

**LEGEND**

---	PROPERTY LINE
- - -	ABUTTING PROPERTY LINE
- - -	EXIST. R.O.W. LAYOUT
- - -	PROP. EASEMENT/LEASE AREA
- - -	EXIST. ZONING BOUNDARY
- - -	EXIST. CHAIN LINK FENCE
- - -	PROP. CHAIN LINK FENCE
- - -	EXIST. TREE LINE
- - -	EXIST. CONTOUR
- - -	PROP. CONTOUR
- - -	EXIST. OVERHEAD UTILITIES
- - -	PROP. OVERHEAD UTILITIES
- - -	EXIST. UNDERGROUND UTILITIES
- - -	PROP. UNDERGROUND UTILITIES
- - -	DELINEATED WETLAND LINE
- - -	PROP. WORK LIMITS

**RC** RESIDENCE C DISTRICT  
**RB** RESIDENCE B DISTRICT  
**RA** RESIDENCE A DISTRICT  
**OS** OPEN SPACE  
**BB** BUSINESS B DISTRICT

**LEGEND**

(F) = FUTURE  
(E) = EXISTING  
(P) = PROPOSED  
(AGL) = ABOVE GROUND LEVEL

T-MOBILE NORTHEAST LLC  
15 COMMERCE WAY, SUITE B  
NORTON, MA 02766  
OFFICE: (508) 286-2700  
FAX: (508) 286-2893



**APPROVALS**

LANDLORD \_\_\_\_\_  
LEASING \_\_\_\_\_  
R.F. \_\_\_\_\_  
ZONING \_\_\_\_\_  
CONSTRUCTION \_\_\_\_\_  
A/E \_\_\_\_\_

PROJECT NO: 4BN-0112-F  
DRAWN BY: DD  
CHECKED BY: SNA

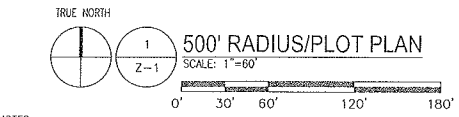
SUBMITTALS		
REV 3	02/18/11	ZONING REVISED
REV 2	02/10/11	ZONING REVISED
REV 1	11-08-10	FINAL ZONING
REV 0	10-07-10	ZONING
REV A	09-30-10	FOR REVIEW

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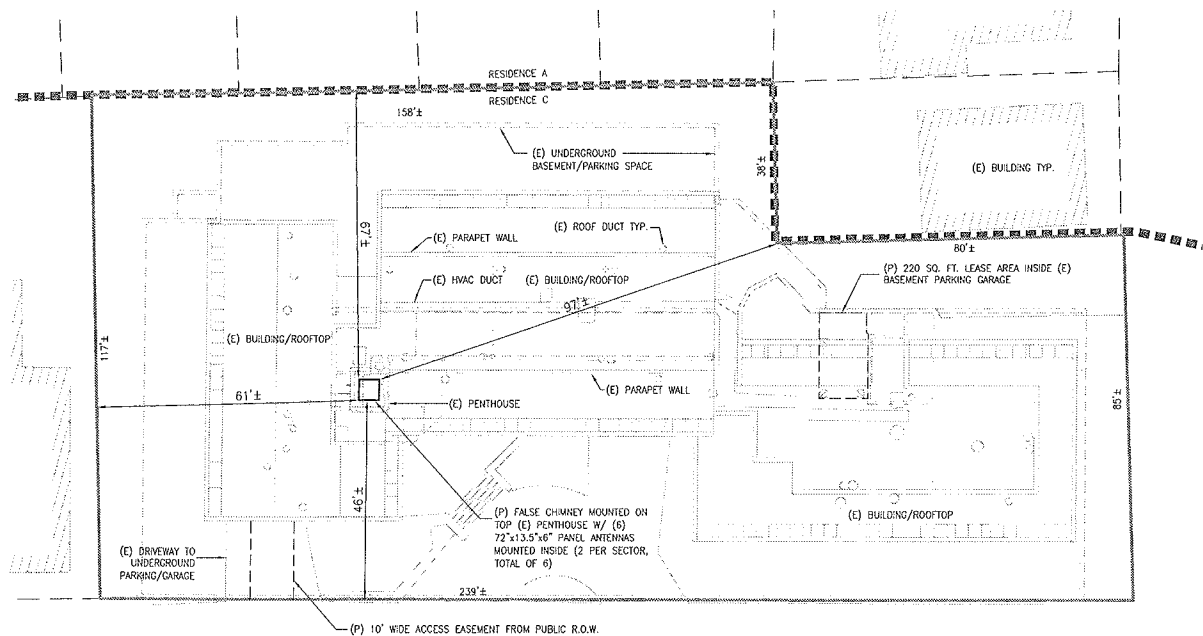
4BN-0112-F  
289 HIGHLAND AVENUE  
289 HIGHLAND AVE.  
SOMERVILLE, MA 02144

SHEET TITLE  
ORTHO PLAN & 1000' LOCUS MAP

SHEET NUMBER  
**Z-1**



- NOTES:**
1. PLOT PLAN BASED ON ASSESSOR'S MAPS FROM THE CITY OF SOMERVILLE AND DEED BOOK: 21781, PAGE: 337.
  2. A METES AND BOUNDS SURVEY WAS NOT CONDUCTED BY ADVANCED ENGINEERING GROUP, P.C.

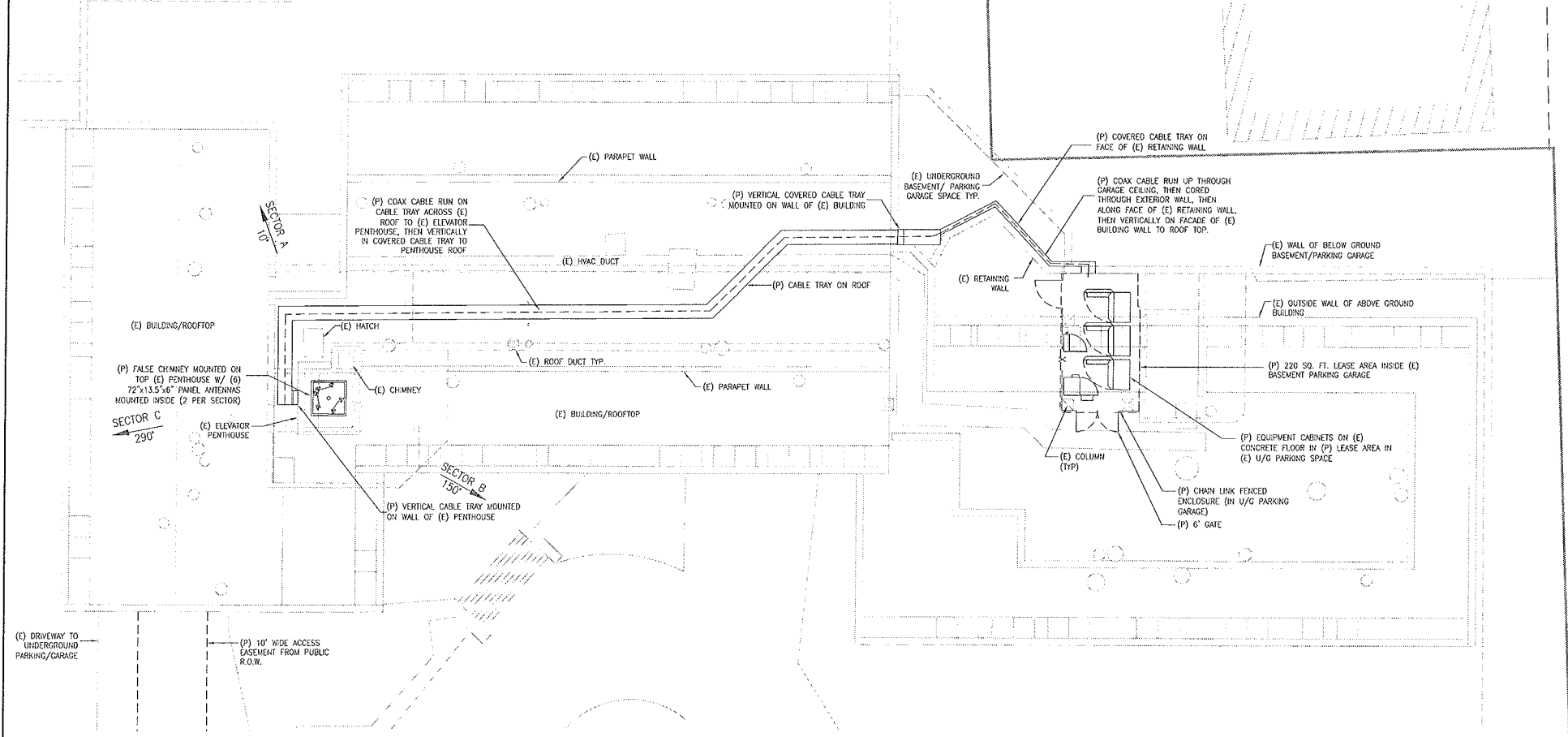


TRUE NORTH

**SITE PLAN**  
SCALE: 1"=20'

NOTES:

1. PLOT PLAN BASED ON ASSESSOR'S MAPS FROM THE CITY OF SOMERVILLE AND DEED BOOK: 21781, PAGE: 337.
2. A METES AND BOUNDS SURVEY WAS NOT CONDUCTED BY ADVANCED ENGINEERING GROUP, P.C.



TRUE NORTH

**ROOF PLAN**  
SCALE: 1"=30'

### LEGEND

- PROPERTY LINE
- ABUTTING PROPERTY LINE
- EXIST. R.O.W. LAYOUT
- PROP. EASEMENT/LEASE AREA
- EXIST. ZONING BOUNDARY
- EXIST. CHAIN LINK FENCE
- PROP. CHAIN LINK FENCE
- EXIST. TREE LINE
- EXIST. CONTOUR
- PROP. CONTOUR
- EXIST. OVERHEAD UTILITIES
- PROP. OVERHEAD UTILITIES
- EXIST. UNDERGROUND UTILITIES
- PROP. UNDERGROUND UTILITIES
- DELINEATED WETLAND LINE
- PROP. WORK LIMITS

RC RESIDENCE C DISTRICT  
RB RESIDENCE B DISTRICT  
RA RESIDENCE A DISTRICT  
OS OPEN SPACE  
BB BUSINESS B DISTRICT

### GENERAL NOTES:

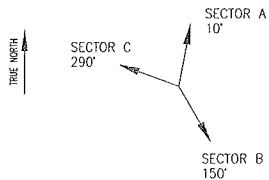
1. THE TYPE, DIMENSIONS, MOUNTING HARDWARE, AND POSITIONS OF ALL PROJECT OWNER'S EQUIPMENT ARE SHOWN IN ILLUSTRATIVE FASHION. THESE DRAWINGS ARE NOT INTENDED FOR CONSTRUCTION. ACTUAL HARDWARE DETAILS AND FINAL LOCATIONS MAY DIFFER SLIGHTLY FROM WHAT IS SHOWN.
2. THE PROJECT OWNER'S FACILITY IS AN UNMANNED PRIVATE AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY ACCESSED BY TRAINED TECHNICIANS FOR PERIODIC ROUTINE MAINTENANCE AND THEREFORE DOES NOT REQUIRE ANY WATER OR SANITARY SEWER SERVICE. THE FACILITY IS NOT GOVERNED BY REGULATIONS REQUIRING PUBLIC ACCESS PER ADA REQUIREMENTS.
3. THE BASE TRANSMISSION STATION (BTS) CABINET IS A WEATHER RESISTANT, VANDAL RESISTANT STEEL CABINET CONTAINING RECTIFIERS, AMPLIFIERS, RADIOS, AND OTHER INTEGRATED ELECTRONIC CONTROL EQUIPMENT. THE BTS IS ENVIRONMENTALLY CONTROLLED BY A SELF-CONTAINED AC-POWERED HEATING AND COOLING SYSTEM USING CFC-FREE THERMAL TRANSFER COMPOUNDS. MANUFACTURER'S SPECIFICATIONS INDICATE THAT AT FULL LOAD CONDITIONS, MAXIMUM ACOUSTICAL NOISE LEVELS ARE 50DB(A) AT A DISTANCE OF 13 FEET AND 40 DB(A) AT A DISTANCE OF 46 FEET. BATTERY BACKUP FOR EMERGENCY STANDBY POWER IS CONTAINED WITHIN THE SEALED BTS CABINET AND CONSISTS OF FOUR 12-VOLT, CLOSED-CELL DC BATTERIES. THE BATTERIES ARE LEAD-ACID RECHARGEABLE STANDBY INDUSTRIAL POWER CELLS MANUFACTURED TO MEET ENVIRONMENTAL QUALITY AND RUGGEDNESS STANDARDS OF THE INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA). THE BATTERY CHARGING SYSTEM IS COMPUTER-CONTROLLED AND THE EQUIPMENT CABINET IS REMOTELY MONITORED AT PROJECT OWNER'S NETWORK OPERATIONS CONTROL CENTER 24-HOURS A DAY, 7 DAYS A WEEK FOR FAULTS AND ALARMS.
4. THE DESIGN OF THE TOWER, FOUNDATION AND ANTENNA MOUNTING HARDWARE WILL MEET THE ANSI/EIA/TIA-222-G STANDARDS FOR STRUCTURAL STEEL ANTENNA SUPPORTING STRUCTURES AND STATE BUILDING CODE REQUIREMENTS. DETAILED CONSTRUCTION DRAWINGS WILL BE PREPARED BY A REGISTERED PROFESSIONAL ENGINEER AND SUBMITTED WITH A BUILDING PERMIT APPLICATION FOR REVIEW AND APPROVAL BY THE LOCAL BUILDING CODE ENFORCEMENT OFFICIAL.
5. ONCE THE FACILITY BECOMES FULLY OPERATIONAL, NORMAL AND ROUTINE MAINTENANCE BY PROJECT OWNER'S TECHNICIANS WILL BE PERFORMED ON A MONTHLY BASIS. THEREFORE, THE ESTIMATED VEHICLE TRIP GENERATION RATE IS 6 TRIPS PER MONTH. THE AVERAGE DAILY TRIP GENERATION RATE (ADT) IS 0.2.
6. PAINT EXPOSED COAX, AC CONDUIT AND ASSOCIATED MOUNTING HARDWARE TO MATCH EXISTING BUILDING.
7. PER FCC MANDATE, ENHANCED EMERGENCY (E911) SERVICE IS REQUIRED TO MEET NATIONWIDE STANDARDS FOR WIRELESS COMMUNICATIONS SYSTEMS. PROJECT OWNER'S IMPLEMENTATION REQUIRES DEPLOYMENT OF EQUIPMENT AND ANTENNAS GENERALLY DEPICTED ON THIS PLAN, ATTACHED TO OR MOUNTED IN CLOSE PROXIMITY TO THE BTS RADIO CABINETS. PROJECT OWNER RESERVES THE RIGHT TO MAKE REASONABLE MODIFICATIONS TO E911 EQUIPMENT AND LOCATION AS TECHNOLOGY EVOLVES TO MEET FEDERALLY MANDATED ACCURACY SPECIFICATIONS.
8. APPLICANT: T-MOBILE NORTHEAST LLC  
15 COMMERCE WAY, SUITE B  
NORTON, MA 02766
9. OWNER: 289 HIGHLAND AVE REALTY INC.  
1259 BROADWAY  
SOMERVILLE, MA
10. ZONING DISTRICT: RESIDENCE C DISTRICT
11. JURISDICTION: CITY OF SOMERVILLE
12. TAX ID: MAP: 29 BLK: E LOT: 20

### ZONING SUMMARY TABLE

ZONING DISTRICT: RESIDENCE C DISTRICT		
ASSESSORS MAP: MAP: 29 BLK: E LOT: 20		
PROPOSED USE: WIRELESS COMMUNICATION FACILITY		
DIMENSION:	REQUIRED MINIMUM	PROVIDED
LOT AREA	7,500 SQ. FT.	3,67± AC.
LOT FRONTAGE	50 FT	239± FT
FRONT YARD SETBACK*	15 FT	46± FT
SIDE YARD SETBACK*	1/3 BLDG. HT.	61± FT
REAR YARD SETBACK*	20 FT	67± FT
MAXIMUM ZONING HEIGHT	40 FT	61± FT

\* DIMENSIONS MEASURED FROM FACE OF (P) FALSE CHIMNEY TO NEAREST LOT LINE.

### ANTENNA ORIENTATION KEY



### LEGEND

- (F) = FUTURE
- (E) = EXISTING
- (P) = PROPOSED
- (AGL) = ABOVE GROUND LEVEL

T-MOBILE NORTHEAST LLC  
15 COMMERCE WAY, SUITE B  
NORTON, MA 02766  
OFFICE: (508) 286-2700  
FAX: (508) 286-2893



### APPROVALS

LANDLORD \_\_\_\_\_  
LEASING \_\_\_\_\_  
R.F. \_\_\_\_\_  
ZONING \_\_\_\_\_  
CONSTRUCTION \_\_\_\_\_  
A/E \_\_\_\_\_

PROJECT NO: 4BN-0112-F

DRAWN BY: DD

CHECKED BY: SNA

### SUBMITTALS

REV 3	02/18/11	ZONING REVISED
REV 2	02/10/11	ZONING REVISED
REV 1	11-08-10	FINAL ZONING
REV 0	10-07-10	ZONING
REV A	09-30-10	FOR REVIEW

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4BN-0112-F

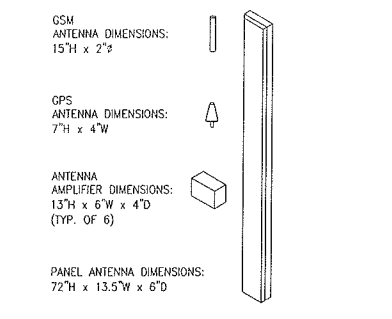
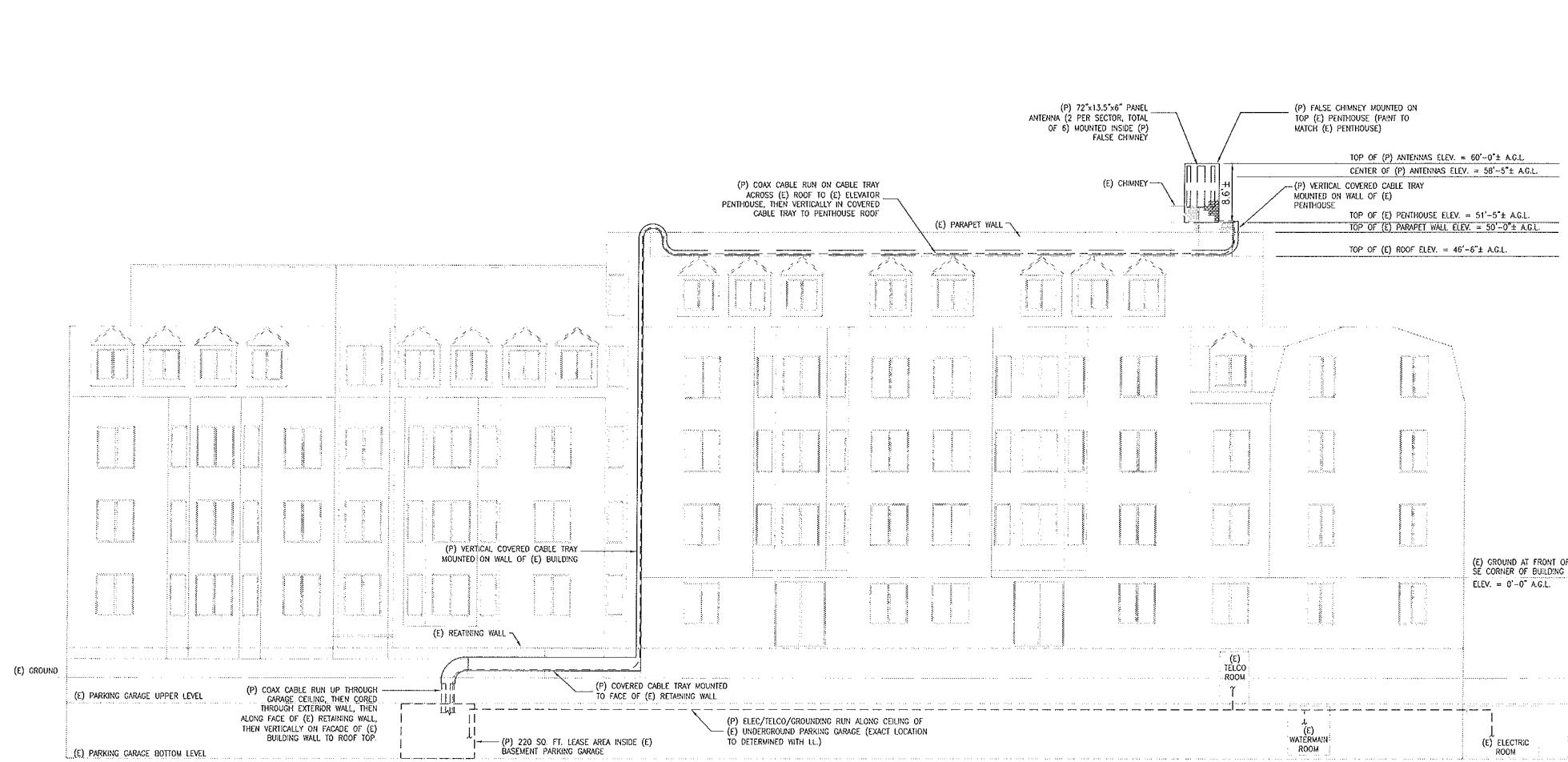
289 HIGHLAND AVENUE  
289 HIGHLAND AVE.  
SOMERVILLE, MA 02144

SHEET TITLE

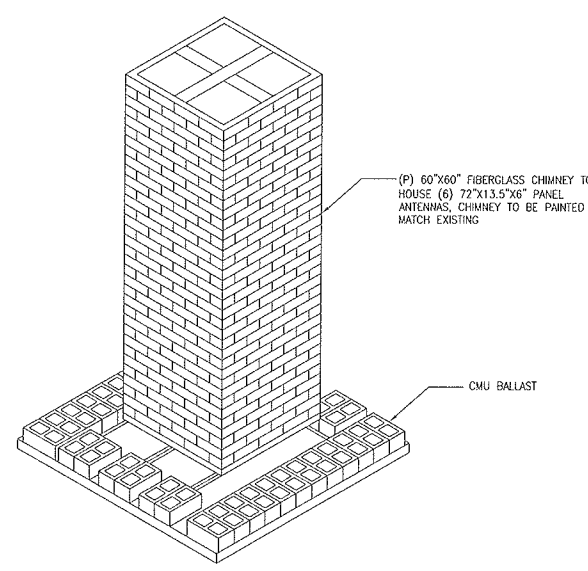
SITE PLAN  
AND NOTES

SHEET NUMBER

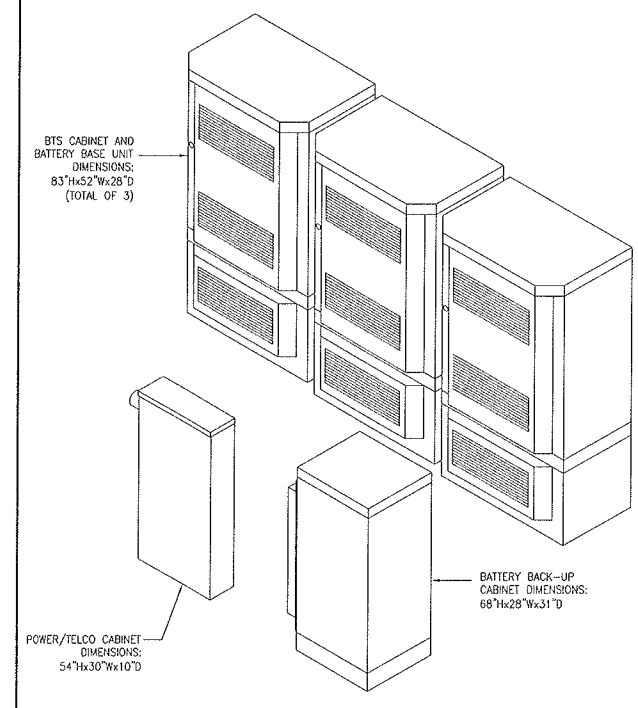
Z-2



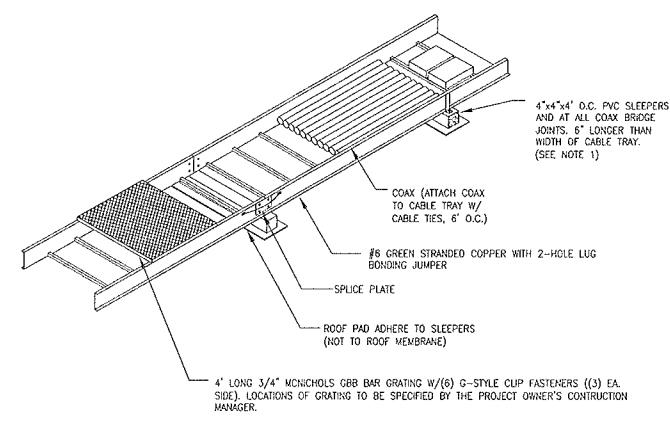
2 T-MOBILE ANTENNA DETAILS  
SCALE: NTS



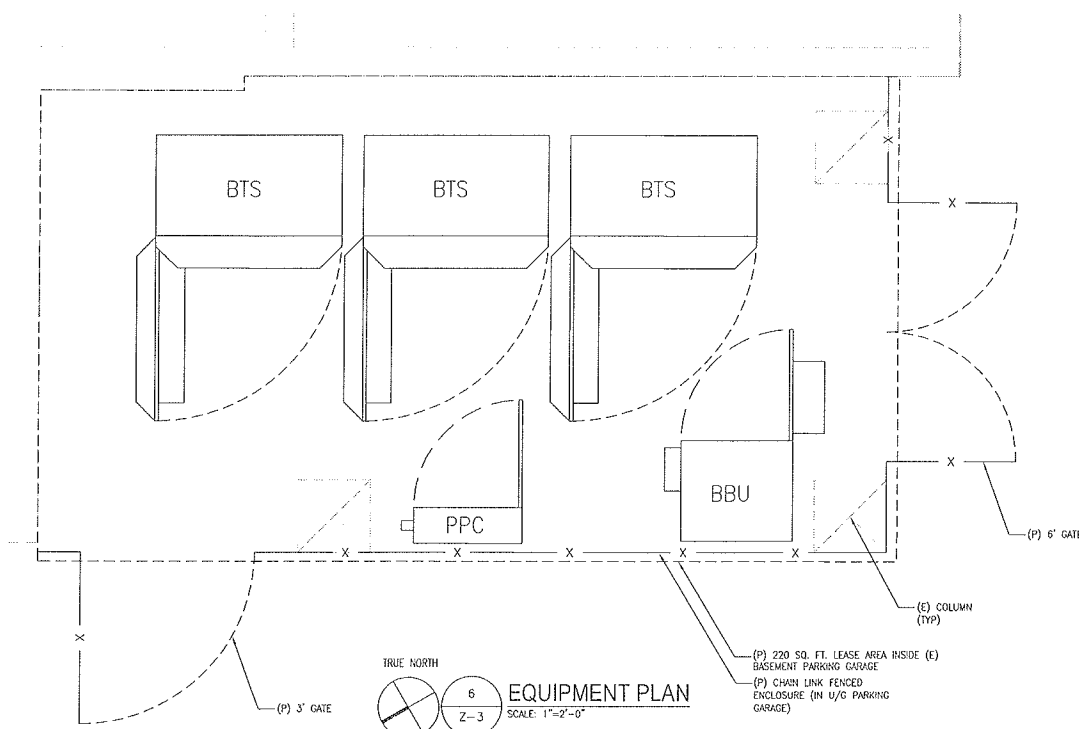
3 TYPICAL BALLAST MOUNTED CHIMNEY  
SCALE: NTS



4 TYPICAL EQUIPMENT  
SCALE: NTS



5 TYPICAL ROOF TOP CABLE TRAY  
SCALE: NTS

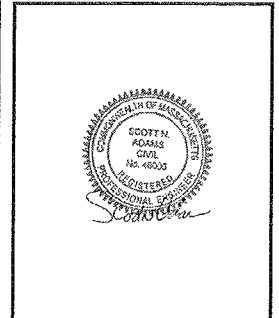


6 EQUIPMENT PLAN  
SCALE: 1\"/>

LEGEND	
(F)	= FUTURE
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(A.G.L.)	= ABOVE GROUND LEVEL

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**ADVANCED**  
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34 HENDERSON WOOD  
LAST PROPOSED: 01-02-2015  
PLOT: 401-354-5063  
FAX: 401-843-5354



APPROVALS

LANDLORD \_\_\_\_\_

LEASING \_\_\_\_\_

R.F. \_\_\_\_\_

ZONING \_\_\_\_\_

CONSTRUCTION \_\_\_\_\_

A/E \_\_\_\_\_

PROJECT NO: 4BN-0112-F

DRAWN BY: DD

CHECKED BY: SNA

SUBMITTALS		
REV 3	02/18/11	ZONING REVISED
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4BN-0112-F  
289 HIGHLAND AVENUE  
289 HIGHLAND AVE.  
SOMERVILLE, MA 02144

SHEET TITLE  
COMPOUND PLAN,  
ELEVATION & DETAIL

SHEET NUMBER  
**Z-3**



# VIEWSHED ANALYSIS OF PROPOSED ROOFTOP EQUIPMENT

Prepared for: T-Mobile Northeast, LLC  
Site ID # 4BN0122F

Site Address: 289 Highland Avenue  
Somerville, MA 02144

Date: Wednesday, February 23, 2011

Revision Number: 0

Prepared by:



34 Hemingway Drive  
East Providence, RI 02915  
Phone: (401) 354-2403

# Contents

- PS-1 Key Map of Photos
- PS-2 View 1 (existing view)
- PS-3 View 1 (proposed view)
- PS-4 View 2 (existing view, not visible)
- PS-5 View 3 (existing view, not visible)
- PS-6 View 4 (existing view, not visible)





VIEW 3 LOCATION  
(NOT VISIBLE)

SUBJECT  
BUILDING

VIEW 2 LOCATION  
(NOT VISIBLE)



VIEW 4 LOCATION  
(NOT VISIBLE)

VIEW 1 LOCATION

PREPARED FOR:

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FAX: (401) 633-6354

SITE NO: 4BN0112F

SITE NAME: 289 HIGHLAND AVENUE

ADDRESS: 289 HIGHLAND AVENUE  
SOMERVILLE, MA 02114

**KEY MAP OF PHOTOS**

PAGE: PS-1

DATE: 2/23/2011

DRAWN BY: MR

REVISION: 0





PREPARED FOR:

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SITE NO: 4BN0112F

SITE NAME: 289 HIGHLAND AVENUE

ADDRESS: 289 HIGHLAND AVENUE  
SOMERVILLE, MA 02114

**VIEW #1**  
EXISTING CONDITIONS  
FROM THE CORNER OF CEDAR STREET  
AND HIGHLAND AVENUE

PAGE: PS-2

DATE: 2/23/2011

DRAWN BY: MR

REVISION: 0



PROPOSED 5'x5'x8.5' RF-TRANSPARENT ANTENNA  
ENCLOSURE PAINTED AND TEXTURED TO MATCH  
EXISTING BRICK FACADE (A.K.A. STEALTH CHIMNEY)



PREPARED FOR:

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SOMERVILLE, MA 02114

**VIEW #1**  
PROPOSED VIEW  
FROM THE CORNER OF CEDAR STREET  
AND HIGHLAND AVENUE

PAGE: PS-3

DATE: 2/23/2011

DRAWN BY: MR

REVISION: 0





PROPOSED STEALTH CHIMNEY WILL NOT BE VISIBLE FROM THIS LOCATION

PREPARED FOR:

T-MOBILE NORTHEAST, LLC  
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SOMERVILLE, MA 02114

**VIEW #2**  
EXISTING CONDITIONS/  
PROPOSED VIEW  
FROM HIGHLAND AVENUE

PAGE: PS-4

DATE: 2/23/2011

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PROPOSED STEALTH CHIMNEY WILL NOT BE VISIBLE FROM THIS LOCATION

PREPARED FOR:

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SITE NAME: 289 HIGHLAND AVENUE

ADDRESS: 289 HIGHLAND AVENUE  
SOMERVILLE, MA 02114

**VIEW #3**  
EXISTING CONDITIONS/  
PROPOSED VIEW  
FROM SPENCER AVENUE

PAGE: PS-5

DATE: 2/23/2011

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REVISION: 0





PROPOSED STEALTH CHIMNEY WILL NOT BE VISIBLE FROM THIS LOCATION

PREPARED FOR:

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PREPARED BY:

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SITE NO: 4BN0112F

SITE NAME: 289 HIGHLAND AVENUE

ADDRESS: 289 HIGHLAND AVENUE  
SOMERVILLE, MA 02114

**VIEW #4**  
EXISTING CONDITIONS/  
PROPOSED VIEW FROM  
CEDAR STREET

PAGE: PS-6

DATE: 2/23/2011

DRAWN BY: MR

REVISION: 0