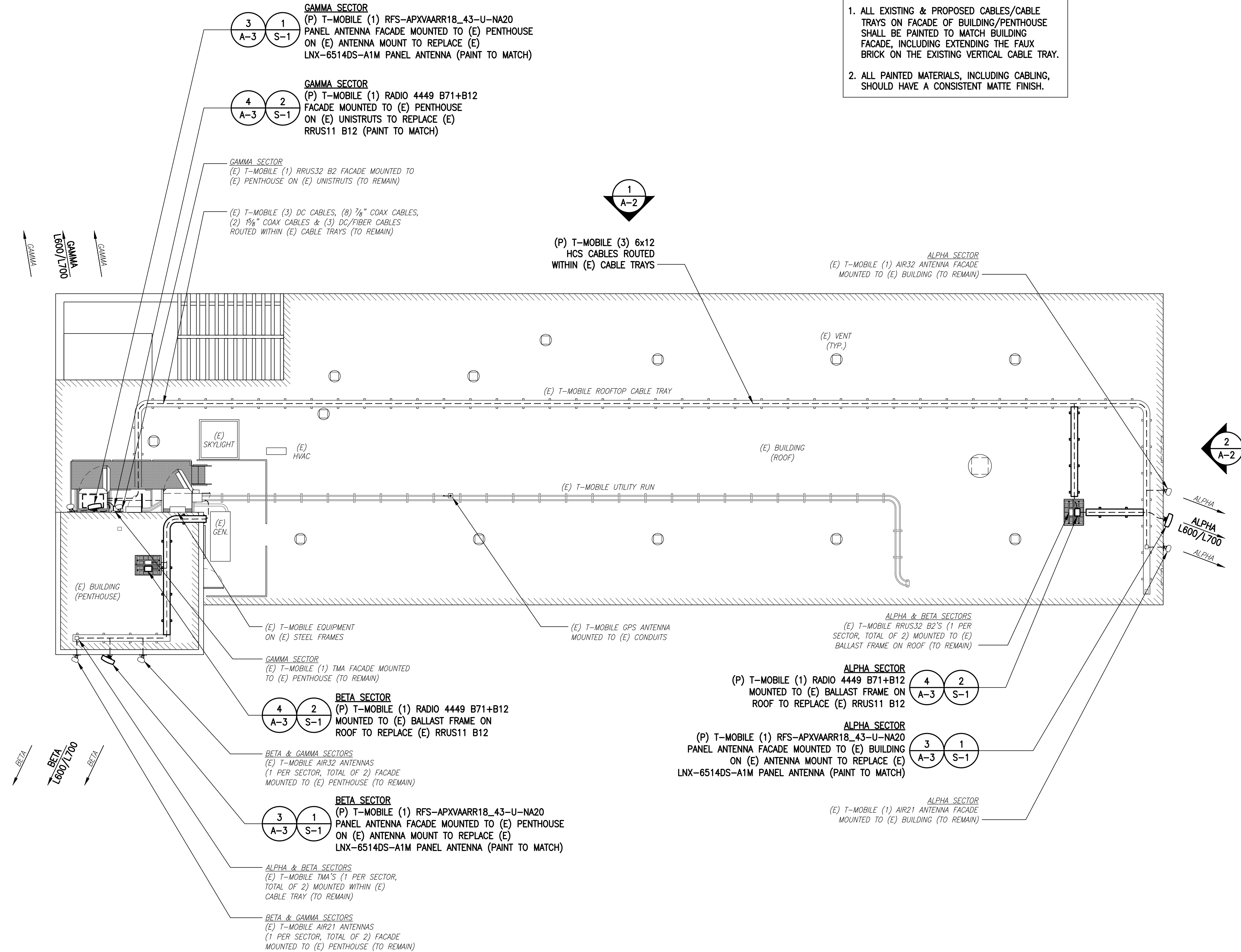
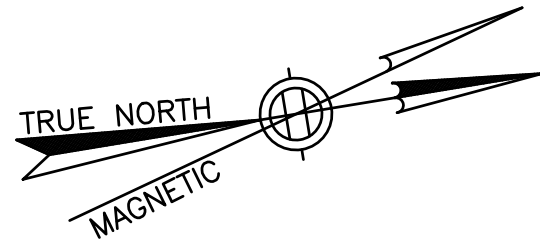
4DE7031B
B0031/1221
CAMBRIDGE STREET
1221 CAMBRIDGE STREET
CAMBRIDGE, MA 02139

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN–1



PAINTING NOTES:

1. ALL EXISTING & PROPOSED CABLES/CABLE TRAYS ON FACADE OF BUILDING/PENTHOUSE SHALL BE PAINTED TO MATCH BUILDING FACADE, INCLUDING EXTENDING THE FAUX BRICK ON THE EXISTING VERTICAL CABLE TRAY.

2. ALL PAINTED MATERIALS, INCLUDING CABLING, SHOULD HAVE A CONSISTENT MATTE FINISH.

EQUIPMENT SCHEDULE

- CURRENT EQUIPMENT**
- THREE (3) ERICSSON AIR21 B2A/B4P ANTENNAS
 - THREE (3) ERICSSON AIR32 B4A/B2P ANTENNAS
 - THREE (3) COMMSCOPE LNX-6514DS-A1M 6' PANEL ANTENNAS
 - THREE (3) UMTS TMA'S
 - THREE (3) RRUS11 B12
 - THREE (3) RRUS32 B2
 - THREE (3) DC CABLES
 - EIGHT (8) 7/8" COAX CABLES
 - TWO (2) 1 1/2" COAX CABLES
 - THREE (3) DC/FIBER CABLES
 - ONE (1) GPS ANTENNA AND ASSOCIATED 1/2" COAX CABLE
 - ONE (1) ERICSSON RBS 2106 EQUIPMENT CABINET (DARK)
 - ONE (1) ERICSSON RBS 6131 EQUIPMENT CABINET
 - ONE (1) PURCELL CABINET
 - ONE (1) NORTHERN TECHNOLOGIES 200A PPC CABINET

- EQUIPMENT TO BE REMOVED**
- THREE (3) COMMSCOPE LNX-6514DS-A1M 6' PANEL ANTENNAS
 - THREE (3) RRUS11 B12

- EQUIPMENT TO BE ADDED**
- THREE (3) RFS-APXVAARR18_43-U-NA20 PANEL ANTENNAS
 - THREE (3) RADIO 4449 B71+B12
 - THREE (3) 6x12 HCS CABLES

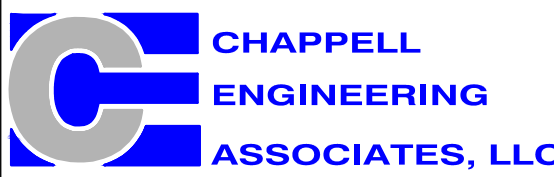
- FINAL EQUIPMENT CONFIGURATION**
- THREE (3) ERICSSON AIR21 B2A/B4P ANTENNAS
 - THREE (3) ERICSSON AIR32 B4A/B2P ANTENNAS
 - THREE (3) RFS-APXVAARR18_43-U-NA20 PANEL ANTENNAS
 - THREE (3) UMTS TMA'S
 - THREE (3) RADIO 4449 B71+B12
 - THREE (3) RRUS32 B2
 - THREE (3) DC CABLES
 - EIGHT (8) 7/8" COAX CABLES
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 - ONE (1) ERICSSON RBS 6131 EQUIPMENT CABINET
 - ONE (1) PURCELL CABINET
 - ONE (1) NORTHERN TECHNOLOGIES 200A PPC CABINET

EXISTING EQUIPMENT SPACE REQUIREMENTS WILL NOT CHANGE

RF CONFIGURATION
67D92D

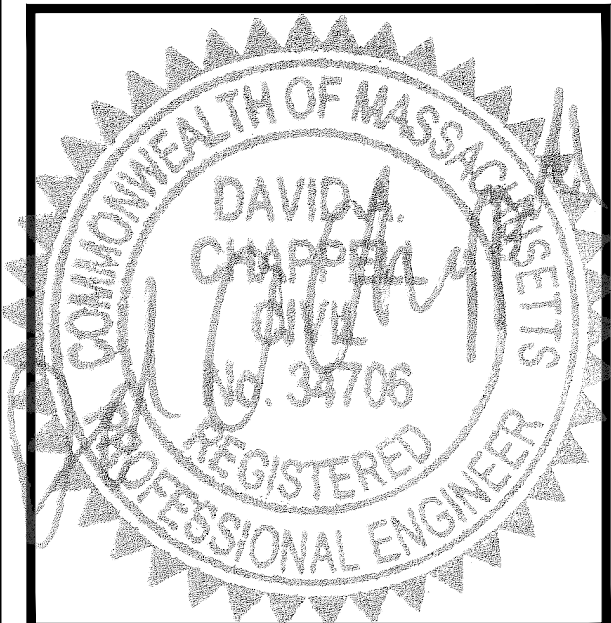
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ZONING _____
CONSTRUCTION _____
A/E _____

PROJECT NO: 4DE7031B

DRAWN BY: MAM

CHECKED BY: JMT

VERSION

NO.	DATE	DESCRIPTION
2	11/26/18	REVISED CONSTRUCTION
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4DE7031B
B0031/1221
CAMBRIDGE STREET

1221 CAMBRIDGE STREET
CAMBRIDGE, MA 02139

SHEET TITLE

ROOF PLAN

SHEET NUMBER

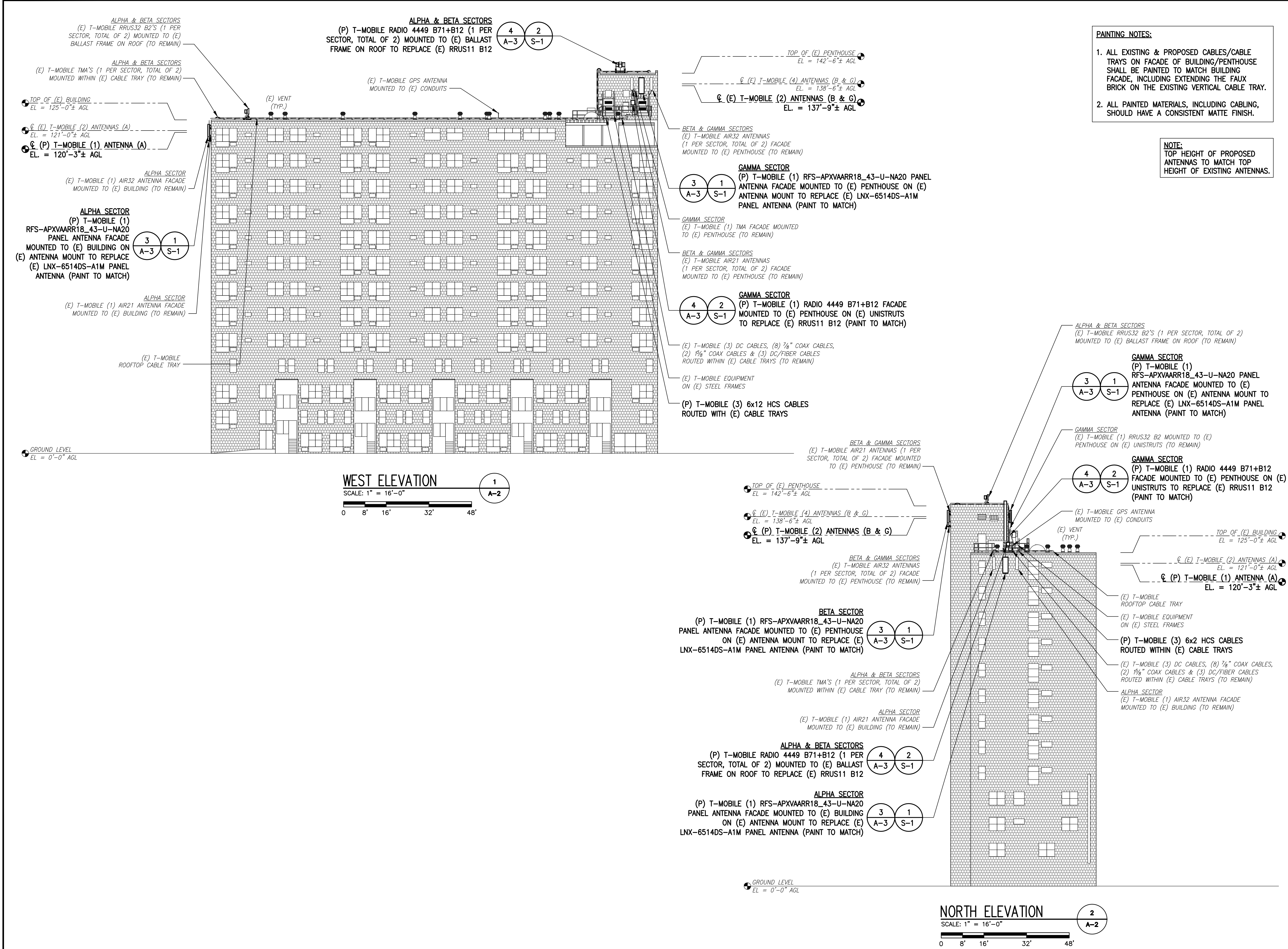
A-1

ROOF PLAN

SCALE: 1/8" = 1'-0"

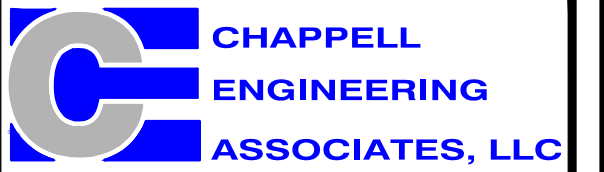


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A-1



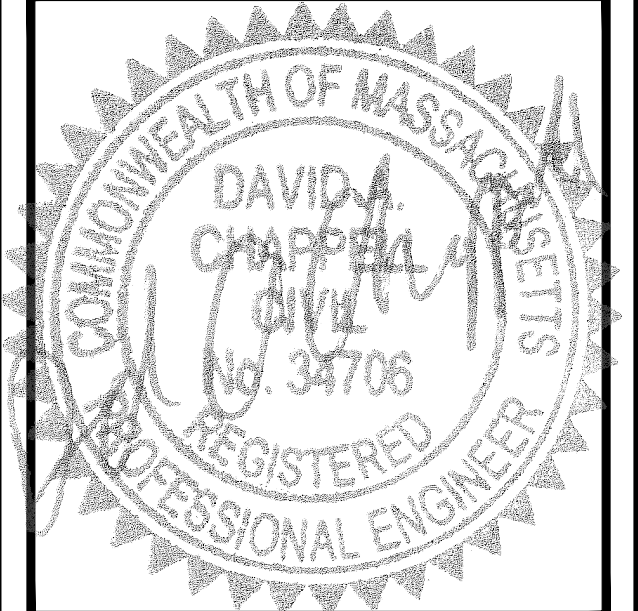
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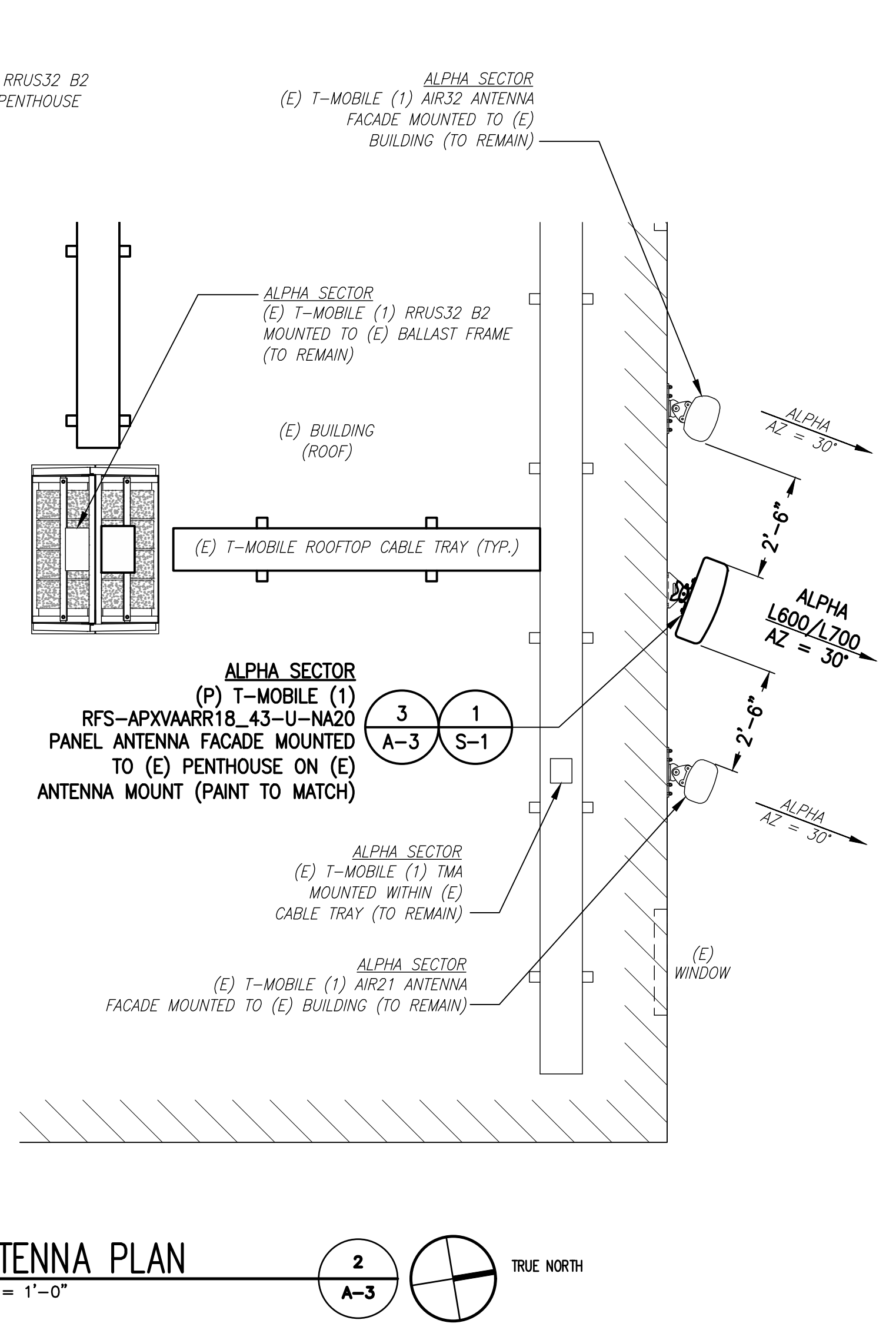
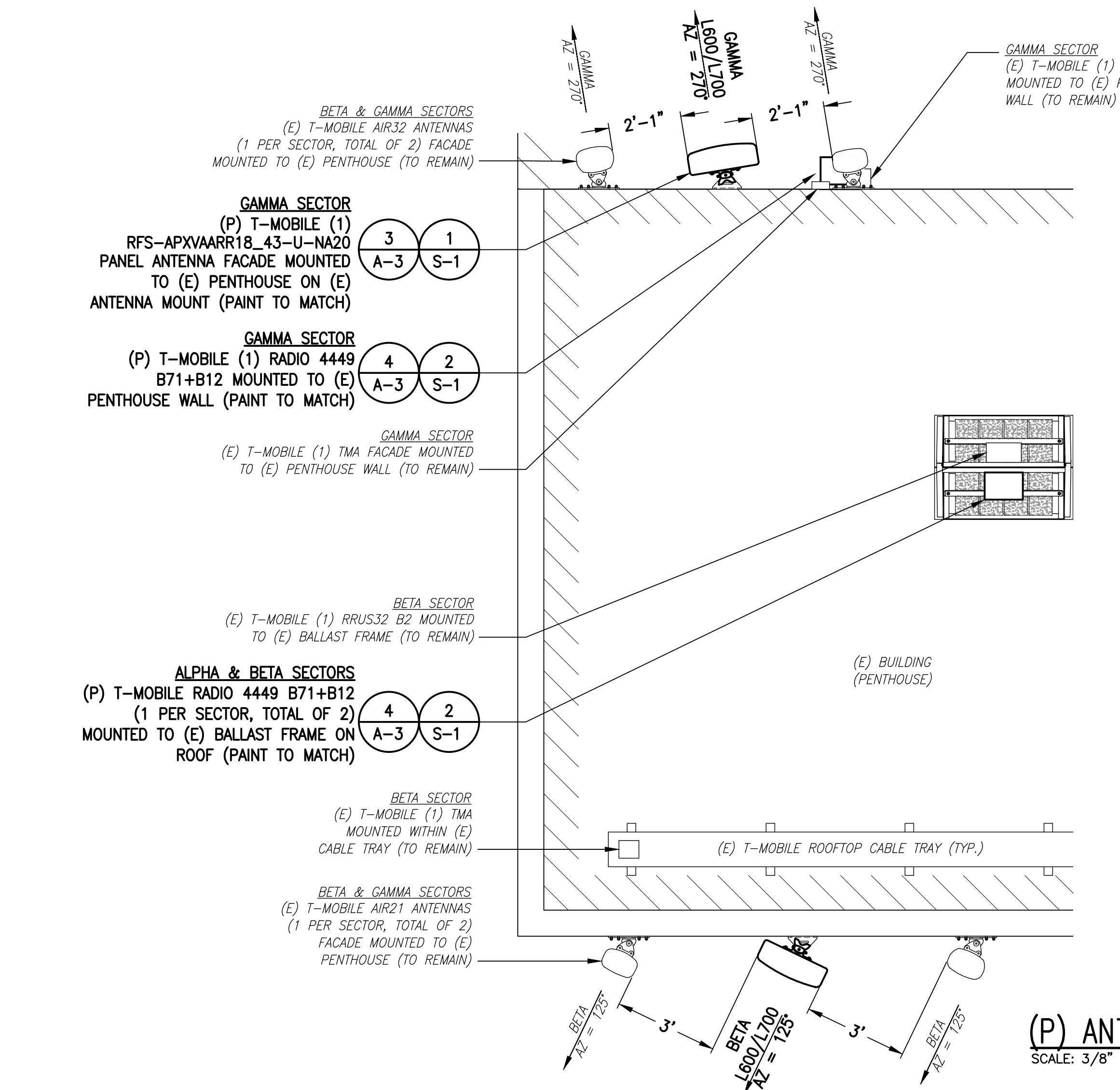
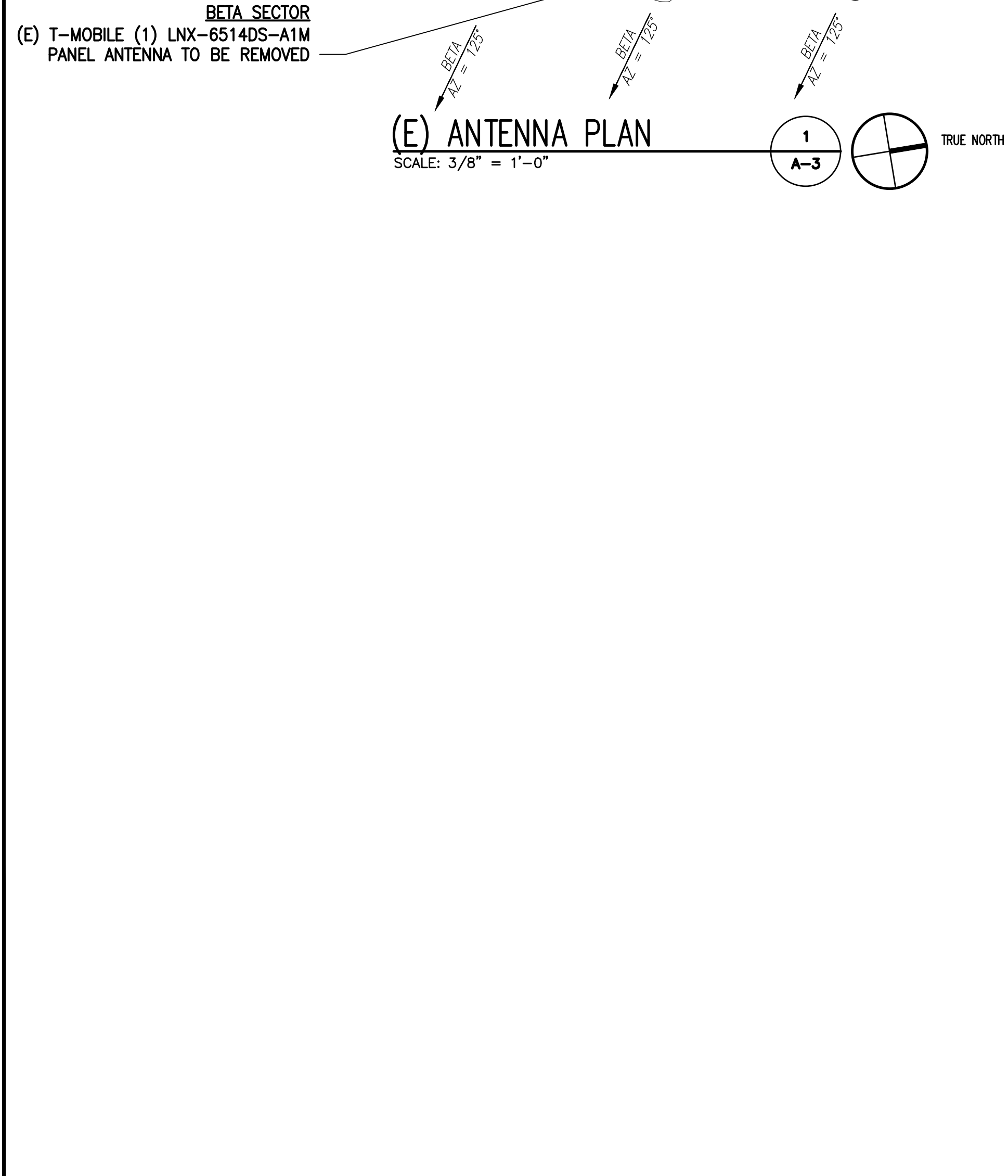
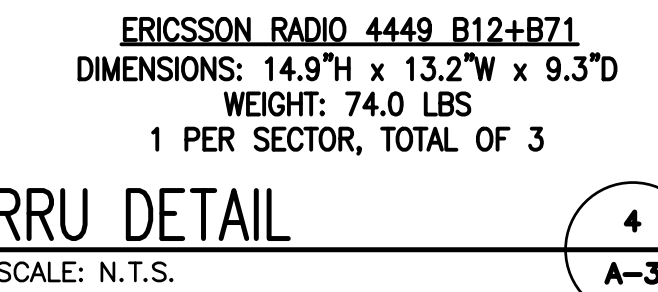
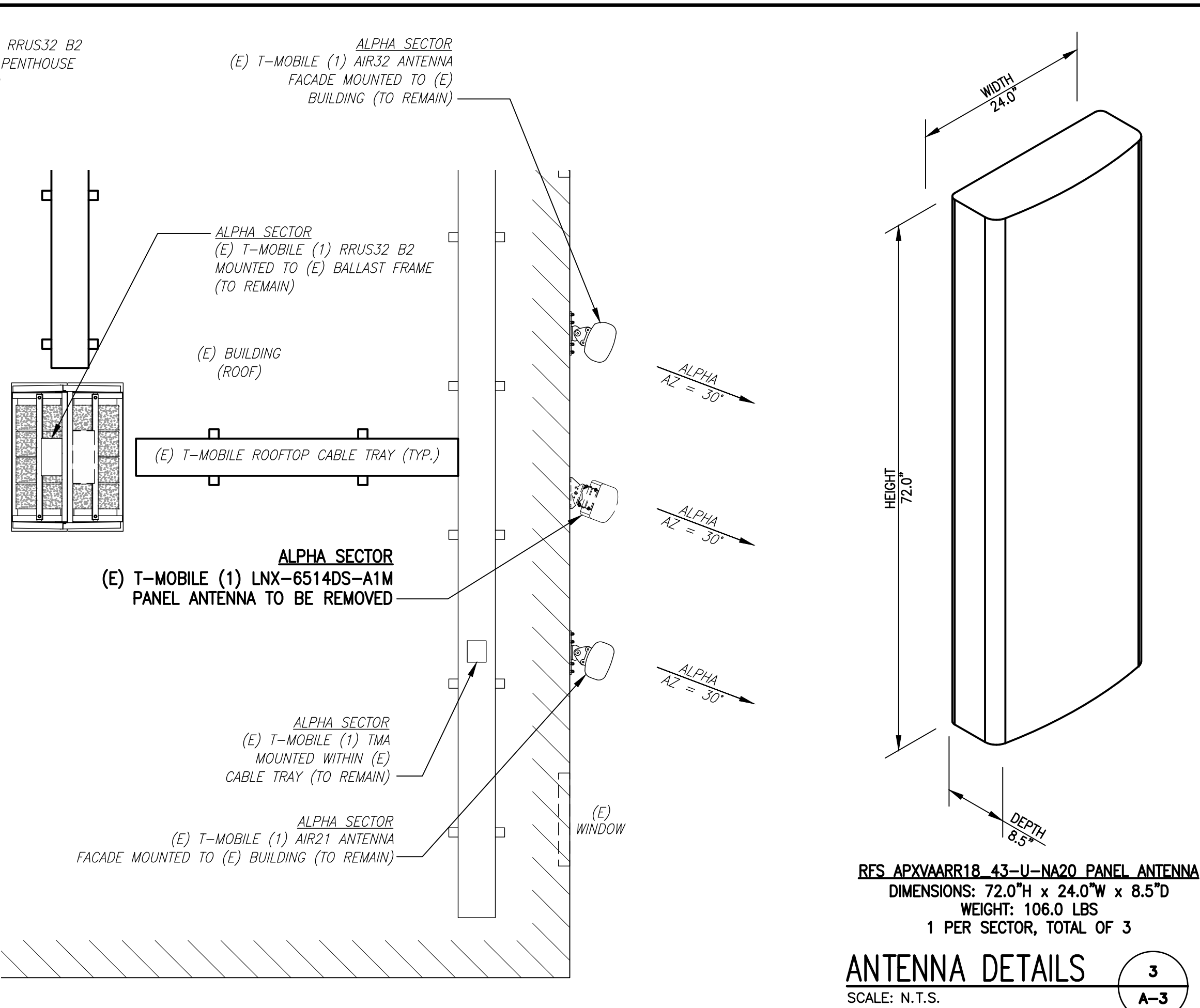
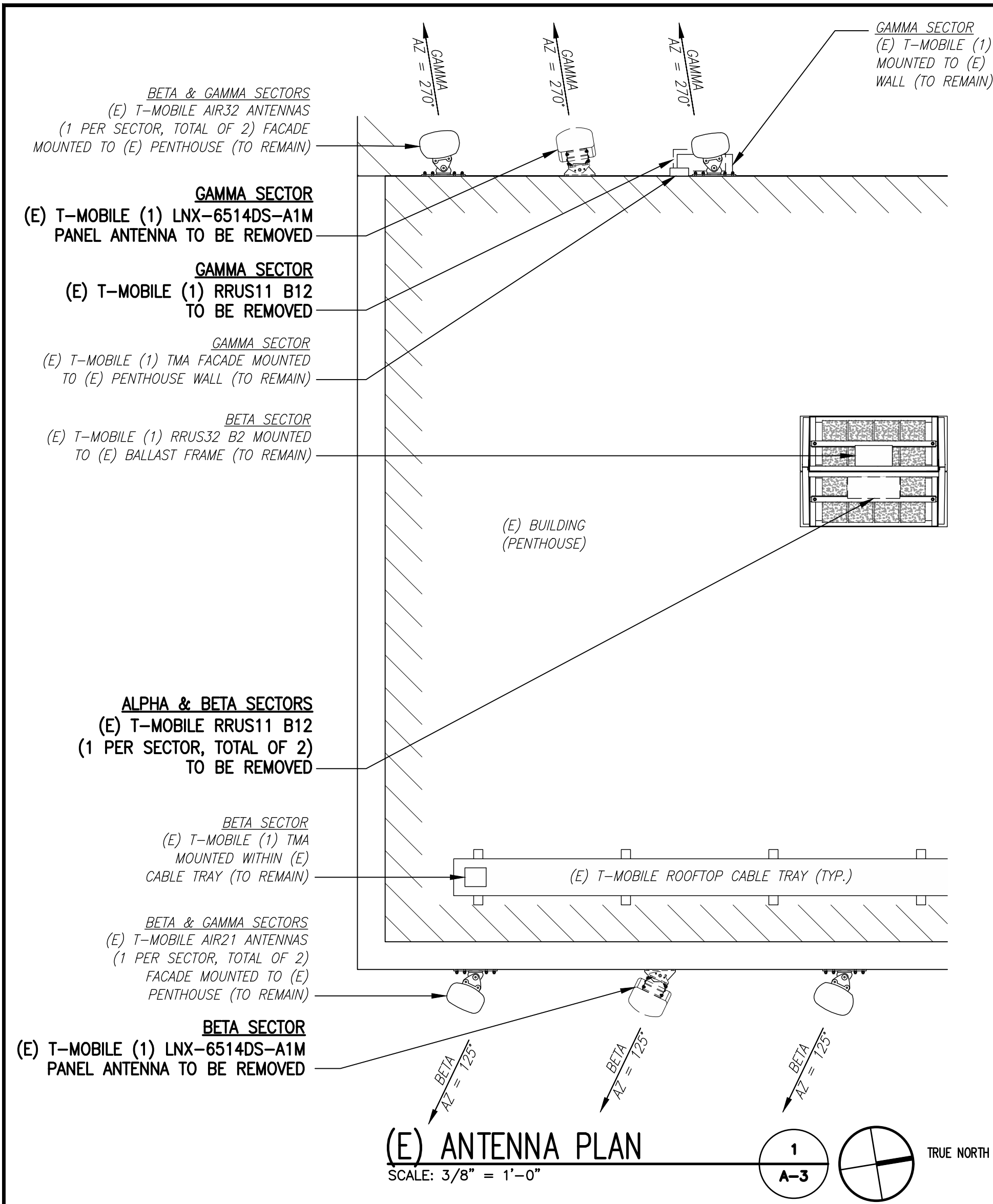
4DE7031B
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CAMBRIDGE STREET
1221 CAMBRIDGE STREET
CAMBRIDGE, MA 02139

SHEET TITLE

ELEVATIONS

SHEET NUMBER

A-2



PAINTING NOTES:

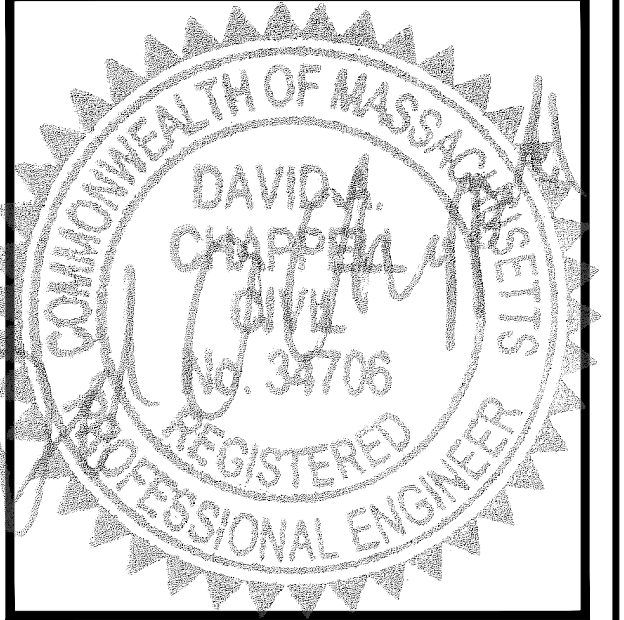
- ALL EXISTING & PROPOSED CABLES/CABLE TRAYS ON FACADE OF BUILDING/PENTHOUSE SHALL BE PAINTED TO MATCH BUILDING FACADE, INCLUDING EXTENDING THE FAUX BRICK ON THE EXISTING VERTICAL CABLE TRAY.
- ALL PAINTED MATERIALS, INCLUDING CABLING, SHOULD HAVE A CONSISTENT MATTE FINISH.

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A/E _____

PROJECT NO: 4DE7031B

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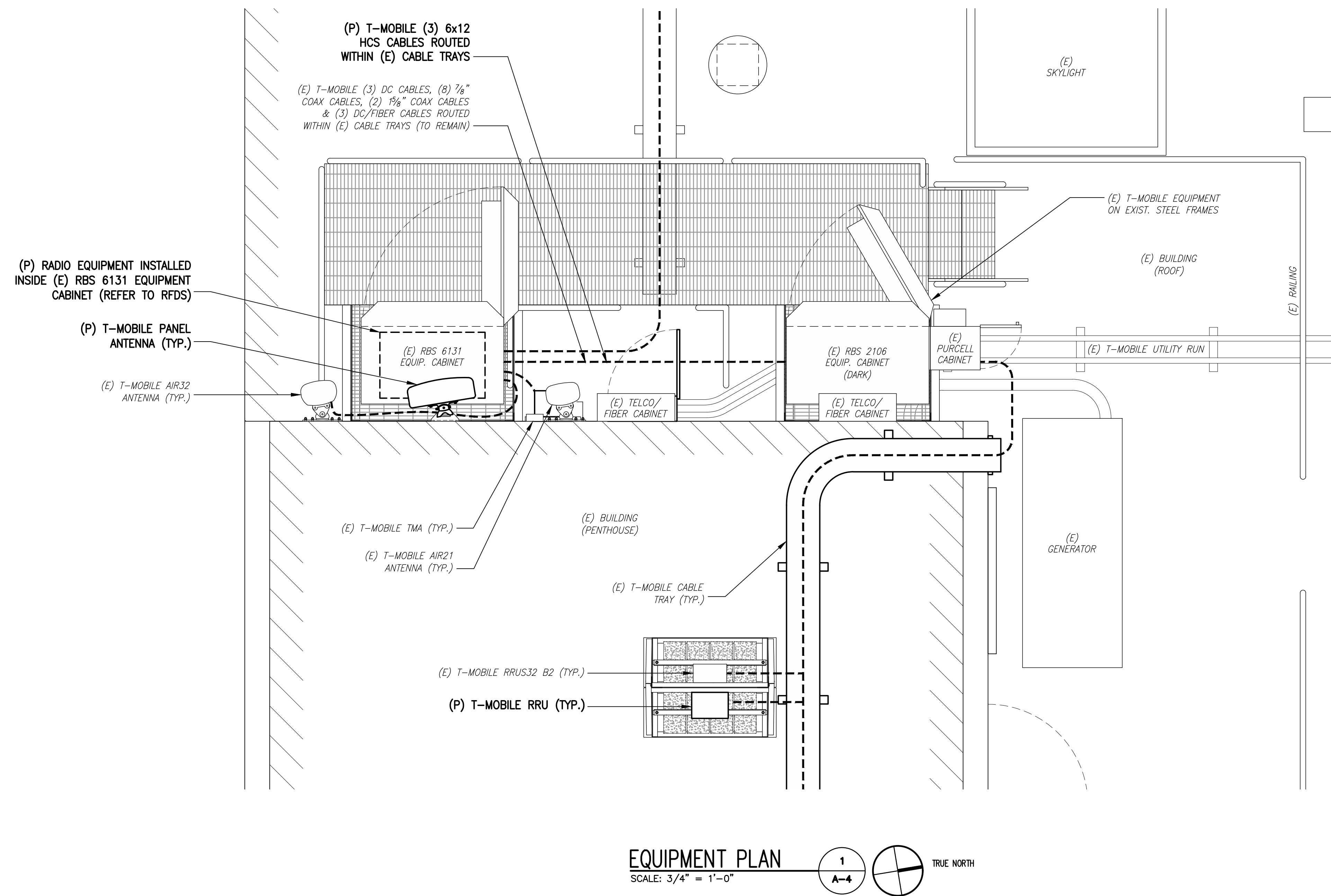
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4DE7031B
B0031/1221
CAMBRIDGE STREET
1221 CAMBRIDGE STREET
CAMBRIDGE, MA 02139

SHEET TITLE
ANTENNA DETAILS

SHEET NUMBER
A-3



- PAINING NOTES:**
1. ALL EXISTING & PROPOSED CABLES/CABLE TRAYS ON FACADE OF BUILDING/PENTHOUSE SHALL BE PAINTED TO MATCH BUILDING FACADE, INCLUDING EXTENDING THE FAUX BRICK ON THE EXISTING VERTICAL CABLE TRAY.
 2. ALL PAINTED MATERIALS, INCLUDING CABLING, SHOULD HAVE A CONSISTENT MATTE FINISH.

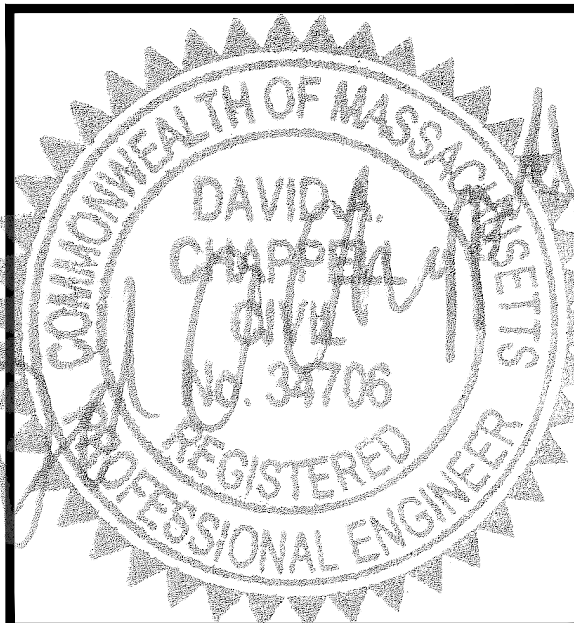
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CONSTRUCTION _____

A/E _____

PROJECT NO: 4DE7031B

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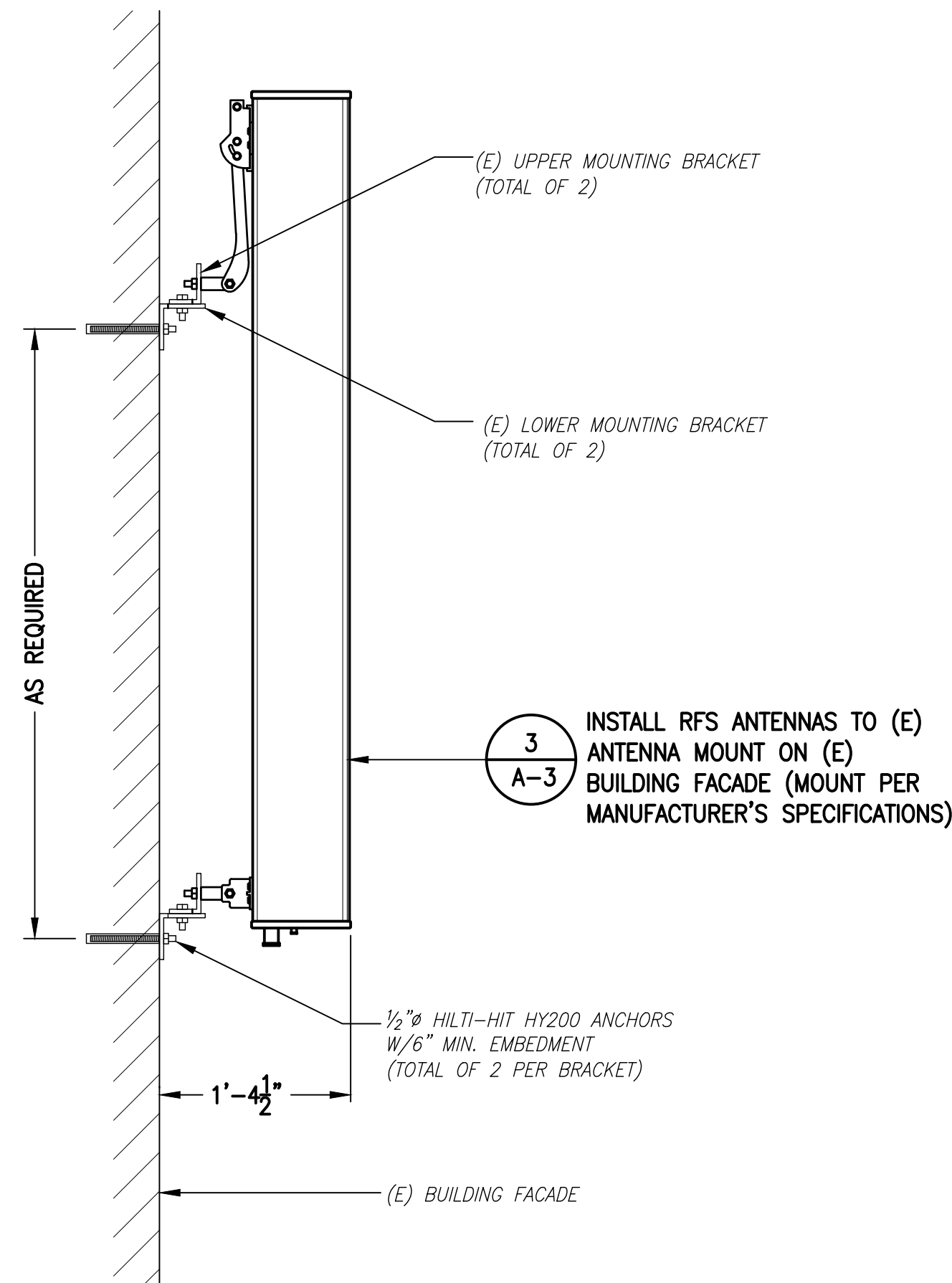
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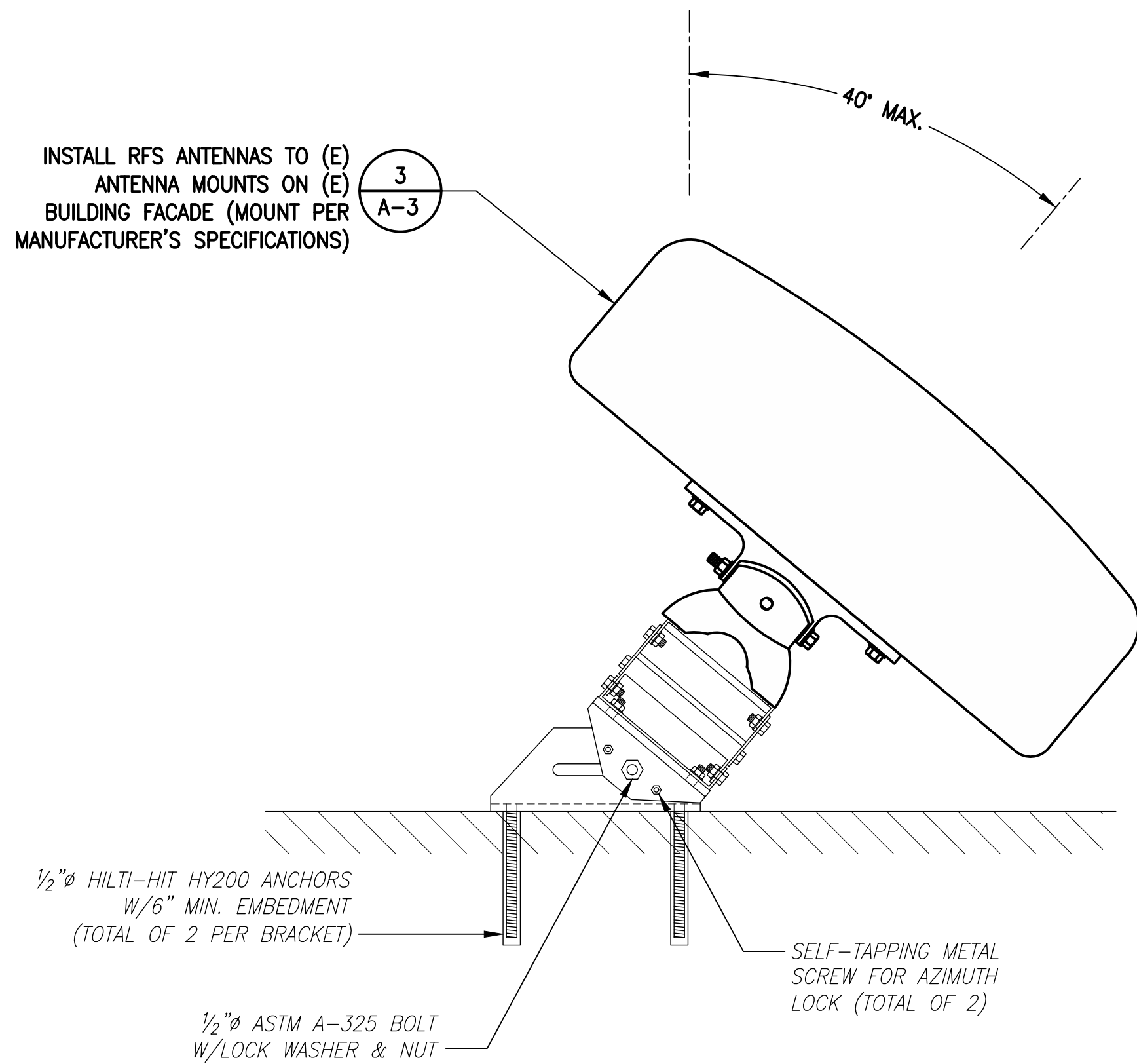
4DE7031B
B0031/1221
CAMBRIDGE STREET
1221 CAMBRIDGE STREET
CAMBRIDGE, MA 02139

SHEET TITLE
EQUIPMENT PLAN

SHEET NUMBER
A-4

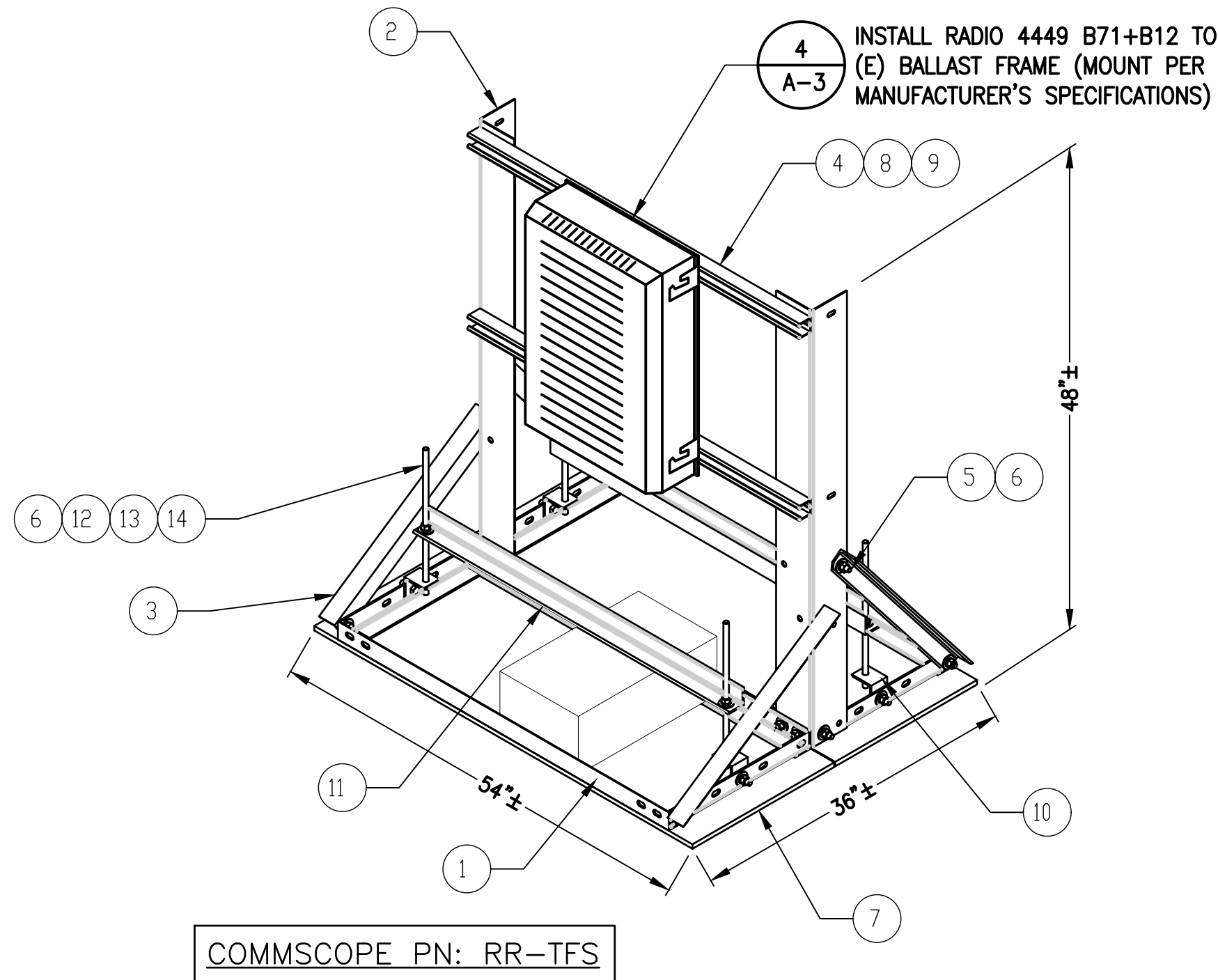


SIDE VIEW

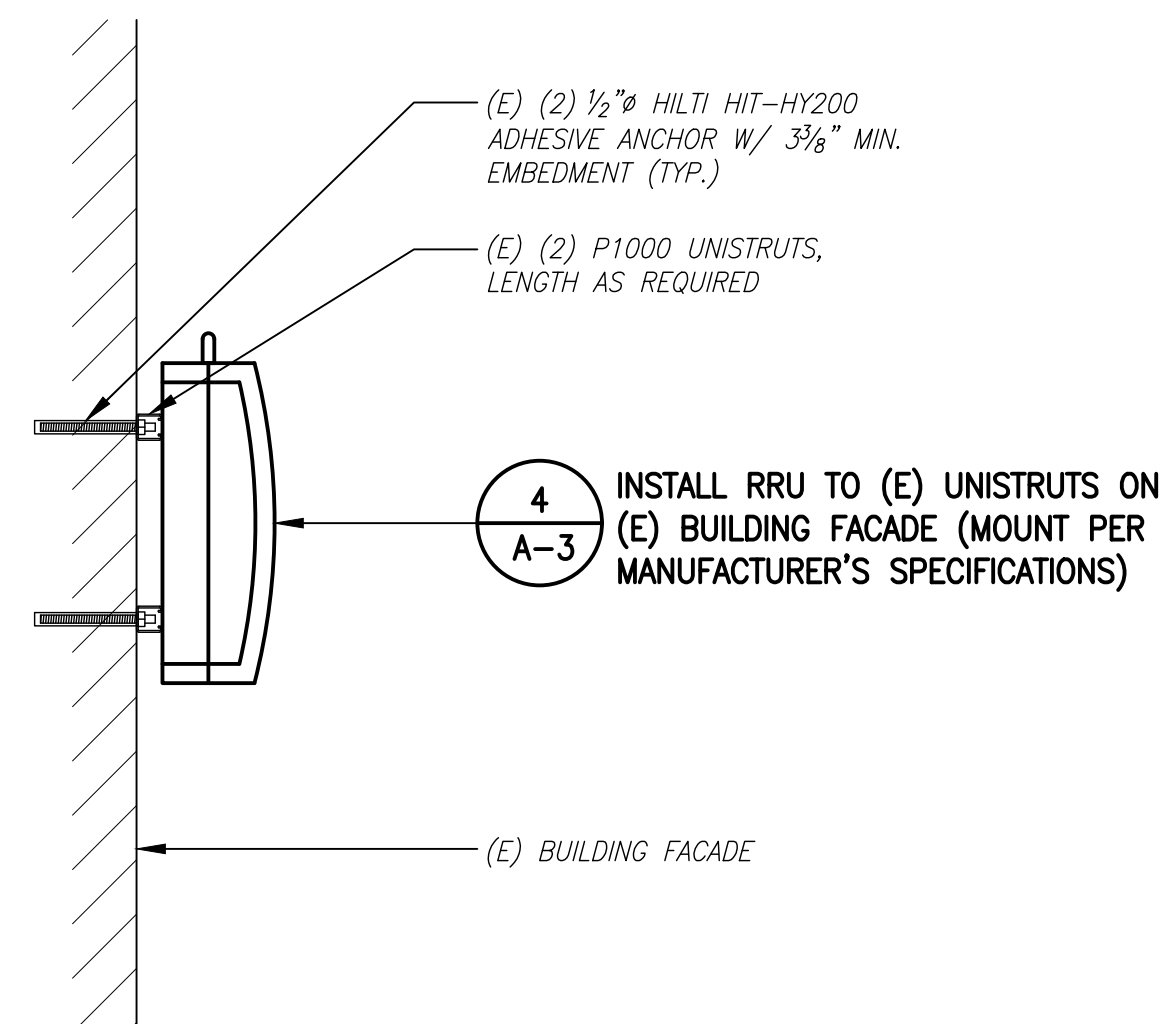


TOP VIEW

ITEM	PART NO.	DESCRIPTION	QTY.	WEIGHT
1	MT416-10	WELDMNT BALLAST SLED FRAME	2	22.40 LBS
2	MTC329420	VERTICAL ANGLE	2	13.93 LBS
3	MTC329421	BRACE ANGLE	4	4.71 LBS
4	MTC329414	1 5/8" UNISTRUT	2	6.25 LBS
5	GB-04145	1/2" X 1-1/2" GALV BOLT KIT	18	0.13 LBS
6	GWf-04	1/2" GALV FLAT WASHER	28	0.06 LBS
7	MT-F1637	RUBBER MAT .5" X 18" X 48"	2	15.61 LBS
8	GWf-03	3/8" GALV FLAT WASHER	8	0.01 LBS
9	GB-03145	3/8" X 1-1/2" GALV BOLT KIT	4	0.07 LBS
10	MTC8326.01	CLIP ANGLE	4	0.478 LBS
11	MTC329422	BRACE ANGLE	2	7.92 LBS
12	GWl-04	1/2" GALV LOCK WASHER	8	0.09 LBS
13	GN-04	1/2" GALV HEX NUT	8	0.04 LBS
14	MT-379-16	1/2" X 16" GALV THREADED ROD	4	0.88 LBS



ALPHA & BETA SECTORS



GAMMA SECTOR

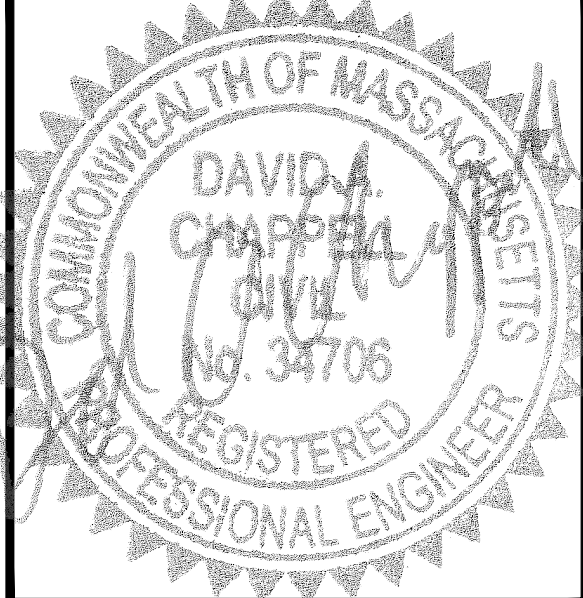
- NOTES:
1. VERIFY DOWNTILT MOUNTING KIT BOLT LAYOUT PRIOR TO FABRICATION.
 2. ROTATE UPPER CONNECTION TO REQUIRED AZIMUTH. TIGHTEN BOLT AND INSTALL SELF TAPPING SCREWS.
 3. WEATHER SEAL AROUND EXTERIOR WALL ATTACHMENT ANGLES WITH SILICONE SEALANT.
 4. PAINT ALL ANTENNAS, MOUNTS AND ASSOCIATED EQUIPMENT TO MATCH BUILDING FACADE.
 5. ALL EXISTING & PROPOSED CABLES/CABLE TRAYS ON FACADE OF BUILDING/PENTHOUSE SHALL BE PAINTED TO MATCH BUILDING FACADE, INCLUDING EXTENDING THE FAUX BRICK ON THE EXISTING VERTICAL CABLE TRAY.
 6. ALL PAINTED MATERIALS, INCLUDING CABLING, SHOULD HAVE A CONSISTENT MATTE FINISH.
 7. VERIFY WITH ANTENNA BRACKET PRIOR TO CONSTRUCTION.

...T...Mobile...

T-MOBILE NORTHEAST LLC
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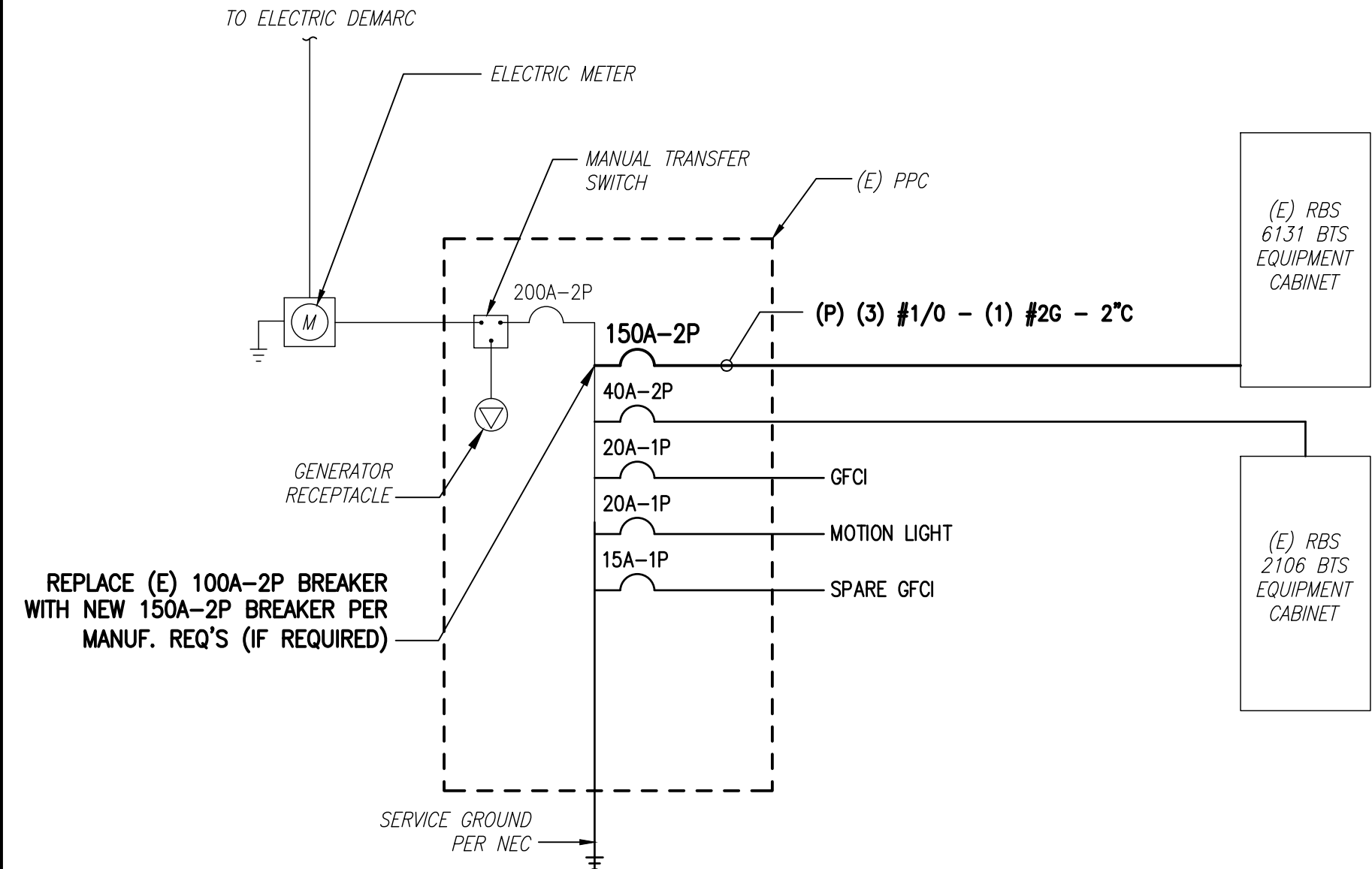
4DE7031B
B0031/1221
CAMBRIDGE STREET
1221 CAMBRIDGE STREET
CAMBRIDGE, MA 02139

SHEET TITLE
STRUCTURAL DETAILS

SHEET NUMBER
S-1

L600/L700 ANTENNA MOUNTING DETAIL 1 S-1
SCALE: N.T.S.

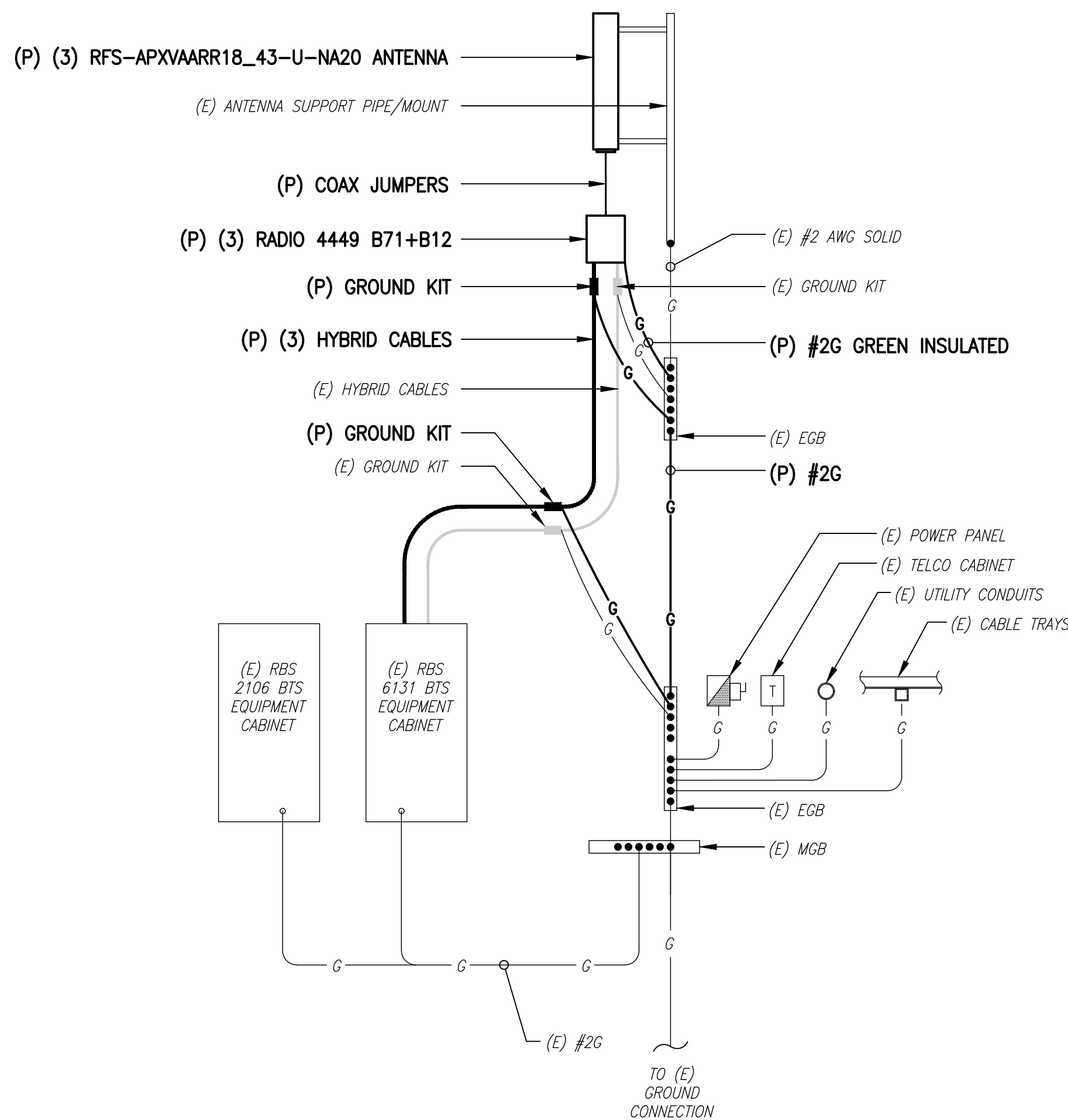
RRU MOUNTING DETAIL 2 S-1
SCALE: N.T.S.



ONE LINE DIAGRAM

SCALE: NOT TO SCALE

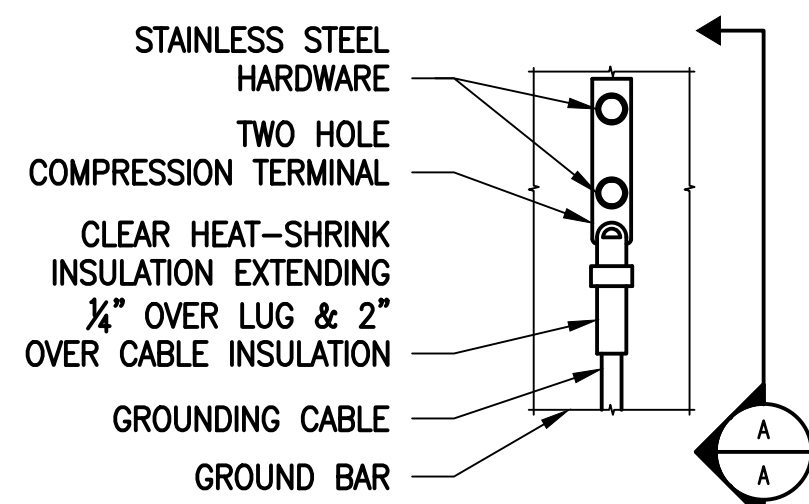
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E-1



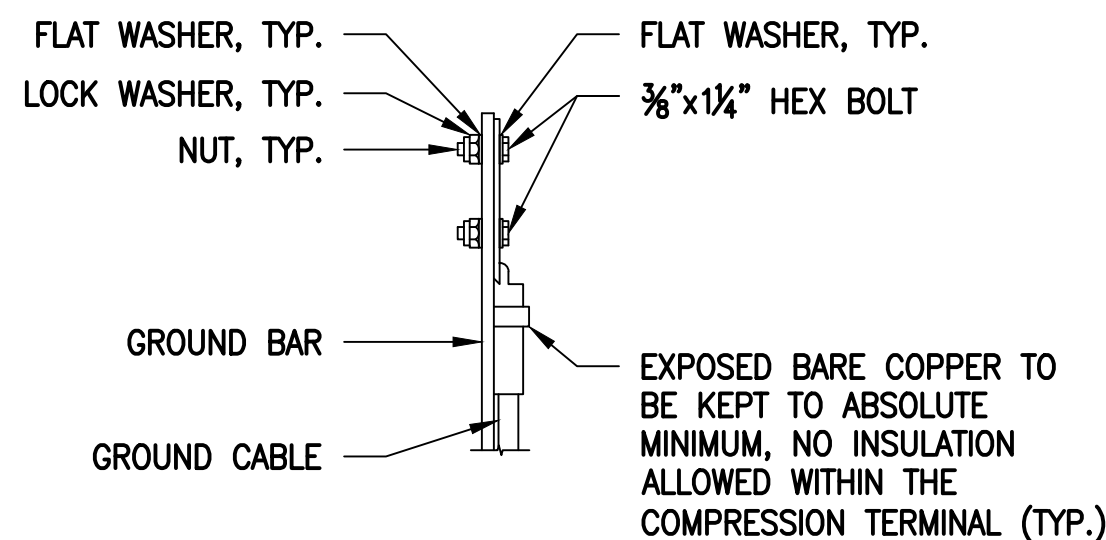
GROUNDING RISER DIAGRAM

SCALE: NOT TO SCALE

2
E-1



ELEVATION



SECTION A-A

NOTES:

- "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED.
- OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.
- CADWELL DOWNLEADS FROM UPPER EGB, LOWER EGB AND MGB.

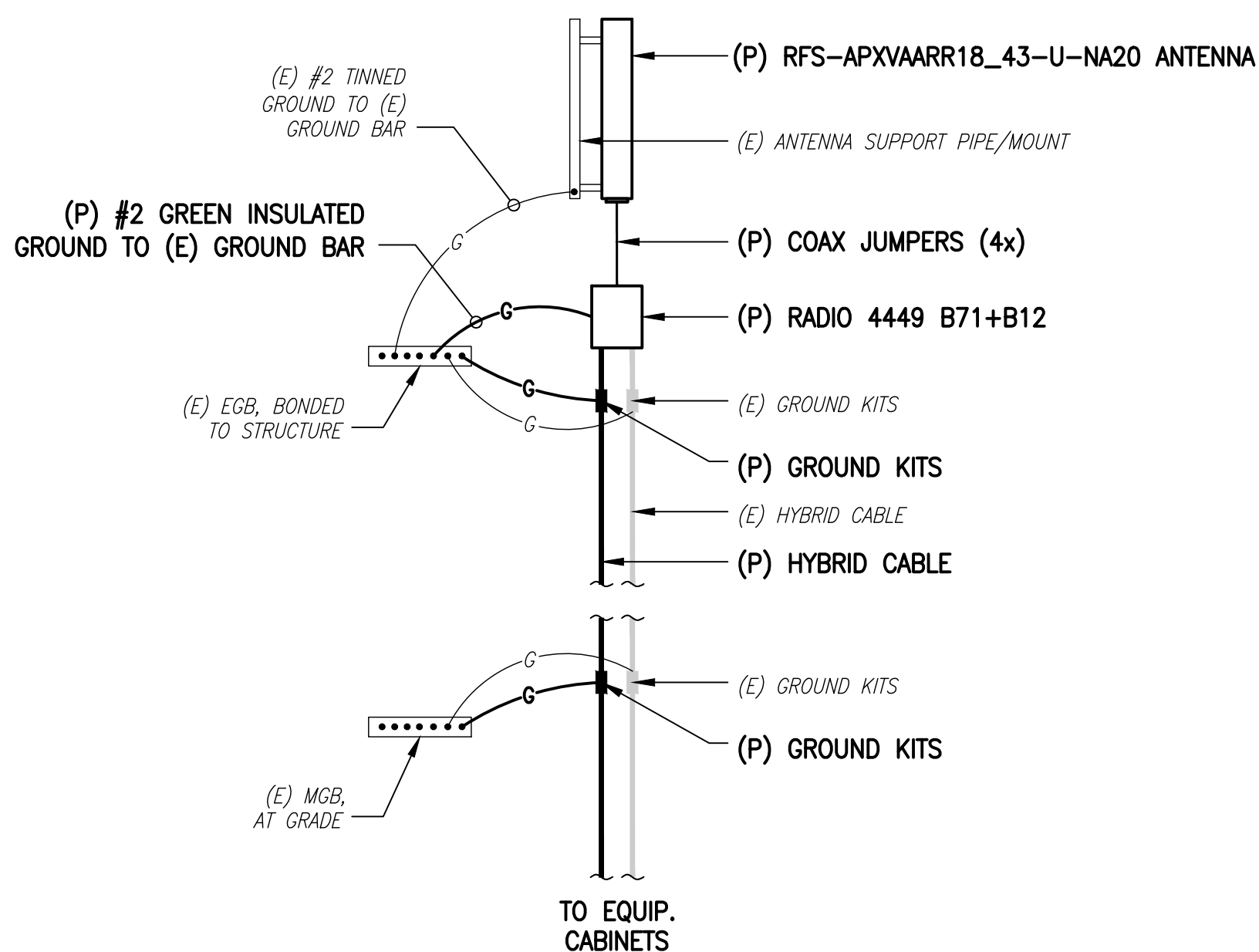
TYPICAL GROUND BAR CONNECTIONS DETAIL

SCALE: NOT TO SCALE

3
E-1

ELECTRICAL AND GROUNDING NOTES

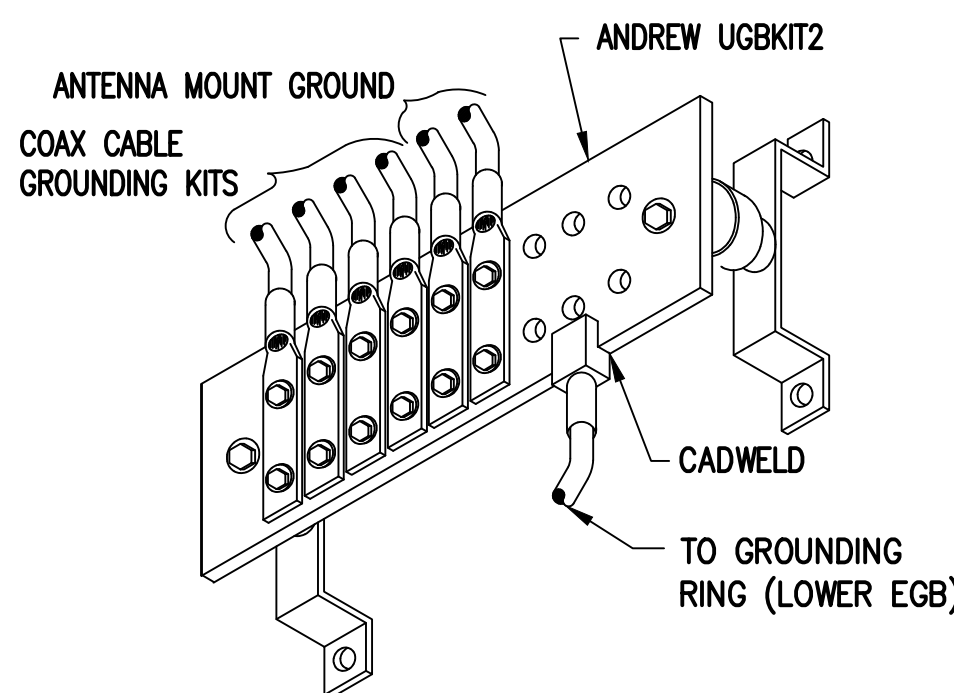
- ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
- ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
- THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED 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.
- BURIED CONDUIT SHALL BE SCHEDULE 40 PVC.
- ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THININSULATION.
- RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL UTILITY DEMARCATION POINT AND PROJECT OWNER 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 PROJECT OWNER 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.
- WHERE CONDUIT BETWEEN BTS AND PROJECT OWNER CELL SITE PPC AND BETWEEN BTS AND PROJECT OWNER CELL SITE TELCO SERVICE CABINET ARE UNDERGROUND USE PVC, SCHEDULE 40 CONDUIT. ABOVE THE GROUND PORTION OF THESE CONDUITS SHALL BE PVC CONDUIT.
- ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
- PPC SUPPLIED BY PROJECT OWNER.
- GROUNDING SHALL COMPLY WITH NEC ART. 250. ADDITIONALLY, GROUNDING, BONDING AND LIGHTNING PROTECTION SHALL BE DONE IN ACCORDANCE WITH "T-MOBILE BTS SITE GROUNDING STANDARDS".
- GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS COAX CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.
- USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE 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 PROJECT OWNER 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.
- CONTRACTOR SHALL PROVIDE AND INSTALL OMNI DIRECTIONAL ELECTRONIC MARKER SYSTEM (EMS) BALLS OVER EACH GROUND ROD AND BONDING POINT BETWEEN EXISTING TOWER/ MONOPOLE GROUNDING RING AND EQUIPMENT GROUNDING RING.
- CONTRACTOR SHALL TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION. 5 OHMS MINIMUM RESISTANCE REQUIRED.
- CONTRACTOR SHALL CONDUCT ANTENNA, COAX, AND LNA RETURN-LOSS AND DISTANCE- TO-FAULT MEASUREMENTS (SWEEP TESTS) AND RECORD RESULTS FOR PROJECT CLOSE OUT.



COAX CABLE CONNECTION AND GROUNDING DETAIL

SCALE: NOT TO SCALE

4
E-1



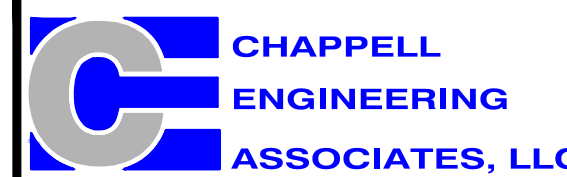
GROUND BAR (EGB)

SCALE: NOT TO SCALE

5
E-1

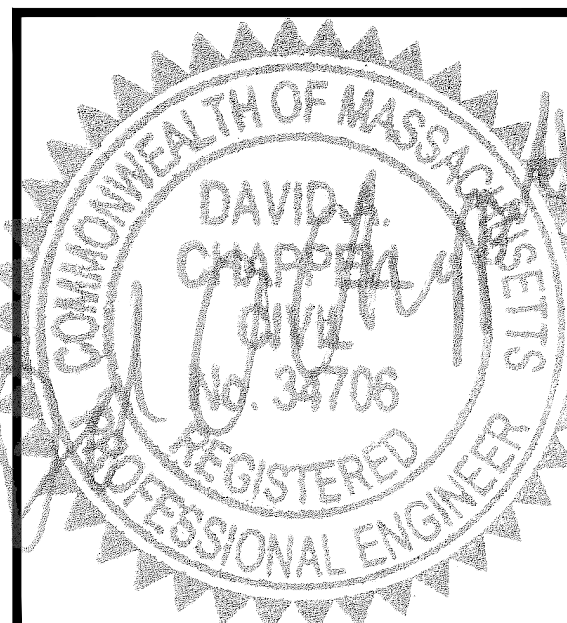
Mobile

T-MOBILE NORTHEAST LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
OFFICE: (508) 286-2700



Civil · Structural · Land Surveying

R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST
SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com



APPROVALS

LESSOR _____
LEASING _____
R.F. _____
ZONING _____
CONSTRUCTION _____
A/E _____

PROJECT NO: 4DE7031B

DRAWN BY: MAM

CHECKED BY: JMT

VERSION

NO.	DATE	DESCRIPTION
2	11/26/18	REVISED CONSTRUCTION
1	11/19/18	ISSUED FOR CONSTRUCTION
0	09/20/18	CONSTRUCTION REVIEW

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.

4DE7031B
B0031/1221
CAMBRIDGE STREET
1221 CAMBRIDGE STREET
CAMBRIDGE, MA 02139

SHEET TITLE

ELECTRIC & GROUNDING
DETAILS

SHEET NUMBER

E-1



PHOTO SIMULATIONS

**SITE NAME: 4DE7031B
BO031/1221 CAMBRIDGE STREET**

PROJECT TYPE: L700 4x2 – 67D92D UPGRADE

Address:

**1221 CAMBRIDGE STREET
CAMBRIDGE, MA 02139**

Date:

APRIL 11, 2019 (REVISION 1)

Prepared by:



R.K. Executive Centre ■ 201 Boston Post Road West ■ Suite 101 ■ Marlborough, MA 01752

t. 508.481.7400 ■ www.chappellengineering.com ■ f. 508.481.7406

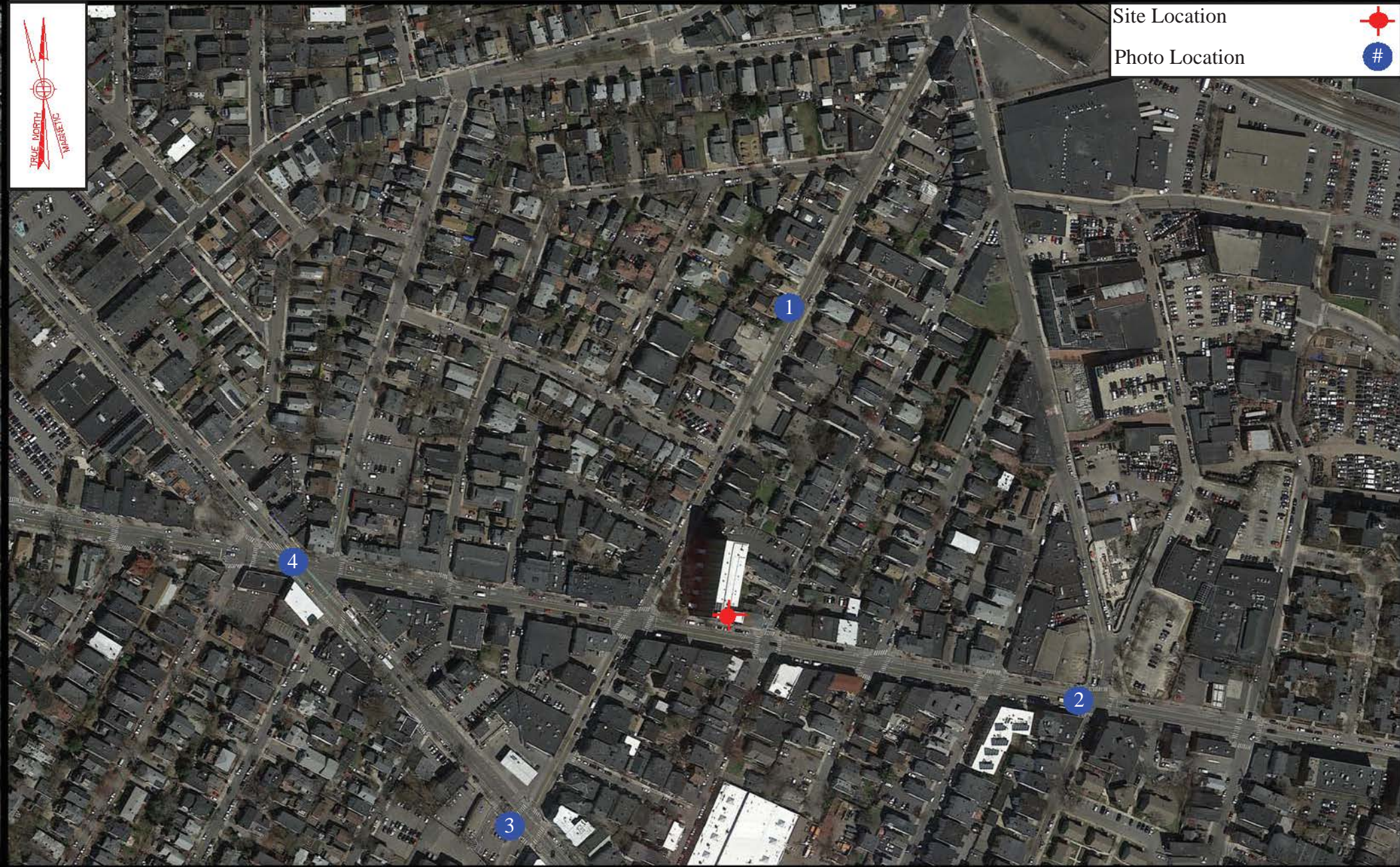
PHOTO LOCATION MAP



Site Location



Photo Location



T · Mobile ·

4DE7031B
BO031/1221 Cambridge Street
1221 Cambridge Street
Cambridge, MA 02139

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ENGINEERING
ASSOCIATES, LLC**
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EXISTING CONDITIONS - PHOTO LOCATION 1

Existing RRUs mounted to existing ballast frame on the penthouse roof.

Existing T-Mobile panel antennas mounted to the penthouse/building facade.



T · · Mobile ·

4DE7031B
B0031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Taken 630' +/- North-Northeast of Site

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PROPOSED CONDITIONS - PHOTO LOCATION 1

Proposed Radio 449 B17+B12 mounted to existing ballast frame on the penthouse roof.

Proposed T-Mobile panel antennas mounted to the penthouse/building facade.



T · · Mobile ·

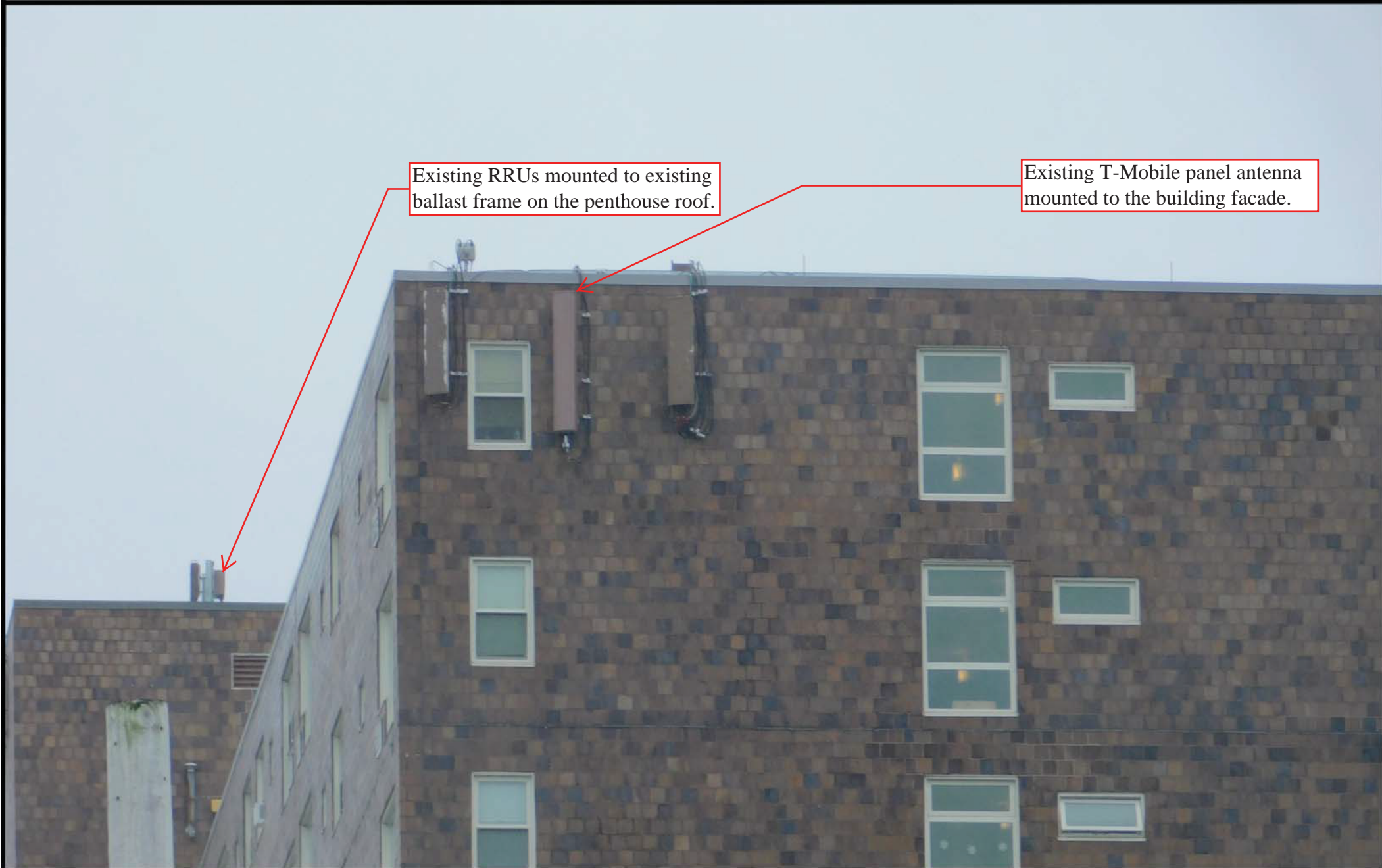
4DE7031B
B0031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Simulation from 630' +/- North-Northeast of Site

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EXISTING CONDITIONS CLOSE-UP - PHOTO LOCATION 1

Existing RRUs mounted to existing ballast frame on the penthouse roof.

Existing T-Mobile panel antenna mounted to the building facade.



T · Mobile ·

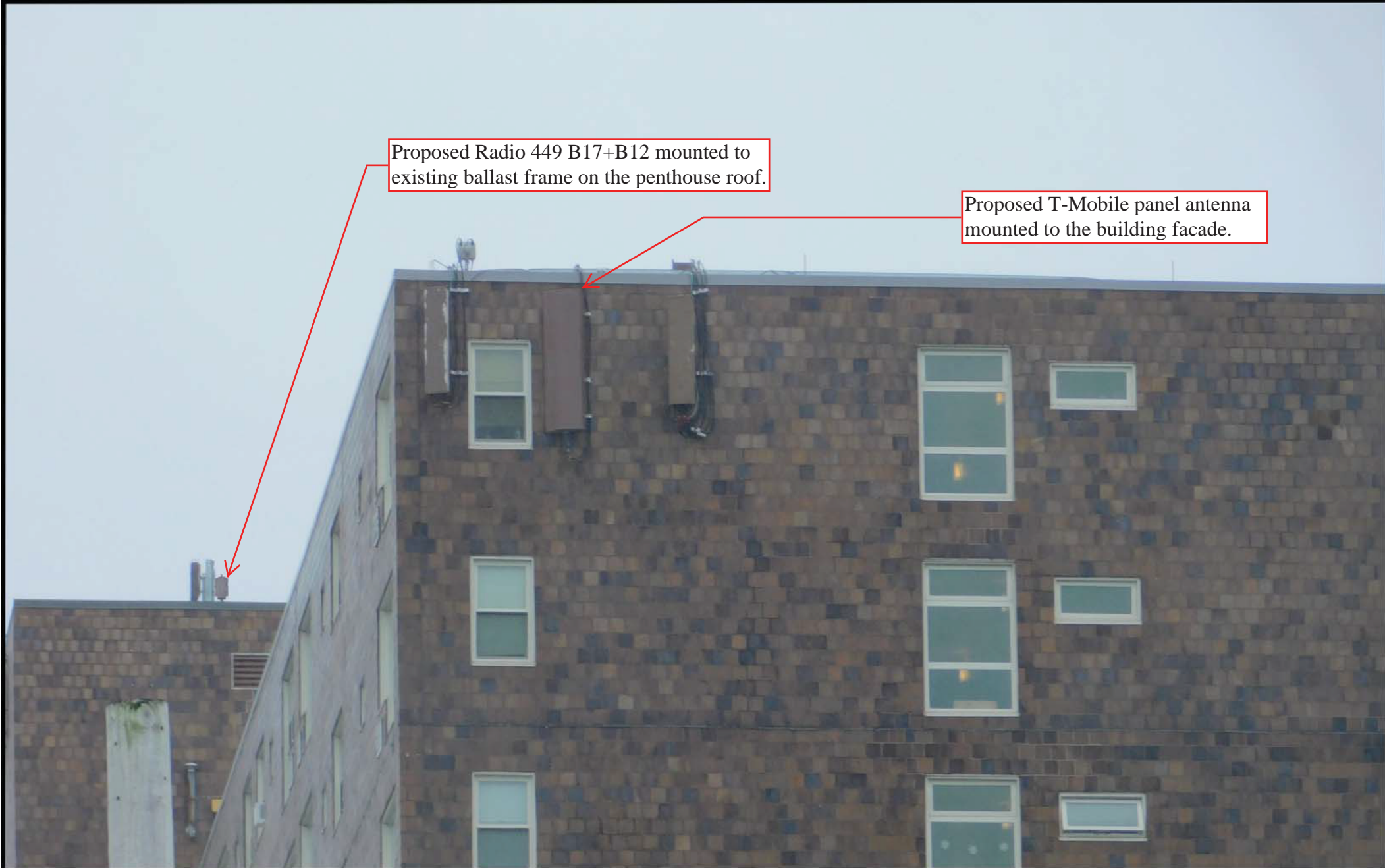
4DE7031B
BO031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Taken 630' +/- North-Northeast of Site

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PROPOSED CONDITIONS CLOSE-UP - PHOTO LOCATION 1

Proposed Radio 449 B17+B12 mounted to existing ballast frame on the penthouse roof.

Proposed T-Mobile panel antenna mounted to the building facade.



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4DE7031B
BO031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Simulation from 630' +/- North-Northeast of Site

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EXISTING CONDITIONS - PHOTO LOCATION 2



T · Mobile ·

4DE7031B
BO031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Taken 760' +/- East-Southeast of Site

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PROPOSED CONDITIONS - PHOTO LOCATION 2



Proposed Radio 449 B17+B12 mounted to existing ballast frame on the penthouse roof.

Proposed T-Mobile panel antenna mounted to the penthouse facade.

T · Mobile ·

4DE7031B
B0031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Simulation from 760' +/- East-Southeast of Site

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EXISTING CONDITIONS CLOSE-UP - PHOTO LOCATION 2

Existing T-Mobile panel antenna mounted to the building facade.

Existing RRUs mounted to existing ballast frame on the penthouse roof.



PROPOSED CONDITIONS CLOSE-UP - PHOTO LOCATION 2

Proposed T-Mobile panel antenna mounted to the penthouse facade.

Proposed Radio 449 B17+B12 mounted to existing ballast frame on the penthouse roof. No noticeable visual change.



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4DE7031B
B0031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Simulation from 760' +/- East-Southeast of Site

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EXISTING CONDITIONS - PHOTO LOCATION 3



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4DE7031B
BO031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Taken 640' +/- Southwest of Site

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PROPOSED CONDITIONS - PHOTO LOCATION 3

Proposed Radio 449 B17+B12 not visible.

Proposed T-Mobile panel antenna mounted to the penthouse facade.



T · Mobile ·

4DE7031B
BO031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Simulation from 640' +/- Southwest of Site

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EXISTING CONDITIONS CLOSE-UP - PHOTO LOCATION 3



Existing T-Mobile panel antenna mounted to the penthouse facade.

Existing RRUs mounted to the penthouse facade.

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4DE7031B
BO031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Taken 640' +/- Southwest of Site

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PROPOSED CONDITIONS CLOSE-UP - PHOTO LOCATION 3

Proposed Radio 449 B17+B12 not visible.

Proposed T-Mobile panel antenna mounted to the penthouse facade.



T · · Mobile ·

4DE7031B
BO031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Simulation from 640' +/- Southwest of Site

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EXISTING CONDITIONS - PHOTO LOCATION 4

Existing RRUs mounted to the penthouse facade & ballast frame on the penthouse roof.

Existing T-Mobile panel antenna mounted to the penthouse facade.



T-Mobile

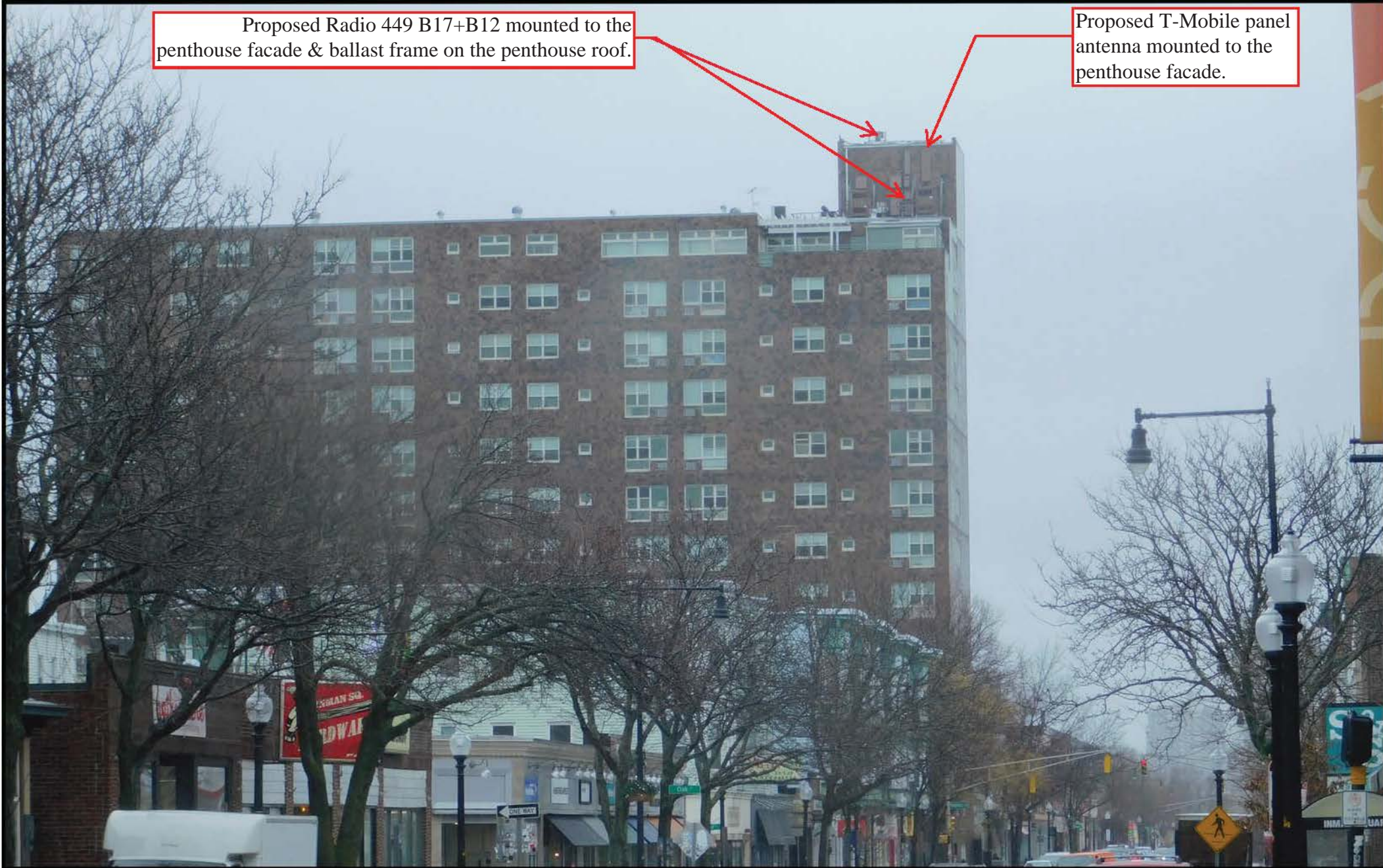
4DE7031B
BO031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Taken 900' +/- West-Northwest of Site

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PROPOSED CONDITIONS - PHOTO LOCATION 4

Proposed Radio 449 B17+B12 mounted to the penthouse facade & ballast frame on the penthouse roof.

Proposed T-Mobile panel antenna mounted to the penthouse facade.



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4DE7031B
B0031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Simulation from 900' +/- West-Northwest of Site

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EXISTING CONDITIONS CLOSE-UP - PHOTO LOCATION 4

Existing RRUs mounted to the penthouse facade & ballast frame on the penthouse roof.

Existing T-Mobile panel antenna mounted to the penthouse facade.



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4DE7031B
BO031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Taken 900' +/- West-Northwest of Site

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PROPOSED CONDITIONS CLOSE-UP - PHOTO LOCATION 4

Proposed Radio 449 B17+B12 mounted to the penthouse facade & ballast frame on the penthouse roof.

Proposed T-Mobile panel antenna mounted to the penthouse facade.



T · · Mobile ·

4DE7031B
BO031/1221 Cambridge Street
1221 Cambridge Street, Cambridge, MA 02139
Photo Simulation from 900' +/- West-Northwest of Site

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This is a detailed street map of a residential neighborhood in Cambridge, Massachusetts. The map shows a grid of streets with numerous house numbers. A red line is drawn across the map, likely indicating a specific route or boundary. The streets shown include Houghton St, Clary St, Cambridge St, Prospect St, Tremont St, and Norfolk St. The map is divided into several colored areas: yellow, orange, and light blue. The yellow areas are primarily located in the center and right side of the map, while the orange areas are on the left and bottom. The light blue areas are small, irregular shapes scattered throughout the map. The map also shows several parks and green spaces, including a large one in the top left corner. The map is oriented with North at the top.

1221 Cambridge St.

Petitioner

82-1
UZZELL, BRYAN
384 PROSPECT ST. UNIT#1
CAMBRIDGE, MA 02139

82-1
SNEE, EADAOIN
384 PROSPECT ST., #2
CAMBRIDGE, MA 02139

PRINCE LOBEL TYE LLC
C/O ADAM F. BRAILLARD, ESQ.
ONE INTERNATIONAL PLACE, SUITE 3700
BOSTON, MA 02110

82-1
PASTERNAK, GEDALIA & RACHELA ELIAS
384 PROSPECT ST., #4
CAMBRIDGE, MA 02139

82-5
CERQUEIRA, MARIO & ANA CERQUEIRA
23 WAREHAM ST
MEDFORD, MA 02155

82-7
SOUSA, MARIA I. & MANUEL R. SOUSA
51 MARATHON ST.
ARLINGTON, MA 02474

82-8
INMAN CAST LLC,
C/O HOMEOWNERS REHAB INC.
6 FANEIUL HALL MARKET PL
BOSTON, MA 02109

82-9
HNDA, INC
37 UPLAND RD
BURLINGTON, MA 01803

82-10
SOUSA, JOSE R. & DONNA M. SOUSA
134 WEBSTER AVE
CAMBRIDGE, MA 02141

82-11
TUPELO, LLC &
CITY OF CAMBRIDGE TAX TITLE
372 A PROSPECT STREET
CAMBRIDGE, MA 02139

82-12
LUPINE PROPERTIES LLC
1005 BOYLSTON ST., SUITE 373
NEWTON, MA 02461

82-34
BOSEL, RICHARD
122 TREMONT ST.
CAMBRIDGE, MA 02139

82-36
MARCINKEWICH, JOSEPH & MAUREEN
TRS. THE MARCINKEWICH FAMILY TRUST
52 ROSS ST.
MEDFORD, MA 02155

82-70
CAIRA, DOUG & CHERYL CAIRA
114 TREMONT ST
CAMBRIDGE, MA 02139

82-82
DUO INVESTMENTS, LLC
60 HIGHLAND AVE
SOMERVILLE, MA 02144

82-83
MCLEOD, RENEE & MICHAEL J. WALKER
372A PROSPECT ST.
CAMBRIDGE, MA 02139

82-84
FERREIRA, LAURINDA M., MONICA C. AZEVEDO &
VANESSA T. FERREIRA
370 PROSPECT ST
CAMBRIDGE, MA 02139

82-85
RODLEY, CLAIRE E. & JOHN V. RODLEY
TRS THE JAMES J. RODLEY 2001 REV TR
366-368 PROSPECT ST
CAMBRIDGE, MA 02139

82-89
LEE, HEIDE U. & MARIANO ANG
128 TREMONT ST.
CAMBRIDGE, MA 02139

82-101
COMSTOCK, THADD M. & ELAINE MERKEL
135 TREMONT ST
CAMBRIDGE, MA 02139

82-102
QUELHA. ANABELA C. &
SUSANA Q. SANTOS TRUSTEES
309 CARDINAL MEDEIROS AVE
CAMBRIDGE, MA 02139

83-43
SULLIVAN, DANIEL A.
377 PROSPECT ST
CAMBRIDGE, MA 02139

83-44
HE, WEI & ZHAOHU PENG
202 OAKMONT RD
STARKVILLE, MS 39759

83-45
WANG, YAN,
TRUSTEE THE YAN WANG FAMILY TRUST
4979 SMITH CANYON CT.
SAN DIEGO, CA 92130

83-52
STEINBERGH, ALEX M. TR.
C/O RESOURCE CAPITAL GROUP,
BOX #391677
17 IVALOO ST., SUITE#100
SOMERVILLE, MA 02143

83-67
WFB FUTURAMA RENTALS LLC,
C/O RESOURCE CAPITAL GROUP
17 IVALOO ST. STE 100
SOMERVILLE, MA 02143

82-1
SHEPERD, JENNIFER & MEREDITH C. SHEPHERD
384 PROSPECT ST. #3
CAMBRIDGE, MA 02139

82-86
IYER, VISHAL & ANAHITA DASTUR
378 PROSPECT ST., #1
CAMBRIDGE, MA 02139

82-86
FISKE, BRIAN PRESCOTT
380 PROSPECT ST., #2
CAMBRIDGE, MA 02139

82-86
WU, HENRY
380 PROSPECT ST 2
CAMBRIDGE, MA 02139

1291 Cambridge St

84-67
KAPASI, ONALY A. & CHANDER M. KAPASI,
TRS. OF ONY'S COMET TRUST
356 PARKER STREET
NEWTON, MA 02459

84-87
LAURINO, RICHARD & JOSEPH LAURINO,
TRS. OF RJJ REALTY TRUST
1232 CAMBRIDGE STREET
CAMBRIDGE, MA 02139

83-67
ZHU, YILUN
1245-1273 CAMBRIDGE ST., #12472
CAMBRIDGE, MA 02139

83-67
MURPHY, GISELE A.
1247 CAMBRIDGE ST UNIT #3
CAMBRIDGE, MA 02139

83-67
BIRMINGHAM, KEVIN B.
12459 CAMBRIDGE ST., #2
CAMBRIDGE, MA 02139

83-67
CAMPBELL, MATTHEW
1245-1273 CAMBRIDGE ST., #12493
CAMBRIDGE, MA 02139

83-67
SCHEIDT, REBECCA A. & RYAN J. SHAWGO
1257 CAMBRIDGE ST. UNIT#2
CAMBRIDGE, MA 02139

83-67
GEARIN, SEAN & STACEY HESS
1257 CAMBRIDGE ST., #3
CAMBRIDGE, MA 02139

83-67
JENKINS, JONAH JAY
1259 CAMBRIDGE ST., UNIT #2
CAMBRIDGE, MA 02139

83-67
LITTMAN, ADAM L. &
KRISTIN LEIGH KELLENBERGER
1259 CAMBRIDGE ST. UNIT#3
CAMBRIDGE, MA 02139

83-67
SUCHINDRAN, SUJIT & DEEPTI RAO
1267 CAMBRIDGE ST. -UNIT #1267-#2
CAMBRIDGE, MA 02139

83-67
PASTERNAK, GEDALIA
1267-3 CAMBRIDGE ST
CAMBRIDGE, MA 02139

83-67
THORNLEY, ANDREW
1269 CAMBRIDGE ST., #2
CAMBRIDGE, MA 02141

83-67
CHOU, PIERRY JWOYU
1269 CAMBRIDGE ST. UNIT#3
CAMBRIDGE, MA 02139

83-67
BENSON, KIMBERLY V.
353 PROSPECT ST. UNIT#1
CAMBRIDGE, MA 02139

83-67
MAK, DUNCAN
353 PROSPECT ST. UNIT#2
CAMBRIDGE, MA 02139

83-67
STANFORD, LELAND A. & AMY M. WHITFORD
TRS, THE STANFORD-WHITFORD FAM TR
353 PROSPECT ST., #3
CAMBRIDGE, MA 02139

84-20
WONG, CHUN KEUNG & QIN WONG, TR J.Q
REALTY TRUST & CITY OF CAMBRIDGE TAX TIT
12 FLEMING RD
MALDEN, MA 02148

84-20
WANG, CHUN KEUNG & YU QIN LIN WONG
1224 CAMBRIDGE ST
CAMBRIDGE, MA 02139

84-20
JWOUSA LLC,
C/O WALTER SOUSA
1226 CAMBRIDGE STREET
CAMBRIDGE, MA 02139

84-20
KATZ, ABBIE H.
1218-1 CAMBRIDGE ST
CAMBRIDGE, MA 02139

84-20
FINCKE, STEVEN C.
57 WALTON PARK
MELROSE, MA 02176

84-20
FILIOS, CASSANDRA M.
1218 CAMBRIDGE ST., #3
CAMBRIDGE, MA 02139

84-20
HERLIHY, KARA M. & PAUL AESENAULT
1228 CAMBRIDGE ST., #4
CAMBRIDGE, MA 02139

84-20
TARDIFF, JUSTIN B
C/O LUSO FEDERAL CREDIT UNION
599 EAST ST.
LUDLOW, MA 01056

84-20
GLYNN, DAVID M. & ELIZABETH FISH
1222. UNIT#1 CAMBRIDGE ST
CAMBRIDGE, MA 02139

84-20
CHASE, JEFFREY J., BRIAN CHASE &
KARYN CHASE
1222 CAMBRIDGE ST., UNIT 2
CAMBRIDGE, MA 02139

84-20
DHOND, RUPALI P.
1222 CAMBRIDGE ST. UNIT#3
CAMBRIDGE, MA 02139

84-20
PEVEAR, WILLIAM W. III
1218-1228 CAMBRIDGE ST. UNIT#1222/4
CAMBRIDGE, MA 02139

84-20
PETERS, MELISSA & CHRISTINE SMAGLIA
1222 CAMBRIDGE ST., #5
CAMBRIDGE, MA 02139

1221 Cambridge St.

84-20
JOHNSON, CHRISTOPHER D.
1222 CAMBRIDGE ST. UNIT#6
CAMBRIDGE, MA 02139

84-20
GEARIN, SEAN & STACEY HESS
1228 CAMBRIDGE ST., #12281
CAMBRIDGE, MA 02139

84-20
TIGHE, ALEXANDER P. & ERIN L. TIGHE
1228 CAMBRIDGE ST., UNIT #2
CAMBRIDGE, MA 02138

84-20
HEIMBURG, GWENDOLYN
1228 CAMBRIDGE ST #12283
CAMBRIDGE, MA 02139

84-21
KINGSLEY BRIGHTWOOD LLC
C/O HIGH STREET PROPERTY MGMT CORP
92 HIGH ST., SUITE 22
MEDFORD, MA 02155

84-22
GOMES, FERNANDO J. & MANUELA ALMEIDA
14 ALTO DR
MEDFORD, MA 02155

84-23
1190 CAMBRIDGE STREET LLC
C/O BLOCK PROPERTIES LLC
1330 BOYLSTON ST., STE 600
CHESTNUT HILL, MA 02467



CAMBRIDGE HISTORICAL COMMISSION

831 Massachusetts Avenue, 2nd Floor, Cambridge, Massachusetts 02139

Telephone: 617 349 4683 TTY: 617 349 6112

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

Bruce A. Irving, *Chair*; Susannah Barton Tobin, *Vice Chair*; Charles M. Sullivan, *Executive Director*
William G. Barry, Jr., Robert G. Crocker, Joseph V. Ferrara, Chandra Harrington, Jo M. Solet, *Members*
Gavin W. Kleespies, Paula A. Paris, Kyle Sheffield, *Alternates*

Jurisdiction Advice

To the Owner of Property at 1221 Cambridge St / 354-360 Prospect St

The above-referenced property is subject to the jurisdiction of the Cambridge Historical Commission (CHC) by reason of the status referenced below:

- ☐ Old Cambridge Historic District
- ☐ Fort Washington Historic District
(M.G.L. Ch. 40C, City Code §2.78.050)
- ☐ Avon Hill Neighborhood Conservation District
- ☐ Half Crown – Marsh Neighborhood Conservation District
- ☐ Harvard Square Conservation District
- ☐ Mid Cambridge Neighborhood Conservation District
- ☐ Designated Landmark
- ☐ Property is being studied for designation: _____
(City Code, Ch. 2.78., Article III, and various City Council Orders)
- ☐ Preservation Restriction or Easement (as recorded)
- ☐ Structure is fifty years or more old and therefore subject to CHC review of any application for a demolition permit, if one is required by ISD. (City Code, Ch. 2.78, Article II). See the back of this page for definition of demolition.
- ☒ No jurisdiction: not a designated historic property and the structure is less than fifty years old.
- ☐ No local jurisdiction, but the property is listed on the National Register of Historic Places; CHC staff is available for consultation, upon request.
Staff comments: _____

The Board of Zoning Appeal advises applicants to complete Historical Commission or Neighborhood Conservation District Commission reviews before appearing before the Board.

If a line indicating possible jurisdiction is checked, the owner needs to consult with the staff of the Historical Commission to determine whether a hearing will be required.

CHC staff initials SLB

Date June 18, 2019

Received by Uploaded to Energov

Date June 18, 2019

Relationship to project BZA 017129-2019

cc: Applicant
Inspectional Services Commissioner

Demolition Delay Ordinance and Application Information

The Demolition Delay Ordinance (Chapter 2.78, Article II of the Cambridge Municipal Code) was adopted by the City Council in 1979 to afford public review of demolition permit applications for potentially significant buildings. When the Historical Commission determines that a building is significant and should be preserved, demolition will be delayed for up to six months so that solutions can be sought to preserve the building indefinitely. The Ordinance covers all buildings over 50 years old, city-wide. The Historical Commission archives provide dates of construction for all properties in the City.

Demolition is defined in the ordinance as "the act of pulling down, destroying, removing or razing a building or commencing the work of total or substantial destruction with the intent of completing the same." The Inspectional Services Commissioner has provided further guidelines to outline what actions require a demolition permit. **In addition to complete demolition of a building, the following actions may require a demolition permit,**

- **removal of a roof,**
- **removal of one side of a building,**
- **gutting of a building's interior to the point where exterior features (windows, etc.) are impacted, and**
- **removal of more than 25% of a structure.**

Please contact the building inspector or a staff member of the Historical Commission if you have questions about whether a demolition permit is required for a particular project.

Demolition permit applications can be obtained from the Inspectional Services Department. The completed application should be submitted to the Historical Commission, where the staff will review the application. If the Executive Director of the Historical Commission makes an initial determination that the building is significant, a public hearing will be scheduled with Historical Commission. If the staff makes an initial determination that the building is not significant, the application is released for further review by the Building Commissioner.

More information about the demolition permit application procedures is available on the Historical Commission's web site or by calling or dropping by the Historical Commission office.

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