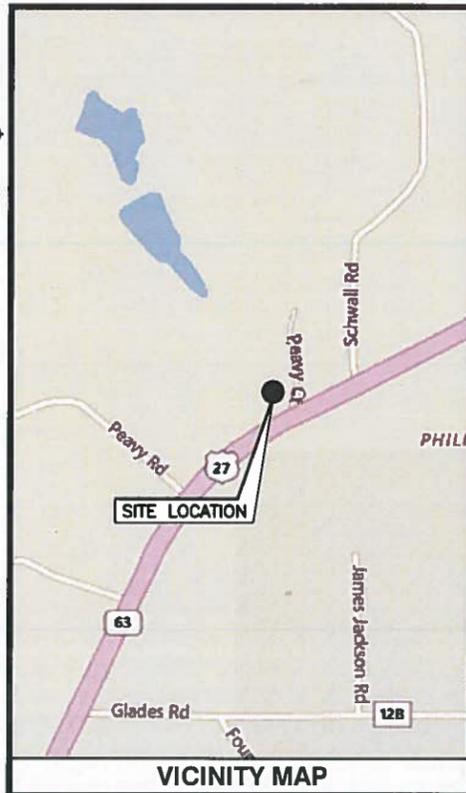




GADSDEN COUNTY BOARD CO-LOCATE

SBA NO: FL17996-A - PEAVY & SON

39 SCHWALL ROAD HAVANA, FL 32333



DEPART EDWARD J. BUTLER GOVERNMENTAL COMPLEX:
 START OUT GOING EAST ON E JEFFERSON ST/US-90 E/FL-10/FL-12/FL-65 TOWARD S
 MADISON ST. TAKE THE 1ST LEFT ONTO MADISON ST/FL-12/FL-65. CONTINUE TO FOLLOW
 MADISON ST. TURN RIGHT ONTO E KING ST/FL-12/COUNTY HWY-270. CONTINUE TO FOLLOW
 FL-12/COUNTY HWY-270. TURN SLIGHT LEFT ONTO P.T. MILLIGAN RD/COUNTY HWY-161.
 TURN RIGHT ONTO SALEM RD/COUNTY HWY-159. TURN SLIGHT LEFT ONTO POTTER
 WOODBERRY RD/COUNTY HWY-159A. TURN SLIGHT LEFT ONTO FL GA HWY/US-27 N/FL-63.
 TURN LEFT ONTO SCHWALL RD. DESTINATION IS ON THE LEFT.

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 COUNTY BOARD CO-LOCATE

PARCEL ID:
 2-11-3N-2W-0000-00340-0000

JURISDICTION:
 GADSDEN COUNTY

SITE ADDRESS:
 39 SCHWALL ROAD
 HAVANA, FL 32333

PROPERTY OWNER:
 PEAVY AND SON CONSTRUCTION CO
 PO BOX 2369
 HAVANA, FL 32333

TOWER OWNER:
 SBA COMMUNICATIONS
 8051 CONGRESS AVENUE
 BOCA RATON, FL 33487

POWER:
 TALQUIN ELECTRIC CO-OP

TELCO:
 AT&T

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

COORDINATES*
 LATITUDE: 30° 40' 8.50" (NAD83)
 LONGITUDE: -84° 24' 24.89" (NAD83)
 * PER SBASITE.COM

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, EQUIPMENT SHELTER, CONCRETE PAD, GENERATOR AND ALL ASSOCIATED WORK.

APPROVALS

SBA CM _____ DATE _____
 GADSDEN COUNTY CM _____ DATE _____
 SBA 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
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: 117 MPH (3-SECOND GUST, V_{ult})
 - NOMINAL DESIGN WIND SPEED: 91 MPH (3-SECOND GUST, V_{nom})
 - RISK CATEGORY: II
 - WIND EXPOSURE: C
 - APPLICABLE CODES: ANSI/TIA-222-G/2017 FLORIDA BUILDING CODE



GADSDEN COUNTY BOARD CO-LOCATE
 SBA NO: FL17996-A

CONSTRUCTION DRAWINGS

0 09/04/19 FOR CONSTRUCTION

Dewberry
 Dewberry Engineers Inc.
 800 NORTH MAGNOLIA AVE
 SUITE 1000
 ORLANDO, FL 32803
 PHONE: 407.843.5120
 FAX: 407.848.8864
 FLORIDA P.E. #8704



DRAWN BY: AMD
 REVIEWED BY: NRK
 CHECKED BY: JAA
 PROJECT NUMBER: 50105274
 JOB NUMBER: 50105274
 SITE ADDRESS

29 SCHWALL ROAD
 HAVANA, FL 32333

SHEET TITLE
 TITLE SHEET
 SHEET NUMBER

GENERAL NOTES:

- FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
PROJECT MANAGEMENT - SBA COMMUNICATIONS
CONTRACTOR - GENERAL CONTRACTOR (CONSTRUCTION)
OWNER - GADSDEN COUNTY BOARD
OEM - ORIGINAL EQUIPMENT MANUFACTURER
- PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF PROJECT MANAGEMENT.
- 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.
- ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- DRAWINGS PROVIDED HERE ARE NOT TO SCALE UNLESS OTHERWISE NOTED AND ARE INTENDED TO SHOW OUTLINE ONLY.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY PROJECT MANAGEMENT.
- CONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND 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.
- THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
- 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.
- CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
- 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 AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- CONTRACTOR SHALL NOTIFY DEWBERRY 48 HOURS IN ADVANCE OF POURING CONCRETE, OR BACKFILLING TRENCHES, SEALING ROOF AND WALL PENETRATIONS & POST DOWNS, FINISHING NEW WALLS OR FINAL ELECTRICAL CONNECTIONS FOR ENGINEER REVIEW.
- 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.
- 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 LANDLORD. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
- 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 ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.

SITE WORK GENERAL NOTES:

- THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- 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 & EXCAVATION.
- ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.
- IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES, TOP SOIL AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
- 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.
- CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION.
- THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE AT&T SPECIFICATION FOR SITE SIGNAGE.
- THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE TRANSMISSION EQUIPMENT AND TOWER AREAS.
- 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.
- THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION, SEE SOIL COMPACTION NOTES.
- 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.
- 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 NOTES:

- 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.
- ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. A HIGHER STRENGTH (4000 PSI) MAY BE USED. ALL CONCRETING WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.
- REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE (UNO). SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
- 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.
- A CHAMFER 3/4" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
- INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO 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.
- 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 TESTS PERFORMED AT THE SUPPLIER'S PLANT.
(B) CERTIFICATION OF MINIMUM COMPRESSIVE STRENGTH FOR THE CONCRETE GRADE SUPPLIED.
FOR GREATER THAN 50 CUBIC YARDS THE GC SHALL PERFORM THE CONCRETE CYLINDER TEST.
- 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.
- 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:

- ALL STEEL WORK SHALL BE PAINTED OR GALVANIZED IN ACCORDANCE WITH THE DRAWINGS UNLESS NOTED OTHERWISE. STRUCTURAL STEEL SHALL BE ASTM A-36 UNLESS OTHERWISE NOTED ON THE SITE SPECIFIC DRAWINGS. STEEL DESIGN, INSTALLATION AND BOLTING SHALL BE PERFORMED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "MANUAL OF STEEL CONSTRUCTION".
- ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC 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.
- BOLTED CONNECTIONS SHALL BE ASTM A325 BEARING TYPE (3/4"Ø) CONNECTIONS AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.
- NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIA ASTM A 307 BOLTS UNLESS NOTED OTHERWISE.
- INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO 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.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER REVIEW & APPROVAL ON PROJECTS REQUIRING STRUCTURAL STEEL.
- ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC SPECIFICATIONS.

SOIL COMPACTION NOTES FOR SLAB ON GRADE:

- EXCAVATE AS REQUIRED TO REMOVE VEGETATION & TOPSOIL EXPOSE UNDISTURBED NATURAL SUBGRADE AND PLACE CRUSHED STONE AS REQUIRED.
- COMPACTION CERTIFICATION: AN INSPECTION AND WRITTEN CERTIFICATION BY A QUALIFIED GEOTECHNICAL TECHNICIAN OR ENGINEER IS ACCEPTABLE.
- AS AN ALTERNATIVE 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.
- COMPACTED SUBBASE SHALL BE UNIFORM & 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.
- AS AN ALTERNATIVE 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:

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

CONSTRUCTION NOTES:

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

ELECTRICAL INSTALLATION NOTES:

- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
- CONTRACTOR SHALL MODIFY EXISTING CABLE TRAY SYSTEM AS REQUIRED TO SUPPORT RF AND TRANSPORT CABLING TO THE NEW BTS EQUIPMENT. CONTRACTOR SHALL SUBMIT MODIFICATIONS TO PROJECT MANAGEMENT FOR APPROVAL.
- CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.
- WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
- ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
- CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
- 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 WITH NEC & OSHA, AND MATCH EXISTING INSTALLATION REQUIREMENTS.
- 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 ID'S).
- PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.
- ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
- 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.
- POWER PHASE CONDUCTORS (I.E., HOTS) SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). PHASE CONDUCTOR COLOR CODES SHALL CONFORM WITH THE NEC & OSHA AND MATCH EXISTING INSTALLATION REQUIREMENTS.
- 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.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED OUTDOORS, OR BELOW GRADE, SHALL BE SINGLE CONDUCTOR #2 AWG SOLID TINNED COPPER CABLE, UNLESS OTHERWISE SPECIFIED.
- 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.
- 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).
- RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.
- NEW RACEWAY OR CABLE TRAY WILL MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
- 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.
- ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.
- 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.
- LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SETSCREW FITTINGS ARE NOT ACCEPTABLE.
- CABINETS, BOXES, AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.
- CABINETS, BOXES, AND WIREWAYS TO MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
- WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD, SHALL BE PAINDUT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
- 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.
- 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.
- 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.
- THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM PROJECT MANAGEMENT BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- 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.



GADSDEN COUNTY BOARD CO-LOCATE SBA NO: FL17996-A

CONSTRUCTION DRAWINGS 0 09/04/19 FOR CONSTRUCTION

Dewberry Dewberry Engineers Inc. 800 NORTH MAGNOLIA AVE SUITE 1000 ORLANDO, FL 32803



DRAWN BY: AMD REVIEWED BY: NRK CHECKED BY: JAA PROJECT NUMBER: 50105274 JOB NUMBER: 50105274 SITE ADDRESS:

29 SCHWALL ROAD HAVANA, FL 32333

SHEET TITLE

GENERAL NOTES

SHEET NUMBER



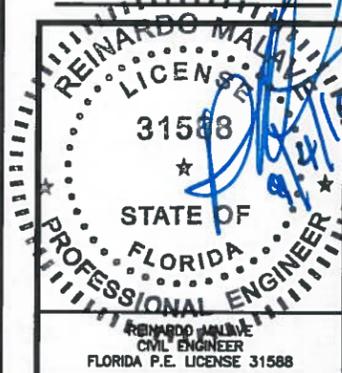
**GADSDEN COUNTY
BOARD CO-LOCATE
SBA NO: FL17996-A**

CONSTRUCTION DRAWINGS

0 09/04/19 FOR CONSTRUCTION



Dewberry Engineers Inc.
800 NORTH MAGNOLIA AVE.
SUITE 1000
ORLANDO, FL 32803
PHONE: 407.843.5120
FAX: 407.849.8684
FLORIDA C.O.A. #6794



DRAWN BY:	AMD
REVIEWED BY:	NRK
CHECKED BY:	JAA
PROJECT NUMBER:	50105274
JOB NUMBER:	50105274
SITE ADDRESS	

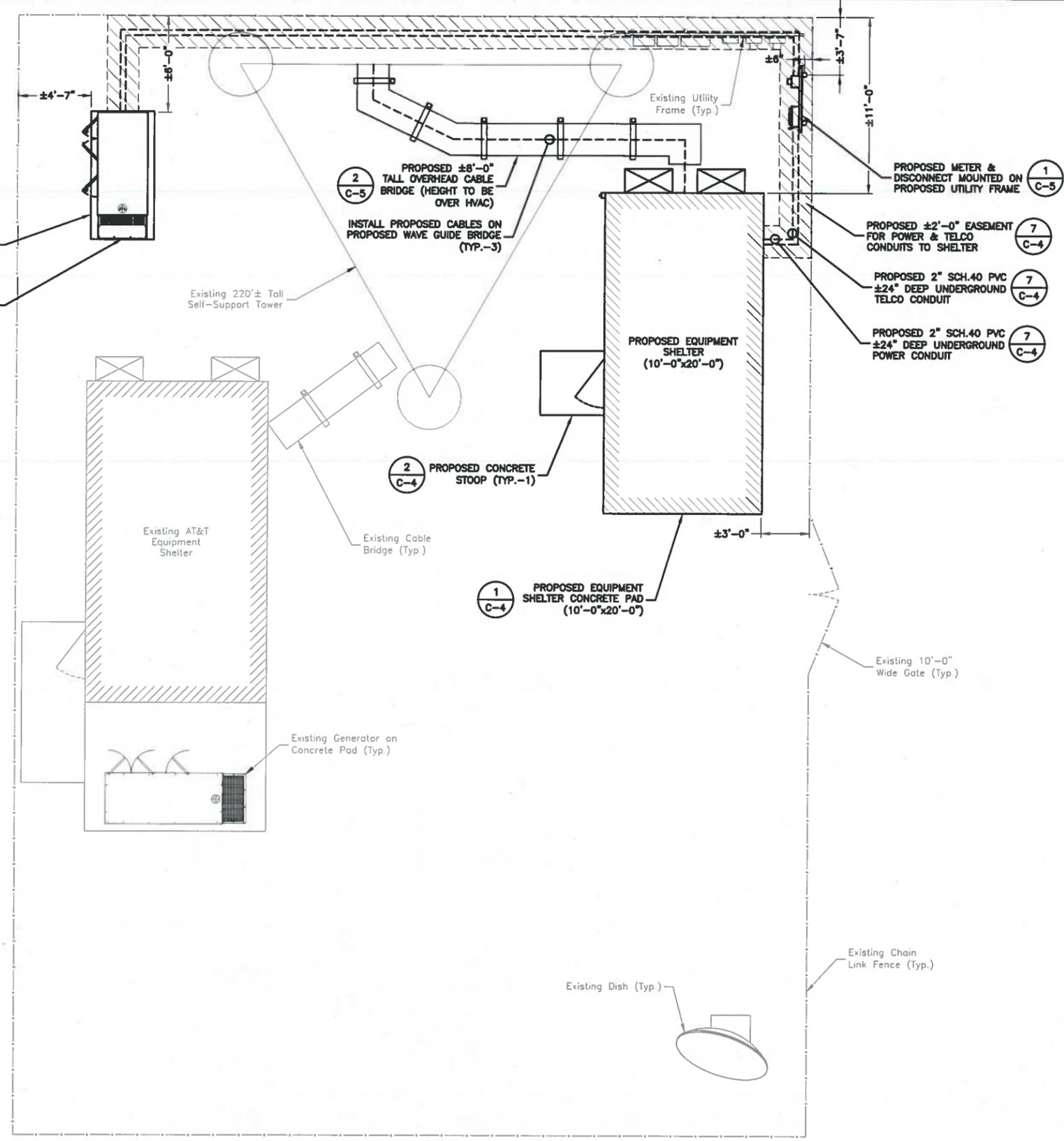
29 SCHWALL ROAD
HAVANA, FL 32333

SHEET TITLE

**PROPOSED
COMPOUND PLAN**

SHEET NUMBER

C-1



- NOTES:
1. LOCATION AND ORIENTATION OF PROPOSED EQUIPMENT AND ANTENNAS PENDING STRUCTURAL ANALYSIS.
 2. MOUNT ALL ANTENNAS, COAX, SURGE ARRESTORS, RRH'S, ETC. IN ACCORDANCE WITH STRUCTURAL ANALYSIS (BY OTHERS).
 3. TRUE NORTH BASED ON GOOGLE MAPS.
 4. NOT ALL EXISTING INFORMATION SHOWN FOR CLARITY.
 5. INFORMATION SHOWN HEREIN IS BASED ON INFORMATION OBTAINED FROM SBA COMMUNICATIONS WEBSITE (SBASITE.COM)
 6. FINAL UTILITY DESIGNS SHALL BE CONFIRMED WITH UTILITY COMPANIES.

- NOTES:
1. PROPOSED POWER & FIBER TO BE OBTAINED FROM NEAREST POINT OF CONNECTION.
 2. COORDINATE UTILITY EASEMENT PATH WITH ELECTRICAL PROVIDER.

PROPOSED COMPOUND PLAN
 SCALE: 1/8"=1' FOR 11"x17"
 1/4"=1' FOR 22"x34"

1



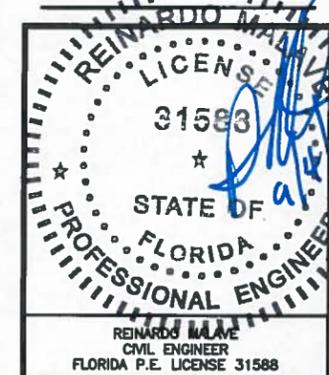
**GADSDEN COUNTY
BOARD CO-LOCATE
SBA NO: FL17996-A**

CONSTRUCTION DRAWINGS

0 09/04/19 FOR CONSTRUCTION

Dewberry

Dewberry Engineers Inc.
800 NORTH MAGNOLIA AVE
SUITE 1000
ORLANDO, FL 32803
PHONE: 407.843.5120
FAX: 407.849.8864
K.A.B.A. d.c. #8784



DRAWN BY: AMD

REVIEWED BY: NRK

CHECKED BY: JAA

PROJECT NUMBER: 50105274

JOB NUMBER: 50105274

SITE ADDRESS

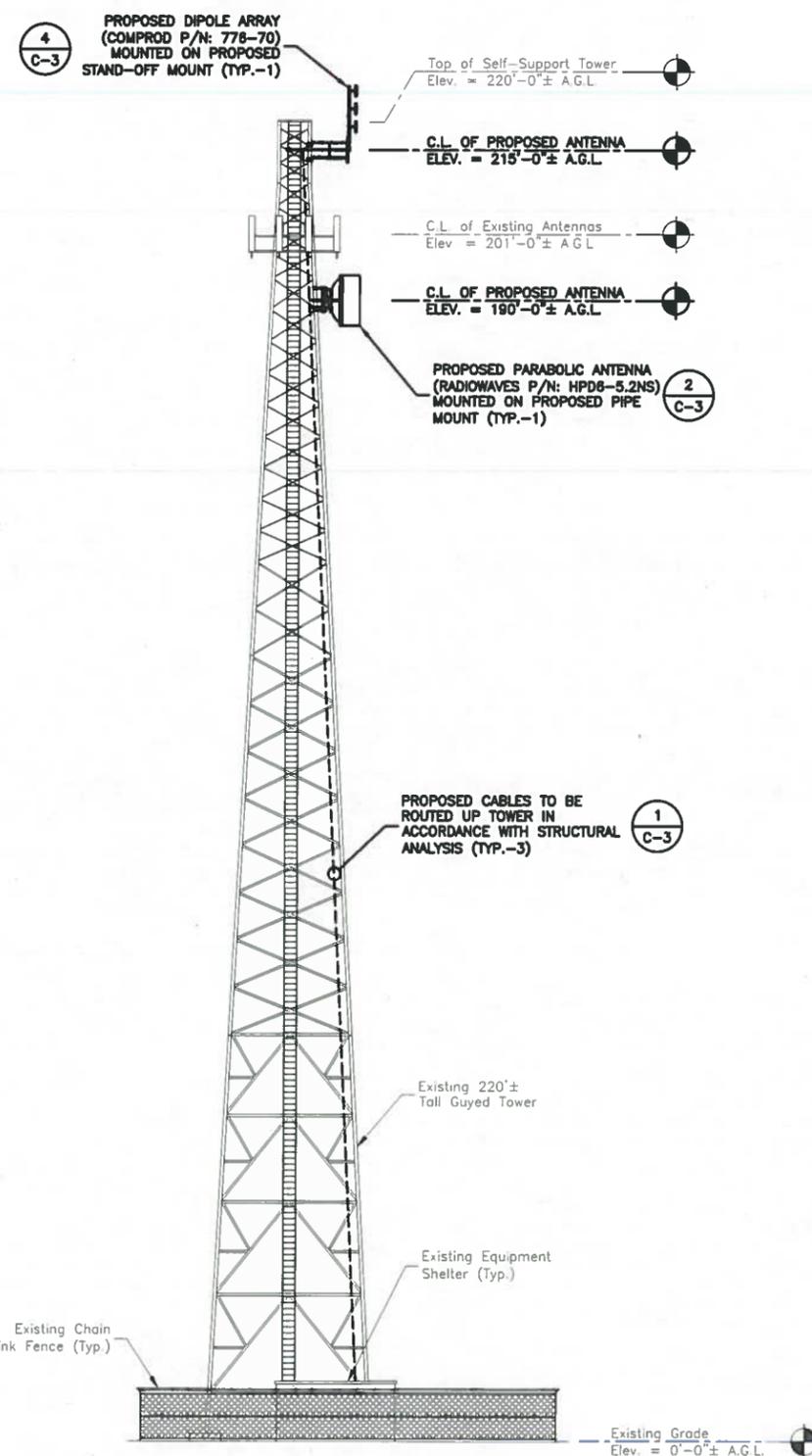
29 SCHWALL ROAD
HAVANA, FL 32333

SHEET TITLE

PROPOSED ELEVATION &
ANTENNA LAYOUTS

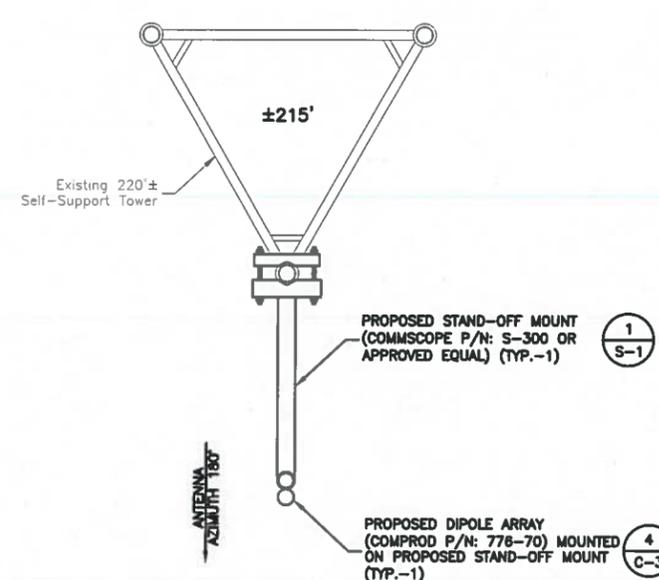
SHEET NUMBER

C-2

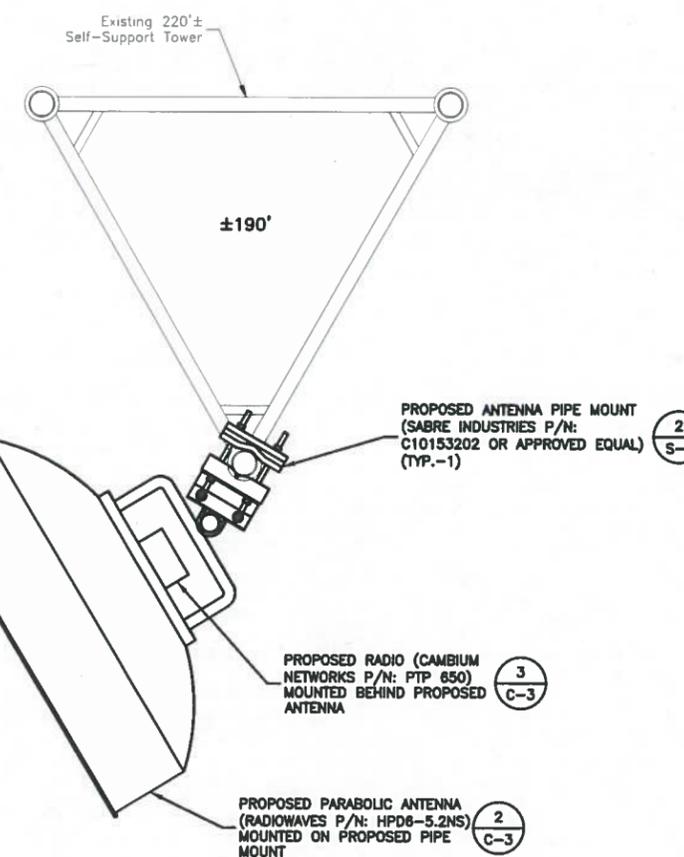


PROPOSED ELEVATION
SCALE: 1"=30' FOR 11"x17"
1"=15' FOR 22"x34"

1



RAD CENTER ±215' A.G.L.



RAD CENTER ±190' A.G.L.

PROPOSED ANTENNA LAYOUTS
SCALE: 3/8"=1'-0" FOR 11"x17"
3/4"=1'-0" FOR 22"x34"

2

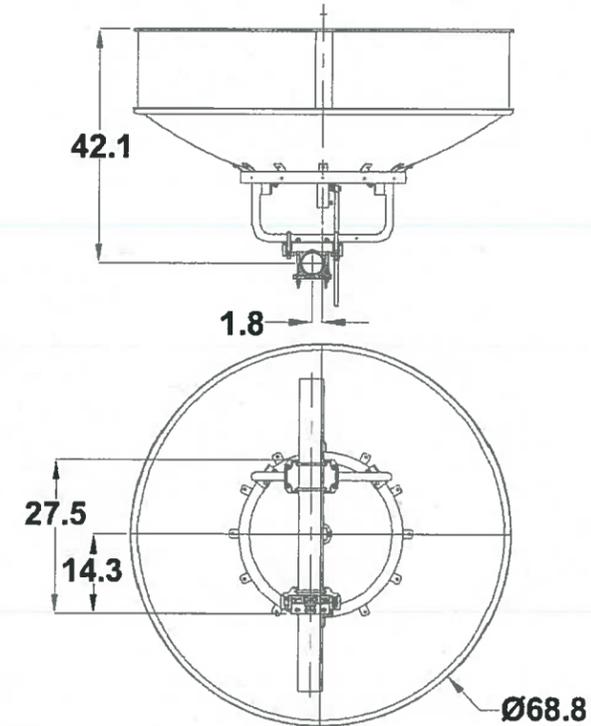
NOTES:

1. LOCATION AND ORIENTATION OF PROPOSED EQUIPMENT AND ANTENNAS PENDING STRUCTURAL ANALYSIS.
2. MOUNT ALL ANTENNAS, COAX, SURGE ARRESTORS, RRH'S, ETC. IN ACCORDANCE WITH STRUCTURAL ANALYSIS (BY OTHERS).
3. TRUE NORTH BASED ON GOOGLE MAPS.
4. NOT ALL EXISTING INFORMATION SHOWN FOR CLARITY.
5. INFORMATION SHOWN HEREIN IS BASED ON INFORMATION OBTAINED FROM SBA COMMUNICATIONS WEBSITE (SBASITE.COM).
6. FINAL UTILITY DESIGNS SHALL BE CONFIRMED WITH UTILITY COMPANIES.

EQUIPMENT SCHEDULE							
AZIMUTH	RAD CENTER	MANUFACTURER	ANTENNA MODEL	ANTENNA (QTY)	EQUIPMENT MODEL	EQUIPMENT (QTY)	COAX MODEL
180°	215°-0°	COMPROD	776-70	1	-	-	(1) 7/8" AVAS-50FX (1) 1/2" LDF4-50A
239.04°	190°-0°	CAMBIUM NETWORKS	-	-	PTP 650	1	(1) 3/8" CAT5E
239.04°	190°-0°	RADIOWAVES	HPD6-5.2NS	1	-	-	-

ANTENNA SCHEDULE
SCALE: N.T.S. ①

ANTENNA SPECIFICATIONS	
MANUFACTURER	RADIOWAVES
MODEL NUMBER	HPD6-5.2NS
SIZE	68.8"φ
WEIGHT	251 LBS



PROPOSED HIGH PERFORMANCE REFLECTOR ANTENNA
SCALE: N.T.S. ②



RADIO SPECIFICATIONS	
MANUFACTURER	CAMBIUM NETWORKS
MODEL NUMBER	PTP 650
DIMENSIONS (HxWxD)	12.5"x14.6"x3.5"
WEIGHT	6.8 LBS

PROPOSED RADIO
SCALE: N.T.S. ③

ANTENNA SPECIFICATIONS	
MANUFACTURER	COMPROD
MODEL NUMBER	776-70
DIMENSIONS (HxWxD)	126"x16"x1.9"
WEIGHT	19 LBS



PROPOSED DUAL FEED EXPOSED DIPOLE ARRAY (COMPROD P/N: 776-70)
SCALE: N.T.S. ④



GADSDEN COUNTY BOARD CO-LOCATE SBA NO: FL17996-A

CONSTRUCTION DRAWINGS
09/04/19 FOR CONSTRUCTION

Dewberry
Dewberry Engineers Inc.
800 NORTH MAGNOLIA AVE
SUITE 1000
ORLANDO, FL 32803
PHONE: 407.843.5120
FAX: 407.848.8884
FLORIDA C.O.A. #8709



DRAWN BY:	AMD
REVIEWED BY:	NRK
CHECKED BY:	JAA
PROJECT NUMBER:	50105274
JOB NUMBER:	50105274
SITE ADDRESS	

29 SCHWALL ROAD
HAVANA, FL 32333

SHEET TITLE	ANTENNA & CABLE SCHEDULE
SHEET NUMBER	C-3



**GADSDEN COUNTY
BOARD CO-LOCATE
SBA NO: FL17996-A**

CONSTRUCTION DRAWINGS

0 09/04/19 FOR CONSTRUCTION

Dewberry

Dewberry Engineers Inc.
800 NORTH MAGNOLIA AVE
SUITE 1000
ORLANDO, FL 32803
PHONE: 407.843.5120
FAX: 407.849.8884
FLORIDA C.E.# 9724



DRAWN BY: AMD

REVIEWED BY: NRK

CHECKED BY: JAA

PROJECT NUMBER: 50105274

JOB NUMBER: 50105274

SITE ADDRESS

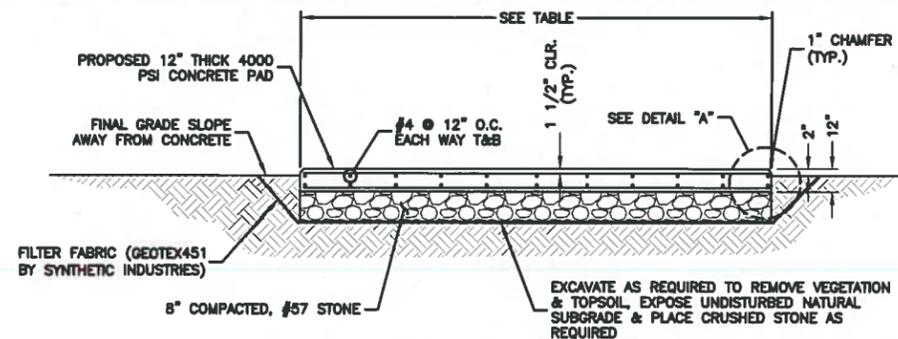
29 SCHWALL ROAD
HAVANA, FL 32333

SHEET TITLE

**CONSTRUCTION
DETAILS I**

SHEET NUMBER

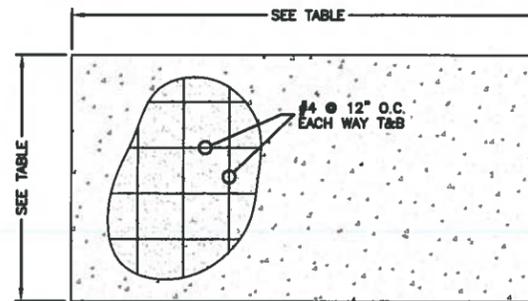
C-4



ELEVATION VIEW

NOTES:

- GRAVEL SHALL BE NATURAL OR CRUSHED STONE WITH 100% PASSING 1-INCH SIEVE.



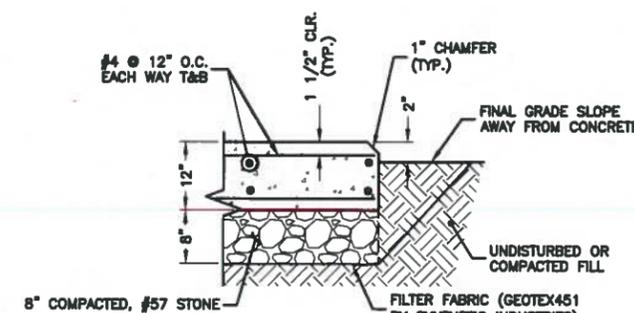
PLAN VIEW

PAD	PAD LENGTH	PAD WIDTH	PAD THICKNESS
GENERATOR	9'	4'	12"
EQUIPMENT	20'	10'	12"

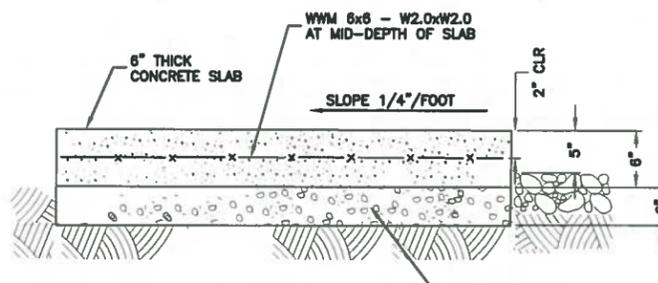
CONCRETE PAD DETAILS

SCALE: N.T.S.

1



DETAIL A



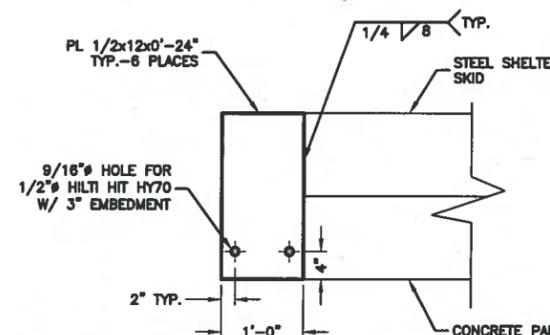
NOTE:

- TOTAL AREA OF CONCRETE STOOP IS 4'-0" x 4'-0" = 16 SQ. FT.

CONCRETE STOOP DETAIL

SCALE: N.T.S.

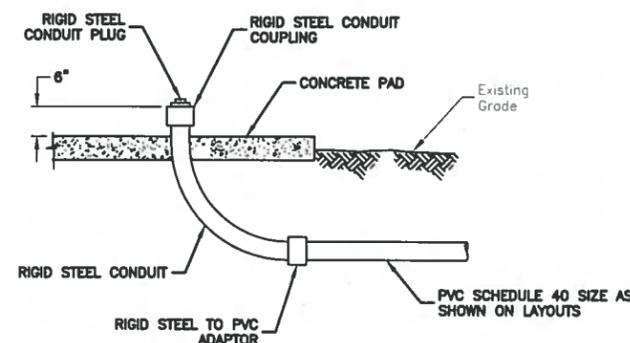
2



SHELTER CONNECTION DETAIL

SCALE: N.T.S.

3



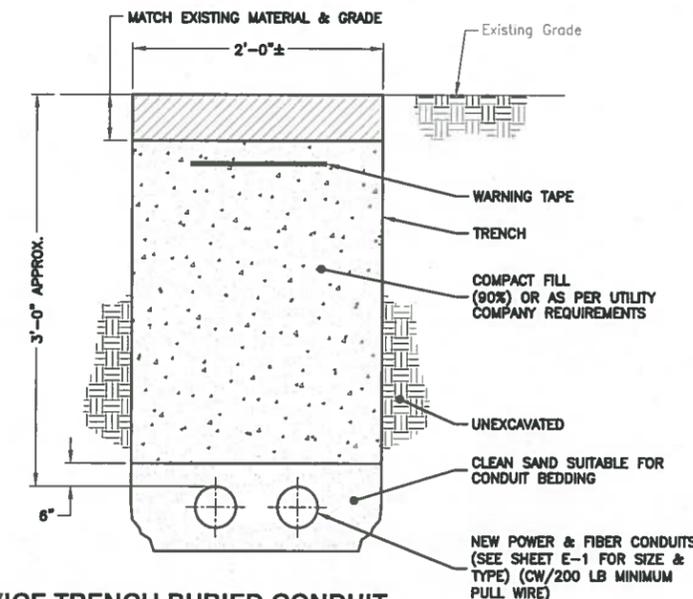
UNDERGROUND CONDUIT STUB-UP DETAIL

SCALE: N.T.S.

4

TRENCH NOTES:

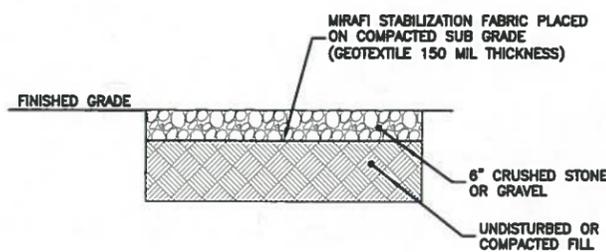
- IF FREE OF ORGANIC OR OTHER DELETERIOUS MATERIAL, EXCAVATED MATERIAL MAY BE USED FOR BACKFILL.
- IF NOT, PROVIDE CLEAN, COMPATIBLE MATERIAL. COMPACT IN 8" LIFTS. REMOVE ANY LARGE ROCKS PRIOR TO BACKFILLING. CONTRACTOR TO VERIFY LOCATION OF EXISTING U/G UTILITIES PRIOR TO DIGGING.
- CONTRACTOR SHALL HAND DIG U/G TRENCHING IN CLOSE PROXIMITY TO EXISTING UTILITY.



**SERVICE TRENCH BURIED CONDUIT
(ELECTRIC/TELEPHONE) DETAIL**

SCALE: N.T.S.

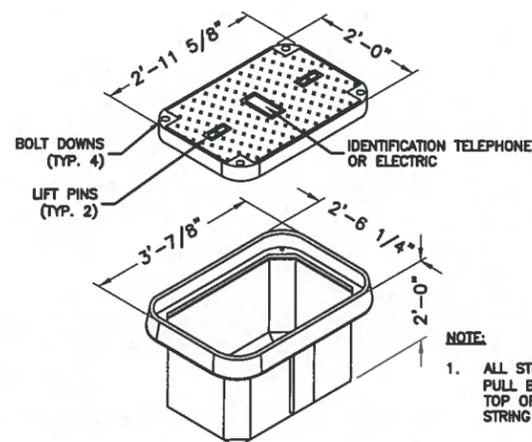
7



GRAVEL YARD SECTION

SCALE: N.T.S.

5



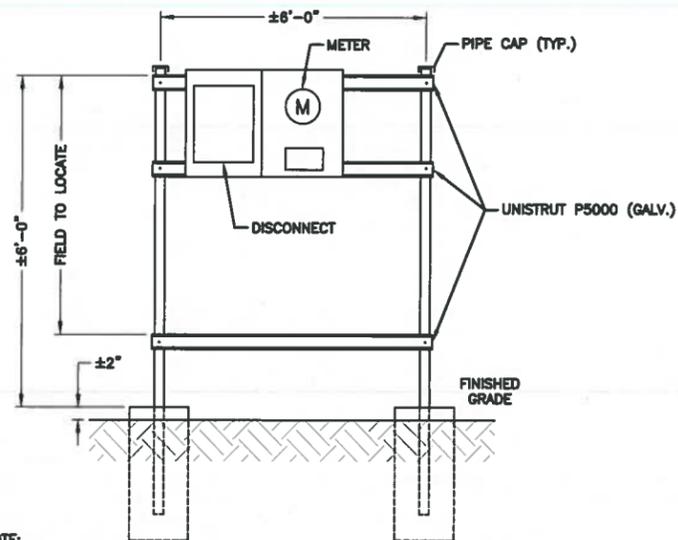
HAND HOLE/ PULL BOX DETAIL

SCALE: N.T.S.

6

NOTE:

- ALL STUB-UP CONDUITS INSIDE PULL BOXES WILL BE 6" FROM TOP OF BOX AND HAVE PULL STRING AND CAPS.



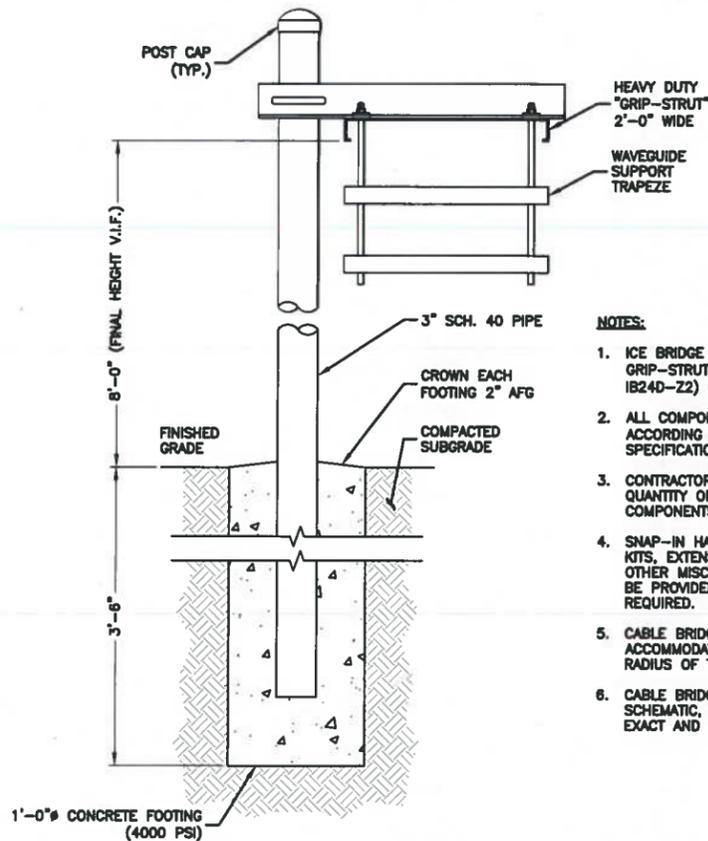
NOTE:

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

METER/DISCONNECT MOUNTING DETAIL

SCALE: N.T.S.

1



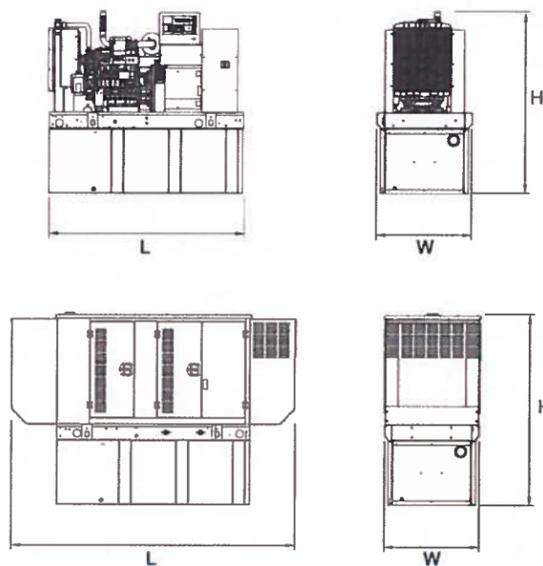
NOTES:

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



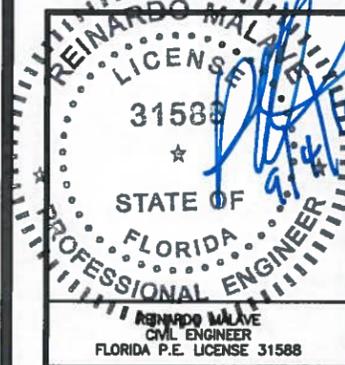
GADSDEN COUNTY BOARD CO-LOCATE
SBA NO: FL17996-A

CONSTRUCTION DRAWINGS

09/04/19 FOR CONSTRUCTION

Dewberry

Dewberry Engineers Inc.
800 NORTH MAGNOLIA AVE
SUITE 1000
ORLANDO, FL 32803
PHONE: 407.843.5120
FAX: 407.849.8884
FLORIDA C.O.A. #9754



DRAWN BY: AMD

REVIEWED BY: NRK

CHECKED BY: JAA

PROJECT NUMBER: 50105274

JOB NUMBER: 50105274

SITE ADDRESS

29 SCHWALL ROAD
HAVANA, FL 32333

SHEET TITLE

CONSTRUCTION
DETAILS II

SHEET NUMBER

C-5



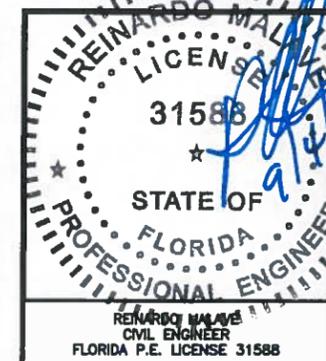
**GADSDEN COUNTY
BOARD CO-LOCATE
SBA NO: FL17996-A**

CONSTRUCTION DRAWINGS

0 09/04/19 FOR CONSTRUCTION

Dewberry

Dewberry Engineers Inc.
800 NORTH MAGNOLIA AVE
SUITE 1000
ORLANDO, FL 32803
PHONE: 407.843.5120
FAX: 407.849.8884
FLORIDA C.P.A. #8794



DRAWN BY: AMD

REVIEWED BY: NRK

CHECKED BY: JAA

PROJECT NUMBER: 50105274

JOB NUMBER: 50105274

SITE ADDRESS

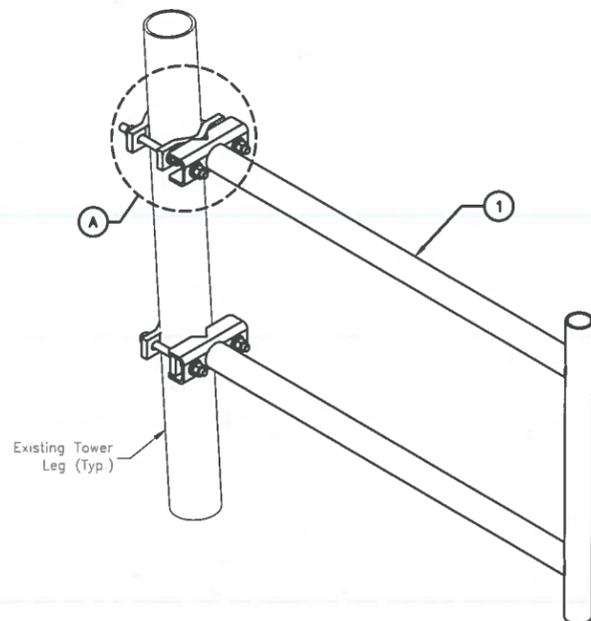
29 SCHWALL ROAD
HAVANA, FL 32333

SHEET TITLE

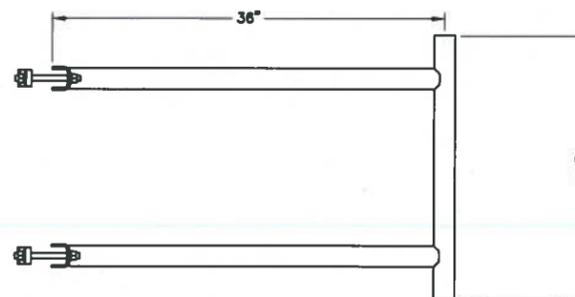
**STRUCTURAL
DETAILS**

SHEET NUMBER

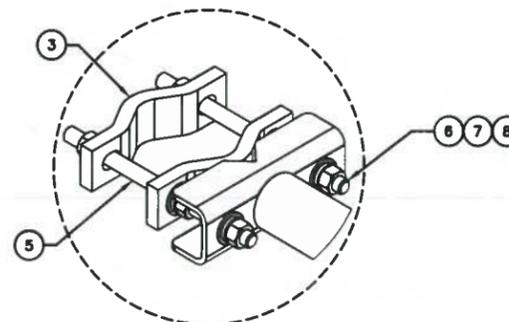
S-1



ISOMETRIC VIEW



SIDE VIEW



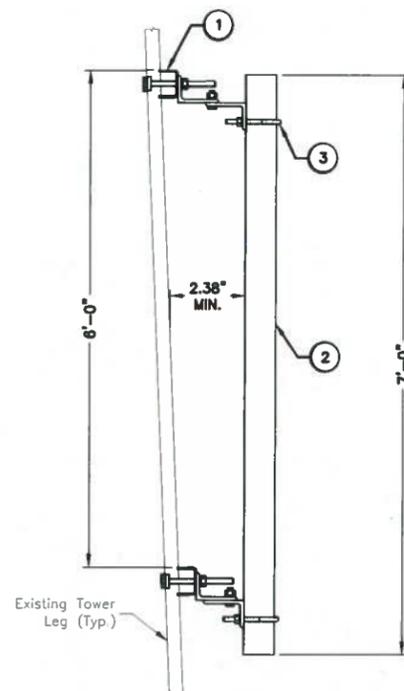
DETAIL "A"

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-379-8	1/2" X 6" GALV THREADED ROD	4
5	MT-379-8	1/2" X 6" GALV THREADED ROD	2
6	GWF04A	1/2" GALV FLAT WASHER (A325)	14
7	GWL-04	1/2" GALV LOCK WASHER	14
8	GND4A	1/2" GALV HEX NUT (A325)	14

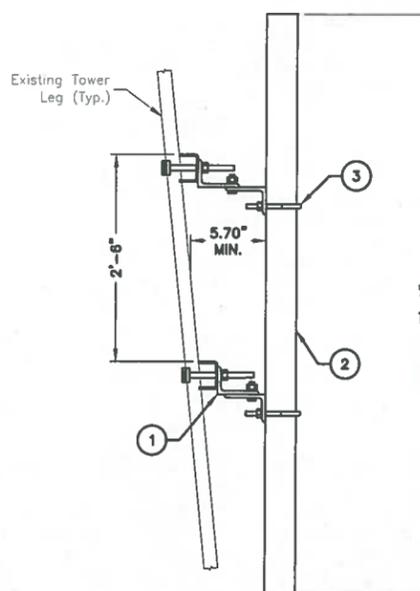
36" STAND-OFF BRACKET (COMMSCOPE P/N: S-300)

SCALE: N.T.S.

1



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 (COMMSCOPE P/N: C10153202)

SCALE: N.T.S.

2



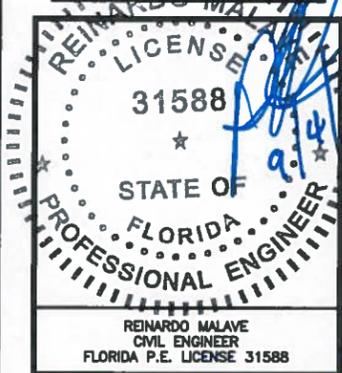
**GADSDEN COUNTY
BOARD CO-LOCATE
SBA NO: FL17996-A**

CONSTRUCTION DRAWINGS

0 09/04/19 FOR CONSTRUCTION



Dewberry Engineers Inc.
800 NORTH MAGNOLIA AVE
SUITE 1000
ORLANDO, FL 32803
PHONE: 407.843.5120
FAX: 407.849.8884
FLORIDA P.E. #8719



DRAWN BY: AMD

REVIEWED BY: NRK

CHECKED BY: JAA

PROJECT NUMBER: 50105274

JOB NUMBER: 50105274

SITE ADDRESS

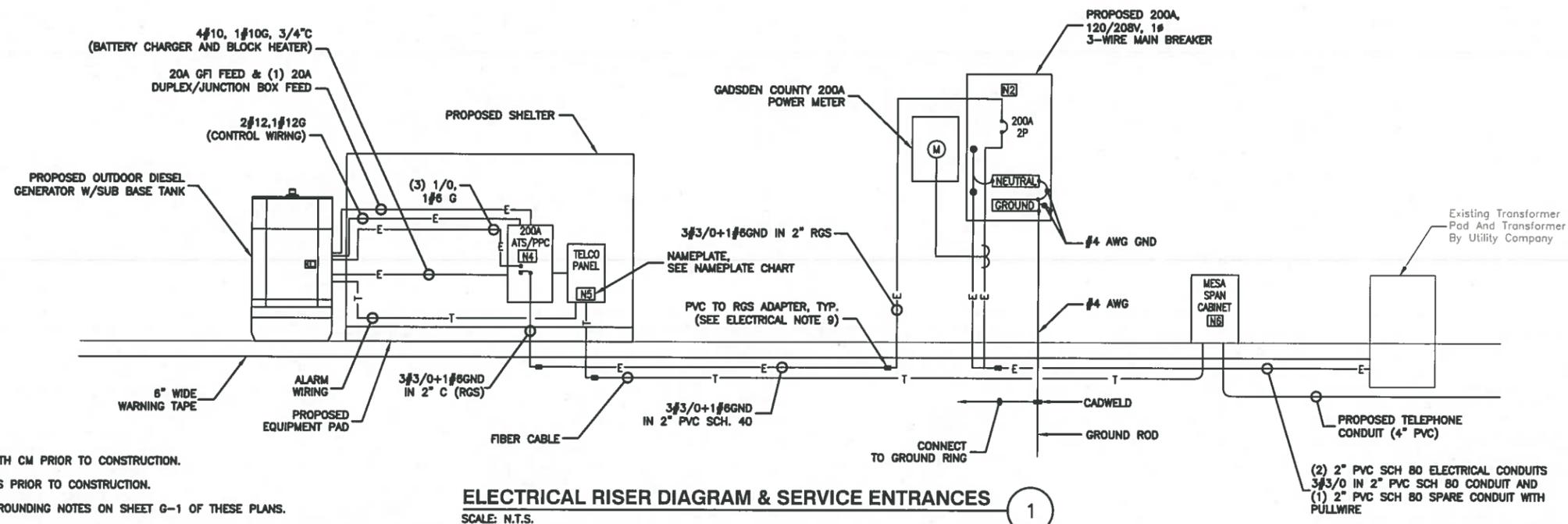
29 SCHWALL ROAD
HAVANA, FL 32333

SHEET TITLE

ONE-LINE DIAGRAM

SHEET NUMBER

E-1



- NOTES:**
1. CONFIRM ALL ATS, PANELBOARDS, ETC WITH CM PRIOR TO CONSTRUCTION.
 2. CONFIRM GENERATOR WIRING & CONTROLS PRIOR TO CONSTRUCTION.
 3. REFER TO ALL OTHER ELECTRICAL AND GROUNDING NOTES ON SHEET G-1 OF THESE PLANS.

NAMEPLATE CHART	
TAG NO.	DESCRIPTION
N1	GADSDEN COUNTY METER/MAIN DISCONNECT
N2	MAIN TERMINAL LUG SECTION
N3	N/A
N4	200A AUTOMATIC TRANSFER SWITCH/POWER PANEL
N5	TELCO PANEL
N6	MESA SPAN CABINET
N7	N/A
N8	SPARE METER COMPARTMENT

MAKE ALL CONNECTIONS AS PER UTILITY COMPANY'S REQUIREMENTS

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	RECTIFIER #4	2
3		30 AMP	10	RED	-	-	1550	-	-	-	-	1550	RED	10	30 AMP		4
5	RECTIFIER #2	30 AMP	10	BLK	1550	-	-	-	-	-	-	-	BLK	10	30 AMP	SPARE	6
7		30 AMP	10	RED	-	-	1550	-	-	-	-	-	RED	10	30 AMP		8
9	RECTIFIER #3	30 AMP	10	BLK	1550	-	-	-	-	-	-	-	BLK	10	30 AMP	SPARE	10
11		30 AMP	10	RED	-	-	1550	-	-	-	-	-	RED	10	30 AMP		12
13	SPARE	30 AMP	10	BLK	-	-	-	-	-	-	-	-	BLK	10	30 AMP	SPARE	14
15		30 AMP	10	RED	-	-	-	-	-	-	-	-	RED	10	30 AMP		16
17	SPARE	30 AMP	10	BLK	-	-	-	-	-	-	-	-	BLK	6	50 AMP	HVAC 2 STAND-BY	18
19		30 AMP	10	RED	-	-	-	-	-	-	-	-	RED	6	50 AMP		20
21	SPARE	30 AMP	10	BLK	-	-	-	-	-	0	600	-	BLK	10	20 AMP	GEN BATT CHARGER	22
23		30 AMP	10	RED	-	-	-	-	1000	0	-	-	RED	10	20 AMP		24
25	HVAC #1	50 AMP	10	BLK	0	4800	-	-	-	-	180	0	BLK	10	20 AMP	GFCI RECEPTACLE	26
27		50 AMP	10	RED	-	-	0	4800	-	-	558	0	RED	10	20 AMP		28
29	DUPLX 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	13860	
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
SCALE: N.T.S.

1

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 "J" 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. & AT&T 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 GROUNING 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.

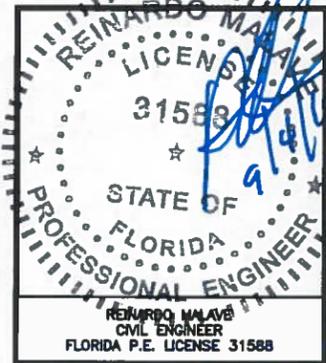


**GADSDEN COUNTY
BOARD CO-LOCATE
SBA NO: FL17996-A**

CONSTRUCTION DRAWINGS

0 09/04/19 FOR CONSTRUCTION

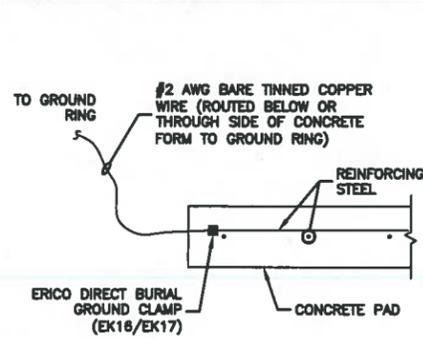
Dewberry
Dewberry Engineers Inc.
800 NORTH MAGNOLIA AVE.
SUITE 1000
ORLANDO, FL 32803
PHONE: 407.843.5120
FAX: 407.849.8664
FLORIDA C.O.A. #8754



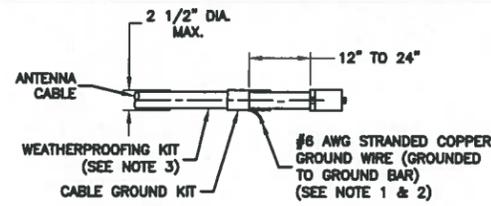
DRAWN BY: AMD
REVIEWED BY: NRK
CHECKED BY: JAA
PROJECT NUMBER: 50105274
JOB NUMBER: 50105274
SITE ADDRESS

29 SCHWALL ROAD
HAVANA, FL 32333

SHEET TITLE
**PANEL SCHEDULE
& NOTES**
SHEET NUMBER

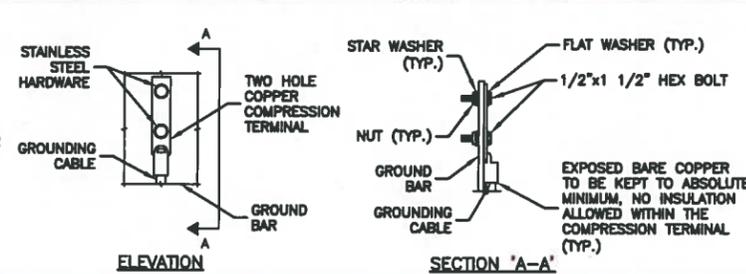


REBAR GROUNDING DETAIL
SCALE: N.T.S.



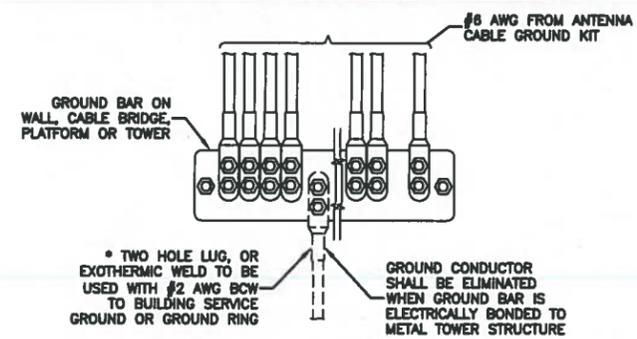
- NOTES:**
- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
 - GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
 - WEATHER PROOFING SHALL BE A TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

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



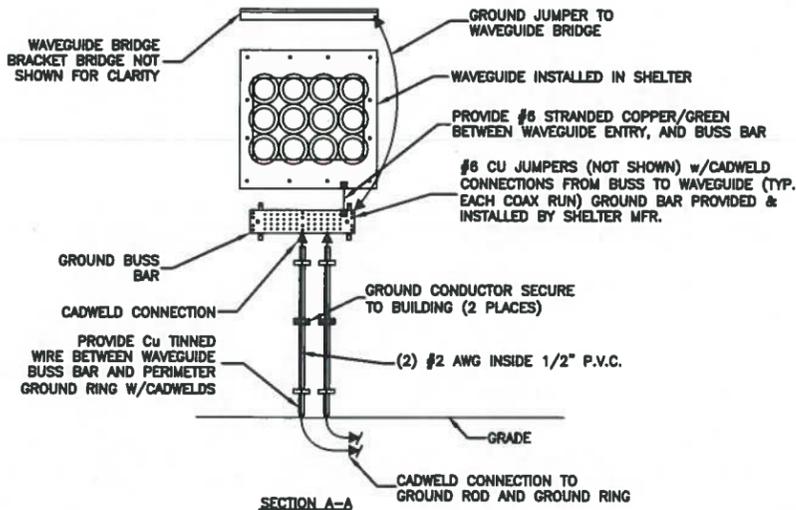
- NOTES:**
- DOUBLING UP OR STACKING OF CONNECTIONS IS NOT PERMITTED
 - OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.

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

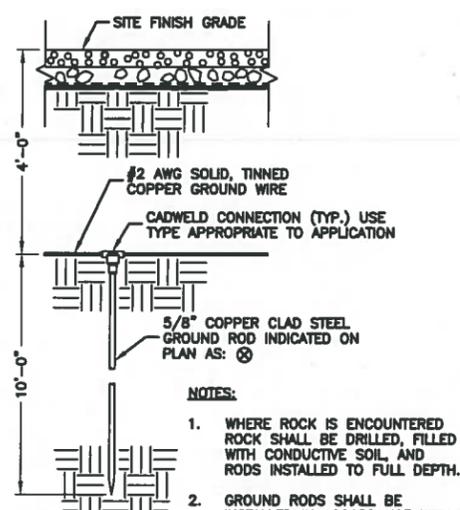


- NOTES:**
- GROUND BARS AT THE BOTTOM OF TOWER SHALL ONLY USE EXOTHERMIC WELDS.

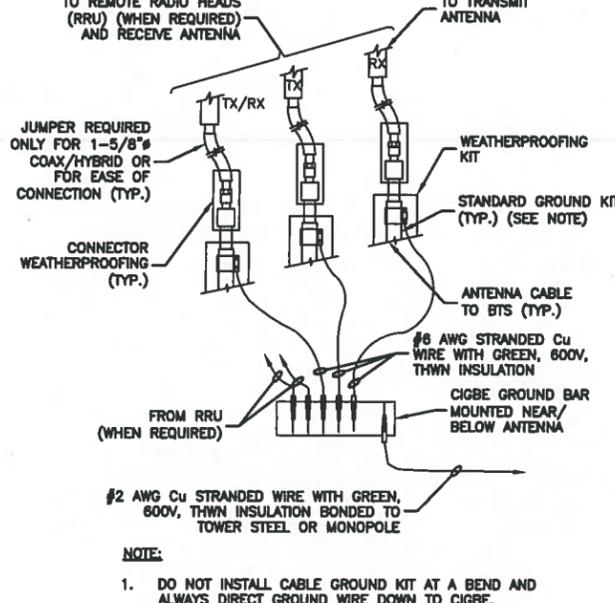
INSTALLATION OF GROUND WIRE TO GROUND BAR
SCALE: N.T.S.



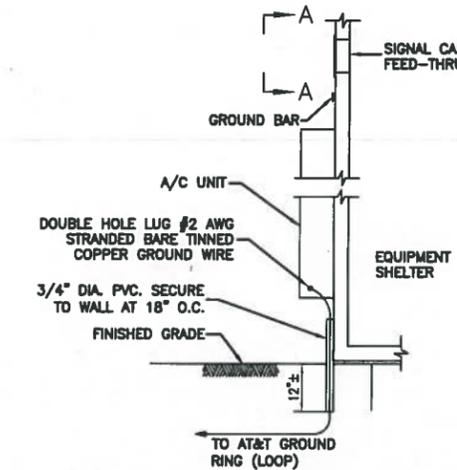
CABLE PORT GROUNDING
SCALE: N.T.S.



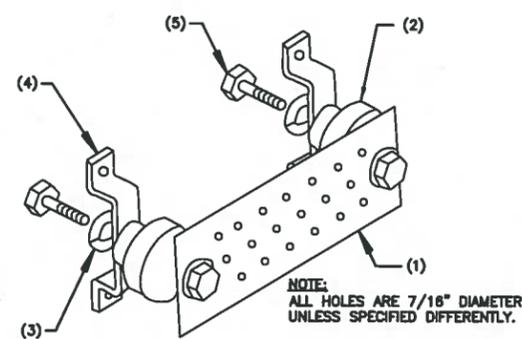
GROUND ROD AND RING DETAIL
SCALE: N.T.S.



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

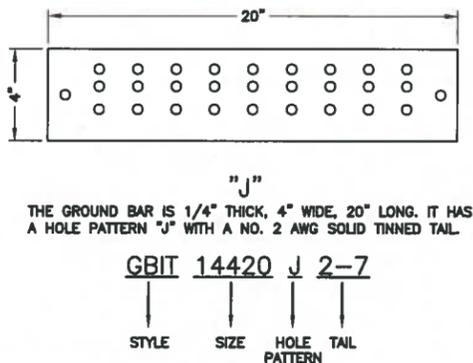


AIR CONDITIONING UNIT GROUNDING DETAIL
SCALE: N.T.S.

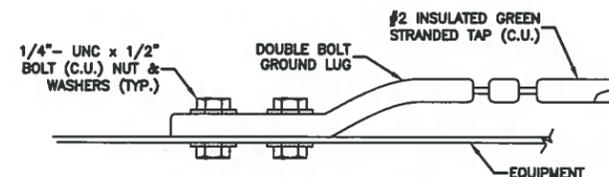


- LEGEND:**
- COPPER GROUND BAR, 1/4"x4"x20", GBIT 14420 J 2-7. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION.
 - STANDOFF INSULATORS, HARGER LIGHTNING PROTECTION, INC. CAT. No. 5263-AB.
 - 1/2" LOCKWASHERS, HARGER CO. CAT. No. LWBS.
 - WALL MOUNTING STAINLESS STEEL, MOUNTING BRACKET, HARGER CAT.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

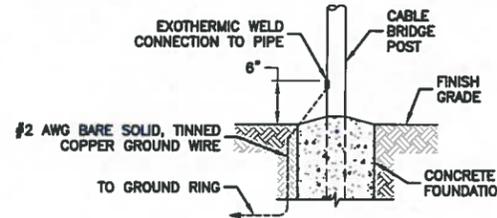
GROUND BAR DETAIL
SCALE: N.T.S.



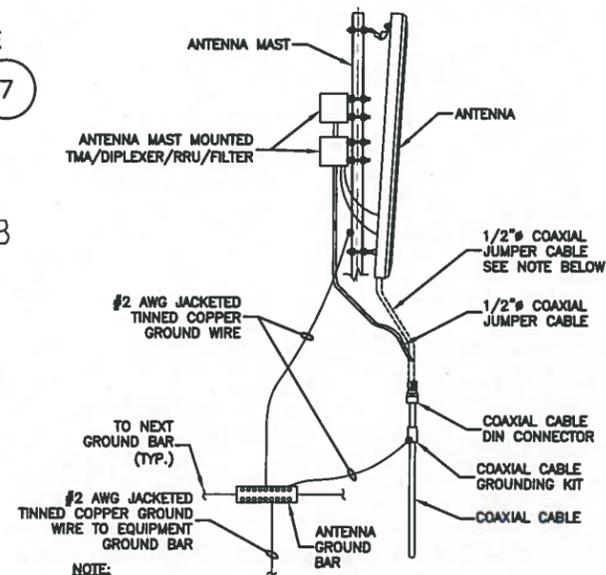
- STYLE:** GBIT - GROUND BAR WITH WALL MOUNTING BRACKETS, INSULATORS AND A 25" EXOTHERMICALLY WELDED TAIL
- SIZE:** THICKNESS, WIDTH, LENGTH IN INCHES.
- HOLE PATTERN:** HOLE PATTERN CENTERS MATCH NEMA DOUBLE LUG CONFIGURATION. SEE ISOMETRIC.
- TAIL:** SPECIFY AMERICAN WIRE GAUGE (AWG) SIZE AND STRANDING REQUIRED. 25" LENGTH IS STANDARD UNLESS OTHERWISE REQUESTED.



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



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



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

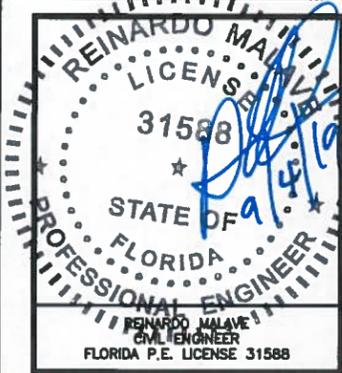


GADSDEN COUNTY BOARD CO-LOCATE SBA NO: FL17996-A

CONSTRUCTION DRAWINGS

0 09/04/19 FOR CONSTRUCTION

Dewberry
Dewberry Engineers Inc.
800 NORTH MAGNOLIA AVE
SUITE 1000
ORLANDO, FL 32803
PHONE: 407.843.5120
FAX: 407.849.8864
FLORIDA C.O.A. #8794



DRAWN BY: AMD

REVIEWED BY: NRK

CHECKED BY: JAA

PROJECT NUMBER: 50105274

JOB NUMBER: 50105274

SITE ADDRESS:

29 SCHWALL ROAD
HAVANA, FL 32333

SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER