Administrative Authorization Application

Portland, Maine

Planning and Urban Development Department, Planning Division

PROJECT NAME: AT+T Mobility / Baxter Blvd
500 Washington Ave

PROJECT ADDRESS: 970 Baxter Blvd **CHART/BLOCK/LOT:** 429 I00 1001 (429 L00 7001)

APPLICATION FEE: _____ **($50.00)**

PROJECT DESCRIPTION: (Please Attach Sketch/Plan of the Proposal/Development)

Installation of rooftop wireless communications facility (shelter, cabling and antennas) per attached plans

CONTACT INFORMATION:

OWNER/APPLICANT New Cingular Wireless LLC		**CONSULTANT/AGENT**	
Name:	dba AT+T Mobility	**Name:**	Peter Cooke
Address:	550 Cochituate Rd Framingham MA	**Address:**	PO Box 126 Orange MA c/o Wellman Associates
Work #:	978-399-8600	**Work #:**	978-399-8600
Cell #:	978-399-8600	**Cell #:**	978-399-8600
Fax #:	888-371-2957	**Fax #:**	888-371-2957
Home #:		**Home #:**	
E-mail:	pcooke@wellmanassociates.net	**E-mail:**	pcooke@wellmanassociates.net

Criteria for an Administrative Authorizations: (see section 14-523(4) on pg .2 of this appl.)	**Applicant's Assessment** Y(yes), N(no), N/A	**Planning Division** Y(yes), N(no), N/A
a) Is the proposal within existing structures?	Y	
b) Are there any new buildings, additions, or demolitions?	Y	
c) Is the footprint increase less than 500 sq. ft.?	Y	
d) Are there any new curb cuts, driveways or parking areas?	N	
e) Are the curbs and sidewalks in sound condition?	Y	
f) Do the curbs and sidewalks comply with ADA?	N/A	
g) Is there any additional parking?	N	
h) Is there an increase in traffic?	N	
i) Are there any known stormwater problems?	N	
j) Does sufficient property screening exist?	Y	
k) Are there adequate utilities?	Y	
l) Are there any zoning violations?	N	
m) Is an emergency generator located to minimize noise?	NA	
n) Are there any noise, vibration, glare, fumes or other impacts?	N	

Signature of Applicant:	**Date:**
Agent for NCWLLC dba AT+T Mobility	10/13/11

Planning Division Use Only Authorization Granted ____ Partial Exemption ____ Exemption Denied ____

Standard Condition of Approval: The applicant shall obtain all required City Permits, including building permits from the Inspection Division (Room 315, City Hall (874-8703)) prior to the start of any construction.

IMPORTANT NOTICE TO APPLICANT: The granting of an Administrative Authorization to exempt a development from site plan review does not exempt this proposal fro other approvals or permits, nor is it an authorization for construction. You should first check with the Building Inspections Office, Room 315, City Hall (207)874-8703, to determine what other City permits, such as a building permit, will be required.

PROVISION OF PORTLAND CITY CODE
14-523 (SITE PLAN ORDINANCE)
RE: Administrative Authorization

Sec. 14-523 (b). Applicability

No person shall undertake any development identified in Section 14-523 without obtaining a site plan improvement permit under this article. (c) Administrative Authorization. Administrative Authorization means the Planning Authority may grant administrative authorization to exempt a development proposal from complete or partial site plan review that meets the standards below, as demonstrated by the applicant.

1. The proposed development will be located within existing structures, and there will be no new buildings, demolitions, or building additions other than those permitted by subsection b of this section;
2. Any building addition shall have a new building footprint expansion of less than five hundred (500) square feet;
3. The proposed site plan does not add any new curb cuts, driveways, or parking areas; the existing site has no more than one (1) curb cut and will not disrupt the circulation flows and parking on-site; and there will be no drive-through services provided;
4. The curbs and sidewalks adjacent to the lot are complete and in sound condition, as determined by the public works authority, with granite curb with at least four (4) inch reveal, and sidewalks are in good repair with uniform material and level surface and meet accessibility requirements of the Americans with Disabilities Act;
5. The use does not require additional or reduce existing parking, either on or off the site, and the project does not significantly increase traffic generation;
6. There are no known stormwater impacts from the proposed use or any existing deficient conditions of stormwater management on the site;
7. There are no evident deficiencies in existing screening from adjoining properties; and
8. Existing utility connections are adequate to serve the proposed development and there will be no disturbance to or improvements within the public right-of-way.
9. There are no current zoning violations;
10. Any emergency generators are to be located to minimize noise impacts to adjoining properties and documentation that routine testing of the generators occur on weekdays between the hours of 9 a.m. to 5 p.m. Documentation pertaining to the noise impacts of the emergency generator shall be submitted; and
11. There is no anticipated noise, vibration, glare, fumes or other foreseeable impacts associated with the project.

a. **Filing the Application.** An applicant seeking an administrative authorization under this subsection shall submit an administrative authorization application for review, detailing the site plan with dimensions of proposed improvements and distances from all property lines, and stating that the proposal meets all of the provisions in standards 1-11 of Section 14-423 (b)1. **The application must be accompanied by an application fee of $50.**

b. **Review.** Upon receipt of such a complete application, the Planning Authority will process it and render a written decision of approval, approval with conditions or denial, with all associated findings.

c. **Decision.** If a full administrative authorization is granted, the application shall be approved without further review under this article, and no performance guarantee shall be required. In the event that the Planning Authority determines that standards a and b of Section 14-523 (b) (1) and at least four (4) of the remaining standards have been met, the Planning Authority shall review the site plan according to all applicable review standards of Section 14-526 that are affected by the standards in this subsection that have not been met. If an exemption or partial exemption from site plan review is not granted, the applicant must submit a site plan application that will undergo a full review by the Planning Board or Planning Authority according to the standards of Section 14-526.

Criteria for an Adminstrative Authorizations: (See Section 14-523 (4) on page 2 of this application)	**Applicant's Assessment Y(yes), N(no), N/A**	**Planning Division Use Only**
a) Is the proposal within existing structures?	Yes	No
b) Are there any new buildings, additions, or demolitions?	Yes	Roof top antennas and rooftop wireless facility
c) Is the footprint increase less than 500 sq. ft.?	Yes	yes
d) Are there any new curb cuts, driveways or parking areas?	No	no
e) Are the curbs and sidewalks in sound condition?	Yes	yes
f) Do the curbs and sidewalks comply with ADA?	n/a	yes
g) Is there any additional parking?	No	no
h) Is there an increase in traffic?	No	no
i) Are there any known stormwater problems?	No	no
j) Does sufficient property screening exist?	Yes	yes
k) Are there adequate utilities?	Yes	yes
l) Are there any zoning violations?	No	no
m)Is an emergency generator located to minimize noise?	n/a	n/a
n) Are there any noise, vibration, glare, fumes or other impacts?	no	no

The Administrative Authorization for the rooftop wireless communications facility at 970 Baxter Blvd (500 Washington Ave.) was approved by Barbara Barhydt on October 24, 2011 with the following Standard Condition of Approval listed below:

1. Standard Condition of Approval: The applicant shall obtain all required City Permits, including building permits from the Inspection Division (874-8703) and any other permits required from the Department of Public Services (874-8801) prior to the start of any construction.

Barbara Barhydt
Development Review Services Manager

October 24, 2011

PROJECT INFORMATION

SCOPE OF WORK:	UNMANNED TELECOMMUNICATIONS FACILITY MODIFICATIONS
SITE ADDRESS:	500 WASHINGTON AVE PORTLAND, ME 04103
LATITUDE:	43.6794° N 43° 40' 45.96" N
LONGITUDE:	70.2578° W 70° 15' 28.08" W
JURISDICTION:	NATIONAL, STATE & LOCAL CODES OR ORDINANCES
CURRENT USE:	TELECOMMUNICATIONS FACILITY
PROPOSED USE:	TELECOMMUNICATIONS FACILITY
NOC#	866-915-5600

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GENERAL NOTES

1. THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF AT&T. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.
2. THE 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. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE AT&T REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

CONTACT & UTILITY INFORMATION

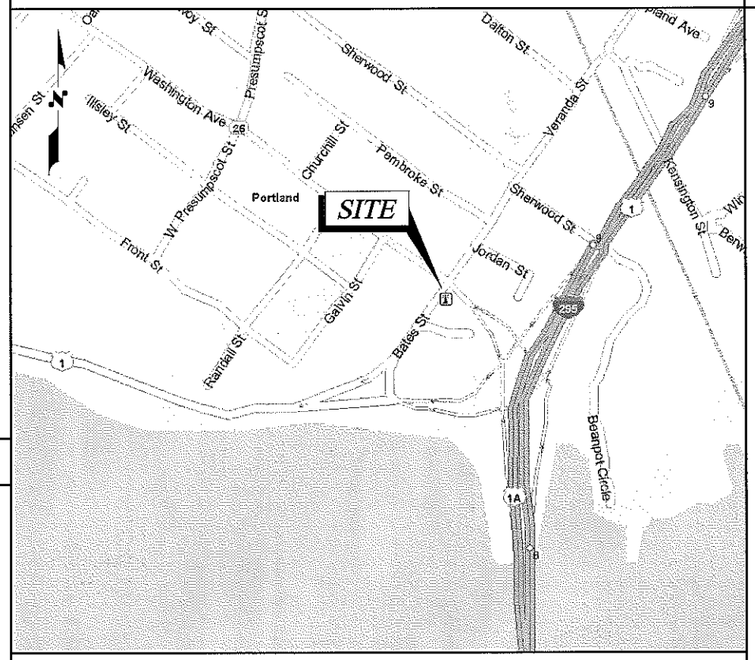
CONTACT	CONTACT	COMPANY	PHONE NO.
ENGINEERING:	STEPHEN SHURTLEFF	TURNING MILL CONSULTANTS, INC.	(508) 888-4383
SAC:	GIN VILANTE	WELLMAN ASSOCIATES, INC.	(978) 846-4954
CONSTRUCTION:	TOM ALLAIN	SAI COMMUNICATIONS	(603) 305-5641

UTILITIES		
POWER:	CENTRAL MAINE POWER CO.	(800) 564-3181
TELCO:	AT&T	(207) 253-5062

at&t Mobility

SITE NUMBER: ME2978
SITE NAME: PORTLAND BAXTER BLVD

VICINITY MAP



DIRECTIONS: FROM HQ DEPART DEPART 22 KEEWAYDIN DR, SALEM, NH 03079 ON KEEWAYDIN DR, TURN RIGHT ONTO PELHAM RD, THEN IMMEDIATELY TURN LEFT ONTO RAMP, MERGE ONTO I-93 [ALAN B SHEPARD JR HWY], ENTERING MASSACHUSETTS, AT EXIT 48, TURN RIGHT ONTO RAMP, AT EXIT 1A, TAKE RAMP (LEFT) ONTO SR-213, AT EXIT 5A, TAKE RAMP (LEFT) ONTO I-495, MERGE ONTO I-95, ENTERING NEW HAMPSHIRE, *TOLL ROAD* STAY ON I-95 [BLUE STAR MEMORIAL HWY], AT EXIT 3, STAY ON I-95 [BLUE STAR MEMORIAL HWY], ENTERING MAINE, *TOLL ROAD* STAY ON I-95 [GOLD STAR MEMORIAL HWY], AT EXIT 44, TAKE RAMP (RIGHT) ONTO I-295, AT EXIT 8, TAKE RAMP (RIGHT) ONTO SR-26 [WASHINGTON AVE], ARRIVE 500 WASHINGTON AVE, PORTLAND, ME 04103.

APPLICABLE BUILDING CODES AND STANDARDS

CONTRACTOR'S WORK SHALL COMPLY WITH PROJECT STANDARD NOTES, SYMBOLS AND DETAILS (SEE DRAWING INDEX FOR STANDARD NOTES AND DETAILS INCLUDED WITH TYPICAL DRAWING PACKAGE). CONTRACTOR WORK 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.

BUILDING CODE:
MAINE BUILDING CODE (IBC 2009).

ELECTRICAL CODE:
NATIONAL ELECTRICAL CODE (NEC 2008)
MAINE ELECTRICAL CODE (NEC 2002 NFPA #70)

CONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:
AMERICAN CONCRETE INSTITUTE (ACI) 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.
AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), MANUAL OF STEEL CONSTRUCTION, ASD, NINTH EDITION.
TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-G, STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES.
(TIA) 607. COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS.

INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERING (IEEE) 81, GUIDE FOR MEASURING EARTH RESISTIVITY, GROUND IMPEDANCE, AND EARTH SURFACE POTENTIALS OF A GROUND SYSTEM.
IEEE 1100 (1999), RECOMMENDED PRACTICE FOR POWERING AND GROUNDING OF ELECTRONIC EQUIPMENT.

TELCORDIA, GR-1503 COAXIAL CABLE CONNECTIONS

ANSI T1.311, FOR TELECOM - DC POWER SYSTEMS - TELECOM, ENVIRONMENTAL PROTECTION

FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

TURNING MILL CONSULTANTS, INC.
DEVELOPERS, ENGINEERS AND CONSTRUCTION MANAGERS
68 TUPPER ROAD, UNIT 3
PO BOX 1189, SANDWICH, MA 02563
TEL: (508) 888-4383 - FAX: (508) 888-4246
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SAI communications
22 KEEWAYDIN DRIVE
SALEM, NH 03079

SITE NUMBER: ME2978
SITE NAME: PORTLAN - BAXTER BLVD

500 WASHINGTON AVE
PORTLAND, ME 04103
CUMBERLAND COUNTY

at&t Mobility
550 COCHITUATE ROAD
SUITES 13 & 14
FRAMINGHAM, MA 01701

NO.	DATE	REVISIONS	BY	CHK	APP'D
3	10/10/11	REISSUED FOR CONSTRUCTION	TDC	SRS	JPS
2	10/05/11	REISSUED FOR REVIEW	TDC	SRS	JPS
1	09/19/11	CHG SHELTER DESIGN	TDC	SRS	JPS
0	06/01/11	ISSUED FOR REVIEW	TDC	SRS	JPS

SCALE: NONE DESIGNED BY: MJS DRAWN BY: TDC

STATE OF MAINE
JAMES
A
STROKE
- 2674 -
LICENSED
PROFESSIONAL ENGINEER

AT&T MOBILITY
FRAMINGHAM, MA 01701

TITLE SHEET

JOB NUMBER	DRAWING NUMBER	REV
SAI 11.43	G-001	3

GENERAL NOTES

1. FOR THE PURPOSE OF CONSTRUCTION, THE FOLLOWING DEFINITIONS SHALL APPLY:
   PROJECT MANAGEMENT – SAI
   CONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
   OWNER – AT&T MOBILITY
   OEM – ORIGINAL EQUIPMENT MANUFACTURER
2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO BECOME FAMILIAR 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 PROJECT MANAGEMENT.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.
4. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
5. DRAWINGS PROVIDED HERE ARE NOT TO SCALE UNLESS OTHERWISE NOTED AND ARE INTENDED TO SHOW OUTLINE ONLY.
6. UNLESS OTHERWISE NOTED, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
7. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY PROJECT MANAGEMENT.
9. CONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER, T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. CONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. CONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH PROJECT MANAGEMENT.
10. THE CONTRACTOR 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.
11. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
12. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
13. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
14. CONTRACTOR SHALL NOTIFY ENGINEER 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING TRENCHES, SEALING ROOF AND WALL PENETRATIONS AND POST DOWNS, FINISHING NEW WALLS OR FINAL ELECTRICAL CONNECTIONS FOR ENGINEERING REVIEW.
15. CONSTRUCTION SHALL COMPLY WITH SPECIFICATION 24782-000-3APS-A00Z-00002, "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF AT&T MOBILITY SITES".
16. CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. CONTRACTOR SHALL NOTIFY PROJECT MANAGEMENT OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
17. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY CONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
18. SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.

SITE WORK GENERAL NOTES

1. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
2. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO:
   A. FALL PROTECTION
   B. CONFINED SPACE
   C. ELECTRICAL SAFETY
   D. TRENCHING AND EXCAVATION.
3. ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.
4. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES, TOP SOIL AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
5. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF CONTRACTOR, OWNER AND/OR LOCAL UTILITIES.
6. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION.
7. THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE AT&T SPECIFICATION FOR SITE SIGNAGE.
8. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM TRANSMISSION EQUIPMENT AND TOWER AREAS.
9. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
10. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION, SEE SOIL COMPACTION NOTES.
11. THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE AND STABILIZED TO PREVENT EROSION.
12. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL JURISDICTION'S GUIDELINES FOR EROSION AND SEDIMENT CONTROL.

CONCRETE AND REINFORCING STEEL

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. A HIGHER STRENGTH (4000 PSI) MAY BE USED. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 381 CODE REQUIREMENTS.
3. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, DEFORMED, UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 WELDED STEEL WIRE FABRIC, UNLESS NOTED OTHERWISE (UNO). SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
4. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
   CONCRETE CAST AGAINST EARTH.....3 IN.
   CONCRETE EXPOSED TO EARTH OR WEATHER:
   #6 AND LARGER .....2 IN.
   #5 AND SMALLER & WWF .....1 1/2 IN.
   CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:
   SLAB AND WALL .....3/4 IN.
   BEAMS AND COLUMNS .....1 1/2 IN.
5. A CHAMFER 3/4" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
6. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHORS SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO THE MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS. ALL EXPANSION/WEDGE ANCHORS SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED. EXPANSION BOLTS SHALL BE PROVIDED BY RAMSET/REDHEAD OR APPROVED EQUAL.
7. CONCRETE CYLINDER TEST IS NOT REQUIRED FOR SLAB ON GRADE WHEN CONCRETE IS LESS THAN 50 CUBIC YARDS (IBC 1905.6.2.3) IN THAT EVENT THE FOLLOWING RECORDS SHALL BE PROVIDED BY THE CONCRETE SUPPLIER:
   A. RESULTS OF CONCRETE CYLINDER TEST PERFORMED AT THE SUPPLIER'S PLANT.
   B. CERTIFICATION OF MINIMUM COMPRESSIVE STRENGTH FOR THE CONCRETE GRADE SUPPLIED.
   FOR GREATER THAN 50 CUBIC YARDS THE CONTRACTOR SHALL PERFORM THE CONCRETE CYLINDER TEST.
8. AS AN ALTERNATIVE TO ITEM 7. TEST CYLINDERS SHALL BE TAKEN INITIALLY AND THEREAFTER FOR EVERY 50 YARDS OF CONCRETE FROM EACH DIFFERENT BATCH PLANT.
9. EQUIPMENT SHALL NOT BE PLACED ON NEW PADS FOR SEVEN DAYS AFTER PAD IS POURED, UNLESS IT IS VERIFIED BY CYLINDER TESTS THAT COMPRESSIVE STRENGTH HAS BEEN ATTAINED.

STRUCTURAL STEEL NOTES:

1. ALL STEEL WORK SHALL BE PAINTED OR GALVANIZED IN ACCORDANCE WITH THE DRAWINGS UNLESS OTHERWISE NOTED. STRUCTURAL STEEL SHALL BE ASTM GRADE 50 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".
2. ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION". PAINTED SURFACES SHALL BE TOUCHED UP.
3. BOLTED CONNECTIONS SHALL BE ASTM A325 BEARING TYPE (3/4"ø) CONNECTIONS AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.
4. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIA. ASTM A 307 BOLTS UNLESS NOTED OTHERWISE.
5. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER REVIEW & APPROVAL ON PROJECTS REQUIRING STRUCTURAL STEEL
6. ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC SPECIFICATIONS.

SOIL COMPACTION NOTES FOR SLAB ON GRADE

1. EXCAVATE AS REQUIRED TO REMOVE VEGETATION AND TOPSOIL, EXPOSE UNDISTURBED NATURAL SUBGRADE AND PLACE CRUSHED STONE AS REQUIRED.
2. COMPACTION CERTIFICATION: AN INSPECTION AND WRITTEN CERTIFICATION BY A QUALIFIED GEOTECHNICAL TECHNICIAN OR ENGINEER IS ACCEPTABLE.
3. AS AN ALTERNATE TO INSPECTION AND WRITTEN CERTIFICATION, THE "UNDISTURBED SOIL" BASE SHALL BE COMPACTED WITH "COMPACTION EQUIPMENT", LISTED BELOW, TO AT LEAST 90% MODIFIED PROCTOR MAXIMUM DENSITY PER ASTM D 1557 METHOD C.
4. COMPACTED SUB BASE SHALL BE UNIFORM AND LEVELED. PROVIDE 6" MINIMUM CRUSHED STONE OR GRAVEL COMPACTED IN 3" LIFTS ABOVE COMPACTED SOIL. GRAVEL SHALL BE NATURAL OR CRUSHED WITH 100% PASSING 1" SIEVE.
5. AS AN ALTERNATE TO ITEMS 2 AND 3, PROOFROLL THE SUBGRADE SOILS WITH 5 PASSES OF A MEDIUM SIZED VIBRATORY PLATE COMPACTOR (SUCH AS BOMAG BPR 30/38) OR HAND-OPERATED SINGLE DRUM VIBRATORY ROLLER (SUCH AS BOMAG BW 55E). ANY SOFT AREAS THAT ARE ENCOUNTERED SHOULD BE REMOVED AND REPLACED WITH A WELL-GRADED GRANULAR FILL AND COMPACTED AS STATED ABOVE.

COMPACTION EQUIPMENT

1. HAND OPERATED DOUBLE DRUM, VIBRATORY ROLLER, VIBRATORY PLATE COMPACTOR OR JUMPING JACK COMPACTOR.

CONSTRUCTION NOTES:

1. FIELD VERIFICATION: CONTRACTOR SHALL FIELD VERIFY SCOPE OF WORK, AT&T ANTENNA PLATFORM LOCATION AND ANTENNA(S) TO BE REPLACED.
2. COORDINATION OF WORK: CONTRACTOR SHALL COORDINATE RF WORK AND PROCEDURES WITH PROJECT MANAGEMENT.
3. CABLE LADDER RACK: CONTRACTOR SHALL FURNISH AND INSTALL CABLE LADDER RACK, CABLE TRAY AND CONDUIT AS REQUIRED TO SUPPORT CABLES TO THE NEW EQUIPMENT LOCATION(S).

ELECTRICAL INSTALLATION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
2. CONTRACTOR SHALL MODIFY OR INSTALL CABLE TRAY SYSTEM AS REQUIRED TO SUPPORT RF AND TRANSPORT CABLING TO THE NEW EQUIPMENT. CONTRACTOR SHALL SUBMIT MODIFICATIONS TO PROJECT MANAGEMENT FOR APPROVAL.
3. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.
4. ALL NEW PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE EQUIPPED WITH UL LISTED FIRESTOP SYSTEM WITH RATING EQUAL TO, OR GREATER THAN, THAT OF ASSEMBLY BEING PENETRATED. USE OF EXISTING THROUGH PENETRATIONS FOR ROUTING OF WIRING AND/OR CABLING SHALL HAVE EXISTING FIRESTOP RATING RE-ESTABLISHED AFTER PULLING OF WIRE/CABLE. SPARE PENETRATIONS SHALL BE EQUIPPED WITH RE-ENTERABLE UL LISTED FIRESTOP DEVICE (I.E. INTUMESCENT PLUG OR SIMILAR APPARATUS).
5. WIRING, RACEWAY, AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.
6. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC AND TELCORDIA.
7. CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
8. EACH END OF EVERY POWER, POWER PHASE CONDUCTOR (I.E. HOTS), GROUNDING, AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM TO NEC AND OSHA, AND MATCH INSTALLATION REQUIREMENTS.
9. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E. PANELBOARD AND CIRCUIT IDs).
10. PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.
11. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
12. POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (SIZE 14 AWG OR LARGER), 600V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
13. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (SIZE 6 AWG OR LARGER), 600V, OIL RESISTANT THHN OR THWN-2 GREEN INSULATION, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
14. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED OUTDOORS, OR BELOW GRADE, SHALL BE SINGLE CONDUCTOR #2 AWG SOLID TINNED COPPER CABLE, UNLESS OTHERWISE SPECIFIED.
15. POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (SIZE 14 AWG OR LARGER), 600V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; WITH OUTER JACKET; LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.
16. ALL POWER AND POWER GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRENUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRENUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75°C (90°C IF AVAILABLE).
17. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
18. NEW RACEWAY OR CABLE TRAY WILL MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
19. ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40, OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
20. ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
21. GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.
22. RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND; DIRECT BURIED, IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY VEHICLE TRAFFIC.
23. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
24. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW TYPE FITTINGS ARE NOT ACCEPTABLE.
25. CABINETS, BOXES AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
26. CABINETS, BOXES AND WIREWAYS SHALL MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
27. WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
28. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
29. METAL RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED, OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
30. NONMETALLIC RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
31. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE PROJECT MANAGEMENT BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
32. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.

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CUMBERLAND COUNTY

at&t Mobility
550 COCHITUATE ROAD
SUITES 13 & 14
FRAMINGHAM, MA 01701

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1	09/19/11	CHG SHELTER DESIGN	TDC	SRS	JPS
0	08/01/11	ISSUED FOR REVIEW	TDC	SRS	JPS

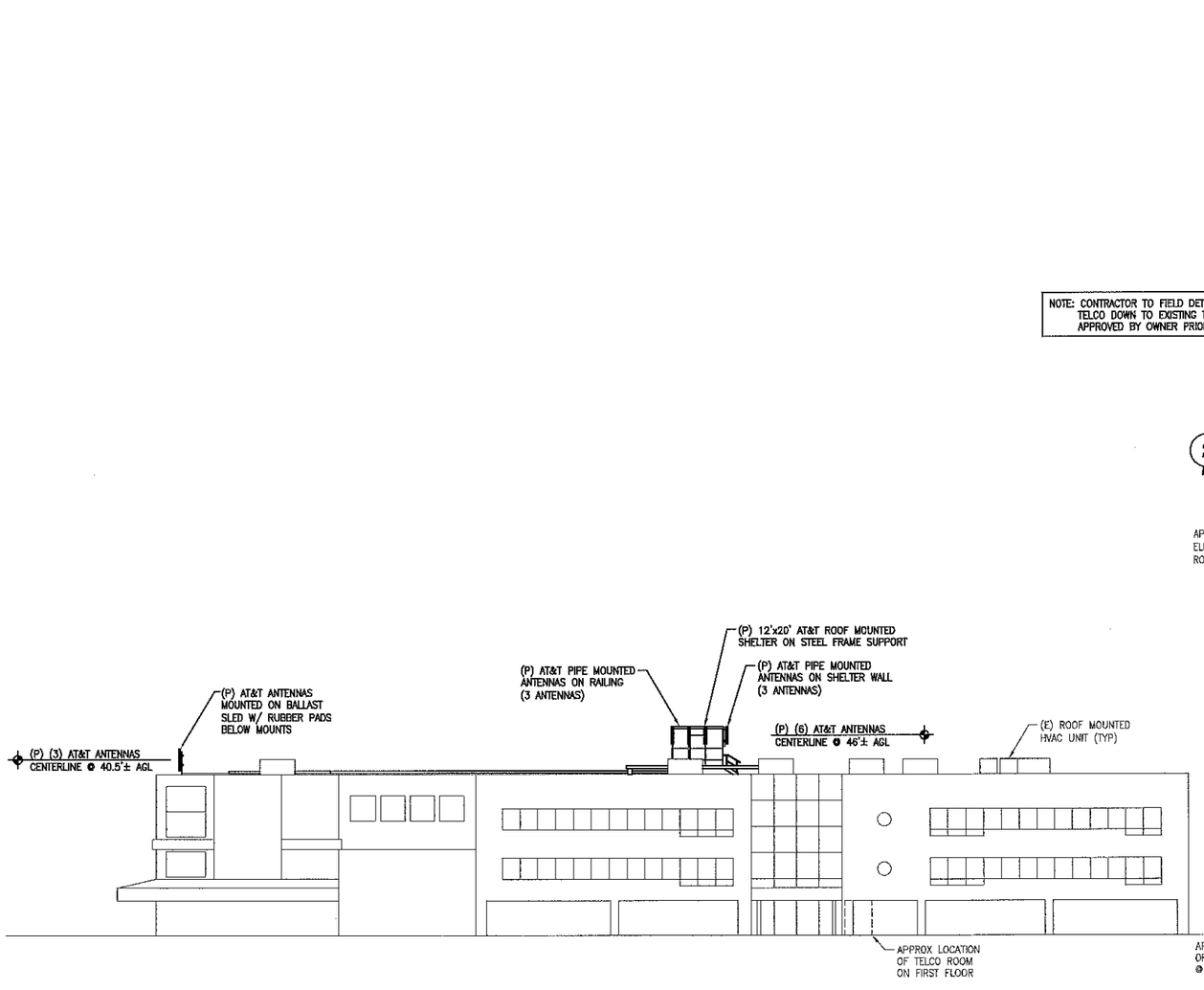
SCALE: NONE | DESIGNED BY: MJS | DRAWN BY: TDC

STATE OF MAINE JAMES P STROKE 2674 LICENSED PROFESSIONAL ENGINEER

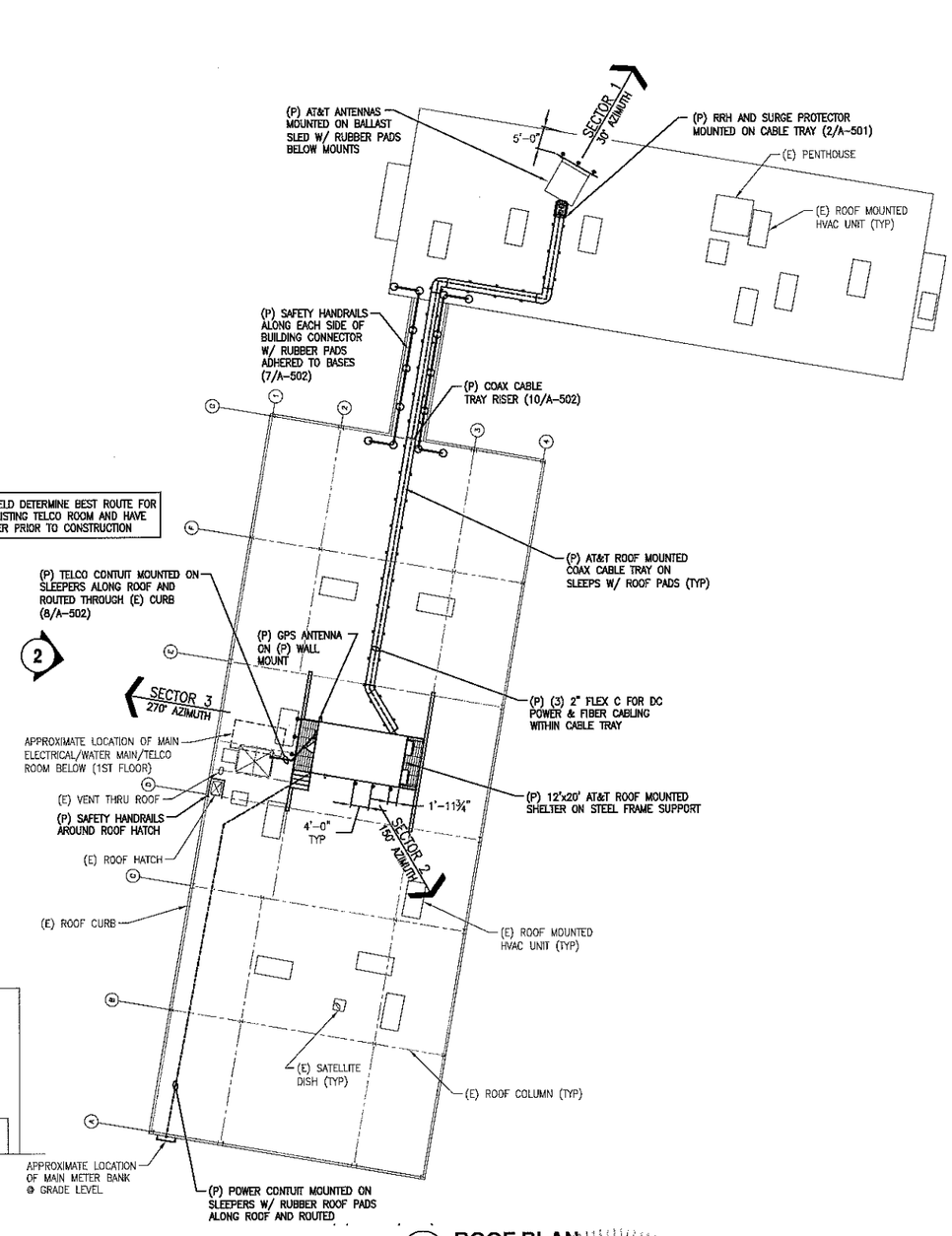
AT&T MOBILITY
FRAMINGHAM, MA 01701

GENERAL NOTES

JOB NUMBER	DRAWING NUMBER	REV
SAI 11.43	G-002	3



2 A-101 **WEST ELEVATION**
SCALE: 1/16" = 1'-0" 0 4' 8' 16' 32'



1 A-101 **ROOF PLAN**
SCALE: 1/16" = 1'-0" 0 4' 8' 16' 32'

N

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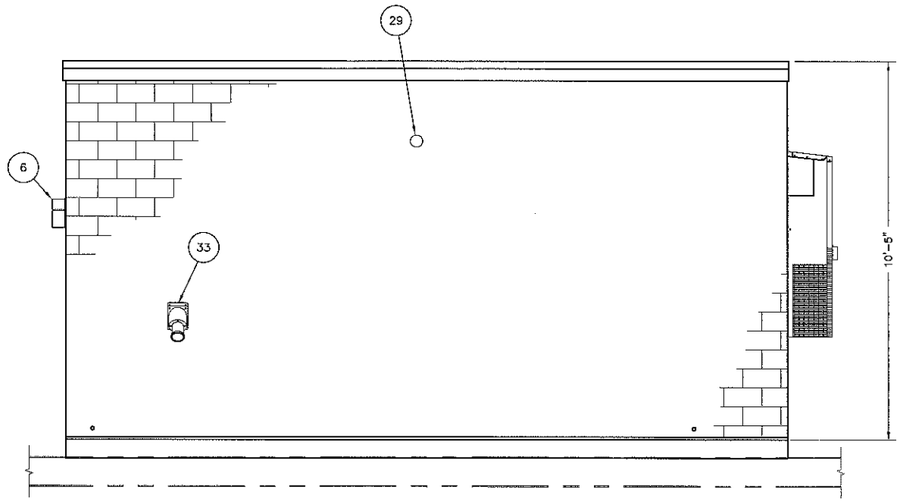
SCALE: AS INDICATED | DESIGNED BY: MJS | DRAWN BY: TDC

JAMES P. STROKE -2674- LICENSED PROFESSIONAL ENGINEER

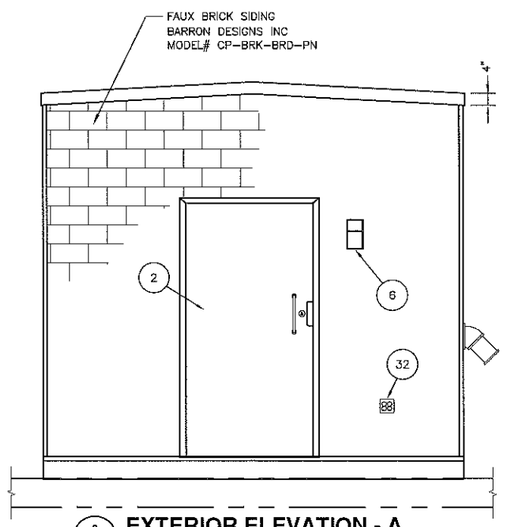
AT&T MOBILITY
FRAMINGHAM, MA 01701

ROOF PLAN AND ELEVATION

JOB NUMBER	DRAWING NUMBER	REV
SAI 11.43	A-101	3

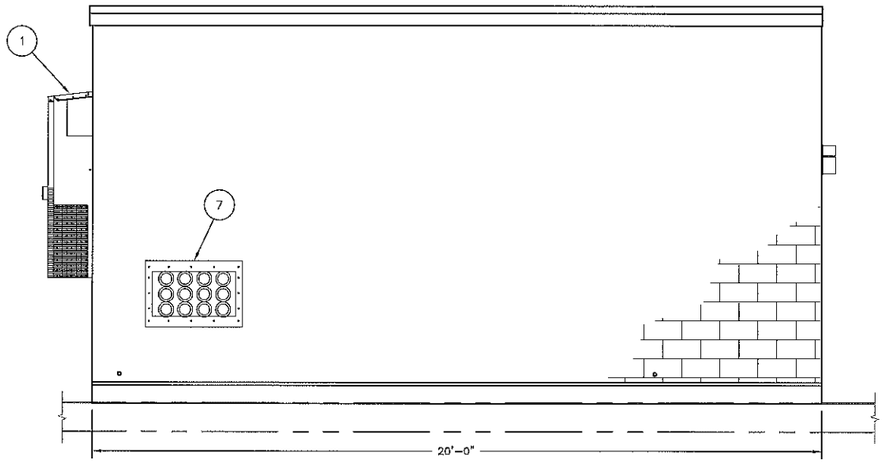


4 A-201 **EXTERIOR ELEVATION - D**
SCALE: 1/2" = 1'-0" 0 1' 2' 4'



2 A-201 **EXTERIOR ELEVATION - A**
SCALE: 1/2" = 1'-0" 0 1' 2' 4'

NOTE:
REFER TO DRAWING A-301
FOR KEYED BILL OF MATERIALS



3 A-201 **EXTERIOR ELEVATION - B**
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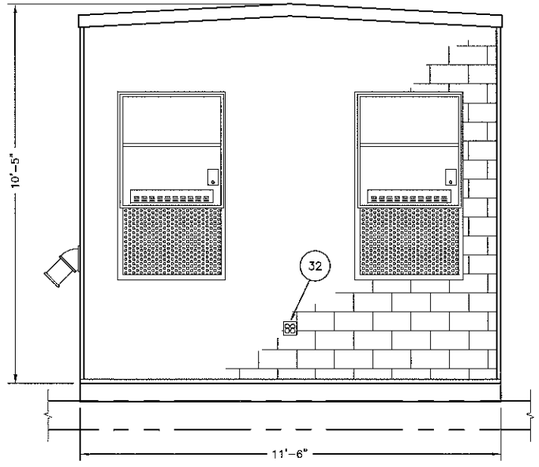
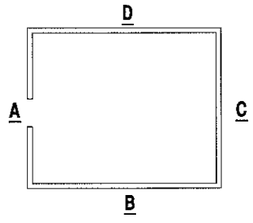


1 A-201 **EXTERIOR ELEVATION - C**
SCALE: 1/2" = 1'-0" 0 1' 2' 4'



KEY PLAN

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SCALE: AS INDICATED | DESIGNED BY: MJS | DRAWN BY: TDC

STATE OF MAINE
JAMES P STROKE
-2674-
LICENSED
PROFESSIONAL ENGINEER

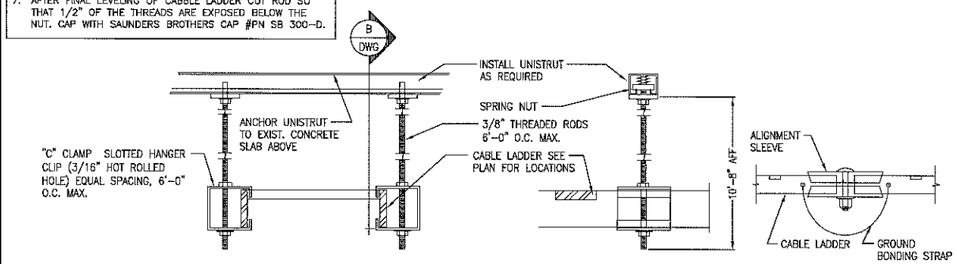
AT&T MOBILITY
FRAMINGHAM, MA 01701

EQUIPMENT SHELTER
EXTERIOR ELEVATIONS

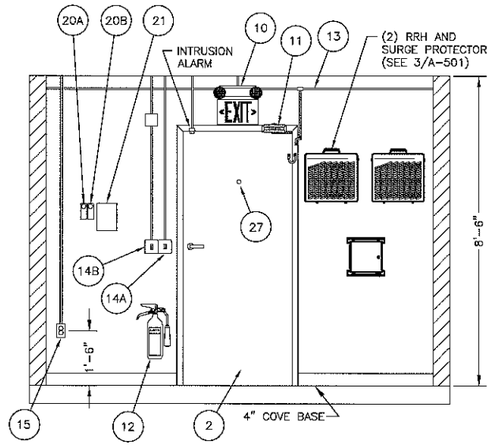
JOB NUMBER	DRAWING NUMBER	REV
SAI 11.43	A-201	3

CABLE LADDER GENERAL NOTES

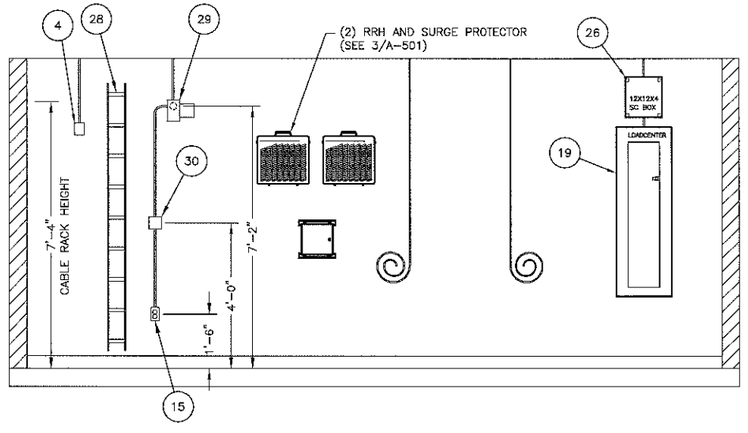
1. ALL CUT ENDS OF CABLE LADDER TO BE FILED SMOOTH AND PAINTED WITH MATCHING COLOR.
2. BOTTOM OF CABLE LADDER TO BE 8'-6" ABOVE FINISH FLOOR, UNLESS NOTED OTHERWISE.
3. CORNER BRACKETS TO BE ON THE INSIDE, UNLESS LADDER RUNGS INTERFERE, THEN CORNER BRACKETS MAY BE ON THE OUTSIDE.
4. CABLE LADDER RUNGS TO BE ON TOP OF HORIZONTAL LADDER AND AWAY FROM WALL ON VERTICAL LADDERS.
5. NUTS TO BE ON BOTTOM OF ASSEMBLY, OR TOWARDS WALL.
6. 3/8" THREADED RODS, SUPPORTING CABLE LADDER, SPACED 4'-0" APART, MINIMUM.
7. AFTER FINAL LEVELING OF CABBLE LADDER CUT ROD SO THAT 1/2" OF THE THREADS ARE EXPOSED BELOW THE NUT. CAP WITH SAUNDERS BROTHERS CAP #PN SB 300-D.



6 A-202 **CABLE LADDER DETAILS**
SCALE: NONE

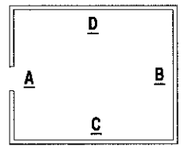


4 A-202 **INTERIOR ELEVATION - A**
SCALE: 1/2" = 1'-0" 0 1' 2' 4'

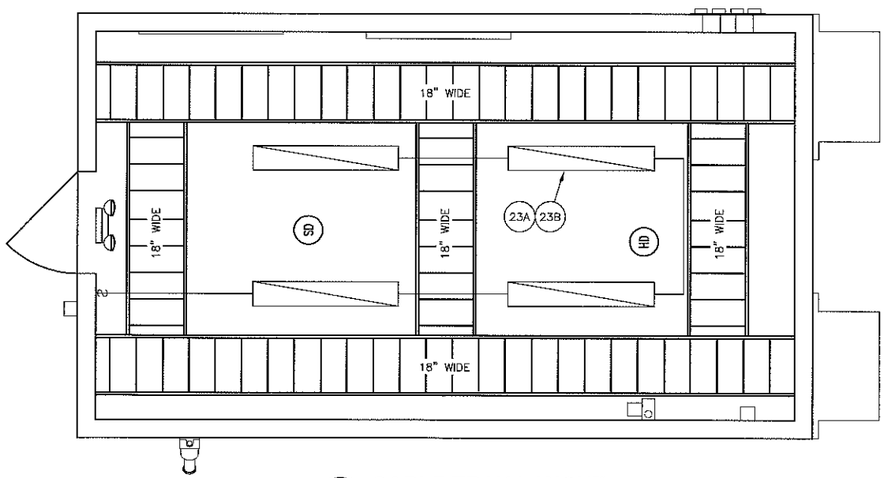


2 A-202 **INTERIOR ELEVATION - C**
SCALE: 1/2" = 1'-0" 0 1' 2' 4'

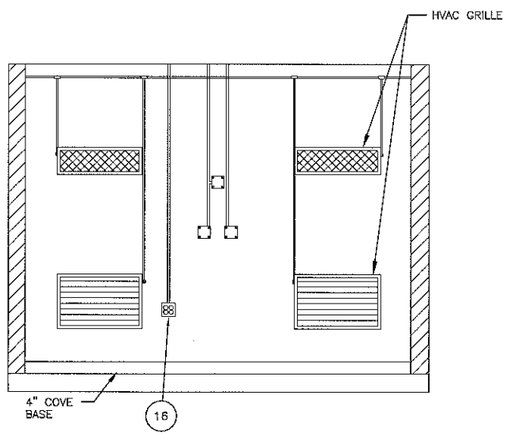
NOTE:
REFER TO DRAWING A-301
FOR KEYED BILL OF MATERIALS



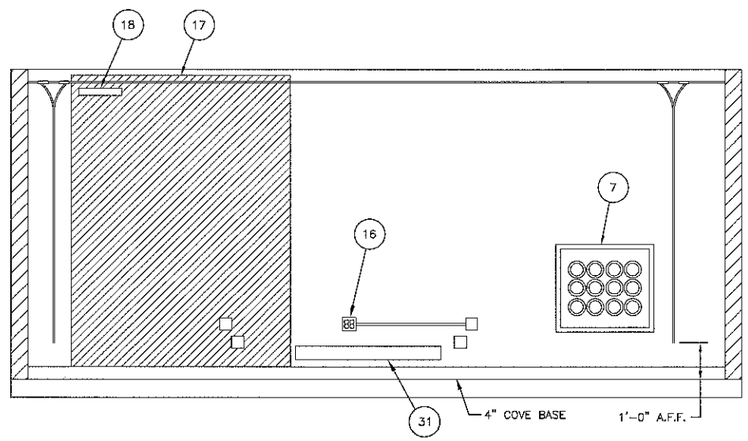
KEY PLAN



5 A-202 **CABLE TRAY LAYOUT**
SCALE: 1/2" = 1'-0" 0 1' 2' 4'



3 A-202 **INTERIOR ELEVATION - B**
SCALE: 1/2" = 1'-0" 0 1' 2' 4'



1 A-202 **INTERIOR ELEVATION - D**
SCALE: 1/2" = 1'-0" 0 1' 2' 4'

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SCALE: AS INDICATED | DESIGNED BY: MJS | DRAWN BY: TDC

JAMES P. STROKE - 2574 - LICENSED PROFESSIONAL ENGINEER

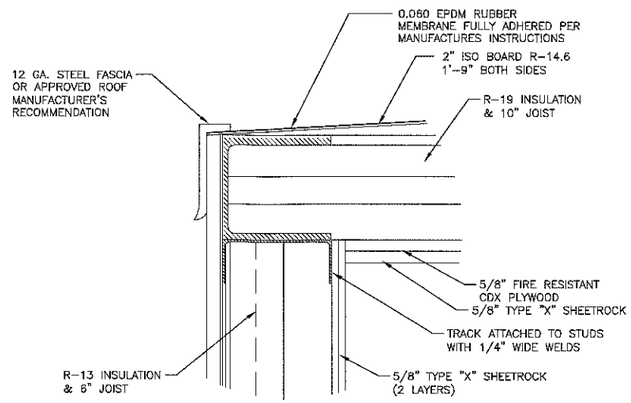
AT&T MOBILITY
FRAMINGHAM, MA 01701

EQUIPMENT SHELTER
INTERIOR ELEVATIONS AND DETAILS

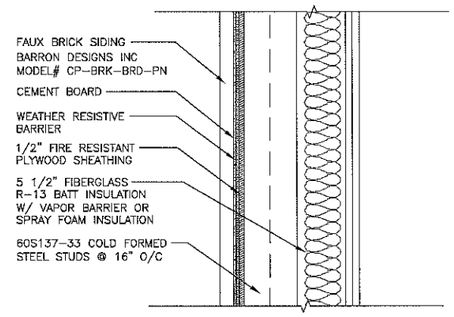
JOB NUMBER	DRAWING NUMBER	REV
SAI 11.43	A-202	3

BILL OF MATERIALS

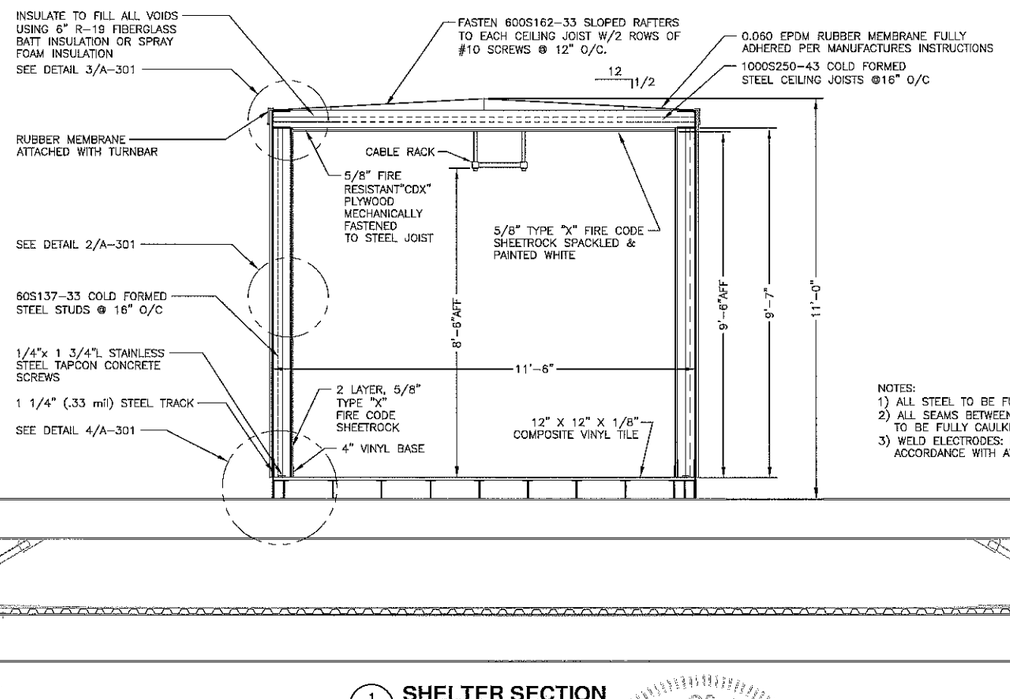
ITEM	QTY.	MODEL NO.	DESCRIPTION
1	2	AVP-60ACA-05C	MARVAIR COMPAC II 56,000 BTU HVAC UNIT WITH 5 KW HEATSTRIP & ECONOMIZER
2	1	VC3670N81C	3'-6" X 7'-0", 18 GA. INSULATED, PRIMED AND PAINTED STEEL DOOR
3	1	83T-B	PULL HANDLE (INSIDE & OUT) WITH BEST DEADBOLT AND BLUE CORE
4	1	HD-21-1-BR	MACURCO HYDROGEN GAS DECTECTOR
5	1	MBS 6016	ANTI-PICK GUARD
6	1	–	EXTERIOR-WP LIGHT FIXTURE 70W
7	1	B1333	MICROFLECT 18 PORT CABLE ENTRY PANEL
8A	1	–	EXTERIOR 4" X 23" X 1/4" GROUND BAR, TINNED COPPER
8B	1	–	INTERIOR 4" X 23" X 1/4" GROUND BAR, TINNED COPPER
9	1	GFR5342-2	GE NEMA LINE-5 120V 20A EXTERIOR GFI RECEPTACLE
10	1	CCX31RWHDH	EMERGENCY LIGHT & EXIT LIGHT COMBO
11	1	9305BC	NORTON DOOR CLOSER
12	1	PRO10CDM	KIDDE 10LB CO2 FIRE EXTINGUISHER
13	–	MBS 6004	HALO GROUND WITH #2 GREEN INSULATED COPPER WIRE W/1 UNDER GROUND BARS
14A	1	FF12H	(IVORY) 12 HOUR TIMER FOR INTERIOR LIGHTS
14B	1	FF2H	(IVORY) 2 HOUR TIMER FOR EXTERIOR LIGHT
15	3	5252	(IVORY) 120 VOLT 20 AMP DUPLEX RECEPTACLE
16	3	5252	(IVORY) 120 VOLT 20 AMP QUAD RECEPTACLE
17	1	–	6' X 8' X 3/4" PLYWOOD, TELCO, FIRE TREATED, PAINTED BLACK
18	1	GH-7008	TELCO GROUND BAR
19	1	004876	200 AMP GENERAC INTEGRATED LOAD CENTER
20A	1	2E-206	DAYTON HIGH TEMP CONTROL
20B	1	2E-206	DAYTON LOW TEMP CONTROL
21	1	CSTAT3	COMSTAT 3 LEAD LAG THERMOSTAT
22A	2	7000 SERIES	GENTEX SMOKE DETECTOR
22B	1	A1282B	HEAT DETECTOR
23A	4	C 2 32 120 GEB	LITHONIA LIGHTS W/WRAP AROUND LENS
23B	8	F032/730	SYLVANIA BULBS
24	1	–	4" X 4" X 4' WIREWAY
25	1	–	6" X 6" X 4' WIREWAY
26	1	–	12" X 12" HOFFMAN BOX FOR ALARMS
27	1	–	WIDE ANGLE VIEWER
28	–	–	18" LADDER RACK W/HARDWARE
29	1	4C440	DAYTON SHADED POLE EXHAUST BLOWER
30	1	1101	TORK BLOWER CONTROL TIMER
31	1	–	HEATER, BASEBOARD, 2000W, 240V, 94", HYRONIC
32	2	–	120 VOLT 20 AMP GFCI QUAD OUTDOOR RECEPTACLE
33	1	–	GENERATOR RECEPTACLE



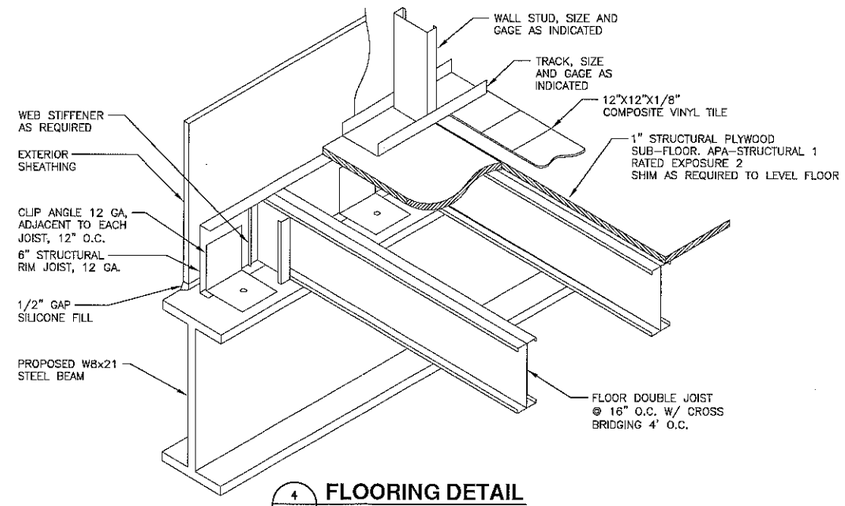
3 A-301 **ROOF FRAMING DETAIL**
SCALE: NONE



2 A-301 **WALL FRAMING DETAIL**
SCALE: NONE



1 A-301 **SHELTER SECTION**
SCALE: 1/2" = 1'-0" 0 1' 2'



4 A-301 **FLOORING DETAIL**
SCALE: NONE

NOTE: REFER TO STRUCTURAL DRAWINGS FOR FRAMING

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1	09/19/11	CHG SHELTER DESIGN	TDC	SRS	JPS
0	08/01/11	ISSUED FOR REVIEW	TDC	SRS	JPS

SCALE: | DESIGNED BY: MJS | DRAWN BY: TDC

STATE OF MAINE JAMES E STROKE -2674- LICENSED PROFESSIONAL ENGINEER

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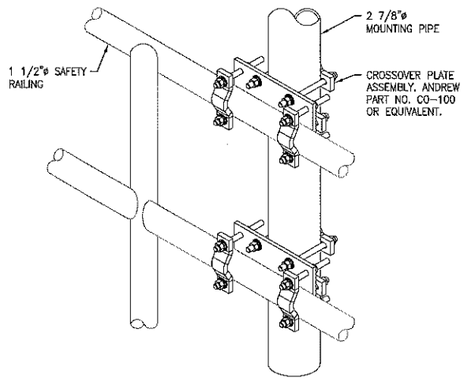
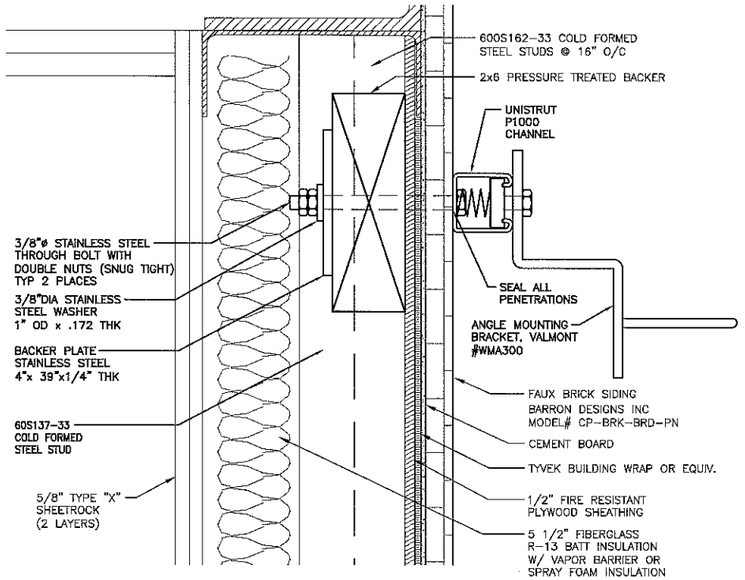
FRAMINGHAM, MA 01701

EQUIPMENT SHELTER
SECTION AND DETAILS

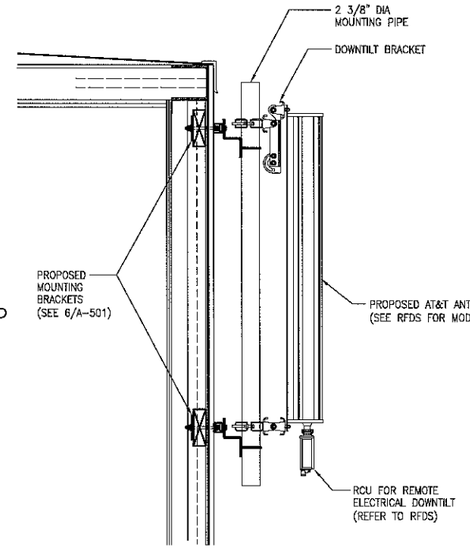
JOB NUMBER	DRAWING NUMBER	REV
SAI 11.43	A-301	3



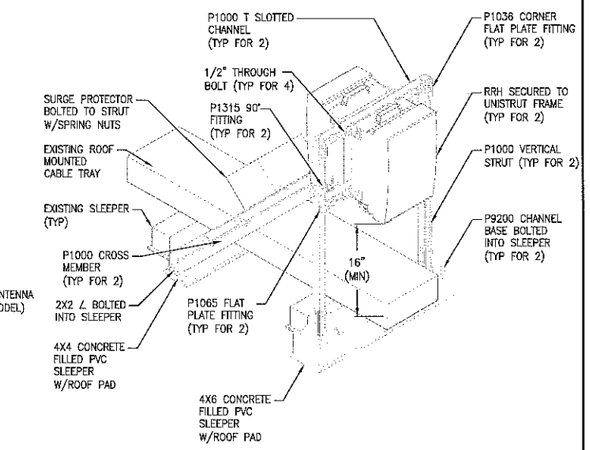
8 A-501 **ANTENNA BRACKET MOUNTING DETAIL**
SCALE: NONE



6 A-501 **ANTENNA WALL MOUNTING DETAIL**
SCALE: 6" = 1'-0" 0 1" 2" 3" 6"

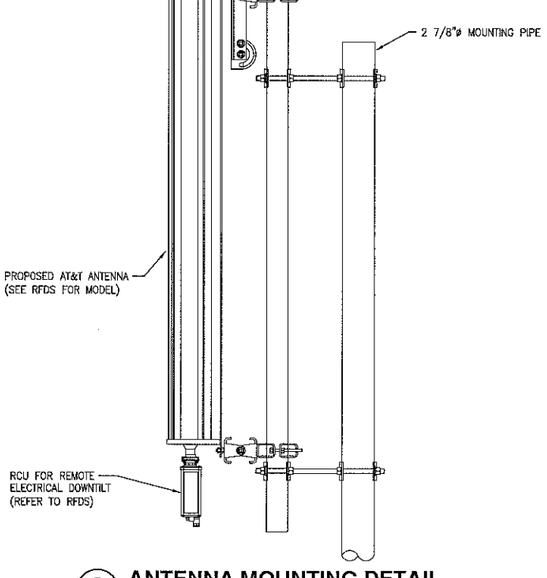


4 A-501 **ANTENNA WALL MOUNTING DETAIL**
SCALE: 1" = 1'-0" 0 6" 1' 2'

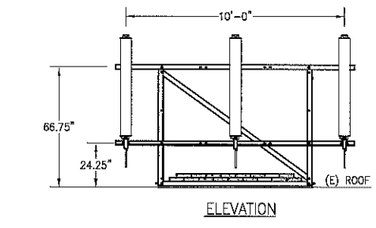


NOTES:
1. ALL HARDWARE TO BE HOT-DIPPED GALVANIZED.
2. ALL EQUIPMENT TO BE GROUNDED AND MADE WEATHER-TIGHT PER MANUFACTURER'S RECOMMENDATIONS.
3. ATTACHMENT TO CONCRETE FILLED SLEEPERS SHALL BE AS RECOMMENDED BY MANUFACTURER REGARDING EMBEDMENT DEPTH, METHOD AND BOLT TYPE.

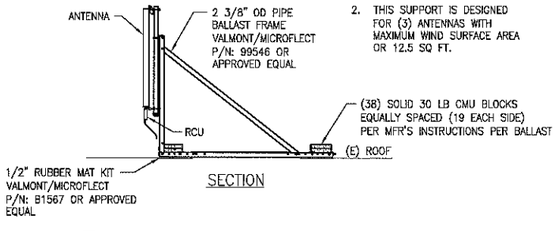
2 A-501 **RRH AND SURGE PROTECTOR MOUNTING DETAIL**
SCALE: 1" = 1'-0" 0 6" 1' 2'



7 A-501 **ANTENNA MOUNTING DETAIL**
SCALE: NONE



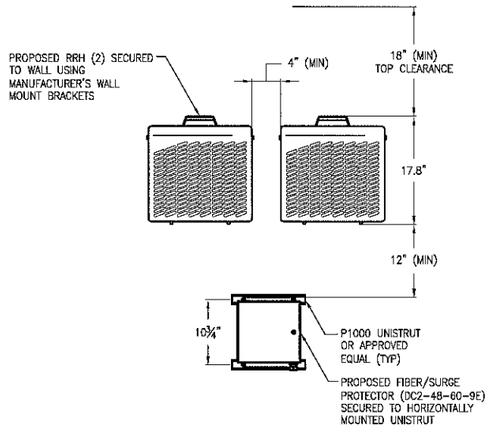
ELEVATION



SECTION

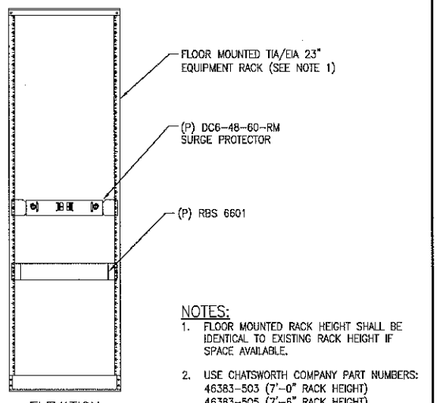
NOTES:
1. A TOTAL BALLAST WEIGHT OF 1,776 LBS IS REQUIRED AT EACH SIDE.
2. THIS SUPPORT IS DESIGNED FOR (3) ANTENNAS WITH MAXIMUM WIND SURFACE AREA OR 12.5 SQ FT.

5 A-501 **ROOFTOP BALLAST FRAME**
SCALE: NONE



NOTES:
1. ALL HARDWARE TO BE HOT-DIPPED GALVANIZED.
2. ALL EQUIPMENT TO BE GROUNDED AND MADE WEATHER-TIGHT PER MANUFACTURER'S RECOMMENDATIONS.
3. ATTACHMENT TO WALL SHALL BE AS RECOMMENDED BY MANUFACTURER REGARDING EMBEDMENT DEPTH, METHOD AND BOLT TYPE.

3 A-501 **RRH AND SURGE PROTECTOR MOUNTING**
SCALE: 1" = 1'-0" 0 6" 1' 2'



ELEVATION

PLAN

NOTES:
1. FLOOR MOUNTED RACK HEIGHT SHALL BE IDENTICAL TO EXISTING RACK HEIGHT IF SPACE AVAILABLE.
2. USE CHATSWORTH COMPANY PART NUMBERS: 46383-503 (7'-0" RACK HEIGHT) 46383-505 (7'-6" RACK HEIGHT)
3. WEIGHT CAPACITY = 750 POUNDS

1 A-501 **23" FLOOR MOUNTED RACK**
SCALE: 3/4" = 1'-0" 0 1' 2' 3'

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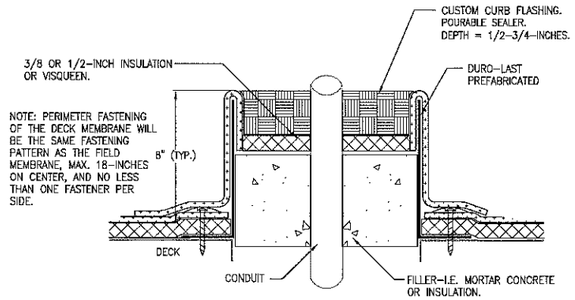
SCALE: AS INDICATED | DESIGNED BY: MJS | DRAWN BY: TDC

JAMES P. STROKE - 2674 - LICENSED PROFESSIONAL ENGINEER

AT&T MOBILITY
FRAMINGHAM, MA 01701

CONSTRUCTION DETAILS – SHEET 1 OF 2

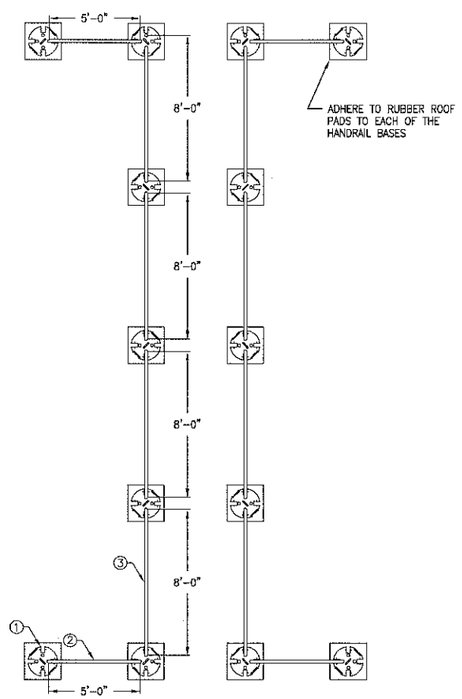
JOB NUMBER	DRAWING NUMBER	REV
SAI 11.43	A-501	3



NOTE: CONTRACTOR SHALL UTILIZE ROOFING CONTRACTOR APPROVED BY LANDLORD.

8 A–502 TYPICAL PITCH POCKET DETAIL

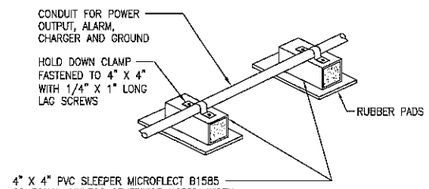
SCALE: NONE



BILL OF MATERIALS			
	PART NO.	QTY	DESCRIPTION
1	200–8	14	KEEGUARD CONTRACTOR BASE
2	KGC5–8	4	5 FT SECTION KEEGUARD CONTRACTOR
3	KGC8–8	8	8 FT SECTION KEEGUARD CONTRACTOR

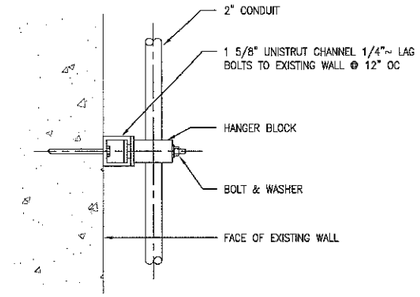
7 A–502 SAFETY GUARD DETAIL

SCALE: 1/4" = 1'–0"



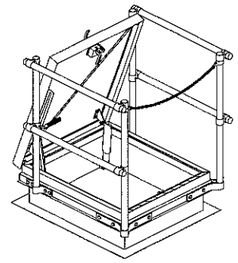
6 A–502 CONDUIT ON SLEEPER DETAIL

SCALE: NONE



5 A–502 CONDUIT SUPPORT AT WALL

SCALE: NONE



KEEHATCH RAILING SYSTEM

NOTES:

PIPE: 1 1/4" ID A53 GRADE B SEAMED STEEL.

FINISH: GALVANIZED (HOT DIPPED).

CHAIN SYSTEM: 3/16" PROOF COIL ASTM SPECIFICATION, ZINC PLATED WITH QUICK LINK AND "S" HOOK.

SELF CLOSING GATE (OPTIONAL TO CHAIN): MANUFACTURER'S STANDARD SPRING OR GRAVITY OPERATED.

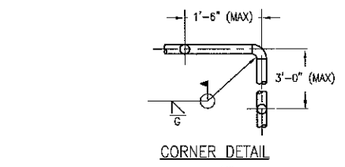
PIPE PLUGS: WEATHER AND LIGHT RESISTANT FOR PIPE ENDS.

BOLTS: HEX HEAD BOLTS 3/8", GRADE 2, ZINC PLATED WITH MANUFACTURER'S STANDARD WASHERS INSIDE AND OUTSIDE.

RAILING FITTINGS: MANUFACTURER'S STANDARD CAST FITTINGS, GALVANIZED. SEALANT FOR BRACKETS: MANUFACTURER'S STANDARD.

4 A–502 HATCH RAILING DETAIL

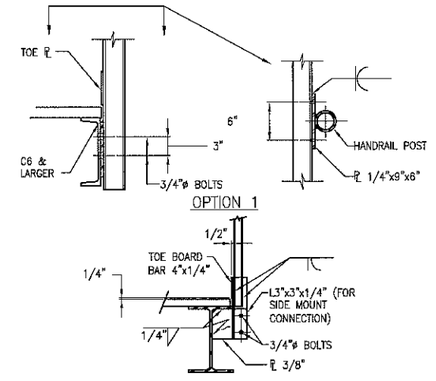
SCALE: NONE



RAILING SPLICE

3 A–502 MISCELLANEOUS HANDRAIL DETAIL

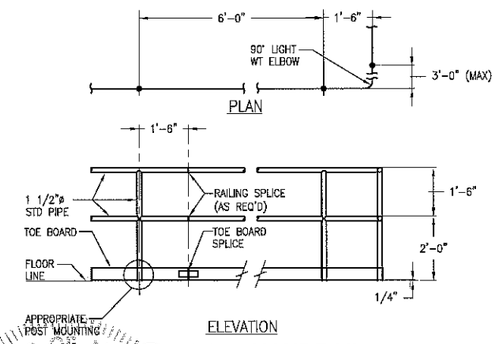
SCALE: NONE



2 A–502 HANDRAIL POST CONNECTIONS TO STEEL

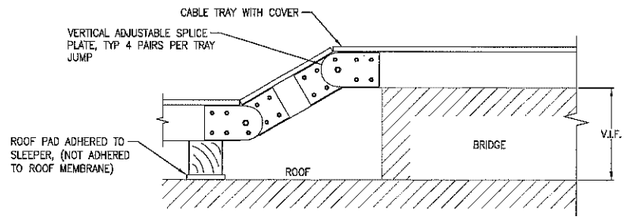
SCALE: NONE

NOTE: ALL EXPOSED CORNERS MUST HAVE A 2" RADIUS ELBOW (UNO).



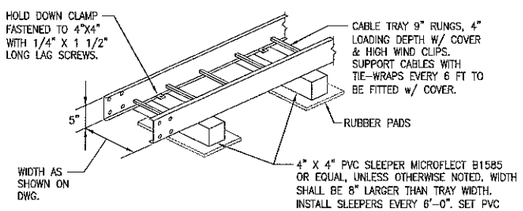
1 A–502 FIXED HANDRAIL

SCALE: NONE



10 A–502 ROOF MOUNTED TRAY RISER

SCALE: NONE



OPTION: USE MICROFLECT ROOF MOUNTED BRIDGE KITS CONSISTING OF SLEEPER AND COVER.

9 A–502 ROOF MOUNTED CABLE TRAY

SCALE: NONE

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SCALE: AS INDICATED | DESIGNED BY: MJS | DRAWN BY: TDC

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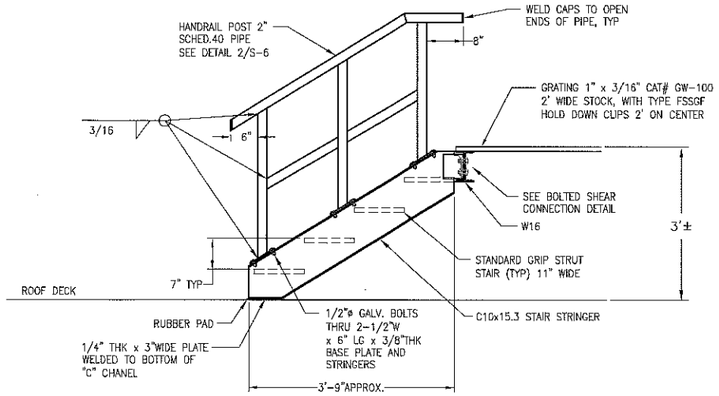
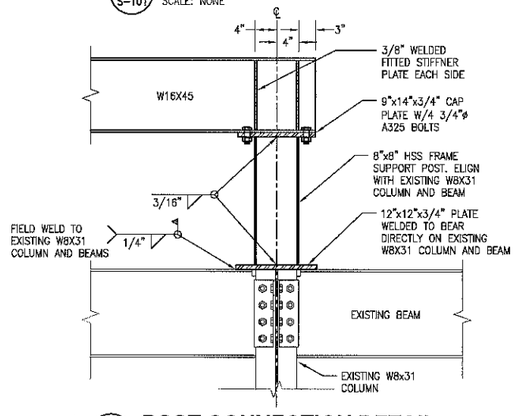
FRAMINGHAM, MA 01701

CONSTRUCTION DETAILS – SHEET 2 OF 2

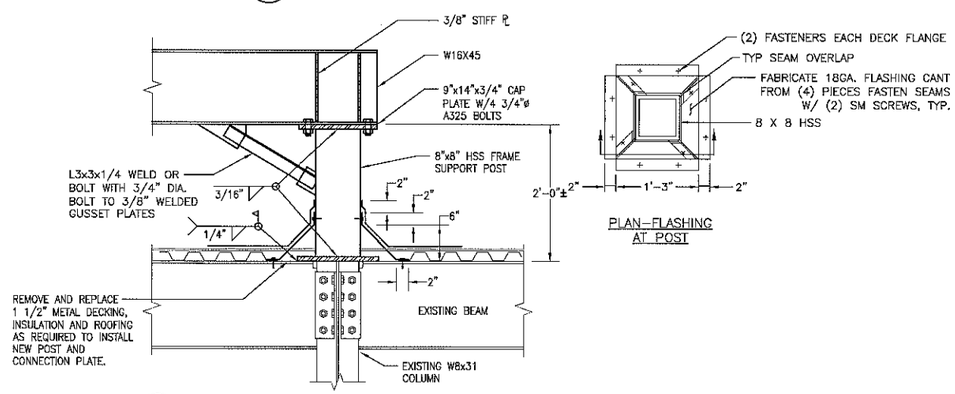
JOB NUMBER	DRAWING NUMBER	REV
SAI 11.43	A–502	3



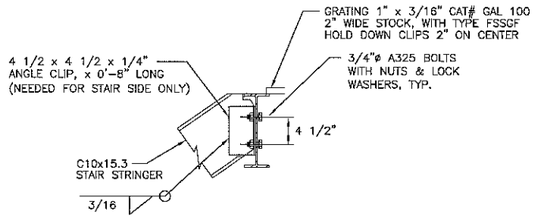
7 S-101 **STEEL STAIR DETAIL**
SCALE: NONE



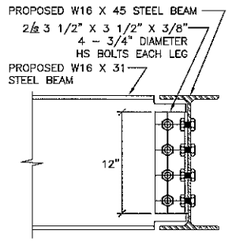
6 S-101 **POST CONNECTION DETAIL**
SCALE: NONE



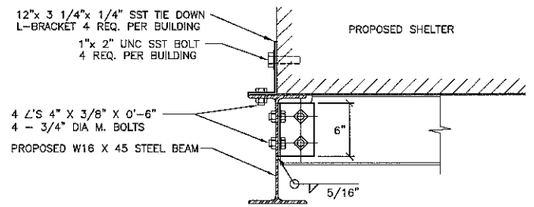
5 S-101 **FLASHING DETAIL AT ROOF PENETRATION**
SCALE: NONE



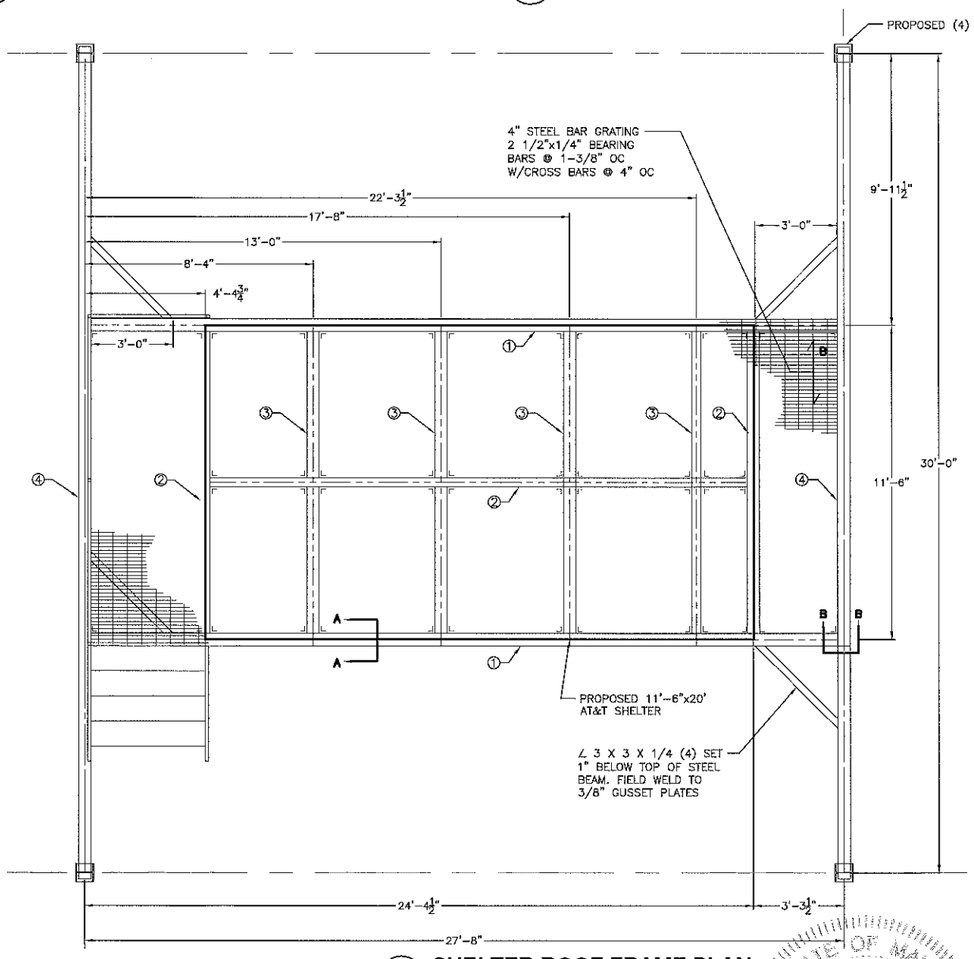
4 S-101 **BOLTED SHEAR CONNECTION**
SCALE: NONE



3 S-101 **SECTION B-B**
SCALE: NONE



2 S-101 **SECTION A-A**
SCALE: NONE



1 S-101 **SHELTER ROOF FRAME PLAN**
SCALE: 3/8" = 1'-0" 0 1' 2' 4'

NOTE:
1. FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION
   - ① PROPOSED W16 X 31
   - ② PROPOSED W12 X 26
   - ③ PROPOSED W8 X 21
   - ④ PROPOSED W16 X 45
   - C.L. BEAM
2. DIMENSION SHALL BE FIELD VERIFIED.
3. ALL STEEL AND CONNECTIONS EXPOSED TO THE WEATHER TO BE HOT-DIPPED GALVANIZED.

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SCALE: AS INDICATED | DESIGNED BY: MJS | DRAWN BY: TDC

STATE OF MAINE JAMES F STROHE -2674- LICENSED PROFESSIONAL ENGINEER

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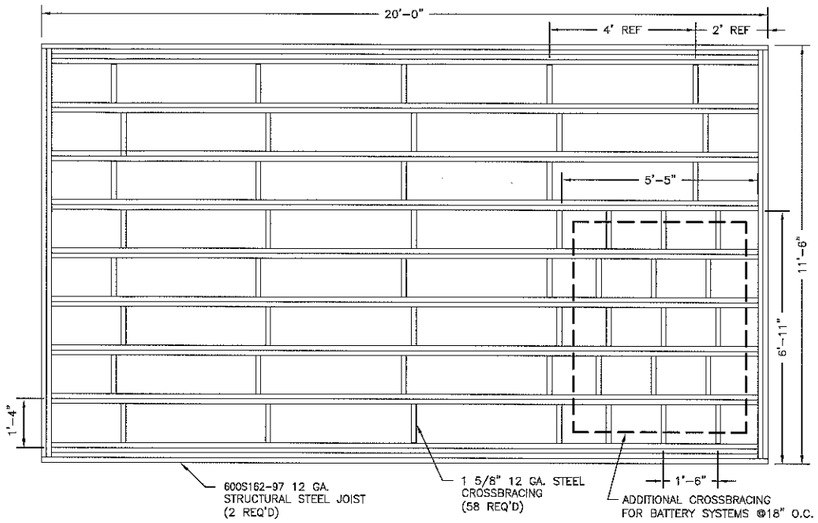
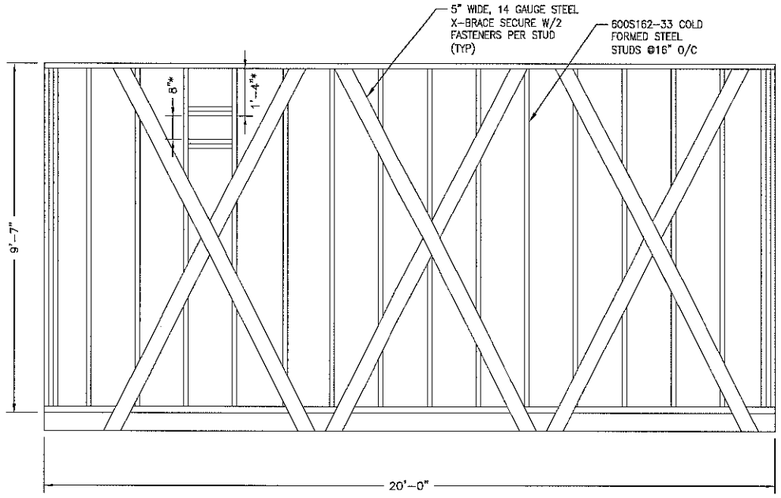
FRAMINGHAM, MA 01701

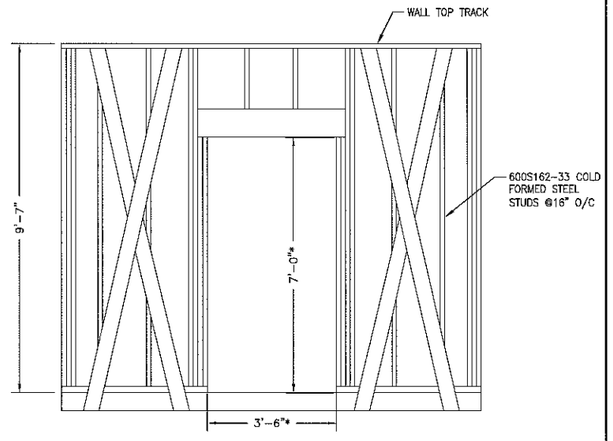
EQUIPMENT SHELTER FRAME PLAN & DETAILS

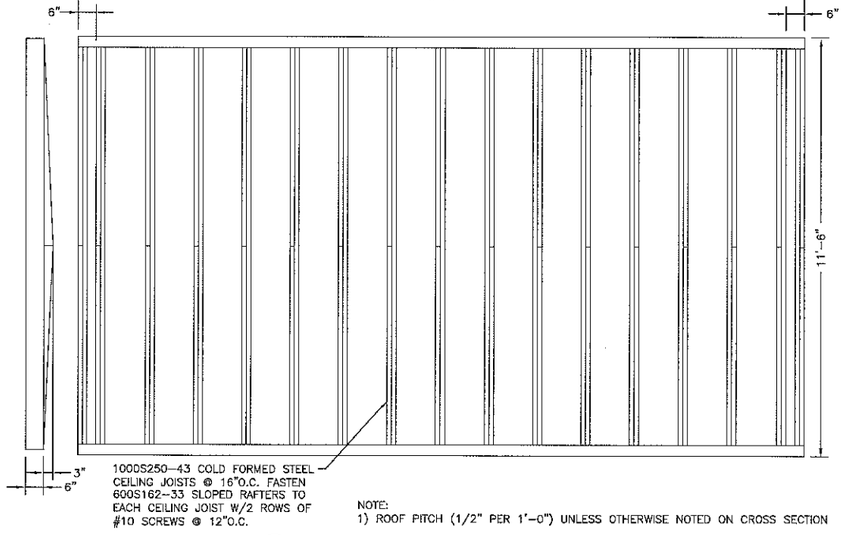
JOB NUMBER	DRAWING NUMBER	REV
SAI 11.43	S-101	3



4 S-501 **FLOOR FRAMING**
SCALE: 1/2" = 1'-0" 0 1' 2' 4'

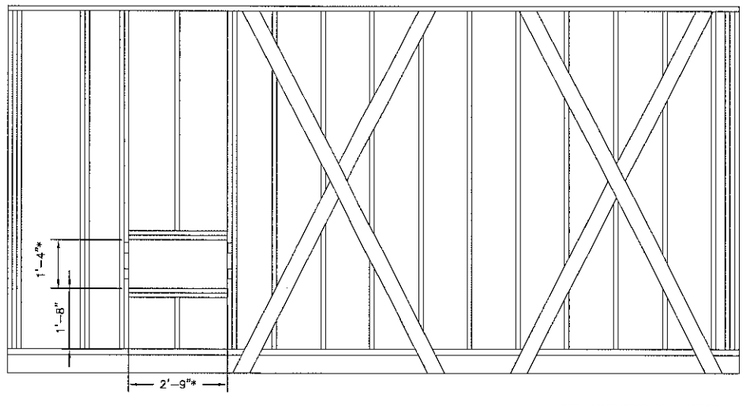






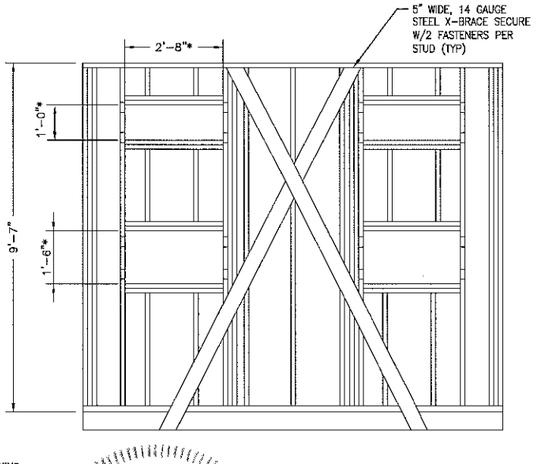
NOTE:
1) ROOF PITCH (1/2" PER 1'-0") UNLESS OTHERWISE NOTED ON CROSS SECTION

3 S-501 **ROOF FRAMING**
SCALE: 1/2" = 1'-0" 0 1' 2' 4'



2 S-501 **FRAME DETAILS**
SCALE: 1/2" = 1'-0" 0 1' 2' 4'

*NOTE: CONTRACTOR SHALL VERIFY ALL ROUGH OPENING DIMENSIONS FOR EQUIPMENT PRIOR TO FRAMING.



1 S-501 **X-BRACING FRAME DETAILS**
SCALE: 1/2" = 1'-0" 0 1' 2' 4'

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SUITES 13 & 14
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1	09/19/11	CHG SHELTER DESIGN	TDC	SRS	JPS
0	08/01/11	ISSUED FOR REVIEW	TDC	SRS	JPS

SCALE: | DESIGNED BY: MJS | DRAWN BY: TDC

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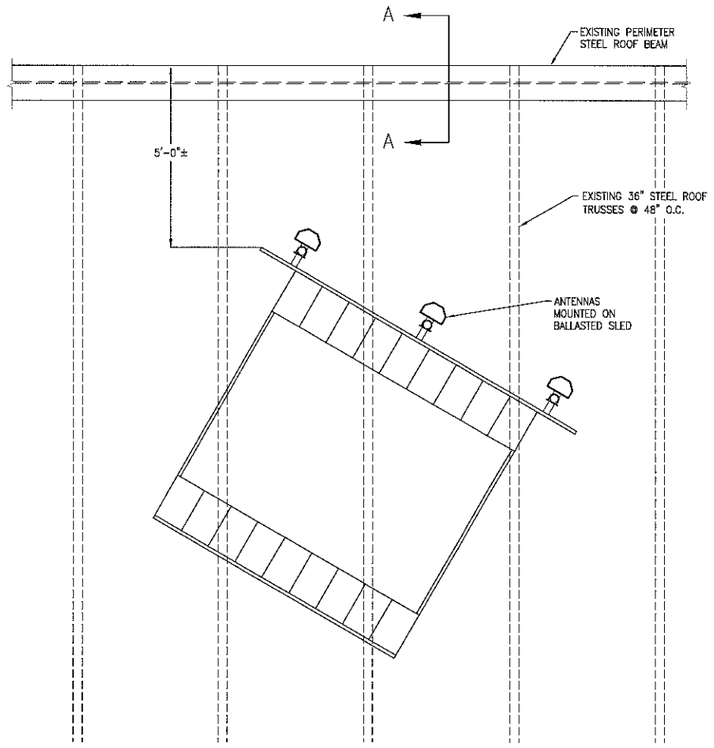
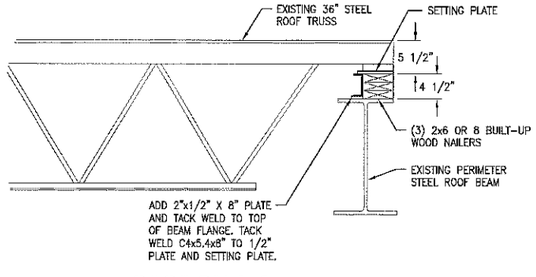
EQUIPMENT SHELTER
FRAMING DETAILS – SHEET 1 OF 2

JOB NUMBER	DRAWING NUMBER	REV
SAI 11.43	S-501	3



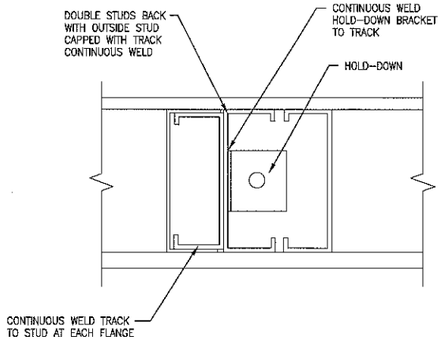
ROOF FRAMING PLAN AT BALLASTED ANTENNA SUPPORTING SLED

6 / S-502 SCALE: NONE



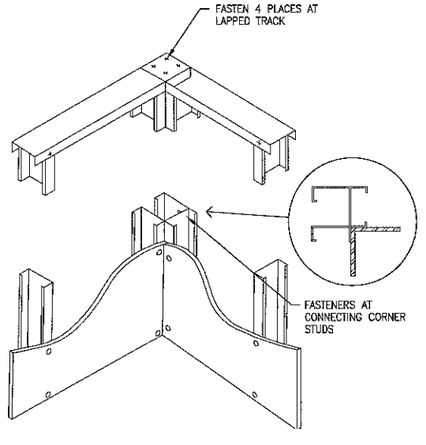
SECTION A-A

(TYPICAL AT TRUSS END BEARING CONNECTION UNDER ALL TRUSSES SUPPORTING ANTENNA BALLASTED MOUNTS)



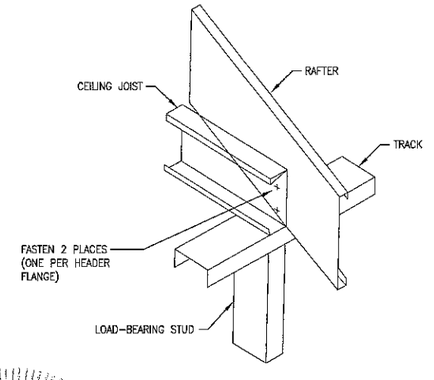
TRIPLE STUD DETAIL

5 / S-502 SCALE: NONE



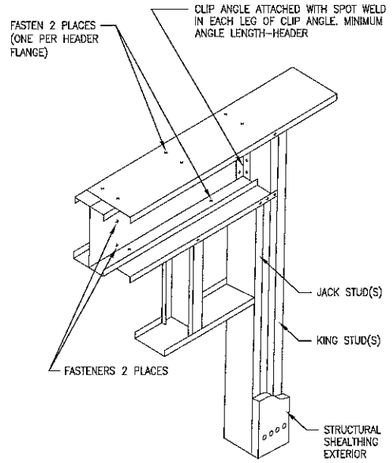
CORNER FRAMING DETAIL

3 / S-502 SCALE: NONE



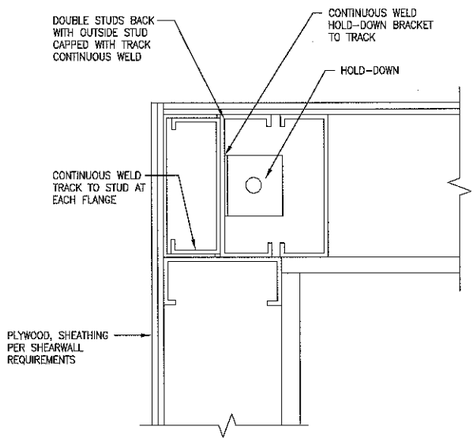
JOIST TO RAFTER DETAIL

1 / S-502 SCALE: NONE



HEADER DETAIL

4 / S-502 SCALE: NONE



CORNER STUD HOLD-DOWN DETAIL

2 / S-502 SCALE: NONE

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SCALE: | DESIGNED BY: MJS | DRAWN BY: TDC

STATE OF MAINE · JAMES P. STROKE · 2674 · LICENSED PROFESSIONAL ENGINEER

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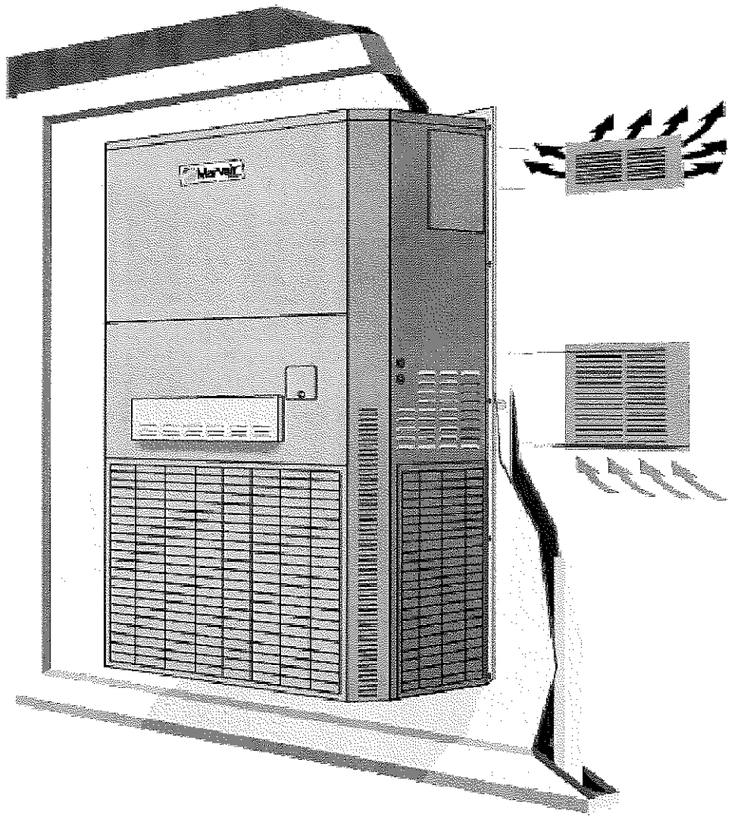
EQUIPMENT SHELTER
FRAMING DETAILS – SHEET 2 OF 2

JOB NUMBER	DRAWING NUMBER	REV
SAI 11.43	S-502	3



AT&T HVAC EQUIPMENT SCHEDULE
THREE PHASE

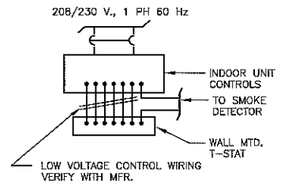
MANUFACTURER:	MARVAIR
MODEL:	AVP60-ACA
SYMBOL:	AHU-3
COOLING (BTU/HR):	56,000
NOMINAL TONS:	5
VOLTAGE:	208/230-1ø-60HZ
CIRCUIT BREAKER:	60A
WEIGHT:	565 LBS

FILTERS:

MANUFACTURER:	MARVAIR
SIZE:	22" X 36 1/2" X 2"
PART NO:	AVP60

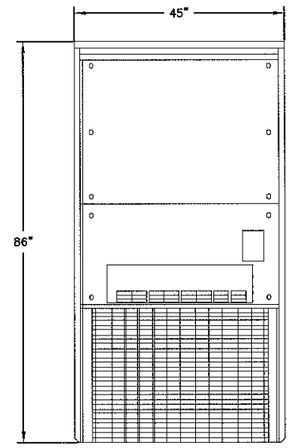
HVAC GENERAL NOTES

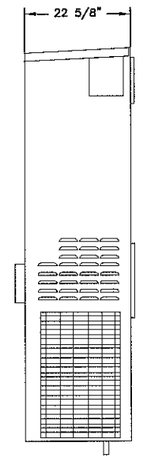
1. INSULATE SENSORS FROM WALL. SEAL ALL HOLES FOR WIRING WITH SILICONE SEALER TO PREVENT DRAFTS FROM AFFECTING THE SENSORS.
2. PIPING TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
3. INSULATE CONDENSATE DRAIN LINE WITH 1/2-INCH THICK FIBERGLASS PIPE INSULATION WITH ALL SERVICE JACKET. TAPE ALL JOINTS.
4. A/C UNITS SHALL BE CONTROLLED BY EXISTING CONTROL PANEL.
5. CONTRACTOR TO FABRICATE RETURN AND SUPPLY AIR PLENUMS FOR AIR HANDLING EQUIPMENT.

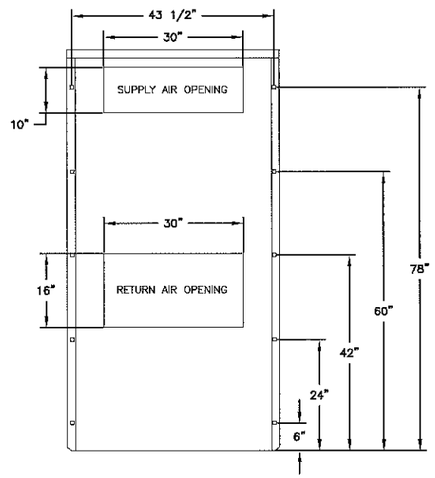


NOTE:
SMOKE DETECTOR IS TO SHUT DOWN AC UNIT WHEN ACTIVATED. REFER TO ELECTRICAL DRAWINGS FOR LOCATION OF SMOKE DETECTOR.

2 / M-101 **A/C UNIT CONTROLS**
SCALE: NONE







1 / M-101 **A/C UNIT DETAILS**
SCALE: NONE

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SCALE: AS INDICATED | DESIGNED BY: MJS | DRAWN BY: TDC

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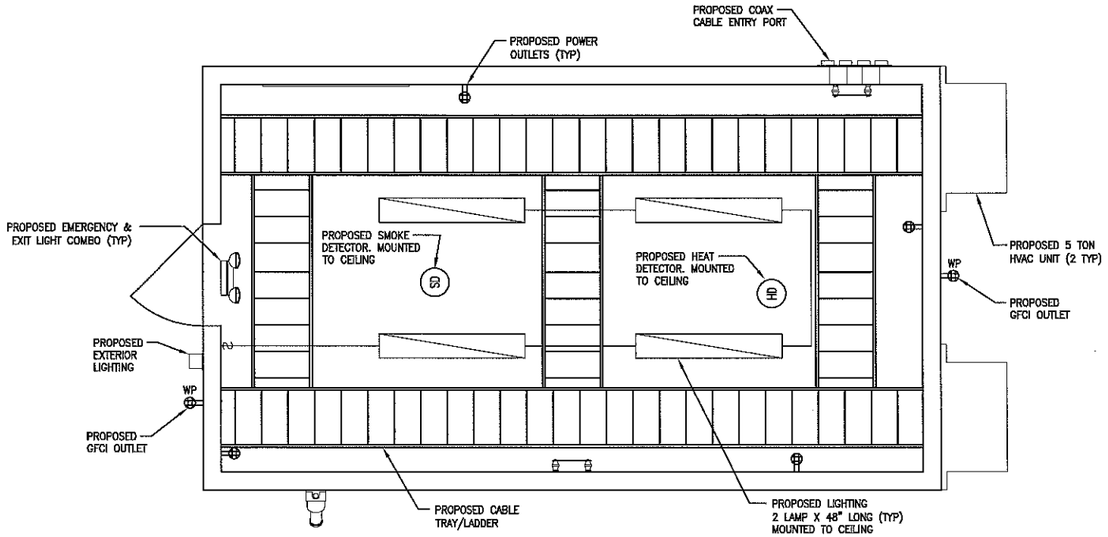
HVAC DETAILS

JOB NUMBER	DRAWING NUMBER	REV
SAI 11.43	M-101	3

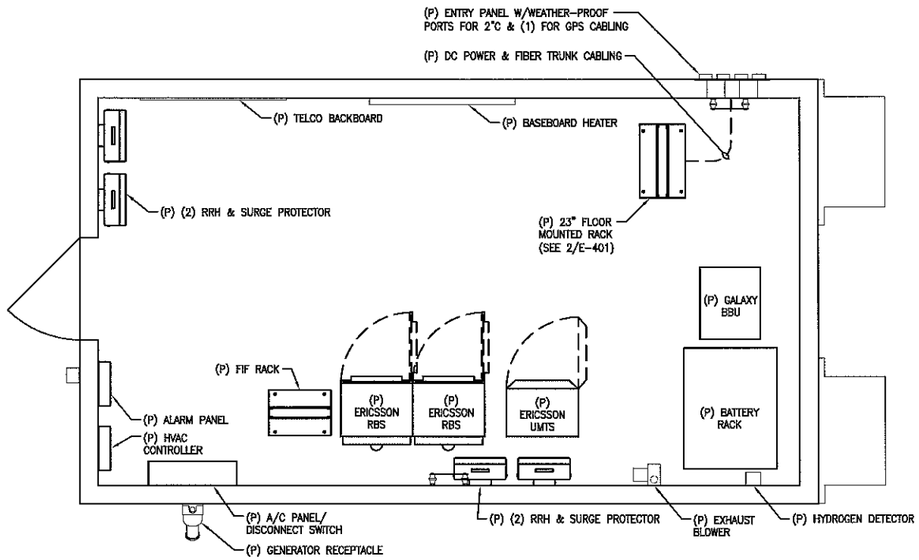


NOTES:

1. PROVIDE BRANCH-CIRCUIT WIRING PER CODE.
2. SMOKE AND HEAT DETECTORS TO HAVE LOCAL ALARM AND CONTACTS WIRED INTO ALARM SYSTEM.

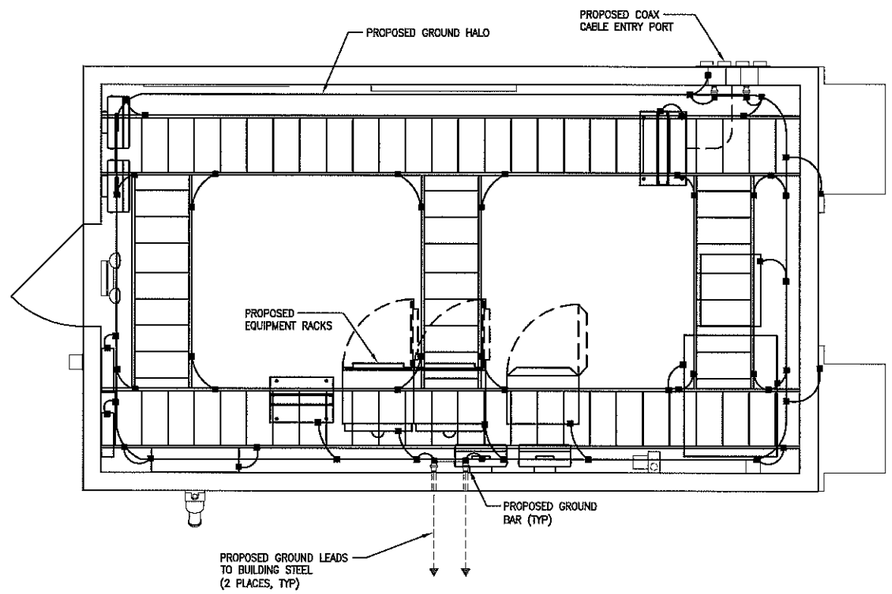
2/E-401 LIGHTING/POWER PLAN

SCALE: 1/2" = 1'-0" 0 1' 2' 4'



1/E-401 EQUIPMENT ROOM LAYOUT

SCALE: 1/2" = 1'-0" 0 1' 2' 4'



3/E-401 GROUND SCHEMATIC DIAGRAM

SCALE: NONE

NOTE:

1. MASTER GROUND BAR AND EXTERNAL GROUND BAR TO BE INDIVIDUALLY AND SEPARATELY CAD WELDED TO GROUND ROD DIRECTLY BELOW BUSS BAR'S LOCATION.

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SCALE: AS INDICATED | DESIGNED BY: MJS | DRAWN BY: TDC

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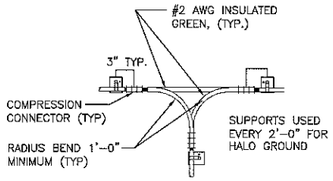
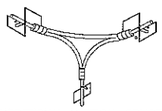
ENLARGED ELECTRICAL LAYOUTS

JOB NUMBER	DRAWING NUMBER	REV
SAI 11.43	E-401	3



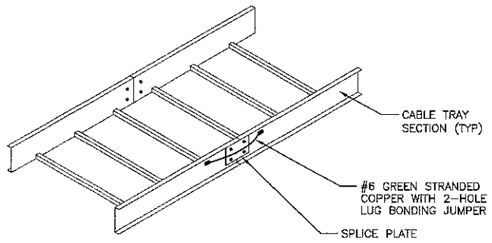
NONDIRECTIONAL HORIZONTAL SPLICE FOR CONNECTING HALO TO SUPPLEMENTARY BUS



NON DIRECTIONAL VERTICAL SPLICE CORNER INSTALLATION ISOMETRIC VIEW

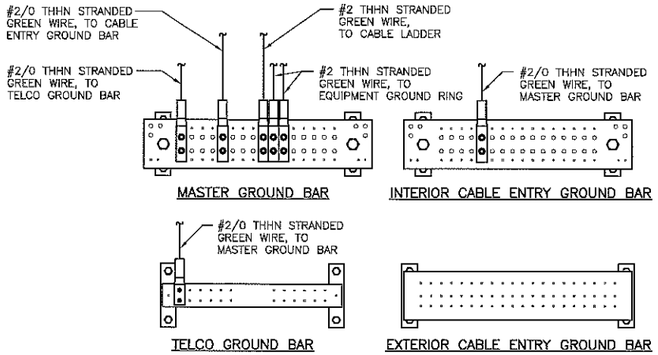
7 E-501 HALO GROUND DETAIL

SCALE: NONE



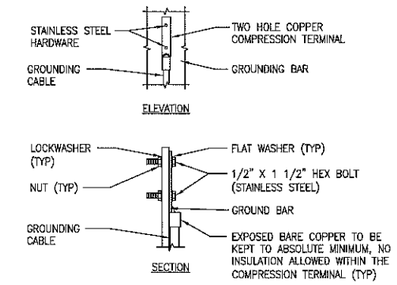
5 E-501 CABLE TRAY GROUND SPLICE DETAIL

SCALE: NONE



4 E-501 GROUND BAR CONNECTION DETAIL

SCALE: NONE

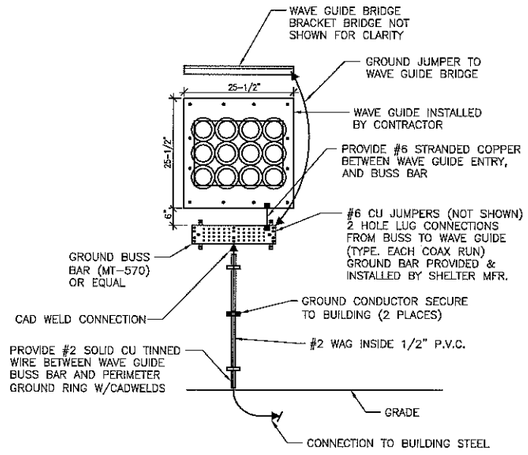


NOTES:

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

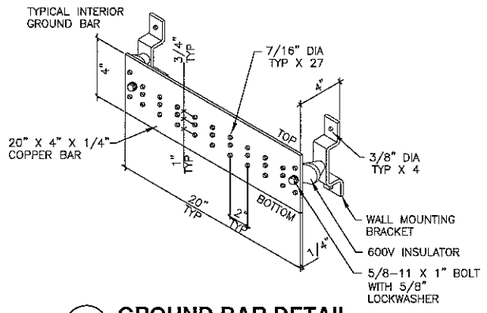
2 E-501 TYPICAL GROUND BAR MECHANICAL CONNECTION

SCALE: NONE



6 E-501 WAVEGUIDE GROUNDING

SCALE: NONE

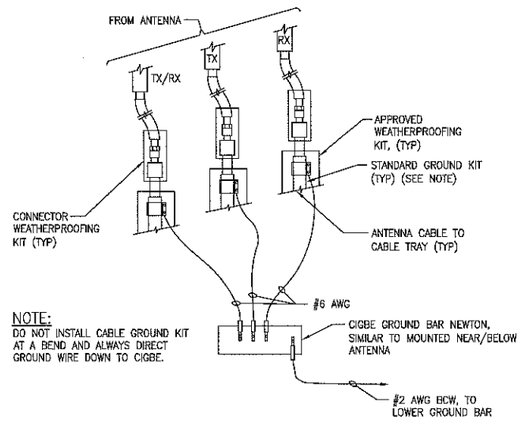


3 E-501 GROUND BAR DETAIL

SCALE: NONE

NOTES:

1. SURFACE PREPARATION: ALL CONNECTIONS MADE TO BARE METAL. ALL PAINTED SURFACES SHALL BE MADE BARE TO ENSURE PROPER CONTACT. NO WASHERS SHALL BE ALLOWED BETWEEN THE ITEMS BEING GROUNDED. ALL CONNECTIONS SHALL HAVE AN ANTI-OXIDANT AGENT APPLIED PRIOR TO INSTALLATION.
2. BUSS PREPARATION: ALL COPPER BUSSES SHALL BE CLEANED, POLISHED AND AN ANTI-OXIDANT APPLIED. NO FINGERPRINTS OR DISCOLORED COPPER WILL BE PERMITTED
3. UTERMINATIONS: ALL EQUIPMENT TERMINATIONS SHALL BE MADE WITH A BURNDY TWO HOLE COMPRESSION LUG WITH 10-24 X 3/4" LONG S.S. SCREWS, NUTS AND LOCKWASHERS. ALL BUSS TERMINATIONS MADE WITH A CAD-WELD OR BURNDY YC2C2 2 HOLE COMP. LUG OR EQUAL. ALL INTERIOR HALO ATTACHMENTS SHALL BE MADE USING A BURNDY YC2C2 COMPRESSION LUG
4. NO GROUNDING PIGTAILS SHALL BE PROVIDED FOR THE EXTERIOR GROUND BAR
5. MASTER GROUND BAR AND EXTERNAL GROUND BAR TO BE INDIVIDUALLY AND SEPARATELY CAD WELDED TO GROUND ROD DIRECTLY BELOW BUSS BAR'S LOCATION.



NOTE:
DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO CIGBE.

1 E-501 CONNECTION OF GROUND WIRES TO GROUNDING BAR (CIGBE)

SCALE: NONE

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ELECTRICAL GROUNDING DETAILS

JOB NUMBER	DRAWING NUMBER	REV
SAI 11.43	E-501	3

ELECTRICAL SPECIFICATIONS

1. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ELECTRICAL EQUIPMENT SHOWN ON THE DRAWINGS AND HEREIN SPECIFIED. EQUIPMENT ITEMS NOT SHOWN OR CALLED FOR SUCH AS FITTINGS, BOXES, CONDUITS, HANGERS, CONDUCTORS, DEVICES, GROUNDING, ETC. SHALL ALSO BE FURNISHED AND INSTALLED TO MAKE A COMPLETE AND WORKABLE ELECTRICAL SYSTEM.

2. THE WORK SHALL INCLUDE, BUT NOT NECESSARILY LIMITED TO THE FOLLOWING:

   A. RECEPTACLE FOR PORTABLE GENERATOR
   B. FURNISH AND INSTALL MANUAL TRANSFER SWITCH & ACCESSORIES
   C. CIRCUIT BREAKERS, FUSES, DISCONNECT SWITCHES, LOAD CENTER
   D. CONDUITS, RACEWAYS, BOXES, FITTINGS, HANGERS AND SLEEVES
   E. FEEDER AND BRANCH CIRCUIT CONDUCTORS
   F. DEVICES AND PLATES
   G. LIGHTING FIXTURES AND LAMPS
   H. EXIT AND EMERGENCY LIGHTING SYSTEM
   I. CIRCUIT, SYSTEM AND EQUIPMENT GROUNDING
   J. PERMITS, INSPECTIONS, BACK CHARGES AND TESTS
   K. AUTOMATIC FIRE ALARM SYSTEM
   L. SHOP DRAWINGS
   M. NAME PLATES
   N. AUTOMATIC TEMPERATURE CONTROL WIRING

3. THE FOLLOWING WORK IS TO BE DONE BY OTHER TRADES:

   A. EXCAVATION AND BACKFILL
   B. CONCRETE WORK
   C. ACCESS PANELS
   D. CUTTING AND PATCHING
   E. TELEPHONE AND COAX SYSTEM WIRING

4. OBTAIN AND PAY FOR ALL REQUIRED TEST, PERMITS, INSPECTIONS, BACK CHARGES AND TEMPORARY POWER CONSTRUCTION.

5. ALL WORK SHOWN ON THE PLANS IS INTENDED TO BE APPROXIMATELY CORRECT TO SCALE, BUT FIGURED DIMENSIONS AND DETAILED DRAWINGS ARE TO BE FOLLOWED IN EVERY CASE. THE DRAWINGS SHALL BE TAKEN IN A SENSE AS DIAGRAMMATIC. SUGGESTED METHODS OF RUNNING CONDUITS AND CABLES ARE SHOWN, BUT IT IS NOT INTENDED TO SHOW OFFSETS AND FITTINGS, OR EVERY STRUCTURAL DIFFICULTY THAT MAY BE ENCOUNTERED.

6. MATERIAL, INSTALLATIONS AND WORKMANSHIP SHALL BE IN FULL ACCORD WITH THE MOST MODERN ELECTRICAL CONSTRUCTION REQUIREMENTS. ALL MATERIALS SHALL BE NEW, UNLESS NOTED OTHERWISE. THE ELECTRICAL CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, BOCA AND NATIONAL CODES.

7. THE ELECTRICAL CONTRACTOR SHALL GUARANTEE HIS WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE. IF ANY DEFECTS IN MATERIAL OR WORKMANSHIP OCCUR WITHIN THIS PERIOD, THEY SHALL BE CORRECTED AT NO ADDITIONAL COST TO THE OWNER.

8. THE ELECTRICAL CONTRACTOR SHALL INSPECT THE SITE AND SHALL INVESTIGATE ALL CONDITIONS UNDER WHICH HIS WORK WILL BE PERFORMED. HE SHALL COORDINATE HIS WORK SO THAT IT DOES NOT INTERFERE WITH THE WORK OF OTHER TRADES AND THE GENERAL CONTRACTORS BUILDING SCHEDULE.

9. FURNISH AND INSTALL ALL REQUIRED CIRCUIT AND SYSTEM GROUNDING, ENCLOSURE AND EQUIPMENT GROUNDING, BONDING TO ASSURE ELECTRICAL CONTINUITY AND GROUNDING CONDUCTORS AS REQUIRED. MINIMUM REQUIREMENTS SHALL BE PER NATIONAL ELECTRIC CODE, ARTICLE 250. ALL EXTERIOR CONDUITS SHALL CARRY A SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN ADDITION TO THE CONDUIT GROUND. SIZE OF CONDUCTOR SHALL BE AS NOTED ON THE DRAWINGS.

10. CONDUITS IN FURRED SPACES, ABOVE CEILINGS AND NON-FINISHED INTERIOR AREAS SHALL BE ELECTRICAL METALLIC TUBING (EMT). CONDUITS EXPOSED TO WEATHER SHALL BE GALVANIZED RIGID STEEL PVC COATED (GRS). DISSIMILAR METALS IN CONTACT ANYWHERE IN THE CONDUIT SYSTEM SHALL BE AVOIDED. POLYVINYL CHLORIDE (PVC) SHALL NOT BE USED. CONDUITS ABOVE GRADE SHALL BE RUN PARALLEL TO STADIUM WALLS AND COLUMN LINES. RIGID STEEL GALVANIZED PVC COATED CONDUIT SHALL CONFORM TO THE REQUIREMENTS OF UNDERWRITERS LABORATORIES STANDARD 6, 514 AND 1242. CONDUIT AND FITTINGS SHALL BE COATED WITH 40 MILL POLYVINYL CHLORIDE BONDED TO THE CONDUIT WITH AN EPOXY PRIME. PVC COATED CONDUITS SHALL CONFORM TO NEMA RN1-1980 (TYPE 40).

11. CONDUCTORS FOR GENERAL WIRING SHALL BE COPPER TYPE THHN/THWN OR XHHW, MAXIMUM TEMPERATURE RATING FOR CURRENT CARRYING SHALL BE 75° C. MINIMUM SIZE CONDUCTOR SHALL BE #12 AWG FOR POWER CIRCUITS. CONTROL WIRING SHALL BE A MINIMUM OF #14 AWG OR AS NOTED ON THE DRAWINGS. NON-METALLIC SHEATHED CABLE (NM-B) OR METAL-CLAD CABLE (AC) SHALL NOT BE. ALUMINUM CONDUCTORS SHALL NOT BE USED.

12. LIGHT FIXTURES SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE ABOVE WITH JACK CHAIN, THREADED ROD OR HEAVY GAUGE WIRE. COORDINATE LOCATIONS OF LIGHT FIXTURES WITH THE EQUIPMENT PLAN.

13. ALL WIRING THOUGHOUT THE PROJECT INCLUDING POWER, COMMUNICATION, FIBER AND COAX SHALL BE RUN IN EMT CONDUIT TO MATCH EXISTING.

14. FURNISH AND INSTALL ALL REQUIRED HANGERS, STRUCTURAL SUPPORTS, RIGGING, SLEEVES, LADDERS, HOIST, LABOR, AND OTHER REQUIREMENTS FOR THE ABOVE INSTALLATION OF ALL ELECTRICAL EQUIPMENT.

15. THE ELECTRICAL CONTRACTOR SHALL INSTRUCT THE OWNERS REPRESENTATIVE ON THE PROPER OPERATION OF ALL EQUIPMENT AND GIVE ANY LITERATURE FURNISHED BY THE MANUFACTURER, REGARDING PROPER OPERATING AND MAINTENANCE PROCEDURES, TO THE OWNER.

16. INSTALL SCHEDULES IN ALL PANELBOARDS. SCHEDULES SHALL DESIGNATE EQUIPMENT SERVED. SCHEDULES SHALL BE TYPED.

17. STENCIL ALL ELECTRICAL EQUIPMENT TO IDENTIFY FUNCTION, CIRCUIT VOLTAGE AND PHASE. WHERE THE EQUIPMENT CONTAINS FUSES, ALSO STENCIL THE FUSE LINK AMPERE RATING.

18. COLOR CODE OF PHASE CONDUCTORS FOR 277/480, 120/208V AND GROUND SHALL BE BY THE USE OF COLORED WIRE INSULATION AND/OR COLORED TAPE. WHERE TAPE IS USED, THE WIRE INSULATION SHALL BE BLACK. NEUTRAL CONDUCTOR SHALL BE IDENTIFIED EITHER BY A CONTINUOUS WHITE OR NEUTRAL GREY OUTER FINISH ALONG ITS ENTIRE LENGTH OR BY THE USE OF WHITE TAPE AT ITS TERMINATIONS.

19. PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.

20. CLEAN PREMISES EACH DAY OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.

21. ALL CONDUIT SHALL BE SURFACE MOUNTED UNLESS OTHERWISE NOTED, NO HORIZONTAL CONDUIT BELOW 7'-0" A.F.F.

22. THE ENTIRE SYSTEM SHALL BE SOLIDLY GROUNDED USING COMPRESSION-TYPE CONDUIT FITTINGS ON CONDUITS AND PROPERLY BONDED GROUND CONDUCTORS. CRIMP-TYPE AND SET SCREW-TYPE CONDUIT FITTINGS ARE NOT ALLOWED. ALL RECEPTACLES AND EQUIPMENT CIRCUITS SHALL BE GROUNDED USING A FULL-SIZE EQUIPMENT GROUNDING CONDUCTOR RUN WITH THE CURRENT CONDUCTORS.

23. ALL ALARM WIRES SHALL BE RUN FROM EACH OF THE COMPONENTS TO THE RELOCATED 12 X 12 SC BOX. LEAVE ADDITIONAL ALARM WIRE COILED WITH SUFFICIENT LENGTH TO REACH THE FLOOR.

24. ALL ALARM WIRES SHALL BE TAGGED AND LABELED WITH THE APPROPRIATE ALARM ITEM. ALL CONTACTS WILL BE NORMALLY CLOSED, DRY, AND ISOLATED FROM GROUND.

25. ALL ALARM WIRING SHALL BE 1/2"C, 2-#18, UNLESS OTHERWISE NOTED.

26. INTERIOR GROUNDING HALO TO BE #2 INSUL GREEN STRANDED CONTINUOUS LOOP.

27. EQUIPMENT SHALL BE BONDED TO THE INTERIOR HALO USING #6 INSULATED GREEN STRANDED.

28. BONDING JUMPER SHALL BE INSTALLED AT ALL CABLERACK JUNCTIONS. JUMPER TO BE #6 INSULATED GREEN STRANDED.

29. CABLERACK SHALL BE BONDED TO INTERIOR HALO IN MIN. OF 4 PLACES USING #6 INSULATED GREEN STRANDED.

30. ALL BONDING SHALL BE DONE WITH TWO HOLE COMPRESSION LUGS.

ELECTRICAL SERVICE

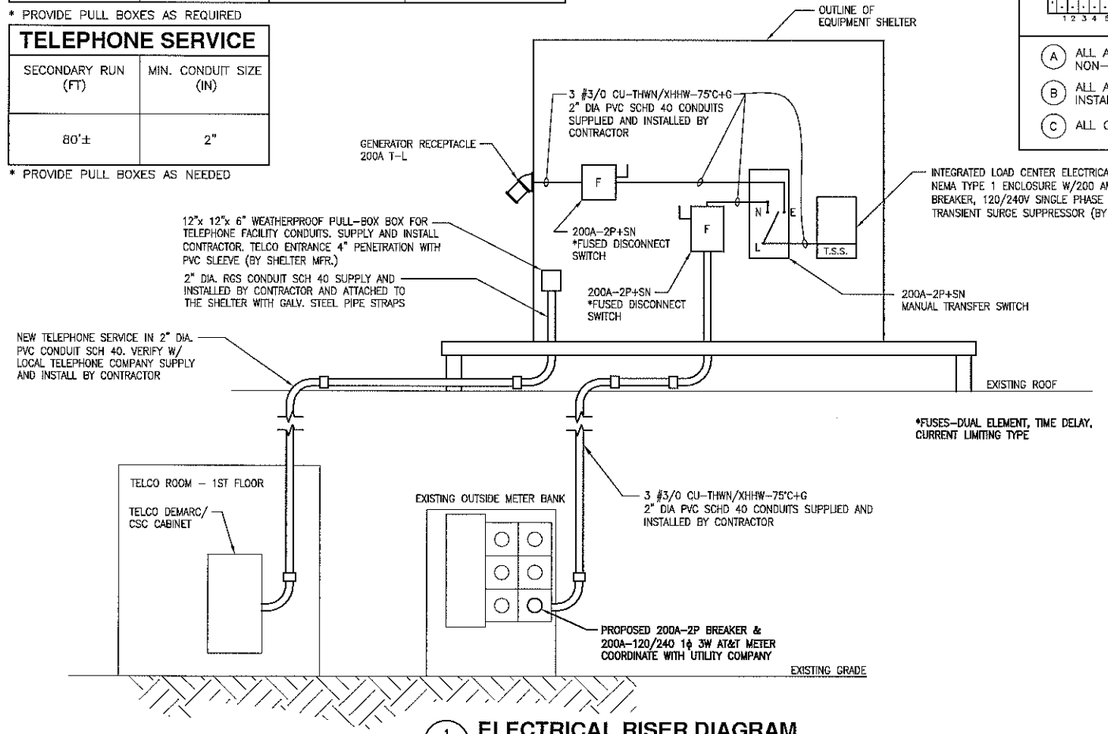
SECONDARY RUN (FT)	CONDUCTOR SIZE (AWG)	MIN. CONDUIT SIZE (IN)	GROUNDING ELECTRODE CONDUCTOR SIZE (AWG)
150'±	3-#3/0	2	#4

* PROVIDE PULL BOXES AS REQUIRED

TELEPHONE SERVICE

SECONDARY RUN (FT)	MIN. CONDUIT SIZE (IN)
80'±	2"

* PROVIDE PULL BOXES AS NEEDED



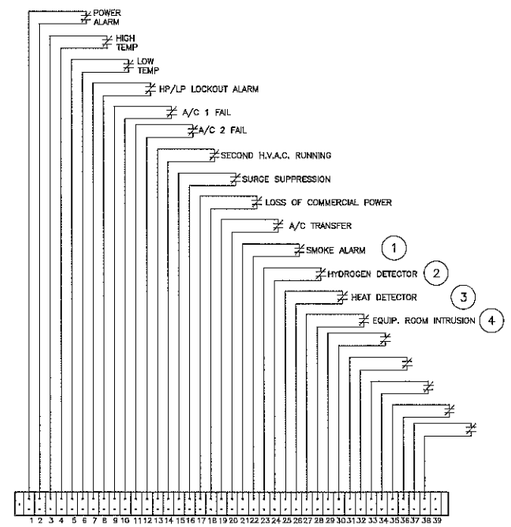
1 E-601 **ELECTRICAL RISER DIAGRAM** SCALE: NONE

(1)(3) CONNECT SMOKE & HEAT DETECTORS TO ALARM SYSTEM.

(2) PROVIDE (1) HYDROGEN DETECTOR & WIRE TO ALARM SYSTEM.

(4) PROVIDE INTRUSION ALARM (DOOR CONTACTS & MOTION DETECTOR) & WIRE TO ALARM SYSTEM.

AT&T ALARM SCHEDULE



(A) ALL ALARM WIRING SHALL BE 18 AWG STRAND (MULTI-COLORED) INSULATION. NON-SHIELDED CABLE

(B) ALL ALARM WIRING FROM RIGHT SIDE OF TERMINAL BLOCKS WILL BE PROVIDED AND INSTALLED BY VERIZON

(C) ALL CONTACTS FOR ALARM SHALL BE NORMALLY CLOSED

AT&T PANEL SCHEDULE

200 AMP MB PANEL BOARD 120/240 VOLTS 1PH 60HZ

CKT #	DESCRIPTION	WIRE SIZE	AMP	AMP	WIRE SIZE	DESCRIPTION	CKT #
1	RECTIFIER #1	10	30	60	6	H.V.A.C. UNIT #1	2
3		10	30	60	6		4
5	RECTIFIER #2	10	30	60	6	H.V.A.C. UNIT #2	6
7		10	30	60	6		8
9	RECTIFIER #3	10	30	20	12	LIGHTING (EXT/INT/EMERG)	10
11		10	30	20	12	LIGHTING (INT/EMERG)	12
13	RECTIFIER #4	10	30	15	12	WALL HEATER	14
15		10	30	15	12		16
17	RECTIFIER #5	10	30	20	12	QUAD RECEPTACLES X4	18
19		10	30	20	12	SPARE	20
21	RECTIFIER #6	10	30	20	12	TWISTLOCK RECEPTACLE	22
23		10	30	20	12	GFCI WP RECEPT. (EXT)	24
25	LTE CABINET	10	60	15	12	HYDROGEN DETECTOR/VENT FAN	26
27		10	60	15	12	HEAT/SMOKE DETECTOR	28
29	GALAXY DC PLANT	10	25	20	12	GFCI WP RECEPT. (EXT)	30
31		10	25	/	/	SPACE	32
33		10	25	/	/	SPACE	34
35	SPACE	/	/	/	/	SPACE	36
37	SPACE	/	/	/	/	SPACE	38
39	SPACE	/	/	/	/	SPACE	40
41	SPACE	/	/	/	/	SPACE	42

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NO.	DATE	REVISIONS	BY	CHK	APP'D
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2	10/05/11	REISSUED FOR REVIEW	TDC	SRS	JPS
1	09/19/11	CHG SHELTER DESIGN	TDC	SRS	JPS
0	08/01/11	ISSUED FOR REVIEW	TDC	SRS	JPS

SCALE: AS INDICATED | DESIGNED BY: MJS | DRAWN BY: TDC

JAMES P STROKE -26?4- LICENSED PROFESSIONAL ENGINEER

AT&T MOBILITY
FRAMINGHAM, MA 01701

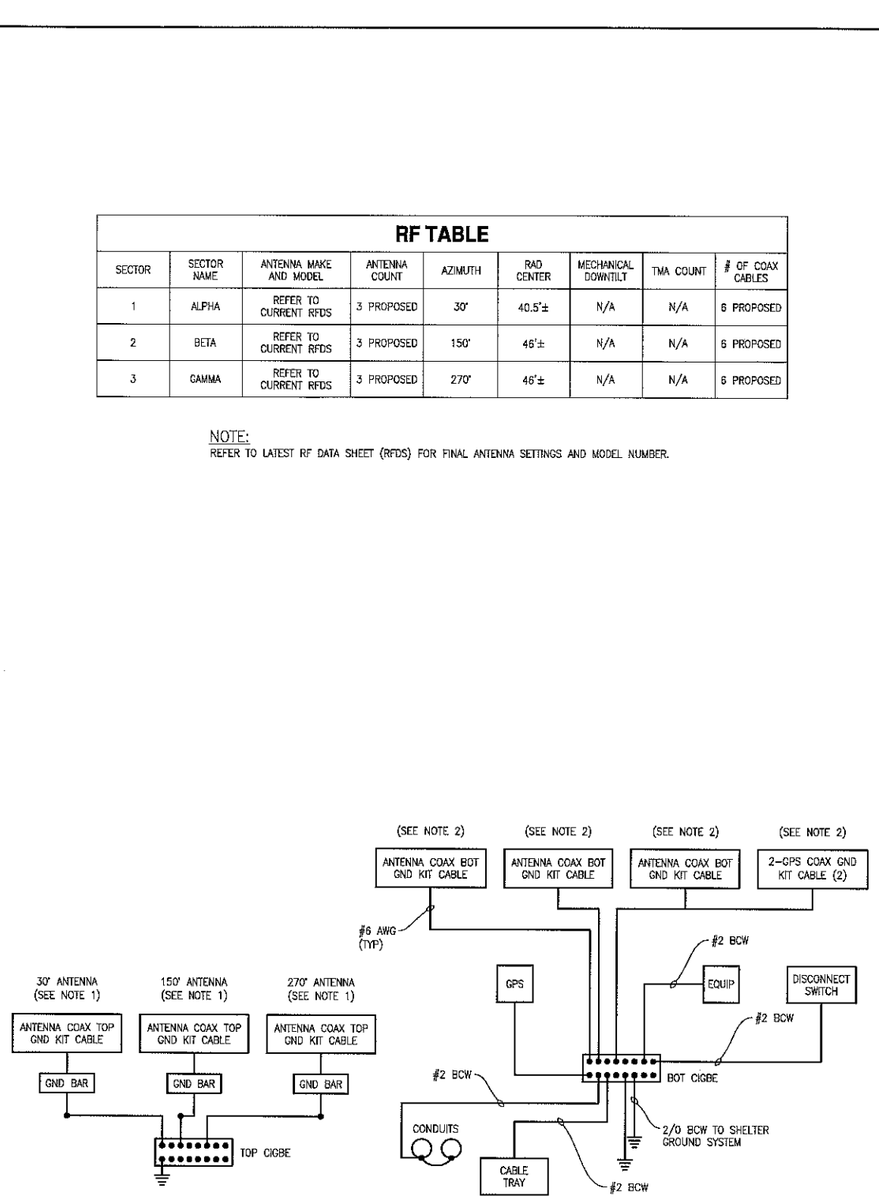
ELECTRICAL ONE-LINE DIAGRAM, NOTES & SCHEDULE

JOB NUMBER	DRAWING NUMBER	REV
SAI 11.43	E-601	3

RF TABLE

SECTOR	SECTOR NAME	ANTENNA MAKE AND MODEL	ANTENNA COUNT	AZIMUTH	RAD CENTER	MECHANICAL DOWNTILT	TMA COUNT	# OF COAX CABLES
1	ALPHA	REFER TO CURRENT RFDS	3 PROPOSED	30°	40.5'±	N/A	N/A	6 PROPOSED
2	BETA	REFER TO CURRENT RFDS	3 PROPOSED	150°	46'±	N/A	N/A	6 PROPOSED
3	GAMMA	REFER TO CURRENT RFDS	3 PROPOSED	270°	46'±	N/A	N/A	6 PROPOSED

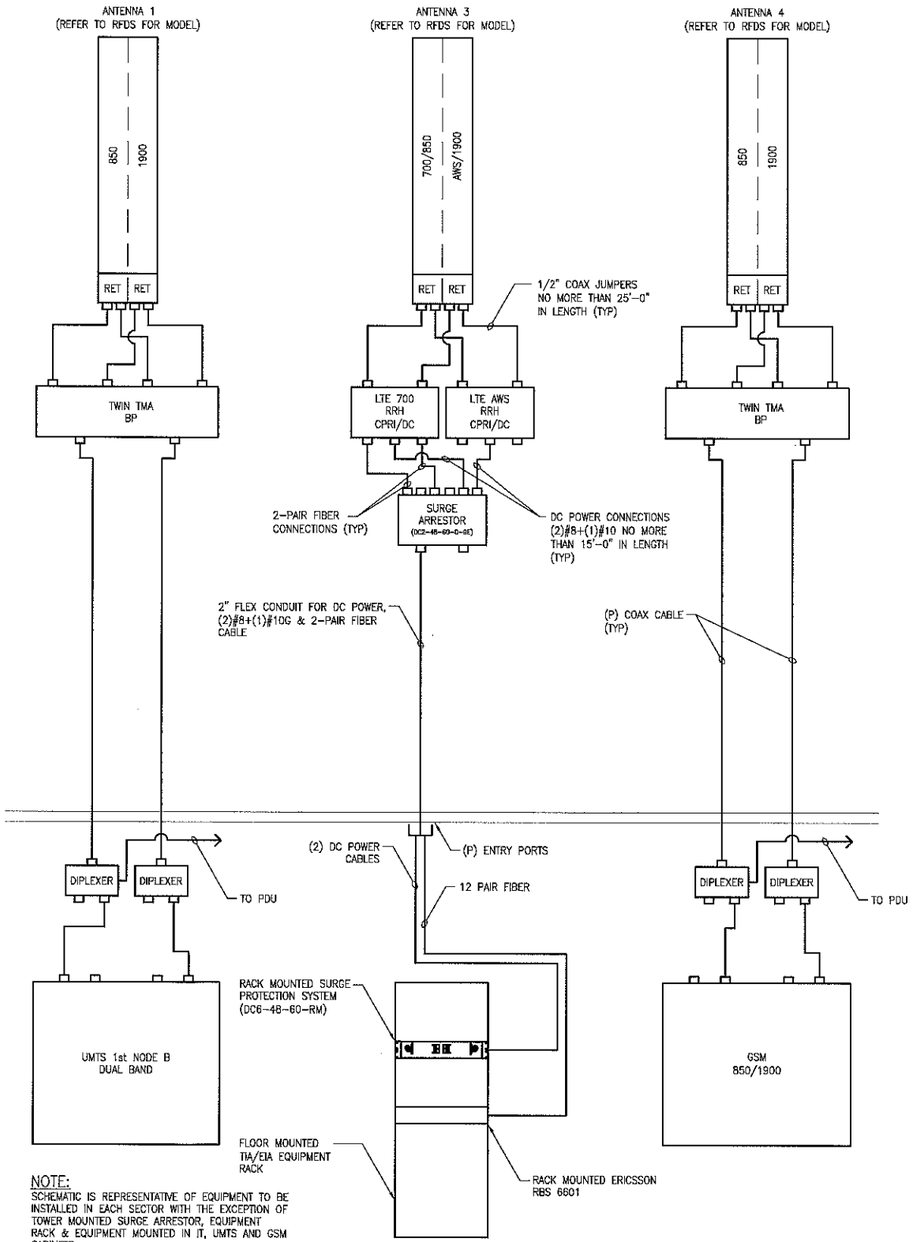
NOTE:
REFER TO LATEST RF DATA SHEET (RFDS) FOR FINAL ANTENNA SETTINGS AND MODEL NUMBER.



NOTES:

1. BOND ANTENNA GROUNDING KIT CABLE TO TOP CIGBE
2. BOND ANTENNA GROUNDING KIT CABLE TO BOTTOM CIGBE

2 E-602 **SCHEMATIC GROUNDING DIAGRAM**
SCALE: NONE



NOTE:
SCHEMATIC IS REPRESENTATIVE OF EQUIPMENT TO BE INSTALLED IN EACH SECTOR WITH THE EXCEPTION OF TOWER MOUNTED SURGE ARRESTOR, EQUIPMENT RACK & EQUIPMENT MOUNTED IN IT, UMTS AND GSM CABINETS.

1 E-602 **TYPICAL SECTOR SCHEMATIC DIAGRAM**
SCALE: NONE

GROUNDING NOTES

1. THE CONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO PROJECT MANAGEMENT FOR RESOLUTION.
2. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GES'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS. ALL AVAILABLE GROUNDING ELECTRODES SHALL BE CONNECTED TOGETHER IN ACCORDANCE WITH THE NEC.
3. THE CONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS. USE OF OTHER METHODS MUST BE PRE-APPROVED BY PROJECT MANAGEMENT IN WRITING.
4. THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS ON TOWER SITES AND 10 OHMS OR LESS ON ROOFTOP SITES. WHEN ADDING ELECTRODES, CONTRACTOR SHALL MAINTAIN A MINIMUM DISTANCE BETWEEN THE ADDED ELECTRODE AND ANY OTHER EXISTING ELECTRODE EQUAL TO THE BURIED LENGTH OF THE ROD. IDEALLY, CONTRACTOR SHALL STRIVE TO KEEP THE SEPARATION DISTANCE EQUAL TO TWICE THE BURIED LENGTH OF THE RODS.
5. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT.
6. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH 6 AWG COPPER WIRE AND UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
7. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO TRANSMISSION EQUIPMENT.
8. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED. BACK-TO-BACK CONNECTIONS ON OPPOSITE SIDES OF THE GROUND BUS ARE PERMITTED.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED. IN ALL CASES, BENDS SHALL BE MADE WITH A MINIMUM BEND RADIUS OF 8 INCHES.
11. EACH INTERIOR TRANSMISSION CABINET FRAME/PLINTH SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH 6 AWG STRANDED, GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRE UNLESS NOTE OTHERWISE IN THE DETAILS. EACH OUTDOOR CABINET FRAME/PLINTH SHALL BE DIRECTLY CONNECTED TO THE BURIED GROUND RING WITH 2 AWG SOLID TIN-PLATED COPPER WIRE UNLESS NOTED OTHERWISE IN THE DETAILS.
12. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING, SHALL BE 3 AWG SOLID TIN-PLATED COPPER UNLESS OTHERWISE INDICATED.
13. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE. CONNECTIONS TO ABOVE GRADE UNITS SHALL BE MADE WITH EXOTHERMIC WELDS WHERE PRACTICAL OR WITH 2 HOLE MECHANICAL TYPE BRASS CONNECTORS WITH STAINLESS STEEL HARDWARE, INCLUDING SET SCREWS. HIGH PRESSURE CRIMP CONNECTORS MAY ONLY BE USED WITH WRITTEN PERMISSION FROM SAI COMMUNICATIONS MARKET REPRESENTATIVE.
14. EXOTHERMIC WELDS SHALL BE PERMITTED ON TOWERS ONLY WITH THE EXPRESS APPROVAL OF THE TOWER MANUFACTURER OR THE CONTRACTOR'S STRUCTURAL ENGINEER.
15. ALL WIRE TO GROUND CONNECTIONS TO THE INTERIOR GROUND RING SHALL BE FORMED USING HIGH PRESS CRIMPS OR SPLIT BOLT CONNECTORS WHERE INDICATED IN THE DETAILS.
16. ON ROOFTOP SITES WHERE EXOTHERMIC WELDS ARE A FIRE HAZARD, COPPER COMPRESSION CAP CONNECTORS MAY BE USED FOR WIRE TO WIRE CONNECTORS. 2-HOLE MECHANICAL TYPE BRASS CONNECTORS WITH STAINLESS STEEL HARDWARE, INCLUDING SET SCREWS, SHALL BE USED FOR CONNECTION TO ALL ROOFTOP TRANSMISSION EQUIPMENT AND STRUCTURAL STEEL.
17. COAX BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR USING TWO-HOLE MECHANICAL TYPE BRASS CONNECTORS AND STAINLESS STEEL HARDWARE.
18. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
19. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
20. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
21. BOND ALL METALLIC OBJECTS WITHIN 6 FT OF THE BURIED GROUND RING WITH 2 AWG SOLID TIN-PLATED COPPER GROUND CONDUCTOR. DURING EXCAVATION FOR NEW GROUND CONDUCTORS, IF EXISTING GROUND CONDUCTORS ARE ENCOUNTERED, BOND EXISTING GROUND CONDUCTORS TO NEW CONDUCTORS.
22. GROUND CONDUCTORS USED IN THE FACILITY GROUND AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC PLASTIC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (I.E. NON-METALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT WITH LISTED BONDING FITTINGS.

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ELECTRICAL SCHEMATIC DIAGRAMS

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