

# **CITY OF CAMBRIDGE**

BOARD OF ZONING APPEAL

2022 AUG 29 PM 12: 19

831 Massachusetts Avenue, Cambridge MA 02139

CERTAR OF THE CITY OF EDM

617-349-6100

OFFICE OF THE CITY CLERK CAMBRIDGE, MASSACHUSETTS

## **BZA Application Form**

BZA Number: 191375

**General Information** 

The undersigned hereby petitions th	e Board of Zoning Ap	peal for the followin	g:		
Special Permit: X	Variance:		Appeal:		
PETITIONER: Starry, Tu	•, for The Parkside	e Place Company C	O Adam Braillard of	Prince Lobel T	<u>ye</u>
PETITIONER'S ADDRESS: One Int	ernational Place, MA	, Boston 02110			
LOCATION OF PROPERTY: 700-70	04 Huron Avenue , C	<u>Cambridge, MA</u>			
TYPE OF OCCUPANCY: Telecomm	nunications and	ZONING DISTRIC	T: Residential C-3		
REASON FOR PETITION:					
/Telecommunication Facility (anten	na)/				
DESCRIPTION OF PETITIONE	R'S PROPOSAL:				

The Applicant proposes to install on the rooftop of the existing building fifteen (15) small scale beam antennas, ten (10) small scale 5GHz antennas and eight (8) MetroLinq small scale antennas, together with junction boxes and additional supporting equipment. As further described on the attached Plans, the average size of the proposed antennas is approximately 12-inches. Further, all of the antennas will be facade mounted on the existing penthouses and painted to match the color of the building. The Applicant also proposes to install 1 equipment cabinet and 1 battery backup cabinet mounted out of view inside the building. The Applicant's proposal complies with Section 6409 of the Spectrum Act as the collocation of the antennas is not a substantial change to the existing base station. The Applicant's proposal also complies with the OTARD Rule because none of the antennas are greater than 1 meter and the antennas are designed to receive and transmit fixed wireless broadband internet signals. Moreover, the Applicant's proposal complies with Section 4.32 and 10.4 of the City of Cambridge Zoning Ordinance.

#### SECTIONS OF ZONING ORDINANCE CITED:

Article: 4.000 Section: 4.32.G.1 and 4.♥0 (footnote 49) (telecommunications facility)

Article: 10.000 Section: 10.40 (special permit)

Article: 6409 Section: Federal Middle Class Tax Relief Act (Spectrum Act)

Article: OTARD Section: Federal Rule 47 C.F.R. §1.4000

Original Signature(s):

(Petitioner (s) / Owner)

## 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 The Parkside Place Company
(OWNER)
Address: c/o First Realty Management 151 Tremont St Boston, MA 02111
State that I/We own the property located at
which is the subject of this zoning application.
The record title of this property is in the name of <u>Huron Towers</u>
*Pursuant to a deed of duly recorded in the date $4/16/1970$ , Middlesex South
County Registry of Deeds at Book 11821, Page 356; or
Middlesex Registry District of Land Court, Certificate No
Book Page
SIGNATURE BY LAND OWNER OR CHIEF OFFICH AUTHORIZED TRUSTEE, OFFICER OR AGENT*  *Written evidence of Agent's standing to represent petitioner may be requested.
Commonwealth of Massachusetts, County of
The above-name Tlauk Coelello personally appeared before me,
MONTH MANAGEMENT OF THE PROPERTY OF THE PROPER
My commission expires 01/34/35 (Notary Seal).  • If ownership is not shown in recorded deed, e.g. if by court of general in the court of the court o
• If ownership is not shown in recorded deed, e.g. if by court of the recorded deed, or inheritance, please include documentation.

August 22, 2022

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

Re: Over-The-Air Reception Devices Installation

pursuant to Rule 47, and an Eligible Facilities Request pursuant to Section 6409 of the Spectrum Act, and an Application for Special Permit, in the

Alternative

Property Address: 704 Huron Avenue, Cambridge, MA 02138

Assessor's Map 257, Lot 60 (the "Property")

Applicant: Starry, Inc. ("Applicant" or "Starry")

Dear Honorable Members of the Board of Zoning Appeals:

This firm represents Starry in connection with an application for a special permit from the City of Cambridge Board of Zoning Appeals (the "Board"), to install a wireless internet access facility on the Property. The Property is located in the Residence C-3 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 such a wireless facility is permitted by special permit from the Board<sup>1</sup>. 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 the Federal Communications Commission's (the "FCC") adoption of the over-the-air reception devices ("OTARD") rule 47 C.F.R. §1.4000 (the "OTARD Rule"), in response to Section 207 of the 1996 Telecommunications Act (the "TCA"), prohibiting state, local and private restrictions that unreasonably impair the ability of licensed provides to use certain antennas to deploy OTARD facilities on property under their control. Moreover, the Proposed Facility is subject to Section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012, more commonly known as the "Spectrum Act"

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Suite 3700

Boston, MA 02110 TEL: 617 456 8000

FAX: 617 456 8100

<sup>&</sup>lt;sup>1</sup> 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.

(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 OTARD or 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 OTARD and with the Spectrum Act is shown on the OTARD letter attached with this application, and on the Eligible Facilities Request permit application form attached hereto (the "EFR").

The Applicant seeks to install wireless internet access facility by replacing existing panel antennas with new like kind panel antennas and installing additional new Remote Radio Head (RRUs), as well as modifying existing ancillary equipment (the "Proposed Facility"). The Applicant's Proposed Facility is described in more detail bellow and is shown on the Plans attached hereto and incorporated herein by reference (the "Plans").

## I. Background

The Applicant is licensed by the FCC to construct and operate a wireless internet access 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 network to serve its customers, and one of the key design objectives of its systems is to provide seamless coverage. Starry's system operates on the 38.2 GHz and 38.6 GHz bands, and 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. 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 provided for in more detail on the Plans, the Applicant proposes to install and operate a wireless internet access facility on the rooftop of the Building by installing twenty-nine (29) small-scale antennas in four (4) locations attached to the façade of the penthouses on the rooftop of the Building. The average dimension of the proposed antennas is approximately 12-inches. The Applicant also proposes to install one (1) equipment cabinet that will be mounted in the interior of one of the existing penthouses on the rooftop of the Building. The antennas associated with the Applicant's Proposed Facility will not extend above the height of the existing penthouse and will be painted to match the penthouse and the Building thereon.

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After installation, the Proposed Facility will be unmanned and will require infrequent maintenance visits. 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 less than two (2) 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 Residence C-3 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 TCA was to institute a framework to promote competition and innovation within the telecommunications industry. Under its license from the FCC, the Applicant 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 Starry) 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. The Proposed Facility and corresponding relief requested are necessary to provide services to the Applicant's customers, as required by the FCC.

The Applicant investigated alternative sites in and around the defined geographic area within which its engineers determined that a facility must be located to provide service to its customers and to function effectively within its network of

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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 Residential C-3 zoning district is necessary to provide service to the Applicant's customers, and is required to obtain the requested relief as a Special Permit to install and operate its wireless internet access facility.

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 will have a minimal visual impact on the Building. The Proposed Facility will be installed on the façade of the penthouses on the Building, and all antennas will be painted to match the color of the facades.

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 One International Place 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.

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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.

Tre Proposed Facility is located in the Residential C-3 Zoning District but nonresidential uses predominate in the area. Pursuant to the requirement that the Board shall grant a special permit to erect a Telecommunications Facility only upon a finding that non-residential uses predominate in the vicinity of the proposed facility's location the Applicant hereby states that this is a modification of an existing wireless facility and as such respectfully submits to the Board that it has previously found that nonresidential uses predominate in the vicinity of this Proposed Facility. The Board has reached a decision to grant a special permit for the Applicant's Existing Facility the previous Decisions. As such, the Applicant respectfully requests that, in keeping with its prior decisions, the Board find that nonresidential uses predominate in the vicinity of the Proposed Facility and that the Proposed Facility is not inconsistent with the character that does prevail in the surrounding neighborhood.

Further, notwithstanding anything contained herein to the contrary, and in agreement with the aforementioned predominately nonresidential use finding, upon an inspection of the vicinity of the Proposed Facility the Applicant respectfully submits that said finding is reasonable as the character of the surrounding neighborhood consists of nonresidential uses such as, the Fresh Pond Cambridge Municipal Golf Course, at 691 Huron Avenue, the West Cambridge Mayor Sheila Doyle Russell Youth and Community Center at 680 Huron Avenue, and the Belmont Cemetery.

Moreover, the proposed changes to the Existing Facility are de minimis and therefore, the Proposed Facility is not inconsistent with the character that does prevail in One International Place the surrounding neighborhood. Finally, as noted above, there are other telecommunications facilities on the rooftop of the Building, and as such this Building is the preferred location for additional equipment, pursuant to the TCA, as referenced above.

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#### B. The Applicant complies with the Special Permit Criteria set forth in Section 10-43 of the Ordinance<sup>2</sup>:

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

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<sup>&</sup>lt;sup>2</sup> 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.

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.

> 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 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), One International Place including the Residence C-3 District.

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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 tin 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 the OTARD Rule, and pursuant to Section 6409(a) of the Spectrum Act. Or, in the alternative, the Proposed 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 the OTARD Rule, 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

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Suite 3700

Boston, MA 02110

TEL: 617 456 8000 FAX: 617 456 8100

## Adam F. Braillard, Esq. of Prince Lobel Tye LLP, for T-Mobile Northeast LLC

(Print Name)

Address:

One International Place, Suite 3700, Boston MA 02110

Tel. No.

617-456-8153

E-Mail Address:

abraillard@princelobel.com

Date: \_August 23, 2022

## **BZA Application Form**

### **DIMENSIONAL INFORMATION**

**Applicant:** 

T-Mobile Northeast LLC, for The Parkside Place

700-704 Huron Avenue, Cambridge, MA

Present Use/Occupancy:

Telecommunications and Residential

<u>Company</u>

Zone: Residential C-3

Location: Phone:

617-456-8153

Requested Use/Occupancy: Telecommunications

		Existing Conditions	Requested Conditions	Ordinance Requirements	
TOTAL GROSS FLOOR AREA:		N/A	no change	N/A	(max.)
LOT AREA:		N/A	No Change	N/A	(min.)
RATIO OF GROSS FLOOR AREA TO LOT AREA: <sup>2</sup>		N/A	No Change	N/A	
LOT AREA OF EACH DWELLING UNIT		N/A	No Change	N/A	
SIZE OF LOT:	WIDTH	N/A	No Change	N/A	
	DEPTH	N/A	No Change	N/A	
SETBACKS IN FEET:	FRONT	N/A	No Change	N/A	
	REAR	N/A	No Change	N/A	
	LEFT SIDE	N/A	No Change	N/A	
	RIGHT SIDE	N/A	No Change	N/A	
SIZE OF BUILDING:	HEIGHT	N/A	No Change	N/A	
	WIDTH	N/A	No Change	 N/A	
	LENGTH	N/A	No Change	N/A	
RATIO OF USABLE OPEN SPACE TO LOT AREA:		N/A	No Change	N/A	
NO, OF DWELLING UNITS:		N/A	No Change	N/A	
NO. OF PARKING SPACES:	-	N/A	No Change	N/A	
NO. OF LOADING AREAS:		N/A	No Change	N/A	
DISTANCE TO NEAREST BLDG. ON SAME LOT		N/A	No Change	N/A	

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

# SITE NAME: 700 HURON (VA)



**SITE ADDRESS: 700 HURON AVE. CAMBRIDGE, MA 02138** 



# Dewberry®

Dewberry Engineers Inc. 99 SUMMER STREET SUITE 700 BOSTON, MA 02110 PHONE: 617.695.3400 FAX: 617.695.3310

#### STARRY SITE ID: MACANO049

STARRY SITE NAME: 700 HURON (VA)

SCOPE OF WORK:

INTERNET SERVICE PROVIDER FACILITY

SITE INFORMATION

PROPERTY OWNER\*:

HURON TOWERS COMPANY C/O FIRST REALTY MANAGEMENT CORP.

LONGITUDE\*\*: \*\*BASED ON GOOGLE EARTH

MAP/LOT:

**ZONING JURISDICTION:** CITY OF CAMBRIDGE

**NEIGHBORHOOD:** STRAWBERRY HILL

**ZONING DISTRICT:** RESIDENCE C-3

**POWER COMPANY:** EVERSOURCE

TELCO COMPANY:

ROOF LEVEL: 218'-6"±

AREA OF WORK:

PROPOSED USE: INTERNET SERVICE PROVIDER
FACILITY INSTALLATION: ANTENNAS &
SITE SUPPORT CABINETS INSIDE
THE EXISTING PENTHOUSE.



AREA MAP

THE SITE WILL CONSIST OF INSTALLING (10) PENTHOUSE MOUNTED MASTS. CABINETS AND ASSOCIATED EQUIPMENT WILL BE INSTALLED INSIDE THE EXISTING MECHANICAL PENTHOUSE. POWER AND TELCO WILL COME FROM EXISTING

#### SPECIAL CONSTRUCTION NOTES

DEWBERRY ENGINEERS INC. ASSUMES THAT THE BUILDING/STRUCTURE IS PROPERLY CONSTRUCTED AND MAINTAINED. ALL STRUCTURAL MEMBERS AND THEIR CONNECTION ARE ASSUMED TO BE IN GOOD CONDITION AND ARE FREE FROM DEFECTS WITH NO DETERIORATION TO ITS MEMBER CAPACITIES.

- THIS IS AN UNMANNED INTERNET SERVICE PROVIDER FACILITY AND NOT FOR HUMAN HABITATION:

SUPPORTING STRUCTURES AND ANTENNAS.

- ADA COMPLIANCE NOT REQUIRED.
  POTABLE WATER OR SANITARY SERVICE IS NOT REQUIRED.
  NO OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTACLES REQUIRED.
- CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON JOB SITE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. FALURE TO NOTIFY THE ARCHITECT/ENGINEER PLACE THE RESPONSIBILITY ON THE CONTRACTOR TO CORRECT THE DISCREPANCIES AT THE CONTRACTOR'S EXPENSE.
- NEW CONSTRUCTION WILL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES. BUILDING CODE: MASSACHUSETTS STATE BUILDING CODE, 9TH EDITION (780CMR) AMENDED VERSION OF THE 2015 INTERNATIONAL BUILDING CODE (IBC) & 2015 ELECTRICAL CODE: NATIONAL ELECTRICAL CODE (LATEST EDITION)

**APPROVALS** 

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SHEET TITLE

TITLE SHEET

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RF PLUMBING DIAGRAM & DETAILS

STARRY EQUIPMENT DETAILS

STARRY ANTENNA DETAILS

CONSTRUCTION DETAILS

GROUNDING DETAILS

STARRY: DATE: ROOFTOP TELECOM

DRAWN BY:

OAS

APPROVED BY BBR

CHECKED BY

PROJECT # 50122290

50122319

CC	NSTRU	CTION	DRAWINGS
REV.	DATE	DESC	RIPTION
0	11/03/21	FOR SUE	BMITTAL
Α	10/08/21	FOR REV	/IEW

SITE NUMBER: MACANO049

700 HURON (VA)

CAMBRIDGE, MA 02138

TITLE SHEET

#### GENERAL NOTES:

- FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY: PROJECT MANAGEMENT STARRY COMMUNICATIONS CONTRACTOR - GENERAL CONTRACTOR (CONSTRUCTION)
  - OEM ORIGINAL EQUIPMENT MANUFACTURER
- PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR 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 PROJECT MANAGEMENT.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.
- ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- 5. DRAWINGS PROVIDED HERE ARE NOT TO SCALE UNLESS OTHERWISE NOTED AND ARE INTENDED TO SHOW OUTLINE ONLY.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE
- IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY PROJECT MANAGEMENT.
- CONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER, TELCO AND HYBRID CABLES GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. CONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. CONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH PROJECT MANAGEMENT.
- 10. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
- 11. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
- 12. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION
- 13. 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.
- 14. CONTRACTOR SHALL NOTIFY DEWBERRY 48 HOURS IN ADVANCE OF POURING CONCRETE, OR BACKFILLING TRENCHES, SEALING ROOF AND WALL PENETRATIONS & POST DOWNS, FINISHING NEW WALLS OR FINAL ELECTRICAL CONNECTIONS FOR ENGINEER REVIEW.
- 15. CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK, ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. CONTRACTOR SHALL NOTIFY PROJECT MANAGEMENT OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
- 16. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY CONTRACTOR 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
- 17. SINCE THE 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 ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.
- 18. CONTRACTOR SHALL CONTACT "DIG SAFE" (888-344-7233) FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
- 19. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
- 20. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS
- 21. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
- 22. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING
- 23. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE OWNER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO PROCEEDING.
- 24. EACH CONTRACTOR SHALL COOPERATE WITH THE OWNER'S REPRESENTATIVE, AND COORDINATE HIS WORK WITH THE WORK OF
- 25. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE STARRY CONSTRUCTION MANAGER.
- 26. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT
- 27. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
- 28. ALL ROOF WORK SHALL BE DONE BY A QUALIFIED AND EXPERIENCED ROOFING CONTRACTOR IN COORDINATION WITH ANY CONTRACTOR WARRANTING THE ROOF TO ENSURE THAT THE WARRANTY IS MAINTAINED.
- 29. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH LANDLORD AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
- 30. CONTRACTOR SHALL FURNISH STARRY WITH THREE AS-BUILT SETS OF DRAWINGS UPON COMPLETION OF WORK
- 31. ANTENNAS AND CABLES ARE TYPICALLY PROVIDED BY STARRY, PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH STARRY PROJECT MANAGER TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED BY STARRY, ALL ITEMS NOT PROVIDED BY STARRY SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS
- 32. PRIOR TO SUBMISSION OF BID, CONTRACTOR WILL COORDINATE WITH STARRY PROJECT MANAGER TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY STARRY. ALL REQUIRED PERMITS NOT OBTAINED BY STARRY MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
- 33. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
- 34. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO STARRY SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
- 35. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, FTC.

#### **CONSTRUCTION NOTES:**

- FIELD VERIFICATION: CONTRACTOR SHALL FIELD VERIFY SCOPE OF WORK, STARRY ANTENNA MOUNT LOCATIONS.
- CONTRACTOR SHALL COORDINATE RF WORK AND PROCEDURES WITH PROJECT MANAGEMENT.
- CABLE LAUDER RACK:
  CONTRACTOR SHALL FURNISH AND INSTALL CABLE LADDER RACK, CABLE TRAY, AND CONDUIT AS
  REQUIRED TO SUPPORT CABLES TO THE NEW CABINET LOCATION.
- 4. ALL EQUIPMENT AND ANTENNAS SHALL BE INSTALLED AND GROUNDED IN ACCORDANCE WITH GOVERNING BUILDING CODE, MANUFACTURER RECOMMENDATIONS AND OWNER SPECIFICATIONS.

#### STRUCTURAL STEEL NOTES:

- STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS"
- STRUCTURAL STEEL ROLLED SHAPES, PLATES, AND BARS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS:

  ASTM A-992, GRADE 50

  ALL W SHAPES, UNLESS NOTED OR A992 OTHERWISE.

  ALL W SHAPES, UNLESS NOTED ARE SHAPES, PLATES AND BARS UNLESS NOTED OTHERWISE.

  ASTM A-500, GRADE B

  ASTM A-325, TYPE SC OR N

  ALL BOLTS FOR CONNECTING STRUCTURAL MEMBERS.

  ALL ANCHORE 76. STRUCTURAL STEEL ROLLED SHA ASTM A-392, GRADE 50 ASTM A-36 ASTM A-500, GRADE B ASTM A-325, TYPE SC OR N F1554, GRADE 36 ASTM A-53, GRADE B
  - ANCHORS BOLTS, UNLESS NOTED OTHERWISE
- 3. ALL WELDING SHALL BE DONE 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", 14TH EDITION. WHERE WELD LENGTH IS NOT INDICATED. USE FULL LENGTH WELD. AT THE COMPLETION OF ALL WELDING, ALL DAMAGE TO GALVANIZED COATING SHALL BE REPAIRED.
- BOLTED CONNECTIONS SHALL USE BEARING TYPE GALVANIZED ASTM A325 BOLTS  $(3/4^{\circ}$  DIA.) SUPPLIED WITH A NUT AND WASHER UNDER TURNED END AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.
- 5. DO NOT DRILL HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
- NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIA. GALVANIZED ASTM A 307 BOLTS UNLESS NOTED
- USE PRECAUTIONS & PROCEDURES PER AWS D1.1 WHEN WELDING GALVANIZED METALS.
- ALL EXISTING BEAM AND COLUMN DIMENSIONS SHALL BE FIELD VERIFY BY CONTRACTOR PRIOR TO FABRICATION. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THOSE SHOWN SHALL BE REPORTED TO DEWBERRY ENGINEER IMMEDIATELY.
- CONNECTION DESIGN BY FABRICATOR WILL BE SUBJECT TO REVIEW AND APPROVAL BY ENGINEER
- 10. ALL EXTERIOR STEEL WORK SHALL BE GALVANIZED IN ACCORDANCE WITH SPECIFICATION ASTM A123/A123M-00 HOT-DIP GALVANIZED FINISH UNLESS OTHERWISE NOTED. GALVANIZING SHALL BE PERFORMED AFTER SHOP FABRICATION TO THE GREATEST EXTENT POSSIBLE. ALL DINGS, SCRAPES, MARS, AND WELDS IN THE GALVANIZED AREAS SHALL BE REPAIRED. REPAIR DAMAGED GALVANIZED COATINGS ON GALVANIZED ITEMS WITH GALVANIZED REPAIR PAINT ACCORDING TO ASTM A780 AND DAMAGED GALVANIZED COATINGS ON GALVANIZED TIEMS WITH GALVANIZED REPAIR PAINT ACCORDANCE MAY AVOID AND MANUFACTURER'S WRITTEN INSTRUCTIONS, PRIOR TO COMPLETION OF WORK. TOUCHUP ALL DAMAGED GALVANIZED STEEL WITH APPROVED COLD ZINC, "GALVANOX", "DRY GALV", "ZINLE—IT", OR APPROVED EQUIVALENT, IN ACCORDANCE WITH MANUFACTURERS GUIDELINES. TOUCHUP DAMAGED NON GALVANIZED STEEL WITH SAME PAINT APPLIED IN SHOP OR FIELD.

#### POST-INSTALLED HILTI ANCHORS NOTES:

EXCEPT WHERE INDICATED ON THE DRAWINGS, POST-INSTALLED ANCHORS SHALL CONSIST OF THE FOLLOWING ANCHOR TYPES OR APPROVED EQUAL AND INSTALLED IN ACCORDANCE WITH THEIR RESPECTIVE ICLE-ES REPORT AND MANFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS:

APPLICATION	ANCHORING SYSTEM	ICLE-ES REPORT
	HILTI HY 200 ADHESIVE	ESR-3814
	HILTI RE 500 V3 ADHESIVE	ESR-4266
ANCHORAGE TO CONCRETE	HILTI KWIK BOLT TZ2	ESR-3027
	HILTI KWIK HUS EZ	ESR-1545
	HILTI HSL-3	ESR-1546
	HILTI HDA	ESR-3814
REBAR DOWELING	HILTI RE 500 V3 ADHESIVE W/ SAFE SET INSTALLATION	ESR-3187
REBAN DOWELING	HILTI HY 200 V3 ADHESIVE W/ SAFE SET INSTALLATION	ESR-4143
ANCHORAGE TO SOLID	HILTI HY 270 ADHESIVE	ESR-4561
GROUTED MASONRY	HILTI KWIK BOLT TZ2	ESR-4561
ANCHORAGE TO HOLLOW/ MULTI-WYTHE MASONRY	HILTI HY 270 ADHESIVE WITH SCREEN TUBE	ESR-4143, ESR-4144

- 2. ANCHOR CAPACITY USED IN DESIGN SHALL BE BASED ON THE TECHNICAL DATA PUBLISHED BY HILTI OR SUCH OTHER METHOD AS APPROVED BY THE STRUCTURAL ENGINEER OF RECORD. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE. CONTRACTOR SHALL PROVIDE CALCULATIONS DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT INCLUDING AN ICLE—ES REPORT SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE, SEISMIC USE, LOAD RESISTANCE, INSTALLATION CATEGORY, IN-SERVICE TEMPERATURE, INSTALLATION TEMPERATURE, ETC.
- 3. ADHESIVE ANCHORS INSTALLED IN A HORIZONTALLY OR UPWARDLY INCLINED ORIENTATION INTO CONCRETE AND SUPPORTING A SUSTAINED TENSION LOAD SHALL BE INSTALLED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER. INSTALLER SHALL BE CERTIFIED THROUGH THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM OR
- 4. CONTRACTOR SHALL ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ON—SITE ANCHOR INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. CONTRACTOR SHALL SUBMIT DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL INSTALLING ANCHORS HAVE RECEIVED THE REQUIRED TRAINING PRIOR TO THE COMMENCEMENT OF WORK
- 5. ANCHOR CAPACITY IS DEPENDANT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.
- 6. CONTINUOUS OR PERIODIC SPECIAL INSPECTION FOR POST INSTALLED ANCHORS SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 4.3/4.4 OF THE ICLE-ES REPORT FOR THE INDIVIDUAL ANCHOR. SPECIAL INSPECTOR SHALL BE NOTIFIED PRIOR TO COMMENCEMENT OF WORK TO COORDINATE INSPECTION EFFORTS.
- 7. POST INSTALLED ADHESIVE ANCHORS ARE NOT PERMITTED TO BE INSTALLED IN MORTAR JOINTS. ALL ANCHORS TO INSTALLED WITHIN THE FACE OF MASONRY UNIT.

#### **GENERAL ELECTRICAL NOTES:**

- SUBMITTAL OF BID INDICATES CONTRACTOR IS AWARE OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
- 2 CONTRACTOR SHALL PERFORM ALL VERIFICATION OBSERVATION TESTS AND EXAMINATION WORK PRIOR CONTRACTOR SHALL PERFORM ALL VENIFICATION DESERVATION LESIS, AND EXAMINATION WORK PT TO THE ORDERING OF THE ELECTRICAL EQUIPMENT AND THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE ARCHITECT LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT AND DISCREPANCIES.
- 3. HEIGHTS SHALL BE VERIFIED WITH OWNER PRIOR TO INSTALLATION.
- 4. THESE PLANS ARE DIAGRAMMATIC ONLY, FOLLOW AS CLOSELY AS POSSIBLE.
- EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANELBOARD, PULLBOX, J-BOX, SWITCH BOX, ETC., IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ACT
- 6. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSPORTATION, ETC., FOR A COMPLETE AND PROPERLY OPERATIVE SYSTEM ENERGIZED THROUGHOUT AND AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS
- ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORY AND SHALL BEAR THE INSPECTION LABEL "J" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF THE DIVISION OF INDUSTRIAL SAFETY AND ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA AND NBFU.
- 8. ALL CONDUIT INSTALLED MAY BE SURFACE MOUNTED UNLESS OTHERWISE NOTED.
- 9. CONTRACTOR SHALL CARRY OUT HIS WORK IN ACCORDANCE WITH ALL GOVERNING STATE, COUNTY
- 10. CONTRACTOR SHALL SECURE ALL NECESSARY BUILDING PERMITS AND PAY ALL REQUIRED FEES.
- 11. COMPLETE JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE BY OWNER. ANY WORK, MATERIAL OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE
- 12. ALL CONDUIT ONLY (C.O.) SHALL HAVE A PULL WIRE OR ROPE.
- 13. PROVIDE PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS, AND CIRCUITS.
- 14. ALL BROCHURES, OPERATING MANUALS, CATALOGS, SHOP DRAWINGS, ETC. SHALL BE TURNED OVER TO OWNER AT JOB COMPLETION.
- 15. USE T-TAP CONNECTIONS ON ALL MULTI-CIRCUITS WITH COMMON NEUTRAL CONDUCTOR FOR
- 16. ALL CONDUCTORS SHALL BE COPPER.
- 17. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C.
- 18. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY ALL APPLICABLE
- 19. PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL
- 20. IN DRILLING HOLES INTO CONCRETE WHETHER FOR FASTENING OR ANCHORING PURPOSES, OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, M PIPE RUNS, ETC., IT MUST BE CLEARLY UNDERSTOOD THAT TENDONS AND/OR REINFORCING STEEL WILL NOT BE DRILLED INTO, CUT OR DAMAGED UNDER ANY CIRCUMSTANCES.
- 21. LOCATION OF TENDONS AND/OR REINFORCING STEEL ARE NOT DEFINITELY KNOWN AND, THEREFORE, MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT VIA X—RAY OR OTHER DEVICES THAT CAN ACCURATELY LOCATE THE REINFORCING AND/OR STEEL TENDONS.
- 22. PENETRATIONS IN FIRE RATED WALLS SHALL BE FIRE STOPPED IN ACCORDANCE WITH FIRESTOP DETAIL.
- 23. WIRE AND CABLE CONDUCTORS SHALL BE COPPER #12 AWG MINIMUM UNLESS SPECIFICALLY STATED
- 24. VERIFY ALL CONDUIT ROUTING W/OWNER REP. & THE CONSTRUCTION MANAGER.
- 25. ALL MATERIALS SHALL BE U.L. LISTED.
- 26. CONDUIT:

  d. RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL
  BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH,
  UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR. RIGID

  WITH HINTS WRAP CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP
- PROCESS NO. 3.

  b. ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTINGS SHALL BE GLAND RING COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.

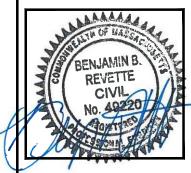
  c. FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "JUAKE" OR "SQUEEZE" TYPE, SEAL TIGHT FLEXIBLE CONDUIT. ALL CONDUIT IN EXCESS OF SIX FEET IN LENGTH SHALL HAVE FULL SIZE GROUND WIGH.
- WIRE.
  CONDUIT RUNS MAY BE SURFACE MOUNTED IN CEILINGS OR WALLS UNLESS INDICATED
  OTHERWISE. CONDUIT INDICATED SHALL RUN PARALLEL OR AT RIGHT ANGLES TO CEILING, FLOOR
  OR BEAMS. VERBIY EXACT ROUTING OF ALL EXPOSED CONDUIT WITH ARCHITECT PRIOR TO
- 27. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS.
- 28. COORDINATE THE ELECTRICAL SERVICE WITH BUILDING OWNER AND LOCAL UTILITY COMPANY.
- 29. GROUNDING SYSTEM RESISTANCE SHALL NOT EXCEED 5 OHMS. IF THE RESISTANCE VALUE IS EXCEEDED, NOTIFY THE OWNER FOR FURTHER INSTRUCTION ON METHODS FOR REDUCING THE RESISTANCE VALUE. SUBMIT TEST REPORTS AND FURNISH TO DISPATCH COMMUNICATIONS ONE COMPLETE SET OF PRINTS SHOWING "INSTALLED WORK".
- 30. UPON COMPLETION OF WORK, CONDUCT CONTINUITY, AND FALL POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.
- 31. ALL WALL PENETRATIONS SHALL BE FIRE STOPPED WITH FS-ONE HIGH PERFORMANCE INTUMESCENT FIRE STOP BY HILTI OR APPROVED EQUAL. INSTALL PER MANUFACTURERS RECOMMENDATIONS.



38 CHAUNCY STREET 2ND FLOOR BOSTON, MA 02111



Dewberry Engineers Inc. 99 SUMMER STREET SUITE 700 BOSTON, MA 02110 PHONE: 617.695.3400



RAWN RY JIM

OAS

BBR

APPROVED BY

CHECKED BY

PROJECT # 5012229

5012231 JOB #

CONSTRUCTION DRAWINGS REV. DATE DESCRIPTION 0 11/03/21 FOR SUBMITTAL

A 10/08/21 FOR REVIEW

SITE NUMBER MACAN0049

SITE NAME: 700 HURON (VA)

SITE ADDRESS:
700 HURON AVE. CAMBRIDGE, MA 02138

SHEET TITLE

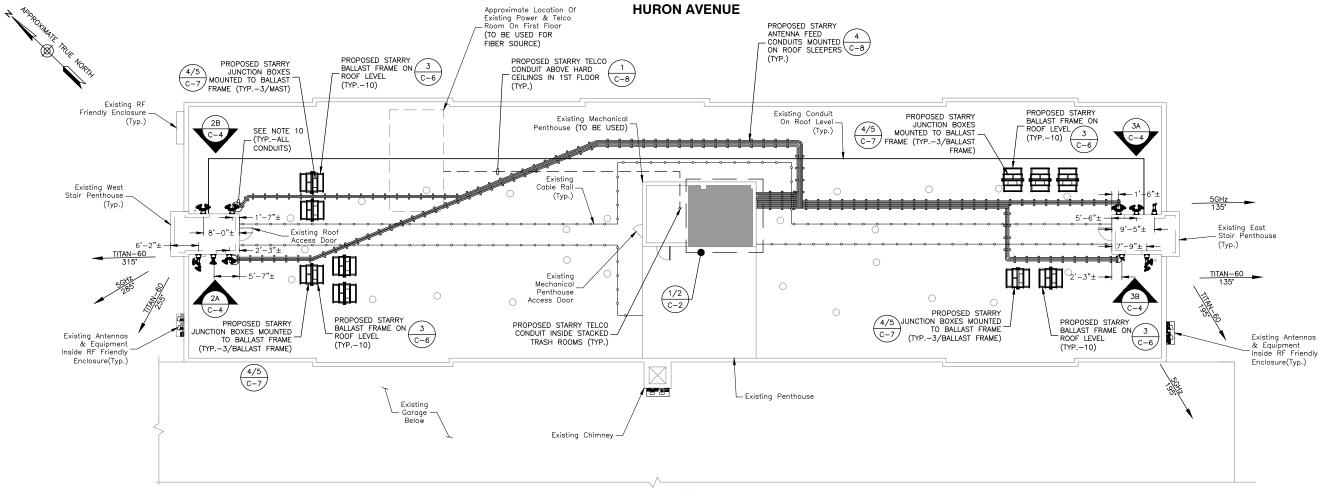
GENERAL NOTES



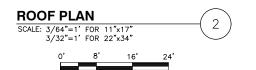
AERIAL MAP

#### NOTES:

- 1. SOME EXISTING, FUTURE & PROPOSED INFORMATION NOT SHOWN FOR CLARITY
- 2. NORTH ARROW SHOWN AS APPROXIMATE.
- 3. PLANS BASED ON FIELD OBSERVATIONS DURING SITE VISIT ON 08/26/21 & EXISTING PLANS BY DEWBERRY ENGINEERS INC.
- 4. EQUIPMENT LOCATIONS & ORIENTATION BASED ON STRUCTURAL ANALYSIS BY DEWBERRY ENGINEERS INC. DATED 11/03/21.
- STARRY REQUIRES (1) 2-POLE 60A CIRCUIT BREAKER TO BE INSTALLED IN AN EXISTING POWER PANEL INSIDE THE BUILDING. SOURCE & ROUTING TO BE DETERMINED BY OTHERS.
- 6. STARRY EQUIPMENT TO BE BONDED TO THE EXISTING GROUND BAR INSIDE THE EXISTING MECHANICAL PENTHOUSE.
- . ALL PROPOSED CORING LOCATIONS ARE TO BE X-RAYED FOR STRUCTURAL MEMBERS AND FIELD VERIFIED WITH BUILDING REPRESENTATIVE PRIOR TO CONSTRUCTION.
- 8. ALL PROPOSED FACADE MOUNTED ANTENNAS & CONDUITS SHALL BE PAINTED TO MATCH BUILDING. COORDINATE COLOR WITH STARRY CM AND BUILDING OWNER. PAINT TO MATCH ANTENNAS PER MANUFACTURE'S SPECIFICATIONS, RECOMMENDATION & STARRY BEGUIREMENTS.
- ALL EXISTING & PROPOSED EXTERIOR WALL PENETRATIONS SHALL BE WEATHERSEALED.
- SECURE EACH PROPOSED CONDUIT TO STEEL BALLAST FRAME WITH 1/4" DIAMETER 7/19 SSAC TYPE 302/304 STAINLESS STEEL AIRCRAFT CABLE WITH VINYL COATING.









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DRAWN BY:	JIM
CHECKED BY:	OAS

BBR

PROJECT #: 50122290

APPROVED BY:

JOB #: 50122319

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SITE NUMBER: MACANO049

700 HURON (VA)

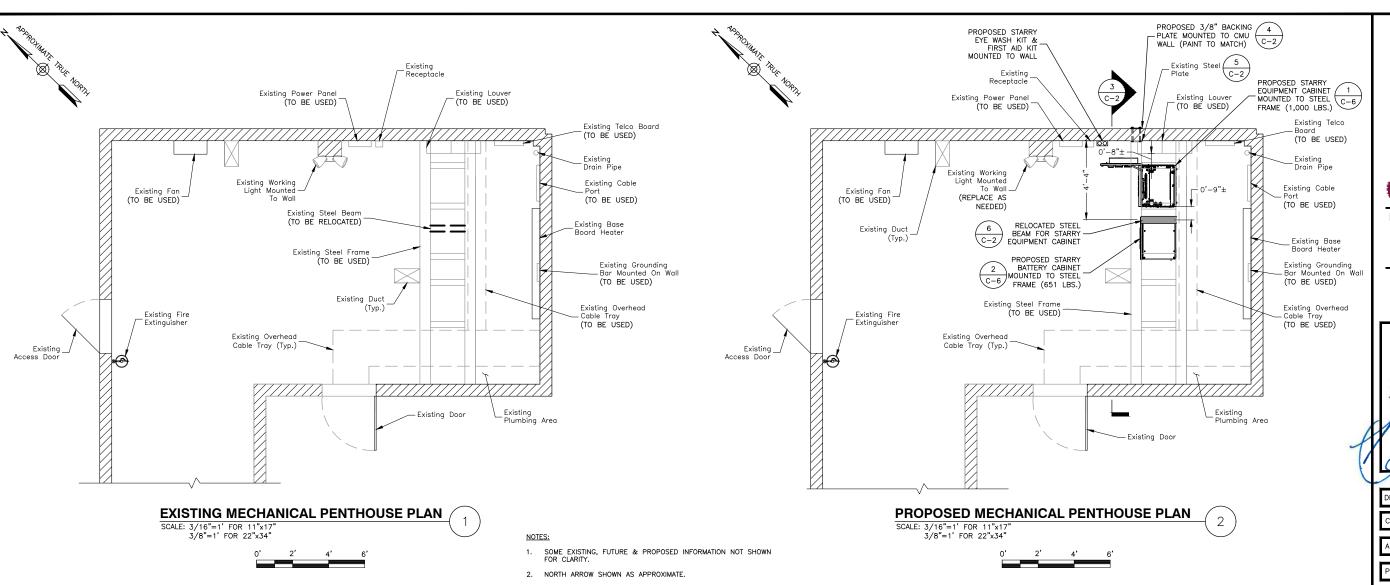
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SHEET TITLE

ROOF PLAN

SHEET NUMBER

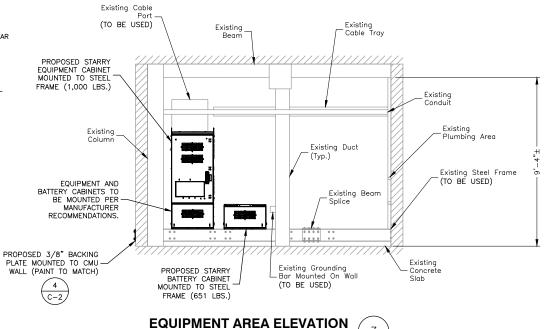
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#### STRUCTURAL NOTES:

- EQUIPMENT LOCATIONS & ORIENTATION BASED ON STRUCTURAL ANALYSIS BY DEWBERRY ENGINEERS INC. DATED 11/03/21.
- STRUCTURAL ANALYSIS BASED ON LOCATION & LOADING SHOWN. ANY ALTERATIONS IN EQUIPMENT LOCATIONS & LOADING WILL REQUIRE ADDITIONAL STRUCTURAL ANALYSIS & DESIGN.
- 3. CONTRACTOR TO VERIFY ALL EXISTING BOLTS ON EXISTING STEEL FRAME & CONNECTION TO EXISTING WALL/COLUMNS ARE TIGHTEN PRIOR TO EQUIPMENT PLACEMENT. ANY DAMAGE OR DETERIORATION TO THE EXISTING STEEL FRAME SHALL BE REPLACED IN KIND.
- EQUIPMENT AND BATTERY CABINETS TO BE MOUNTED PER MANUFACTURER RECOMMENDATIONS.

- PLANS BASED ON FIELD OBSERVATIONS DURING SITE VISIT ON 08/26/21 & EXISTING PLANS BY DEWBERRY ENGINEERS INC.
- STARRY REQUIRES (1) 2-POLE 60A CIRCUIT BREAKER TO BE INSTALLED IN AN EXISTING POWER PANEL INSIDE THE BUILDING. SOURCE & ROUTING TO BE DETERMINED BY OTHERS.
- STARRY EQUIPMENT TO BE BONDED TO THE EXISTING GROUND BAR INSIDE THE EXISTING MECHANICAL PENTHOUSE.
- ALL PROPOSED CORING LOCATIONS ARE TO BE X-RAYED FOR STRUCTURAL MEMBERS AND FIELD VERIFIED WITH BUILDING REPRESENTATIVE PRIOR TO CONSTRUCTION.
- 7. ALL EXISTING & PROPOSED EXTERIOR WALL PENETRATIONS SHALL BE WEATHERSEALED.



SCALE: 3/16"=1' FOR 11"x17' 3/8"=1' FOR 22"x34"



38 CHAUNCY STREET 2ND FLOOR BOSTON, MA 02111



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APPROVED BY:	BBR I

PROJECT : 50122290

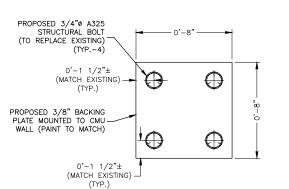
JOB # 50122319

CC	NSTRU	CTION	DRAWINGS
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SITE NUMBER: MACANO049 SITE NAME: 700 HURON (VA) <u>site address:</u> 700 HURON AVE.

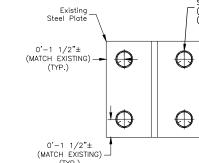
CAMBRIDGE, MA 02138

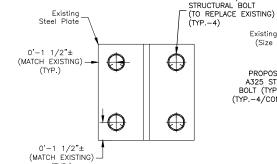
EXISTING & PROPOSED EQUIPMENT AREA PLANS

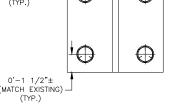


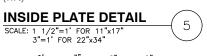
**OUTSIDE BACKING PLATE DETAIL** 

SCALE: 1 1/2"=1' FOR 11"x17" 3"=1' FOR 22"x34"









PROPOSED 3/4"ø A325

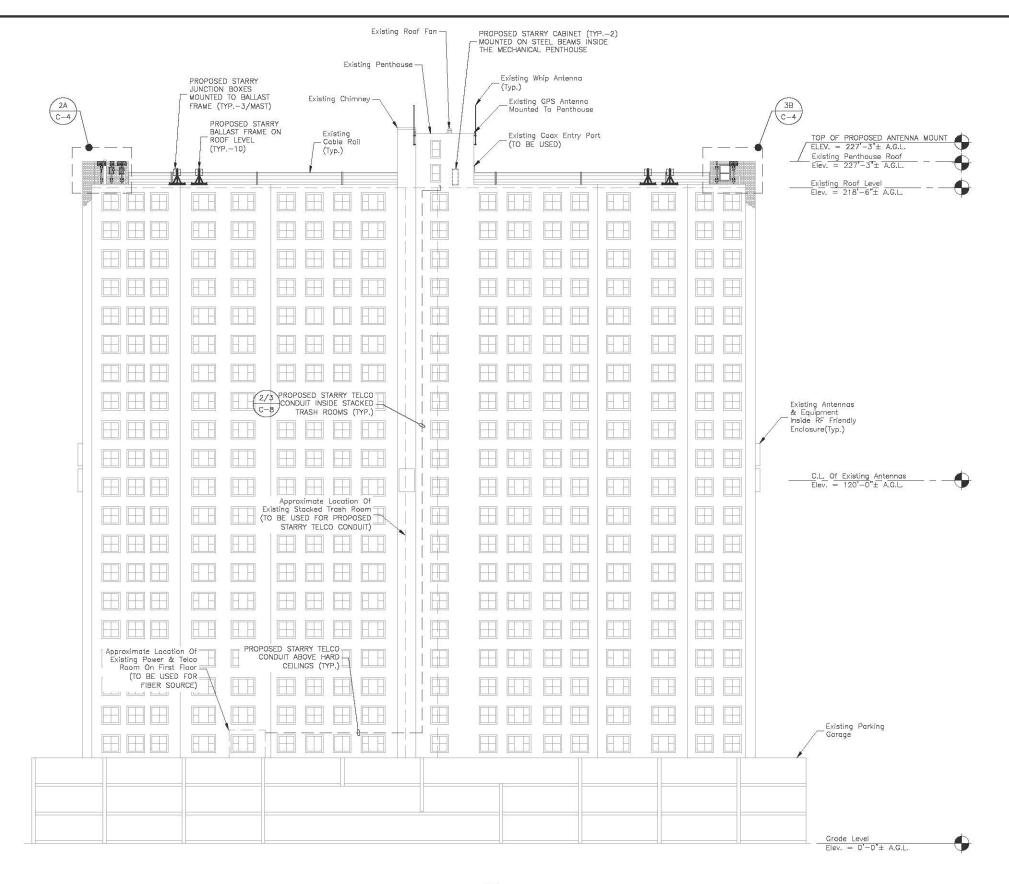
Existing Beam

(Size Varies)

A325 STRUCTURAL BOLT (TYP.-2/SIDE) (TYP.-4/CONNECTION)



Beam



NOTES:

SHOWN FOR CLARITY.

2. ELEVATION SHOWN AS APPROXIMATE.

SOME EXISTING, FUTURE & PROPOSED INFORMATION NOT

5. STARRY REQUIRES (1) 2-POLE 60A CIRCUIT BREAKER TO BE INSTALLED IN AN EXISTING POWER PANEL INSIDE THE BUILDING. SOURCE & ROUTING TO BE DETERMINED BY

ALL PROPOSED CORING LOCATIONS ARE TO BE X-RAYED FOR STRUCTURAL MEMBERS AND FIELD VERIFIED WITH BUILDING REPRESENTATIVE PRIOR TO CONSTRUCTION.

ALL PROPOSED FACADE MOUNTED ANTENNAS & CONDUITS SHALL BE PAINTED TO MATCH BUILDING. COORDINATE COLOR WITH STARRY CM AND BUILDING OWNER. PAINT TO MATCH ANTENNAS PER MANUFACTURE'S SPECIFICATIONS, RECOMMENDATION & STARRY REQUIREMENTS.

9. ALL EXISTING & PROPOSED EXTERIOR WALL PENETRATIONS

SHALL BE WEATHERSEALED.

6. STARRY EQUIPMENT TO BE BONDED TO THE EXISTING GROUND BAR INSIDE THE EXISTING MECHANICAL PENTHOUSE.

PLANS BASED ON FIELD OBSERVATIONS DURING SITE VISIT ON 0B/26/21 & EXISTING PLANS BY DEWBERRY ENGINEERS INC. EQUIPMENT LOCATIONS & ORIENTATION BASED ON STRUCTURAL ANALYSIS BY DEWBERRY ENGINEERS INC. DATED 11/03/21.





38 CHAUNCY STREET 2ND FLOOR BOSTON, MA 02111



Dewberry Engineers Inc. 99 SUMMER STREET SUITE 700 BOSTON, MA 02110 PHONE: 617.695.3400



DRAWN BY: JIM

CHECKED BY: OAS

BBR

APPROVED BY:

PROJECT #: 5012229

JOB #: 5012231

CO	NSTRU	CTION DRAWING	S
REV.	DATE	DESCRIPTION	
0	11/03/21	FOR SUBMITTAL	
Α	10/08/21	FOR REVIEW	

SITE NUMBER: MACANO049

700 HURON (VA)

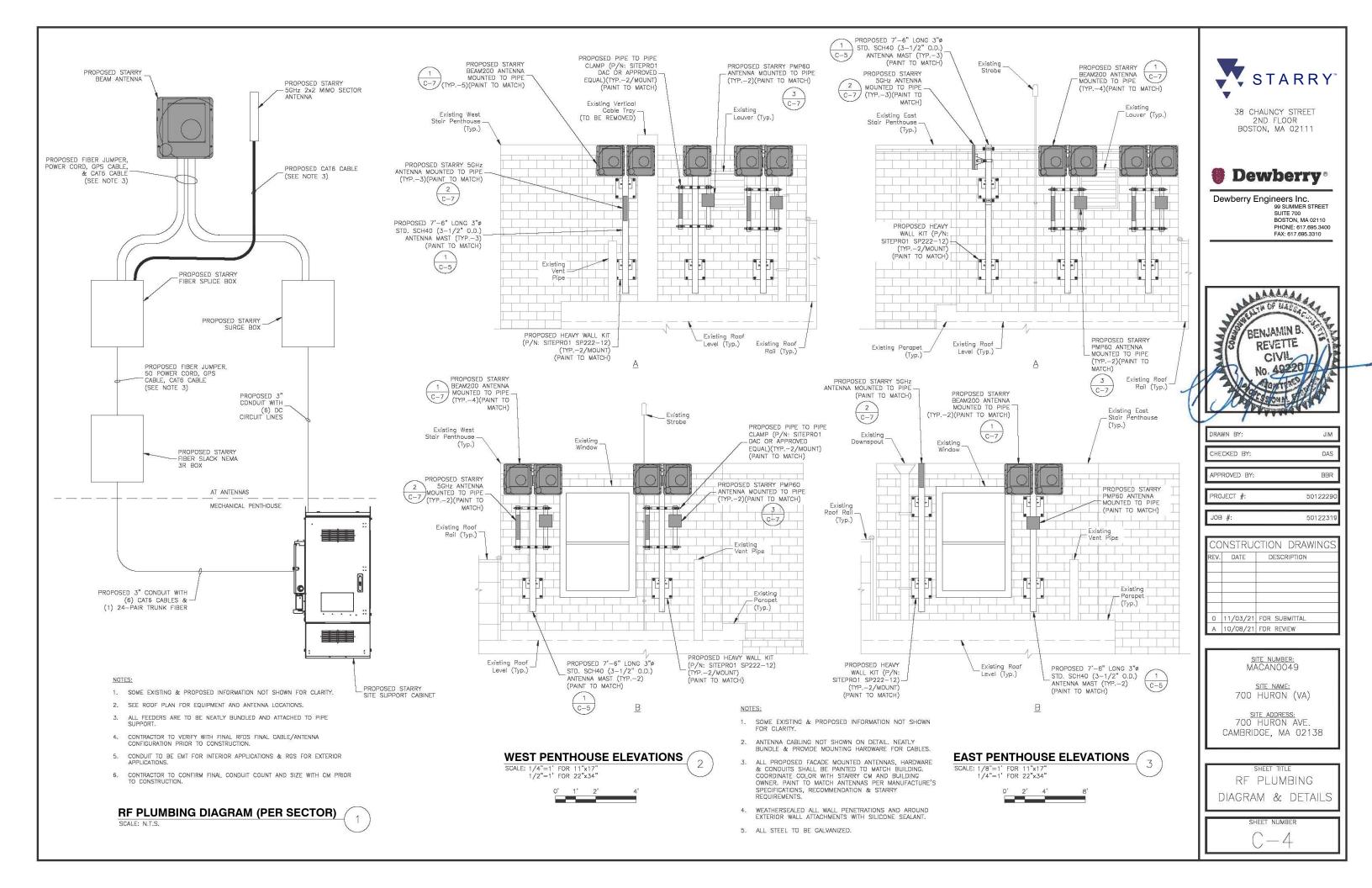
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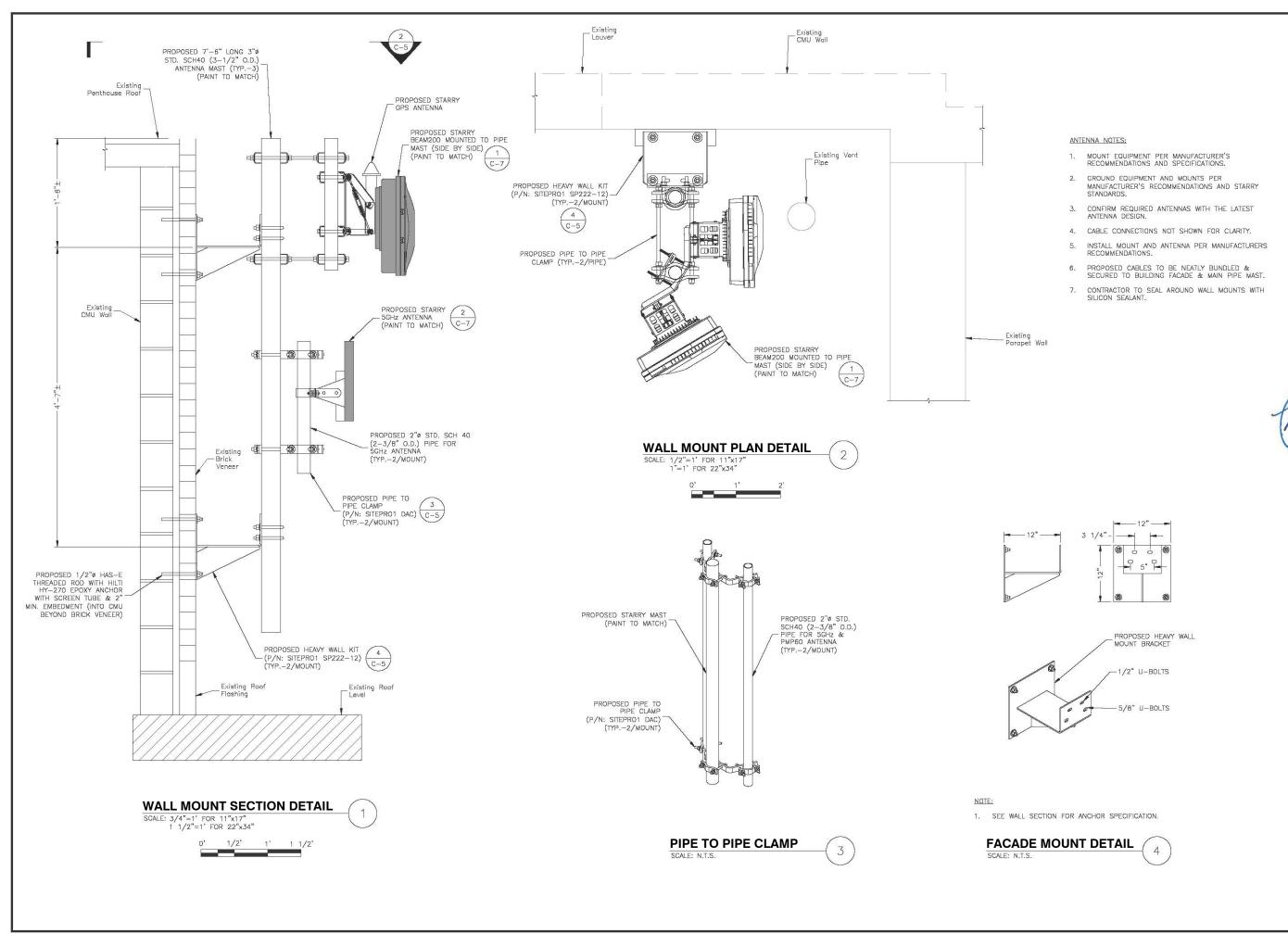
SHEET TITL

SOUTH ELEVATION

SHEET NUMBER

C - 3







38 CHAUNCY STREET 2ND FLOOR BOSTON, MA 02111



Dewberry Engineers Inc. 99 SUMMER STREET SUITE 700 BOSTON, MA 02110 PHONE: 617.695.3400 FAX: 617.695.3310



DRAWN BY:	JIM
CHECKED BY:	OAS

APPROVED BY:

PROJECT #: 50122290

BBR

JOB #: 50122319

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Α	10/08/21	FOR REVIEW

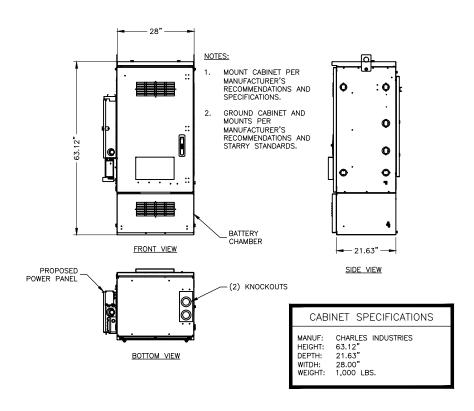
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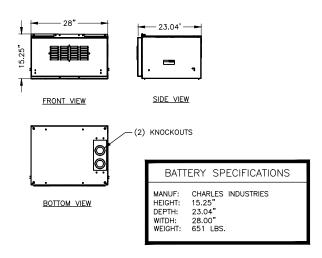
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> MOUNTING DETAILS

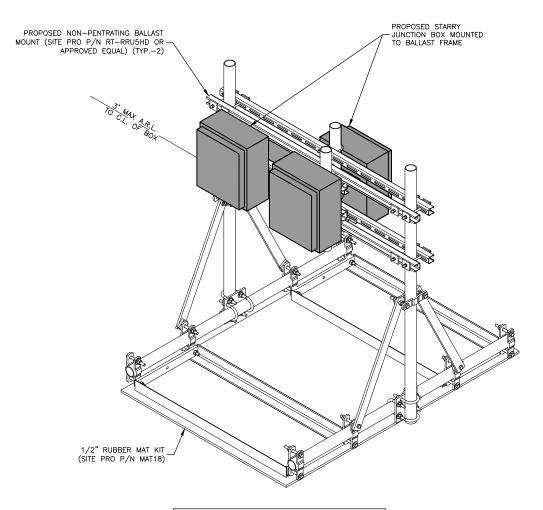
SHEET NUMBER







BATTERY CABINET 2



BALLAST SCHEDULE				
REQUIRED FRONT TRAY BALLAST	146± LBS.			
REQUIRED REAR TRAY BALLAST	146± LBS.			
TOTAL BALLAST (LBS.) 292± LBS.				

#### NOTES:

- INSTALL ALL EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS AND MINIMIZED OVERALL HEIGHT, MAX. 4'.
- 2. ALL EQUIPMENT SHALL BE GROUNDED PER VERIZON WIRELESS STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
- 3. DETAIL IS SCHEMATIC.
- 4. ALL MOUNTING HARDWARE TO BE GALVANIZED.
- 5. NO BALLAST REQUIRED.
- CLEAN, INSPECT & PHOTO DOCUMENT EXISTING ROOF PRIOR TO PLACEMENT OF PROPOSED BALLAST FRAME.
- 7. BOND FRAME & REMOTE TO SECTOR GROUND BAR.
- 8. A.R.L. = ABOVE ROOF LEVEL C.L. = CENTERLINE

### JUNCTION BOX BALLAST MOUNT DETAIL

SCALE: N.T.S.





Dewberry Engineers Inc.
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SUITE 700
BOSTON, MA 02110
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Ī	DRAWN BY:	JIM
Ī	CHECKED BY:	OAS

BBR

50122290

JOB #: 50122319

APPROVED BY:

PROJECT #:

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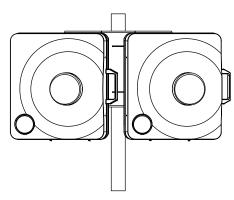
SITE NAME: 700 HURON (VA)

<u>site address:</u> 700 HURON AVE. CAMBRIDGE, MA 02138

STARRY EQUIPMENT DETAILS

0-6





ANTENNA ELEVATION (DOUBLE MOUNT)

#### NOTES:

- MOUNT ANTENNA PER
   MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
- GROUND ANTENNA AND MOUNTS PER MANUFACTURER'S RECOMMENDATIONS AND STARRY STANDARDS.
- CONFIRM REQUIRED ANTENNAS WITH THE LATEST ANTENNA DESIGN.

## ANTENNA SPECIFICATIONS

MODEL: STARRY BEAM 200 (TITAN) LENGTH: WIDTH: DEPTH: WEIGHT: 7.2" 48.0 LBS.



ANTENNA



**ANTENNA DOWNTILT BRACKET** 

STARRY 5 GHz 2x2 MIMO

ANTENNA/RADIO

RADIO

WEIGHT:

- MOUNT EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
- 2. GROUND EQUIPMENT AND MOUNTS PER MANUFACTURER'S RECOMMENDATIONS AND STARRY STANDARDS.
- 3. CONFIRM REQUIRED ANTENNAS WITH THE LATEST ANTENNA



#### NOTES:

- MOUNT EQUIPMENT PER
  MANUFACTURER'S RECOMMENDATIONS
  AND SPECIFICATIONS.
- GROUND EQUIPMENT AND MOUNTS PER MANUFACTURER'S RECOMMENDATIONS AND STARRY STANDARDS.
- 3. CONFIRM REQUIRED ANTENNAS WITH THE LATEST ANTENNA DESIGN.

ANTENNA SPECIFICATIONS

2.36" 4.41 LBS.

IGNITENET METROLINQ 2.5G 60BM SECTOR 7.48" 7.48"



STARRY

PHONE: 617.695.3400 FAX: 617.695.3310

REVETTE

CIVIL

CONSTRUCTION DRAWINGS

0 11/03/21 FOR SUBMITTAL A 10/08/21 FOR REVIEW

SITE NUMBER: MACANO049

700 HURON (VA)

<u>site address:</u> 700 HURON AVE. CAMBRIDGE, MA 02138

DESCRIPTION

JIM

OAS

BBR

50122290

50122319

DRAWN BY:

CHECKED BY:

APPROVED BY:

REV. DATE

PROJECT #

JOB #:

38 CHAUNCY STREET 2ND FLOOR BOSTON, MA 02111

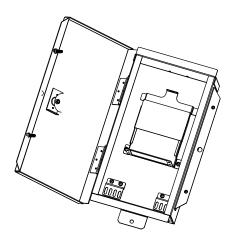


**ANTENNA DOWNTILT BRACKET** 

## **METROLING BEAMFORMING** (PMP 60) ANTENNA DETAIL



STARRY BEAM ANTENNA SCALE: N.T.S.



ENCLOSURE SPECIFICATIONS HEIGHT: 24.0" WIDTH: 24.0" DEPTH: 12.0"

#### NOTES:

- 1. SPD = SURGE PROTECTION DEVICE.
- 2. MOUNT SPD ENCLOSURE TO ANTENNA MAST IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS





ENCL	DSURE	SPECIFICATIONS
HEIGHT: WIDTH: DEPTH:	24.0" 24.0" 12.0"	

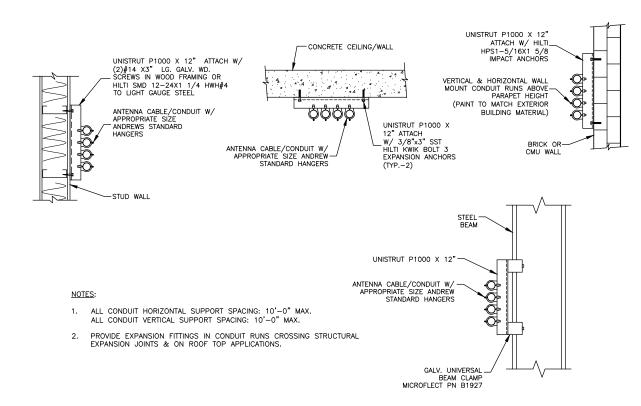
- 1. FMB = FIBER MANAGEMENT BOX.
- 2. MOUNT FMB TO ANTENNA MAST IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.

FIBER MANAGEMENT BOX SCALE: N.T.S.

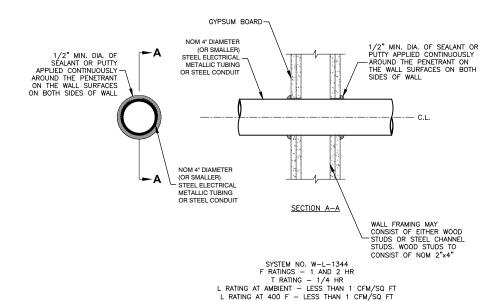
5

STARRY ANTENNA DETAILS

NOTES:



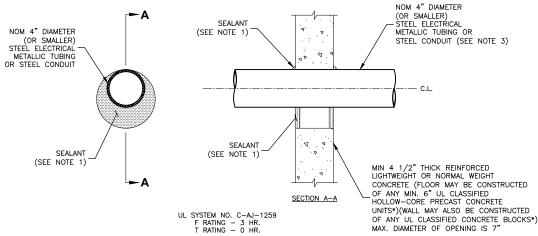




NOTES:

- 1. THE 1 AND 2 HOUR FIRE RATED GYPSUM WALL BOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS & MANNER SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES WALL & PARTITION DESIGNS IN THE UL FIRE RESISTANCE
- 2. 5" DIAMETER OPENING MAX.

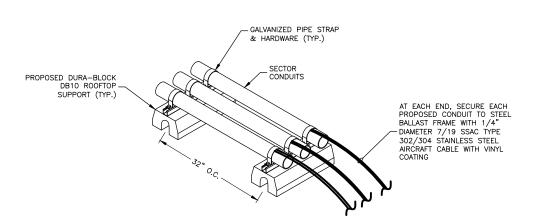
#### **SECTION - THROUGH PENETRATION FIRESTOP SYSTEM** SCALE: N.T.S.



#### NOTES:

- FILL, VOID OR CAVITY MATERIAL\* SEALANT MIN. 1/2" THICKNESS OF FILL
  MATERIAL APPLIED WITHIN THE ANNULUS, FILUSH WITH BOTH SURFACES OF FLOOR
  OR WALL. AT THE POINT CONTACT LOCATION BETWEEN PENETRATING ITEM AND
  CONCRETE, A MIN. 1/4" THICK BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE CONCRETE/ PENETRATING ITEM INTERFACE ON BOTH SIDES OF FLOOR OR WALL.
- FORMING MATERIAL (OPTIONAL, NOT SHOWN) MINERAL WOOL BATT PACKING MATERIAL OR POLYURETHANE BACKER ROD FRICTION FITTED INTO OPENING AND RECESSED FROM FLOOR OR WALL SURFACES AS REQUIRED TO ACCOMMODATE THICKNESS OF FILL MATERIAL.
- 3. ONE CONDUIT TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN THE CONDUIT AND THE PERIPHERY OF THE OPENING SHALL BE A MIN. OF 0" (POINT OF CONTACT) TO A MAX. OF 3". CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH
  - \* BEARING THE UL CLASSIFICATION MARK.





**ROOF MOUNTED CONDUIT DETAIL** SCALE: N.T.S.

Dewberry Engineers Inc. 99 SUMMER STREET SUITE 700 BOSTON, MA 02110 PHONE: 617.695.3400 FAX: 617.695.3310



STARRY

38 CHAUNCY STREET

2ND FLOOR

BOSTON, MA 02111

Dewberry®

DRAWN BY:	JIM
CHECKED BY:	OAS

PROJECT	#:	50122290

BBR

50122319

APPROVED BY:

JOB #:

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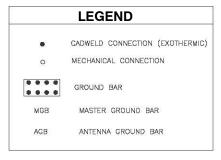
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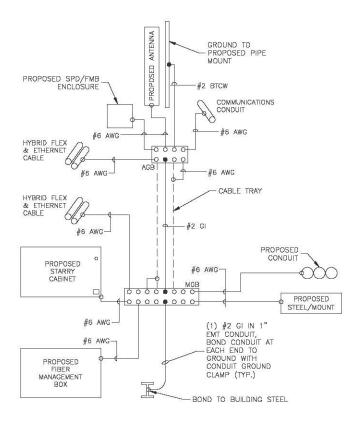
SHEET TITLE CONSTRUCTION **DETAILS** 

. 8

#### **GROUNDING NOTES:**

- 1. THE CONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADDPTED BY THE AHJ). THE SITE—SPECIFIC (U., LPI, OR NFPA) LIGHTING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE CONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE ENGINEER FOR RESOLUTION.
- ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GES'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS, ALL AVAILABLE GROUNDING ELECTRODES SHALL BE CONNECTED TOGETHER IN ACCORDANCE WITH THE NEW
- THE CONTRACTOR SHALL PERFORM IEEE FALL—OF—POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS. USE OF OTHER METHODS MUST BE PRE—APPROVED BY THE ENGINEER IN WRITING.
- 4. THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS ON TOWER SITES AND 10 OHMS OR LESS ON ROOFTOP SITES. WHEN ADDING ELECTRODES, CONTRACTOR SHALL MAINTAIN A MINIMUM DISTANCE BETWEEN THE ADDED ELECTRODE AND ANY OTHER EXISTING ELECTRODE EQUAL TO THE BURIED LENGTH OF THE ROD. IDEALLY, CONTRACTOR SHALL STRIVE TO KEEP THE SEPARATION DISTANCE EQUAL TO TWICE THE BURIED LENGTH OF THE RODS.
- 5. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT.
- METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH 6 AWG COPPER WIRE AND UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
- METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO TRANSMISSION EQUIPMENT.
- CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED, BACK—TO—BACK CONNECTIONS ON OPPOSITE SIDES OF THE GROUND BUS ARE PERMITTED.
- ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
- 10. USE OF 90' BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45' BENDS CAN BE ADEQUATELY SUPPORTED. IN ALL CASES, BENDS SHALL BE MADE WITH A MINIMUM BEND RADIUS OF 8
- 11. EACH INTERIOR TRANSMISSION CABINET FRAME/PLINTH SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH 6 AWG STRANDED, GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRE UNLESS NOTED OTHERWISE IN THE DETAILS. EACH OUTDOOR CABINET FRAME/PLINTH SHALL BE DIRECTLY CONNECTED TO THE BURIED GROUND RING WITH 2 AWG SOLID TIN-PLATED COPPER WIRE UNLESS NOTED OTHERWISE IN THE DETAILS.
- ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING, SHALL BE 2 AWG SOLID TIN-PLATED COPPER UNLESS OTHERWISE INDICATED.
- 13. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE. CONNECTIONS TO ABOVE GRADE UNITS SHALL BE MADE WITH EXOTHERMIC WELDS WHERE PRACTICAL OR WITH 2 HOLE MECHANICAL TYPE BRASS CONNECTORS WITH STAINLESS STEEL HARDWARE, INCLUDING SET SCREWS. HIGH PRESSURE CRIMP CONNECTORS MAY ONLY BE USED WITH WRITTEN PERMISSION FROM STARRY MARKET REPRESENTATIVE.
- 14. EXOTHERMIC WELDS SHALL BE PERMITTED ON TOWERS ONLY WITH THE EXPRESS APPROVAL OF THE TOWER MANUFACTURER OR THE CONTRACTORS STRUCTURAL ENGINEER.
- 15. ALL WIRE TO WIRE GROUND CONNECTIONS TO THE INTERIOR GROUND RING SHALL BE FORMED USING HIGH PRESS CRIMPS OR SPLIT BOLT CONNECTORS WHERE INDICATED IN THE DETAILS.
- 16. ON RODFTOP SITES WHERE EXOTHERMIC WELDS ARE A FIRE HAZARD COPPER COMPRESSION CAP CONNECTORS MAY BE USED FOR WIRE TO WIRE CONNECTORS. 2 HOLE MECHANICAL TYPE BRASS CONNECTORS WITH STANNLESS STEEL HARDWARE, INCLUDING SET SCREWS SHALL BE USED FOR CONNECTION TO ALL ROOFTOP TRANSMISSION EQUIPMENT AND STRUCTURAL STEEL.
- 17. COAX BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR USING TWO-HOLE MECHANICAL TYPE BRASS CONNECTORS AND STAINLESS STEEL HARDWARE.
- APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE)
   SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND
- ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
- 20. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
- 21. BOND ALL METALLIC OBJECTS WITHIN 6 FT OF THE BURIED GROUND RING WITH 2 AWG SOLID TIN-PLATED COPPER GROUND CONDUCTOR. DURING EXCAVATION FOR NEW GROUND CONDUCTORS, IF EXISTING GROUND CONDUCTORS ARE ENCOUNTERED, BOND EXISTING GROUND CONDUCTORS TO NEW CONDUCTORS.
- 22. GROUND CONDUCTORS USED IN THE FACILITY GROUND AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC PLASTIC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (E.G., NON-METALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT WITH LISTED BONDING FITTINGS.



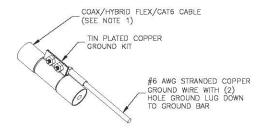


#### NOTES:

- 1. BOND ANTENNA GROUNDING KIT CABLE TO TOP CIGBE
- 2. BOND ANTENNA GROUNDING KIT CABLE TO BOTTOM CIGBE.
- 3. SCHEMATIC GROUNDING DIAGRAM IS TYPICAL FOR EACH SECTOR.
- 4. SYSTEM TO ACHIEVE 5 OHMS RESISTANCE.
- 5. GROUND TO BUILDING STEEL IN PENTHOUSE.
- 6. GROUND ALL EQUIPMENT PER MANUFACTURER RECOMMENDATIONS.

SCHEMATIC GROUNDING DIAGRAM
SCALE: N.T.S.

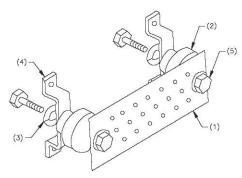




#### NOTES:

- IF CAT6 CABLE IS METAL JACKETED, GROUND CABLE AS SHOWN IN DETAIL PER MANUFACTURERS SPECIFICATIONS.
- DO NOT INSTALL CABLE GROUND KIT AT A BEND, ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
- GROUNDING KIT SHALL BE TIN PLATED COPPER WITH TWO-HOLE LUG, SIZE PER COAX DIAMETER.
- 4. WEATHER SEAL GROUND KIT PER CARRIER REQUIREMENTS.
- COAX CABLE GROUND KIT LOCATION & QUANTITY SHALL BE PER CARRIER SPECIFICATIONS & STANDARDS.





#### LEGEND:

- INSULATED COPPER GROUND BAR KIT WITH WALL BRACKETS, 1/4"x4"x10", NEWTON INSTRUMENT COMPANY CAT. #0030570010
- 2. (2) INSULATORS (INCLUDED)
- 3. (2) 1/2" LOCKWASHERS (INCLUDED)
- 4. (2) WALL MOUNTING BRACKET (INCLUDED)
- 5. (4) 5/8-11 X 1" H.H.C.S. (INCLUDED)

#### NOTE:

1. PROVIDE MOUNTING HARDWARE & FIELD LOCATE BASED ON SITE CONDITIONS.

GROUND BAR PLATE (TYP.)

SCALE: N.T.S.



38 CHAUNCY STREET 2ND FLOOR BOSTON, MA 02111



Dewberry Engineers Inc. 99 SUMMER STREET SUITE 700 BOSTON, MA 02110 PHONE: 617.695.3400 FAX: 617.695.3310



DRAWN	BY:	JIM
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OAS

APPROVED BY: BBR

CHECKED BY:

PROJECT #: 50122290

JOB #: 5012231

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REV.	DATE	DESCRIPTION
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Α	10/08/21	FOR REVIEW

SITE NUMBER: MACANO049

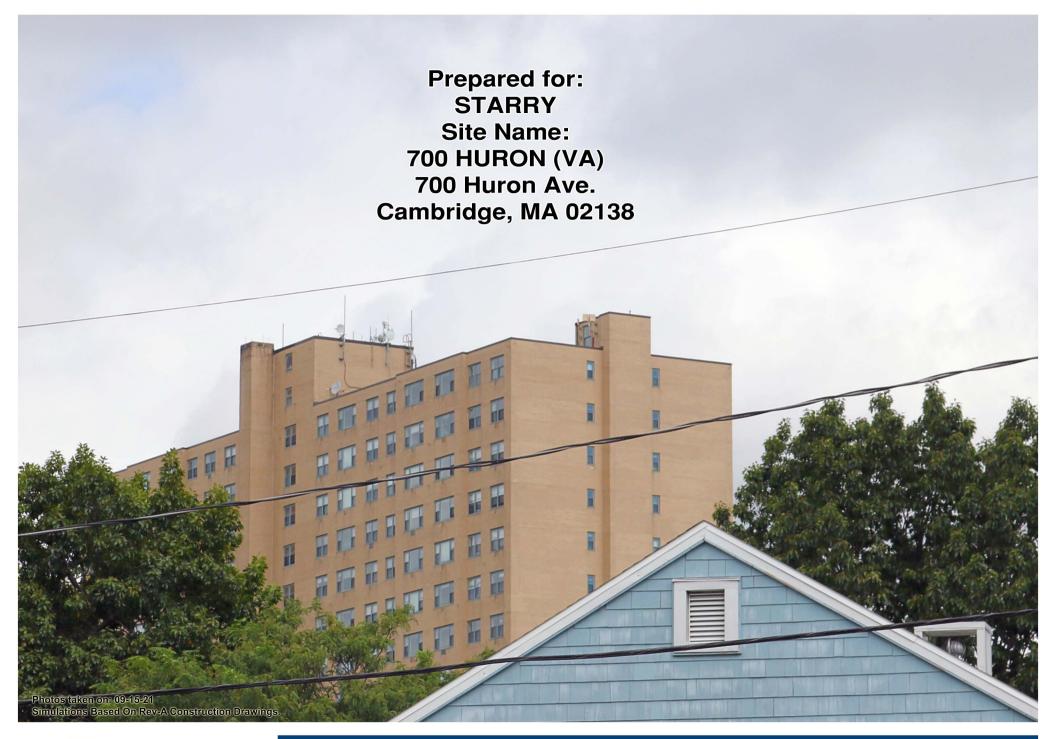
700 HURON (VA)

SITE ADDRESS: 700 HURON AVE. CAMBRIDGE, MA 02138

SHEET TITLE

GROUNDING DETAILS

C-9

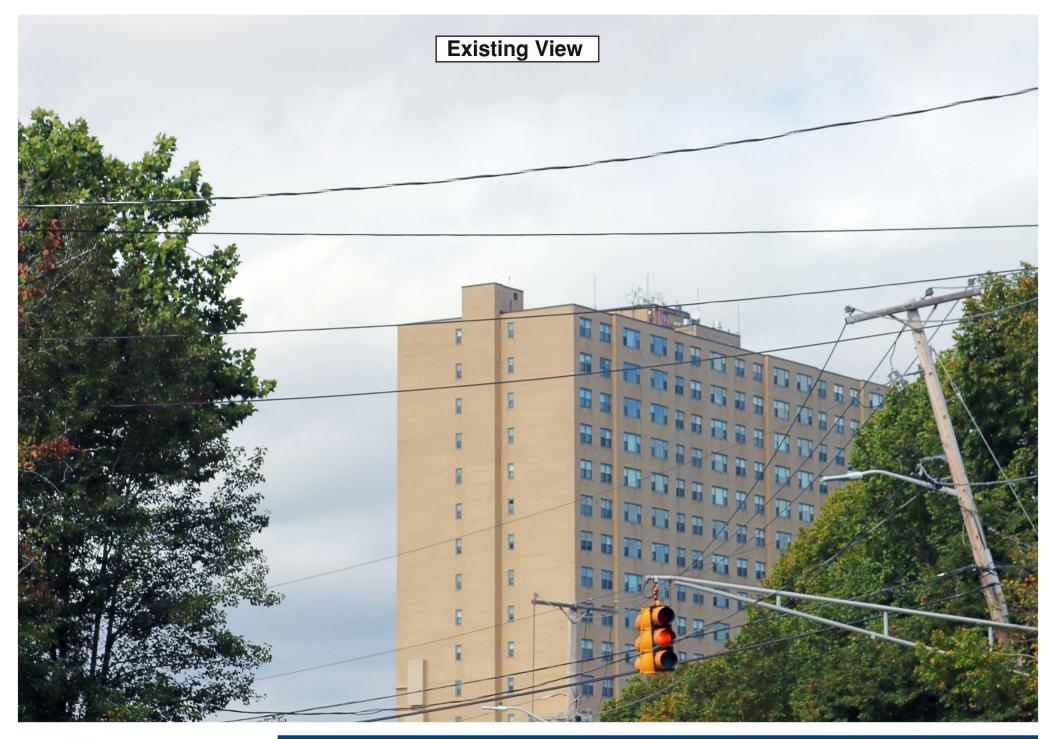














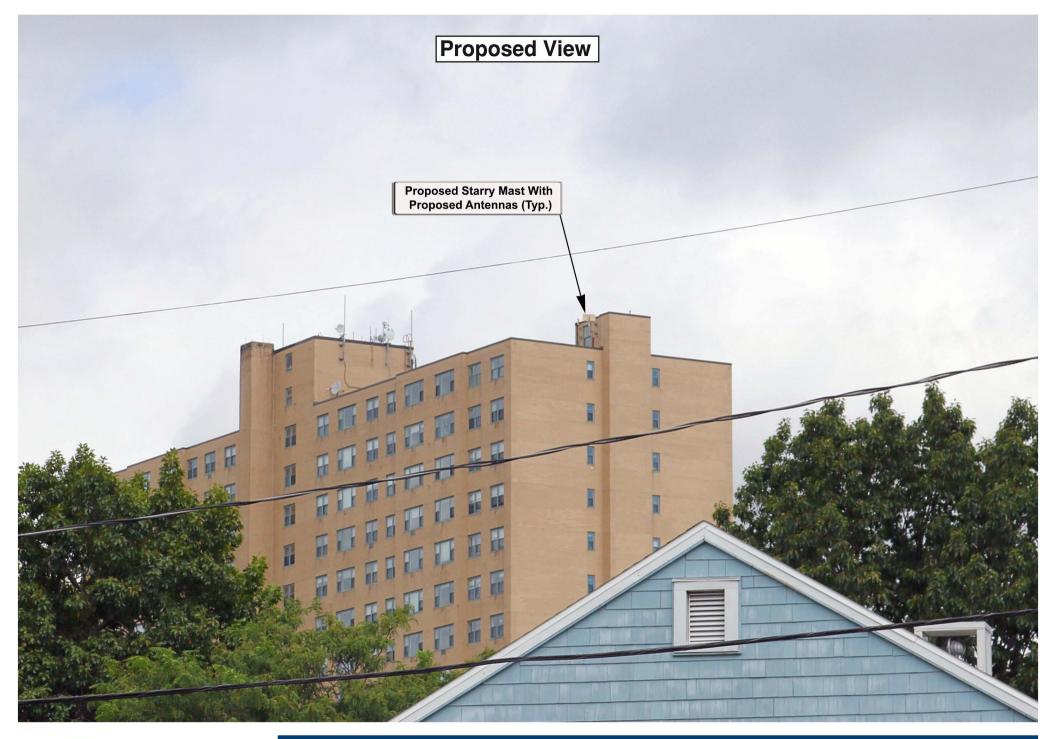














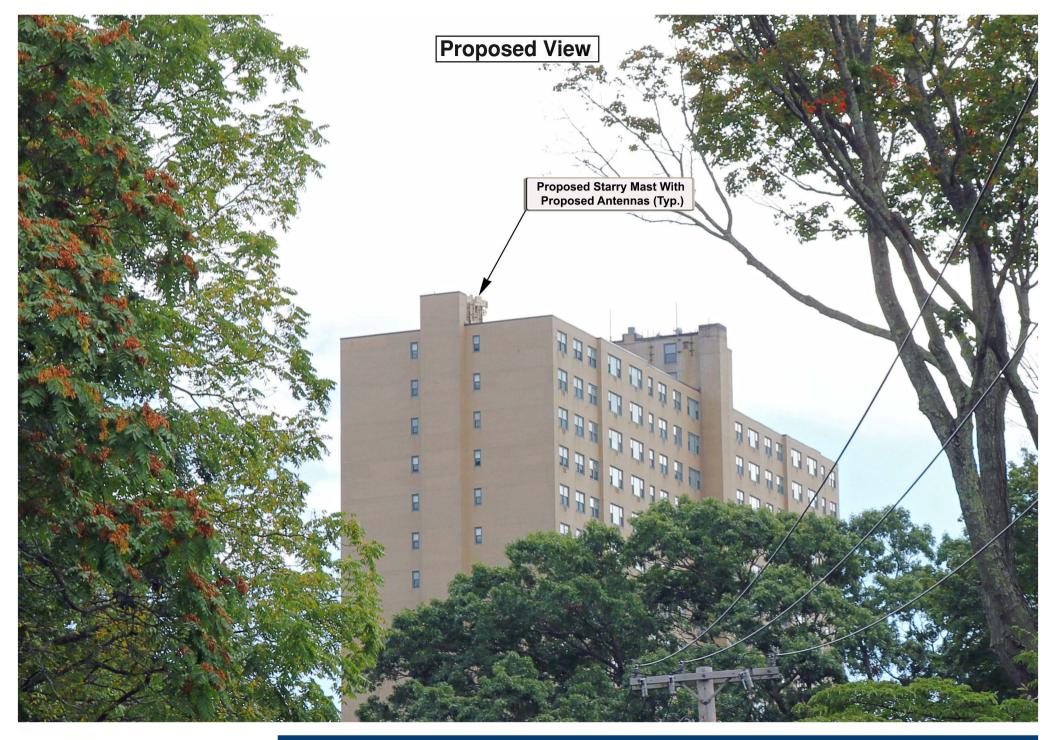


(Page 6 of 8)













## **United States of America** FEDERAL COMMUNICATIONS COMMISSION **EXPERIMENTAL** RADIO STATION CONSTRUCTION PERMIT AND LICENSE

	EXPERIMENTAL		WI2XEB
	(Nature of Service)		(Call Sign)
	XT FX MO		0570-EX-CR-2019
	(Class of Station)		(File Number)
NAME		Starry Spectrum LLC	

Subject to the provisions of the Communications Act of 1934, subsequent acts, and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions and requirements set forth in this license, the licensee hereof is hereby authorized to use and operate the radio transmitting facilities hereinafter described for radio communications in accordance with the program of experimentation described by the licensee in its application for license.

Operation: In accordance with Sec. 5.3(e, f, j & k) of the Commission's Rules

### Station Locations

- Boston, MA NL 42-21-01; WL 71-03-25; MOBILE: Temporary fixed end user stations in Boston area, within 40 km
- New York, NY NL 40-42-46; WL 74-00-22; MOBILE: Temporary fixed end user stations in NYC area, within 40 km, centered around NL 40-42-46; WL 74-00-22
- Washington, DC NL 38-54-17; WL 77-00-59; MOBILE: Temporary fixed end user stations in DC area, within 40 km
- Los Angeles, CA NL 34-03-00; WL 118-15-00; MOBILE: Temporary fixed end user stations in LA area, within 40 km
- San Francisco, CA NL 37-47-00; WL 122-25-00; MOBILE: Temporary fixed end user stations in SF area, within 40 km
- Dallas, TX NL 32-46-33; WL 96-47-48; MOBILE: Temporary fixed end user stations in DFW area, within 40 km
- (7) Houston, TX NL 29-45-46; WL 95-22-59; MOBILE: Temporary fixed end user stations in Houston area, within 40 km
- Philadelphia, PA NL 39-57-00; WL 75-10-00; MOBILE: Temporary fixed end user stations in area, within 40 km, centered around NL 39-57-00; WL 75-10-00
- Detroit, MI NL 42-19-53; WL 83-02-45; MOBILE: Temporary fixed end user stations in Detroit area, within 40 km
- (10) Atlanta, GA NL 33-45-18; WL 84-23-24; MOBILE: Temporary fixed end user stations in Atlanta area, within 40 km
- (11) Miami, FL NL 25-46-31; WL 80-12-32; MOBILE: Temporary fixed end user stations in Miami area, within 40 km
- (12) Minneapolis St Paul, MN NL 44-59-00; WL 93-16-00; MOBILE: Temporary fixed end user stations in Minneapolis-St. Paul area, within 40 km
- (13) Seattle, WA NL 47-36-35; WL 122-19-59; MOBILE: Temporary fixed end user stations in Seattle area, within 40 km



#### Licensee Name: Starry Spectrum LLC

#### Station Locations

- (14) Denver, CO NL 39-45-43; WL 104-52-52; MOBILE: Temporary fixed end user stations in Denver area, within 40 km
- (15) Chicago, IL NL 41-50-13; WL 87-41-05; MOBILE: Temporary fixed end user stations in Chicago area, within 40 km
- (16) Cleveland, OH NL 41-21-04; WL 81-38-58; MOBILE: Temporary fixed end user stations in Cleveland, within 40 km, centered around NL 41-21-04; WL 81-38-58
- (17) Indianapolis, IN NL 39-46-03; WL 86-09-29; MOBILE: Temporary fixed end user stations in Indianapolis, within 40 km, centered around NL 39-46-03; WL 86-09-29
- (18) Sioux Falls (MINNEHAHA), SD NL 43-32-41; WL 96-43-52; MOBILE: , within 40 km, centered around NL 43-32-41; WL 96-43-52
- (19) Portland (MULTNOMAH), OR NL 45-32-41; WL 122-40-35; MOBILE: , within 40 km, centered around NL 45-32-41; WL 122-40-35
- (20) Manchester (HILLSBOROUGH), NH NL 42-59-44; WL 71-27-17; MOBILE: Temp fixed end user locations in Manchester area, within 40 km, centered around NL 42-59-44; WL 71-27-17
- (21) Phoenix (MARICOPA), AZ NL 33-26-54; WL 112-04-26; MOBILE: Temp fixed end user locations in Phoenix area, within 40 km, centered around NL 33-26-54; WL 112-04-26
- (22) Memphis (SHELBY), TN NL 35-08-58; WL 90-02-56; MOBILE: Temp fixed end user locations in Memphis area, within 40 km, centered around NL 35-08-58; WL 90-02-56

## Frequency Information

Boston, MA - NL 42-21-01; WL 71-03-25; MOBILE: Temporary fixed end user stations in Boston area, within 40 km

	Station	Emission	Authorized	Frequency
Frequency	Class	Designator	Power	Tolerance (+/-)
37000-38600 MHz	FX		1 kW (ERP)	
		200MD7D		

New York, NY - NL 40-42-46; WL 74-00-22; MOBILE: Temporary fixed end user stations in NYC area, within 40 km, centered

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
37000-38600 MHz	FX		1 kW (ERP)	
		200MD7D		

# Licensee Name: Starry Spectrum LLC Frequency Information

Washington, DC - NL 38-54-17; WL 77-00-59; MOBILE: Temporary fixed end user stations in DC area, within 40 km

	Station	Emission	Authorized	Frequency
Frequency	Class	Designator	Power	Tolerance (+/-)
37000-38600 MHz	FX		1 kW (ERP)	
		200MD7D		

Los Angeles, CA - NL 34-03-00; WL 118-15-00; MOBILE: Temporary fixed end user stations in LA area, within 40 km

	Station	Emission	Authorized	Frequency
Frequency	Class	Designator	Power	Tolerance (+/-)
37000-38600 MHz	FX		1 kW (ERP)	
		200MD7D		

San Francisco, CA - NL 37-47-00; WL 122-25-00; MOBILE: Temporary fixed end user stations in SF area, within 40 km

	Station	Emission	Authorized	Frequency
Frequency	Class	Designator	Power	Tolerance (+/-)
37000-38600 MHz	FX		1 kW (ERP)	
		200MD7D		

Dallas, TX - NL 32-46-33; WL 96-47-48; MOBILE: Temporary fixed end user stations in DFW area, within 40 km

	Station	Emission	Authorized	Frequency
Frequency	Class	Designator	Power	Tolerance (+/-)
37000-38600 MHz	FX		1 kW (ERP)	
		200MD7D		

# Licensee Name: Starry Spectrum LLC Frequency Information

Houston, TX - NL 29-45-46; WL 95-22-59; MOBILE: Temporary fixed end user stations in Houston area, within 40 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
37000-38600 MHz	FX	o o	1 kW (ERP)	,
		200MD7D		

Philadelphia, PA - NL 39-57-00; WL 75-10-00; MOBILE: Temporary fixed end user stations in area, within 40 km, centered arc

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
37000-38600 MHz	FX		1 kW (ERP)	
		200MD7D		

Detroit, MI - NL 42-19-53; WL 83-02-45; MOBILE: Temporary fixed end user stations in Detroit area, within 40 km

	Station	Emission	Authorized	Frequency
Frequency	Class	Designator	Power	Tolerance (+/-)
37000-38600 MHz	FX		1 kW (ERP)	
		200MD7D		

Atlanta, GA - NL 33-45-18; WL 84-23-24; MOBILE: Temporary fixed end user stations in Atlanta area, within 40 km

	Station	Emission	Authorized	Frequency
Frequency	Class	Designator	Power	Tolerance (+/-)
37000-38600 MHz	FX		1 kW (ERP)	
		200MD7D		

# Frequency Information

Licensee Name: Starry Spectrum LLC

Miami, FL - NL 25-46-31; WL 80-12-32; MOBILE: Temporary fixed end user stations in Miami area, within 40 km

	Station	Emission	Authorized	Frequency
Frequency	Class	Designator	Power	Tolerance (+/-)
37000-38600 MHz	FX		1 kW (ERP)	
		200MD7D		

Minneapolis St Paul, MN - NL 44-59-00; WL 93-16-00; MOBILE: Temporary fixed end user stations in Minneapolis-St. Paul are

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
37000-38600 MHz	FX		1 kW (ERP)	
		200MD7D		

Seattle, WA - NL 47-36-35; WL 122-19-59; MOBILE: Temporary fixed end user stations in Seattle area, within 40 km

	Station	Emission	Authorized	Frequency
Frequency	Class	Designator	Power	Tolerance (+/-)
37000-38600 MHz	FX		1 kW (ERP)	
		200MD7D		

Denver, CO - NL 39-45-43; WL 104-52-52; MOBILE: Temporary fixed end user stations in Denver area, within 40 km

Fraguenov	Station	Emission	Authorized	Frequency
Frequency	Class	Designator	Power	Tolerance (+/-)
37000-38600 MHz	FX		1 kW (ERP)	
		200MD7D		

# Licensee Name: Starry Spectrum LLC Frequency Information

Chicago, IL - NL 41-50-13; WL 87-41-05; MOBILE: Temporary fixed end user stations in Chicago area, within 40 km

	Station	Emission	Authorized	Frequency
Frequency	Class	Designator	Power	Tolerance (+/-)
37000-38600 MHz	FX		1 kW (ERP)	
		200MD7D		

Cleveland, OH - NL 41-21-04; WL 81-38-58; MOBILE: Temporary fixed end user stations in Cleveland, within 40 km, centered

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
37000-38600 MHz	FX		1 kW (ERP)	
		200MD7D		

Indianapolis, IN - NL 39-46-03; WL 86-09-29; MOBILE: Temporary fixed end user stations in Indianapolis, within 40 km, cente

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
37000-38600 MHz	FX		1 kW (ERP)	
		200MD7D		

Sioux Falls (MINNEHAHA), SD - NL 43-32-41; WL 96-43-52; MOBILE: , within 40 km, centered around NL 43-32-41; WL 96-4

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
	Olabb	Boolgilator	1 00001	roioranos (17)
37000-38600 MHz	FX		1 kW (ERP)	
		200MD7D		

Licensee Name: Starry Spectrum LLC

Frequency Information

Portland (MULTNOMAH), OR - NL 45-32-41; WL 122-40-35; MOBILE: , within 40 km, centered around NL 45-32-41; WL 122-

	Station	Emission	Authorized	Frequency
Frequency	Class	Designator	Power	Tolerance (+/-)
37000-38600 MHz	FX		1 kW (ERP)	
		200MD7D		

Manchester (HILLSBOROUGH), NH - NL 42-59-44; WL 71-27-17; MOBILE: Temp fixed end user locations in Manchester are

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
37000-38600 MHz	FX		1 kW (ERP)	
		200MD7D		

Phoenix (MARICOPA), AZ - NL 33-26-54; WL 112-04-26; MOBILE: Temp fixed end user locations in Phoenix area, within 40 k

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
37000-38600 MHz	FX		1 kW (ERP)	
		200MD7D		

Memphis (SHELBY), TN - NL 35-08-58; WL 90-02-56; MOBILE: Temp fixed end user locations in Memphis area, within 40 km

	Station	Emission	Authorized	Frequency
Frequency	Class	Designator	Power	Tolerance (+/-)
37000-38600 MHz	FX		1 kW (ERP)	
		200MD7D		

### **Special Conditions:**

- (1) Licensee is required to file a PROGRESS REPORT every 12 months from the date of grant. This progress report shall be filed with Federal Communications Commission; Experimental Licensing Branch, MS 1300E1; 445 12 Street, S.W.; Washington, DC 20554.
- (2) All transmitting and/or receiving equipment used in the study shall be owned by the licensee.

File Number: 0570-EX-CR-2019 Call Sign: WI2XEB

Licensee Name: Starry Spectrum LLC

#### **Special Conditions:**

- (3) Licensee is required to ensure that trial devices are either rendered inoperable or retrieved by them from trial participants at the conclusion of the trial. Licensee is required to notify trial participants in advance that operation of the trial device is subject to this condition.
- (4) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (5) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (6) The market trials authorized under this license are limited to a maximum of 540 temporary base stations and 7200 temporary fixed end user devices operating at any given time.
- (7) Prior to operation, licensee must coordinate with licensed Part 25 stations authorized to operate in these frequency bands that are located within a within a 40 km radius of the transmitter.
- (8) Operations are subject to future Commission actions. Existing operations in the 37.6-38.6 GHz band may continue until the date on which the Commission issues a license for UMFUS service for the same PEA(s) which contain experimental operations. Licensee may not commence new operations in the 37.6-38.6 GHz band.

August 22, 2022

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

Re: Over-The-Air Reception Devices Installation

pursuant to Rule 47, and an Eligible Facilities Request pursuant to Section 6409 of the Spectrum Act, and an Application for Special Permit, in the

Alternative

Property Address: 704 Huron Avenue, Cambridge, MA 02138

Assessor's Map 257, Lot 60 (the "Property")

Applicant: Starry, Inc. ("Applicant" or "Starry")

Dear Honorable Members of the Board of Zoning Appeals:

This firm represents Starry in connection with an application for a special permit from the City of Cambridge Board of Zoning Appeals (the "**Board**"), to install a wireless internet access facility on the Property. The Property is located in the Residence C-3 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 such a wireless facility is permitted by special permit from the Board<sup>1</sup>. 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 the Federal Communications Commission's (the "FCC") adoption of the over-the-air reception devices ("OTARD") rule 47 C.F.R. §1.4000 (the "OTARD Rule"), in response to Section 207 of the 1996 Telecommunications Act (the "TCA"), prohibiting state, local and private restrictions that unreasonably impair the ability of licensed provides to use certain antennas to deploy OTARD facilities on property under their control. Moreover, the Proposed Facility is subject to Section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012, more commonly known as the "Spectrum Act"

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<sup>&</sup>lt;sup>1</sup> 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.

(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 OTARD or 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 OTARD and with the Spectrum Act is shown on the OTARD letter attached with this application, and on the Eligible Facilities Request permit application form attached hereto (the "**EFR**").

The Applicant seeks to install wireless internet access facility by replacing existing panel antennas with new like kind panel antennas and installing additional new Remote Radio Head (RRUs), as well as modifying existing ancillary equipment (the "**Proposed Facility**"). The Applicant's Proposed Facility is described in more detail bellow and is shown on the Plans attached hereto and incorporated herein by reference (the "**Plans**").

### I. Background

The Applicant is licensed by the FCC to construct and operate a wireless internet access 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 network to serve its customers, and one of the key design objectives of its systems is to provide seamless coverage. Starry's system operates on the 38.2 GHz and 38.6 GHz bands, and 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. 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 provided for in more detail on the Plans, the Applicant proposes to install and operate a wireless internet access facility on the rooftop of the Building by installing twenty-nine (29) small-scale antennas in four (4) locations attached to the façade of the penthouses on the rooftop of the Building. The average dimension of the proposed antennas is approximately 12-inches. The Applicant also proposes to install one (1) equipment cabinet that will be mounted in the interior of one of the existing penthouses on the rooftop of the Building. The antennas associated with the Applicant's Proposed Facility will not extend above the height of the existing penthouse and will be painted to match the penthouse and the Building thereon.

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After installation, the Proposed Facility will be unmanned and will require infrequent maintenance visits. 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 less than two (2) 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. <u>The Applicant complies with the Wireless Communications</u> 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 Residence C-3 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 TCA was to institute a framework to promote competition and innovation within the telecommunications industry. Under its license from the FCC, the Applicant 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 Starry) 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. The Proposed Facility and corresponding relief requested are necessary to provide services to the Applicant's customers, as required by the FCC.

The Applicant investigated alternative sites in and around the defined geographic area within which its engineers determined that a facility must be located to provide service to its customers and to function effectively within its network of

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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 Residential C-3 zoning district is necessary to provide service to the Applicant's customers, and is required to obtain the requested relief as a Special Permit to install and operate its wireless internet access facility.

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 will have a minimal visual impact on the Building. The Proposed Facility will be installed on the façade of the penthouses on the Building, and all antennas will be painted to match the color of the facades.

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 One International Place 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.

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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.

Tre Proposed Facility is located in the Residential C-3 Zoning District but nonresidential uses predominate in the area. Pursuant to the requirement that the Board shall grant a special permit to erect a Telecommunications Facility only upon a finding that non-residential uses predominate in the vicinity of the proposed facility's location the Applicant hereby states that this is a modification of an existing wireless facility and as such respectfully submits to the Board that it has previously found that nonresidential uses predominate in the vicinity of this Proposed Facility. The Board has reached a decision to grant a special permit for the Applicant's Existing Facility the previous Decisions. As such, the Applicant respectfully requests that, in keeping with its prior decisions, the Board find that nonresidential uses predominate in the vicinity of the Proposed Facility and that the Proposed Facility is not inconsistent with the character that does prevail in the surrounding neighborhood.

Further, notwithstanding anything contained herein to the contrary, and in agreement with the aforementioned predominately nonresidential use finding, upon an inspection of the vicinity of the Proposed Facility the Applicant respectfully submits that said finding is reasonable as the character of the surrounding neighborhood consists of nonresidential uses such as, the Fresh Pond Cambridge Municipal Golf Course, at 691 Huron Avenue, the West Cambridge Mayor Sheila Doyle Russell Youth and Community Center at 680 Huron Avenue, and the Belmont Cemetery.

Prince Lobel Tye LLP Moreover, the proposed changes to the Existing Facility are de minimis and therefore, the Proposed Facility is not inconsistent with the character that does prevail in One International Place the surrounding neighborhood. Finally, as noted above, there are other telecommunications facilities on the rooftop of the Building, and as such this Building is the preferred location Boston, MA 02110 for additional equipment, pursuant to the TCA, as referenced above. TEL: 617 456 8000

FAX: 617 456 8100

Suite 3700

# B. The Applicant complies with the Special Permit Criteria set forth in Section 10-43 of the Ordinance<sup>2</sup>:

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

Prince Lobel Tye LLP
One International Place

<sup>2</sup> 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.

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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.

> 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 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), One International Place including the Residence C-3 District.

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

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will it pollute waterways or groundwater.

6. The new use of the building construction is consistent with the Urban Design Objective set for tin 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 the OTARD Rule, and pursuant to Section 6409(a) of the Spectrum Act. Or, in the alternative, the Proposed 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 the OTARD Rule, 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

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August 22, 2022

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

Re: Over-The-Air Reception Devices ("OTARD"), Rule 47 C.F.R. §1.4000

Proposed Wireless Internet Access Facility by Starry, Inc.

Property: 704 Huron Avenue, Cambridge, MA (the "**Property**")

Map 257, Lot 60

Applicant: Starry, Inc. (the "Applicant or "Starry")

Dear Honorable Members of the Board of Zoning Appeals:

Prince Lobel Tye LLP, on behalf of the Applicant is submitting this letter, along with the attached memorandum from Starry, to be included as part of the Special Permit application, in connection with the proposed installation of the Applicant's wireless internet access facility at the Property located at 704 Huron Avenue, Cambridge.

Starry's proposed facility (as described in more detail below) (the "Facility") conforms to the requirements set for in the OTARD Rule (as defined below). However, while Starry requests the Board to grant the special permit relief and not create restrictions that may unreasonably delay or prevent the installation, maintenance or use of Starry's proposed facility, Starry also reserves its rights under the OTARD Rule and its interpretation that the proposed Facility is exempt from local zoning and does not require the special permit requested, and our understanding that the City of Cambridge has not yet amended its zoning ordinance to recognize the OTARD Rule.

#### The OTARD Rule:

The Federal Communications Commission (the "FCC") adopted the over-the-air reception devices ("OTARD") rule 47 C.F.R. §1.4000 (the "OTARD Rule"), in response to Section 207 of the 1996 Telecommunications Act (the "TCA"), prohibiting state, local and private restrictions that unreasonably impair the ability of licensed provides to use certain antennas to deploy OTARD facilities on property under their control. Specifically, the OTARD Rule applies to any restrictions that; (i) unreasonably delay or prevent the installation, maintenance or use of OTARD facilities; (ii) unreasonably increase the cost of installation, maintenance or use of OTARD facilities; or (iii) preclude reception of an acceptable quality signal.

A wireless internet access facility is considered to be an OTARD facility if: (a) its antennas are one (1) meter or less in diameter or diagonal measurement used to receive video programming services; and (b) its antennas are designed to receive or transmit fixed wireless or fixed wireless broadband internet signals.

### Starry's Proposed Wireless Internet Access Facility:

As illustrated in more detail on the plans attached to the Application, Starry proposes to install and operate a wireless internet access facility on the rooftop of the building by installing twenty-nine (29) small-scale antennas in four (4) locations attached to the facades of the existing penthouses on the building's rooftop, along with other ancillary equipment. The average dimension of the proposed antennas is approximately 12-inches, and no antenna is greater than 1-meter in diameter or diagonal measurement. The antennas are designed to receive and transmit fixed wireless broadband internet signals. Moreover, the facility will provide low-cost wireless internet access to its customers on the Property and in the general vicinity. Therefore, Starry's proposed facility conforms to the standards set forth in the OTARD Rule.

### Conclusion

As set forth above, because of its design and intended use, Starry's proposed Facility conforms to the requirements set for in the OTARD Rule. Consequently, Starry requests the Board grant the requested special permit relief without restrictions that may unreasonably delay or prevent the installation, maintenance or use of Starry's proposed Facility. However, the Applicant also reserves all of its rights under the OTARD Rule to install and operate the Facility on the subject Property.

Starry is committed to working cooperatively with the Board to secure expeditious approval of its request to develop its proposed wireless internet access facilities. Please do not hesitate to contact me if you have questions.

Sincerely,

Adam F. Braillard Direct: 617-456-8153

Email: abraillard@princelobel.com

**Enclosures** 

August 22, 2022

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 **704 Huron Avenue**, Cambridge, MA.

Dear Mr. Singanayagam:

A. Starry is Filing an Eligible Facilities Request

Prince Lobel Tye LLP, on behalf of Starry, Inc. ("Starry") is submitting the attached eligible facilities request (the "EFR") application to the City of Cambridge (the "City") Inspectional Services Department, to add and modify Transmission Equipment at the existing Base Station located at 704 Huron Avenue, Cambridge, MA, (the "Building" or the "Base Station", as further defined below).

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), and therefore, this Eligible Facilities Request is attached to this special permit application. 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.

### B. Why this Eligible Facilities Request Must Be Granted

This Eligible Facilities Request involves an effort to modify existing Transmission Equipment at an existing Base Station operated by a Federal Communications Commission ("FCC") licensed wireless provider. 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 two hundred and twenty eight feet (228') high and presently contains numerous wireless facilities thereon. Therefore, the existing Base Station meets the FCC definition of a Base Station.

Starry's equipment that will be collocated at the Building is also 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 228'. The proposed addition of the small scale antennas will not increase 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. Starry's proposed modifications will not protrude from the edge of the Building by more than six (6) feet because the proposed additional antennas will be installed on the rooftop and not near the edges of the Building.
- 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. As part of its modifications to the Transmission Equipment, Starry proposes to install one (1) equipment cabinet.
- 4. The modifications to the Transmission Equipment do not entail any excavation or deployment outside of the Base Station site.
  - a. 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. Starry's proposed modifications to the Base Station include the installation of equipment and antennas that will be painted to match the existing building and therefore will be consistent with the existing Transmission Equipment currently on the Building. Therefore, Starry's modifications will not defeat any existing concealed or stealth-design on the Building because all of its equipment will be designed to blend into the existing Building.
- 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 704 Huron Avenue, Cambridge, MA 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 Starry'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, Starry 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.

Starry 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.

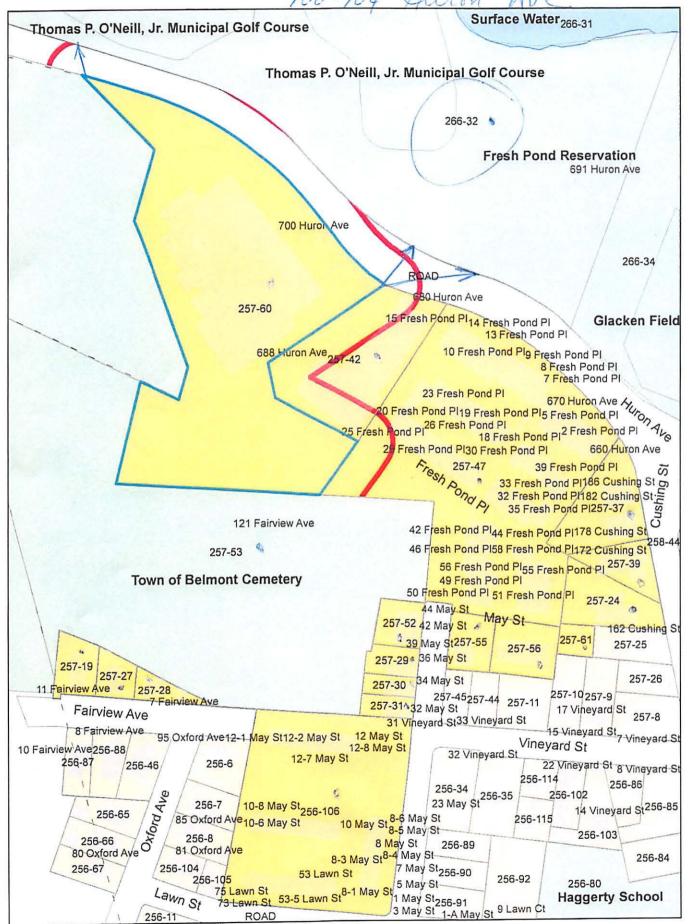
Sincerely,

Adam F. Braillard Direct: 617-456-8153

Email: abraillard@princelobel.com

**Enclosures** 

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700-704 Huron Ave

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257-47 STEARNS, ANTONIA R. 25 FRESH POND PL CAMBRIDGE, MA 02138 257-47 CRUTHIRDS, DANIEL R. 35 FRESH POND PLACE CAMBRIDGE, MA 02138 257-47 BOTCHWEY, KWESI CITY OF CAMBRIDGE TAX TITLE 40 FRESH POND PL CAMBRIDGE, MA 02138

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