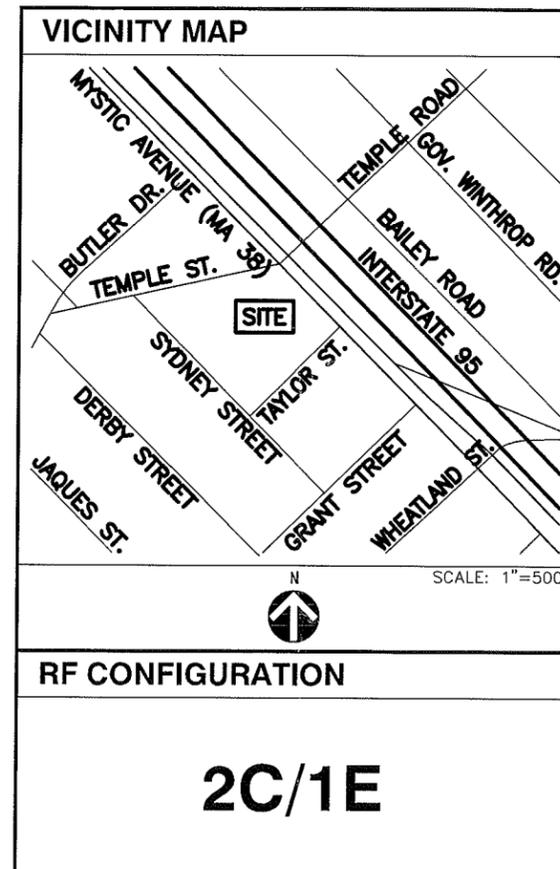


4BS0365B - MYSTIC TOWERS

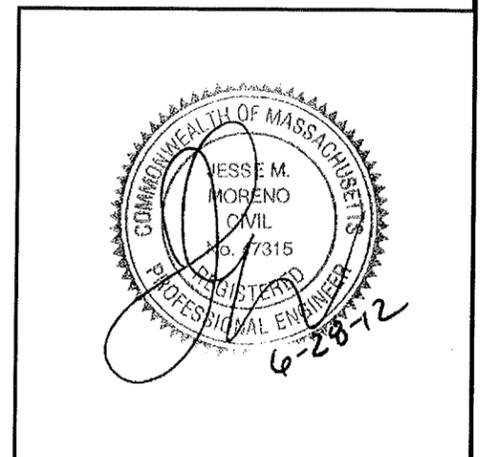
422 MYSTIC AVENUE
SOMERVILLE, MA 02145

SITE TYPE: ROOFTOP

PROJECT SUMMARY		
T-MOBILE ID:	4BS0365B	
T-MOBILE NAME:	MYSTIC TOWERS	
ADDRESS:	422 MYSTIC AVENUE SOMERVILLE, MA 02145	
COUNTY:	MIDDLESEX	
SITE TYPE:	ROOFTOP	
CONSTRUCTION TYPE:	MODIFICATION	
APPLICANT, LESSEE/LICENSEE:	T-MOBILE NORTHEAST, LLC 15 COMMERCE WAY; SUITE B NORTON, MA 02766	
ZONING DISTRICT:	BB - COMMERCIAL RESIDENTIAL	
PARCEL ID:	MAP 69, BLOCK B, LOT 2	
PROPERTY OWNER:	THE 422 MYSTIC AVE REALTY LLC 59 UNION SQUARE SOMERVILLE, MA 02143	
ENGINEER/DESIGNER:	PROTERRA DESIGN GROUP, LLC 1 SHORT STREET; SUITE 3 NORTHAMPTON, MA 01060	
SHEET INDEX		
SHT. NO.	DESCRIPTION	REV. NO.
T-1	TITLE SHEET	1
P-1	PLOT PLAN	1
A-1	ROOF PLAN	1
A-2	ELEVATIONS	1
A-3	EQUIPMENT AND ANTENNA PLANS	1
S-1	STRUCTURAL DETAILS	1
S-2	STRUCTURAL DETAILS	1
S-3	STRUCTURAL DETAILS	1
E-1	ELECTRICAL DETAILS	1
GN-1	GENERAL NOTES	1



PROJECT DESCRIPTION	
<ol style="list-style-type: none"> THIS PLAN SET DETAILS A MODIFICATION TO AN EXISTING T-MOBILE COMMUNICATIONS FACILITY. THIS IS UNMANNED & RESTRICTED-ACCESS EQUIPMENT AND WILL BE USED FOR THE TRANSMISSION OF RADIO SIGNAL FOR THE PURPOSE OF PROVIDING PUBLIC CELLULAR SERVICE. NO POTABLE WATER SUPPLY IS TO BE PROVIDED AT THIS LOCATION. NO WASTE WATER WILL BE GENERATED AT THIS LOCATION. NO SOLID WASTE WILL BE GENERATED AT THIS LOCATION. T-MOBILE MAINTENANCE CREW (TYPICALLY ONE PERSON) WILL MAKE AN AVERAGE OF ONE TRIP PER MONTH AT ONE HOUR PER VISIT. 	
PLAN NOTES	
<ol style="list-style-type: none"> EXISTING CONDITIONS BASED ON A FIELD VISIT BY PROTERRA DESIGN GROUP, LLC. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION. ENGINEER OF RECORD IS TO BE INFORMED OF ANY DISCREPANCIES PRIOR TO COMMENCING CONSTRUCTION ACTIVITY. ALL UNDERGROUND UTILITY INFORMATION WAS DETERMINED FROM SURFACE INVESTIGATIONS AND EXISTING PLANS OF RECORD. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES IN THE FIELD PRIOR TO ANY SITE WORK. CALL THE FOLLOWING FOR ALL PRE-CONSTRUCTION NOTIFICATION 72-HOURS PRIOR TO ANY EXCAVATION ACTIVITY: DIG SAFE SYSTEM (MA, ME, NH, RI, VT): 888-344-7233 	
SCALE NOTES	
<ol style="list-style-type: none"> THIS SHEET SET WAS ORIGINALLY SET UP AS 11"x17". PRINTING TO ARCH D (22"x34") WILL RESULT IN A DOUBLE SCALE SHEET SET WITH 2" MARGINS. RESULTING SCALES WILL BE THOSE NOTED IN TEXT. EXAMPLE: 1"=20' WILL CHANGE TO 1"=10'. CONFIRM ALL SCALED DISTANCES WITH GRAPHICAL SCALES SHOWN HEREIN. GRAPHICAL SCALES WILL BE UNCHANGED BY ENLARGEMENT OR REDUCTION. 	



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NORTON, MA 02766


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702 Riverwood Dr.
Pembroke, NH 03275
T: (603) 717-7117 F: (603) 717-7113

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MYSTIC TOWERS
422 MYSTIC AVENUE
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REVISIONS

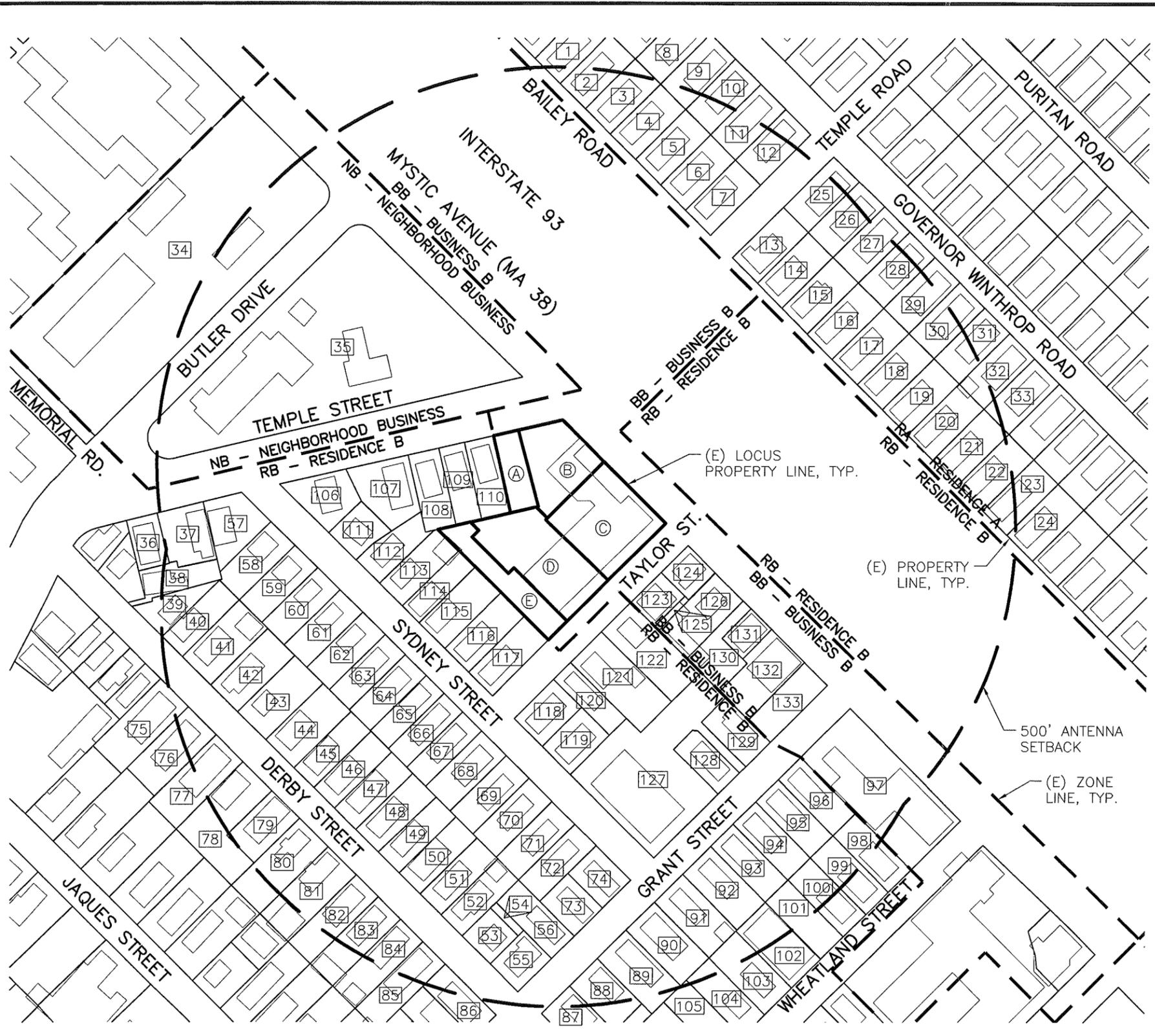
DESIGNED BY: JMM/TEJ JOB #: 12-014

DRAWN BY: MJV REV. #: 1

DATE: 6/28/12

SCALE: AS NOTED

T-1



LOCUS PARCELS

A	69-B-15
B	69-B-1
C	69-B-2
D	69-B-2A
E	69-B-3A



ABUTTER PARCELS

1	56-D-24	28	68-C-4	55	69-H-21	82	69-G-13	109	69-B-13
2	56-D-23	29	68-C-5	56	69-H-19	83	69-G-14	110	69-B-14
3	56-D-22	30	68-C-6	57	69-H-1	84	69-G-15	111	69-B-9
4	56-D-21	31	68-C-7	58	69-H-2	85	69-G-16	112	69-B-8
5	56-D-20	32	68-C-8	59	69-H-3	86	69-G-17	113	69-B-7
6	56-D-19	33	68-C-9	60	69-H-4	87	69-D-14	114	69-B-6
7	56-D-18	34	57-A-2	61	69-H-5	88	69-D-15	115	69-B-5
8	56-D-13	35	69-A-1	62	69-H-6	89	69-D-16	116	69-B-4
9	56-D-14	36	69-H-40	63	69-H-7	90	69-D-17	117	69-B-3
10	56-D-15	37	69-H-41	64	69-H-8	91	69-D-18	118	69-C-12
11	56-D-16	38	69-H-37	65	69-H-9	92	69-D-19	119	69-C-11
12	56-D-17	39	69-H-36	66	69-H-10	93	69-D-20	120	69-C-13
13	68-C-35	40	69-H-35	67	69-H-11	94	69-D-21	121	69-C-14
14	68-C-34	41	69-H-34	68	69-H-12	95	69-D-22	122	69-C-15
15	68-C-33	42	69-H-33	69	69-H-13	96	69-D-23	123	69-C-16
16	68-C-32	43	69-H-32	70	69-H-14	97	69-D-1	124	69-C-1
17	68-C-31	44	69-H-31	71	69-H-15	98	69-D-2	125	69-C-17
18	68-C-30	45	69-H-30	72	69-H-16	99	69-D-3	126	69-C-2
19	68-C-29	46	69-H-29	73	69-H-17	100	69-D-4	127	69-C-10
20	68-C-28	47	69-H-28	74	69-H-18	101	69-D-5	128	69-C-9
21	68-C-27	48	69-H-27	75	69-G-6	102	69-D-6	129	69-C-7
22	68-C-26	49	69-H-26	76	69-G-7	103	69-D-7	130	69-C-3
23	68-C-25	50	69-H-25	77	69-G-8	104	69-D-8	131	69-C-4
24	68-C-24	51	69-H-24	78	69-G-9	105	69-D-9	132	69-C-5
25	68-C-1	52	69-H-23	79	69-G-10	106	69-B-10	133	69-C-6
26	68-C-2	53	69-H-22	80	69-G-11	107	69-B-11		
27	68-C-3	54	69-H-20	81	69-G-12	108	69-B-12		

SOURCES:

PROPERTY LINES: "ASSESSORS' PARCELS" DATALAYER DATED MARCH 2010 FROM "OFFICE OF GEOGRAPHIC INFORMATION (MASSGIS), COMMONWEALTH OF MASSACHUSETTS INFORMATION TECHNOLOGY DIVISION" CONFIRMED WITH CITY OF SOMERVILLE ASSESSORS MAPS DATED JANUARY 10, 2008, RETRIEVED JUNE 2012.

PROPERTY INFORMATION: CITY OF SOMERVILLE ASSESSOR DATABASE DATED 2012, RETRIEVED JUNE 2012.

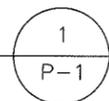
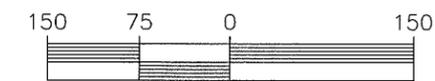
ZONING LINES: CITY OF SOMERVILLE ZONING MAP. DATED FEBRUARY 11, 2010. RETRIEVED JUNE 2012.

BUILDING LOCATIONS: "BUILDING FOOTPRINTS" DATALAYER DATED JANUARY 2005 FROM "OFFICE OF GEOGRAPHIC INFORMATION (MASSGIS), COMMONWEALTH OF MASSACHUSETTS INFORMATION TECHNOLOGY DIVISION"



PLOT PLAN

SCALE: 1"=150' (11x17)
1"=75' (22x34)



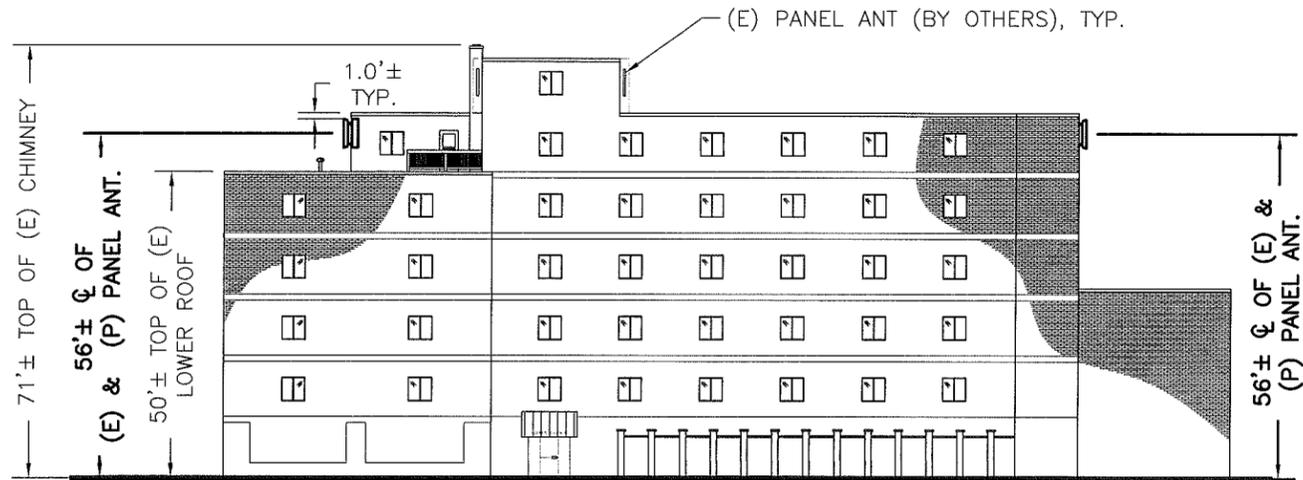
ProTerra
DESIGN GROUP, LLC
1 Short Street
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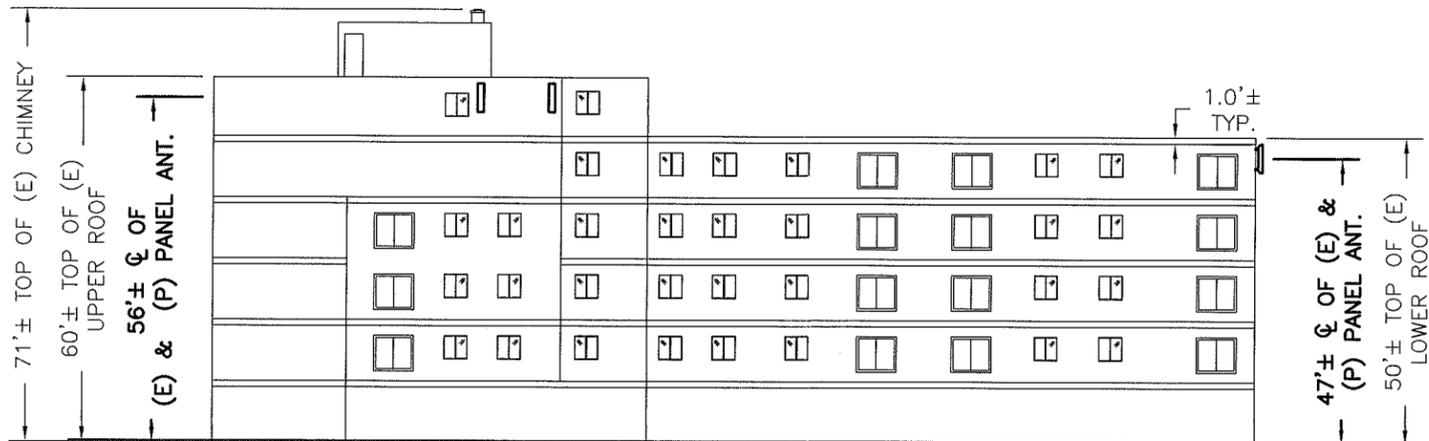
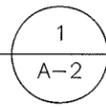
4BS0365B
MYSTIC TOWERS
422 MYSTIC AVENUE
SOMERVILLE, MA 02145

REVISIONS	DESIGNED BY: JMM/TEJ	JOB #: 12-014
	DRAWN BY: MJV	REV. #: 1
	DATE: 6/28/12	P-1
	SCALE: AS NOTED	



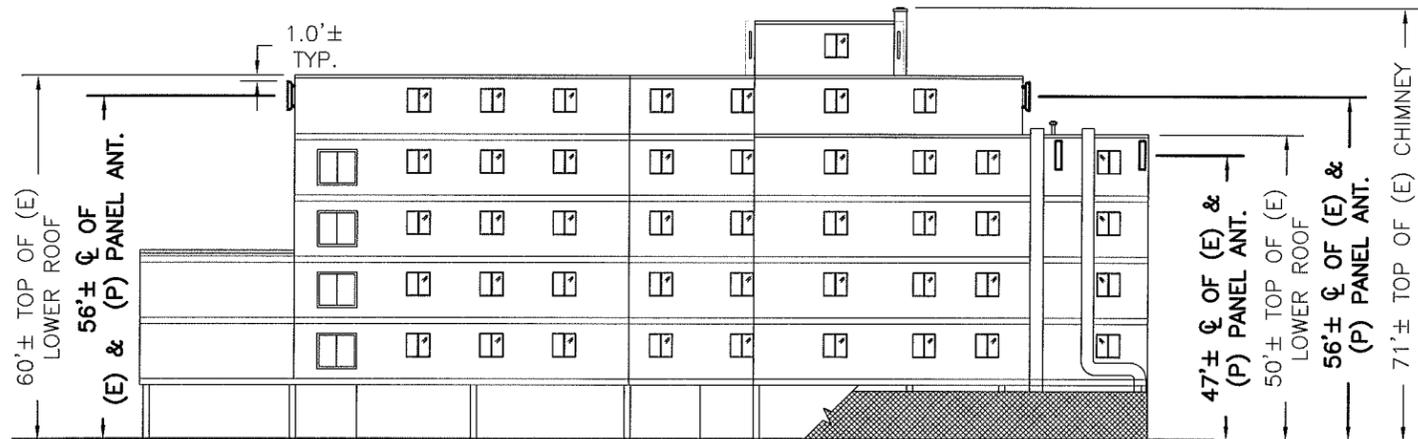
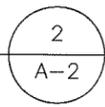
NORTHEAST ELEVATION

SCALE: 1"=30' (11x17)
1"=15' (22x34)



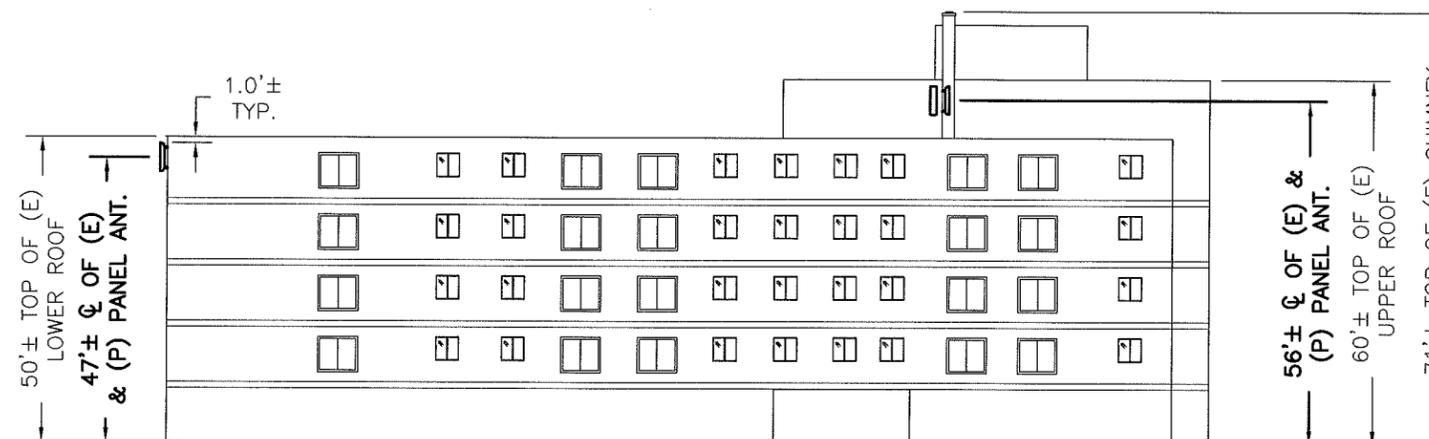
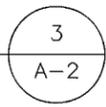
NORTHWEST ELEVATION

SCALE: 1"=30' (11x17)
1"=15' (22x34)



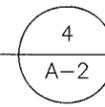
SOUTHWEST ELEVATION

SCALE: 1"=30' (11x17)
1"=15' (22x34)



SOUTHEAST ELEVATION

SCALE: 1"=30' (11x17)
1"=15' (22x34)



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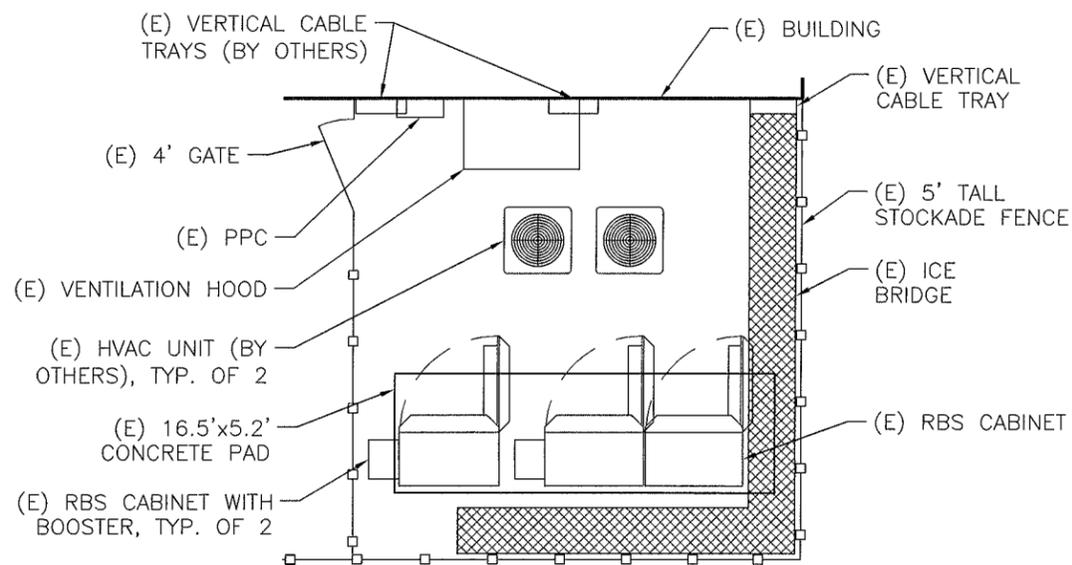
T-Mobile
T-MOBILE NORTHEAST, LLC
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SUITE B
NORTON, MA 02766


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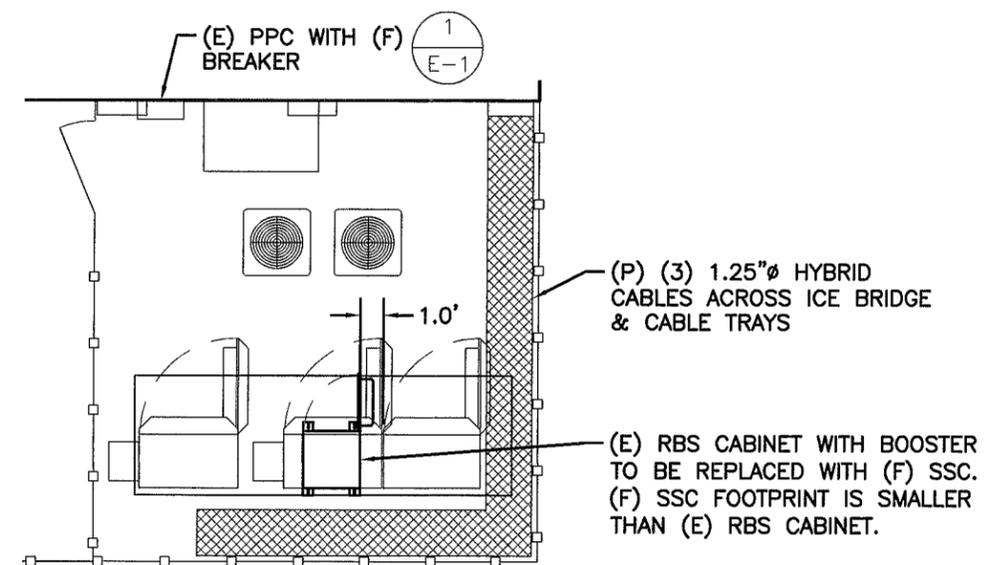
4BS0365B

MYSTIC TOWERS
422 MYSTIC AVENUE
SOMERVILLE, MA 02145

REVISIONS	DESIGNED BY: JMM/TEJ	JOB #: 12-014
	DRAWN BY: MJV	REV. #: 1
	DATE: 6/28/12	A-2
	SCALE: AS NOTED	

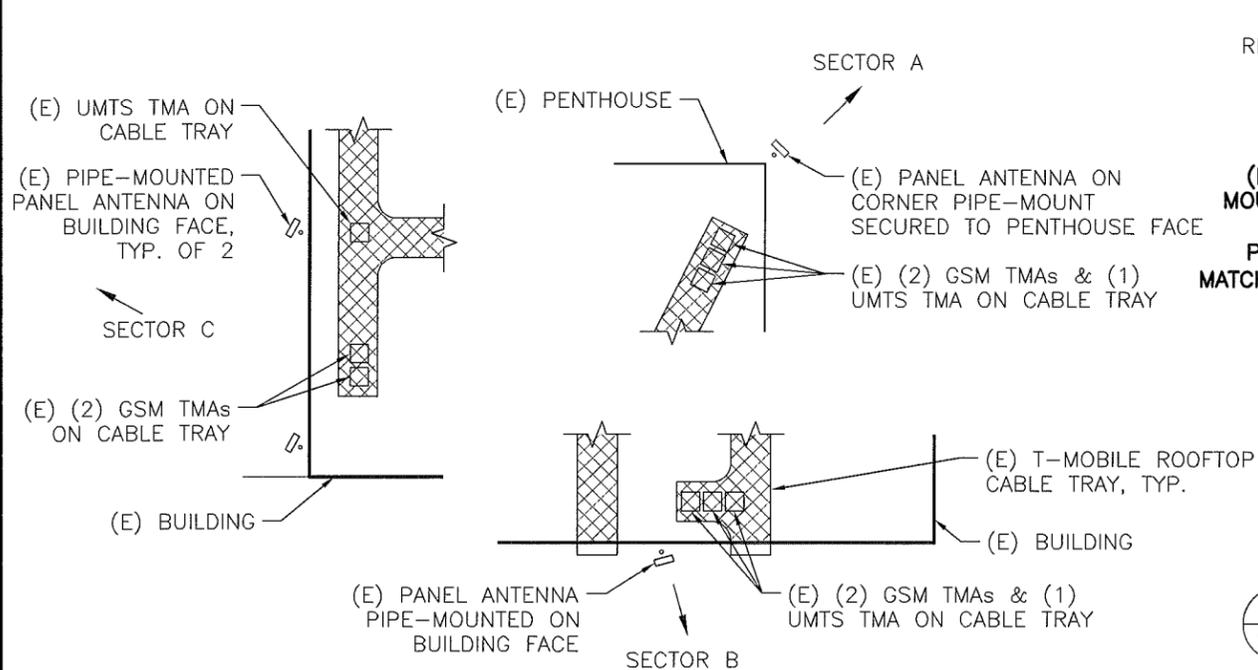


(E) EQUIPMENT AREA 1
 SCALE: 1"=8' (11x17)
 1"=4' (22x34)

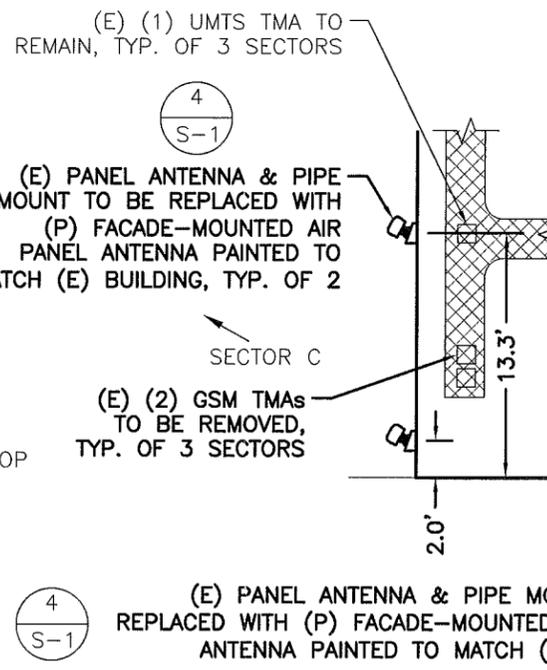


(P) EQUIPMENT AREA 2
 SCALE: 1"=5' (11x17)
 1"=2.5' (22x34)

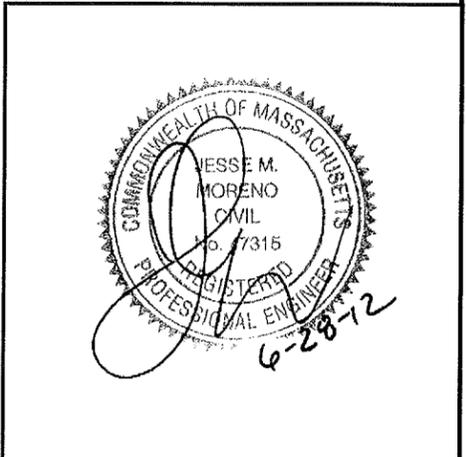
REFER TO THE FINAL RF SHEET FOR FINAL ANTENNA CONFIGURATION



(E) ANTENNA PLAN 3
 SCALE: 1"=10' (11x17)
 1"=5' (22x34)



(P) ANTENNA PLAN 4
 SCALE: 1"=10' (11x17)
 1"=5' (22x34)



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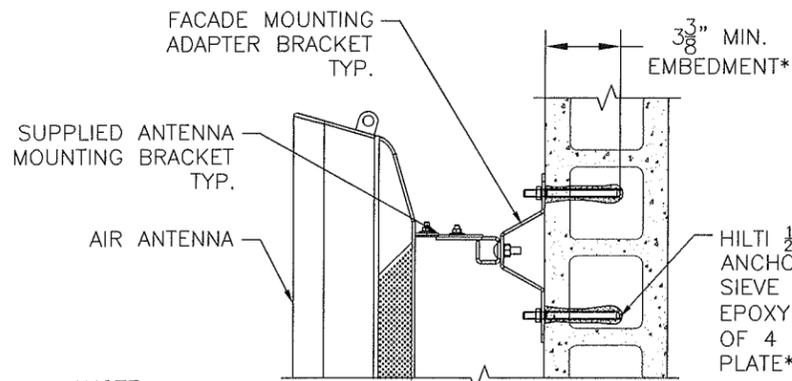
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REVISIONS	DESIGNED BY:	JMM/TEJ	JOB #:	12-014
	DRAWN BY:	MJV	REV. #:	1
	DATE:	6/28/12		
	SCALE:	AS NOTED		

A-3

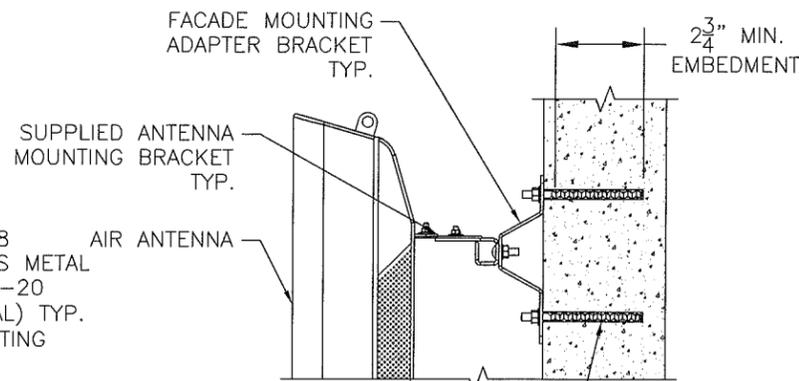


- *NOTE:
- FOR MULTI WYTHE BRICK WALLS 6" MIN. EMBED. IS REQ'D (TO ENGAGE TWO LAYERS OF BRICK).
 - NO MORE THAN 1 ANCHOR PER CELL.
 - MIN. DISTANCE TO FREE EDGE 12" (CMU), 18" (BRICK).

ANCHOR DETAIL FOR HOLLOW MASONRY

SCALE: NONE

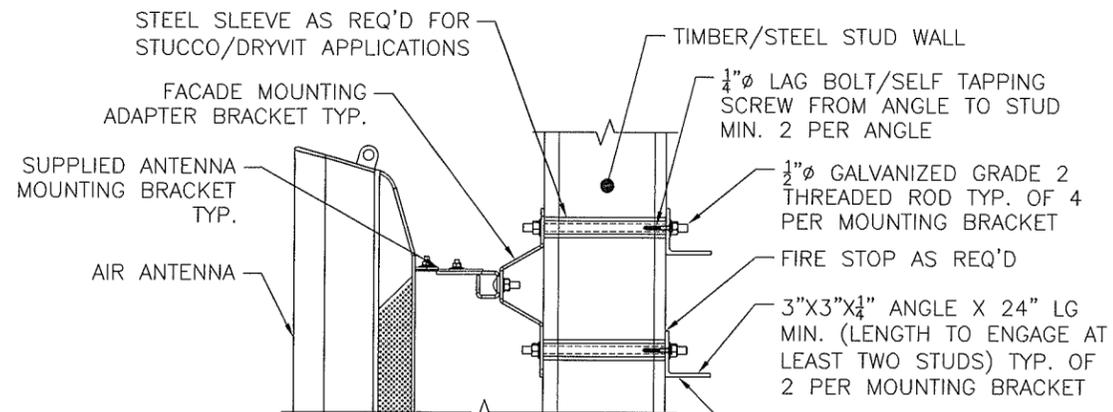
1
S-1



ANCHOR DETAIL FOR SOLID MASONRY

SCALE: NONE

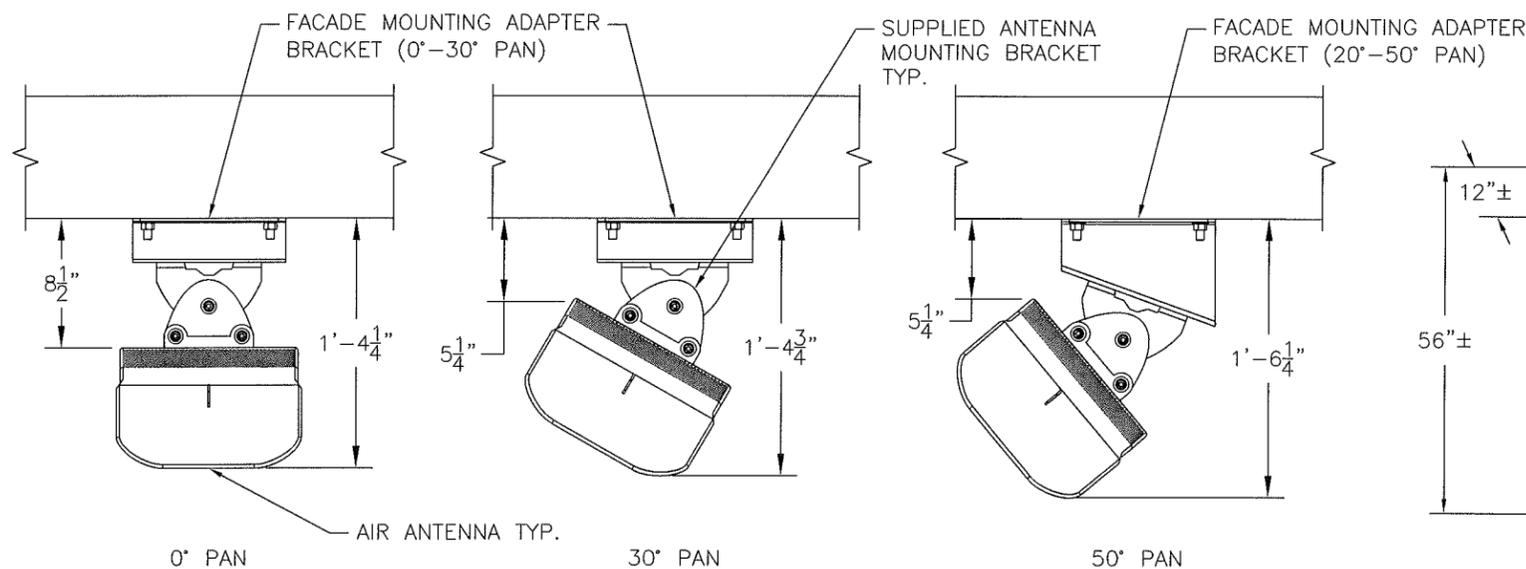
2
S-1



MOUNTING DETAIL FOR TIMBER/STEEL STUD CONST.

SCALE: NONE

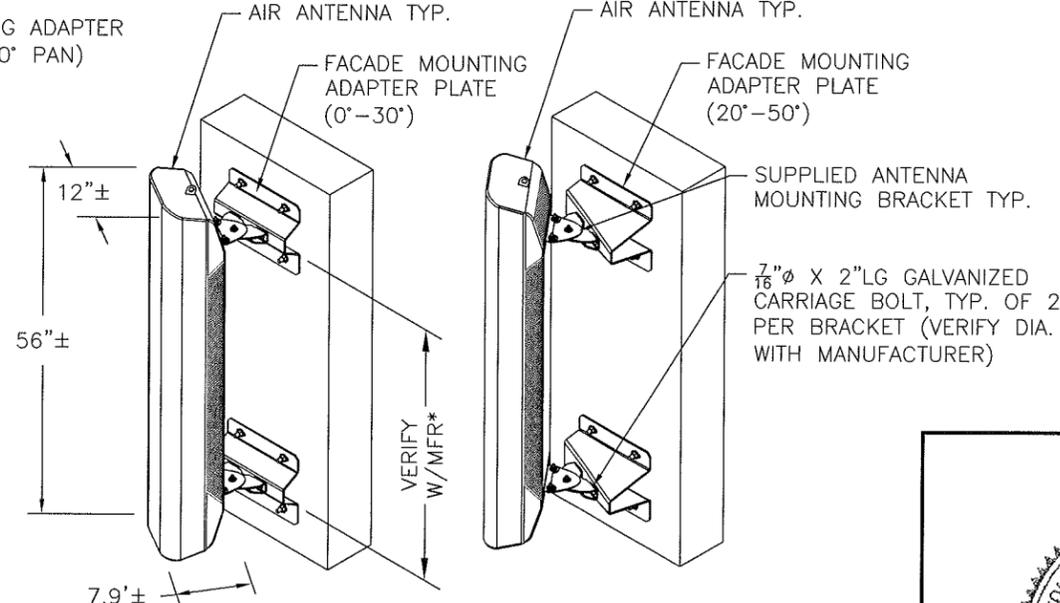
3
S-1



FACADE MOUNT AIR ANTENNA PLAN

SCALE: 1"=1' (11x17)
1"=6" (22x34)

4
S-1

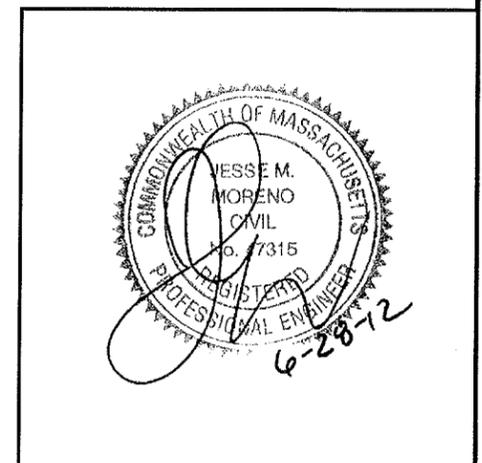


- *NOTE: BRACKET POSITION IS CRITICAL TO PROPER ANTENNA INSTALLATION. VERIFY VERTICAL CENTER TO CENTER MEASUREMENT WITH ANTENNA MANUFACTURER

FACADE MOUNT AIR ANTENNA ISOMETRIC

SCALE: NONE

5
S-1



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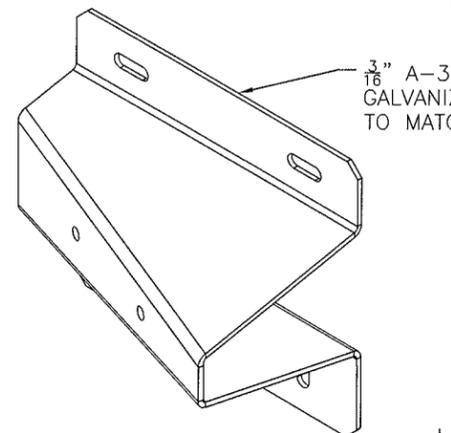
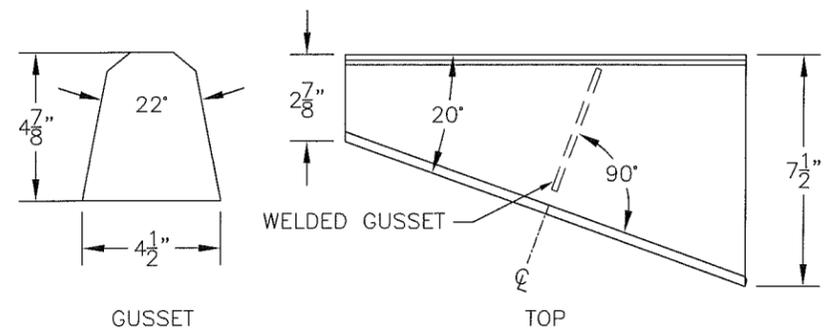
4BS0365B

MYSTIC TOWERS
422 MYSTIC AVENUE
SOMERVILLE, MA 02145

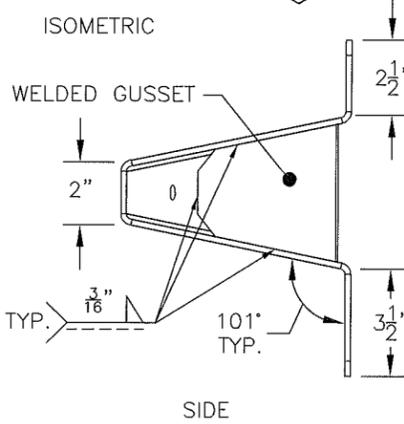
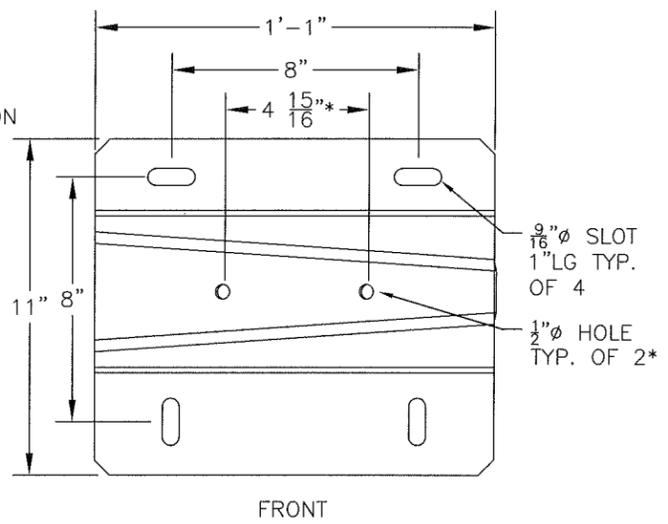
REVISIONS	DESIGNED BY:	JMM/TEJ	JOB #:	12-014
	DRAWN BY:	MJV	REV. #:	1
	DATE:	6/28/12		
	SCALE:	AS NOTED		

S-1

PROVIDE ANSI 0.5 REGULAR WASHER BEHIND ALL CONNECTIONS TO FACADE MOUNTING ADAPTER BRACKET



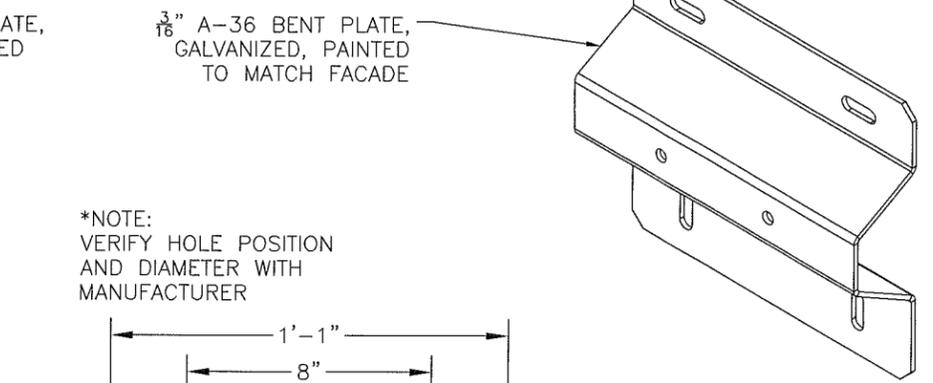
*NOTE:
VERIFY HOLE POSITION
AND DIAMETER WITH
MANUFACTURER



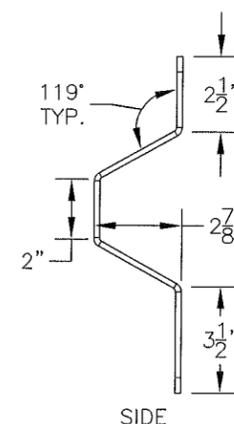
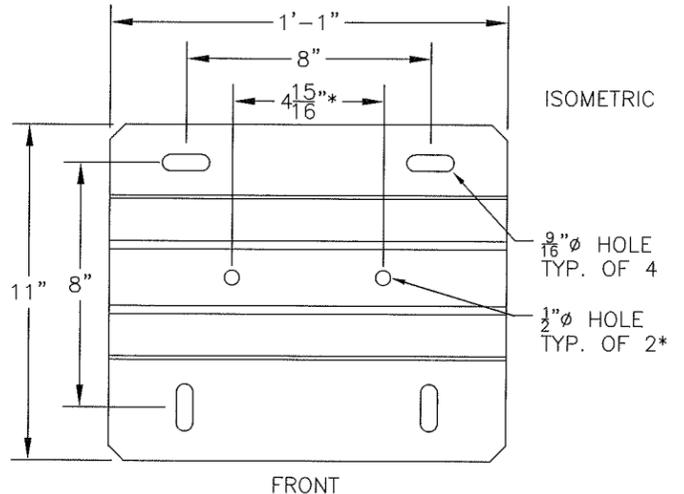
**AIR ANT. FACADE MOUNTING
ADAPTER BRACKET (20°-50° PAN)**

SCALE: 1"=6" (11x17)
1"=3" (22x34)

1
S-2



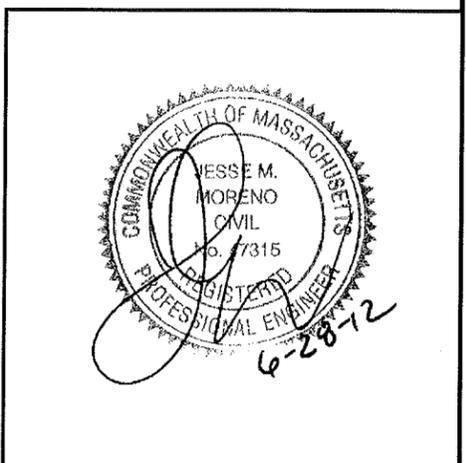
*NOTE:
VERIFY HOLE POSITION
AND DIAMETER WITH
MANUFACTURER



**AIR ANT. FACADE MOUNTING
ADAPTER BRACKET (0°-30° PAN)**

SCALE: 1"=6" (11x17)
1"=3" (22x34)

2
S-2



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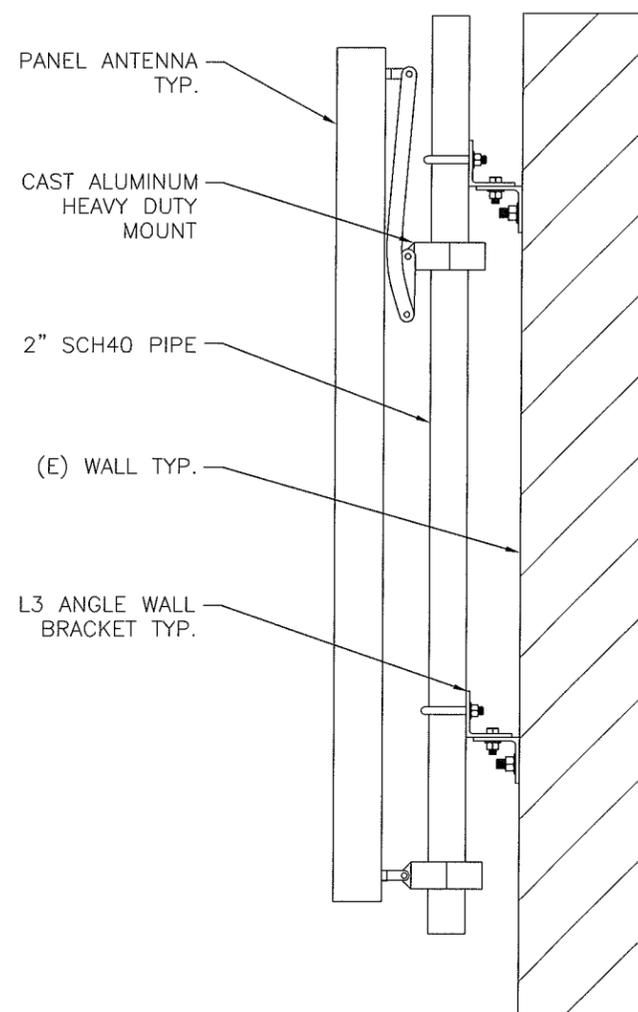
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MYSTIC TOWERS
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REVISIONS	

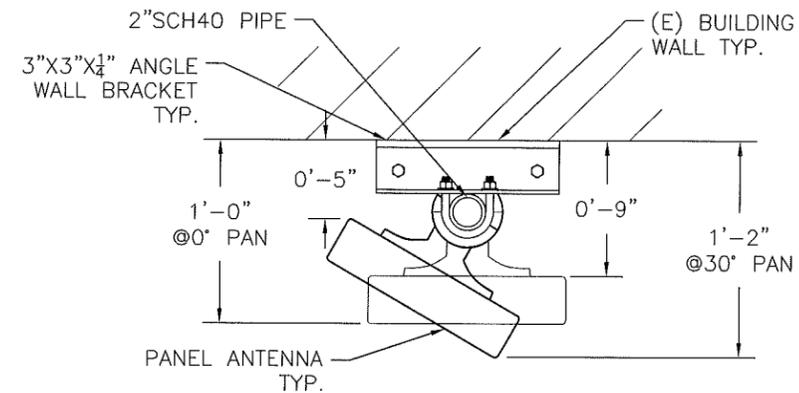
DESIGNED BY:	JMM/TEJ	JOB #:	12-014
DRAWN BY:	MJV	REV. #:	1
DATE:	6/28/12	S-2	
SCALE:	AS NOTED		



**EXISTING PIPE MOUNTED
ANTENNA ELEVATION**

SCALE: 1"=1' (11x17)
1"=6" (22x34)

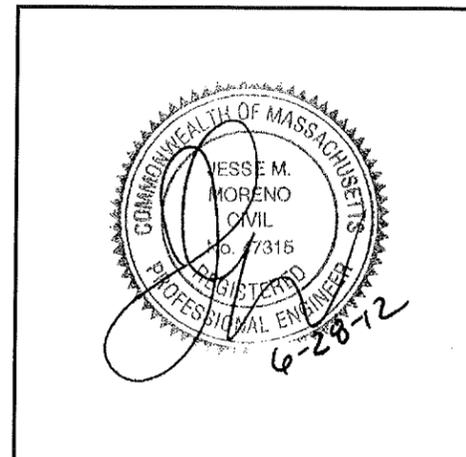
1
S-3



**EXISTING PIPE MOUNTED
ANTENNA PLAN**

SCALE: 1"=1' (11x17)
1"=6" (22x34)

2
S-3



ProTerra
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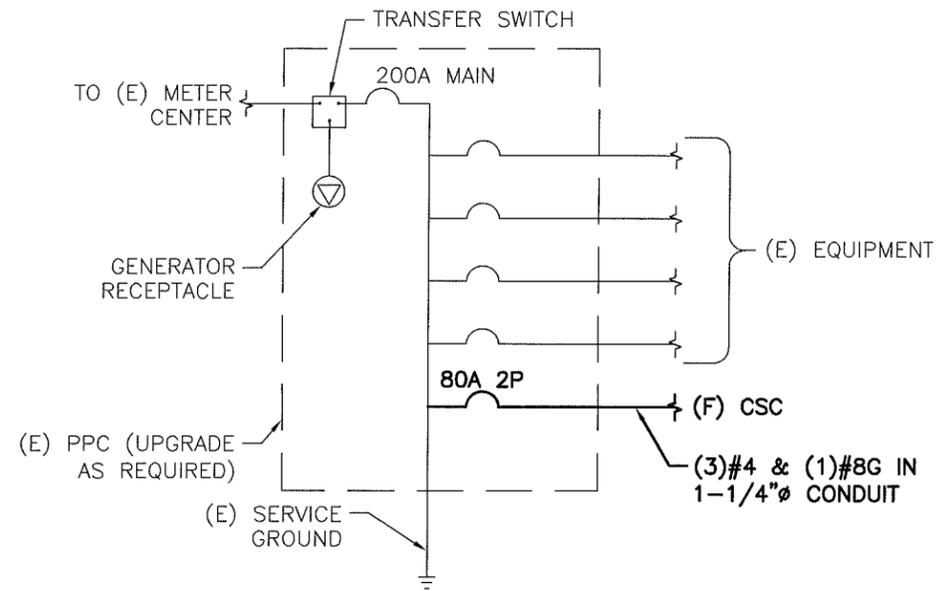
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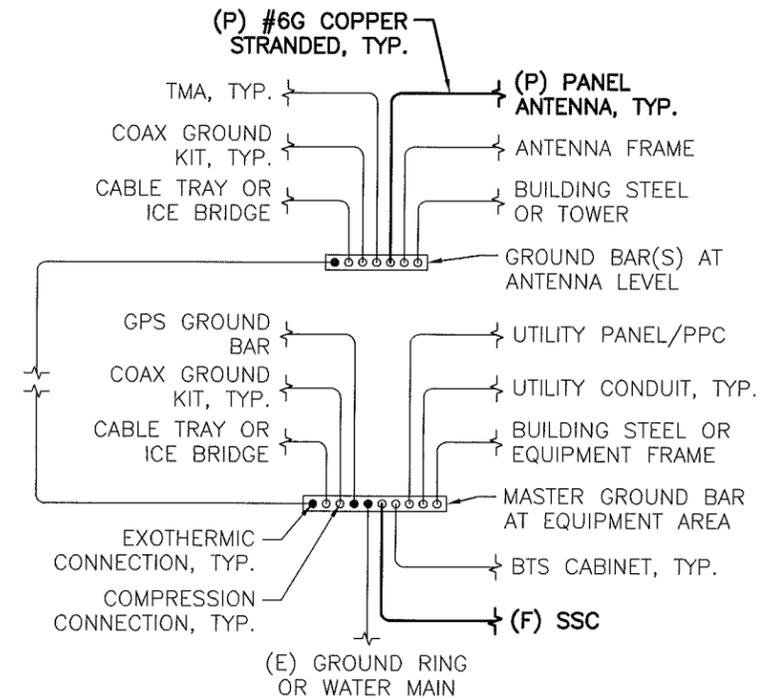
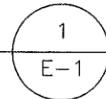
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REVISIONS	DESIGNED BY:	JMM/TEJ	JOB #:	12-014
	DRAWN BY:	MJV	REV. #:	1
	DATE:	6/28/12	S-3	
	SCALE:	AS NOTED		



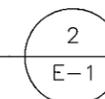
ONE-LINE DIAGRAM

SCALE: NTS



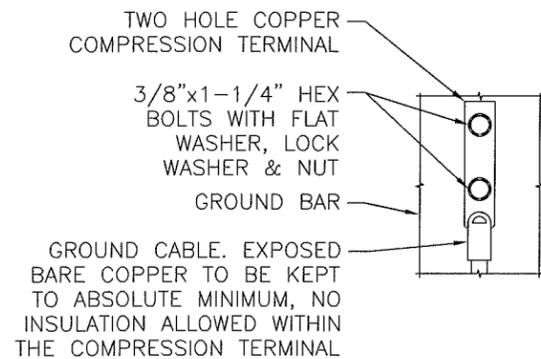
GROUNDING DIAGRAM

SCALE: NTS

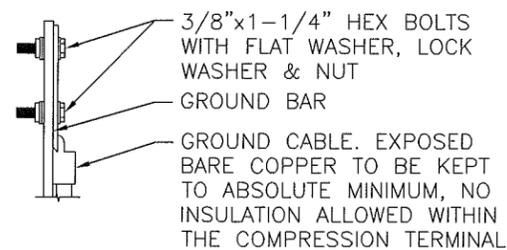


REPAIR NOTES:

1. REPLACE ALL MISSING GROUNDING COMPONENTS.
2. WHERE POSSIBLE, REPLACE CUT GROUNDING LEADS.
3. IF NECESSARY, SPLICE GROUNDING LEADS WITH EXOTHERMIC-TYPE CONNECTION.



ELEVATION

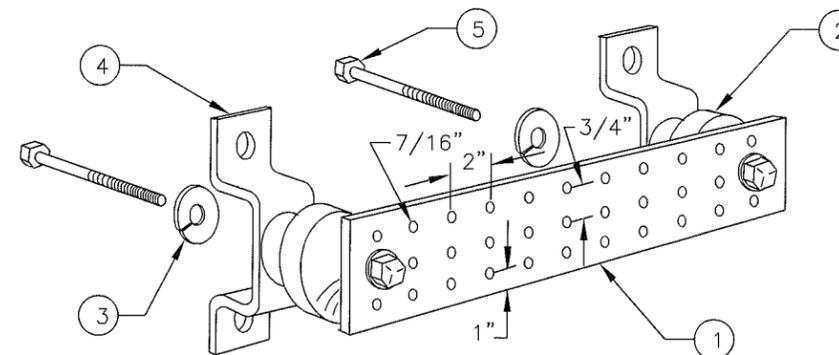
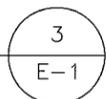


SECTION

1. "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED.
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.

GROUND BAR CONNECTION

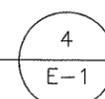
SCALE: NTS



1. COPPER GROUND BAR, 1/4"x4"x24", BY NEWTON INSTRUMENT CO. OR EQUAL. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION. (ACTUAL GROUND BAR SIZE WILL VARY BASED ON NUMBER OF GROUND CONNECTIONS)
2. INSULATORS, NEWTON INSTRUMENT CAT. NO. 3061-4 OR EQUAL
3. 5/8" LOCKWASHERS OR EQUAL
4. WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT. NO. A-6056 OR EQUAL
5. 5/8-11x1" HHCS BOLTS, NEWTON INSTRUMENT CO. CAT. NO. 3012-1 OR EQUAL
6. INSULATORS SHALL BE ELIMINATED WHEN BONDING DIRECTLY TO TOWER/MONOPOLE STRUCTURE. CONNECTION TO TOWER/MONOPOLE STRUCTURE SHALL BE PER MANUFACTURERS RECOMMENDATIONS.

GROUND BAR

SCALE: NTS



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	DRAWN BY:	MJV	REV. #:	1
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E-1

GENERAL NOTES

- PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR 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 THE CONTRACTOR.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR 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.
- UNLESS OTHERWISE NOTED, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDE IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.
- THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
- SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF POWER, TELCO, AND GROUNDING CABLES AND CONDUITS. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.
- THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING, AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
- SUBCONTRACTOR 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.
- SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
- CONSTRUCTION SHALL COMPLY WITH LTE SPECIFICATIONS PROVIDED BY T-MOBILE.
- SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
- SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUT DOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE ADVISED TO BE WORK TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.
- SUBCONTRACTOR SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.

ELECTRICAL NOTES

- ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
- ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
- THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
- GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
- ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS OR SCHEDULE 80 PVC (AS PERMITTED BY CODE) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.
- BURIED CONDUIT SHALL BE SCHEDULE 40 PVC.
- ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THHN INSULATION.
- ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
- GROUNDING SHALL COMPLY WITH NEC ART. 250. ADDITIONALLY, GROUNDING, BONDING AND LIGHTNING PROTECTION SHALL BE DONE IN ACCORDANCE WITH "T-MOBILE BTS SITE GROUNDING STANDARDS".
- GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS COAX CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.
- USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.

- ALL GROUND CONNECTIONS TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
- ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 6 FEET OF PROJECT OWNER EQUIPMENT OR CABINET TO MASTER GROUND BAR OR GROUNDING RING.
- CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
- BOND ANTENNA MOUNTING BRACKETS, COAXIAL CABLE GROUND KITS, AND ALNA TO EGB PLACED NEAR THE ANTENNA LOCATION.
- APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.
- CONTRACTOR SHALL TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION. 5 OHMS MAXIMUM RESISTANCE REQUIRED.
- CONTRACTOR SHALL CONDUCT ANTENNA, COAX, AND LNA RETURN-LOSS AND DISTANCE- TO-FAULT MEASUREMENTS (SWEEP TESTS) AND RECORD RESULTS FOR PROJECT CLOSE OUT.

STRUCTURAL NOTES

- DESIGN REQUIREMENTS ARE PER STATE BUILDING CODE AND APPLICABLE SUPPLEMENTS, ANSI/ASCE7, EIA/TIA-222-G/6 STRUCTURAL STANDARDS FOR STEEL ANTENNA SUPPORTING STRUCTURES.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE CONSTRUCTION MANAGER.
- EXPANSION BOLTS SHALL CONFORM TO FEDERAL SPECIFICATION FF-S-325, GROUP II, TYPE 4, CLASS I, HILTI KWIK BOLT II OR APPROVED EQUAL. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MINIMUM EMBEDMENT SHALL BE THREE AND ONE HALF (3 1/2) INCHES.
- ALL STEEL WORK SHALL BE PAINTED OR GALVANIZED IN ACCORDANCE WITH THE DRAWINGS AND T-MOBILE SPECIFICATIONS UNLESS OTHERWISE NOTED.
- WIDE FLANGE BEAMS TO BE 50KSI STEEL UNLESS OTHERWISE NOTED.
- STRUCTURAL STEEL PLATE SHALL BE ASTM-A-36 UNLESS OTHERWISE NOTED ON THE SITE SPECIFIC DRAWINGS.
- STEEL DESIGN, INSTALLATION AND BOLTING SHALL BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "MANUAL OF STEEL CONSTRUCTION".
- ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AWS D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 9TH EDITION. PAINTED OR GALVANIZED SURFACES SHALL BE TOUCHED UP.
- BOLTED CONNECTIONS SHALL USE BEARING TYPE ASTM A325 BOLTS (3/4"Ø) AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE. ALL BOLTS SHALL BE GALVANIZED OR STAINLESS STEEL.
- NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 1/2"Ø ASTM A 307 BOLTS (GALV) UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER REVIEW & APPROVAL ON PROJECTS REQUIRING STRUCTURAL STEEL



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