LATITUDE / LONGITUDE: 42.350466 / -71.086563

SITE ADDRESS: 27 HEREFORD ST

CITY, STATE, ZIP: BOSTON, MA 02115

NOTE:

GENERAL CONTRACTOR IS REQUIRED TO CROSS CHECK COORDINATES, EXHIBIT PHOTO, AERIAL PHOTO AND SITE PLAN TO ENSURE PROPER POLE LOCATION PRIOR TO BREAKING GROUND, CONCERNS OR QUESTIONS SHOULD BE IMMEDIATELY DIRECTED TO ASSIGNED EXTENET PROJECT MANAGER.

CALL BEFORE YOU DIG UNDERGROUND SERVICE ALERT 72 HOURS NOTICE REQUIRED. ENTER 1-888-DIG-SAFE

# **GENERAL NOTES**

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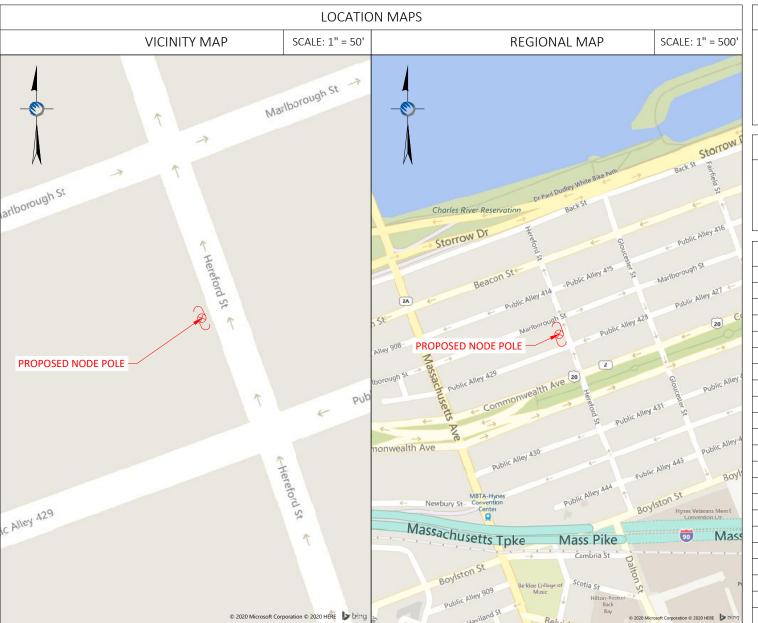
SITE INFORMATION				
EXTENET NODE ID:	BB_01_new			
LATITUDE:	42.350466			
LONGITUDE:	-71.086563			
SITE ADDRESS:	27 HEREFORD ST			
CITY, STATE ZIP:	BOSTON, MA 02115			
COUNTY:	SUFFOLK BOSTON			
JURISDICTION:				
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY			
APPLICANT:	EXTENET SYSTEMS 3030 WARRENVILLE RD LISLE, IL 60532 (630) 505-3800			

### PROJECT MANAGER

JEREMY WEBER 3030 WARRENVILLE RD SUITE 340 LISLE, IL 60532 NOC: (866) 892-5327

### DO NOT SCALE DRAWINGS

CONTRACTORS SHALL VERIFY ALL PLANS, (EX.) DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT / ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



### PROJECT DESCRIPTION

### INVOLVING INSTALLMENT:

 THESE PLANS REPRESENT A PORTION OF A PROPOSED SMALL CELL BUILD INVOLVING THE INSTALLMENT OF AN ANTENNA AND RADIO EQUIPMENT ON AN EXISTING WOODEN UTILITY OR REPLACEMENT METAL STREETLIGHT POLE.

### CODES

2019 INTERNATIONAL BUILDING CODE NATIONAL ELECTRIC SAFETY CODE TIA/EIA-222-G-2 OR LATEST EDITION LOCAL BUILDING / PLANNING CODE

DRAWING INDEX				
SHEET NO:	SHEET TITLE			
T-1	TITLE SHEET			
SP-1	SITE PLAN & EXHIBIT PHOTO			
EV-1	ELEVATION SIDE VIEW			
EV-2	ELEVATION REAR VIEW			
AT-1	ANTENNA DETAILS			
WD-1&2	WIRING DIAGRAM			
RS-1	RADIO SHROUD DETAILS			
GN-1	GENERAL NOTES			
GN-2	GENERAL NOTES			

PLANS PREPARED FOR:

EXTENSIVE YOUR NETWORK.

EVERYWHERE.

PLANS PREPARED BY: =



21 Oxford Rd Mansfield, MA 02048 www.piketelecom.org 1-508-337-7600

LOCATION:

27 HEREFORD ST

BOSTON, MA 02115

SUFFOLK COUNTY

PE STAMP AREA:

DRAWING NOTES:

ORIGINAL PLAN

SCALE: AS NOTED

DRAWN BY: GL

PLAN ORIG. DATE: 07/23/20

REVISIONS:

REV	DESCRIPTION	BY	DATE
0	UPDATE ANT. CONFIG.	ECF	02/26/21
1	UPDATE EQUIPMENT	МВ	10/27/21
		0 UPDATE ANT. CONFIG.	0 UPDATE ANT. CONFIG. ECF

SITE INFO:

LAT: 42.350466 LONG: -71.086563 EXTENET NODE ID:

BB\_01\_new

SITE ADDRESS:

27 HEREFORD ST

SHEET TITLE:

TITLE SHEET

SHEET NUMBER

T-1



PROPOSED EQUIPMENT TO BE PAINTED TO BLEND WITH POLE.

NOTE 3

FCC MANDATED SIGNAGE TO BE ATTACHED TO POLE.

NOTF 4:

REPLACE EXISTING CONCRETE STREETLIGHT POLE WITH HEXAGONAL STEEL POLE. ADD ANTENNA / RADIO EQUIPMENT.

NOTE 5:

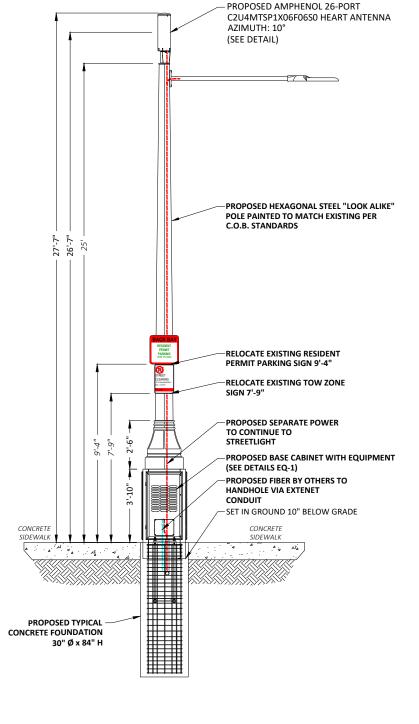
ABSOLUTELY NO FIELD CUTTING OR CORING OF METALLIC OR COMPOSITE POLES TO BE ALLOWED.

IOTE 6:

NO EXISTING OR PROPOSED AERIAL SPANNING ATTACHMENTS ARE ALLOWED TO BE ATTACHED TO THIS POLE - EXISTING CONCRETE LIGHT POLE EXISTING RESIDENT PERMIT EXISTING TOW ZONE SIGN 7'-9" CONCRETE SIDEWALK

1 EXISTING PROFILE - SIDE VIEW LOOKING NORTHWEST ALONG HEREFORD ST

CONCRETE SIDEWALK



1 PROPOSED PROFILE - SIDE VIEW LOOKING NORTHWEST ALONG HEREFORD ST

1"= 5 FEET

5 10 15

POLE ELEVATIONS

SCALE: 1" = 5'

PLANS PREPARED FOR:

EXTENSIVE TOUR NETWORK.

SYSTEJR

YOUR NETWORK.

EVERYWHERE.

- DI ANG DREDARED BY: -



21 Oxford Rd Mansfield, MA 02048 www.piketelecom.org 1–508–337–7600

LOCATION:

27 HEREFORD ST
BOSTON, MA 02115
SUFFOLK COUNTY

PE STAMP AREA:

DRAWING NOTES:

ORIGINAL PLANSCALE: AS NOTED

DRAWN BY: GL
PLAN ORIG. DATE: 07/23/20

ı	Li	RE'	VISIONS:		
ı		REV	DESCRIPTION	BY	DATE
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ı		0	UPDATE ANT. CONFIG.	ECF	02/26/21
ı		1	UPDATE EQUIPMENT	МВ	10/27/21
ı					
ı					
ı					
ı					
ı					
ı					

SITE INFO:

LAT: 42.350466 LONG: -71.086563

EXTENET NODE ID:

BB\_01\_new

SITE ADDRESS:

27 HEREFORD ST

SHEET TITLE:

POLE ELEVATIONS

- SHEET NUMBER:

EV-1



NOTE 1:

PROPOSED FIBER TO BE INSTALLED BY OTHERS.

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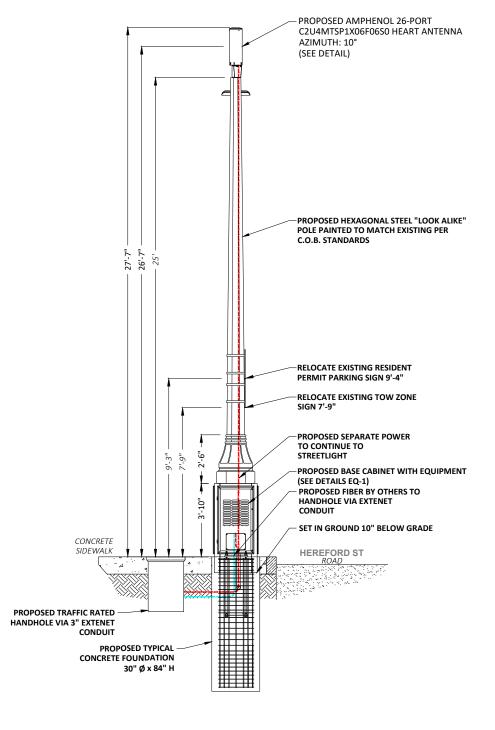
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EXISTING CONCRETE LIGHT POLE EXISTING RESIDENT PERMIT EXISTING TOW ZONE SIGN 7'-9" HEREFORD ST



2 EXISTING PROFILE - REAR VIEW LOOKING NORTHEAST TOWARDS HEREFORD ST

CONCRETE

2 PROPOSED PROFILE - REAR VIEW LOOKING NORTHEAST TOWARDS HEREFORD ST

5 10 15

POLE ELEVATIONS

SCALE: 1" = 5'

PLANS PREPARED FOR:

EXTENSIVE TOUR NETWORK.

SYSTEJR

EVERYWHERE.

■ PLANS PREPARED BY: ■



21 Oxford Rd Mansfield, MA 02048 www.piketelecom.org 1-508-337-7600

LOCATION:

27 HEREFORD ST
BOSTON, MA 02115
SUFFOLK COUNTY

PE STAMP AREA: —

DRAWING NOTES:

ORIGINAL PLAN—
SCALE: AS NOTED

DRAWN BY: GL
PLAN ORIG. DATE: 07/23/20

REVISIONS:

REV DESCRIPTION BY DATE

0 UPDATE ANT. CONFIG. ECF 02/26/2

1 UPDATE EQUIPMENT MB 10/27/2

SITE INFO:

LAT: 42.350466 LONG: -71.086563

EXTENET NODE ID: BB\_01\_new

SITE ADDRESS:

27 HEREFORD ST

SHEET TITLE:

POLE ELEVATIONS

- SHEET NUMBER:

EV-2

0.0 +0 0.0 +0 | / p. visco o o o iso or | / 1/4

/20/19

# C2U4MTSP1X06Fxys0 • 4G/5G sector & omni configuration with 26 connectors

- **Features**
- Ideal for Small Cell / DAS applications
- This antenna meets the requirements of the U-NII
- Available for order with a grey, brown or black radome



													D 500	
	5 D (MIL)		LOW		MID			CE	CBRS		ΔД			
	Frequency Range (MHz)	(1	x) 696-96	0			(2x) 169	95-2700			(2x) 355	50-3700	(2x) 51.	50-5925
	Array	■ R1	<b>R</b> 2	<b>R</b> 3	Y1	Y2	Y3	Y4	Y5	Y6	■ P1	■ P2	<b>O</b> 1	<b>O</b> 2
ă Nii	Connector		6 PORTS			12 PORTS				4 PC	4 PORTS		ORTS	
OVERVIEW	Polarization	XPOL			XPOL				XPOL		XP	POL		
	Azimuth Beamwidth (avg)	Sectorized			Sectorized				Omni		Or	mni		
100	Electrical Downtilt		0°		6°				0°		(	)°		
PRODUCT	Configuration		SECTOR AND OMNI COMBINATION											
PRC	Total Connector Count		26 PORTS											
	Connector Type	4.3-10 FEMALE												
	Dimensions					61	0 x Ø371	mm (24.0	0 x Ø14.6	in)				
	Radome Color Options	GREY, BROWN or BLACK												

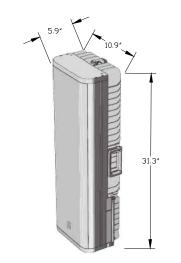
**AMPHENOL 26-PORT ANTENNA** 

- PANEL

- QUASI

ELECTRIC	ELECTRICAL SPECIFICATIONS Low Band R1 R2 R3						
Frequency I	Range	MHz	(1x) 696-960				
Frequency Sub-Range		MHz	696-806	806-960			
Polarization			±4	5°			
6 :	BASTA	dBi	9.7 ± 0.6	9.9 ± 0.6			
Gain N	MAX	dBi	10.3	10.5			
Azimuth Be	amwidth (3 dB)	degrees	89.6° ± 7.2°	86.9° ± 9.9°			
Elevation Beamwidth (3 dB)		degrees	43.7° ± 3°	39.9° ± 4°			
Electrical Downtilt		degrees	(x) 0°				
Impedance		Ohms	50				
VSWR			≤ 1.5:1				
	rmodulation or 2x20 W Carriers	dBc	< -153				
Upper Side	lobe Suppression	dB	N/A	N/A			
Front-to-Back Ratio		dB	> 23	> 23			
Intraband		dB	> 25				
Isolation	Interband	dB	>:	28			
Input Powe	r	Watts	500				



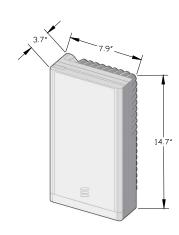


**ERICSSON** 

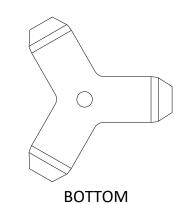
RADIO 4455

ERICSSON RADIO 4435

SIDE



ERICSSON 4455 & 4435 RADIOS SCALE: NOT TO SCALE



**CUSTOM MOUNTING BRACKET** SCALE: NOT TO SCALE





21 Oxford Rd Mansfield, MA 02048 www.piketelecom.org 1-508-337-7600

LOCATION:

27 HEREFORD ST BOSTON, MA 02115 SUFFOLK COUNTY

PE STAMP AREA:

DRAWING NOTES:

ORIGINAL PLAN SCALE: AS NOTED DRAWN BY: PLAN ORIG. DATE: 07/23/20

RE'	VISIONS:		
REV	DESCRIPTION	BY	DATE
0	UPDATE ANT. CONFIG.	ECF	02/26/21
1	UPDATE EQUIPMENT	МВ	10/27/21

SITE INFO: LAT: 42.350466 LONG: -71.086563 EXTENET NODE ID: BB\_01\_new SITE ADDRESS: 27 HEREFORD ST SHEET TITLE: ANTENNA DETAILS

SHEET NUMBER: -

AT-1

DOIT PORTAL #: EXT 2265 BSL APPROVAL ON FILE EXTENET ID: BB\_02\_new

LATITUDE / LONGITUDE: 42.349404 / -71.088905

SITE ADDRESS: 59 MASSACHUSETTS AVE

CITY, STATE, ZIP: BOSTON, MA 02115

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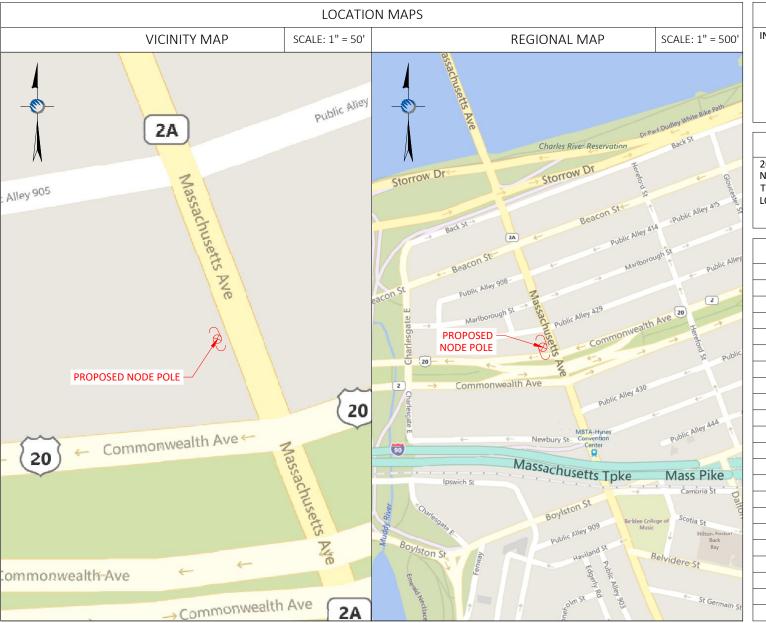
SIT	E INFORMATION
EXTENET NODE ID:	BB_02_new
LATITUDE:	42.349404
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SITE ADDRESS:	59 MASSACHUSETTS AVE
CITY, STATE ZIP:	BOSTON, MA 02115
COUNTY:	SUFFOLK
JURISDICTION:	BOSTON
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY
APPLICANT:	EXTENET SYSTEMS 3030 WARRENVILLE RD LISLE, IL 60532 (630) 505-3800

### PROJECT MANAGER

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EV-1	ELEVATION SIDE VIEW			
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WD-1 to 3	WIRING DIAGRAMs			
RS-1	RADIO SHROUD DETAILS			
GN-1	GENERAL NOTES			
GN-2	GENERAL NOTES			



PLANS PREPARED BY: -



LOCATION

59 MASSACHUSETTS AVE BOSTON, MA 02115 SUFFOLK COUNTY

PE STAMP AREA:

DRAWING NOTES:

ORIGINAL PLAN

SCALE: AS NOTED

DRAWN BY: MS

PLAN ORIG. DATE: 08/06/20

RE'	VISIONS: -		
REV	DESCRIPTION	BY	DATE
0	UPDATE ANT. CONFIG.	ECF	02/26/21
1	UPDATE EQUIPMENT	МВ	10/14/21

SITE INFO:

LAT: 42.349404

LONG: -71.088905

EXTENET NODE ID:

BB\_02\_new

SITE ADDRESS:

59 MASSACHUSETTS AVE

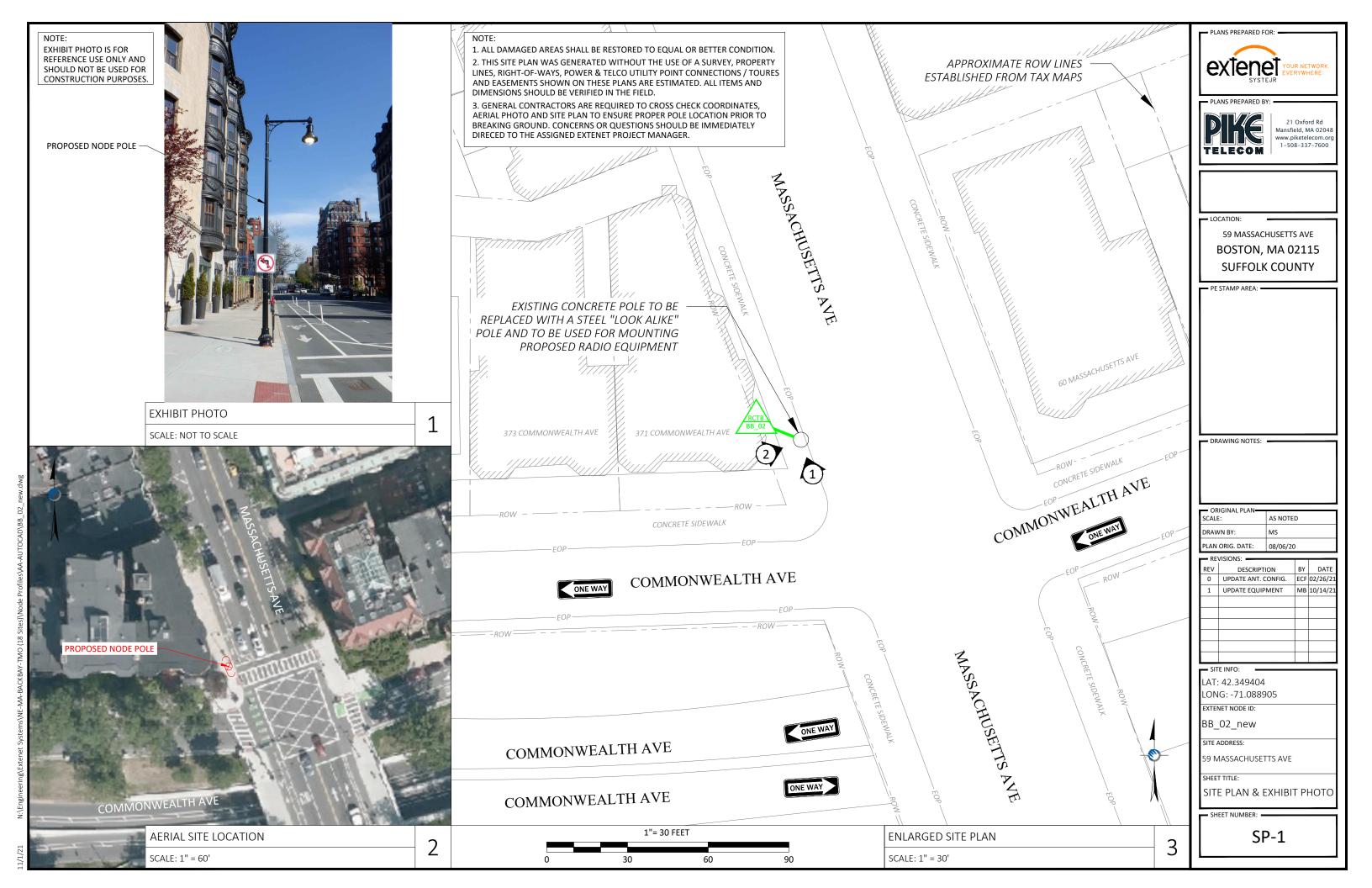
SHEET TITLE:

TITLE SHEET

SHEET NUMBER: -

T-1

11/1/21



PROPOSED EQUIPMENT TO BE PAINTED TO BLEND WITH POLE.

NOTE 3

FCC MANDATED SIGNAGE TO BE ATTACHED TO POLE.

NOTE 4

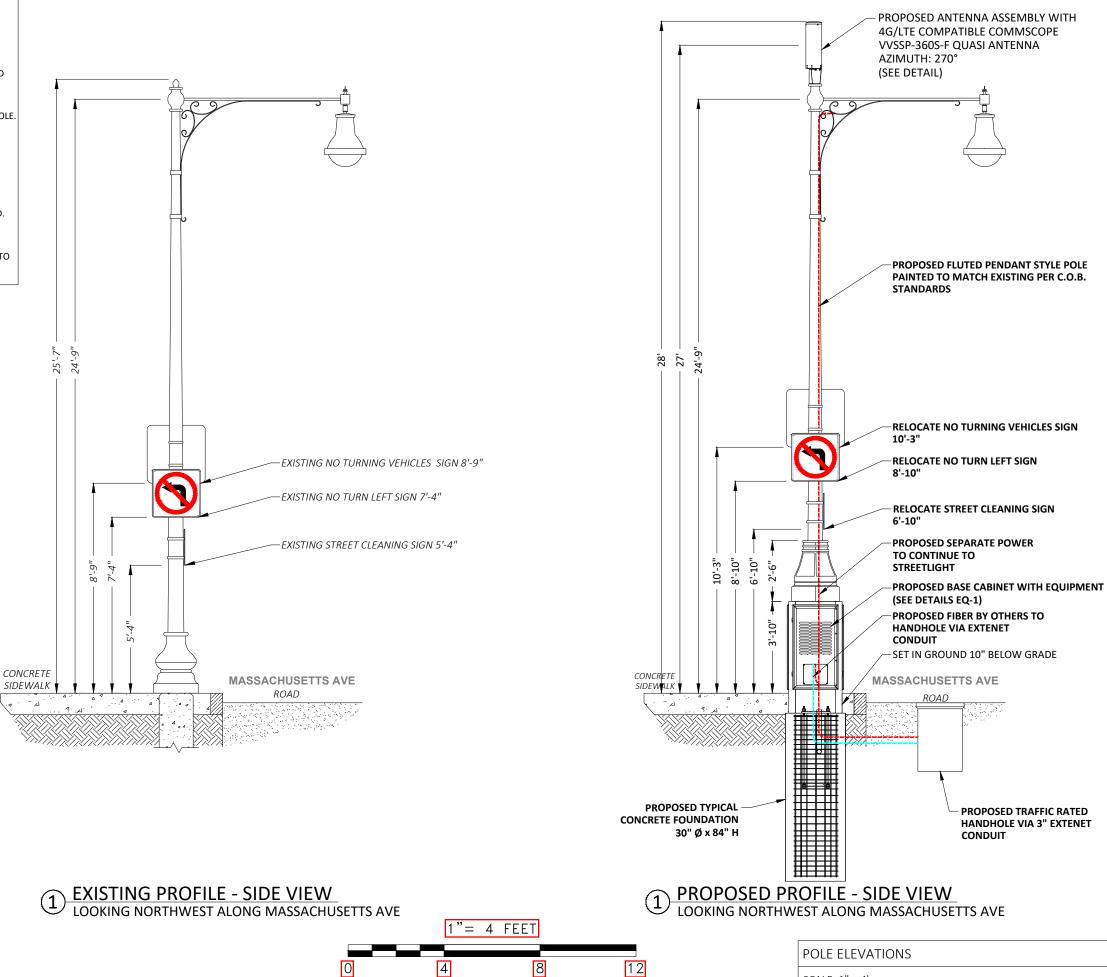
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SCALE: 1" = 4'



PLANS PREPARED BY:



LOCATION:

59 MASSACHUSETTS AVE BOSTON, MA 02115 SUFFOLK COUNTY

PE STAMP AREA:

DRAWING NOTES:

ORIGINAL PLAN—
SCALE: AS NOTED

DRAWN BY: MS

PLAN ORIG. DATE: 08/06/20

REV DESCRIPTION BY DATE

0 UPDATE ANT. CONFIG. ECF 02/26/2:

1 UPDATE EQUIPMENT MB 10/14/2:

SITE INFO:

LAT: 42.349404

LONG: -71.088905

EXTENET NODE ID:

BB\_02\_new

SITE ADDRESS:

59 MASSACHUSETTS AVE

SHEET TITLE:

POLE ELEVATIONS

SHEET NUMBER:

EV-1

11/71



NOTE 1:

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NOTE 2

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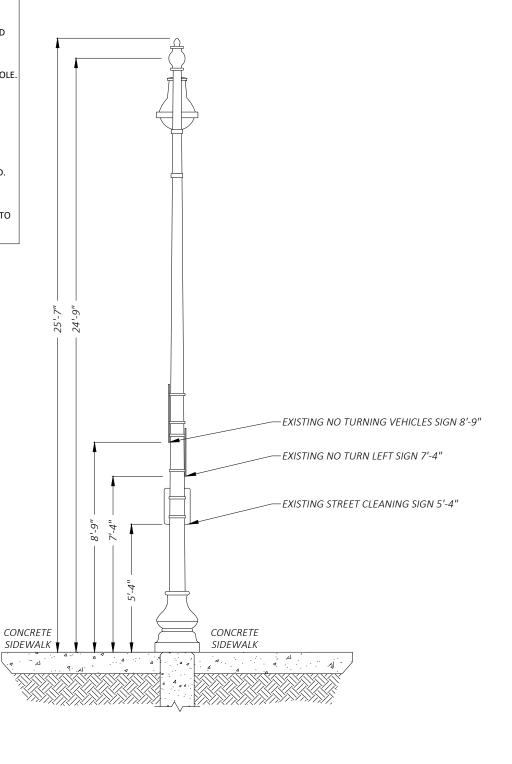
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2 EXISTING PROFILE - REAR VIEW LOOKING NORTHEAST TOWARDS MASSACHUSETTS AVE

1"= 4 FEET 4 8 12

28' 27'

CONCRETE

SIDEWALK V

4 4 4

PROPOSED TYPICAL

30" Ø x 84" H

**CONCRETE FOUNDATION** 

2 PROPOSED PROFILE - REAR VIEW
LOOKING NORTHEAST TOWARDS MASSACHUSETTS AVE

POLE ELEVATIONS

SCALE: 1" = 4'

PROPOSED ANTENNA ASSEMBLY WITH

PROPOSED FLUTED PENDANT STYLE POLE PAINTED TO MATCH EXISTING PER C.O.B.

**RELOCATE NO TURNING VEHICLES SIGN** 

RELOCATE NO TURN LEFT SIGN

RELOCATE STREET CLEANING SIGN

PROPOSED BASE CABINET WITH EQUIPMENT

PROPOSED SEPARATE POWER

PROPOSED FIBER BY OTHERS TO HANDHOLE VIA EXTENET

SET IN GROUND 10" BELOW GRADE

TO CONTINUE TO STREETLIGHT

(SEE DETAILS EQ-1)

CONDUIT

CONCRETE

SIDEWALK

4G/LTE COMPATIBLE COMMSCOPE

VVSSP-360S-F QUASI ANTENNA

AZIMUTH: 270°

STANDARDS

8'-10"

6'-10"

(SEE DETAIL)

PLANS PREPARED FOR:

PLANS PREPARED FOR:

YOUR NETWORK.
EVERYWHERE.

- PLANS PREPARED BY:



21 Oxford Rd Mansfield, MA 02048 www.piketelecom.org 1-508-337-7600

LOCATION

59 MASSACHUSETTS AVE BOSTON, MA 02115 SUFFOLK COUNTY

PE STAMP AREA:

DRAWING NOTES:

ORIGINAL PLAN
SCALE: AS NOTED
DRAWN BY: MS
PLAN ORIG. DATE: 08/06/20

REVISIONS:

REV DESCRIPTION BY DATE

0 UPDATE ANT. CONFIG. ECF 02/26/2:

1 UPDATE EQUIPMENT MB 10/14/2:

SITE INFO:

LAT: 42.349404

LONG: -71.088905

EXTENET NODE ID:

BB\_02\_new

SITE ADDRESS:

59 MASSACHUSETTS AVE

SHEET TITLE:

POLE ELEVATIONS

SHEET NUMBER:

EV-2

eering\Extenet Svstems\NE-MA-BACKBAY-TMO (18 Sites)\

/1/21

10-port small cell antenna, 4x 1695–2690, 4x 3400-3800 and 2x 5150-5925 MHz. 360° Horizontal Beamwidth, fixed tilt.

VVSSP-360S-F ANTENNA

SCALE: NOT TO SCALE

# General Specifications

Small Cell **Antenna Type** Multiband Band

**Grounding Type** RF connector inner conductor and body grounded to reflector and mounting bracket

**Performance Note** Outdoor usage | Wind loading figures are validated by wind tunnel measurements

described in white paper WP-112534-EN

**Radome Material** Fiberglass, UV resistant Low loss circuit board **Radiator Material** 

**Reflector Material** Aluminum 4.3-10 Female **RF Connector Interface** 

**RF Connector Location** Bottom RF Connector Quantity, high band 10 **RF Connector Quantity, total** 10

Dimensions

Length 600 mm | 23.622 in 200 mm | 7.874 in **Outer Diameter** 

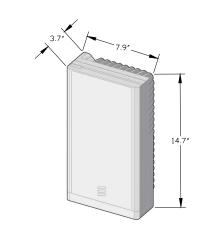
# 5 GHz Port Power Table

5 GHz FCC Power Requirements						
U-NII Band	U-NII 1	U-NII 2A	U-NII 2C	U-NII 3		
Frequency (MHz)	5150 - 5250	5250 - 5350	5470 - 5725	5725 - 5850		
Max Input power per port to align with FCC Title 47 Part 15 (Watts)	0.5	0.125	0.125	0.5		



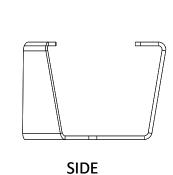




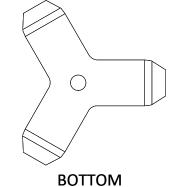


ERICSSON 4455 & 4435 RADIOS

SCALE: NOT TO SCALE



ERICSSON RADIO 4435



**CUSTOM MOUNTING BRACKET** 

SCALE: NOT TO SCALE





59 MASSACHUSETTS AVE BOSTON, MA 02115 SUFFOLK COUNTY

PE STAMP AREA:

DRAWING NOTES:

2

AS NOTED RAWN BY: PLAN ORIG. DATE: 08/06/20

RE'	VISIONS:		
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LAT: 42.349404 LONG: -71.088905 EXTENET NODE ID: BB\_02\_new SITE ADDRESS: 59 MASSACHUSETTS AVE SHEET TITLE:

SHEET NUMBER:

AT-1

ANTENNA DETAILS

LATITUDE / LONGITUDE: 42.351829/ -71.085600

SITE ADDRESS: 403 BEACON ST

CITY, STATE, ZIP: BOSTON, MA 02115

NOTE:

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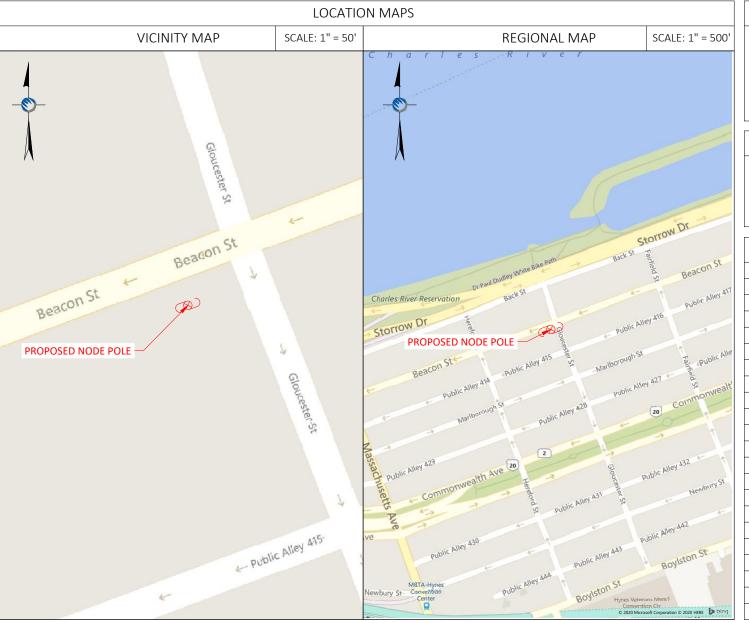
SIT	SITE INFORMATION				
EXTENET NODE ID:	BB_04_new				
LATITUDE:	42.351829				
LONGITUDE:	-71.085600				
SITE ADDRESS:	403 BEACON ST				
CITY, STATE ZIP:	BOSTON, MA 02115				
COUNTY:	SUFFOLK				
JURISDICTION:	BOSTON				
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY				
APPLICANT:	EXTENET SYSTEMS 3030 WARRENVILLE RD LISLE, IL 60532 (630) 505-3800				

### PROJECT MANAGER

JEREMY WEBER 3030 WARRENVILLE RD SUITE 340 LISLE, IL 60532 NOC: (866) 892-5327

### DO NOT SCALE DRAWINGS

CONTRACTORS SHALL VERIFY ALL PLANS, (EX.) DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT / ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



# PROJECT DESCRIPTION

### INVOLVING INSTALLMENT:

 THESE PLANS REPRESENT A PORTION OF A PROPOSED SMALL CELL BUILD INVOLVING THE INSTALLMENT OF AN ANTENNA AND RADIO EQUIPMENT ON AN EXISTING WOODEN UTILITY OR REPLACEMENT METAL STREETLIGHT POLE.

### CODES

2019 INTERNATIONAL BUILDING CODE NATIONAL ELECTRIC SAFETY CODE TIA/EIA-222-G-2 OR LATEST EDITION LOCAL BUILDING / PLANNING CODE

DRAWING INDEX			
SHEET NO:	SHEET TITLE		
T-1	TITLE SHEET		
SP-1	SITE PLAN & EXHIBIT PHOTO		
EV-1	ELEVATION SIDE VIEW		
EV-2	ELEVATION REAR VIEW		
AT-1	ANTENNA DETAILS		
WD-1&2	WIRING DIAGRAM		
RS-1	RADIO SHROUD DETAILS		
GN-1	GENERAL NOTES		
GN-2	GENERAL NOTES		

PLANS PREPARED FOR:

EXTENSIVE TOUR NETWORK.

SYSTEJR

EVERYWHERE.

- DI ANG DREDARED BY: -



21 Oxford Rd Mansfield, MA 02048 www.piketelecom.org 1-508-337-7600

LOCATION:

403 BEACON ST
BOSTON, MA 02115
SUFFOLK COUNTY

PE STAMP AREA:

DRAWING NOTES:

ORIGINAL PLANSCALE: AS NOTED

DRAWN BY: IJD

PLAN ORIG. DATE: 8/7/20

REVISIONS:

			l
REV	DESCRIPTION	BY	DATE
0	UPDATE ANT. CONFIG.	ECF	02/26/2
1	UPDATE EQUIPMENT	МВ	10/29/2

SITE INFO:

LAT: 42.351829 LONG: -71.085600

EXTENET NODE ID:

SITE ADDRESS:

403 BEACON ST

SHEET TITLE:
TITLE SHEET

T-1

N:\Engineering\Extenet Systems\NE-MA-BACKBAY-TMO (18 Sites)\Node Pro

11/16/20



PROPOSED EQUIPMENT TO BE PAINTED TO BLEND WITH POLE.

NOTE 3

FCC MANDATED SIGNAGE TO BE ATTACHED TO POLE.

NOTF 4:

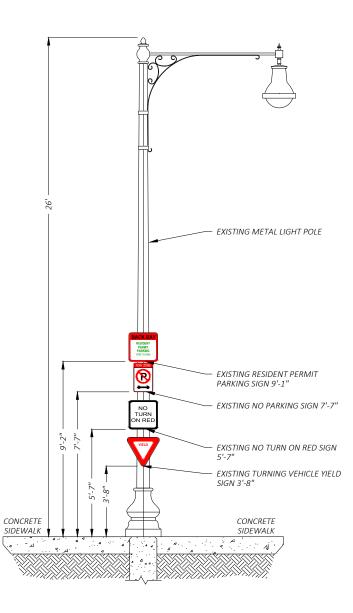
REPLACE EXISTING CONCRETE STREETLIGHT POLE WITH HEXAGONAL STEEL POLE. ADD ANTENNA / RADIO EQUIPMENT.

NOTE 5:

ABSOLUTELY NO FIELD CUTTING OR CORING OF METALLIC OR COMPOSITE POLES TO BE ALLOWED.

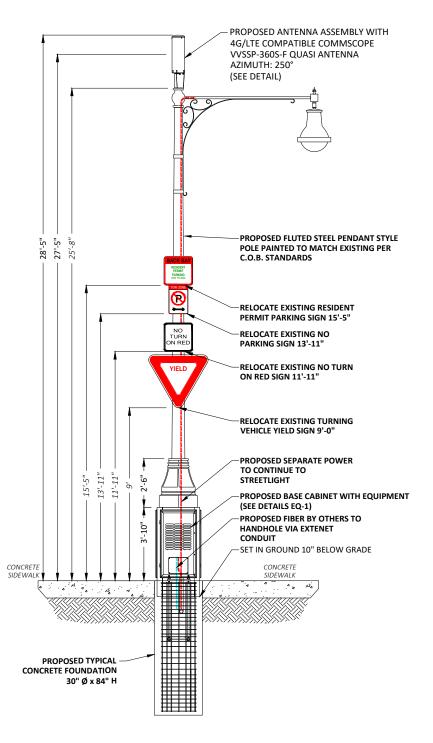
IOTE 6

NO EXISTING OR PROPOSED AERIAL SPANNING ATTACHMENTS ARE ALLOWED TO BE ATTACHED TO THIS POLE.



1 EXISTING PROFILE - SIDE VIEW LOOKING SOUTHWEST ALONG BEACON ST





1 PROPOSED PROFILE - SIDE VIEW LOOKING SOUTHWEST ALONG BEACON ST

POLE ELEVATIONS

SCALE: 1" = 5'

PLANS PREPARED FOR:

EXTENSIVE YOUR NETWORK. EVERYWHERE.

- DI ANC DDEDADED DV-



21 Oxford Rd Mansfield, MA 02048 www.piketelecom.org 1-508-337-7600

LOCATION:

403 BEACON ST
BOSTON, MA 02115
SUFFOLK COUNTY

PE STAMP AREA:

DRAWING NOTES:

ORIGINAL PLAN
SCALE: AS NOTED
DRAWN BY: IJD
PLAN ORIG. DATE: 8/7/20

REVISIONS:

REV DESCRIPTION BY DATE

0 UPDATE ANT. CONFIG. ECF 02/26/21

1 UPDATE EQUIPMENT MB 10/29/21

SITE INFO:

LAT: 42.351829

LONG: -71.085600

EXTENET NODE ID:

BB\_04\_new

SITE ADDRESS: 403 BEACON ST

SHEET TITLE:

POLE ELEVATIONS

- SHEET NUMBER:

EV-1

/16/20

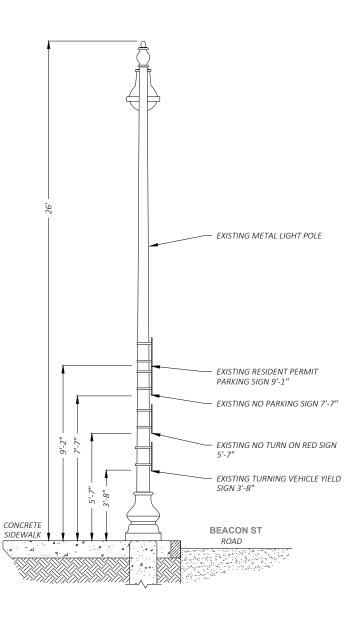
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REPLACE EXISTING CONCRETE STREETLIGHT POLE WITH HEXAGONAL STEEL POLE. ADD ANTENNA / RADIO EQUIPMENT.

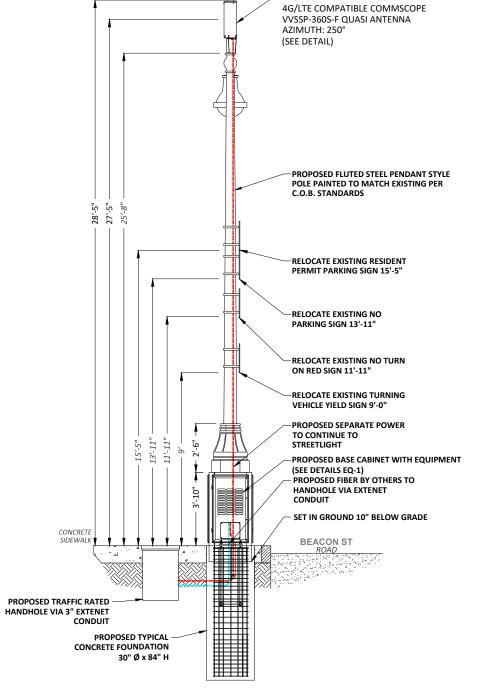
ABSOLUTELY NO FIELD CUTTING OR CORING OF METALLIC OR COMPOSITE POLES TO BE ALLOWED.

NO EXISTING OR PROPOSED AERIAL SPANNING ATTACHMENTS ARE ALLOWED TO BE ATTACHED TO THIS POLE.



EXISTING PROFILE - REAR VIEW LOOKING NORTHWEST TOWARDS BEACON ST

PROPOSED PROFILE - REAR VIEW LOOKING NORTHWEST TOWARDS BEACON ST



PROPOSED ANTENNA ASSEMBLY WITH

1"= 5 FEET

POLE ELEVATIONS SCALE: 1" = 5'

- PLANS PREPARED FOR:



Mansfield, MA 02048 www.piketelecom.org 1-508-337-7600

LOCATION:

**403 BEACON ST** BOSTON, MA 02115 SUFFOLK COUNTY

PE STAMP AREA:

DRAWING NOTES:

ORIGINAL PLAN SCALE: AS NOTED DRAWN BY: PLAN ORIG. DATE: 8/7/20

REVISIONS:

REV	DESCRIPTION	BY	DATE
0	UPDATE ANT. CONFIG.	ECF	02/26/2
1	UPDATE EQUIPMENT	МВ	10/29/2

SITE INFO:

LAT: 42.351829 LONG: -71.085600

EXTENET NODE ID: BB\_04\_new

SITE ADDRESS:

403 BEACON ST

SHEET TITLE:

POLE ELEVATIONS

EV-2



10-port small cell antenna, 4x 1695–2690, 4x 3400-3800 and 2x 5150-5925 MHz. 360° Horizontal Beamwidth, fixed tilt.

VVSSP-360S-F ANTENNA

SCALE: NOT TO SCALE

# General Specifications

Antenna Type Small Cell

Band Multiband

**Grounding Type** RF connector inner conductor and body grounded to reflector and mounting bracket

Performance Note

Outdoor usage | Wind loading figures are validated by wind tunnel measurements

described in white paper WP-112534-EN

Radome MaterialFiberglass, UV resistantRadiator MaterialLow loss circuit board

**Reflector Material** Aluminum **RF Connector Interface** 4.3-10 Female

RF Connector Location Bottom
RF Connector Quantity, high band 10

Dimensions

**RF Connector Quantity, total** 

 Length
 600 mm
 | 23.622 in

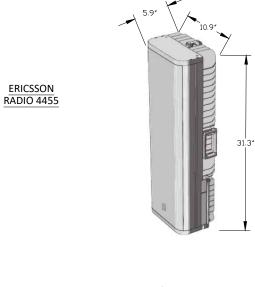
 Outer Diameter
 200 mm
 | 7.874 in

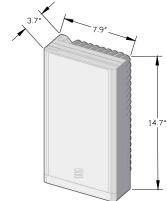
# 5 GHz Port Power Table

5 GHz FCC Power Requirements					
U-NII Band	U-NII 1	U-NII 2A	U-NII 2C	U-NII 3	
Frequency (MHz)	5150 - 5250	5250 - 5350	5470 - 5725	5725 - 5850	
Max Input power per port to align with FCC Title 47 Part 15 (Watts)	0.5	0.125	0.125	0.5	

10

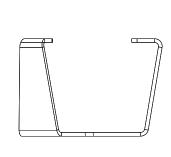






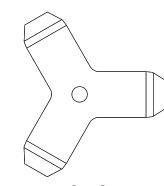
ERICSSON 4455 & 4435 RADIOS

SCALE: NOT TO SCALE



ERICSSON RADIO 4435

SIDE



**BOTTOM** 

CUSTOM MOUNTING BRACKET

SCALE: NOT TO SCALE

PLANS PREPARED FOR:

EXTENSIVE TOUR NETWORK.

SYSTEJR

EVERYWHERE.

PLANS PREPARED BY:



21 Oxford Rd Mansfield, MA 02048 www.piketelecom.org 1-508-337-7600

LOCATION:

403 BEACON ST
BOSTON, MA 02115
SUFFOLK COUNTY

PE STAMP AREA:

- DRAWING NOTES:

ORIGINAL PLAN—
SCALE: AS NOTED

DRAWN BY: UD

PLAN ORIG. DATE: 8/7/20

— RE'	REVISIONS:						
REV	DESCRIPTION	BY	DATE				
0	UPDATE ANT. CONFIG.	ECF	02/26/21				
1	UPDATE EQUIPMENT	МВ	10/29/21				

LAT: 42.351829
LONG: -71.085600
EXTENET NODE ID:
BB\_04\_neW
SITE ADDRESS:
403 BEACON ST

SHEET NUMBER:

AT-1

WIRING DIAGRAM

LATITUDE / LONGITUDE: 42.349047 / -71.084162

SITE ADDRESS: 284 NEWBURY ST

CITY, STATE, ZIP: BOSTON, MA 02115

NOTE:

GENERAL CONTRACTOR IS REQUIRED TO CROSS CHECK COORDINATES, EXHIBIT PHOTO, AERIAL PHOTO AND SITE PLAN TO ENSURE PROPER POLE LOCATION PRIOR TO BREAKING GROUND, CONCERNS OR QUESTIONS SHOULD BE IMMEDIATELY DIRECTED TO ASSIGNED EXTENET PROJECT MANAGER.

CALL BEFORE YOU DIG UNDERGROUND SERVICE ALERT 72 HOURS NOTICE REQUIRED. ENTER 1-888-DIG-SAFE

# **GENERAL NOTES**

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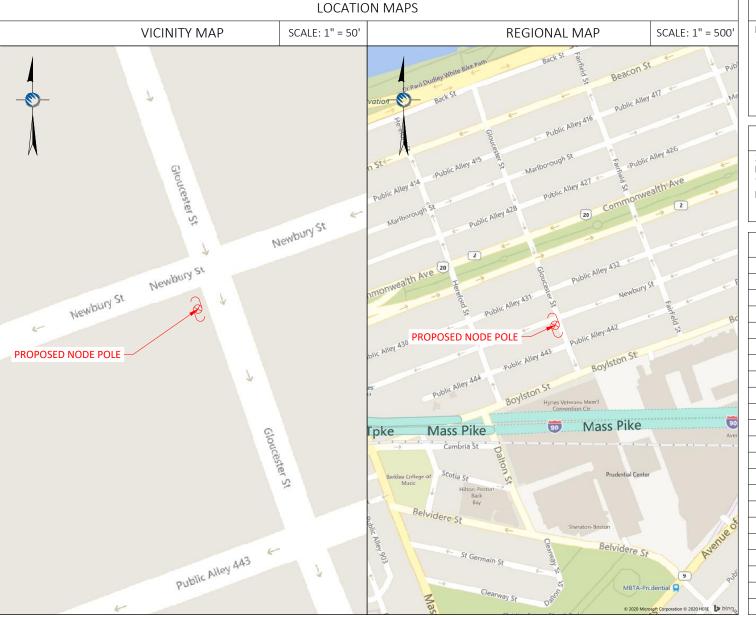
SIT	E INFORMATION
EXTENET NODE ID:	BB_05_new
LATITUDE:	42.349047
LONGITUDE:	-71.084162
SITE ADDRESS:	284 NEWBURY ST
CITY, STATE ZIP:	BOSTON, MA 02115
COUNTY:	SUFFOLK
JURISDICTION:	BOSTON
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY
APPLICANT:	EXTENET SYSTEMS 3030 WARRENVILLE RD LISLE, IL 60532 (630) 505-3800

### PROJECT MANAGER

JEREMY WEBER 3030 WARRENVILLE RD SUITE 340 LISLE, IL 60532 NOC: (866) 892-5327

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WD-1&2	WIRING DIAGRAM			
RS-1	RADIO SHROUD DETAILS			
GN-1	GENERAL NOTES			
GN-2	GENERAL NOTES			
	•			

PLANS PREPARED FOR:

EXTENSIVE YOUR NETWORK. EVERYWHERE.

PLANS PREPARED BY:



21 Oxford Rd Mansfield, MA 02048 www.piketelecom.org 1–508–337–7600

LOCATION:

284 NEWBURY ST
BOSTON, MA 02115
SUFFOLK COUNTY

PE STAMP AREA:

DRAWING NOTES:

ORIGINAL PLANSCALE: AS NOTED

DRAWN BY: IJD

PLAN ORIG. DATE: 8/7/20

REVISIONS:

REV	DESCRIPTION	BY	DATE
0	UPDATE ANT. CONFIG.	ECF	02/26/21
1	UPDATE EQUIPMENT	МВ	10/27/21

SITE INFO:

LAT: 42.349047 LONG: -71.084162

EXTENET NODE ID:

SITE ADDRESS:

284 NEWBURY ST

SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

T-1





NOTE 1:

PROPOSED FIBER TO BE INSTALLED BY OTHERS.

NOTE 2:

PROPOSED EQUIPMENT TO BE PAINTED TO BLEND WITH POLE.

NOTE 3

FCC MANDATED SIGNAGE TO BE ATTACHED TO POLE.

NOTF 4:

REPLACE EXISTING CONCRETE STREETLIGHT POLE WITH HEXAGONAL STEEL POLE. ADD ANTENNA / RADIO EQUIPMENT.

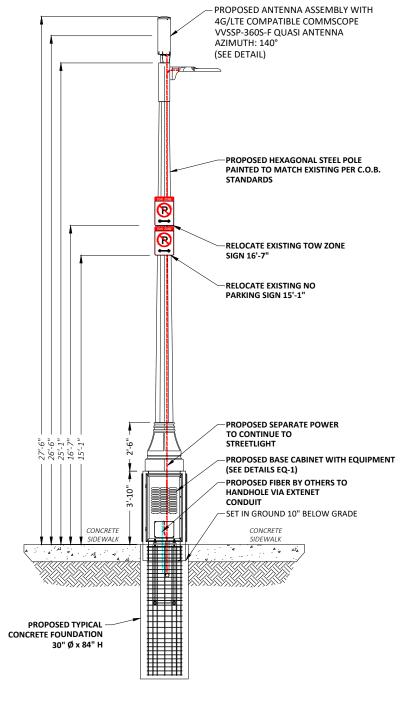
IOTE 5

ABSOLUTELY NO FIELD CUTTING OR CORING OF METALLIC OR COMPOSITE POLES TO BE ALLOWED.

IOTE 6

NO EXISTING OR PROPOSED AERIAL SPANNING ATTACHMENTS ARE ALLOWED TO BE ATTACHED TO THIS POLE.

- EXISTING METAL LIGHT POLE - EXISTING TOW ZONE SIGN 10'-3" - EXISTING NO PARKING SIGN 8'-9" CONCRETE SIDEWALK CONCRETE SIDEWALK



1 EXISTING PROFILE - SIDE VIEW LOOKING NORTHWEST ALONG GLOUCESTER ST

1 PROPOSED PROFILE - SIDE VIEW LOOKING NORTHWEST ALONG GLOUCESTER ST

1"= 5 FEET

5 10 15

POLE ELEVATIONS

SCALE: 1" = 5'

PLANS PREPARED FOR:

EXTENSIVE TOUR NETWORK.

SYSTEJR

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EVERYWHERE.

■ PLANS PREPARED BY: ■



21 Oxford Rd Mansfield, MA 02048 www.piketelecom.org 1–508–337–7600

LOCATION:

284 NEWBURY ST
BOSTON, MA 02115
SUFFOLK COUNTY

PE STAMP AREA:

DRAWING NOTES:

ORIGINAL PLAN—
SCALE: AS NOTED

DRAWN BY: IJD

PLAN ORIG. DATE: 8/7/20

ı	REVISIONS:						
ı	REV	DESCRIPTION	BY	DATE			
ı	0	UPDATE ANT. CONFIG.	ECF	02/26/21			
ı	1	UPDATE EQUIPMENT	МВ	10/27/21			
ı							
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ı							
ı							
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SITE INFO:

LAT: 42.349047 LONG: -71.084162

EXTENET NODE ID: BB\_05\_new

SITE ADDRESS:

284 NEWBURY ST

SHEET TITLE:

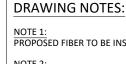
POLE ELEVATIONS

SHEET NUMBER:

EV-1

N.\Engineering\Extend Systems\NE\_MA\_BACKBAY\_TMO (18 Sites)\Node

20/19



PROPOSED FIBER TO BE INSTALLED BY OTHERS.

PROPOSED EQUIPMENT TO BE PAINTED TO BLEND WITH POLE.

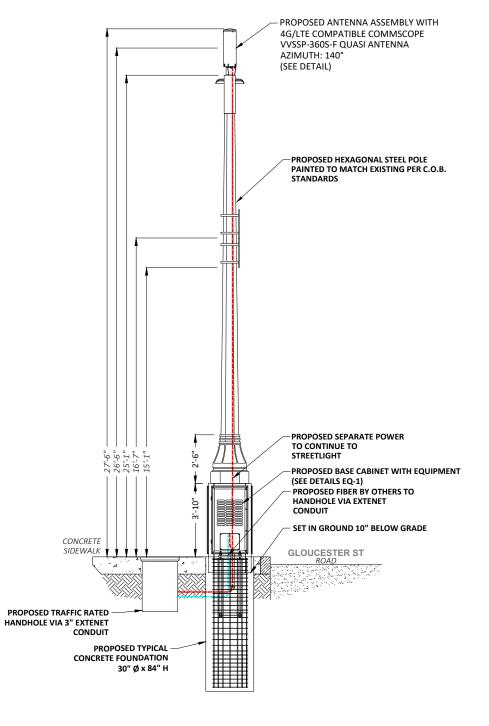
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NO EXISTING OR PROPOSED AERIAL SPANNING ATTACHMENTS ARE ALLOWED TO BE ATTACHED TO

EXISTING METAL LIGHT POLE CONCRETE **GLOUCESTER ST** 



EXISTING PROFILE - REAR VIEW
LOOKING NORTHEAST TOWARDS GLOUCESTER ST

EXISTING PROFILE - REAR VIEW
LOOKING NORTHEAST TOWARDS GLOUCESTER ST

POLE ELEVATIONS SCALE: 1" = 5'

- PLANS PREPARED FOR:



Mansfield, MA 02048 www.piketelecom.org 1-508-337-7600

LOCATION:

284 NEWBURY ST BOSTON, MA 02115 SUFFOLK COUNTY

PE STAMP AREA:

DRAWING NOTES:

ORIGINAL PLAN AS NOTED DRAWN BY: PLAN ORIG. DATE:

1	RE'	VISIONS:		
	REV	DESCRIPTION	BY	DATE
	0	UPDATE ANT. CONFIG.	ECF	02/26/21
	1	UPDATE EQUIPMENT	МВ	10/27/21

SITE INFO:

LAT: 42.349047 LONG: -71.084162

EXTENET NODE ID: BB\_05\_new

SITE ADDRESS:

284 NEWBURY ST

SHEET TITLE:

POLE ELEVATIONS

EV-2

10-port small cell antenna, 4x 1695–2690, 4x 3400-3800 and 2x 5150-5925 MHz. 360° Horizontal Beamwidth, fixed tilt.

# General Specifications

Antenna Type Small Cell

Band Multiband

**Grounding Type** RF connector inner conductor and body grounded to reflector and mounting bracket

Performance Note

Outdoor usage | Wind loading figures are validated by wind tunnel measurements

described in white paper WP-112534-EN

Radome MaterialFiberglass, UV resistantRadiator MaterialLow loss circuit board

**Reflector Material** Aluminum **RF Connector Interface** 4.3-10 Female

RF Connector Location Bottom
RF Connector Quantity, high band 10

**RF Connector Quantity, total** 10

Dimensions

 Length
 600 mm
 | 23.622 in

 Outer Diameter
 200 mm
 | 7.874 in

# 5 GHz Port Power Table

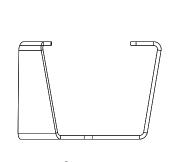
5 GHz FCC Power Requirements							
U-NII Band U-NII 1 U-NII 2A U-NII 2C U-NII 3							
Frequency (MHz)	5150 - 5250	5250 - 5350	5470 - 5725	5725 - 5850			
Max Input power per port to align with FCC Title 47 Part 15 (Watts)	0.5	0.125	0.125	0.5			



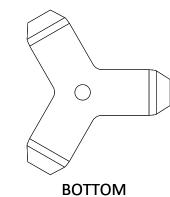
ERICSSON RADIO 4455

ERICSSON 4455 & 4435 RADIOS

SCALE: NOT TO SCALE



SIDE



CUSTOM MOUNTING BRACKET

SCALE: NOT TO SCALE



PLANS PREPARED BY:



LOCATION:

284 NEWBURY ST BOSTON, MA 02115 SUFFOLK COUNTY

PE STAMP AREA:

- DRAWING NOTES:

ORIGINAL PLANSCALE: AS NOTED

DRAWN BY: IJD

PLAN ORIG. DATE: 8/7/20

REVISIONS:				
REV	DESCRIPTION	BY	DATE	
0	UPDATE ANT. CONFIG.	ECF	02/26/21	
1	UPDATE EQUIPMENT	МВ	10/27/21	

SITE INFO: LAT: 42.350046 LONG: -71.086562

EXTENET NODE ID:

BB\_01\_new

SITE ADDRESS:

29 HEREFORD ST

SHEET TITLE:

ANTENNA DETAILS

AT-1

VVSSP-360S-F ANTENNA

SCALE: NOT TO SCALE

1

61/07/

LATITUDE / LONGITUDE: 42.353175 / -71.081165

SITE ADDRESS: 274 BEACON ST

CITY, STATE, ZIP: BOSTON, MA 02116

NOTE:

GENERAL CONTRACTOR IS REQUIRED TO CROSS CHECK COORDINATES, EXHIBIT PHOTO, AERIAL PHOTO AND SITE PLAN TO ENSURE PROPER POLE LOCATION PRIOR TO BREAKING GROUND, CONCERNS OR QUESTIONS SHOULD BE IMMEDIATELY DIRECTED TO ASSIGNED EXTENET PROJECT MANAGER.

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SITE INFORMATION			
EXTENET NODE ID:	BB_08_new		
LATITUDE:	42.353175		
LONGITUDE:	-71.081165		
SITE ADDRESS:	274 BEACON ST		
CITY, STATE ZIP:	BOSTON, MA 02116		
COUNTY:	SUFFOLK		
JURISDICTION:	BOSTON		
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY		
APPLICANT:	EXTENET SYSTEMS 3030 WARRENVILLE RD LISLE, IL 60532 (630) 505-3800		

### PROJECT MANAGER

JEREMY WEBER 3030 WARRENVILLE RD SUITE 340 LISLE, IL 60532 NOC: (866) 892-5327

### DO NOT SCALE DRAWINGS

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### CODES

2019 INTERNATIONAL BUILDING CODE NATIONAL ELECTRIC SAFETY CODE TIA/EIA-222-G-2 OR LATEST EDITION LOCAL BUILDING / PLANNING CODE

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WD-1&2	WIRING DIAGRAM		
RS-1	RADIO SHROUD DETAILS		
GN-1	GENERAL NOTES		
GN-2	GENERAL NOTES		

PLANS PREPARED FOR:

EXTENSIVE YOUR NETWORK. EVERYWHERE.

PLANS PREPARED BY: =



21 Oxford Rd Mansfield, MA 02048 www.piketelecom.org 1-508-337-7600

LOCATION:

274 BEACON ST
BOSTON, MA 02116
SUFFOLK COUNTY

PE STAMP AREA:

DRAWING NOTES:

ORIGINAL PLANSCALE: AS NOTED

DRAWN BY: IJD

PLAN ORIG. DATE: 8/10/20

REVISIONS:

REV	DESCRIPTION	BY	DATE
0	UPDATE ANT. CONFIG.	ECF	03/03/21
1	UPDATE EQUIPMENT	МВ	10/28/21

SITE INFO:

LAT: 42.353175 LONG: -71.081165

EXTENET NODE ID: BB 08 new

SITE ADDRESS:

274 BEACON ST

SHEET TITLE:
TITLE SHEET

CUEET NUMBER

T-1



PROPOSED EQUIPMENT TO BE PAINTED TO BLEND WITH POLE.

NOTE 2

FCC MANDATED SIGNAGE TO BE ATTACHED TO POLE.

NOTE 4:

REPLACE EXISTING CONCRETE STREETLIGHT POLE WITH HEXAGONAL STEEL POLE. ADD ANTENNA / RADIO EQUIPMENT.

NOTE 5

ABSOLUTELY NO FIELD CUTTING OR CORING OF METALLIC OR COMPOSITE POLES TO BE ALLOWED.

NOTE 6

NO EXISTING OR PROPOSED AERIAL SPANNING ATTACHMENTS ARE ALLOWED TO BE ATTACHED TO THIS POLE.

- EXISTING METAL LIGHT POLE EXISTING STREET SIGN 12'-2" CONCRETE SIDEWALK CONCRETE SIDEWALK

4G/LTE COMPATIBLE COMMSCOPE VVSSP-360S-F QUASI ANTENNA AZIMUTH: 70° (SEE DETAIL) PROPOSED FLUTED STEEL PENDANT POLE PAINTED TO MATCH EXISTING PER C.O.B. STANDARDS RELOCATE EXISTING STREET SIGN 12'-2" PROPOSED SEPARATE POWER
TO CONTINUE TO
STREETLIGHT PROPOSED BASE CABINET WITH EQUIPMENT (SEE DETAILS EQ-1) PROPOSED FIBER BY OTHERS TO HANDHOLE VIA EXTENET —SET IN GROUND 10" BELOW GRADE CONCRETE SIDEWALK SIDEWALK 4 4 4 PROPOSED TYPICAL CONCRETE FOUNDATION 30" Ø x 84" H

PROPOSED ANTENNA ASSEMBLY WITH

1 EXISTING PROFILE - SIDE VIEW LOOKING NORTHEAST ALONG BEACON ST

1 PROPOSED PROFILE - SIDE VIEW LOOKING NORTHEAST ALONG BEACON ST

1 = 5 FEET 5 10 15

POLE ELEVATIONS

SCALE: 1" = 5'

PLANS PREPARED FOR:

EXTENSIVE TOUR NETWORK.

SYSTEJR

YOUR NETWORK.

EVERYWHERE.

■ PLANS PREPARED BY: ■



21 Oxford Rd Mansfield, MA 02048 www.piketelecom.org 1-508-337-7600

LOCATION:

274 BEACON ST
BOSTON, MA 02116
SUFFOLK COUNTY

PE STAMP AREA:

DRAWING NOTES:

ORIGINAL PLANSCALE: AS NOTED

DRAWN BY: IJD

PLAN ORIG. DATE: 8/10/20

ı	— RE	VISIONS:		
ı	REV	DESCRIPTION	BY	DATE
ı	0	UPDATE ANT. CONFIG.	ECF	03/03/21
ı	1	UPDATE EQUIPMENT	МВ	10/28/21
ı				
ı				
ı				
ı				
ı				
ı				

SITE INFO:

LAT: 42.353175 LONG: -71.081165

EXTENET NODE ID: BB\_08\_new

SITE ADDRESS:

274 BEACON ST

SHEET TITLE:

POLE ELEVATIONS

SHEET NUMBER:

EV-1

N.\Engineering\Extend Cycteme\



NOTE 1:

PROPOSED FIBER TO BE INSTALLED BY OTHERS.

NOTE 2:

PROPOSED EQUIPMENT TO BE PAINTED TO BLEND WITH POLE.

NOTE 3

FCC MANDATED SIGNAGE TO BE ATTACHED TO POLE.

NOTF 4:

REPLACE EXISTING CONCRETE STREETLIGHT POLE WITH HEXAGONAL STEEL POLE. ADD ANTENNA / RADIO EQUIPMENT.

NOTE 5:

ABSOLUTELY NO FIELD CUTTING OR CORING OF METALLIC OR COMPOSITE POLES TO BE ALLOWED.

IOTE 6

NO EXISTING OR PROPOSED AERIAL SPANNING ATTACHMENTS ARE ALLOWED TO BE ATTACHED TO THIS POLE.

EXISTING METAL LIGHT POLE - EXISTING STREET SIGN 12'-2" CONCRETE **BEACON ST** SIDEWALK

4G/LTE COMPATIBLE COMMSCOPE VVSSP-360S-F QUASI ANTENNA AZIMUTH: 70° (SEE DETAIL) PROPOSED FLUTED STEEL PENDANT POLE PAINTED TO MATCH EXISTING PER C.O.B. STANDARDS RELOCATE EXISTING STREET PROPOSED SEPARATE POWER
TO CONTINUE TO
STREETLIGHT - PROPOSED BASE CABINET WITH EQUIPMENT (SEE DETAILS EQ-1) - PROPOSED FIBER BY OTHERS TO HANDHOLE VIA EXTENET SET IN GROUND 10" BELOW GRADE CONCRETE SIDEWALK BEACON ST ROAD PROPOSED TRAFFIC RATED HANDHOLE VIA 3" EXTENET CONDUIT PROPOSED TYPICAL CONCRETE FOUNDATION 30" Ø x 84" H

PROPOSED ANTENNA ASSEMBLY WITH

2 EXISTING PROFILE - REAR VIEW LOOKING SOUTHEAST TOWARDS BEACON ST

2 EXISTING PROFILE - REAR VIEW LOOKING SOUTHEAST TOWARDS BEACON ST

5 10 15

POLE ELEVATIONS

SCALE: 1" = 5'

PLANS PREPARED FOR:

EXTENSIVE TOUR NETWORK.

SYSTEJR

EVERYWHERE.

PI ANS PREPARED BY:



21 Oxford Rd Mansfield, MA 02048 www.piketelecom.org 1-508-337-7600

LOCATION:

274 BEACON ST
BOSTON, MA 02116
SUFFOLK COUNTY

PE STAMP AREA:

DRAWING NOTES:

ORIGINAL PLANSCALE: AS NOTED

DRAWN BY: IJD

PLAN ORIG. DATE: 8/10/20

i	REVISIONS:						
	REV	DESCRIPTION	BY	DATE			
	0	UPDATE ANT. CONFIG.	ECF	03/03/2			
	1	UPDATE EQUIPMENT	МВ	10/28/2			

SITE INFO:

LAT: 42.353175 LONG: -71.081165

EXTENET NODE ID: BB\_08\_new

SITE ADDRESS:

274 BEACON ST

274 BLACON 3

SHEET TITLE:

POLE ELEVATIONS

SHEET NUMBER:

EV-2

Engineering/Extenst Systems/NE-MA-BACKBAV-TA

1/16/20

10-port small cell antenna, 4x 1695–2690, 4x 3400-3800 and 2x 5150-5925 MHz. 360° Horizontal Beamwidth, fixed tilt.

# General Specifications

**Antenna Type** Small Cell Band Multiband

**Grounding Type** RF connector inner conductor and body grounded to reflector and mounting bracket

Outdoor usage | Wind loading figures are validated by wind tunnel measurements **Performance Note** 

described in white paper WP-112534-EN

Fiberglass, UV resistant Radome Material **Radiator Material** Low loss circuit board

**Reflector Material** Aluminum **RF Connector Interface** 4.3-10 Female

**RF Connector Location** Bottom RF Connector Quantity, high band 10 **RF Connector Quantity, total** 10

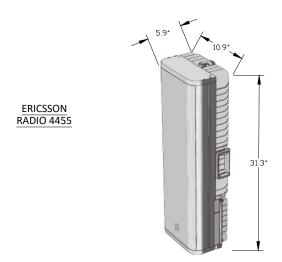
Dimensions

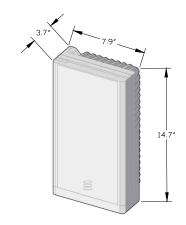
600 mm | 23.622 in Length **Outer Diameter** 200 mm | 7.874 in

# 5 GHz Port Power Table

5 GHz FCC Power Requirements					
U-NII Band	U-NII 1	U-NII 2A	U-NII 2C	U-NII 3	
Frequency (MHz)	5150 - 5250	5250 - 5350	5470 - 5725	5725 - 5850	
Max Input power per port to align with FCC Title 47 Part 15 (Watts)	0.5	0.125	0.125	0.5	

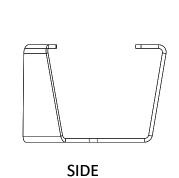






ERICSSON 4455 & 4435 RADIOS

SCALE: NOT TO SCALE



ERICSSON RADIO 4435

**BOTTOM** 

**CUSTOM MOUNTING BRACKET** 

SCALE: NOT TO SCALE

- PLANS PREPARED FOR:



www.piketelecom.or 1-508-337-7600

LOCATION:

274 BEACON ST BOSTON, MA 02116 SUFFOLK COUNTY

PE STAMP AREA:

DRAWING NOTES:

ORIGINAL PLAN SCALE: AS NOTED DRAWN BY: PLAN ORIG. DATE: 8/10/20

REVISIONS:				
	V1510145.			
REV	DESCRIPTION	BY	DATE	
0	UPDATE ANT. CONFIG.	ECF	03/03/21	
1	UPDATE EQUIPMENT	МВ	10/28/21	

SITE INFO: LAT: 42.350046 LONG: -71.086562 EXTENET NODE ID: BB\_01\_new SITE ADDRESS:

29 HEREFORD ST

ANTENNA DETAILS

AT-1

VVSSP-360S-F ANTENNA SCALE: NOT TO SCALE

LATITUDE / LONGITUDE: 42.353007 / -71.076483

SITE ADDRESS: CLARENDON ST

CITY, STATE, ZIP: BOSTON, MA 02116

NOTE:

GENERAL CONTRACTOR IS REQUIRED TO CROSS CHECK COORDINATES, EXHIBIT PHOTO, AERIAL PHOTO AND SITE PLAN TO ENSURE PROPER POLE LOCATION PRIOR TO BREAKING GROUND, CONCERNS OR QUESTIONS SHOULD BE IMMEDIATELY DIRECTED TO ASSIGNED EXTENET PROJECT MANAGER.

CALL BEFORE YOU DIG UNDERGROUND SERVICE ALERT 72 HOURS NOTICE REQUIRED. ENTER 1-888-DIG-SAFE

# **GENERAL NOTES**

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION, A TECHNICHIAN 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.

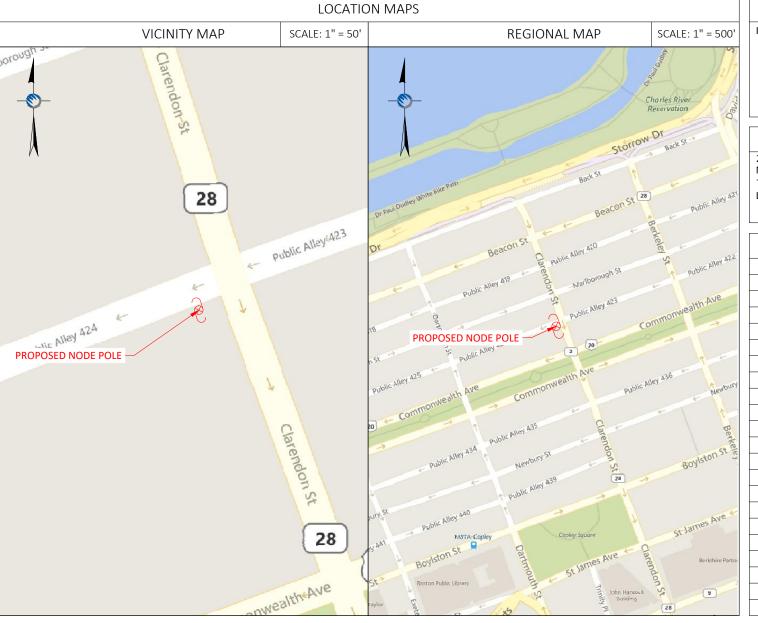
SITE INFORMATION				
EXTENET NODE ID:	BB_12_new			
LATITUDE:	42.353007			
LONGITUDE:	-71.076483			
SITE ADDRESS:	CLARENDON ST			
CITY, STATE ZIP:	BOSTON, MA 02116			
COUNTY:	SUFFOLK			
JURISDICTION:	BOSTON			
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY			
APPLICANT:	EXTENET SYSTEMS 3030 WARRENVILLE RD LISLE, IL 60532 (630) 505-3800			

### PROJECT MANAGER

JEREMY WEBER 3030 WARRENVILLE RD SUITE 340 LISLE, IL 60532 NOC: (866) 892-5327

### DO NOT SCALE DRAWINGS

CONTRACTORS SHALL VERIFY ALL PLANS, (EX.) DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT / ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



# PROJECT DESCRIPTION

### INVOLVING INSTALLMENT:

 THESE PLANS REPRESENT A PORTION OF A PROPOSED SMALL CELL BUILD INVOLVING THE INSTALLMENT OF AN ANTENNA AND RADIO EQUIPMENT ON AN EXISTING WOODEN UTILITY OR REPLACEMENT METAL STREETLIGHT POLE.

### CODES

2019 INTERNATIONAL BUILDING CODE NATIONAL ELECTRIC SAFETY CODE TIA/EIA-222-G-2 OR LATEST EDITION LOCAL BUILDING / PLANNING CODE

DRAWING INDEX				
SHEET NO:	SHEET TITLE			
T-1	TITLE SHEET			
SP-1	SITE PLAN & EXHIBIT PHOTO			
EV-1	ELEVATION SIDE VIEW			
EV-2	ELEVATION REAR VIEW			
AT-1	ANTENNA DETAILS			
WD-1&2	WIRING DIAGRAM			
RS-1	RADIO SHROUD DETAILS			
GN-1	GENERAL NOTES			
GN-2	GENERAL NOTES			
· · · · · · · · · · · · · · · · · · ·				

PLANS PREPARED FOR:

EXTENSIVE YOUR NETWORK. EVERYWHERE.

PLANS PREPARED BY: =



21 Oxford Rd Mansfield, MA 02048 www.piketelecom.org 1-508-337-7600

LOCATION:

CLARENDON ST
BOSTON, MA 02116
SUFFOLK COUNTY

PE STAMP AREA: -

DRAWING NOTES:

ORIGINAL PLANSCALE: AS NOTED

DRAWN BY: ECF

PLAN ORIG. DATE: 8/11/20

REVISIONS:

REV	DESCRIPTION	BY	DATE
0	UPDATE ANT. CONFIG.	ECF	02/26/21
1	UPDATE EQUIPMENT	МВ	10/28/21
		0 UPDATE ANT. CONFIG.	0 UPDATE ANT. CONFIG. ECF

SITE INFO:

LAT: 42.353007 LONG: -71.076483

EXTENET NODE ID: BB 12 new

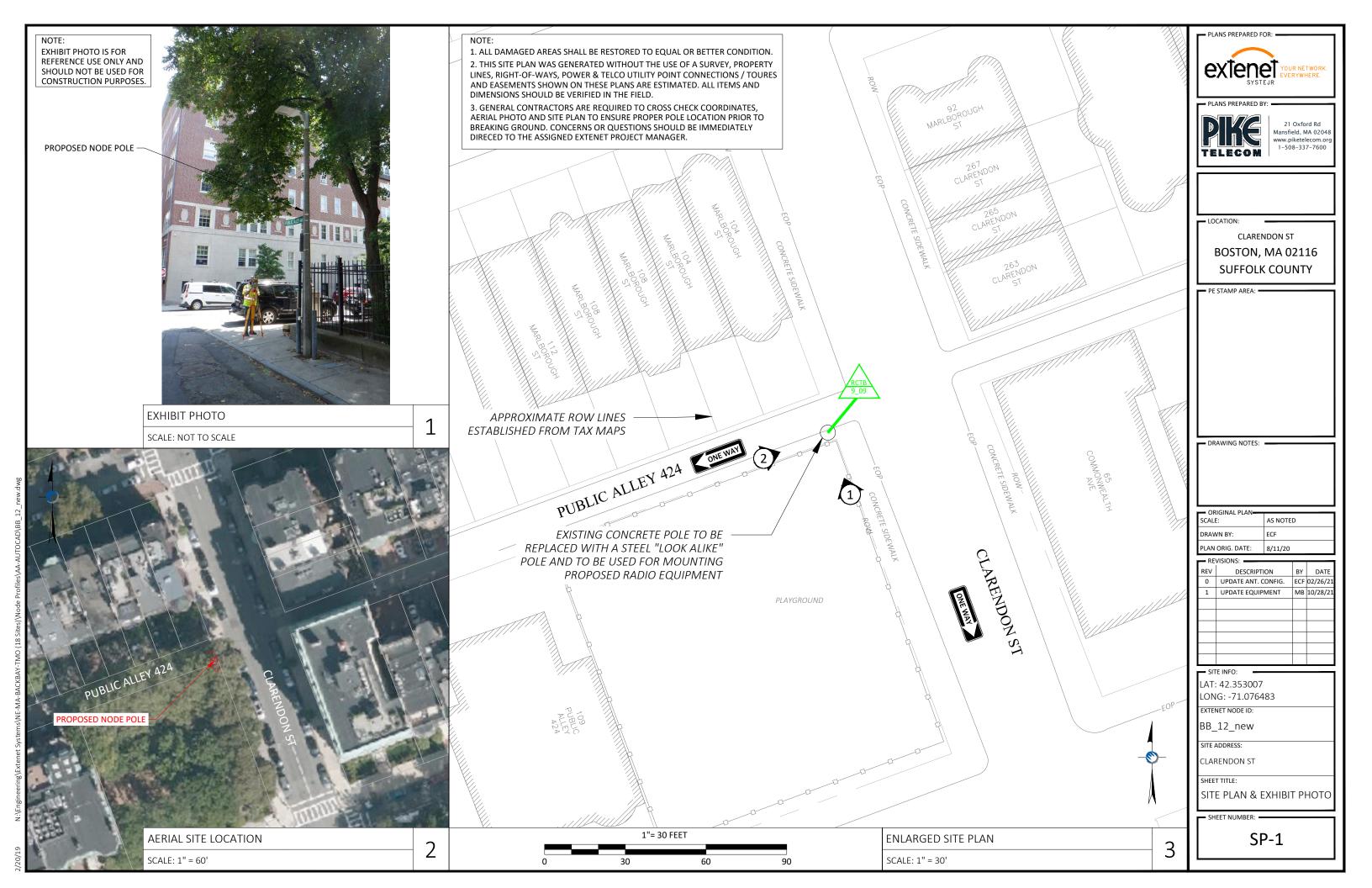
SITE ADDRESS:

CLARENDON ST

SHEET TITLE:

TITLE SHEET

T-1



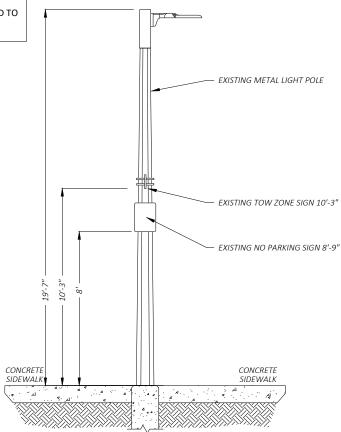
PROPOSED EQUIPMENT TO BE PAINTED TO BLEND WITH POLE.

FCC MANDATED SIGNAGE TO BE ATTACHED TO POLE.

REPLACE EXISTING CONCRETE STREETLIGHT POLE WITH HEXAGONAL STEEL POLE. ADD ANTENNA / RADIO EQUIPMENT.

ABSOLUTELY NO FIELD CUTTING OR CORING OF METALLIC OR COMPOSITE POLES TO BE ALLOWED.

NO EXISTING OR PROPOSED AERIAL SPANNING ATTACHMENTS ARE ALLOWED TO BE ATTACHED TO



RELOCATE EXISTING TOW ZONE SIGN 10'-3" RELOCATE EXISTING NO PARKING SIGN 8'-0" PROPOSED SEPARATE POWER TO CONTINUE TO STREETLIGHT PROPOSED BASE CABINET WITH EQUIPMENT (SEE DETAILS EQ-1) PROPOSED FIBER BY OTHERS TO HANDHOLE VIA EXTENET —SET IN GROUND 10" BELOW GRADE SIDEWALK V SIDEWALK A A A A ه الم الم PROPOSED TYPICAL CONCRETE FOUNDATION 30" Ø x 84" H

PROPOSED ANTENNA ASSEMBLY WITH

-PROPOSED HEXAGONAL STEEL POLE PAINTED TO MATCH EXISTING PER C.O.B.

4G/LTE COMPATIBLE COMMSCOPE

VVSSP-360S-F QUASI ANTENNA

AZIMUTH: 250°

(SEE DETAIL)

1 EXISTING PROFILE - SIDE VIEW LOOKING NORTHEAST ALONG PUBLIC ALLEY 424

1 PROPOSED PROFILE - SIDE VIEW LOOKING NORTHEAST ALONG PUBLIC ALLEY 424



POLE ELEVATIONS SCALE: 1" = 5'

PLANS PREPARED FOR:



Mansfield, MA 02048 www.piketelecom.org 1-508-337-7600

LOCATION:

**CLARENDON ST** BOSTON, MA 02116 SUFFOLK COUNTY

PE STAMP AREA:

DRAWING NOTES:

ORIGINAL PLAN SCALE: AS NOTED DRAWN BY: ECF PLAN ORIG. DATE: 8/11/20

1	RE'	VISIONS:		
	REV	DESCRIPTION	BY	DATE
	0	UPDATE ANT. CONFIG.	ECF	02/26/21
	1	UPDATE EQUIPMENT	МВ	10/28/21

LAT: 42.353007 LONG: -71.076483

EXTENET NODE ID: BB\_12\_new

SITE ADDRESS:

CLARENDON ST

SHEET TITLE:

POLE ELEVATIONS

EV-1

PROPOSED EQUIPMENT TO BE PAINTED TO BLEND WITH POLE.

NOTE 3

FCC MANDATED SIGNAGE TO BE ATTACHED TO POLE.

NOTF 4:

REPLACE EXISTING CONCRETE STREETLIGHT POLE WITH HEXAGONAL STEEL POLE. ADD ANTENNA / RADIO EQUIPMENT.

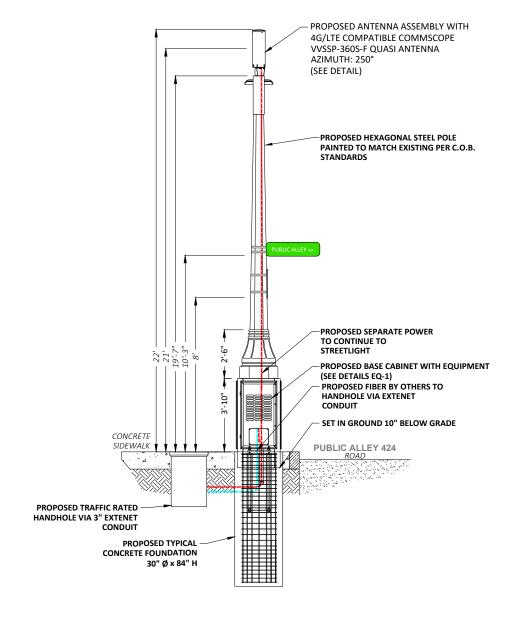
NOTE 5:

ABSOLUTELY NO FIELD CUTTING OR CORING OF METALLIC OR COMPOSITE POLES TO BE ALLOWED.

OTE 6:

NO EXISTING OR PROPOSED AERIAL SPANNING ATTACHMENTS ARE ALLOWED TO BE ATTACHED TO THIS POLE

PUBLIC ALLEY 424
ROAD



2 EXISTING PROFILE - REAR VIEW LOOKING NORTHWEST TOWARDS PUBLIC ALLEY 424

PROPOSED PROFILE - REAR VIEW
LOOKING NORTHWEST TOWARDS PUBLIC ALLEY 424

1 = 5 FEE1 0 5 10 15

POLE ELEVATIONS

SCALE: 1" = 5'

PLANS PREPARED FOR:

EXTENSIVE TOUR NETWORK.

SYSTEJR

EVERYWHERE.

■ PLANS PREPARED BY: ■



21 Oxford Rd Mansfield, MA 02048 www.piketelecom.org 1-508-337-7600

LOCATION:

CLARENDON ST
BOSTON, MA 02116
SUFFOLK COUNTY

PE STAMP AREA: —

DRAWING NOTES:

ORIGINAL PLANSCALE: AS NOTED

DRAWN BY: ECF
PLAN ORIG. DATE: 8/11/20

REVISIONS:

REV DESCRIPTION BY DATE

0 UPDATE ANT. CONFIG. ECF 02/26/21

1 UPDATE EQUIPMENT MB 10/28/21

SITE INFO: \_\_\_\_\_\_\_ LAT: 42.353007

LONG: -71.076483

EXTENET NODE ID:

BB\_12\_new

SITE ADDRESS:

CLARENDON ST

SHEET TITLE:

POLE ELEVATIONS

SHEET NUMBER:

EV-2

20/19

10-port small cell antenna, 4x 1695–2690, 4x 3400-3800 and 2x 5150-5925 MHz. 360° Horizontal Beamwidth, fixed tilt.

VVSSP-360S-F ANTENNA

SCALE: NOT TO SCALE

# General Specifications

Antenna Type Small Cell

Band Multiband

**Grounding Type** RF connector inner conductor and body grounded to reflector and mounting bracket

Performance Note

Outdoor usage | Wind loading figures are validated by wind tunnel measurements

described in white paper WP-112534-EN

Radome MaterialFiberglass, UV resistantRadiator MaterialLow loss circuit board

Reflector MaterialAluminumRF Connector Interface4.3-10 Female

RF Connector Location Bottom
RF Connector Quantity, high band 10
RF Connector Quantity, total 10

Dimensions

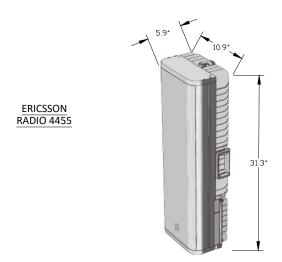
 Length
 600 mm
 | 23.622 in

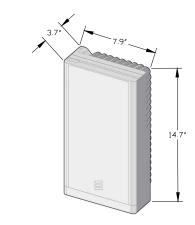
 Outer Diameter
 200 mm
 | 7.874 in

# 5 GHz Port Power Table

5 GHz FCC Power Requirements				
U-NII Band	U-NII 1	U-NII 2A	U-NII 2C	U-NII 3
Frequency (MHz)	5150 - 5250	5250 - 5350	5470 - 5725	5725 - 5850
Max Input power per port to align with FCC Title 47 Part 15 (Watts)	0.5	0.125	0.125	0.5

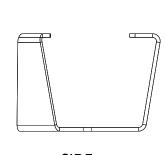






ERICSSON 4455 & 4435 RADIOS

SCALE: NOT TO SCALE



ERICSSON RADIO 4435

SIDE BOTTOM

CUSTOM MOUNTING BRACKET

SCALE: NOT TO SCALE



■ PLANS PREPARED BY:



LOCATION:

CLARENDON ST
BOSTON, MA 02116
SUFFOLK COUNTY

PE STAMP AREA:

- DRAWING NOTES:

ORIGINAL PLAN
SCALE: AS NOTED
DRAWN BY: ECF
PLAN ORIG. DATE: 8/11/20

REVISIONS:				
	VISIONS.			
REV	DESCRIPTION	BY	DATE	
0	UPDATE ANT. CONFIG.	ECF	02/26/21	
1	UPDATE EQUIPMENT	МВ	10/28/21	

LAT: 42.353007
LONG: -71.076483
EXTENET NODE ID:
BB\_12\_new
SITE ADDRESS:

CLARENDON ST
SHEET TITLE:

ANTENNA DETAILS

SHEET NUMBER:

AT-1

N:\Engineering\Extenet Systems\NE-MA-BACKBAY-TMO (18 Sites)\Node Profiles\AA-AUTOCAD\BB 12 new.

LATITUDE / LONGITUDE: 42.353351 / -71.074002

SITE ADDRESS: 29 COMM AVE

CITY, STATE, ZIP: BOSTON, MA 02116

NOTE:

GENERAL CONTRACTOR IS REQUIRED TO CROSS CHECK COORDINATES, EXHIBIT PHOTO, AERIAL PHOTO AND SITE PLAN TO ENSURE PROPER POLE LOCATION PRIOR TO BREAKING GROUND, CONCERNS OR QUESTIONS SHOULD BE IMMEDIATELY DIRECTED TO ASSIGNED EXTENET PROJECT MANAGER.

CALL BEFORE YOU DIG
UNDERGROUND SERVICE ALERT
72 HOURS NOTICE REQUIRED.
ENTER 1-888-DIG-SAFE

# **GENERAL NOTES**

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION, A TECHNICHIAN 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.

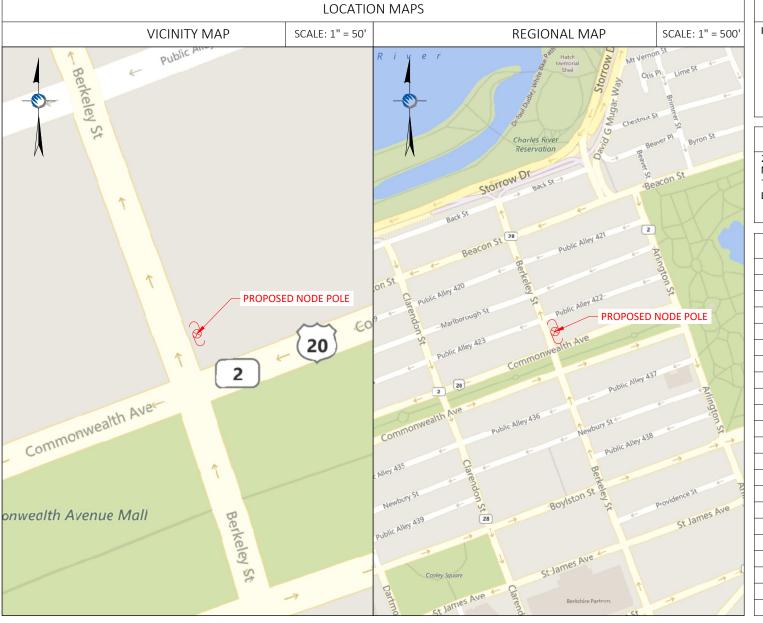
SITE INFORMATION		
EXTENET NODE ID:	BB_13_new	
LATITUDE:	42.353351	
LONGITUDE:	-71.074002	
SITE ADDRESS:	29 COMM AVE	
CITY, STATE ZIP:	BOSTON, MA 02116	
COUNTY:	SUFFOLK	
JURISDICTION:	BOSTON	
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY	
APPLICANT:	EXTENET SYSTEMS 3030 WARRENVILLE RD LISLE, IL 60532 (630) 505-3800	

### PROJECT MANAGER

JEREMY WEBER 3030 WARRENVILLE RD SUITE 340 LISLE, IL 60532 NOC: (866) 892-5327

### DO NOT SCALE DRAWINGS

CONTRACTORS SHALL VERIFY ALL PLANS, (EX.) DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT / ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



# PROJECT DESCRIPTION

### INVOLVING INSTALLMENT:

THESE PLANS REPRESENT A PORTION OF A PROPOSED SMALL CELL BUILD INVOLVING THE INSTALLMENT OF AN ANTENNA AND RADIO EQUIPMENT ON AN EXISTING WOODEN UTILITY OR REPLACEMENT METAL STREETLIGHT POLE.

### CODES

2019 INTERNATIONAL BUILDING CODE NATIONAL ELECTRIC SAFETY CODE TIA/EIA-222-G-2 OR LATEST EDITION LOCAL BUILDING / PLANNING CODE

DRAWING INDEX			
SHEET NO: SHEET TITLE			
T-1	TITLE SHEET		
SP-1	SITE PLAN & EXHIBIT PHOTO		
EV-1	ELEVATION SIDE VIEW		
EV-2	ELEVATION REAR VIEW		
AT-1	ANTENNA DETAILS		
WD-1&2	WIRING DIAGRAM		
RS-1	RADIO SHROUD DETAILS		
GN-1	GENERAL NOTES		
GN-2	GENERAL NOTES		
<u> </u>			

PLANS PREPARED FOR:

EXTENSIVE YOUR NETWORK. EVERYWHERE.

PLANS PREPARED BY: =



21 Oxford Rd Mansfield, MA 02048 www.piketelecom.org 1-508-337-7600

LOCATION:

29 COMM AVE
BOSTON, MA 02116
SUFFOLK COUNTY

PE STAMP AREA:

DRAWING NOTES:

ORIGINAL PLANSCALE: AS NOTED

DRAWN BY: MS
PLAN ORIG. DATE: 08/11/20

REVISIONS:

112 115161151			
REV	DESCRIPTION	BY	DATE
0	UPDATE ANT. CONFIG.	ECF	03/03/21
1	UPDATE EQUIPMENT	MB	10/28/21

SITE INFO:

LAT: 42.353351 LONG: -71.074002

EXTENET NODE ID: BB 13 new

SITE ADDRESS:

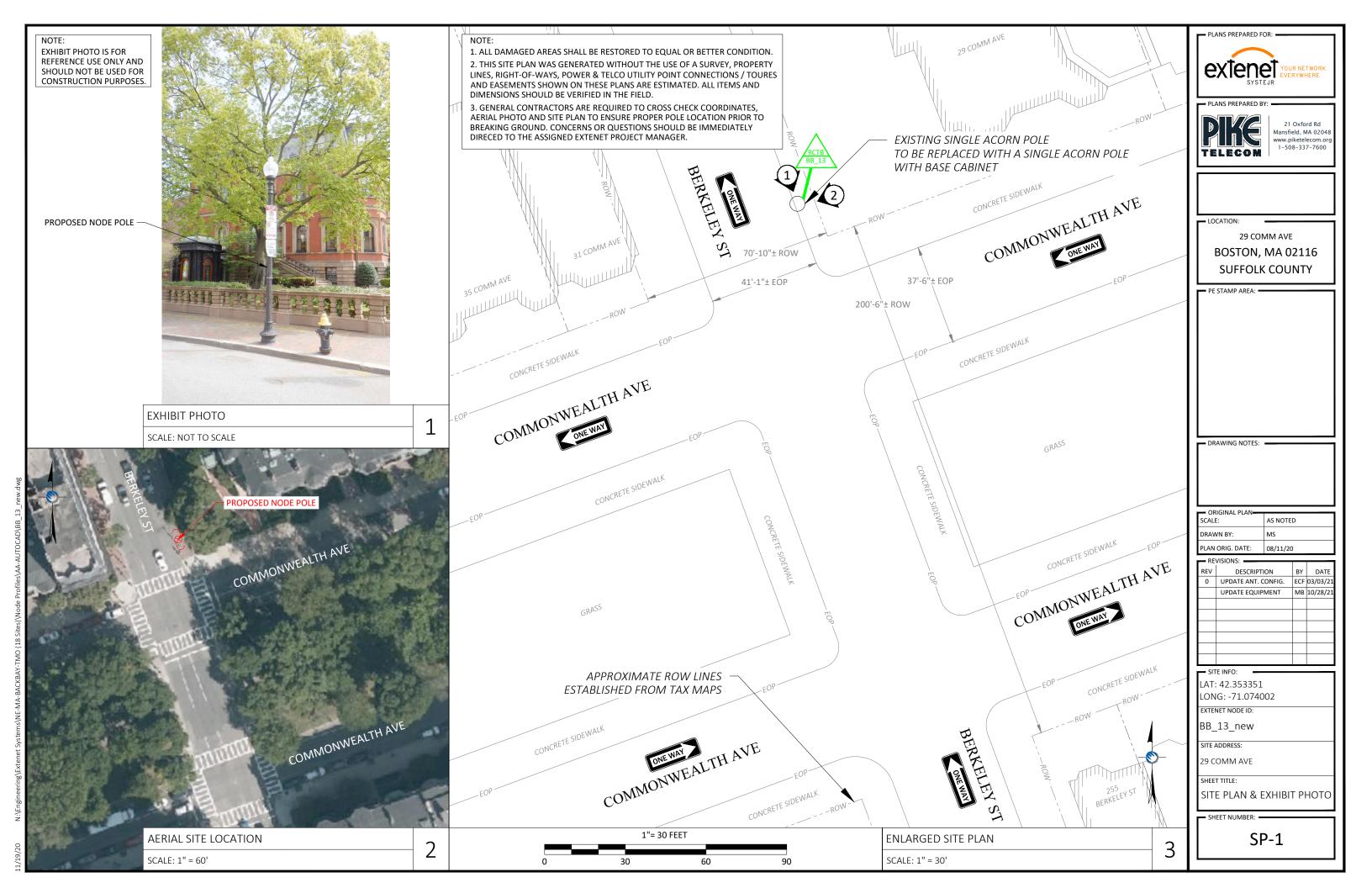
29 COMM AVE

SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

T-1



NOTE 2:

PROPOSED EQUIPMENT TO BE PAINTED TO BLEND WITH POLE.

NOTE 3

FCC MANDATED SIGNAGE TO BE ATTACHED TO POLE.

NOTF 4

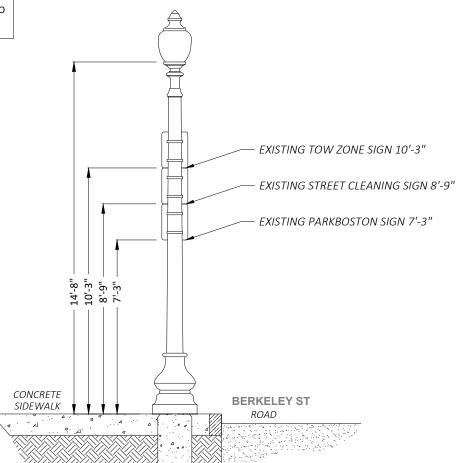
REPLACE EXISTING CONCRETE STREETLIGHT POLE WITH HEXAGONAL STEEL POLE. ADD ANTENNA / RADIO EQUIPMENT.

NOTE 5:

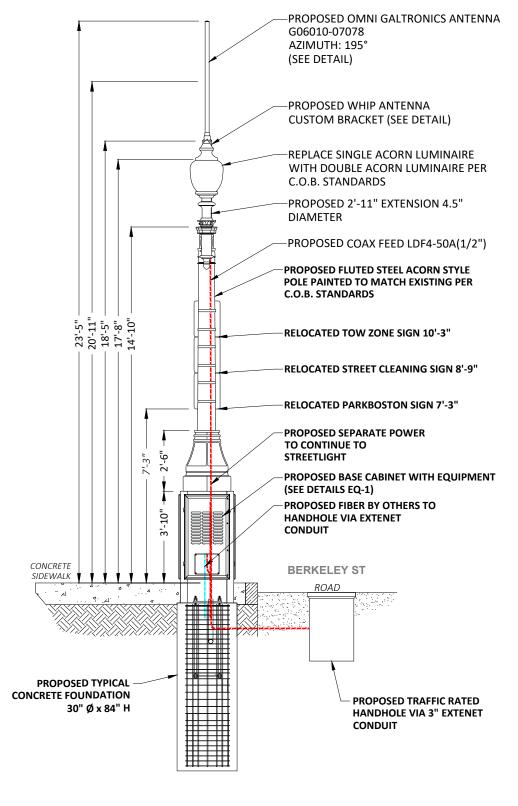
ABSOLUTELY NO FIELD CUTTING OR CORING OF METALLIC OR COMPOSITE POLES TO BE ALLOWED.

OTE 6

NO EXISTING OR PROPOSED AERIAL SPANNING ATTACHMENTS ARE ALLOWED TO BE ATTACHED TO



1 EXISTING PROFILE - SIDE VIEW LOOKING SOUTHEAST ALONG BERKELEY ST



1 PROPOSED PROFILE - SIDE VIEW LOOKING SOUTHEAST ALONG BERKELEY ST

1"= 4 FEET

4 8 12

POLE ELEVATIONS

SCALE: 1" = 4'

PLANS PREPARED FOR:

EXTENSIVE TOUR NETWORK.

EVERYWHERE.

- DI ANC DDEDARED DV. -



21 Oxford Rd Mansfield, MA 02048 www.piketelecom.org 1-508-337-7600

LOCATION:

29 COMM AVE
BOSTON, MA 02116
SUFFOLK COUNTY

PE STAMP AREA: —

DRAWING NOTES:

ORIGINAL PLAN
SCALE: AS NOTED
DRAWN BY: MS
PLAN ORIG. DATE: 08/11/20

REV DESCRIPTION BY DATE
0 UPDATE ANT. CONFIG. ECF 03/03/2
UPDATE EQUIPMENT MB 10/28/2

SITE INFO:
LAT: 42.353351
LONG: -71.074002
EXTENET NODE ID:
BB\_13\_new
SITE ADDRESS:
29 COMM AVE
SHEET TITLE:

— SHEET NUMBER

EV-1

POLE ELEVATIONS

N:\Engineering\Extenet Systems\NE-MA-BACKBAY-TMO (18 Sites)\Node Profiles\AA-AUTOCAD\BB\_13\_new.dwg

1/19/20

PROPOSED EQUIPMENT TO BE PAINTED TO BLEND WITH POLE.

NOTE 3

FCC MANDATED SIGNAGE TO BE ATTACHED TO POLE.

NOTE 4

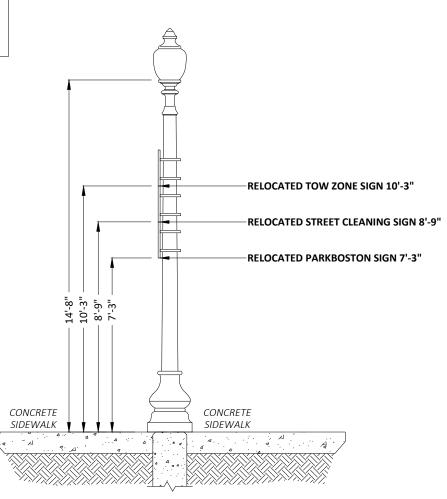
REPLACE EXISTING CONCRETE STREETLIGHT POLE WITH HEXAGONAL STEEL POLE. ADD ANTENNA / RADIO EQUIPMENT.

NOTE 5:

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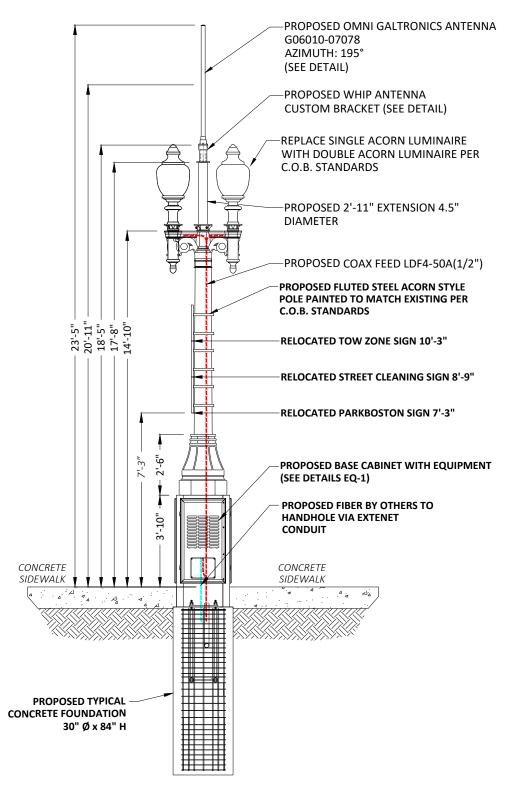
OTE 6

NO EXISTING OR PROPOSED AERIAL SPANNING
ATTACHMENTS ARE ALLOWED TO BE ATTACHED TO
THIS POLE



2 EXISTING PROFILE - REAR VIEW LOOKING SOUTHWEST TOWARDS BERKELEY ST





2 EXISTING PROFILE - REAR VIEW LOOKING SOUTHWEST TOWARDS BERKELEY ST

POLE ELEVATIONS

SCALE: 1" = 4'

PLANS PREPARED FOR:

EXTENSIVE TOUR NETWORK.

SYSTEJR

EVERYWHERE.

- DI ANC DDEDARED DV. -



21 Oxford Rd Mansfield, MA 02048 www.piketelecom.org 1-508-337-7600

LOCATION:

29 COMM AVE
BOSTON, MA 02116
SUFFOLK COUNTY

PE STAMP AREA: —

DRAWING NOTES:

ORIGINAL PLANSCALE: AS NOTED

DRAWN BY: MS

PLAN ORIG. DATE: 08/11/20

١,	REVISIONS:				
	REV	DESCRIPTION	BY	DATE	
	0	UPDATE ANT. CONFIG.	ECF	03/03/2	
		UPDATE EQUIPMENT	МВ	10/28/2	

— SITE INFO: LAT: 42.353351

LONG: -71.074002

EXTENET NODE ID: BB\_13\_new

SITE ADDRESS:

29 COMM AVE

SHEET TITLE:

POLE ELEVATIONS

SHEET NUMBER: -

EV-2

1/19/20

O N-\Fngineeri

# Description:

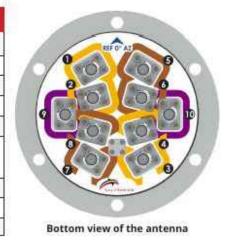
- · Directional Whip Antenna for Outdoor DAS and Small Cells
- · 4x ports for AWS/PCS Band 1695-2690 MHz
- · 4x ports for CBRS Band 3400-3800 MHz
- · 2x ports for LAA Band 5150-5925 MHz
- · Ideal for Dense Urban Densification
- · All ports are directional to ensure dominance over macro sites

Electrical Specificat	10115		
Frequency Band [MHz]	1695-2690	3400-3800	5150-5925
Input Connector Type	4x NEX10 (F)	4x NEX10 (F)	2x NEX10 (F)
Isolation (min.)	25 dB 20 dB		
VSWR (max.) / RL (min.)	1.5:1 / 14.0 dB		
Impedance	50 Ω		
Polarization	Vertical Dual Slant 45° (± 45°)		
Horizontal Beamwidth	151°	135°	119°
Elevation Beamwidth	31.0°	36.0°	22.6°
Gain (max.)	9.3 dBi	7.0 dBi	5,5 dBi
Gain (avg.)	7.5 dBi	6.0 dBi	4.6 dBi
Downtiit	10° fixed		
Max Power / Port	50 Watts 1 Watt		
PIM @ 2x43 dBm	<-153 dBc	N/A	N/A

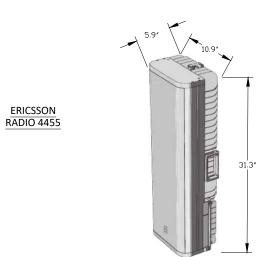


1695-2690, 3400-3800 and 5150-5925 MHz 10-Port Outdoor Directional Whip Antenna

Mechanical Specifications		
Operating Temperature	-40° to 158°F (-40° to +70°C)	
Antenna Weight	6.7 lbs (3.04 kg)	
Antenna Diameter	2" (52 mm)	
Antenna Height	60" (1524 mm)	
Radome Material	Fiberglass / PC-ASA	
Radome Color	Brown (Fed Std 595), Gray/Silver (Fed Std 595), Black (Fed Std 595), Green (Fed Std 595), Green (RAL 6012), Dark Green (Fed Std 595), 3M™ Conceal Film	
Ingress Protection	Outdoor (IP65)	
Wind Survival Rating	150 mph (241 km/h)	
Connectors	10x NEX10 (F)	



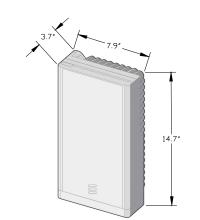
GALTRONICS GO6010-07078 ANTENNA SCALE: NOT TO SCALE



**ERICSSON RADIO 4435** 

ERICSSON 4455 & 4435 RADIOS

SCALE: NOT TO SCALE



- PLANS PREPARED FOR:



www.piketelecom.org

29 COMM AVE BOSTON, MA 02116 SUFFOLK COUNTY

PE STAMP AREA:

DRAWING NOTES:

ORIGINAL PLAN SCALE: AS NOTED DRAWN BY: PLAN ORIG. DATE: 08/11/20

DESCRIPTION 0 UPDATE ANT. CONFIG. ECF 03/03/2 UPDATE EQUIPMENT

SITE INFO: LAT: 42.353351 LONG: -71.074002 EXTENET NODE ID:

BB\_13\_new

SITE ADDRESS: 29 COMM AVE

ANTENNA DETAILS

AT-1