



GADSDEN MIDWAY TOWER COLO

ATC SITE ID: 97170

90 MARTIN LUTHER KING BOULEVARD MIDWAY, FL 32343 GADSDEN COUNTY



VICINITY MAP



LOCUS MAP

DEPART EDWARD J. BUTLER GOVERNMENTAL COMPLEX:
START OUT GOING EAST ON E JEFFERSON ST/US-90
E/FL-65/FL-10/FL-12 TOWARD S MADISON ST.
CONTINUE TO FOLLOW US-90 E/FL-10. TURN SLIGHT
RIGHT ONTO M L KING BLVD/COUNTY HWY-159.
DESTINATION IS ON THE RIGHT.

ENGINEER

DEWBERRY ENGINEERS INC.
800 NORTH MAGNOLIA AVENUE
SUITE 1000
ORLANDO, FL 32803
PHONE # (407) 843-5120
CONTACT: JULIE ANDREWS

SITE ACQUISITION

GADSDEN COUNTY BOARD
GADSDEN COUNTY PUBLIC WORKS DEPT.
1284 HIGH BRIDGE ROAD
QUINCY, FL 32351
CONTACT: ALLAN MEEKS

CONSULTANT TEAM

APPLICABLE CODES

- FLORIDA BUILDING CODE, 2017 6TH EDITION ANSI/EIA/TIA-222-G
- NATIONAL ELECTRICAL CODE 2014, NFPA 70-2014
- FLORIDA FIRE PREVENTION CODE 2018 6TH EDITION
- A.D.A. COMPLIANCE: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.

SITE NAME:
GADSDEN MIDWAY TOWER COLO

PARCEL ID:
4-08-1N-2W-0000-00214-0200

JURISDICTION:
GADSDEN COUNTY

SITE ADDRESS:
90 MARTIN LUTHER KING BOULEVARD
MIDWAY, FL 32343

PROPERTY & TOWER OWNER:
AMERICAN TOWERS LLC
ATTN: LAND MANAGEMENT
10 PRESIDENTIAL WAY
WOBURN, MA 01801

POWER PROVIDER:
VERIZON WIRELESS EAST

APPLICANT/DEVELOPER:
GADSDEN COUNTY BOARD
9-B JEFFERSON ST
QUINCY, FL 32353

COORDINATES*
LATITUDE: 30° 30' 14.5" (NAD83)
LONGITUDE: -84° 27' 27.0" (NAD83)
* PER BASKERVILLE-DONOVAN, INC.,
DATED 08/19/94

PROJECT SUMMARY

SCOPE OF WORK

- CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.
- CONTRACTOR SHALL VERIFY OWNER FOR ACCESS TO SITE.
- THE PROJECT CONSISTS OF THE INSTALLATION OF: (1) DIPOLE ARRAY, (1) PARABOLIC ANTENNA, (1) PTP RADIO, CONCRETE PADS, EQUIPMENT SHELTER, GENERATOR AND ALL ASSOCIATED WORK.

APPROVALS

ATC CM	DATE
GADSDEN COUNTY CM	DATE
ATC RF	DATE
GADSDEN COUNTY RF	DATE

THIS DOCUMENT WAS DEVELOPED TO REFLECT A SPECIFIC SITE AND ITS SITE CONDITIONS AND IS NOT TO BE USED FOR ANOTHER SITE OR WHEN OTHER CONDITIONS PERTAIN. REUSE OF THIS DOCUMENT IS AT THE SOLE RISK OF THE USER.

SHT. NO.	DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1	PROPOSED COMPOUND PLAN
C-2	PROPOSED ELEVATION & ANTENNA LAYOUTS
C-3	ANTENNA & CABLE SCHEDULE
C-4	CONSTRUCTION DETAILS I
C-5	CONSTRUCTION DETAILS II
C-6	CONSTRUCTION DETAILS III
S-1	STRUCTURAL DETAILS
E-1	ONE LINE DIAGRAM
E-2	PANEL SCHEDULE & NOTES
E-3	GROUNDING PLAN & RISER DIAGRAM
E-4	GROUNDING DETAILS

SHEET INDEX

LOADING CRITERIA

- ULTIMATE DESIGN WIND SPEED: 118 MPH (3-SECOND GUST, V_{ult})
- NOMINAL DESIGN WIND SPEED: 92 MPH (3-SECOND GUST, V_{nom})
- RISK CATEGORY: II
- WIND EXPOSURE: B
- APPLICABLE CODES: ANSI/TIA-222-G/2017 FLORIDA BUILDING CODE



**GADSDEN
MIDWAY
TOWER COLO**

CONSTRUCTION DRAWINGS

A 07/30/20 FOR COMMENT	

Dewberry

Dewberry Engineers Inc.
800 NORTH MAGNOLIA AVE.
SUITE 1000
ORLANDO, FL 32803
PHONE: 407.843.5120
FAX: 407.649.8664
FLORIDA C.O.A. #8794



DRAWN BY: HMP

REVIEWED BY: NRK

CHECKED BY: JAA

PROJECT NUMBER: 50115124

JOB NUMBER: 50127126

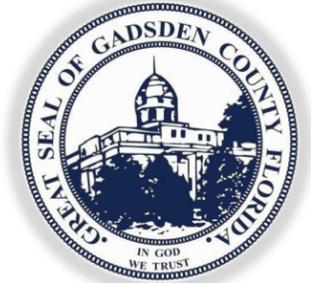
SITE ADDRESS

90 MARTIN LUTHER KING
BOULEVARD
MIDWAY, FL 32343

SHEET TITLE

TITLE SHEET

SHEET NUMBER



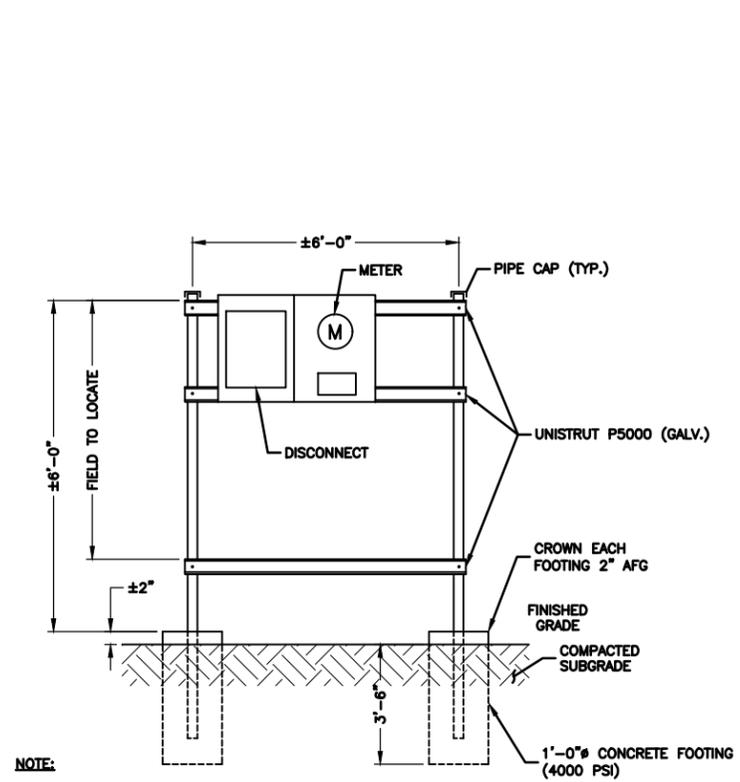
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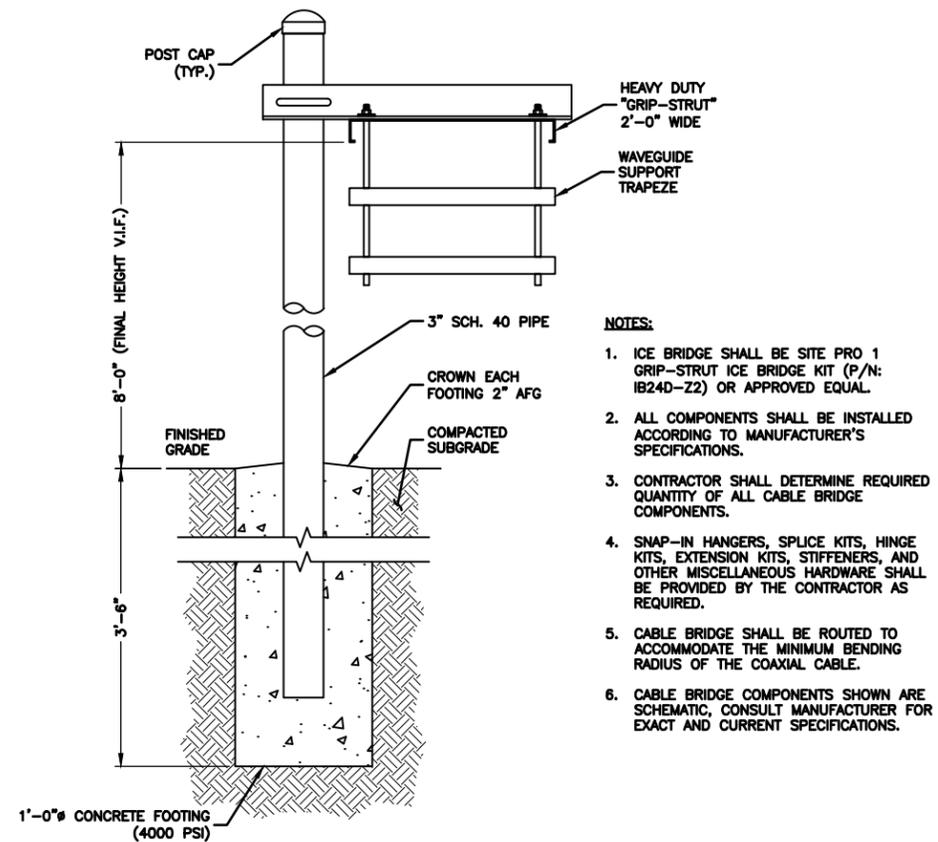
NOTE:

1. MOUNT METER PER MANUFACTURER'S RECOMMENDATION AND INSTRUCTIONS.

METER/Disconnect MOUNTING DETAIL

SCALE: N.T.S.

1



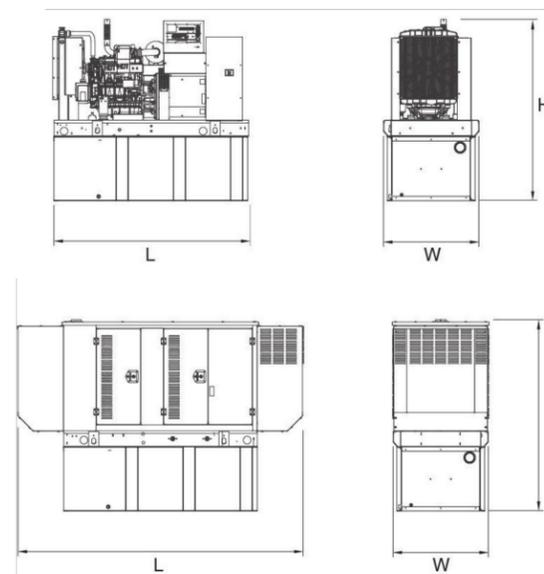
NOTES:

1. ICE BRIDGE SHALL BE SITE PRO 1 GRIP-STRUT ICE BRIDGE KIT (P/N: IB24D-Z2) OR APPROVED EQUAL.
2. ALL COMPONENTS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
3. CONTRACTOR SHALL DETERMINE REQUIRED QUANTITY OF ALL CABLE BRIDGE COMPONENTS.
4. SNAP-IN HANGERS, SPLICE KITS, HINGE KITS, EXTENSION KITS, STIFFENERS, AND OTHER MISCELLANEOUS HARDWARE SHALL BE PROVIDED BY THE CONTRACTOR AS REQUIRED.
5. CABLE BRIDGE SHALL BE ROUTED TO ACCOMMODATE THE MINIMUM BENDING RADIUS OF THE COAXIAL CABLE.
6. CABLE BRIDGE COMPONENTS SHOWN ARE SCHEMATIC. CONSULT MANUFACTURER FOR EXACT AND CURRENT SPECIFICATIONS.

CABLE BRIDGE DETAIL

SCALE: N.T.S.

2



OPEN SET

RUN TIME HOURS	USABLE CAPACITY GAL (L)	L x W x H in (mm)	WT lbs (kg) - Tank & Open Set
NO TANK	-	76 (1930.4) x 37.4 (949.9) x 42.2 (1072.1)	2060 (934)
21	54 (204.4)	76 (1930.4) x 37.4 (949.9) x 55.2 (1402.1)	2540 (1152)
52	132 (499.7)	76 (1930.4) x 37.4 (949.9) x 67.2 (1706.9)	2770 (1257)
84	211 (798.7)	76 (1930.4) x 37.4 (949.9) x 79.2 (2011.7)	2979 (1351)
120	300 (1135.6)	92.9 (2360) x 37.4 (949.9) x 82.7 (2100.6)	3042 (1380)

LEVEL 1 ACOUSTIC ENCLOSURE

RUN TIME HOURS	USABLE CAPACITY GAL (L)	L x W x H in (mm)	WT lbs (kg) - Enclosure Only	
			Steel	Aluminum
NO TANK	-	112.5 (2857.1) x 38 (965.2) x 49.5 (1258.1)		
21	54 (204.4)	112.5 (2857.1) x 38 (965.2) x 62.5 (1587.5)		
52	132 (499.7)	112.5 (2857.1) x 38 (965.2) x 74.5 (1892.3)	455 (206)	288 (131)
84	211 (798.7)	112.5 (2857.1) x 38 (965.2) x 86.5 (2197.1)		
120	300 (1135.6)	112.5 (2857.1) x 38 (965.2) x 90 (2286)		

**EMERGENCY GENERATOR DETAIL
(GENERAC SD025 25KW)**

SCALE: N.T.S.

3

DRAWN BY: HMP

REVIEWED BY: NRK

CHECKED BY: JAA

PROJECT NUMBER: 50115124

JOB NUMBER: 50127126

SITE ADDRESS

90 MARTIN LUTHER KING
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MIDWAY, FL 32343

SHEET TITLE

CONSTRUCTION
DETAILS II

SHEET NUMBER

C-5



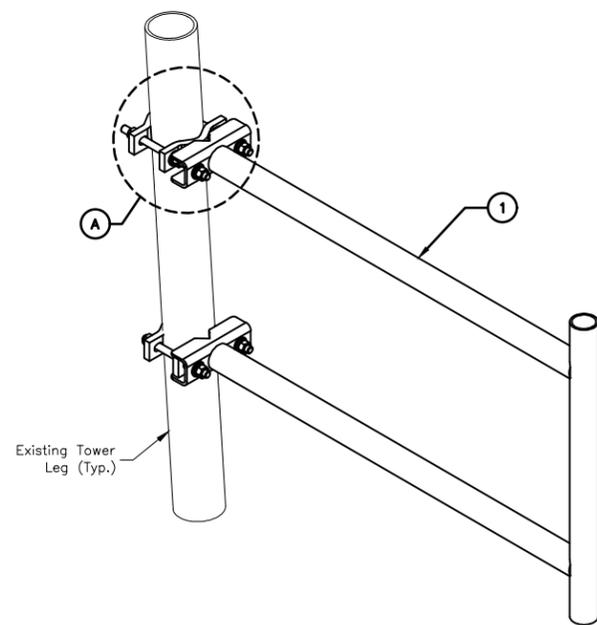
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CONSTRUCTION DRAWINGS

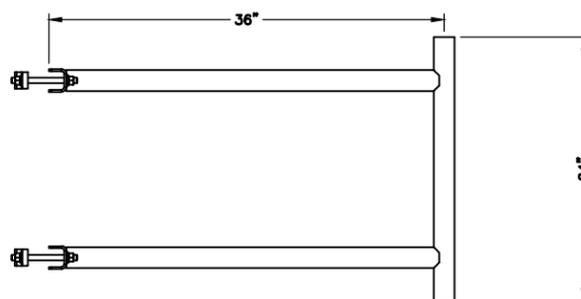
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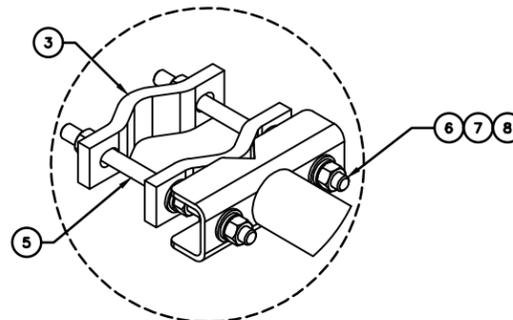
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FLORIDA C.O.A. #8794



ISOMETRIC VIEW



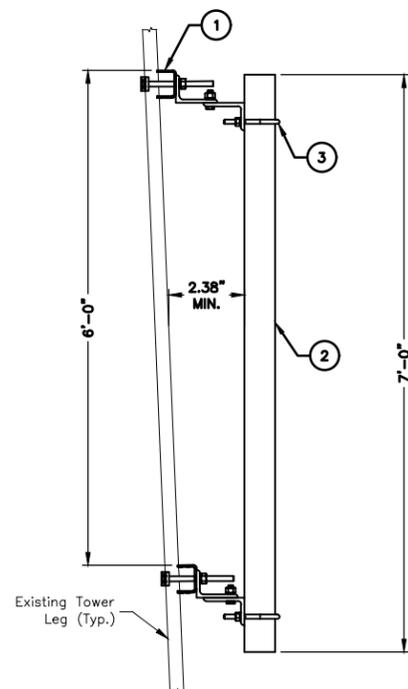
SIDE VIEW



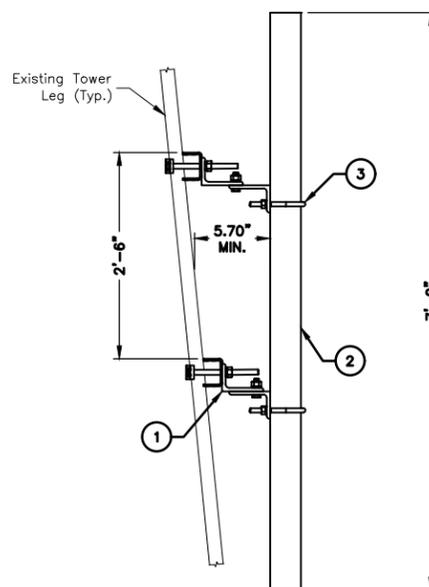
DETAIL "A"

PARTS LIST			
ITEM	PART NO.	DESCRIPTION	QTY.
1	S300.01	36" STANDOFF WELDMENT	1
2	SH01	HARDWARE KIT (ITEMS 3-8)	1
3	SCP10	SMALL DISH CLAMP HALF	4
4	MT-379-6	1/2" X 6" GALV THREADED ROD	4
5	MT-379-8	1/2" X 8" GALV THREADED ROD	2
6	GWFO4A	1/2" GALV FLAT WASHER (A325)	14
7	GWL-04	1/2" GALV LOCK WASHER	14
8	GN04A	1/2" GALV HEX NUT (A325)	14

36" STAND-OFF BRACKET (COMMSCOPE P/N: S-300) 1
SCALE: N.T.S.



SIDE VIEW CONFIGURATION I



SIDE VIEW CONFIGURATION II

PARTS LIST			
ITEM	PART NO.	DESCRIPTION	QTY.
1	C10172101	ANTENNA PIPE MOUNTING KIT	1
2	C10981407	PIPE, 4-1/2" O.D. (0.180" WALL) X 7'-0"	1
3	C40034032	U-BOLT ASSEMBLY, 5/8 X 5 3/16 C-C	1

ANTENNA PIPE MOUNTING KIT (SABRE INDUSTRIES P/N: C10153202) 2
SCALE: N.T.S.

DRAWN BY: HMP

REVIEWED BY: NRK

CHECKED BY: JAA

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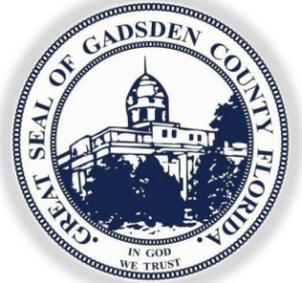
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MIDWAY, FL 32343

SHEET TITLE

STRUCTURAL
DETAILS

SHEET NUMBER

S-1



**GADSDEN
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CONSTRUCTION DRAWINGS

A 07/30/20 FOR COMMENT



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MAIN BREAKER SIZE: 200 MAIN FEEDER WIRE SIZE: 3/0 VOLTAGE: 120/240																		
CKT. NO.	DESCRIPTION	BREAKER SIZE	WIRE		"A"		"B"		"B"		"A"		WIRE		BREAKER SIZE	DESCRIPTION	CKT. NO.	
			SIZE	COLOR	CONT	NONC	CONT	NONC	NONC	CONT	NONC	CONT	COLOR	SIZE				
1	RECTIFIER #1	30 AMP	10	BLK	1550	--								1550	BLK	10	30 AMP	2
3		30 AMP	10	RED			1550	--							1550	RED	10	30 AMP
5	RECTIFIER #2	30 AMP	10	BLK	1550	--									BLK	10	30 AMP	6
7		30 AMP	10	RED			1550	--							RED	10	30 AMP	8
9	RECTIFIER #3	30 AMP	10	BLK	1550	--									BLK	10	30 AMP	10
11		30 AMP	10	RED			1550	--							RED	10	30 AMP	12
13	SPARE	30 AMP	10	BLK	--	--									BLK	10	30 AMP	14
15		30 AMP	10	RED			--	--							RED	10	30 AMP	16
17	SPARE	30 AMP	10	BLK	--	--									BLK	6	50 AMP	18
19		30 AMP	10	RED			--	--							RED	6	50 AMP	20
21	SPARE	30 AMP	10	BLK	--	--					0	600			BLK	10	20 AMP	22
23		30 AMP	10	RED			--	--	1000	0					RED	10	20 AMP	24
25	HVAC #1	25 AMP	10	BLK	0	4800							180	0	BLK	10	20 AMP	26
27		25 AMP	10	RED			0	4800	558	0					RED	10	20 AMP	28
29	DUPLEX RECEPTACLE	20 AMP	12	BLK	0	180									BLK	10		30
					4650	4980	4650	4800			1558	1550	180	2150				

PANEL USAGE DATA		VA		
	CONT	NONC.	TOTAL (1.25% CONT + NONC)	
A	6800	5160	13680	
B	6200	6358	14108	

SUMMARY:	VA	AMPS
TOTAL ALLOWED:	38400	200.0
TOTAL USED:	27768	115.7
REMAINING AVAILABLE:	10632	44.3

(BASED ON MAIN BREAKER SIZE)
(WORST CASE LEG FROM ABOVE)
(FOR ADDITIONAL EQUIPMENT*)

* ANY CIRCUIT LISTED WITHOUT VOLT-AMPS ARE SHOWN FOR REFERENCE. ACTUAL PANEL AMPS SHALL NOT EXCEED THE CAPACITY OF THE MAIN BREAKER

PANEL SCHEDULE 1
SCALE: N.T.S.

GENERAL ELECTRICAL NOTES

- SUBMITTAL OF BID INDICATES CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
- CONTRACTOR SHALL PERFORM ALL VERIFICATION OBSERVATION TESTS, AND EXAMINATION WORK PRIOR TO THE ORDERING OF THE ELECTRICAL EQUIPMENT AND THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE ARCHITECT LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT AND DISCREPANCIES.
- HEIGHTS SHALL BE VERIFIED WITH OWNER PRIOR TO INSTALLATION.
- THESE PLANS ARE DIAGRAMMATIC ONLY, FOLLOW AS CLOSELY AS POSSIBLE.
- EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANELBOARD, PULLBOX, J-BOX, SWITCH BOX, ETC., IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ACT (O.S.H.A.)
- CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSPORTATION, ETC., FOR A COMPLETE AND PROPERLY OPERATIVE SYSTEM ENERGIZED THROUGHOUT AND AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
- ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORY AND SHALL BEAR THE INSPECTION LABEL "U" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF THE DIVISION OF INDUSTRIAL SAFETY AND ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA AND NBFU.
- CONTRACTOR SHALL CARRY OUT HIS WORK IN ACCORDANCE WITH ALL GOVERNING STATE, COUNTY AND LOCAL CODES AND O.S.H.A.
- CONTRACTOR SHALL SECURE ALL NECESSARY BUILDING PERMITS AND PAY ALL REQUIRED FEES
- COMPLETE JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE BY OWNER. ANY WORK, MATERIAL OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE CONTRACTOR.
- ALL CONDUIT ONLY (C.O.) SHALL HAVE A PULL WIRE OR ROPE.
- PROVIDE PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS, AND CIRCUITS.
- ALL BROCHURES, OPERATING MANUALS, CATALOGS, SHOP DRAWINGS, ETC. SHALL BE TURNED OVER TO OWNER AT JOB COMPLETION.
- USE T-TAP CONNECTIONS ON ALL MULTI-CIRCUITS WITH COMMON NEUTRAL CONDUCTOR FOR LIGHTING FIXTURE.
- ALL CONDUCTORS SHALL BE COPPER.
- ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED.
- THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY NEC.
- PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.
- IN DRILLING HOLES INTO CONCRETE WHETHER FOR FASTENING OR ANCHORING PURPOSES, OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, M PIPE RUNS, ETC., IT MUST BE CLEARLY UNDERSTOOD THAT TENDONS AND/OR REINFORCING STEEL WILL NOT BE DRILLED INTO, CUT OR DAMAGED UNDER ANY CIRCUMSTANCES.
- LOCATION OF TENDONS AND/OR REINFORCING STEEL ARE NOT DEFINITELY KNOWN AND, THEREFORE, MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT VIA X-RAY OR OTHER DEVICES THAT CAN ACCURATELY LOCATE THE REINFORCING AND/OR STEEL TENDONS.
- PENETRATIONS IN FIRE RATED WALLS SHALL BE INTERNATIONAL BUILDING CODE 2009, NEW JERSEY EDITION.
- WIRE AND CABLE CONDUCTORS SHALL BE COPPER #12 AWG MINIMUM UNLESS SPECIFICALLY STATED OTHERWISE ON DRAWINGS.
- VERIFY ALL CONDUIT ROUTING W/OWNER REP. & C.M.
- ALL MATERIALS SHALL BE U.L. LISTED.
- CONDUIT:
 - RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR. RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.
 - ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTINGS SHALL BE GLAND RING COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.
- FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "JAKE" OR "SQUEEZE" TYPE, SEAL TIGHT FLEXIBLE CONDUIT. ALL CONDUIT IN EXCESS OF SIX FEET IN LENGTH SHALL HAVE FULL SIZE GROUND WIRE.
- CONDUIT RUNS MAY BE SURFACE MOUNTED IN CEILINGS OR WALLS UNLESS INDICATED OTHERWISE. CONDUIT INDICATED SHALL RUN PARALLEL OR AT RIGHT ANGLES TO CEILING, FLOOR OR BEAMS. VERIFY EXACT ROUTING OF ALL EXPOSED CONDUIT WITH ARCHITECT PRIOR TO INSTALLING.
- ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS.
- COORDINATE THE ELECTRICAL SERVICE SHUTDOWN WITH BUILDING OWNER.
- GROUNING SYSTEM RESISTANCE SHALL NOT EXCEED 5 OHMS. IF THE RESISTANCE VALUE IS EXCEEDED, NOTIFY THE OWNER FOR FURTHER INSTRUCTION ON METHODS FOR REDUCING THE RESISTANCE VALUE. SUBMIT TEST REPORTS AND FURNISH TO DISPATCH COMMUNICATIONS ONE COMPLETE SET OF PRINTS SHOWING "INSTALLED WORK".
- UPON COMPLETION OF WORK, CONDUCT CONTINUITY, AND FALL POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.
- ALL WALL PENETRATIONS SHALL BE FIRE STOPPED WITH FS-ONE HIGH PERFORMANCE INTUMESCENT FIRE STOP BY HILTI OR APPROVED EQUAL. INSTALL PER MANUFACTURERS RECOMMENDATIONS.

ELECTRICAL AND TELEPHONE GENERAL NOTES:

- FOLLOWING COMPLETION OF WORK, PROVIDE OWNER WITH AS-BUILT DRAWINGS SHOWING TELEPHONE AND ELECTRIC LOCATIONS.
- WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE, NEC 2011.
- COORDINATE WITH UTILITY AND LOCAL ELECTRICAL INSPECTOR FOR FINAL POWER CONNECTION.
- UTILITY WILL SUPPLY METER. COORDINATE WITH UTILITY FOR METER TYPE AND INTERCONNECTION.
- CONTRACTOR SHALL CONTACT "SUNSHINE 811" AND LOCATE ALL EXISTING UTILITIES WITHIN THE AREA OF WORK PRIOR TO THE START OF ANY EXCAVATION.
- COORDINATE WITH LOCAL FIBER COMPANY FOR ALL ROUTING AND DESIGN.
- CONTRACTOR TO VERIFY CONTROL WIRING SIZE WITH GENERATOR MANUFACTURER PRIOR TO CONSTRUCTION.
- CONTRACTOR TO CONFIRM STUB UP LOCATIONS OF WIRING CONDUITS PRIOR TO CONSTRUCTION.

DRAWN BY: HMP

REVIEWED BY: NRK

CHECKED BY: JAA

PROJECT NUMBER: 50115124

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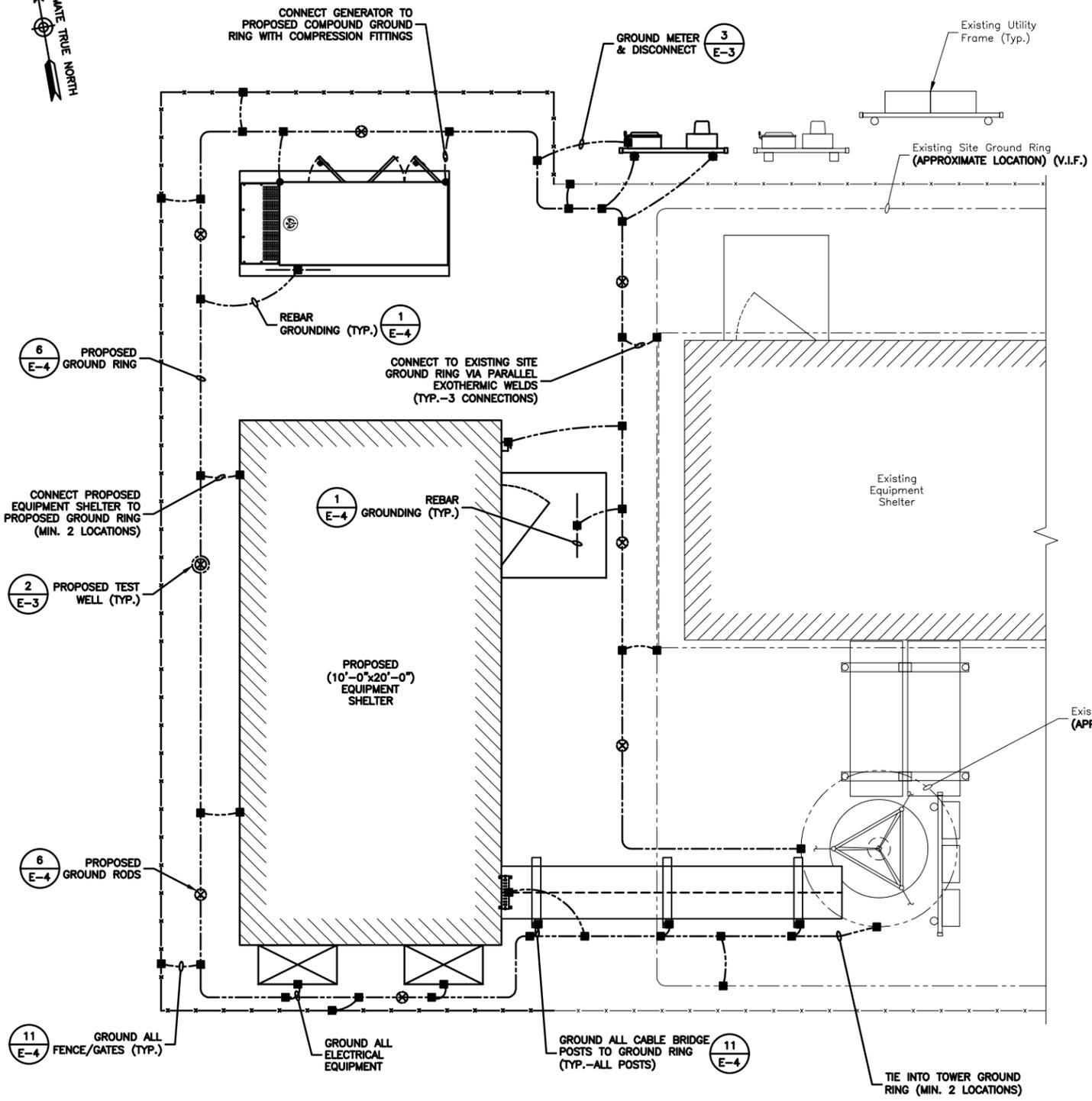
SITE ADDRESS

90 MARTIN LUTHER KING
BOULEVARD
MIDWAY, FL 32343

SHEET TITLE

PANEL SCHEDULE
& NOTES

SHEET NUMBER

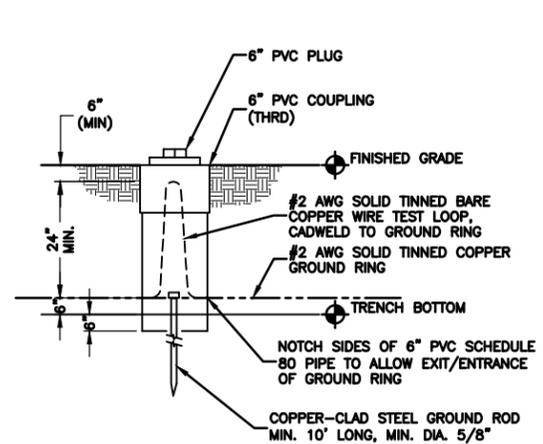


GROUNDING PLAN (1)
SCALE: 3/16"=1' FOR 11"x17"
3/8"=1' FOR 22"x34"

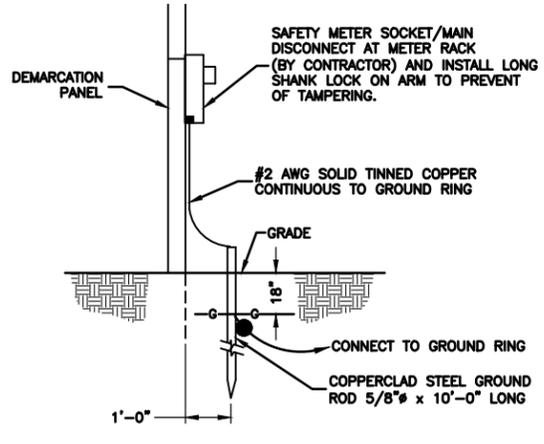
GROUNDING LEGEND	
	GROUND BAR
	GROUND COPPER WIRE, SIZE AS NOTED
	MECHANICAL GROUND CONNECTION
	5/8"X10' COPPER CLAD STEEL GROUND ROD
	TEST WELL
	EXOTHERMIC (CADWELD) CONNECTION

GROUNDING GENERAL NOTES

- ALL DOWN CONDUCTORS AND THE GROUND RING CONDUCTOR SHALL BE #2 AWG. SOLID, BARE, TINNED COPPER, UNLESS OTHERWISE NOTED. ALL CONNECTIONS TO GROUND RING SHALL BE EXOTHERMICALLY WELDED. CONDUCTOR SHALL BE AT A MINIMUM DEPTH BELOW GRADE OF 18 INCHES OR TO LEDGE. MINIMUM BEND RADIUS SHALL BE 8 INCHES. CONDUCTOR SHALL BE AT LEAST 24 INCHES FROM ANY FOUNDATION, UNLESS OTHERWISE NOTED.
- GROUND RODS SHALL BE 5/8" DIAMETER COPPER CLAD, HARGER, T&B, ERICO, OR EQUIVALENT. TOP OF ROD SHALL BE A MINIMUM OF 18" BELOW GRADE. IF LEDGE IS ENCOUNTERED, INSTALL GROUND ROD AT AN ANGLE. ELECTRICAL METER GROUND ROD EXCEPTED.
- WHERE MECHANICAL CONNECTIONS ARE SPECIFIED, BOLTED, COMPRESSION-TYPE, CLAMPS OR SPLIT-BOLT TYPE CONNECTORS SHALL BE USED.
- GRIND OFF GALVANIZING IN AFFECTED AREA. EXOTHERMICALLY WELD #2 CONDUCTOR AT 6" ABOVE GRADE OR FOUNDATION, WHICHEVER IS HIGHER. COLD-GALV AFTER. EXOTHERMICALLY WELD OTHER END TO GROUND RING.
- INSTALL GROUNDING KITS AT ANTENNA CENTERLINE, AND TOWER EXIT POINTS. GROUND COAX LINES. EXOTHERMICALLY WELD #2 DOWN CONDUCTOR TO PLATES, RUN DOWN TOWER, AND TIE INTO GROUNDING SYSTEM.
- ALL GROUNDING WORK SHALL COMPLY WITH CONSTRUCTION CONTRACT STANDARDS. FOLLOWING COMPLETION OF WORK, GROUND SYSTEM MUST BE TESTED AND SHALL HAVE A RESISTANCE OF 5 OHMS OR LESS SUBMIT AN INDEPENDENT "FALL POTENTIAL" TESTING REPORT.
- ALL GROUNDING CONDUCTORS ON EXTERIOR WALL OF SHELTER SHALL BE INSTALLED IN 3/4" SCH 40 PVC CONDUIT TO 12" BELOW GRADE. ATTACH PVC WITH GALVANIZED "C" CLAMPS.
- CONTRACTOR SHALL HAND-DIG IN AREAS AROUND EXISTING UTILITIES.
- NOTIFY CONSTRUCTION ENGINEER IF THERE ARE ANY DIFFICULTIES INSTALLING GROUNDING SYSTEM DUE TO SITE SOIL CONDITIONS.
- GROUNDING RING IS SHOWN AS SCHEMATIC ONLY. IT IS DESIGNED WITHOUT BENEFIT OF RESISTIVITY TESTING AND DOES NOT NECESSARILY REPRESENT A GROUNDING SYSTEM TO MEET ANY SPECIFIC GROUND RESISTANCE.
- PRIOR TO POURING CONCRETE, ALL REBAR LOCATED NEAR THE BOTTOM OF THE FOUNDATION SHALL BE BONDED TOGETHER TO FORM A SINGLE GROUNDING ELECTRODE, BY STEEL TIES OF OTHER EFFECTIVE MEANS APPROVED BY NEC 2011 AND STRUCTURAL ENGINEER, AND BONDED TO THE GROUND RING AS DETAILED IN THESE PLANS. (INSPECTION MAY BE REQUIRED PRIOR TO POURING CONCRETE AND MUST BE COORDINATED BY CONTRACTOR.)
- IN ACCORDANCE WITH NEC 2011 REQUIREMENTS, ALL GROUNDING ELECTRODES PRESENT ON SITE SHALL BE BONDED TOGETHER (REFERENCE 2011 NEC ARTICLE 250.50).
- CAULK AND SEAL ALL NON-FABRY SHELTER PENETRATIONS.



GROUND SYSTEM TESTING WELL (2)
SCALE: N.T.S.



METER SOCKET GROUNDING (3)
SCALE: N.T.S.

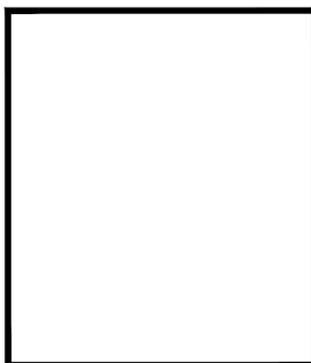


GADSDEN MIDWAY TOWER COLO

CONSTRUCTION DRAWINGS

A 07/30/20 FOR COMMENT	

Dewberry
Dewberry Engineers Inc.
800 NORTH MAGNOLIA AVE.
SUITE 1000
ORLANDO, FL 32803
PHONE: 407.843.5120
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FLORIDA C.O.A. #8794



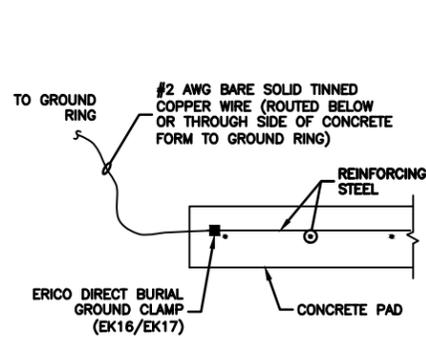
DRAWN BY:	HMP
REVIEWED BY:	NRK
CHECKED BY:	JAA
PROJECT NUMBER:	50115124
JOB NUMBER:	50127126
SITE ADDRESS	

90 MARTIN LUTHER KING BOULEVARD
MIDWAY, FL 32343

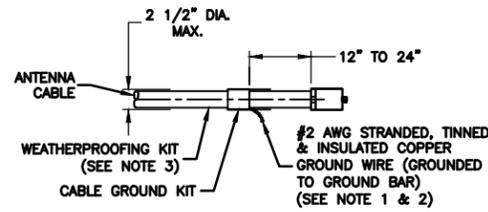
SHEET TITLE

GROUNDING PLAN & RISER DIAGRAM

SHEET NUMBER

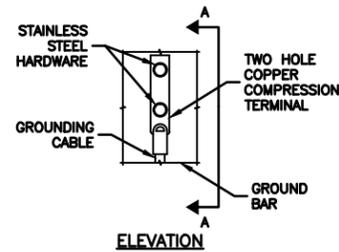


REBAR GROUNDING DETAIL
SCALE: N.T.S.



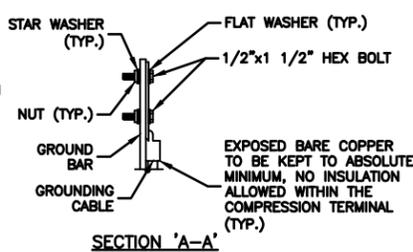
- NOTES:**
- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
 - GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
 - WEATHER PROOFING SHALL BE A TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

CONNECTION OF CABLE GROUND KIT TO ANTENNA CABLE DETAIL
SCALE: N.T.S.



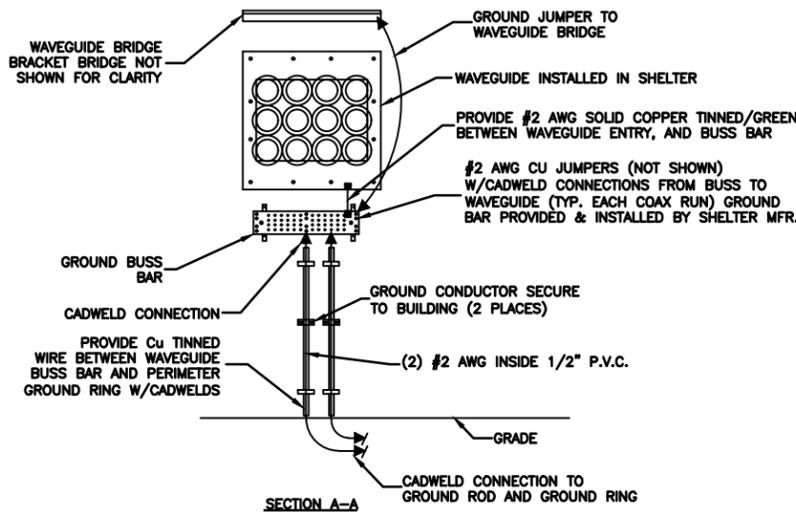
- NOTES:**
- DOUBLING UP OR STACKING OF CONNECTIONS IS NOT PERMITTED
 - COVER USING NO OXIDE COMPOUND AT ALL LOCATIONS.

TYPICAL GROUND BAR MECHANICAL CONNECTION DETAIL
SCALE: N.T.S.

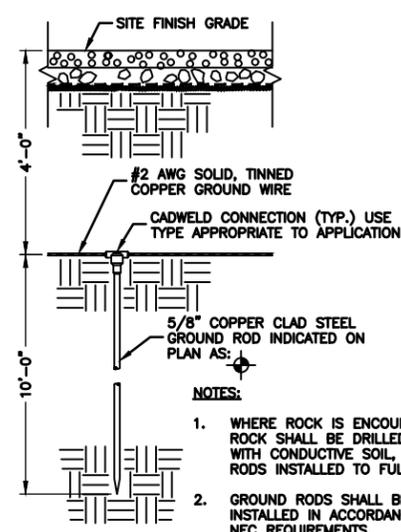


- * TWO HOLE LUG, OR EXOTHERMIC WELD TO BE USED WITH #2 AWG BCW TO BUILDING SERVICE GROUND OR GROUND RING
- GROUND CONDUCTOR SHALL BE ELIMINATED WHEN GROUND BAR IS ELECTRICALLY BONDED TO METAL TOWER STRUCTURE
- * GROUND BARS AT THE BOTTOM OF TOWER SHALL ONLY USE EXOTHERMIC WELDS.

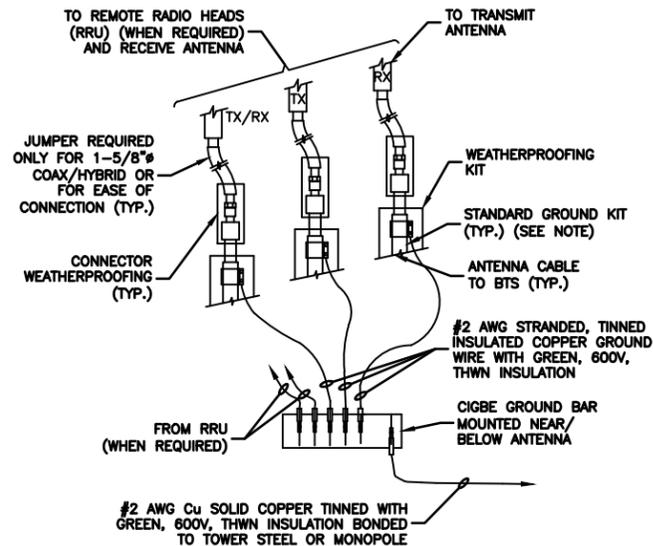
INSTALLATION OF GROUND WIRE TO GROUND BAR
SCALE: N.T.S.



CABLE PORT GROUNDING
SCALE: N.T.S.

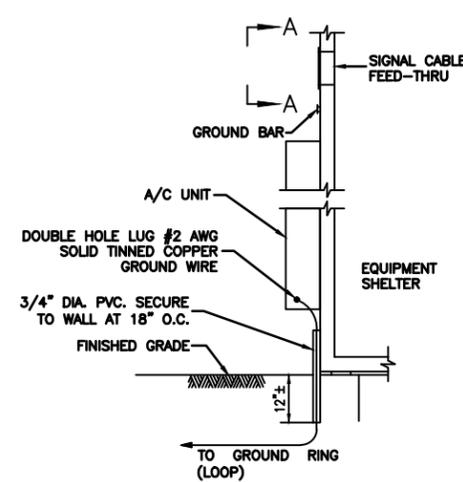


GROUND ROD AND RING DETAIL
SCALE: N.T.S.

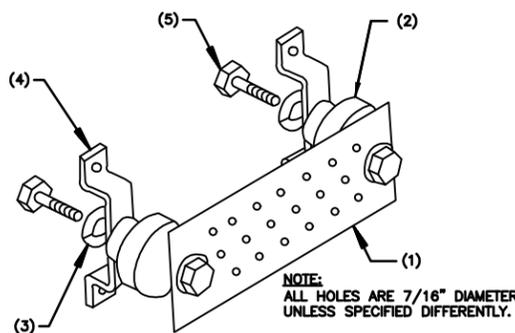


- NOTE:**
- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO CIGBE.

CONNECTION OF GROUND WIRE TO GROUNDING BAR DETAIL
SCALE: N.T.S.

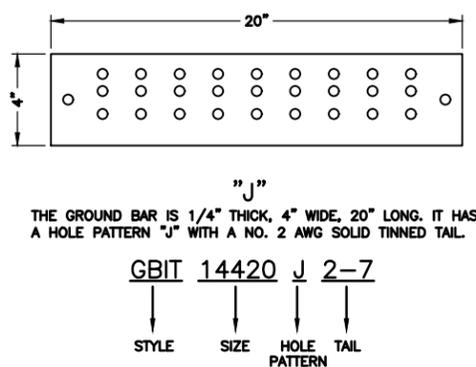


AIR CONDITIONING UNIT GROUNDING DETAIL
SCALE: N.T.S.

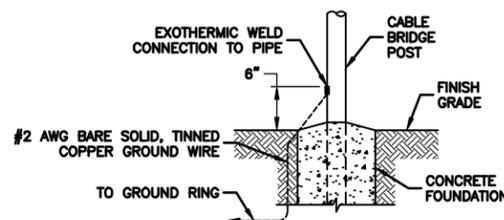


- LEGEND:**
- COPPER GROUND BAR, 1/4"x4"x20", GBIT 14420 J 2-7. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION.
 - STANDOFF INSULATORS, HARGER LIGHTNING PROTECTION, INC. CAT. No. 5263-AB.
 - 1/2" LOCKWASHERS, HARGER CO. CAT. No. LWBS.
 - WALL MOUNTING STAINLESS STEEL, MOUNTING BRACKET, HARGER CAT NO. WBKT-1.
 - 1/2-13 x 1" HEX HEAD CAP SCREW, HARGER, CAT No. CS88S.

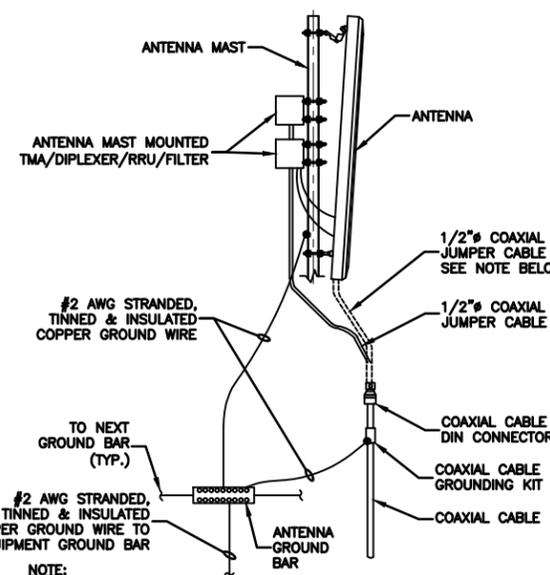
GROUND BAR DETAIL
SCALE: N.T.S.



CONNECTION TO EQUIPMENT DETAIL
SCALE: N.T.S.

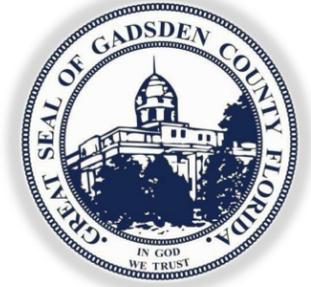


CABLE BRIDGE POST GROUNDING DETAIL
SCALE: N.T.S.



- NOTE:**
- IF ANTENNA DOES NOT REQUIRE TMA OR DIPLEXER ROUTE 1/2" JUMPER CABLE DIRECTLY TO ANTENNA.

TYPICAL ANTENNA GROUNDING DETAIL
SCALE: N.T.S.



**GADSDEN
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SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER