CITY OF CAMBRIDGE

BOARD OF ZONING APPEAL

831 Massachusetts Avenue, Cambridge MA 02139

617-349-6100

2025 JUL 31 AM 9:53

OFFICE OF THE CITY CLERK
CAMBRIDGE, MASSACHUSETTS

BZA Application Form

BZA Number: 1172523

General Information

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

Special Permit: ____X___ Variance: _____ Appeal: _____

PETITIONER: Tp/p Kendall Square LLC C/O NB+C

PETITIONER'S ADDRESS: 300 Unicorn Park Unit 501, Woburn, MA 01801

LOCATION OF PROPERTY: 350 Third St , Cambridge, MA

TYPE OF OCCUPANCY: R1 **ZONING DISTRICT:** O3A/ PUD3/ PUD-CDK

REASON FOR PETITION:

/Telecommunication Facility (antenna)/

DESCRIPTION OF PETITIONER'S PROPOSAL:

DISH is proposing to install (3) antennas facade mounted at a height of 250'. These (3) antennas will be accompanied by (2) Remote Radios each for a total of (6) Radio Units. There will be (1) antenna each on the West, North and East sides of the building. The antennas and radios will require one hybrid fiber cable per sector for a total of (3) hybrid cables. The power cables will run in the same path/cable tray as the fiber cables. Ground equipment will be located on a 5'x7' steel platform on the rooftop which will be set back from the roof edge making it not visible from ground perspective. Power will be pulled from an existing electrical room within the existing structure of the building. The purpose of this location is to provide cellular coverage to the immediate and surrounding areas for DISH customers.

SECTIONS OF ZONING ORDINANCE CITED:

Article: 4.000 Section: 4.32.g.1 & 4.40 (Footnote 49) (Telecommunication Facility).
Article: 10.000 Section: 10.40 (Special Permit).
Article: 6409 Section: Federal Middle Class Tax Relief Act (Spectrum Act).

Original Signature(s): _____

(Petitioner (s) / Owner)

Corey Milan

(Print Name)

Address: 300 Unicorn Park Woburn MA
Tel. No. 413 281 6047
E-Mail Address: cmilan@nbcllc.com

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 TP|P Kendall Sq LLC
(OWNER)

Address: 350 third street Cambridge MA 02142

State that I/We own the property located at 350 Third St Cambridge which is the subject of this zoning application.

The record title of this property is in the name of Residential Tower Apartment Unit LLC

*Pursuant to a deed of duly recorded in the date 3/14/2007, Middlesex South County Registry of Deeds at Book 49126, Page 368; or Middlesex Registry District of Land Court, Certificate No. 46472 Book 49126 Page 368.

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

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

Commonwealth of Massachusetts, County of South Middlesex

The above-name Kirk Bradford personally appeared before me, this 18th of July, 2025, and made oath that the above statement is true.

Notary

My commission expires August 02, 2030 (Notary Seal).

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

MAKRINA Z. ORMOND
NOTARY PUBLIC
Commonwealth of Massachusetts
My Commission Expires On
August 02, 2030

NB+C Engineering Services

Proposed Rooftop Antenna Installation

Prepared for Dish Wireless

SITE INFORMATION

Address	350 Third Street
	Cambridge, MA 02142, Middlesex County
	Latitude: 42.363667° Longitude: -71.083028°
Dish Site Number	BOBOS00100D
NB+C Project Number	100753
Date	October 30, 2023

TABLE OF CONTENTS

1.0 INTRODUCTION

The existing structure is a 235'-0" (±) tall building located in Cambridge, MA with a penthouse and screen walls reaching to 255'-6". Dish has proposed to install the equipment as listed in Table 1 below. As per your request, **Network Building + Consulting Engineering Services ("NB+C ES")** has performed a structural analysis to determine if the loads induced due to the proposed installation can be safely supported by the existing building and to verify if the structure is in compliance with the applicable codes and standards. Information we have received and used for this analysis includes:

- Preliminary Construction Drawings prepared by **NB+C ES** dated September 29, 2023
- Site Photos and Notes taken by **NB+C ES** Personnel dated September 13, 2023
- Building Framing Plans by CBT, Inc. dated April 16, 2004

2.0 APPURTENANCE LOADING

Table 1 – Final Antenna, Cable and Equipment Information

Mounting Level (ft)	Quantity	Equipment Items	Carrier	Feed Line (in)
250.0	3	**JMA MX08FR0665-21 Antennas**	DISH Wireless	**(3) DC Power Cables** **(3) Fiber Trunk**
	3	**Samsung RF4451D-70A RRHs**		
	3	**Samsung RF4450T-71A RRHs**		
	3	**Raycap RDIDC-3045-PF-48 OVPs**		
Rooftop Level	1	**Charles Industry Hex Cube PM639155N4**		
	1	**Transformer**		
	1	**Zayo 5RU Fiber NID Enclosure**		
	1	**Raycap PPC RDIAC-2465-P-240-MTS**		
	1	**Eaton Meter Socket**		
	1	**Charles CFit-PF2020DSH1 Fiber Telco Enclosure**		

3.0 ASSUMPTIONS

This report is based on the theoretical capacity of the existing building structural elements and is not an assessment of the overall suitability of the existing Structure or its components for any particular use other than specified here in this report:

- This report makes no warranties, expressed and/or implied, and disclaims any liability arising from material, fabrication and erection of the existing structure or proposed equipment, and any other proposed components or appurtenances.
- All proposed antennas, mounts, coaxial cable, and appurtenances are assumed to be properly installed and configured according to manufacturer requirements.
- All existing structural elements are assumed to be in place and in good condition as evident by site audit photos and visual site observations and were previously designed and constructed in accordance with applicable codes and standards.
- Contractor to verify existing site conditions including the antenna mount connections to existing exterior wall and antenna locations prior to fabrication and construction. In the event the existing conditions are different than the assumptions made in this report, this must be brought to the structural engineer's attention before proceeding any further with bidding, fabrication and/or erection.
- Roof framing is based upon building plans by CBT, Inc. dated April 16, 2004.
- Based on load tables from New Millenium Building Systems, the 11" composite steel decking is assumed to have an allowable safe load limit of 400 psf.

4.0 APPLICABLE CODES AND STANDARDS

The existing structure was analyzed/designed per the provisions of following applicable codes and standards:

- *The Massachusetts State Building Code - 780 CMR, Incorporating the 2015 International Building Code*
- *ANSI/TIA-222-G – Structural Standards for Antenna Supporting Structures and Antennas*
- *Minimum Design Loads for Buildings and Other Structures ASCE/SEI 7-10*
- *AISC Manual of Steel Construction, 14th Edition – ANSI/AISC 360-10*
- *2015 International Existing Building Code*

5.0 ANALYSIS

Design Loads:

- Ultimate wind speed: 128 mph
- Risk Category: II
- Exposure: C
- Roof Dead Load: 10 psf
- Roof Live Load: 20 psf
- Ground Snow Load: 40 psf

6.0 CONCLUSIONS & RECOMMENDATIONS

Based on the performed analysis of this structure for applied gravity and lateral loads, the proposed structures were determined to have ***adequate*** structural capacity to support the proposed Dish telecommunication appurtenances and are in compliance with building codes and standards listed in this report.

The proposed antennas, RRHs and OVP device at Alpha, Beta and Gamma sectors will be mounted to the existing screen walls. The proposed installation is located within the existing building profile and does not result in an increase in lateral loading to the structure. Additionally, the installation adds insignificant dead loading to the screen wall structure. Therefore, the existing screen walls are deemed adequate to support the proposed loading by engineering judgement.

The proposed equipment platform will be located at the rooftop level of the building. The steel roof structure supporting the proposed platform was determined to have sufficient capacity to support the proposed loading and will be stressed to a maximum of **69%** of its theoretical capacity. Refer to Appendix A of this report for detailed calculations.

The overall increase in the effective projected wind area and the gravity load on the existing building structure due to the proposed installation is less than 10% and 5% respectively, which is deemed acceptable per Section 1103.3 of IEBC 2015. Hence, a global analysis of the existing building was not performed.

The conclusions reached by **NB+C ES** in this report are only applicable for the previously mentioned existing structural members supporting the Dish telecommunication antennas and support frame. Further, no structural qualification is made or implied by this report for existing structural members not supporting the proposed equipment and supporting frames.

NB+C Engineering Services, LLC

Prepared by: Linda Gallagher, E.I.T.

Respectfully submitted by:

Krupakaran Kolandaivelu, P.E.
Vice President of Engineering
MA PE License # 50019

10/30/2023

APPENDIX A: CALCULATIONS

Date: _____

BZA Application Form

DIMENSIONAL INFORMATION

Applicant: Tp/p Kendall Square LLC
Location: 350 Third St , Cambridge, MA
Phone: 413 281 6047

Present Use/Occupancy: R1
Zone: O3A/ PUD3/ PUD-CDK
Requested Use/Occupancy: Wireless Telecom

		Existing Conditions		Requested Conditions		Ordinance Requirements	
TOTAL GROSS FLOOR AREA:		0		0		0	(max.)
LOT AREA:		0		0		0	(min.)
RATIO OF GROSS FLOOR AREA TO LOT AREA: [2]		0		0		0	
LOT AREA OF EACH DWELLING UNIT		0		0		0	
SIZE OF LOT:	WIDTH	0		0		0	
	DEPTH	0		0		0	
SETBACKS IN FEET:	FRONT	0		0		0	
	REAR	0		0		0	
	LEFT SIDE	0		0		0	
	RIGHT SIDE	0		0		0	
SIZE OF BUILDING:	HEIGHT	254		0		0	
	WIDTH	0		0		0	
	LENGTH	0		0		0	
RATIO OF USABLE OPEN SPACE TO LOT AREA:		0		0		0	
NO. OF DWELLING UNITS:		0		0		0	
NO. OF PARKING SPACES:		0		0		0	
NO. OF LOADING AREAS:		0		0		0	
DISTANCE TO NEAREST BLDG. ON SAME LOT		NA		NA		NA	

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.:

NA

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

NB+C TOTALLY COMMITTED.

September 4, 2025

DISH Wireless Site ID: BOBOS00100D

Address: 350 Third St, Cambridge MA

On behalf of DISH Wireless I would like to withdraw without prejudice our application for the wireless telecom installation located at 350 Third St in Cambridge MA.

Sincerely,

Corey Milan

Network Building + Consulting, LLC

DISH Wireless L.L.C. SITE ID:

BOBOS00100D

DISH Wireless L.L.C. SITE ADDRESS:

350 THIRD ST
CAMBRIDGE, MA 02142

SCOPE OF WORK

THIS IS NOT AN ALL INCLUSIVE LIST. CONTRACTOR SHALL UTILIZE SPECIFIED EQUIPMENT PART OR ENGINEER APPROVED EQUIVALENT. CONTRACTOR SHALL VERIFY ALL NEEDED EQUIPMENT TO PROVIDE A FUNCTIONAL SITE. THE PROJECT GENERALLY CONSISTS OF THE FOLLOWING:

SECTOR SCOPE OF WORK:
- INSTALL (3) PROPOSED PANEL ANTENNAS (1 PER SECTOR)
- INSTALL (9) PROPOSED ANTENNA MOUNTS (3 PER SECTOR)
- INSTALL PROPOSED JUMPERS
- INSTALL (6) PROPOSED RRUs (2 PER SECTOR)
- INSTALL (3) PROPOSED OVER VOLTAGE PROTECTION DEVICE (OVP) (1 PER SECTOR)
- INSTALL (3) PROPOSED DC POWER CABLES (1 PER SECTOR)
- INSTALL (3) PROPOSED FIBER TRUNKS (1 PER SECTOR)
- INSTALL PROPOSED CABLE LADDER TRAY OR CABLE TRAY

ROOFTOP SCOPE OF WORK:
- INSTALL (1) PROPOSED METAL PLATFORM WITH H-FRAME
- INSTALL (1) PROPOSED CABLE LADDER TRAY OR CABLE TRAY
- INSTALL (1) PROPOSED BBU IN CABINET
- INSTALL (1) PROPOSED EQUIPMENT CABINET
- INSTALL (1) PROPOSED NEMA 3 TELCO-FIBER BOX
- INSTALL (1) PROPOSED GPS UNIT
- INSTALL (1) PROPOSED GROUNDING CONDUIT
- INSTALL (1) PROPOSED POWER CONDUIT
- INSTALL (1) PROPOSED FIBER CONDUIT
- INSTALL (1) PROPOSED TRANSFORMER
- INSTALL (1) PROPOSED METER
- INSTALL (1) PROPOSED DISCONNECT
- INSTALL (2) POWER BOOSTERS IN CABINET

SITE INFORMATION

PROPERTY OWNER:	TP & P KENDALL SQ LLC
ADDRESS:	3399 PEACHTREE RD NE #600 ATLANTA GA, 30326
TOWER TYPE:	ROOFTOP
COUNTY:	MIDDLESEX
LATITUDE (NAD 83):	42° 21' 49.2" N 42.363667 N
LONGITUDE (NAD 83):	71° 04' 58.9" W 71.083028 W
ZONING JURISDICTION:	CITY OF CAMBRIDGE
ZONING DISTRICT:	CB
PARCEL NUMBER:	CAMB-000014-000000- 001038-AP000000
OCCUPANCY GROUP:	U
CONSTRUCTION TYPE:	II-B
POWER COMPANY:	EVERSOURCE
TELEPHONE COMPANY:	N/A

PROJECT DIRECTORY

APPLICANT:	DISH Wireless L.L.C. 5701 SOUTH SANTA FE DRIVE LITTLETON, CO 80120
ROOFTOP MGR:	5G LLC 8001 WISCONSIN AVE #600 BETHESDA, MD 20814
SITE DESIGNER:	NB+C ENGINEERING SERVICES, LLC 100 APOLLO DRIVE, SUITE 303 CHELMSFORD, MA 01824 (978) 856-8308
SITE ACQUISITION:	KRISTEN LEDUC KLEDUC@NBCLLC.COM
CONSTRUCTION MANAGER:	AARON CHANDLER AARON.CHANDLER@DISH.COM
RF ENGINEER:	VICORIEN NDOUNOU VICTORIEN.NDOUNOUR@DISH.COM

MASSACHUSETTS CODE COMPLIANCE

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

CODE TYPE	CODE
BUILDING	MA STATE BUILDING CODE, 9TH EDITION (780 CMR)/2015 IBC W/ AMENDMENTS
MECHANICAL	MECHANICAL CODE 2015 OF MASSACHUSETTS/2015 IMC W/ AMENDMENTS
ELECTRICAL	MA ELECTRICAL CODE/2020 NEC W/ AMENDMENTS

SITE PHOTO

DIRECTIONS

DIRECTIONS FROM BOSTON, LOGAN AIRPORT:

GET ON I-90 W FROM TRANSPORTATION WAY. HEAD SOUTHEAST. SLIGHT RIGHT. USE ANY LANE TO TURN SLIGHTLY LEFT ONTO TRANSPORTATION WAY. TURN LEFT ONTO THE WILLIAMS TUNNEL RAMP TO I-90 W/I-93. FOLLOW I-90 W TO MA-30 W/COCHITUATE RD IN FRAMINGHAM. TAKE EXIT 117 FROM I-90 W. MERGE ONTO I-90 W. TAKE EXIT 117 TO MERGE ONTO MA-30 W/COCHITUATE RD TOWARD FRAMINGHAM. CONTINUE ON MA-30 W/COCHITUATE RD. TAKE CONCORD ST TO HOWARD ST. MERGE ONTO MA-30 W/COCHITUATE RD. USE THE LEFT 2 LANES TO TURN LEFT ONTO CONCORD ST. TURN LEFT ONTO POND ST. TURN RIGHT AT THE 1ST CROSS STREET ONTO GRANT ST. TURN LEFT ONTO HOWARD ST. DESTINATION WILL BE ON THE LEFT.

SHEET INDEX

SHEET NO.	SHEET TITLE
T-1	TITLE SHEET
A-1	BUILDING PLAN
A-2	ANTENNA PLAN, ELEVATION AND SCHEDULE
A-3	BUILDING ELEVATION
A-4	EQUIPMENT PLATFORM AND H-FRAME DETAILS
A-5	EQUIPMENT DETAILS
A-6	EQUIPMENT DETAILS
A-7	EQUIPMENT DETAILS
E-1	ELECTRICAL/FIBER ROUTE PLAN AND NOTES
E-2	ELECTRICAL DETAILS
E-3	ELECTRICAL ONE-LINE & PANEL SCHEDULE
G-1	GROUNDING PLANS AND NOTES
G-2	GROUNDING DETAILS
G-3	GROUNDING DETAILS
RF-1	RF CABLE COLOR CODE
GN-1	LEGEND AND ABBREVIATIONS
GN-2	RF SIGNAGE
GN-3	GENERAL NOTES
GN-4	GENERAL NOTES
GN-5	GENERAL NOTES

UNDERGROUND SERVICE ALERT - 811 DIG SAFE
UTILITY NOTIFICATION CENTER OF MASSACHUSETTS
(888) 344-7233
WWW.DIGSAFE.COM

CALL 3 WORKING DAYS UTILITY NOTIFICATION PRIOR TO CONSTRUCTION

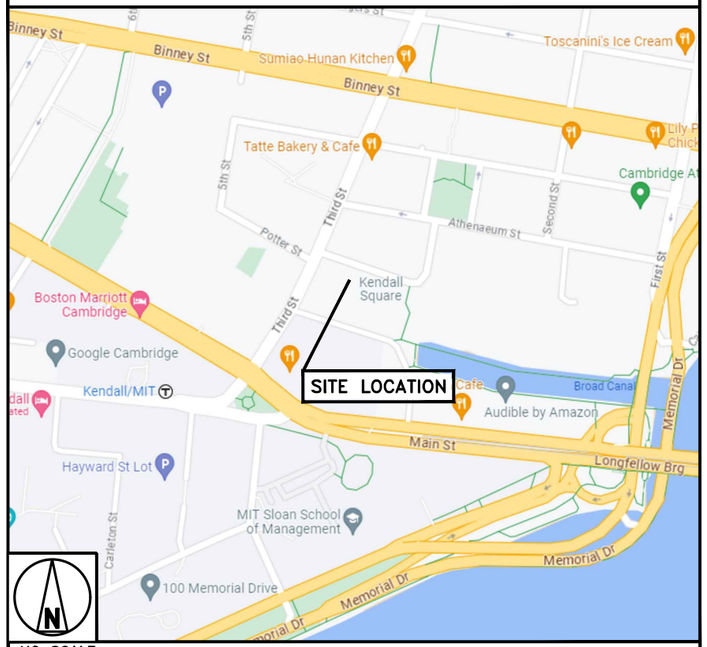
GENERAL NOTES

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE. NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

11"x17" PLOT WILL BE HALF SCALE UNLESS OTHERWISE NOTED

CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON THE JOB SITE, AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

VICINITY MAP



NO SCALE

dish wireless.
5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

NB+C TOTALLY COMMITTED
NB+C ENGINEERING SERVICES, LLC.
100 APOLLO DRIVE
SUITE 303
CHELMSFORD, MA 01824
(978) 856-8308

5G.llc
SITE ID: 1040-PCPL
5G NOC: 240.274.2300
Op's Manager: Tucker Lahr
Phone: (717) 658-2203
Email: tucker.lahr@5gllc.net

COMMONWEALTH OF MASSACHUSETTS
KRUPAKARAN KOLLAVENU
NO. 50019
REGISTERED PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:	APPROVED BY:
KN	HH	DRG

RFDS REV #: N/A

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
0	11/29/2023	ISSUED FOR CONSTRUCTION
1	08/13/24	REVISED ELECTRICAL

A&E PROJECT NUMBER
100753

DISH Wireless L.L.C.
PROJECT INFORMATION
BOBOS00100D

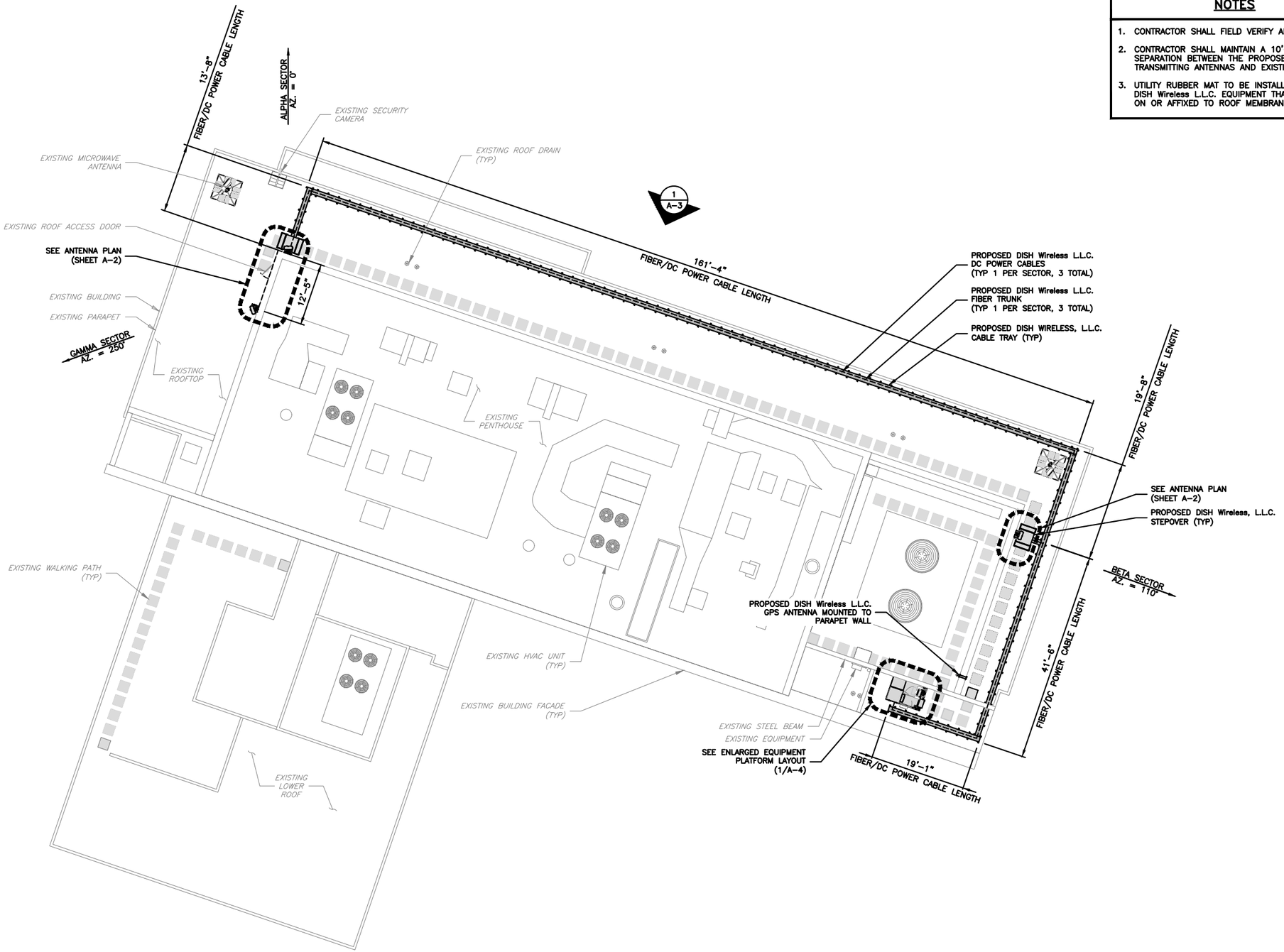
350 THIRD STREET
CAMBRIDGE, MA 02142

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. CONTRACTOR SHALL MAINTAIN A 10'-0" MINIMUM SEPARATION BETWEEN THE PROPOSED GPS UNIT, TRANSMITTING ANTENNAS AND EXISTING GPS UNITS.
3. UTILITY RUBBER MAT TO BE INSTALLED UNDER ALL DISH Wireless L.L.C. EQUIPMENT THAT IS RESTING ON OR AFFIXED TO ROOF MEMBRANE



BUILDING PLAN

12' 8' 4' 0 10' 20'
3/32"=1'-0"

1

dish wireless.
5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

NB+C™
TOTALLY COMMITTED.
NB+C ENGINEERING SERVICES, LLC.
100 APOLLO DRIVE
SUITE 303
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(978) 856-8308

5G.llc
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5G NOC: 240.274.2300
Op's Manager: Tucker Lahr
Phone: (717) 658-2203
Email: tucker.lahr@5gllc.net

COMMONWEALTH OF MASSACHUSETTS
KRUPAKARAN KOLLENGODE
NO. 36019
REGISTERED PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:	APPROVED BY:
KN	HH	DRG

RFDS REV #: N/A

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DISH Wireless L.L.C.
PROJECT INFORMATION
BOBOS00100D

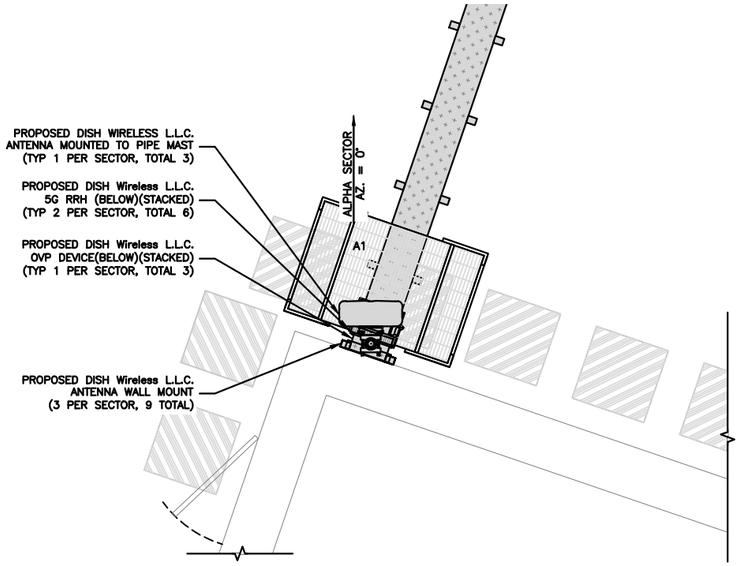
350 THIRD STREET
CAMBRIDGE, MA 02142

SHEET TITLE
BUILDING PLAN

SHEET NUMBER
A-1

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. ANTENNA SPECIFICATIONS REFER TO ANTENNA SCHEDULE AND TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS
3. EXISTING EQUIPMENT OMITTED FOR CLARITY.
4. ALPHA SECTOR SHOWN TYPICAL FOR BETA AND GAMMA SECTORS.

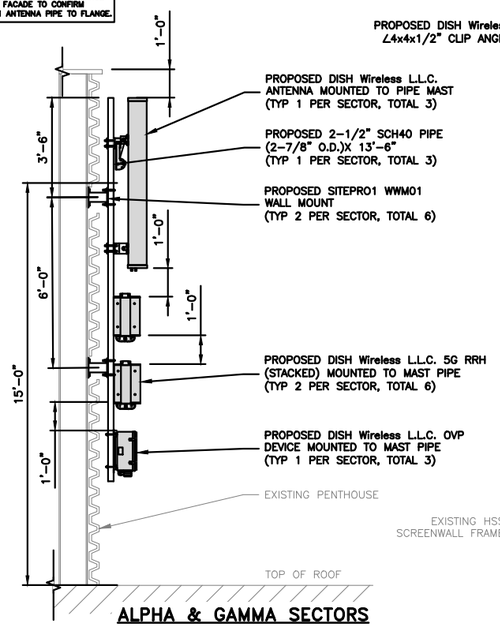


ANTENNA PLAN (TYPICAL PER SECTOR)

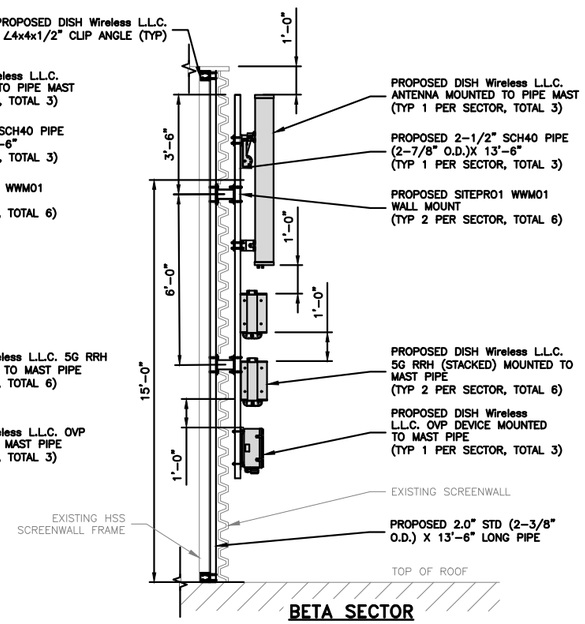
12" 6" 0 1' 2' 3' 4' 5'
1/2"=1'-0"

1

NOTE:
PRIOR TO INSTALLATION CONTRACTOR SHALL FIELD VERIFY PENTHOUSE WALL THICKNESS FROM VERTICAL BEAM FLANGE TO PENTHOUSE FACADE TO CONFIRM DISTANCE FROM ANTENNA PIPE TO FLANGE.



ALPHA & GAMMA SECTORS



BETA SECTOR

ANTENNA ELEVATION

12" 6" 0 1' 2' 3' 4' 5' 6' 7'
3/8"=1'-0"

2

SECTOR POS.	ANTENNA					TRANSMISSION CABLE	RRH			OVP
	EXISTING OR PROPOSED	MANUFACTURER – MODEL NUMBER	TECH	AZIMUTH	RAD CENTER	FEED LINE TYPE AND LENGTH	MANUFACTURER – MODEL NUMBER	TECH	POS.	MANUFACTURER MODEL
A1	PROPOSED	COMMSCOPE FFVV-65B-R2	5G	0°	250'-0"	(1) 4AWG DC POWER CABLE (WITH BOOSTER) (1) FIBER TRUNK (LENGTH: 286'±)	SAMSUNG – MID BAND SFG-ARR3KM01DI/RF4451D-70A	5G	A1	RAYCAP RDIDC-3045-PF-48
							SAMSUNG – LOW BAND SFG-ARR3J601DI/RF4450T-71A	5G	A1	
B1	PROPOSED	COMMSCOPE FFVV-65B-R2	5G	110°	250'-0"	(1) 8AWG DC POWER CABLE (1) FIBER TRUNK (LENGTH: 85'±)	SAMSUNG – MID BAND SFG-ARR3KM01DI/RF4451D-70A	5G	B1	RAYCAP RDIDC-3045-PF-48
							SAMSUNG – LOW BAND SFG-ARR3J601DI/RF4450T-71A	5G	B1	
C1	PROPOSED	COMMSCOPE FFVV-65B-R2	5G	250°	250'-0"	(1) 4AWG DC POWER CABLE (WITH BOOSTER) (1) FIBER TRUNK (LENGTH: 300'±)	SAMSUNG – MID BAND SFG-ARR3KM01DI/RF4451D-70A	5G	C1	RAYCAP RDIDC-3045-PF-48
							SAMSUNG – LOW BAND SFG-ARR3J601DI/RF4450T-71A	5G	C1	

NOTES:

1. CONTRACTOR TO REFER TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS.
2. ANTENNA AND RRH MODELS MAY CHANGE DUE TO EQUIPMENT AVAILABILITY. ALL EQUIPMENT CHANGES MUST BE APPROVED AND REMAIN IN COMPLIANCE WITH THE PROPOSED DESIGN AND STRUCTURAL ANALYSES.
3. RAYCAP POWERPLUS POWER BOOSTER TO BE INSTALLED WITHIN PROPOSED EQUIPMENT CABINET.

ANTENNA SCHEDULE

NO SCALE

3

dish wireless.
5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

NB+C™
TOTALLY COMMITTED.
NB+C ENGINEERING SERVICES, LLC.
100 APOLLO DRIVE
SUITE 303
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SITE ID: 1040-PCPL
5G NOC: 240.274.2300
Op's Manager: Tucker Lahr
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COMMONWEALTH OF MASSACHUSETTS
KRUPAKARAN KOLANDAIVELU
NO. 36019
REGISTERED PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:	APPROVED BY:
KN	HH	DRG

RFDS REV #: N/A

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100753

DISH Wireless L.L.C.
PROJECT INFORMATION

BOBOS00100D

350 THIRD STREET
CAMBRIDGE, MA 02142

SHEET TITLE

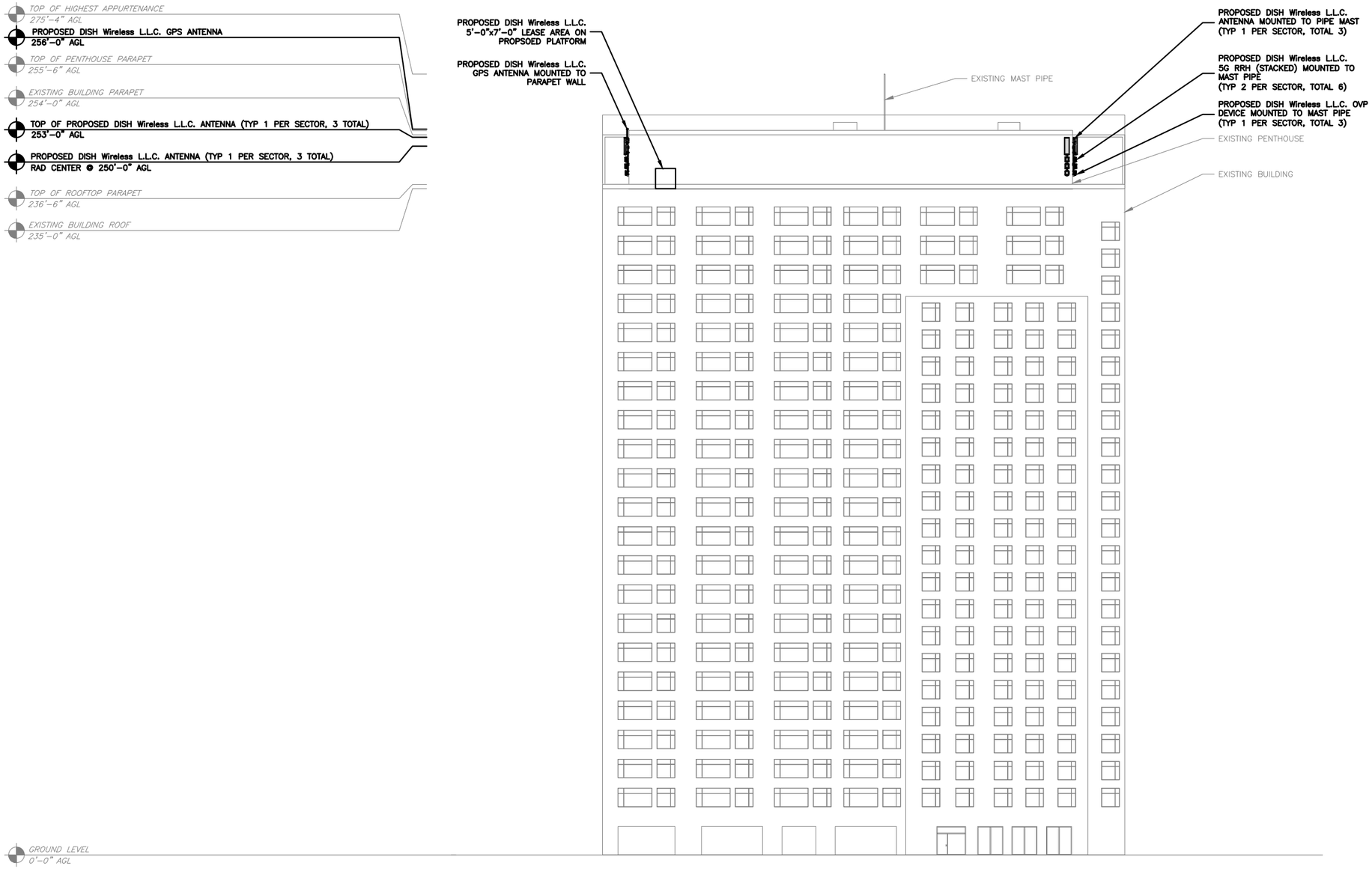
ANTENNA PLAN, ELEVATION AND SCHEDULE

SHEET NUMBER

A-2

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. CONTRACTOR SHALL MAINTAIN A 10'-0" MINIMUM SEPARATION BETWEEN THE PROPOSED GPS UNIT, TRANSMITTING ANTENNAS AND EXISTING GPS UNITS.



BUILDING ELEVATION

20' 10' 0 20' 40'
1"=20'

1

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(978) 856-8308

5G.llc
SITE ID: 1040-PCPL
5G NOC: 240.274.2300
Op's Manager: Tucker Lahr
Phone: (717) 658-2203
Email: tucker.lahr@5gllc.net

DRAWN BY:	CHECKED BY:	APPROVED BY:
KN	HH	DRG

RFDS REV #: N/A

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
0	11/29/2023	ISSUED FOR CONSTRUCTION
1	08/13/24	REVISED ELECTRICAL

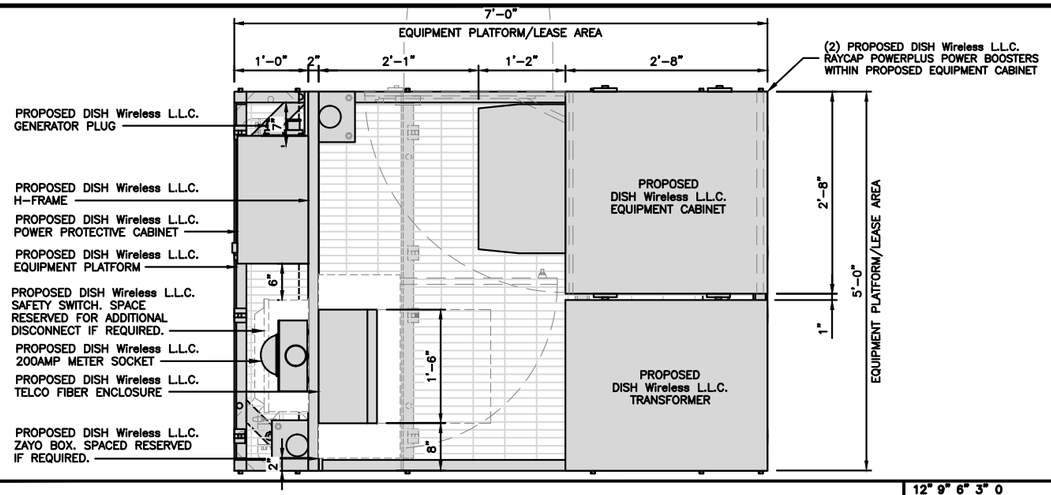
A&E PROJECT NUMBER
100753

DISH Wireless L.L.C.
PROJECT INFORMATION
BOBOS00100D

350 THIRD STREET
CAMBRIDGE, MA 02142

SHEET TITLE
BUILDING ELEVATION

SHEET NUMBER
A-3

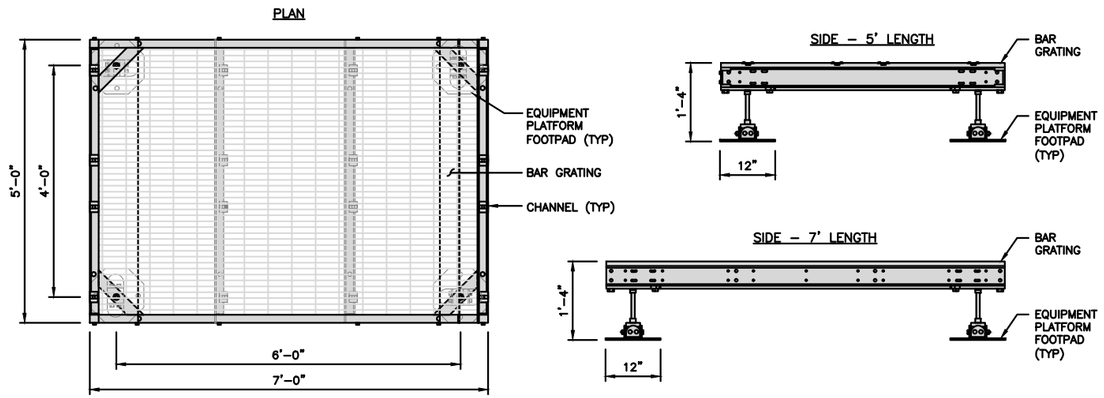


EQUIPMENT PLATFORM PLAN

12" 9" 6" 3" 0 1' 2'
1"=1'-0"

1

COMMSCOPE MTC4045LP 5X7 PLATFORM	
DIMENSIONS (HxWxD)	16"x84"x60"
TOTAL WEIGHT	423 LBS

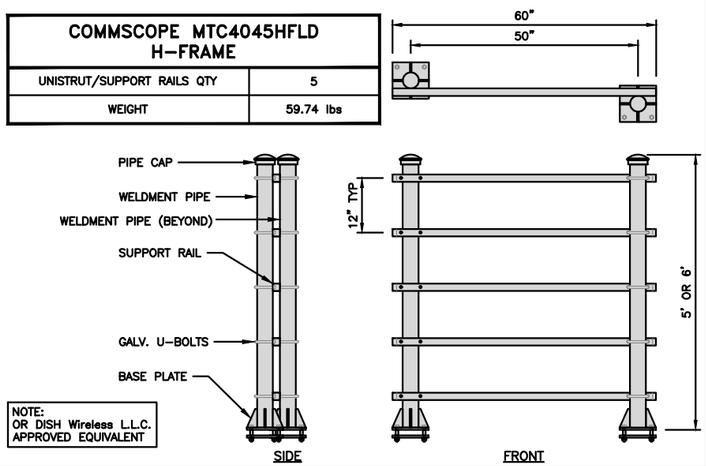


PLATFORM DETAIL

NO SCALE

2

COMMSCOPE MTC4045HFLD H-FRAME	
UNISTRUT/SUPPORT RAILS QTY	5
WEIGHT	59.74 lbs

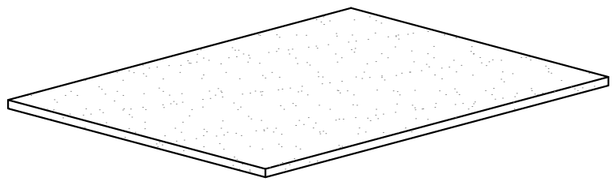


H-FRAME DETAIL

NO SCALE

3

UTILITY RUBBER MAT, BLACK	
DIMENSIONS	4'x 3'x 1/2"
WEIGHT/ VOLUME	36.5 LB AVERAGE
MATERIAL	100% RECYCLE RUBBER



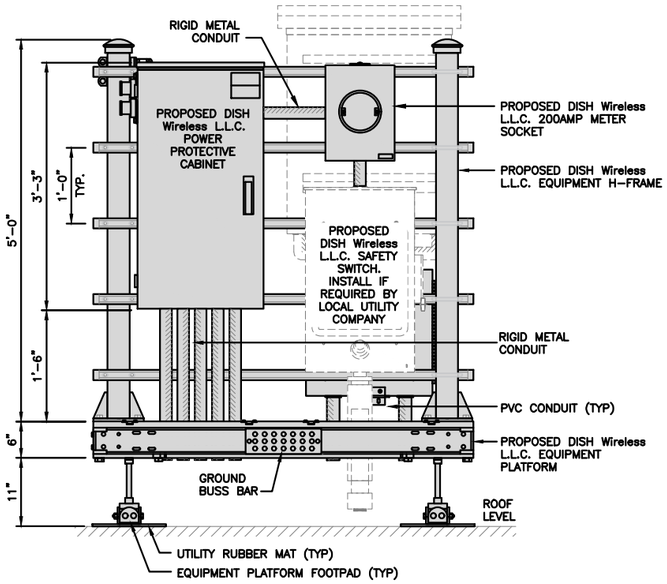
UTILITY RUBBER MAT DETAIL

NO SCALE

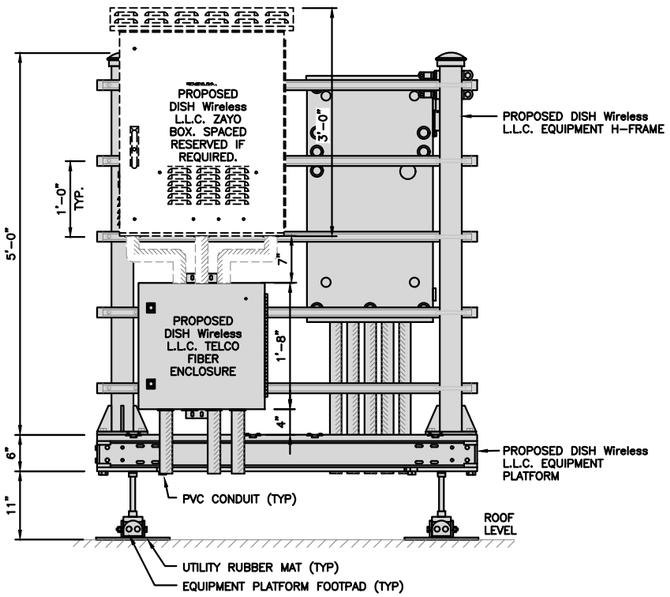
4

NOTE

1. EQUIPMENT CABINET OMITTED FOR CLARITY
2. FIELD CREW CONSULT WITH DISH CM FOR H-FRAME POSTS AND UNISTRUT PLACEMENTS.



FRONT ELEVATION



BACK ELEVATION

H-FRAME EQUIPMENT ELEVATION

12" 9" 6" 3" 0 1' 2'
1"=1'-0"

5

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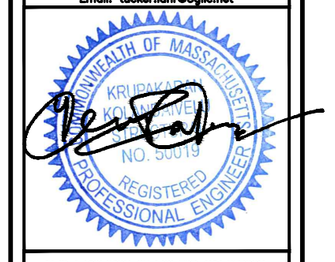

DRAWN BY:	CHECKED BY:	APPROVED BY:
KN	HH	DRG

RFDS REV #: N/A

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A&E PROJECT NUMBER
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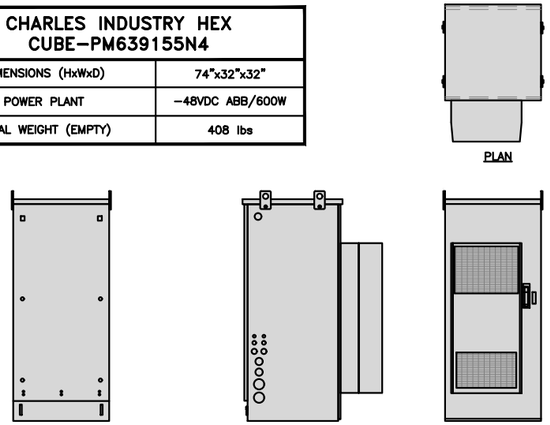
DISH Wireless L.L.C.
PROJECT INFORMATION
BOBOS00100D

350 THIRD STREET
CAMBRIDGE, MA 02142

SHEET TITLE
EQUIPMENT PLATFORM AND H-FRAME DETAILS

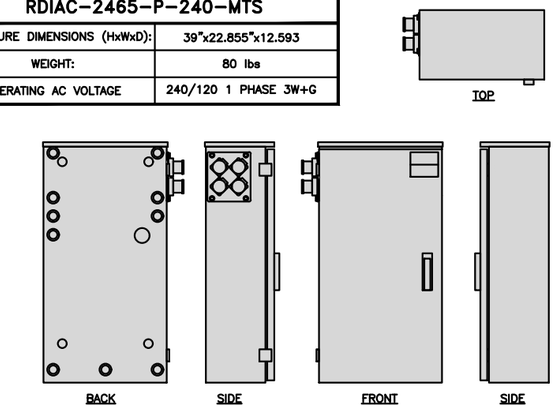
SHEET NUMBER
A-4

CHARLES INDUSTRY HEX CUBE–PM639155N4	
DIMENSIONS (HxWxD)	74"x32"x32"
POWER PLANT	–48VDC ABB/600W
TOTAL WEIGHT (EMPTY)	408 lbs



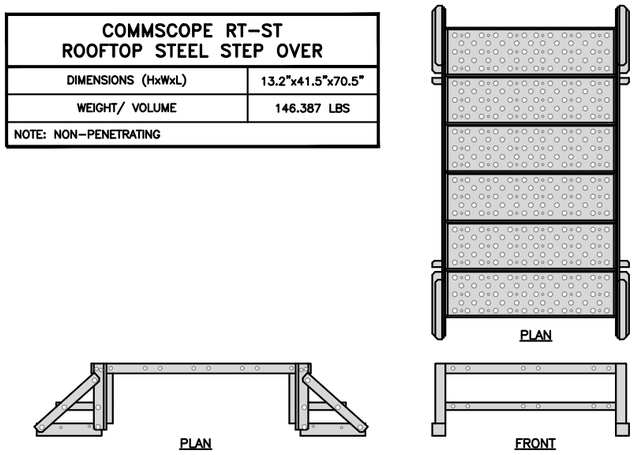
CABINET DETAIL | NO SCALE | 1

RAYCAP PPC RDIAC–2465–P–240–MTS	
ENCLOSURE DIMENSIONS (HxWxD):	39"x22.855"x12.593
WEIGHT:	80 lbs
OPERATING AC VOLTAGE	240/120 1 PHASE 3W+G



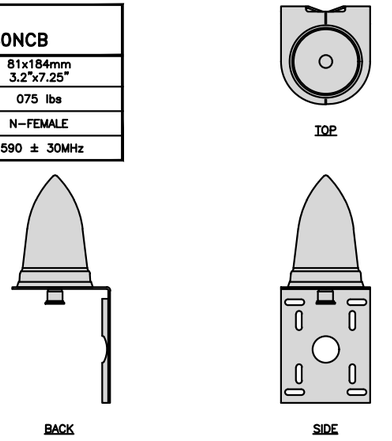
POWER PROTECTION CABINET (PPC) DETAIL | NO SCALE | 2

COMMSCOPE RT–ST ROOFTOP STEEL STEP OVER	
DIMENSIONS (HxWxL)	13.2"x41.5"x70.5"
WEIGHT/ VOLUME	146.387 LBS
NOTE: NON–PENETRATING	

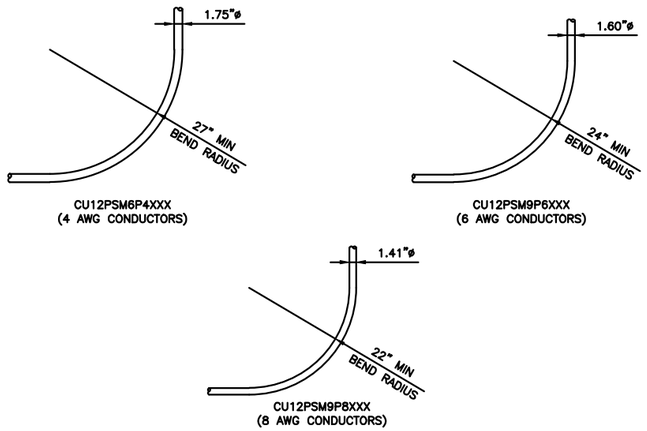


ROOFTOP STEEL STEP OVER DETAIL | NO SCALE | 3

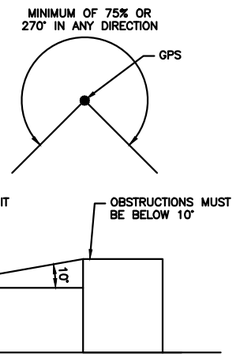
PCTEL GPSGL–TMG–SPI–40NCB	
DIMENSIONS (DIAxH) MM/INCH	81x184mm 3.2"x7.25"
WEIGHT W/ACCESSORIES	075 lbs
CONNECTOR	N–FEMALE
FREQUENCY RANGE	1590 ± 30MHz



GPS DETAIL | NO SCALE | 4

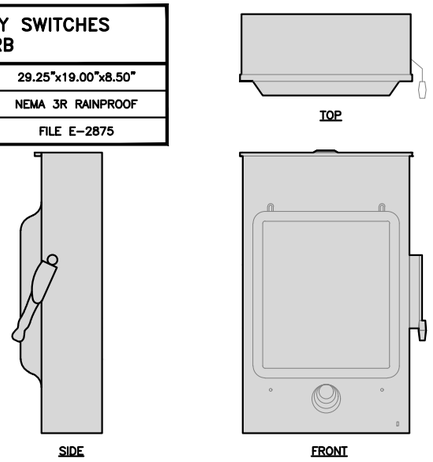


CABLES UNLIMITED HYBRID CABLE MINIMUM BEND RADIUSES | NO SCALE | 5



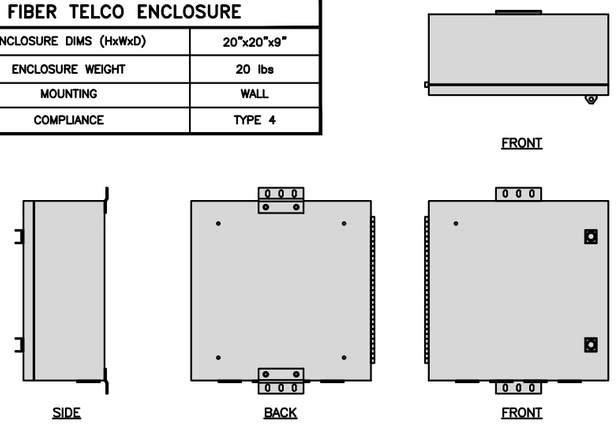
GPS MINIMUM SKY VIEW REQUIREMENTS | NO SCALE | 6

SQUARE D SAFETY SWITCHES D224NRB	
ENCLOSURE DIM (HxWxD)	29.25"x19.00"x8.50"
ENCLOSURE TYPE	NEMA 3R RAINPROOF
UL LISTED	FILE E–2875



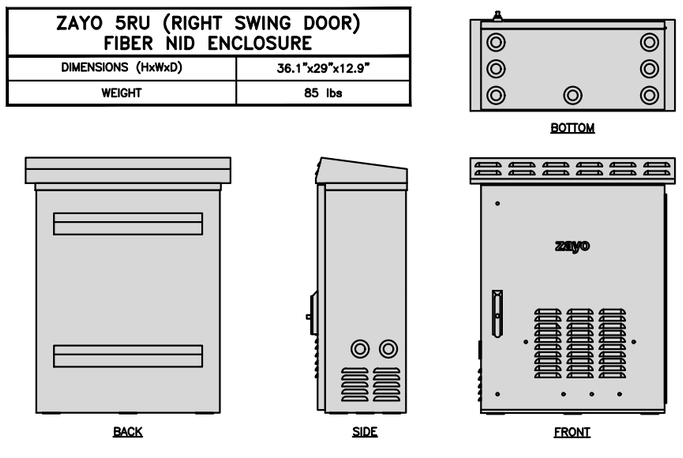
SAFETY SWITCH DETAIL | NO SCALE | 7

CHARLES CFIT–PF2020DSH1 FIBER TELCO ENCLOSURE	
ENCLOSURE DIMS (HxWxD)	20"x20"x9"
ENCLOSURE WEIGHT	20 lbs
MOUNTING	WALL
COMPLIANCE	TYPE 4



FIBER TELCO ENCLOSURE DETAIL | NO SCALE | 8

ZAYO 5RU (RIGHT SWING DOOR) FIBER NID ENCLOSURE	
DIMENSIONS (HxWxD)	36.1"x29"x12.9"
WEIGHT	85 lbs



FIBER NID ENCLOSURE DETAIL | NO SCALE | 9

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Email: tucker.lahr@5gllc.net

COMMONWEALTH OF MASSACHUSETTS
KRUPAKARAN KOLLENVEEDU
NO. 36019
REGISTERED PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:	APPROVED BY:
KN	HH	DRG

RFDS REV #: N/A

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100753

DISH Wireless L.L.C.
PROJECT INFORMATION
BOBOS00100D

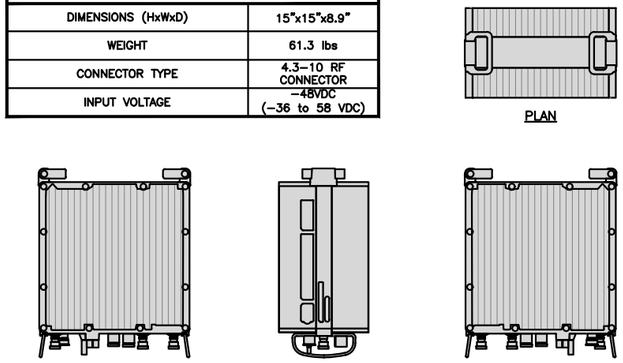
350 THIRD STREET
CAMBRIDGE, MA 02142

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
A-5

SAMSUNG – MID BAND
SFG-ARR3KM01DI/RF4451D-70A

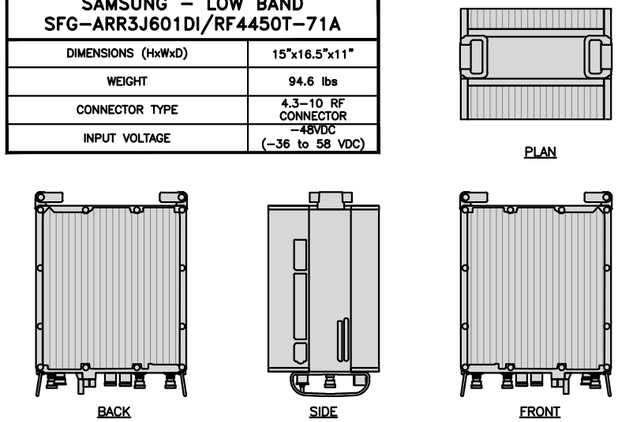
DIMENSIONS (HxWxD)	15"x15"x8.9"
WEIGHT	61.3 lbs
CONNECTOR TYPE	4.3-10 RF CONNECTOR
INPUT VOLTAGE	-48VDC (-36 to 58 VDC)



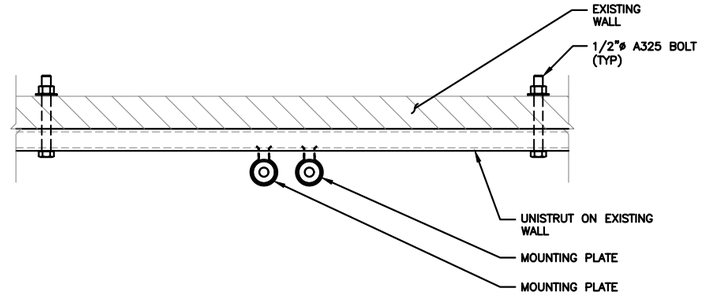
RRH DETAIL | NO SCALE | 1

SAMSUNG – LOW BAND
SFG-ARR3J601DI/RF4450T-71A

DIMENSIONS (HxWxD)	15"x16.5"x11"
WEIGHT	94.6 lbs
CONNECTOR TYPE	4.3-10 RF CONNECTOR
INPUT VOLTAGE	-48VDC (-36 to 58 VDC)



RRH DETAIL | NO SCALE | 2

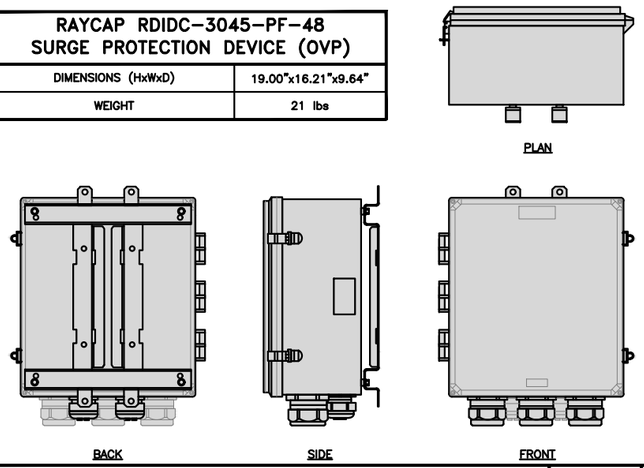


NOTE:
OR DISH Wireless L.L.C.
APPROVED EQUIVALENT

DC/FIBER UNISTRUT WALL MOUNT DETAIL | NO SCALE | 3

RAYCAP RDIDC-3045-PF-48
SURGE PROTECTION DEVICE (OVP)

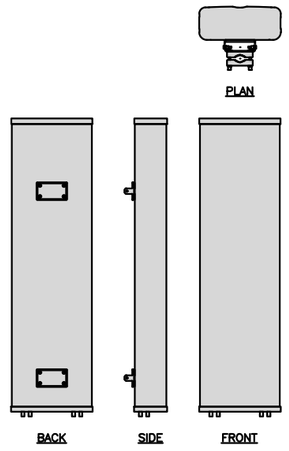
DIMENSIONS (HxWxD)	19.00"x16.21"x9.64"
WEIGHT	21 lbs



SURGE PROTECTION DEVICE DETAIL (OVP) | NO SCALE | 4

COMMSCOPE
FFVV-65B-R2

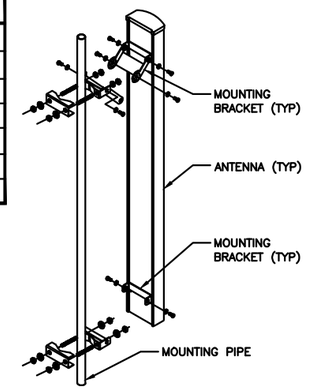
DIMENSIONS (HxWxD)(MM/IN)	1828x498x197 72"x19.6"x7.8"
RF CONNECTOR INTERFACE	4.3-10 FEMALE
WEIGHT	70.8 lbs
WEIGHT WITH BRACKETS	98.1 lbs



ANTENNA DETAIL | NO SCALE | 5

M04 MOUNTING BRACKET
HPA-33R-BUU-H4-K

WIDTH	5" (135mm)
DEPTH	2" (51mm)
HEIGHT	8" (213mm)
TOTAL WEIGHT (WITH BRACKETS)	1.5 LBS (15.50 Kg)
HOUSING MATERIAL	ASA/ABS/ALUMINUM
RADOME COLOR	LIGHT GRAY
CONNECTOR	1X8-PIN DAISY CHAIN

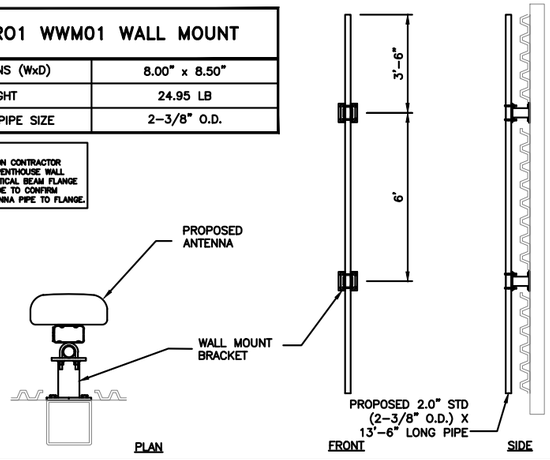


ANTENNA DOWNTILT BRACKET DETAIL | NO SCALE | 6

SITEPRO1 WWM01 WALL MOUNT

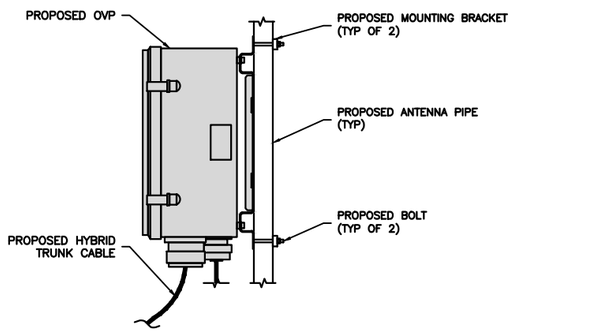
DIMENSIONS (WxD)	8.00" x 8.50"
WEIGHT	24.95 LB
ANTENNA PIPE SIZE	2-3/8" O.D.

NOTE:
PRIOR TO INSTALLATION CONTRACTOR SHALL FIELD VERIFY PENTHOUSE WALL THICKNESS FROM VERTICAL BEAM FLANGE TO PENTHOUSE FACADE TO CONFIRM DISTANCE FROM ANTENNA PIPE TO FLANGE.



ANTENNA WALL MOUNT DETAIL | NO SCALE | 7

NOTE:
OR DISH Wireless L.L.C.
APPROVED EQUIVALENT

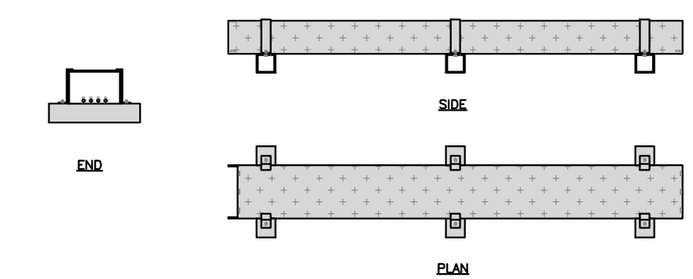


OVP MOUNTING DETAIL | NO SCALE | 8

COMMSCOPE RT-CB4D
ROOFTOP COVER KIT

DIMENSIONS (HxWxL)	7"x 11.25"x 96"
WEIGHT/ VOLUME	85.98 LBS
CABLE RUN (QTY)	4

MOUNTING	NON-PENETRATING
INCLUDED PRODUCTS:	RTCB4D.01 CHANNEL (1)
	MT-F1598 SLEEPERS (3)
	RTCUH HARDWARE
	RTHC.01 HOLD-DOWN CLAMPS (6)



ROOFTOP CABLE TRAY DETAIL | NO SCALE | 9

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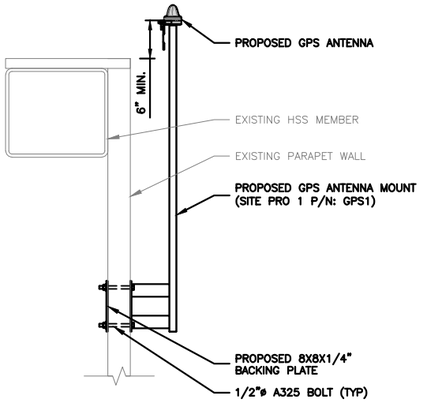
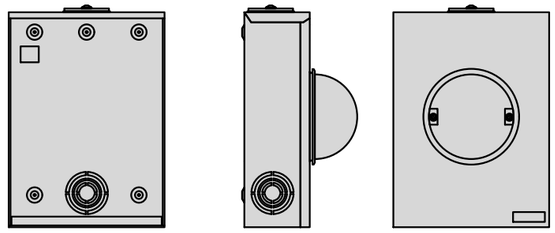
SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
A-6



PROPOSED GPS WALL MOUNT | NO SCALE | 1

EATON METER SOCKET UNRRS213BEUSE	
DIMENSIONS (HxWxD)	16"x12"x6"
TYPE	RING
AMPERAGE RATING	200 CONT. AMP
WEIGHT	18 lbs



METER BANK DETAIL | NO SCALE | 2

NOT USED | NO SCALE | 3

NOT USED | NO SCALE | 4

NOT USED | NO SCALE | 5

NOT USED | NO SCALE | 6

NOT USED | NO SCALE | 7

NOT USED | NO SCALE | 8

NOT USED | NO SCALE | 9

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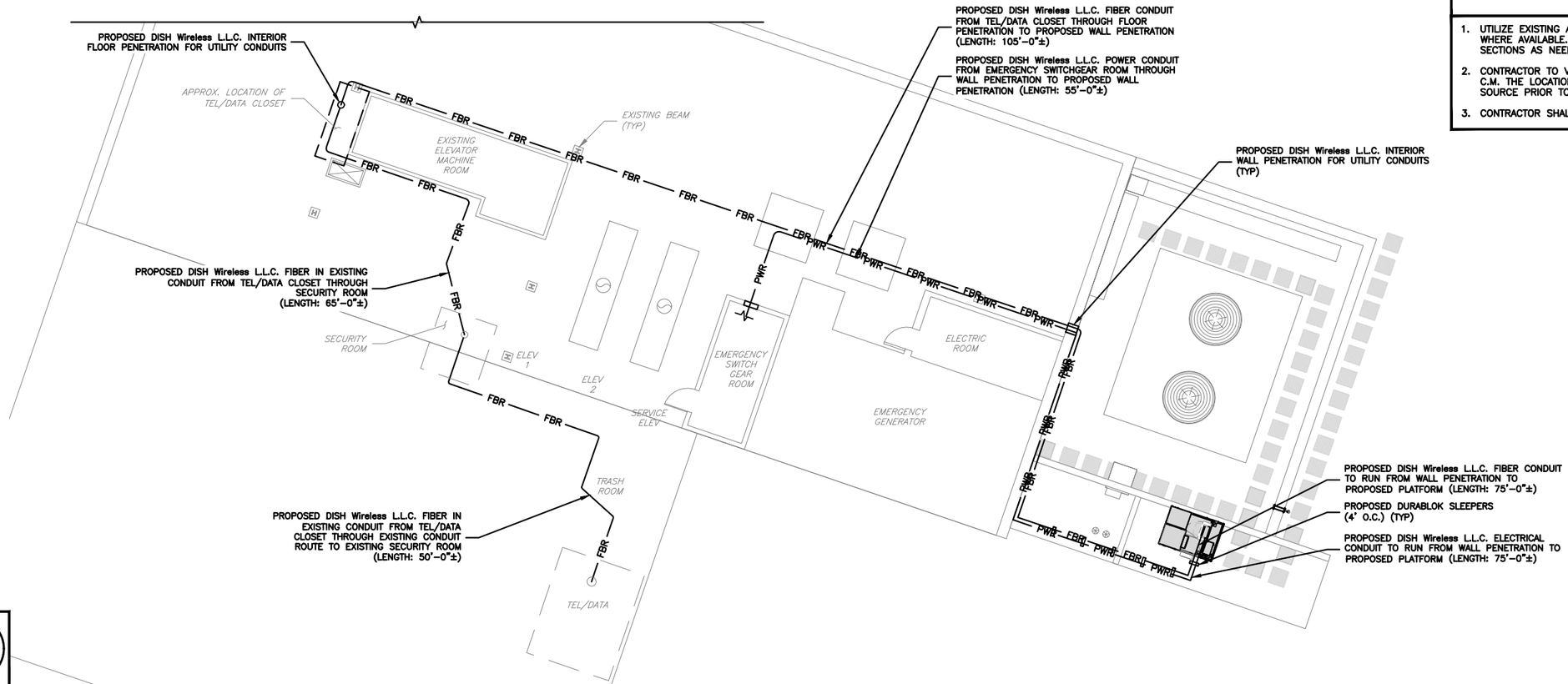
EQUIPMENT DETAILS

SHEET NUMBER

A-7



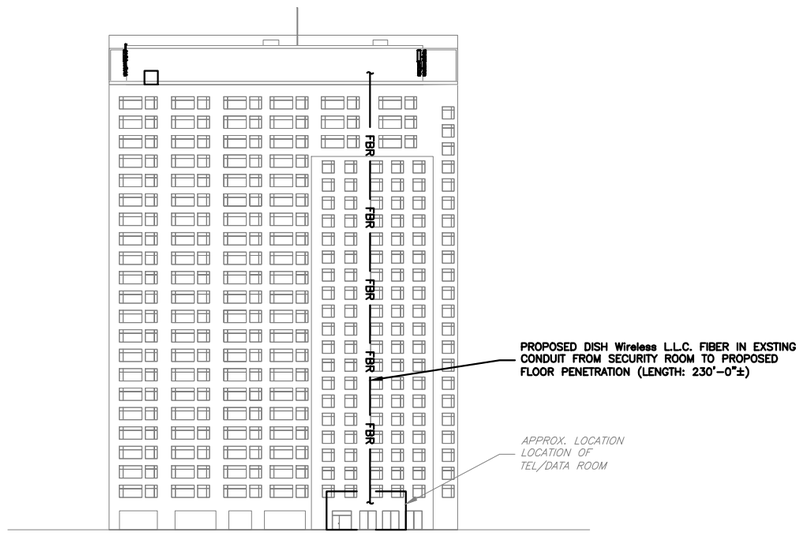
UTILITY ROUTE PLAN

12' 8' 4' 0 10' 20'
3/32"=1'-0"

1

NOTES

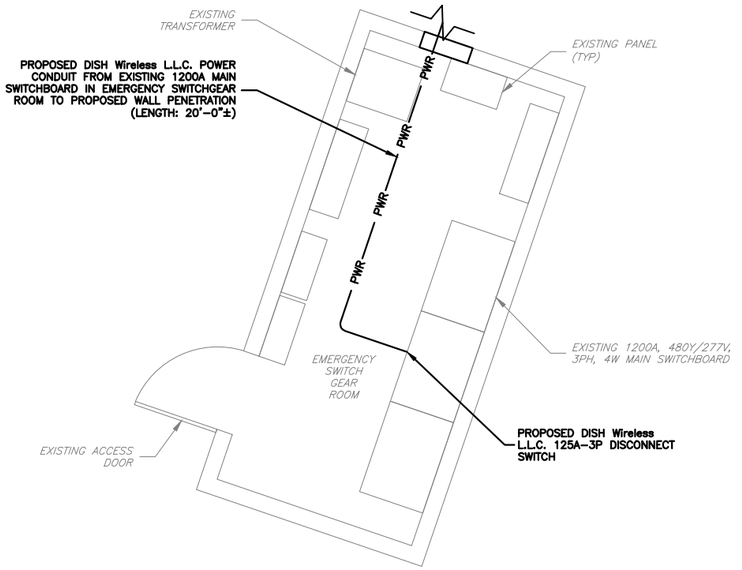
1. UTILIZE EXISTING ABANDONED METROPCS CONDUITS WHERE AVAILABLE. REPLACE/INSTALL NEW CONDUIT SECTIONS AS NEEDED.
2. CONTRACTOR TO VERIFY WITH DISH Wireless L.L.C. C.M. THE LOCATION OF THE POWER AND FIBER SOURCE PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.



UTILITY ROUTE ELEVATION

40' 20' 0 40' 80'
1"=40'

2



ELECTRICAL ROUTE

12" 6" 0 1' 2' 3' 4' 5' 6' 7'
3/8"=1'-0"

3

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DRAWN BY:	CHECKED BY:	APPROVED BY:
KN	HH	DRG

RFDS REV #: N/A

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
0	11/29/2023	ISSUED FOR CONSTRUCTION
1	08/13/24	REVISED ELECTRICAL

A&E PROJECT NUMBER
100753

DISH Wireless L.L.C.
PROJECT INFORMATION
BOBOS00100D

350 THIRD STREET
CAMBRIDGE, MA 02142

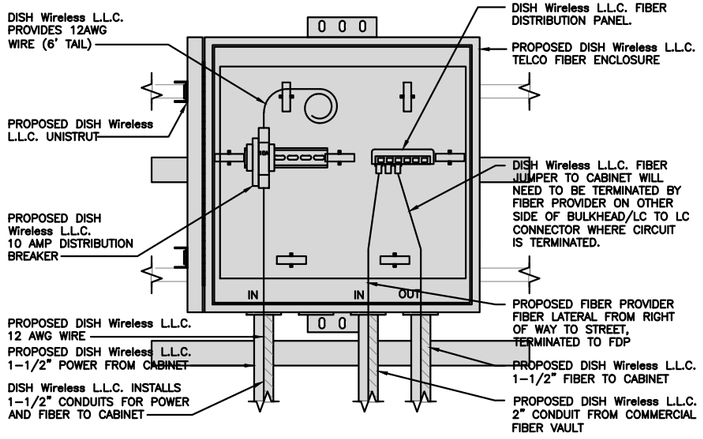
SHEET TITLE
ELECTRICAL/FIBER ROUTE PLAN AND NOTES

SHEET NUMBER
E-1

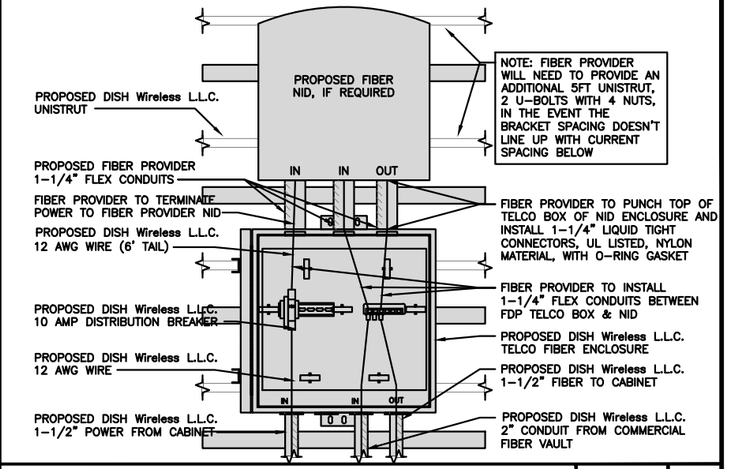
DC POWER WIRING SHALL BE COLOR CODED AT EACH END FOR IDENTIFYING +24V AND −48V CONDUCTORS. RED MARKINGS SHALL IDENTIFY +24V AND BLUE MARKINGS SHALL IDENTIFY −48V.

1. CONTRACTOR SHALL INSPECT THE EXISTING CONDITIONS PRIOR TO SUBMITTING A BID. ANY QUESTIONS ARISING DURING THE BID PERIOD IN REGARDS TO THE CONTRACTOR'S FUNCTIONS, THE SCOPE OF WORK, OR ANY OTHER ISSUE RELATED TO THIS PROJECT SHALL BE BROUGHT UP DURING THE BID PERIOD WITH THE PROJECT MANAGER FOR CLARIFICATION, NOT AFTER THE CONTRACT HAS BEEN AWARDED.
2. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH CURRENT NATIONAL ELECTRICAL CODES AND ALL STATE AND LOCAL CODES, LAWS, AND ORDINANCES. PROVIDE ALL COMPONENTS AND WIRING SIZES AS REQUIRED TO MEET NEC STANDARDS.
3. LOCATION OF EQUIPMENT, CONDUIT AND DEVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND SHALL BE COORDINATED WITH FIELD CONDITIONS PRIOR TO CONSTRUCTION.
4. CONDUIT ROUGH−IN SHALL BE COORDINATED WITH THE MECHANICAL EQUIPMENT TO AVOID LOCATION CONFLICTS. VERIFY WITH THE MECHANICAL EQUIPMENT CONTRACTOR AND COMPLY AS REQUIRED.
5. CONTRACTOR SHALL PROVIDE ALL BREAKERS, CONDUITS AND CIRCUITS AS REQUIRED FOR A COMPLETE SYSTEM.
6. CONTRACTOR SHALL PROVIDE PULL BOXES AND JUNCTION BOXES AS REQUIRED BY THE NEC ARTICLE 314.
7. CONTRACTOR SHALL PROVIDE ALL STRAIN RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
8. ALL DISCONNECTS AND CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED PHENOLIC NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUITS INSTALLED ON, AND PANEL FIELD LOCATIONS FED FROM.
9. INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS PER THE SPECIFICATIONS AND NEC 250. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL JUNCTION BOXES, PULL BOXES, AND ALL DISCONNECT SWITCHES, AND EQUIPMENT CABINETS.
10. ALL NEW MATERIAL SHALL HAVE A U.L. LABEL.
11. PANEL SCHEDULE LOADING AND CIRCUIT ARRANGEMENTS REFLECT POST−CONSTRUCTION EQUIPMENT.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR AS−BUILT PANEL SCHEDULE AND SITE DRAWINGS.

ELECTRICAL NOTES — NO SCALE — 1



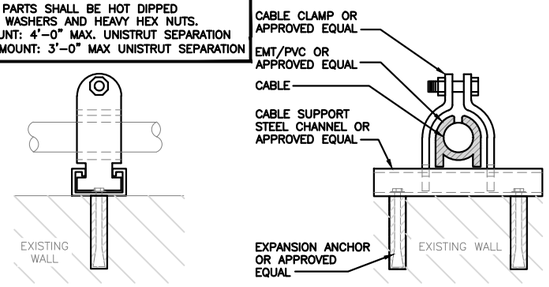
DARK TELCO BOX − INTERIOR WIRING LAYOUT — NO SCALE — 2



LIT TELCO BOX − INTERIOR WIRING LAYOUT (OPTIONAL) — NO SCALE — 3

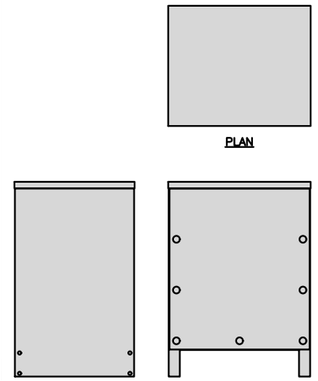
CABLE WALL MOUNT SUPPORT	
UNISTRUT TYPE	GRAINGER P1000T
UNISTRUT DIMENSIONS (HxWxL)	1 5/8"x 1 5/8"x 12"
WEIGHT/ VOLUME	1.85 LB PER FOOT
ULTIMATE LOAD CAPACITY	718.5 LB

NOTES:
1. ALL HARDWARE AND PARTS SHALL BE HOT DIPPED GALVANIZED WITH LOCK WASHERS AND HEAVY HEX NUTS.
2. VERTICAL CABLE MOUNT: 4'−0" MAX. UNISTRUT SEPARATION
3. HORIZONTAL CABLE MOUNT: 3'−0" MAX UNISTRUT SEPARATION

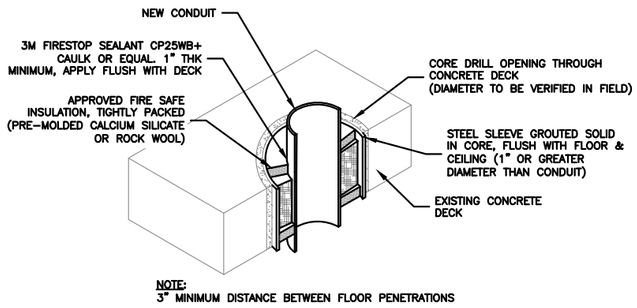


CABLE WALL MOUNT SUPPORT DETAIL — NO SCALE — 4

SQUARE D 75T6HNV TRANSFORMER DRY	
DIMENSIONS (HxWxD)	43.75"x32"x27"
WEIGHT	1025 lbs
PRODUCT	NON−VENTILATED
ENCLOSURE CODE	22E
INSULATION TEMP	428°F
PHASE	3 PHASE
PRIMARY VOLTAGE	480 V DELTA
POWER RATING	75kVA
SECONDARY VOLTAGE	240 V DELTA
FULL CAPACITY TAPS	6 2.5 % 2+ 4−
TEMPERATURE RISE	150°C
WINDING MATERIAL	ALUMINIUM

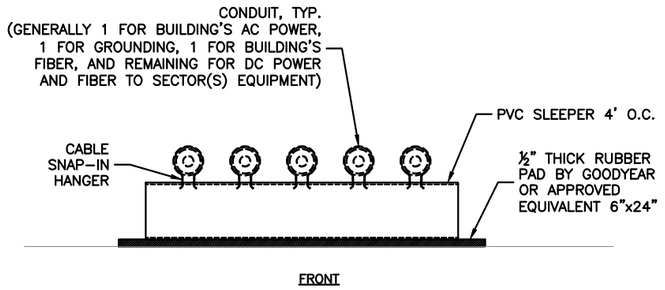


TRANSFORMER DETAIL — NO SCALE — 5



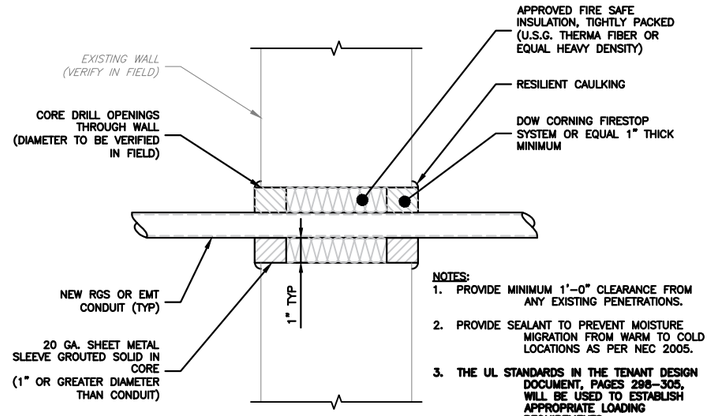
NOTE:
3" MINIMUM DISTANCE BETWEEN FLOOR PENETRATIONS

CONCRETE FLOOR PENETRATION DETAIL — NO SCALE — 6



FRONT

ROOFTOP SLEEPER DETAIL — NO SCALE — 7



NOTES:
1. PROVIDE MINIMUM 1'−0" CLEARANCE FROM ANY EXISTING PENETRATIONS.
2. PROVIDE SEALANT TO PREVENT MOISTURE MIGRATION FROM WARM TO COLD LOCATIONS AS PER NEC 2005.
3. THE UL STANDARDS IN THE TENANT DESIGN DOCUMENT, PAGES 298−305, WILL BE USED TO ESTABLISH APPROPRIATE LOADING REQUIREMENTS.

CONDUIT WALL PENETRATION — NO SCALE — 8

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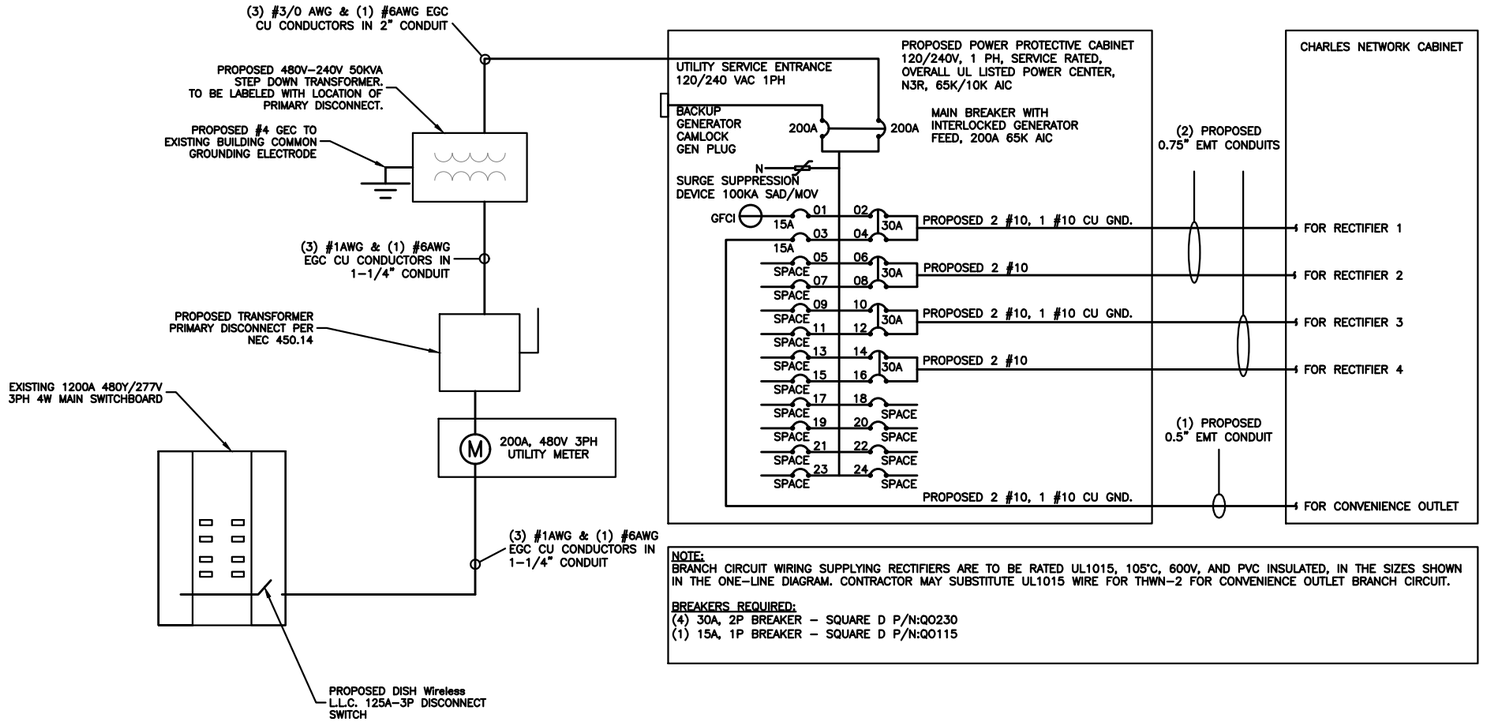
PROJECT INFORMATION
BOBOS00100D

350 THIRD STREET
CAMBRIDGE, MA 02142

SHEET TITLE
ELECTRICAL DETAILS

SHEET NUMBER
E-2



NOTE:
BRANCH CIRCUIT WIRING SUPPLYING RECTIFIERS ARE TO BE RATED UL1015, 105°C, 600V, AND PVC INSULATED, IN THE SIZES SHOWN IN THE ONE-LINE DIAGRAM. CONTRACTOR MAY SUBSTITUTE UL1015 WIRE FOR THWN-2 FOR CONVENIENCE OUTLET BRANCH CIRCUIT.

BREAKERS REQUIRED:
(4) 30A, 2P BREAKER - SQUARE D P/N:QO230
(1) 15A, 1P BREAKER - SQUARE D P/N:QO115

NOTES

THE ENGINEER OF RECORD HAS PERFORMED ALL REQUIRED SHORT CIRCUIT CALCULATIONS AND THE AIC RATINGS FOR EACH DEVICE IS ADEQUATE TO PROTECT THE EQUIPMENT AND THE ELECTRICAL SYSTEM.

THE ENGINEER OF RECORD HAS PERFORMED ALL REQUIRED VOLTAGE DROP CALCULATIONS AND ALL BRANCH CIRCUIT AND FEEDERS COMPLY WITH THE NEC (LISTED ON T-1) ARTICLE 210.19(A)(1) FPN NO. 4.

THE (2) CONDUITS WITH (4) CURRENT CARRYING CONDUCTORS EACH, SHALL APPLY THE ADJUSTMENT FACTOR OF 80% PER 2014/17 NEC TABLE 310.15(B)(3)(a) OR 2020 NEC TABLE 310.15(C)(1) FOR UL1015 WIRE.

#12 FOR 15A-20A/1P BREAKER: 0.8 x 30A = 24.0A
#10 FOR 25A-30A/2P BREAKER: 0.8 x 40A = 32.0A
#8 FOR 35A-40A/2P BREAKER: 0.8 x 55A = 44.0A
#6 FOR 45A-60A/2P BREAKER: 0.8 x 75A = 60.0A

CONDUIT SIZING: AT 40% FILL PER NEC CHAPTER 9, TABLE 4, ARTICLE 358.
0.5" CONDUIT - 0.122 SQ. IN AREA
0.75" CONDUIT - 0.213 SQ. IN AREA
2.0" CONDUIT - 1.316 SQ. IN AREA
3.0" CONDUIT - 2.907 SQ. IN AREA

CABINET CONVENIENCE OUTLET CONDUCTORS (1 CONDUIT): USING THWN-2, CU.

#10 - 0.0211 SQ. IN X 2 = 0.0422 SQ. IN
#10 - 0.0211 SQ. IN X 1 = 0.0211 SQ. IN <GROUND
TOTAL = 0.0633 SQ. IN

0.5" EMT CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (3) WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.

RECTIFIER CONDUCTORS (2 CONDUITS): USING UL1015, CU.

#10 - 0.0266 SQ. IN X 4 = 0.1064 SQ. IN
#10 - 0.0082 SQ. IN X 1 = 0.0082 SQ. IN <BARE GROUND
TOTAL = 0.1146 SQ. IN

0.75" EMT CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (5) WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.

PPC FEED CONDUCTORS (1 CONDUIT): USING THWN, CU.

3/0 - 0.2679 SQ. IN X 3 = 0.8037 SQ. IN
#6 - 0.0507 SQ. IN X 1 = 0.0507 SQ. IN <GROUND
TOTAL = 0.8544 SQ. IN

3.0" SCH 40 PVC CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (4) WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.

PPC ONE-LINE DIAGRAM

NO SCALE | 1

PROPOSED CHARLES PANEL SCHEDULE

LOAD SERVED	VOLT AMPS (WATTS) L1	VOLT AMPS (WATTS) L2	TRIP	CKT #	PHASE	CKT #	TRIP	VOLT AMPS (WATTS) L1	VOLT AMPS (WATTS) L2	LOAD SERVED
PPC GFCI OUTLET	180		15A	1	A	2	30A	2880		ABB/GE INFINITY RECTIFIER 1
CHARLES GFCI OUTLET		180	15A	3	B	4			2880	
-SPACE-				5	A	6	30A	2880		ABB/GE INFINITY RECTIFIER 2
-SPACE-				7	B	8			2880	
-SPACE-				9	A	10	30A	2880		ABB/GE INFINITY RECTIFIER 3
-SPACE-				11	B	12			2880	
-SPACE-				13	A	14	30A	2880		ABB/GE INFINITY RECTIFIER 4
-SPACE-				15	B	16			2880	
-SPACE-				17	A	18				-SPACE-
-SPACE-				19	B	20				-SPACE-
-SPACE-				21	A	22				-SPACE-
-SPACE-				23	B	24				-SPACE-
VOLTAGE AMPS	180	180						11520	11520	
200A MCB, 1ϕ, 24 SPACE, 120/240V			L1		L2					
MB RATING: 65,000 AIC			11700		11700		VOLTAGE AMPS			
			98		98		AMPS			
			98				MAX AMPS			
			123				MAX 125%			

PANEL SCHEDULE | NO SCALE | 2

NOT USED | NO SCALE | 3

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COMMONWEALTH OF MASSACHUSETTS
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NO. 30019
REGISTERED PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:	APPROVED BY:
KN	HH	DRG

RFDS REV #: N/A

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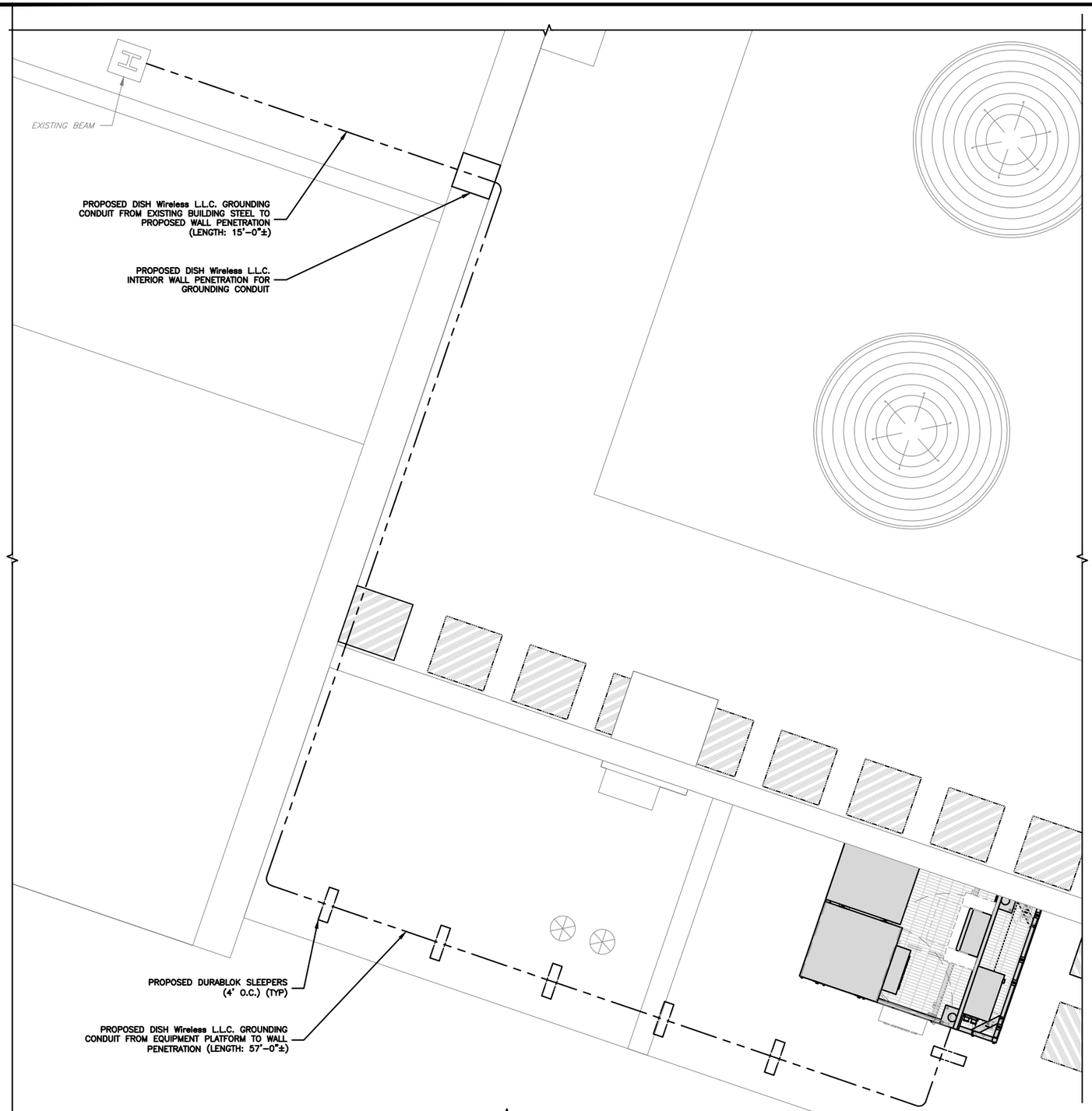
A&E PROJECT NUMBER
100753

DISH Wireless L.L.C.
PROJECT INFORMATION
BOBOS00100D

350 THIRD STREET
CAMBRIDGE, MA 02142

SHEET TITLE
ELECTRICAL ONE-LINE, FAULT CALCS & PANEL SCHEDULE

SHEET NUMBER
E-3



GROUNDING PLAN

12" 6" 0 1' 2' 3' 4' 5'
1/2"=1'-0"

1

EXOTHERMIC CONNECTION
MECHANICAL CONNECTION
GROUND BUS BAR
GROUND ROD
TEST GROUND ROD WITH INSPECTION SLEEVE
#6 AWG STRANDED & INSULATED
#2 AWG SOLID COPPER TINNED
BUSS BAR INSULATOR

GROUNDING LEGEND

1. GROUNDING IS SHOWN DIAGRAMMATICALLY ONLY.
2. CONTRACTOR SHALL GROUND ALL EQUIPMENT AS A COMPLETE SYSTEM. GROUNDING SHALL BE IN COMPLIANCE WITH NEC SECTION 250 AND DISH Wireless L.L.C. GROUNDING AND BONDING REQUIREMENTS AND MANUFACTURER'S SPECIFICATIONS.
3. ALL GROUND CONDUCTORS SHALL BE COPPER; NO ALUMINUM CONDUCTORS SHALL BE USED.
4. NO EXOTHERMIC WELDING ON ROOFTOP

GROUNDING ROOFTOP KEY NOTES

(A) EXTERIOR GROUND RING: #2 AWG SOLID COPPER, BURIED AT A DEPTH OF AT LEAST 30 INCHES BELOW GRADE, OR 6 INCHES BELOW THE FROST LINE AND APPROXIMATELY 24 INCHES FROM THE EXTERIOR WALL OR FOOTING.

(B) ROOFTOP GROUND SYSTEM: THE GROUND SYSTEM USING MINIMUM #2 AWG SOLID COPPER CONDUCTORS.

(C) INTERIOR GROUND RING: #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTOR EXTENDED AROUND THE PERIMETER OF THE EQUIPMENT AREA. ALL NON-TELECOMMUNICATIONS RELATED METALLIC OBJECTS FOUND WITHIN A SITE SHALL BE GROUNDED TO THE INTERIOR GROUND RING WITH #6 AWG STRANDED GREEN INSULATED CONDUCTOR.

(D) BOND TO INTERIOR GROUND RING: #2 AWG SOLID TINNED COPPER WIRE PRIMARY BONDS SHALL BE PROVIDED AT LEAST AT FOUR POINTS ON THE INTERIOR GROUND RING, LOCATED AT THE CORNERS OF THE BUILDING OR ROOM.

(E) GROUND ROD: UL LISTED COPPER CLAD STEEL. MINIMUM 1/2" DIAMETER BY EIGHT FEET LONG. GROUND RODS SHALL BE INSTALLED WITH INSPECTION SLEEVES. GROUND RODS SHALL BE DRIVEN TO THE DEPTH OF GROUND RING CONDUCTOR.

(F) CELL REFERENCE GROUND BAR (CRGB): POINT OF GROUND REFERENCE FOR ALL COMMUNICATIONS EQUIPMENT FRAMES. ALL BONDS ARE MADE WITH #2 AWG UNLESS NOTED OTHERWISE STRANDED GREEN INSULATED COPPER CONDUCTORS. BOND TO COMMON BUILDING GROUND SYSTEM WITH (2) #2 SOLID TINNED COPPER CONDUCTORS.

(G) HATCH PLATE GROUND BAR: BOND TO THE COMMON BUILDING GROUND SYSTEM WITH TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS. WHEN A HATCH-PLATE AND A CELL REFERENCE GROUND BAR ARE BOTH PRESENT, THE CRGB MUST BE CONNECTED TO THE HATCH-PLATE AND TO THE INTERIOR GROUND RING USING (2) TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS EACH.

(H) EXTERIOR CABLE ENTRY PORT GROUND BARS: LOCATED AT THE ENTRANCE TO THE CELL SITE ROOM. BOND TO GROUND RING WITH A #2 AWG SOLID TINNED COPPER CONDUCTORS WITH MECHANICAL CONNECTIONS.

(J) TELCO GROUND BAR: BOND TO BOTH CELL REFERENCE GROUND BAR OR EXTERIOR GROUND RING.

(K) FRAME BONDING: THE BONDING POINT FOR TELECOM EQUIPMENT FRAMES SHALL BE THE GROUND BUS THAT IS NOT ISOLATED FROM THE EQUIPMENTS METAL FRAMEWORK.

(L) INTERIOR UNIT BONDS: METAL FRAMES, CABINETS AND INDIVIDUAL METALLIC UNITS LOCATED WITH THE AREA OF THE INTERIOR GROUND RING REQUIRE A #6 AWG STRANDED GREEN INSULATED COPPER BOND TO THE INTERIOR GROUND RING.

(M) FENCE AND GATE GROUNDING: METAL FENCES SHALL BE BONDED TO THE COMMON BUILDING GROUND SYSTEM WITH A #2 AWG SOLID TINNED COPPER CONDUCTOR AT AN INTERVAL NOT EXCEEDING 25 FEET. BONDS SHALL BE MADE AT EACH GATE POST AND ACROSS GATE OPENINGS.

(N) EXTERIOR UNIT BONDS: METALLIC OBJECTS, EXTERNAL TO OR MOUNTED TO THE BUILDING, SHALL BE BONDED TO THE COMMON BUILDING GROUND SYSTEM. USING #2 TINNED SOLID COPPER WIRE

(P) ICE BRIDGE SUPPORTS: EACH ICE BRIDGE LEG SHALL BE BONDED TO THE GROUND RING WITH #2 AWG BARE TINNED COPPER CONDUCTOR. PROVIDE EXOTHERMIC WELDS AT BOTH THE ICE BRIDGE LEG AND BURIED GROUND RING.

(Q) DURING ALL DC POWER SYSTEM CHANGES INCLUDING DC SYSTEM CHANGE OUTS, RECTIFIER REPLACEMENTS OR ADDITIONS, BREAKER DISTRIBUTION CHANGES, BATTERY ADDITIONS, BATTERY REPLACEMENTS AND INSTALLATIONS OR CHANGES TO DC CONVERTER SYSTEMS IT SHALL BE REQUIRED THAT SERVICE CONTRACTORS VERIFY ALL DC POWER SYSTEMS ARE EQUIPPED WITH A MASTER DC SYSTEM RETURN GROUND CONDUCTOR FROM THE DC POWER SYSTEM COMMON RETURN BUS DIRECTLY CONNECTED TO THE CELL SITE REFERENCE GROUND BAR

(R) ROOFTOP COLLECTOR BUSS BAR IS TO BE MECHANICALLY BONDED TO COMMON BUILDING GROUND SYSTEM.

REFER TO DISH Wireless L.L.C. GROUNDING NOTES.

GROUNDING KEY NOTES

NO SCALE

2

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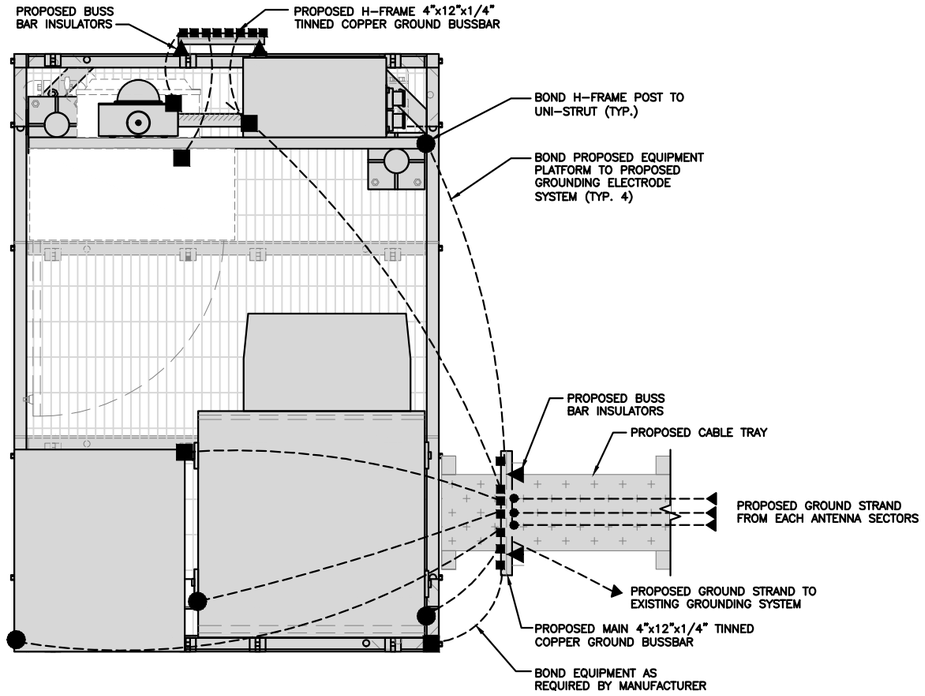
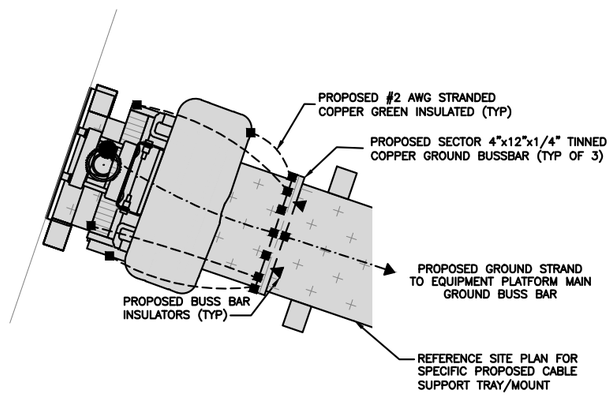
SHEET TITLE
GROUNDING PLANS AND NOTES

SHEET NUMBER
G-1



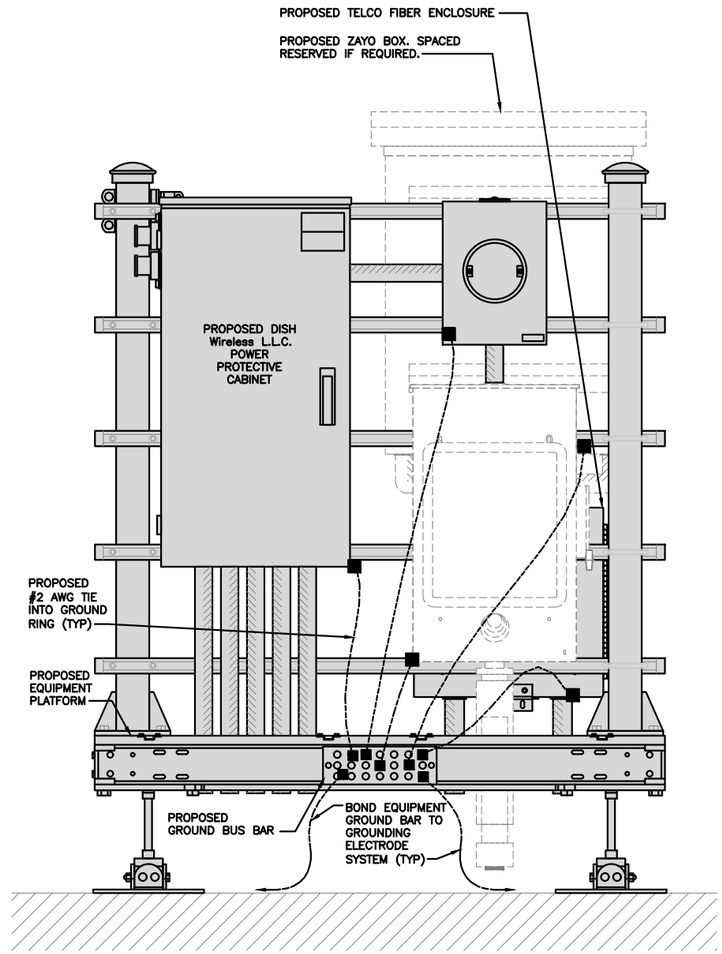
TYPICAL ROOFTOP EQUIPMENT GROUNDING PLAN | NO SCALE | 1



TYPICAL ROOFTOP ANTENNA GROUNDING PLAN | NO SCALE | 2

NOTE

EQUIPMENT CABINET OMITTED FOR CLARITY



H-FRAME GROUNDING DETAIL | NO SCALE | 3

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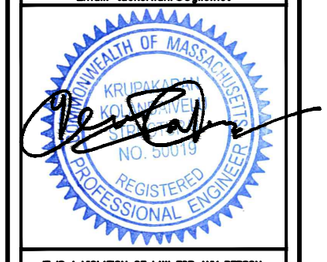

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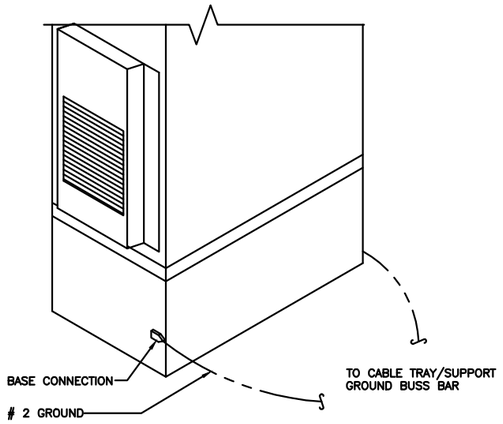
GROUNDING DETAILS

SHEET NUMBER

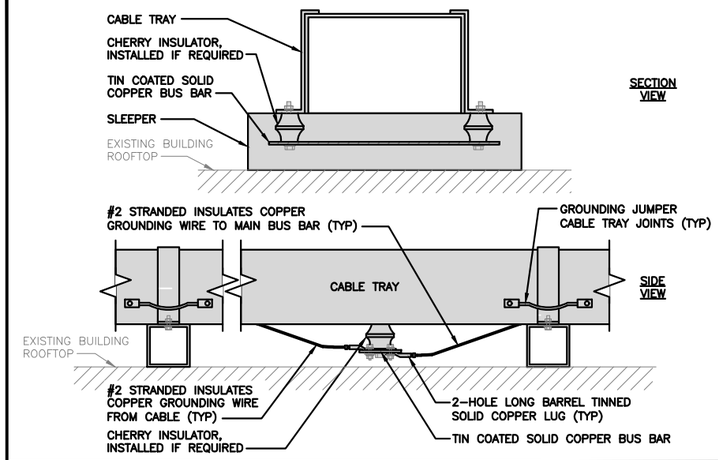
G-2

1. EXOTHERMIC WELD (2) TWO, #2 AWG BARE TINNED SOLID COPPER CONDUCTORS TO GROUND BAR, ROUTE CONDUCTORS TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD.
2. ALL EXTERIOR GROUNDING HARDWARE SHALL BE STAINLESS STEEL 3/8" DIAMETER OR LARGER. ALL HARDWARE 18–8 STAINLESS STEEL INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI–OXIDANT COMPOUND BEFORE MATING.
3. FOR GROUND BOND TO STEEL ONLY: COAT ALL SURFACES WITH AN ANTI–OXIDANT COMPOUND BEFORE MATING.
4. DO NOT INSTALL CABLE GROUNDING KIT AT A BEND AND ALWAYS DIRECT GROUND CONDUCTOR DOWN TO GROUNDING BUS.
5. NUT & WASHER SHALL BE PLACED ON THE FRONT SIDE OF THE GROUND BAR AND BOLTED ON THE BACK SIDE.
6. ALL GROUNDING PARTS AND EQUIPMENT TO BE SUPPLIED AND INSTALLED BY CONTRACTOR.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ADDITIONAL GROUND BAR AS REQUIRED.
8. ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).

TYPICAL GROUNDING NOTES — NO SCALE — 1



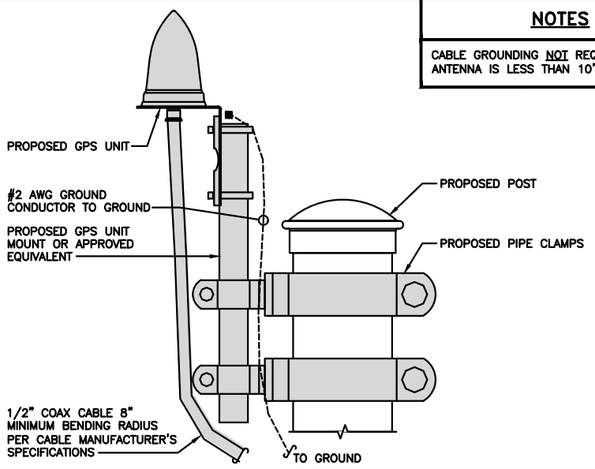
OUTDOOR CABINET GROUNDING — NO SCALE — 2



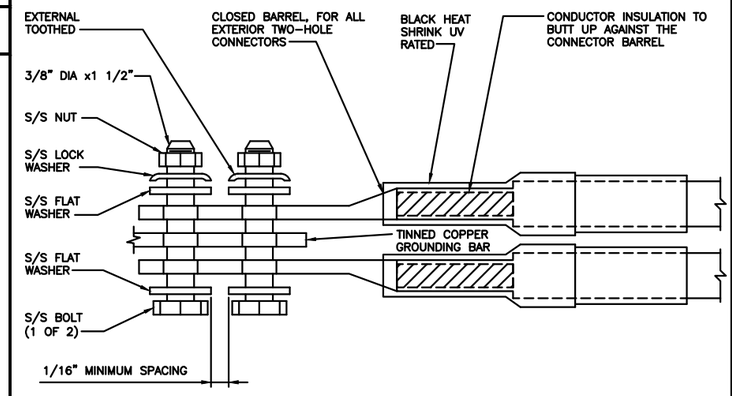
TYPICAL CABLE TRAY GROUND BUSS BAR — NO SCALE — 3

NOTES

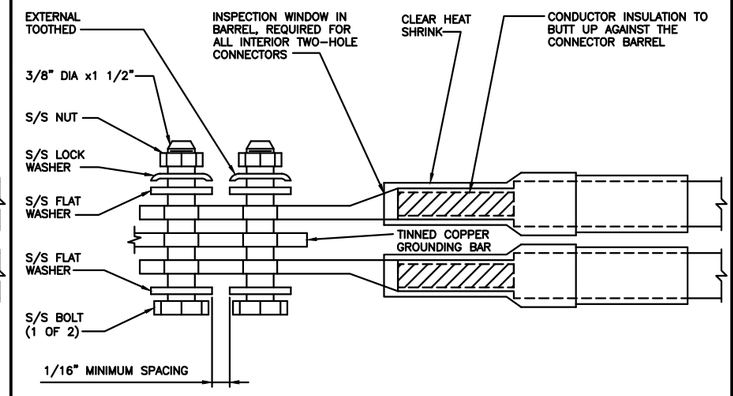
CABLE GROUNDING NOT REQUIRED WHEN ANTENNA IS LESS THAN 10' FROM CABINET



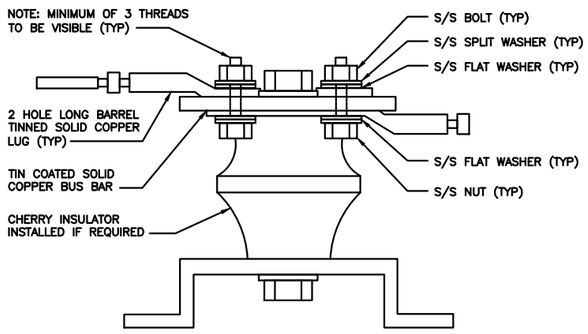
TYPICAL GPS UNIT GROUNDING — NO SCALE — 4



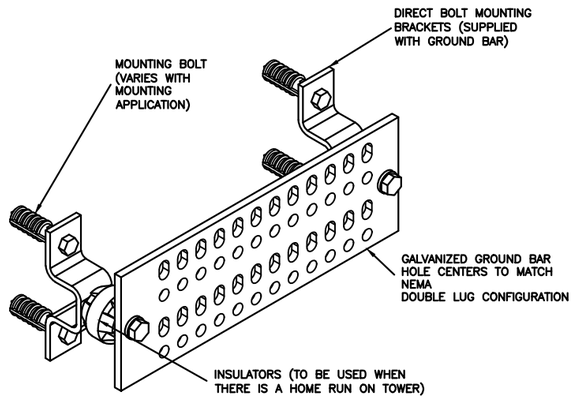
TYPICAL EXTERIOR TWO HOLE LUG — NO SCALE — 5



TYPICAL INTERIOR TWO HOLE LUG — NO SCALE — 6



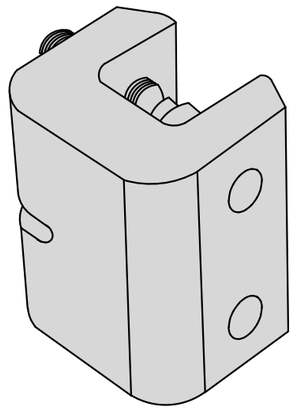
LUG DETAIL — NO SCALE — 7



GROUND BAR DETAIL — NO SCALE — 8

PANDUIT GUBC500–6 UNIVERSAL BEAM GROUNDING, CLAMP	
COPPER CONDUCTOR SIZE RANGE AWG	#6–500
FLANGE THICKNESS INCHES	0.250–0.675
STUD SIZE INCHES	1/2"
THREAD SIZE	1/2"–13
DIMENSIONS (LxWxH)	3.15"x 2.13"x 2.50"

NOTE:
1. UNIVERSAL, FITS ON A WIDE RANGE OF STANDARD (ANGLED) AND WIDE FLANGE (PARALLEL) STRUCTURAL STEEL BEAMS.
2. UL 467 LISTED FOR GROUNDING AND BONDING ONLY



BUILDING STEEL GROUNDING DETAIL — NO SCALE — 9

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LITTLETON, CO 80120

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100 APOLLO DRIVE
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SITE ID: 1040–PCPL
5G NOC: 240.274.2300
Op's Manager: Tucker Lahr
Phone: (717) 658–2203
Email: tucker.lahr@5gllc.net

COMMONWEALTH OF MASSACHUSETTS — KRUPAKARAN KOLLIVEVELI — NO. 36019 — REGISTERED PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:	APPROVED BY:
KN	HH	DRG

RFDS REV #: N/A

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A&E PROJECT NUMBER
100753

DISH Wireless L.L.C.
PROJECT INFORMATION
BOBOS00100D

350 THIRD STREET
CAMBRIDGE, MA 02142

SHEET TITLE
GROUNDING DETAILS

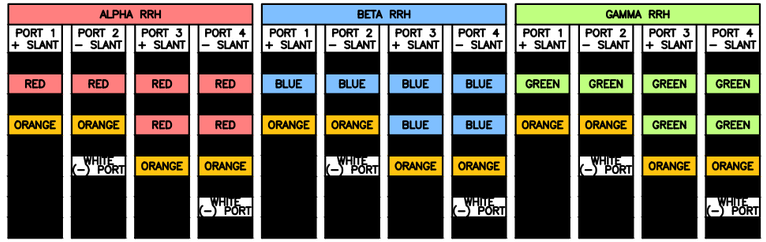
SHEET NUMBER
G-3

HYBRID/DISCREET CABLES

3/4" TAPE WIDTHS WITH 3/4" SPACING

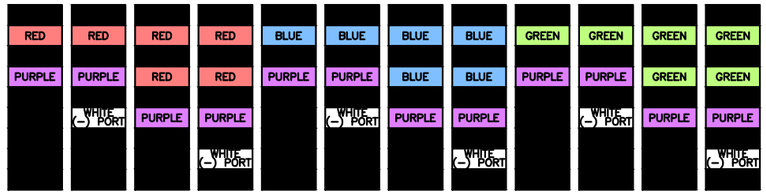
LOW-BAND RRH
(600 MHz N71 BASEBAND) +
(850 MHz N26 BAND) +
(700 MHz N29 BAND) - OPTIONAL PER MARKET

ADD FREQUENCY COLOR TO SECTOR BAND
(CBRS WILL USE YELLOW BAND)



MID-BAND RRH
(AWS BANDS N66+N70)

ADD FREQUENCY COLOR TO SECTOR BAND
(CBRS WILL USE YELLOW BANDS)



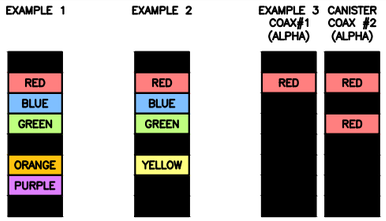
HYBRID/DISCREET CABLES

INCLUDE SECTOR BANDS BEING SUPPORTED ALONG WITH FREQUENCY BANDS.

EXAMPLE 1 - HYBRID, OR DISCREET, SUPPORTS ALL SECTORS, BOTH LOW-BANDS AND MID-BANDS.

EXAMPLE 2 - HYBRID, OR DISCREET, SUPPORTS CBRS ONLY, ALL SECTORS.

EXAMPLE 3 - MAIN COAX WITH GROUND MOUNTED RRHs.

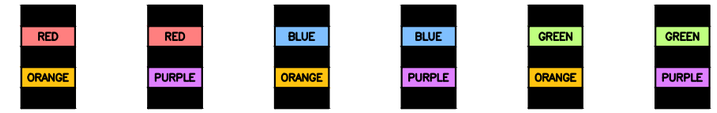


FIBER JUMPERS TO RRHs

LOW-BAND HHR FIBER CABLES HAVE SECTOR STRIPE ONLY.

POWER CABLES TO RRHs

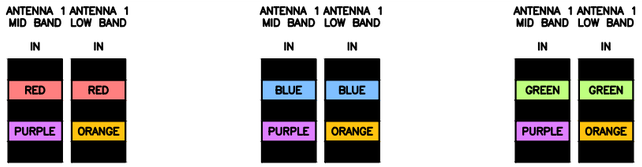
LOW-BAND RRH POWER CABLES HAVE SECTOR STRIPE ONLY



RET MOTORS AT ANTENNAS

RET CONTROL IS HANDLED BY THE MID-BAND RRH WHEN ONE SET OF RET PORTS EXIST ON ANTENNA.

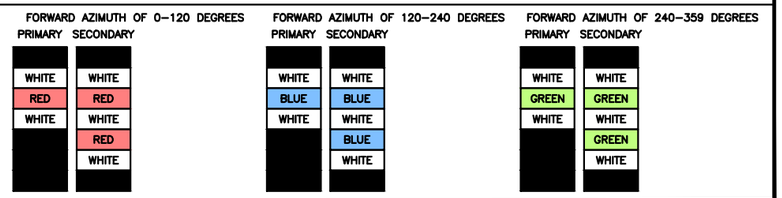
SEPARATE RET CABLES ARE USED WHEN ANTENNA PORTS PROVIDE INPUTS FOR BOTH LOW AND MID BANDS.



MICROWAVE RADIO LINKS

LINKS WILL HAVE A 1.5-2 INCH WHITE WRAP WITH THE AZIMUTH COLOR OVERLAPPING IN THE MIDDLE.
ADD ADDITIONAL SECTOR COLOR BANDS FOR EACH ADDITIONAL MW RADIO.

MICROWAVE CABLES WILL REQUIRE P-TOUCH LABELS INSIDE THE CABINET TO IDENTIFY THE LOCAL AND REMOTE SITE ID's.



RF CABLE COLOR CODES | NO SCALE | 1

LOW BANDS (N71+N26) OPTIONAL - (N29): ORANGE

AWS (N66+N70+H-BLOCK): PURPLE

CBRS TECH (3 GHz): YELLOW

NEGATIVE SLANT PORT ON ANT/RRH: WHITE

ALPHA SECTOR: RED

BETA SECTOR: BLUE

GAMMA SECTOR: GREEN

COLOR IDENTIFIER | NO SCALE | 2

NOT USED | NO SCALE | 3

NOT USED | NO SCALE | 4

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DISH Wireless L.L.C.
PROJECT INFORMATION
BOBOS00100D

350 THIRD STREET
CAMBRIDGE, MA 02142

SHEET TITLE
RF
CABLE COLOR CODE

SHEET NUMBER
RF-1

LEGEND

EXOTHERMIC CONNECTION

MECHANICAL CONNECTION

BUSS BAR INSULATOR

CHEMICAL ELECTROLYTIC GROUNDING SYSTEM

TEST CHEMICAL ELECTROLYTIC GROUNDING SYSTEM — T

EXOTHERMIC WITH INSPECTION SLEEVE

GROUNDING BAR

GROUND ROD

TEST GROUND ROD WITH INSPECTION SLEEVE — T

SINGLE POLE SWITCH — $

DUPLEX RECEPTACLE

DUPLEX GFCI RECEPTACLE — GFCI

FLUORESCENT LIGHTING FIXTURE (2) TWO LAMPS 48–T8 — F

SMOKE DETECTION (DC) — SD

EMERGENCY LIGHTING (DC)

SECURITY LIGHT W/PHOTOCELL LITHONIA ALXW OFA-M1-LP6A-RDYCB K–SR4–120–PE–DDBTXD

WOOD/WROUGHT IRON FENCE — x x x x

WALL STRUCTURE

LEASE AREA

PROPERTY LINE (PL)

SETBACKS

ICE BRIDGE

CABLE TRAY

WATER LINE

UNDERGROUND POWER — W W W W W

UNDERGROUND TELCO — UGP UGP UGP UGP UGP

OVERHEAD POWER — UGT UGT UGT UGT UGT

OVERHEAD TELCO — OHP OHP OHP OHP

UNDERGROUND TELCO/POWER — OHT OHT OHT OHT

ABOVE GROUND POWER — UGT/P UGT/P UGT/P UGT/P

ABOVE GROUND TELCO — AGP AGP AGP AGP AGP

ABOVE GROUND TELCO/POWER — AGT AGT AGT AGT AGT

WORKPOINT — AGT/P AGT/P AGT/P AGT/P

SECTION REFERENCE

DETAIL REFERENCE

W.P.

XX
X–X

XX
X–X

ABBREVIATIONS

AB	ANCHOR BOLT
ABV	ABOVE
AC	ALTERNATING CURRENT
ADDL	ADDITIONAL
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AGL	ABOVE GROUND LEVEL
AIC	AMPERAGE INTERRUPTION CAPACITY
ALUM	ALUMINUM
ALT	ALTERNATE
ANT	ANTENNA
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BATT	BATTERY
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BTC	BARE TINNED COPPER CONDUCTOR
BOF	BOTTOM OF FOOTING
CAB	CABINET
CANT	CANTILEVERED
CHG	CHARGING
CLG	CEILING
CLR	CLEAR
COL	COLUMN
COMM	COMMON
CONC	CONCRETE
CONSTR	CONSTRUCTION
DBL	DOUBLE
DC	DIRECT CURRENT
DEPT	DEPARTMENT
DF	DOUGLAS FIR
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DWG	DRAWING
DWL	DOWEL
EA	EACH
EC	ELECTRICAL CONDUCTOR
EL.	ELEVATION
ELEC	ELECTRICAL
EMT	ELECTRICAL METALLIC TUBING
ENG	ENGINEER
EQ	EQUAL
EXP	EXPANSION
EXT	EXTERIOR
EW	EACH WAY
FAB	FABRICATION
FF	FINISH FLOOR
FG	FINISH GRADE
FIF	FACILITY INTERFACE FRAME
FIN	FINISH(ED)
FLR	FLOOR
FDN	FOUNDATION
FOC	FACE OF CONCRETE
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FOW	FACE OF WALL
FS	FINISH SURFACE
FT	FOOT
FTG	FOOTING
GA	GAUGE
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GLB	GLUE LAMINATED BEAM
GLV	GALVANIZED
GPS	GLOBAL POSITIONING SYSTEM
GND	GROUND
GSM	GLOBAL SYSTEM FOR MOBILE
HDG	HOT DIPPED GALVANIZED
HDR	HEADER
HGR	HANGER
HVAC	HEAT/VENTILATION/AIR CONDITIONING
HT	HEIGHT
IGR	INTERIOR GROUND RING
IN	INCH
INT	INTERIOR
LB(S)	POUND(S)
LF	LINEAR FEET
LTE	LONG TERM EVOLUTION
MAS	MASONRY
MAX	MAXIMUM
MB	MACHINE BOLT
MECH	MECHANICAL
MFR	MANUFACTURER
MGB	MASTER GROUND BAR
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL
MTS	MANUAL TRANSFER SWITCH
MW	MICROWAVE
NEC	NATIONAL ELECTRIC CODE
NM	NEWTON METERS
NO.	NUMBER
#	NUMBER
NTS	NOT TO SCALE
OC	ON–CENTER
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
OPNG	OPENING
P/C	PRECAST CONCRETE
PCS	PERSONAL COMMUNICATION SERVICES
PCU	PRIMARY CONTROL UNIT
PRC	PRIMARY RADIO CABINET
PP	POLARIZING PRESERVING
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
PWR	POWER CABINET
QTY	QUANTITY
RAD	RADIUS
RECT	RECTIFIER
REF	REFERENCE
REINF	REINFORCEMENT
REQ'D	REQUIRED
RET	REMOTE ELECTRIC TILT
RF	RADIO FREQUENCY
RMC	RIGID METALLIC CONDUIT
RRH	REMOTE RADIO HEAD
RRU	REMOTE RADIO UNIT
RWY	RACEWAY
SCH	SCHEDULE
SHT	SHEET
SIAD	SMART INTEGRATED ACCESS DEVICE
SIM	SIMILAR
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
TEMP	TEMPORARY
THK	THICKNESS
TMA	TOWER MOUNTED AMPLIFIER
TN	TOE NAIL
TOA	TOP OF ANTENNA
TOC	TOP OF CURB
TOF	TOP OF FOUNDATION
TOP	TOP OF PLATE (PARAPET)
TOS	TOP OF STEEL
TOW	TOP OF WALL
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
TYP	TYPICAL
UG	UNDERGROUND
UL	UNDERWRITERS LABORATORY
UNO	UNLESS NOTED OTHERWISE
UMTS	UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
UPS	UNITERRUPTIBLE POWER SYSTEM (DC POWER PLANT)
VIF	VERIFIED IN FIELD
W	WIDE
W/	WITH
WD	WOOD
WP	WEATHERPROOF
WT	WEIGHT

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COMMONWEALTH OF MASSACHUSETTS
KRUPAKAR KOLLIMARLAVENKATA
NO. 36019
REGISTERED PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:	APPROVED BY:
KN	HH	DRG

RFDS REV #: N/A

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BOBOS00100D

350 THIRD STREET
CAMBRIDGE, MA 02142

SHEET TITLE

LEGEND AND ABBREVIATIONS

SHEET NUMBER

GN-1

SIGN TYPES		
TYPE	COLOR	COLOR CODE PURPOSE
INFORMATION	GREEN	**"INFORMATIONAL SIGN"** TO NOTIFY OTHERS OF SITE OWNERSHIP & CONTACT NUMBER AND POTENTIAL RF EXPOSURE.
NOTICE	BLUE	**"NOTICE BEYOND THIS POINT"** RF FIELDS BEYOND THIS POINT MAY EXCEED THE FCC GENERAL PUBLIC EXPOSURE LIMIT. OBEY ALL POSTED SIGNS AND SITE GUIDELINES FOR WORKING IN RF ENVIRONMENTS. IN ACCORDANCE WITH FEDERAL COMMUNICATIONS COMMISSION RULES ON RADIO FREQUENCY EMISSIONS 47 CFR-1.1307(b)
CAUTION	YELLOW	**"CAUTION BEYOND THIS POINT"** RF FIELDS BEYOND THIS POINT MAY EXCEED THE FCC GENERAL PUBLIC EXPOSURE LIMIT. OBEY ALL POSTED SIGNS AND SITE GUIDELINES FOR WORKING IN RF ENVIRONMENTS. IN ACCORDANCE WITH FEDERAL COMMUNICATIONS COMMISSION RULES ON RADIO FREQUENCY EMISSIONS 47 CFR-1.1307(b)
WARNING	ORANGE/RED	**"WARNING BEYOND THIS POINT"** RF FIELDS AT THIS SITE EXCEED FCC RULES FOR HUMAN EXPOSURE. FAILURE TO OBEY ALL POSTED SIGNS AND SITE GUIDELINES FOR WORKING IN RF ENVIRONMENTS COULD RESULT IN SERIOUS INJURY. IN ACCORDANCE WITH FEDERAL COMMUNICATIONS COMMISSION RULES ON RADIO FREQUENCY EMISSIONS 47 CFR-1.1307(b)

SIGN PLACEMENT:

- RF SIGNAGE PLACEMENT SHALL FOLLOW THE RECOMMENDATIONS OF AN EXISTING EME REPORT, CREATED BY A THIRD PARTY PREVIOUSLY AUTHORIZED BY DISH Wireless L.L.C.
- INFORMATION SIGN (GREEN) SHALL BE LOCATED ON EXISTING DISH Wireless L.L.C EQUIPMENT.
  A) IF THE INFORMATION SIGN IS A STICKER, IT SHALL BE PLACED ON EXISTING DISH Wireless L.L.C EQUIPMENT CABINET.
  B) IF THE INFORMATION SIGH IS A METAL SIGN IT SHALL BE PLACED ON EXISTING DISH Wireless L.L.C H-FRAME WITH A SECURE ATTACH METHOD.
- IF EME REPORT IS NOT AVAILABLE AT THE TIME OF CREATION OF CONSTRUCTION DOCUMENTS; PLEASE CONTACT DISH Wireless L.L.C. CONSTRUCTION MANAGER FOR FURTHER INSTRUCTION ON HOW TO PROCEED.

NOTES:

1. FOR DISH Wireless L.L.C. LOGO, SEE DISH Wireless L.L.C. DESIGN SPECIFICATIONS (PROVIDED BY DISH Wireless L.L.C.)
2. SITE ID SHALL BE APPLIED TO SIGNS USING "LASER ENGRAVING" OR ANY OTHER WEATHER RESISTANT METHOD (DISH Wireless L.L.C. APPROVAL REQUIRED)
3. TEXT FOR SIGNAGE SHALL INDICATE CORRECT SITE NAME AND NUMBER AS PER DISH Wireless L.L.C. CONSTRUCTION MANAGER RECOMMENDATIONS.
4. CABINET/SHELTER MOUNTING APPLICATION REQUIRES ANOTHER PLATE APPLIED TO THE FACE OF THE CABINET WITH WATER PROOF POLYURETHANE ADHESIVE
5. ALL SIGNS WILL BE SECURED WITH EITHER STAINLESS STEEL ZIP TIES OR STAINLESS STEEL TECH SCREWS
6. ALL SIGNS TO BE 8.5"x11" AND MADE WITH 0.04" OF ALUMINUM MATERIAL

INFORMATION

This is an access point to an area with transmitting antennas.

Obey all signs and barriers beyond this point.
Call the DISH Wireless L.L.C. NOC at 1-866-624-6874

Site ID: _____

THIS SIGN IS FOR REFERENCE PURPOSES ONLY

NOTICE

Transmitting Antenna(s)

Radio frequency fields beyond this point MAY *EXCEED* the FCC Occupational exposure limit.

Obey all posted signs and site guidelines for working in radio frequency environments.

Call the DISH Wireless L.L.C. NOC at 1-866-624-6874 prior to working beyond this point.

Site ID: _____

dish

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dish

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RF SIGNAGE

dish wireless.
5701 SOUTH SANTA FE DRIVE
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CAMBRIDGE, MA 02142

SHEET TITLE
RF SIGNAGE

SHEET NUMBER
GN-2

SITE ACTIVITY REQUIREMENTS:

1. NOTICE TO PROCEED – NO WORK SHALL COMMENCE PRIOR TO CONTRACTOR RECEIVING A WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE DISH Wireless L.L.C. AND TOWER OWNER NOC & THE DISH Wireless L.L.C. AND TOWER OWNER CONSTRUCTION MANAGER.

2. "LOOK UP" – DISH Wireless L.L.C. AND TOWER OWNER SAFETY CLIMB REQUIREMENT:

THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR DISH Wireless L.L.C. AND DISH Wireless L.L.C. AND TOWER OWNER POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.

3. PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.

4. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND DISH Wireless L.L.C. AND TOWER OWNER STANDARDS, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA–322 (LATEST EDITION).

5. ALL SITE WORK TO COMPLY WITH DISH Wireless L.L.C. AND TOWER OWNER INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON DISH Wireless L.L.C. AND TOWER OWNER TOWER SITE AND LATEST VERSION OF ANSI/TIA–1019–A–2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."

6. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY DISH Wireless L.L.C. AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.

7. 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, RULES, 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.

8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.

9. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES INCLUDING PRIVATE LOCATES SERVICES PRIOR TO THE START OF CONSTRUCTION.

10. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.

11. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND DISH PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.

12. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.

13. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF DISH Wireless L.L.C. AND TOWER OWNER, AND/OR LOCAL UTILITIES.

14. THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.

15. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.

16. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.

17. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.

18. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.

19. 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 OWNER.

20. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS AND RADIOS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.

21. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

22. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

GENERAL NOTES:

1.FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:

CONTRACTOR:GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION

CARRIER:DISH Wireless L.L.C.

TOWER OWNER:TOWER OWNER

2. THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.

3. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.

4. NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.

5. SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.

6. 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 CARRIER POC AND TOWER OWNER.

7. 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, RULES, 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.

8. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.

9. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.

10. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.

11. CONTRACTOR IS TO PERFORM A SITE INVESTIGATION, BEFORE SUBMITTING BIDS, TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.

12. 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 DISH Wireless L.L.C. AND TOWER OWNER

13. 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.

14. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

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DRAWN BY:	CHECKED BY:	APPROVED BY:
KN	HH	DRG

RFDS REV #: N/A

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
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1	08/13/24	REVISED ELECTRICAL

A&E PROJECT NUMBER

100753

DISH Wireless L.L.C.
PROJECT INFORMATION

BOBOS00100D

350 THIRD STREET
CAMBRIDGE, MA 02142

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-3

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.

2. UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.

3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°f AT TIME OF PLACEMENT.

4. CONCRETE EXPOSED TO FREEZE-THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER-TO-CEMENT RATIO (W/C) OF 0.45.

5. ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:

#4 BARS AND SMALLER 40 ksi

#5 BARS AND LARGER 60 ksi

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

- CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"
- CONCRETE EXPOSED TO EARTH OR WEATHER:
- #6 BARS AND LARGER 2"
- #5 BARS AND SMALLER 1-1/2"
- CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
- SLAB AND WALLS 3/4"
- BEAMS AND COLUMNS 1-1/2"

7. A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

ELECTRICAL INSTALLATION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.

2. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.

3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.

4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.

4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.

4.2. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.

5. EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.

6. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND CIRCUIT ID'S).

7. PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.

8. TIE WRAPS ARE NOT ALLOWED.

9. ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.

10. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.

11. POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.

12. POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.

13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).

14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.

15. ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.

16. ELECTRICAL METALLIC TUBING (EMT) OR METAL-CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.

17. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.

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

19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.

20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.

21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECMATE WIREWAY).

22. SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).

23. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER-ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.

24. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3 (OR BETTER) FOR EXTERIOR LOCATIONS.

25. METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.

26. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.

27. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR DISH Wireless L.L.C. AND TOWER OWNER BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.

28. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.

29. INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "DISH Wireless L.L.C.".

30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

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DRAWN BY:	CHECKED BY:	APPROVED BY:
KN	HH	DRG

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A&E PROJECT NUMBER

100753

DISH Wireless L.L.C.
PROJECT INFORMATION

BOBOS00100D

350 THIRD STREET
CAMBRIDGE, MA 02142

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-4

GROUNDING NOTES:

1. 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 IN ACCORDANCE WITH THE NEC.

2. THE CONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.

3. 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 AND PROVIDE TESTING RESULTS.

4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.

5. 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 BTS EQUIPMENT.

6. EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.

7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.

8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.

9. 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.

11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.

12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.

13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.

14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.

15. APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.

16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.

17. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.

18. BOND ALL METALLIC OBJECTS WITHIN 6 ft OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.

19. GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING 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 CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.

20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON-METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).

21. BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY). DO NOT ATTACH GROUNDING TO FIRE SPRINKLER SYSTEM PIPES.

dish wireless.
5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

NB+C™
TOTALLY COMMITTED.
NB+C ENGINEERING SERVICES, LLC.
100 APOLLO DRIVE
SUITE 303
CHELMSFORD, MA 01824
(978) 856-8308

5G.llc
SITE ID: 1040-PCPL
5G NOC: 240.274.2300
Op's Manager: Tucker Lahr
Phone: (717) 658-2203
Email: tucker.lahr@5gllc.net

DRAWN BY:	CHECKED BY:	APPROVED BY:
KN	HH	DRG

RFDS REV #: N/A

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
0	11/29/2023	ISSUED FOR CONSTRUCTION
1	08/13/24	REVISED ELECTRICAL

A&E PROJECT NUMBER

100753

DISH Wireless L.L.C.
PROJECT INFORMATION

BOBOS00100D

350 THIRD STREET
CAMBRIDGE, MA 02142

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-5

Dominion Court
Location Map

- not visible - visible

Site Name: BOBOS00100D
Wireless Communication Facility
350 Third Street
Cambridge, MA 02142

Photograph Information:
View 1-Third Street
View from the Northeast
Showing the Existing Site

NBC™
TOTALLY COMMITTED.

Site Name: BOBOS00100D
Wireless Communication Facility
350 Third Street
Cambridge, MA 02142

Photograph Information:
View 1-Third Street
View from the Northeast
Showing the Proposed Site

NBC™
TOTALLY COMMITTED.

Site Name: BOBOS00100D
Wireless Communication Facility
350 Third Street
Cambridge, MA 02142

Photograph Information:
View 2-Third Street
View from the Southwest
SITE NOT VISIBLE

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Site Name: BOBOS00100D
Wireless Communication Facility
350 Third Street
Cambridge, MA 02142

Photograph Information:
View 3-Broad Canal Walk
View from the Southeast
Showing the Existing Site

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Site Name: BOBOS00100D
Wireless Communication Facility
350 Third Street
Cambridge, MA 02142

Photograph Information:
View 3-Broad Canal Walk
View from the Southeast
Showing the Proposed Site

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TOTALLY COMMITTED.

AFFIDAVIT OF RADIO FREQUENCY ENGINEER

The undersigned, in support of the proposal by DISH Wireless L.L.C. to install and operate a Wireless Communications Facility on the property located at 482-484 Tremont St., Boston, Massachusetts, under penalties of perjury does hereby testify and depose as follows:

1. My name is Sameer Parakkavetty, I have a Degree in Electronics and Communications from Karnatak University (Karnataka, India) and an MBA from Boston University. I am employed as a Radio Frequency Engineer for DISH Wireless L.L.C. I am the Radio Frequency Design Engineer responsible for the DISH Wireless network design in the area of Massachusetts that includes the city of Boston.

2. DISH Wireless is a national provider of wireless voice and data services in the United States.

3. The above mentioned location is within an area where DISH Wireless has identified a need to locate a Wireless Telecommunications Facility. The search area was determined by the fact that wireless service needs significant improvement in this area of Boston Furthermore, it was determined that the wireless service provided by a facility in this area would connect well with those of existing and proposed facilities in the surrounding area. To date, DISH Wireless has been unable to successfully locate a wireless communications facility in this locale. A site acquisition firm was hired by DISH Wireless to identify potential sites within the search area.

4. I have knowledge of the proposed Wireless Telecommunications Facility to be located at 482-484 Tremont St in the City of Boston as well as the other existing and proposed Wireless Telecommunications Facility locations used in DISH Wireless' system in Boston and the surrounding areas. I have analyzed the potential benefits this site would represent to DISH Wireless' network and its' users through radio frequency propagation modeling. I employed computer simulations to determine network requirements, and to identify system requirements. These simulations modeled characteristics such as antenna types, antenna height, output power, terrain, ground elevations and RF propagation effects of the utilized frequencies.

5. Propagation simulation at the proposed location has determined that an antenna center-line height of no less than 93 feet above ground level at this location will satisfy the service requirements for DISH Wireless' network. Any reduction in the proposed height and/or antenna configuration would result in coverage footprint shrinkage. This would limit the site's effectiveness in connecting with surrounding sites and impact the level of service DISH Wireless is attempting to provide at this location. Changes to the site configuration would limit the site's ability to resolve the existing network requirements in the City of Boston.

6. I have concluded that the proposed Wireless Telecommunications Facility at 482-484 Tremont St fulfills the present network and quality objectives that motivated DISH Wireless to establish a search ring in this vicinity. Radio frequency propagation modeling establishes that this installation will accomplish DISH Wireless' network goals.

7. All proposed wireless communications equipment will be installed, erected, maintained and operated in compliance with all applicable Federal, State and local regulations, including, but not limited to the radio frequency emissions regulations adopted by the Federal Communications Commission (FCC). All equipment proposed is authorized by the FCC Guidelines for Evaluating the Environmental effects of Radio Frequency Emissions. The radio frequency exposure levels generated by the proposed facility are substantially within the maximum allowable health and safety standards established by the FCC.

8. Providing wireless communication services is a benefit to the residents and businesses of the city of Boston as well as to mobile customers travelling throughout the area. The proposed location is well suited to meet DISH Wireless' network requirements for the area due to its location and topographic characteristics. Without the proposed facility, DISH Wireless will be unable to provide reliable wireless communication services in this area of the City of Boston.

Signed and sworn under pains and penalties of perjury on this 22nd day of July, 2025.

Sameer Parakkavetty - Radio Frequency (RF) Design Engineer
DISH Wireless L.L.C.

350 Third St.


Bent St
Binney St
Rogers St
Munroe St
Linskey Way
Athenaeum St
Kendall St
Broadway
Main St
Potter St
Fulkerson St
Sixth St
Fifth St
Third St
First St
Second St
Land Blvd
Cambridge Pkwy
Charles St
Cambridgeside Pl
Bent Street Open Space
Timothy J. Toomey, Jr. Park
1 Rogers Street
Charles Park
Front Park
Triangle Park
Henri A. Termeer Square
303 Third Walkway Access
286 Third St Walkway
Loughrey Walkway
Danny Lewin Park
Kendall Square South Plaza Adjunct
South Plaza Park
Kendall Square Rooftop Park
Kendall Square
Point Park
Broad Canal Boat Dock
Broad Canal Boardwalk
Broad Canal Walkway
Broad Canal Walkway Landing
Charles River Basin
Longfellow Bridge
Deacon St
Hayward St
Wadsworth St
Carleton St
Amherst St
Ames St
Memorial Dr

350 Third St.

Petitioner

NB+C
C/O COREY MILAN
300 UNICORN PARK – UNIT 501
WOBURN, MA 01801

14-54-55-44-47-51
BMR KENDALL DEVELOPMENT LLC,
C/O RYAN LLC.
P.O. BOX 847
CARLSBAD, CA 92018

29-34
303 THIRD SPE LLC,
C/O EQR-R.E. TAX DEPARTMENT
P.O. BOX 87407 (19337)
CHICAGO, IL 60680-0407

29-34
STABILE, LAWRENCE A.
JANE SANFORD STABILE
303 THIRD ST UNIT 517
CAMBRIDGE, MA 02141

29-34
BEAVER PAD LLC
PO BOX 1588
JACKSON, WY 83001

14-1038
TP/P KENDALL SQUARE, LLC.
GABLES RESIDENTIAL C/O DARCI WATSON
3399 PEACHTREE RD NE, SUITE 600
ATLANTA, GA 30326

29-34
O'LEARY, GERALD & ROSEMARY BOOTH
303 THIRD ST UNIT 505
CAMBRIDGE, MA 02141

29-34
LITSTER, J. DAVID,
TR. J. DAVID LISTER 2009 REV TRUST
303 THIRD ST UNIT 812
CAMBRIDGE, MA 02141

14-1038
BMR- 450 KENDALL STREET LLC,
C/O RYAN LLC
P.O. BOX 847
CARLSBAD, CA 92018

14-1038 /14-45
BMR-350 & BMR-650 E KENDALL B LLC
C/O RYAN LLC
P O BOX 847
CARLSBAD, CA 92018

29-34
POONEN, BJORN M.
303 3RD ST UNIT 416
CAMBRIDGE, MA 02142

29-34
SIMHA. OVADIA R,
TR. THE OVADIA R. SIMHA REV LIVING TRUST
303 THIRD ST UNIT 704
CAMBRIDGE, MA 02142

13-21/14-41
SOUTHERN ENERGY KENDALL
C/O BRIAN KRAMSCHUSTER
13155 NOEL RD., SUITE 100
DALLAS , TX 75240

14-26
MIT 139 MAIN ST FEE OWNER LLC
C/O MIT INVESTMENT MGMT CO
ONE BROADWAY, 9TH FL, SUITE 200
CAMBRIDGE, MA 02142

13-16
CLPF-CAMBRIDGE SCIENCE CENTER, LLC,
C/O LINCOLN PROPERTY COMPANY
245 FIRST ST
CAMBRIDGE, MA 02142

14-36 /13-23
RREEF AMERICA REIT II CORP. PPP C/O CB
RICHARD ELLIS
P O BOX 4900, 207
SCOTTSDALE, AZ 85261-4900

14-67
BMR-THIRD LLC
P.O. BOX 847
ATTN: LEGAL DEPARTMENT
CARLSBAD, CA 92121

14-68
KENDALL SQUARE CORPORATION
C/O RYAN LLC
P O BOX 847
CARLSBAD, CA 92018

29-34
XIANG, JANE & WEI DENG
3864 SANTA CATERINA BLVD
LAKEWOOD RANCH, FL 34211

14-59-58
MIT 165 MAIN ST FEE OWNER LLC
C/O MIT CAMBRIDGE REAL ESTATE LLC
ONE BROADWAY, SUITE 09-200
CAMBRIDGE, MA 02142

14-1038
WATERMARK II MEMBER, LLC
801 GRAND AVENUE
DES MOINES, IA 50392

29-34
ROACH ROGER A
TRS. ROGER A ROACH LIVING TR
303 THIRD ST - UNIT 415
CAMBRIDGE, MA 02142

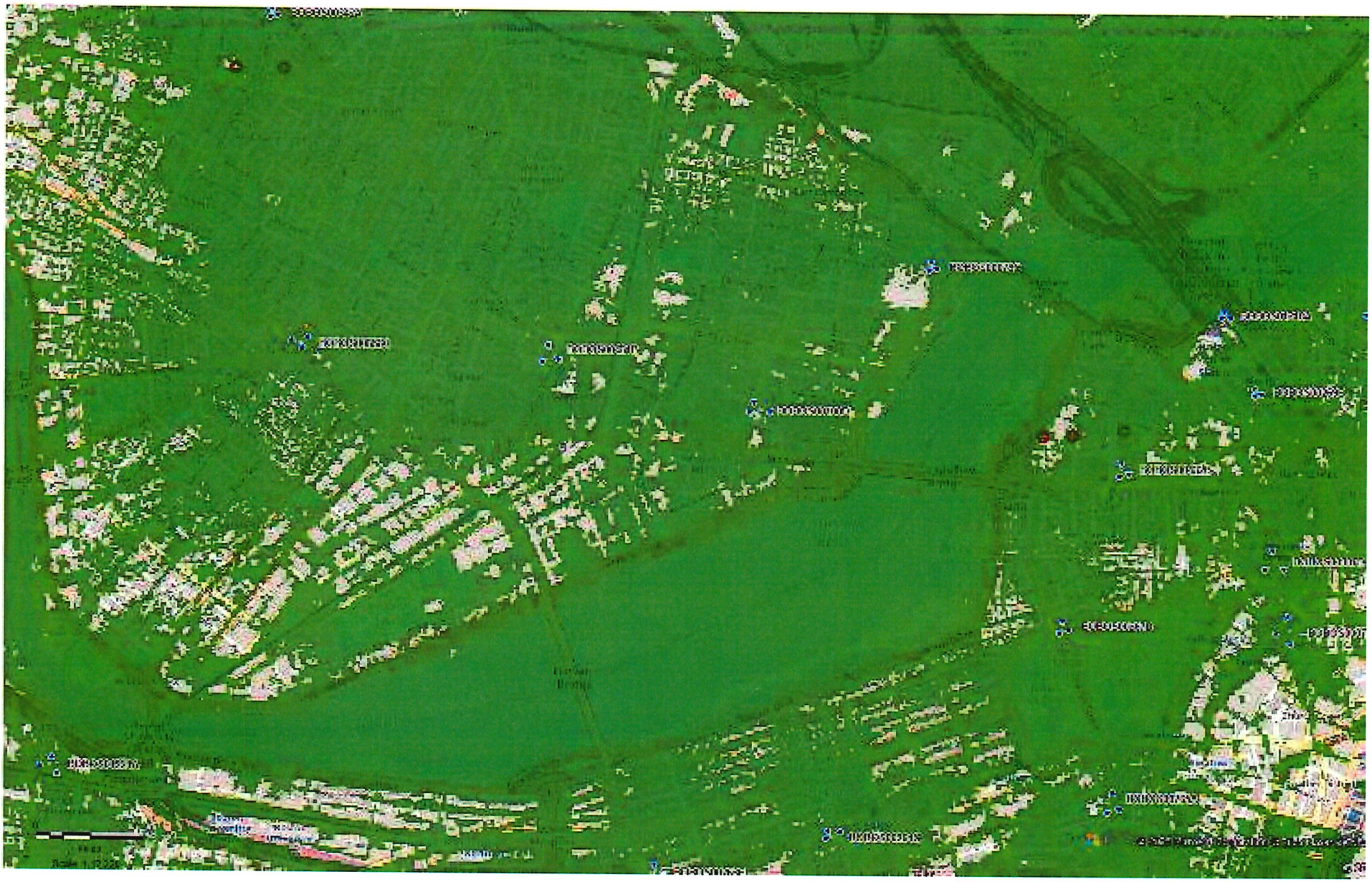
29-34
DENNIS, JACK B.
303 THIRD ST UNIT 705
CAMBRIDGE, MA 02141

29-51
MIT VOLPE FEE OWNER LLC
ONE BROADWAY
9TH FL STE 200
CAMBRIDGE, MA 02142

Dish Wireless coverage in Cambridge, MA without BOBOS00100D

In-Building Coverage

Dish Wireless coverage in Cambridge, MA with BOBOS00100D



In-Building Coverage

Pacheco, Maria

From: Bjorn Poonen <bjornpoonen@gmail.com>
Sent: Friday, August 29, 2025 2:25 PM
To: Pacheco, Maria
Subject: BZA-1172523

Dear Board of Zoning Appeal:

I am in favor of granting the special permit for case BZA-1172523, assuming that there is no safety issue, that it is only a matter of appearance. It sounds as if people will hardly notice that the antennas and RRUs are there.

Best,
Bjorn Poonen
(nearby homeowner at 303 3rd St, Cambridge)

City of Cambridge

MASSACHUSETTS

BOARD OF ZONING APPEAL

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

2 Bds

BZA

POSTING NOTICE – PICK UP SHEET

The undersigned picked up the notice board for the Board of Zoning Appeals Hearing.

Name: Tony Mian (Print) Date: 9/26/25

Address: 350 Third St.

Case No. BZA - 1172523

Hearing Date: 9/11/25

Thank you,
Bza Members