



PROJECT: 2.5 EQUIPMENT DEPLOYMENT
 SITE NAME: HIGHLAND GARDENS
 SITE CASCADE: BS13XC672
 MARKET: BOSTON
 SITE ADDRESS: 114 HIGHLAND AVENUE
 SOMERVILLE, MA 02145
 SITE TYPE: ROOFTOP

Sprint
 VISION
 1 INTERNATIONAL BLVD, SUITE 800
 MAHWAH, NJ 07495
 (201) 684-4000

J LEE ASSOCIATES, LLC
 753 FOREST STREET
 MARLBOROUGH, MA 01752-3047
 PHONE: (800) 825-6460
 www.guardian-energy.com

EG ADVANCED
 ENGINEERING GROUP, P.C.
 Civil Engineering - Site Development
 Surveying - Telecommunications
 500 NORTH BROADWAY
 EAST PROVIDENCE, RI 02914
 PH: 401-354-2403
 FAX: 401-633-6354



ENGINEER/LAND SURVEYOR DATE
 IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

REVISIONS

REV. #	DATE	DESCRIPTION
0	01/06/14	ISSUED FOR REVIEW

PROJECT NO. N/A	DESIGNED BY: MRC	SCALE
	DRAWN BY: AAB	
	CHECKED BY: MRC	

PROJECT INFORMATION
HIGHLAND GARDENS
BS13XC672
 114 HIGHLAND AVENUE
 SOMERVILLE, MA 02145

DRAWING TITLE
 TITLE SHEET

DRAWING NUMBER
T-1

SITE INFORMATION

PROPERTY OWNER:
 SOMERVILLE HOUSING AUTHORITY
 114 HIGHLAND AVENUE
 SOMERVILLE, MA 02145

TOWER OWNER:
 N/A (ROOFTOP)

LATITUDE (NAD83):
 GOOGLE EARTH 2-C CONFIRMATION
 42° 23' 12.999" N
 42.3867°

LONGITUDE (NAD83):
 GOOGLE EARTH 2-C CONFIRMATION
 -71° 06' 1.000" W
 -71.1008°

COUNTY:
 MIDDLESEX

ZONING JURISDICTION:
 CITY OF SOMERVILLE

ZONING DISTRICT:
 RESIDENCE C (RC)

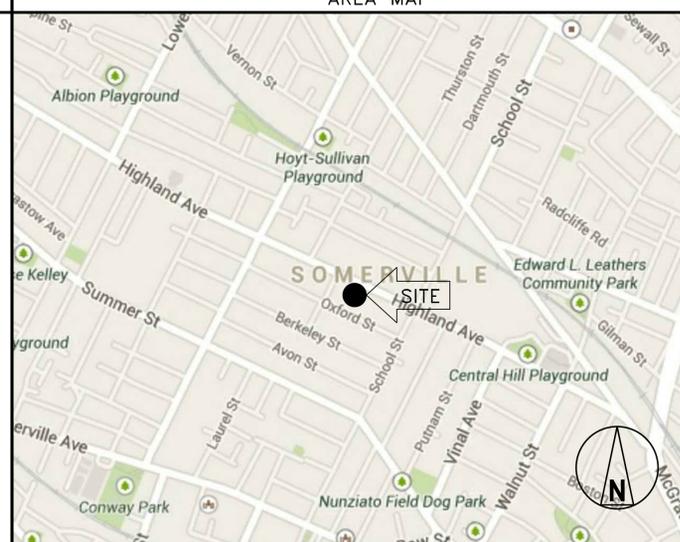
POWER COMPANY:
 NSTAR ELECTRIC

AAV PROVIDER:
 COMCAST

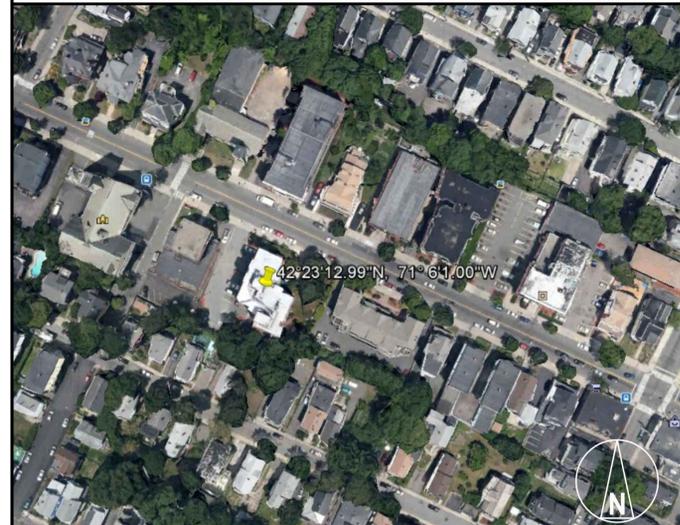
SPRINT MARKET MANAGER:
 RONALD HIBBARD
 PHONE: 774-269-8812
 ronald.hibbard@sprint.com

EQUIPMENT SUPPLIER:
 ALCATEL-LUCENT
 600 MOUNTAIN AVENUE
 MURRAY HILL, NJ 07974

AREA MAP



LOCATION MAP GOOGLE EARTH 2-C CONFIRMATION



PROJECT DESCRIPTION

SPRINT EQUIPMENT MODIFICATIONS REQUIRED TO SUPPORT MODERNIZATION OF AN EXISTING WIRELESS COMMUNICATIONS FACILITY AND UTILIZATION OF FCC BROADBAND SPECTRUM LICENSE FOR 2.5GHZ FREQUENCY, INCLUDING INSTALLATION OF:

GROUND-LEVEL RAN EQUIPMENT, CONSISTING OF

- RETROFIT EXISTING MMBTS CABINET WITH 2.5 RADIO ACCESS NETWORK (RAN) EQUIPMENT
- (2) ADDITIONAL BATTERY STRING(S) INSIDE EXISTING BATTERY BACKUP (BBU) CABINET

TOWER-TOP EQUIPMENT, INCLUDING INSTALLATION OF:

- (3) PANEL ANTENNAS
- (3) REMOTE RADIO HEADS (RRH)
- (1) HYBRID FIBER CABLE (AND ASSOCIATED FIBER, DC POWER, COAXIAL CABLE JUMPERS AND ANTENNA REMOTE ELECTRICAL-TILT (RET) CABLE

SPECIAL ZONING NOTE:
 BASED ON INFORMATION PROVIDED BY SPRINT REGULATORY COMPLIANCE PROFESSIONALS AND LEGAL COUNSEL, THIS TELECOMMUNICATIONS EQUIPMENT DEPLOYMENT IS CONSIDERED AND ELIGIBLE FACILITY UNDER THE TAX RELIEF ACT OF 2012, 47 USC 1455(A), AND IS SUBJECT TO AN EXPEDITED ELIGIBLE FACILITIES REQUEST/REVIEW AND ZONING PRE-EMPTION FOR LOCAL DISCRETIONARY PERMITS (VARIANCE, SPECIAL PERMIT, SITE PLAN REVIEW, ADMINISTRATIVE REVIEW).

GENERAL NOTES

- THIS IS AN UNMANNED TELECOMMUNICATION FACILITY AND NOT FOR HUMAN HABITATION:
 - ADA COMPLIANCE NOT REQUIRED.
 - POTABLE WATER OR SANITARY SERVICE IS NOT REQUIRED.
 - NO OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTACLES REQUIRED.
- CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON JOB SITE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. FAILURE TO NOTIFY THE ARCHITECT/ENGINEER PLACE THE RESPONSIBILITY ON THE CONTRACTOR TO CORRECT THE DISCREPANCIES AT THE CONTRACTOR'S EXPENSE.
- NEW CONSTRUCTION WILL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES.
 BUILDING CODE: MASSACHUSETTS STATE BUILDING CODE 780 CMR 8TH EDITION
 ELECTRICAL CODE: 2005 NATIONAL ELECTRICAL CODE
 STRUCTURAL CODE: TIA/EIA-222-G STRUCTURAL STANDARDS FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS.



DRAWING INDEX

SHEET NO:	SHEET TITLE	REV	CHK	BY
T-1	TITLE SHEET	0	MRC	AAB
C-1	PLOT PLAN	0	MRC	AAB
Z-1	ROOF & EQUIPMENT PLANS	0	MRC	AAB
Z-2	ELEVATION	0	MRC	AAB
Z-3	ANTENNA PLANS & DETAILS	0	MRC	AAB
Z-4	EQUIPMENT DETAILS	0	MRC	AAB
Z-5	MOUNTING DETAILS	0	MRC	AAB

APPROVALS

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND MAY IMPOSE CHANGES OR MODIFICATIONS.

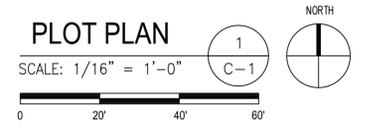
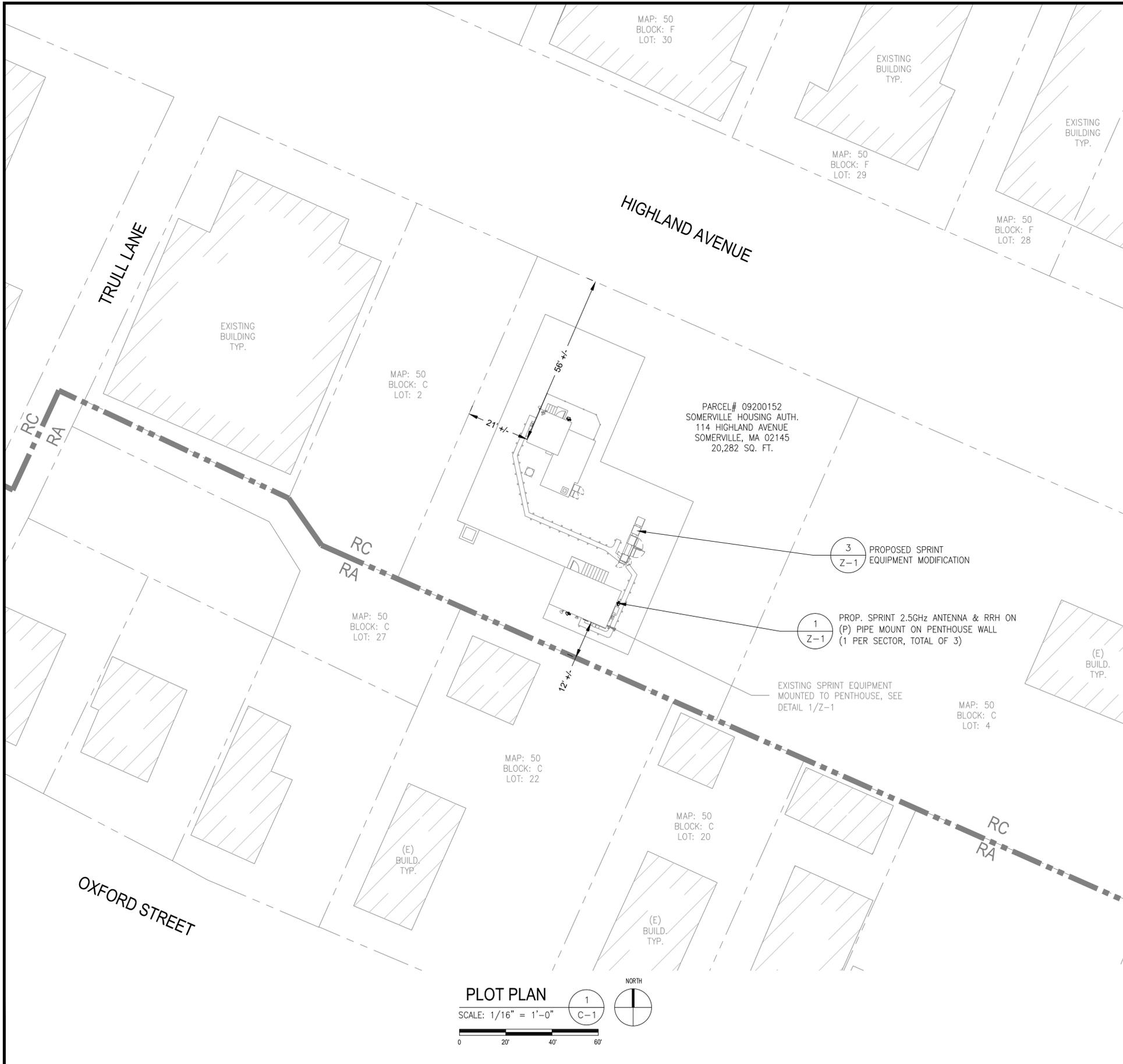
SPRINT: _____ DATE: _____

CONSTRUCTION MANAGER: _____ DATE: _____

LEASING/SITE ACQUISITION: _____ DATE: _____

RF ENGINEER: _____ DATE: _____

LANDLORD/TOWER OWNER: _____ DATE: _____



GENERAL NOTES:

- FIELD SURVEY DATE: 9/06/13
- VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
- HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (NAD83)
- PROPERTY OWNER: SOMERVILLE HOUSING AUTHORITY
114 HIGHLAND AVENUE
SOMERVILLE, MA 02145
- APPLICANT: SPRINT
1 INTERNATIONAL BLVD, SUITE 800
MAHWAH, NJ 07495
- JURISDICTION: CITY OF SOMERVILLE
- TAX ID: 09200152
- ZONING JURISDICTION: CITY OF SOMERVILLE
- PROPERTY LINE INFORMATION IS COMPILED FROM SOMERVILLE'S ONLINE GIS SYSTEM AND MASS GIS, AND IS NOT TO BE CONSTRUED AS HAVING BEEN OBTAINED AS THE RESULT OF A FIELD BOUNDARY SURVEY, AND IS SUBJECT TO CHANGE AS AN ACCURATE FIELD SURVEY MAY DISCLOSE. A FULL BOUNDARY SURVEY WAS NOT PERFORMED.
- BEARING SYSTEM OF THIS PLAN IS BASED ON TRUE NORTH. TRUE NORTH WAS ESTABLISHED FROM EXISTING PLAN REFERENCE. IT IS NOT INTENDED TO BE AN EXACT REPRESENTATION OF TRUE NORTH.

LEGEND

	PROPERTY LINE
	ABUTTING PROPERTY LINE
	EXIST. CONTOUR
	EXIST. CHAIN LINK FENCE
	PROP. CHAIN LINK FENCE
	EXIST. TREE LINE
	EXIST. STREET LAYOUT
	EXIST. EASEMENT
	EXIST. OVERHEAD UTILITIES
	PROP. OVERHEAD UTILITIES
	EXIST. UNDERGROUND UTILITIES
	PROP. UNDERGROUND UTILITIES
	EXIST. UTILITY POLE #XXX
	ZONING BOUNDARY LINE
	ZONING DISTRICT
	TOWN BOUNDARY LINE

ZONING SUMMARY TABLE

ZONING DISTRICT:	RESIDENCE C (RC)	
ASSESSOR'S ID:	09200152	
PROPOSED USE:	WIRELESS COMMUNICATION FACILITY	
DIMENSION:	REQUIRED MINIMUM	PROVIDED
LOT AREA	7,000 FT	20,282 ± FT
LOT FRONTAGE	30 FT	115± FT
FRONT YARD SETBACK*	15 FT	56± FT
SIDE YARD SETBACK*	27 FT	21± FT
REAR YARD SETBACK*	25 FT	12± FT
ANTENNA HEIGHT OF ABOVE ROOF	40 FT	10± FT

*PROPOSED EQUIPMENT TO NEAREST LOT LINE

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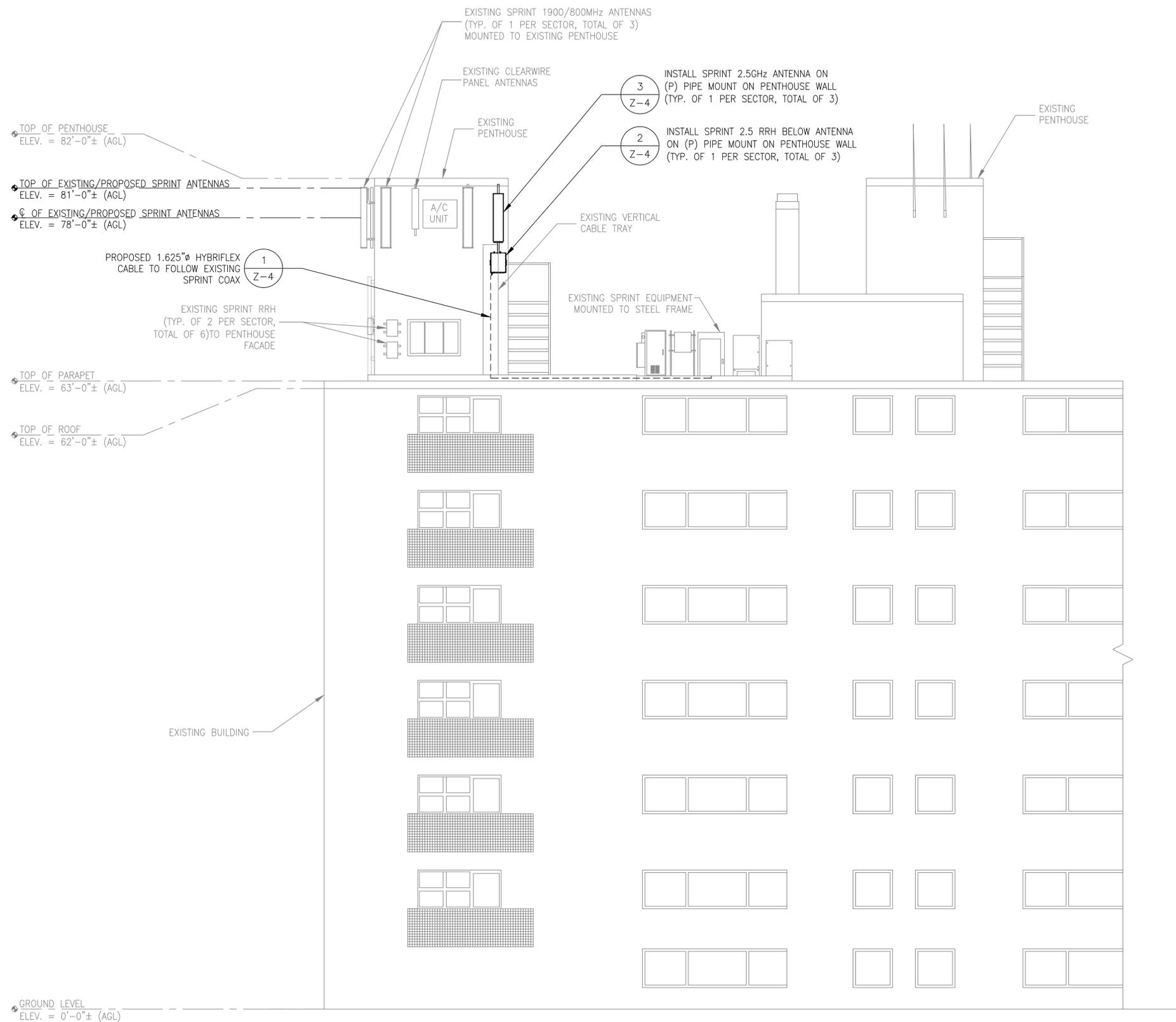
114 HIGHLAND AVENUE
SOMERVILLE, MA 02145

DRAWING TITLE

PLOT PLAN

DRAWING NUMBER

C-1



PARTIAL EAST ELEVATION

SCALE: 1/8" = 1'-0"
 0 5' 10' 20'

1
Z-2



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SOMERVILLE, MA 02145

DRAWING TITLE
ANTENNA PLANS

DRAWING NUMBER
Z-3



(E) CLEARWIRE
PANEL ANTENNA
(E) SPRINT
(800/1900) ANTENNA TO
(TYP. OF 1 PER SECTOR,
TOTAL OF 3)

(E) SPRINT
(800/1900) ANTENNA TO
(TYP. OF 1 PER SECTOR,
TOTAL OF 3)
(E) VERTICAL
CABLE TRAY

EXIST. PENTHOUSE ELEVATION PHOTO DETAIL

SCALE: N.T.S.

1
Z-3



(E) CLEARWIRE
PANEL ANTENNA

(E) SPRINT
(800/1900) ANTENNA TO
(TYP. OF 1 PER SECTOR,
TOTAL OF 3)

(E) SPRINT
(800/1900) ANTENNA TO
(TYP. OF 1 PER SECTOR,
TOTAL OF 3)

INSTALL 2.5GHz ANTENNA ON
(P) PIPE MOUNT ON PENTHOUSE WALL
(TYP. OF 1 PER SECTOR, TOTAL OF 3)

INSTALL SPRINT 2.5 RRH BELOW ANTENNA
ON (P) PIPE MOUNT ON PENTHOUSE WALL
(TYP. OF 1 PER SECTOR, TOTAL OF 3)

(E) VERTICAL
CABLE TRAY

EXIST. PENTHOUSE ELEVATION PHOTO DETAIL

SCALE: N.T.S.

2
Z-3

NOTE:
EXISTING AZIMUTHS FROM SPRINT
SITE AUDIT DATED 09/06/13

ANTENNA STATUS LEGEND:

EMPTY - EMPTY PIPE

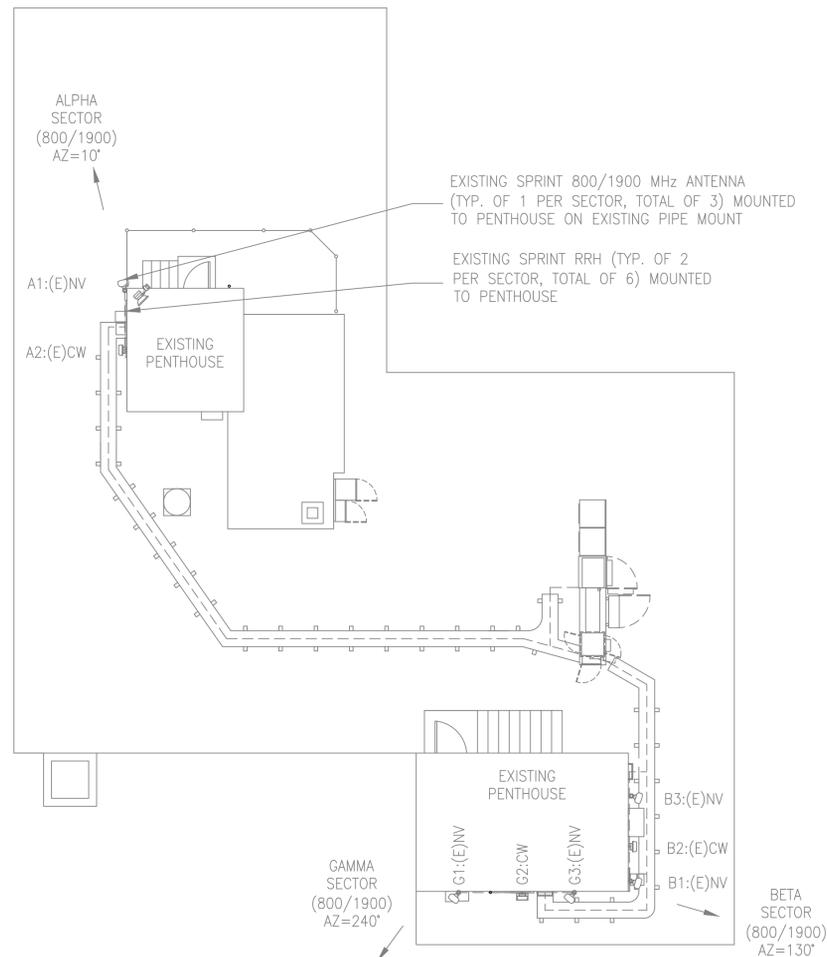
(E) - EXISTING

(P) - INSTALL

NV - SPRINT ANTENNA

CW - CLEARWIRE ANTENNA

2.5 - SPRINT ANTENNA

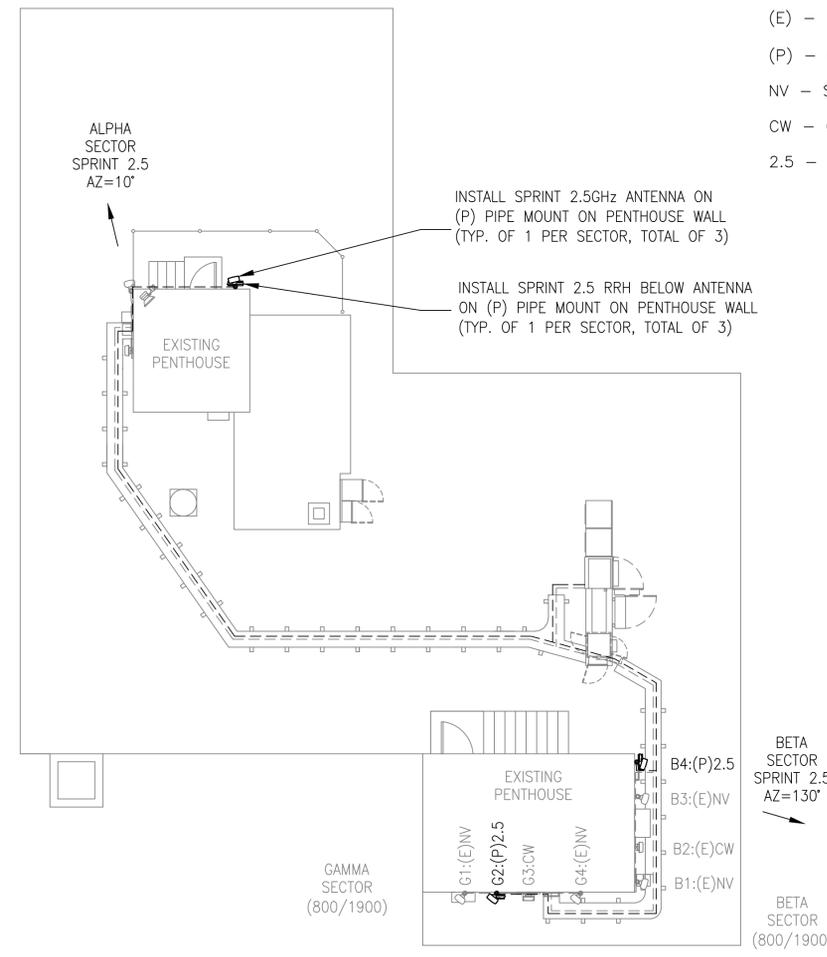


EXIST. ANTENNA PLAN

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



3
Z-3

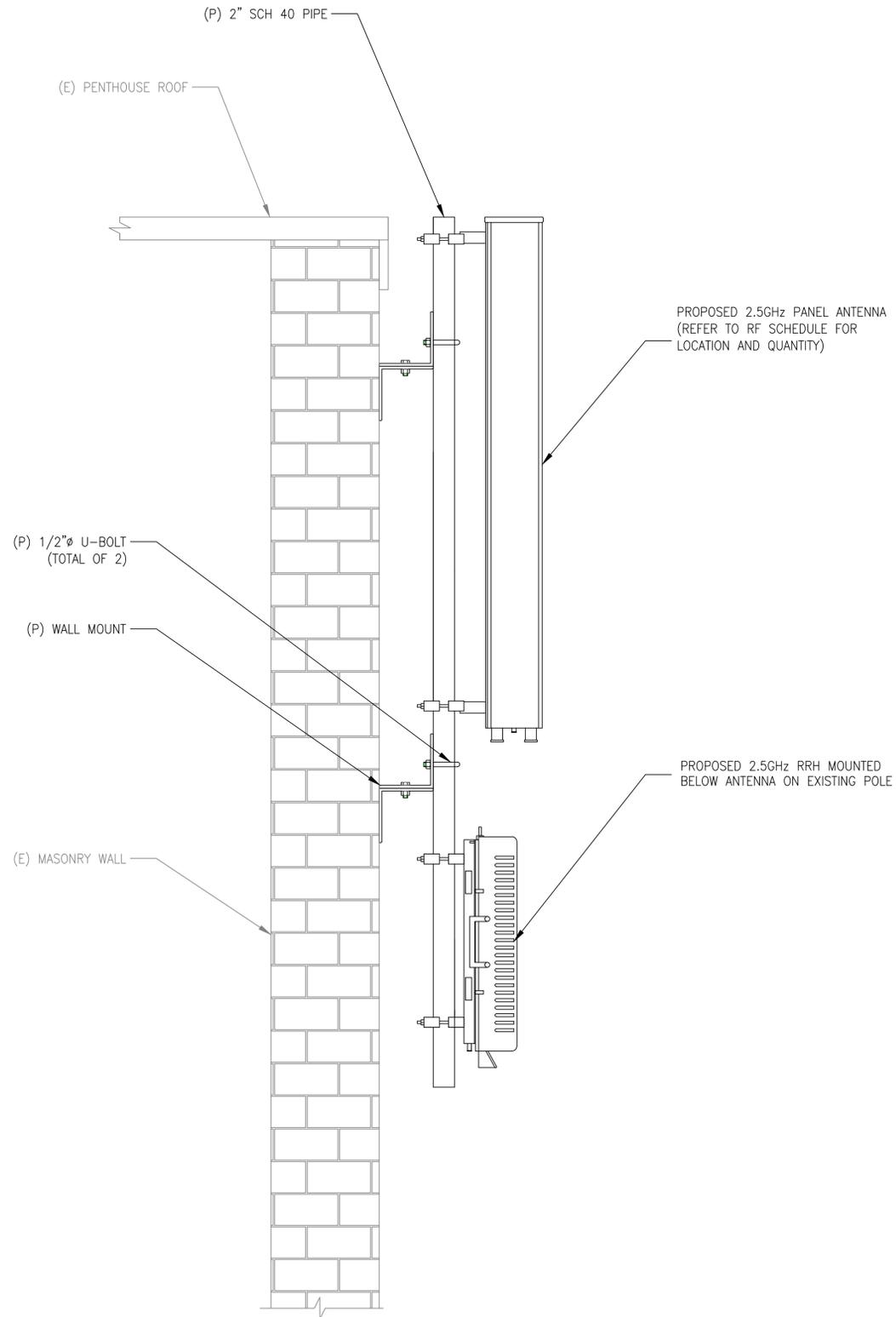


PROP. ANTENNA PLAN

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



4
Z-3



TYPICAL 2.5GHz ANTENNA & RRH MOUNTING DETAIL

SCALE: N.T.S.

1
Z-5



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