

# APPLICABLE CODES

ALL WORK SHALL COMPLY WITH THE FOLLOWING APPLICABLE CODES:

2020 BUILDING CODE 2020 NFPA 2020 MECHANICAL CODE 2020 PLUMBING CODE 2020 FIRE CODE 2020 ENERGY CODE

2020 FLORIDA BUILDING CODE, 7TH EDITION

# **GENERAL NOTES**

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.
HANDICAPPED ACCESS REQUIREMENTS ARE NOT REQUIRED
IN ACCORDANCE WITH THE 2020 FLORIDA BUILDING CODE, 7TH EDITION.
A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE
MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT
DISTURBANCE OR EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE,
POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL
SIGNAGE IS PROPOSED.

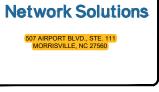
**AT&T SITE NUMBER: PM236** FA#: 10096114

# **WEST LAKE CITY**

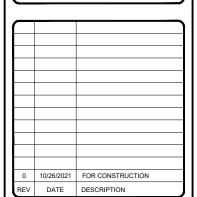
**277 NW BROWN RD** LAKE CITY, FL 32055 **GENERATOR PROJECT** 

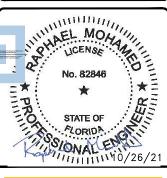


# **MasTec**



FA CODE:	FA#10096114
DRAWN BY:	EL
JOB #:	12345





PM236 WEST LAKE CITY 277 NW BROWN RD LAKE CITY, FL 32055

> 10096114 SHEET TITLE

FA NUMBER

TITLE SHEET

SHEET NUMBER

# SITE INFORMATION

APPLICANT:

575 MOROSGO DR. ATLANTA, GA 30324-3300

33-3S-16-02435-001

TOWER OWNER:

CROWN CASTLE 6420 CONGRESS AVE., STE 2000 BOCA RATON, FL 33487

SCOPING ENGINEER (NATIONAL):

EMAIL: David.Rogers@MASTEC.COM

CONSTRUCTION:
MASTEC NETWORK SOLUTIONS
507 AIRPORT BLVD., STE. 111
MORRISVILLE, NC 27560
CONTACT: SEAN SHEEHAN
EMAIL: Sean.Sheehan@mastec.com

MASTEC NETWORK SOLUTIONS 2189 PARKWAY LAKE DR.

HOOVER, AL 35244 CONTACT: DAVID ROGERS

STRUCTURE TYPE:

ASSESSORS PARCEL NUMBER:

30° 11' 25.9" N

LATITUDE: LONGITUDE:

NAD-83 LAT/LONG TYPE:

EXISTING ZONING:

PROPOSED PROJECT AREA: NO INCREASE IN S.F.

TYPE OF CONSTRUCTION:

TYPE V-B OCCUPANCY GROUP:

JURISDICTION: COLUMBIA COUNTY

# **LOCATION MAP**

**LOCAL MAP** 

# **VICINITY MAP**

# AT&T MOBILITY PROPOSES TO MODIFY AN EXISTING UNMANNED WIRELESS COMMUNICATIONS FACILITY. THIS MODIFICATION WILL CONSIST OF THE FOLLOWING:

PROJECT DESCRIPTION

GROUND SCOPE OF WORK

INSTALL (1) 30kW GENERAC STANDBY DIESEL GENERATOR (GENERAC SD030) WITH BASE FUEL TANK ON A CONCRETE PAD

INSTALL (1) 200A ATS INSTALL ATS ALARM RELAY

# **DRAWING INDEX**

	DIVIVIIIO IIIDEA
SHEET NO:	SHEET TITLE
T-1	TITLE SHEET
GN-1	GENERAL NOTES
A-0	SITE PLAN
A-1	GENERATOR PAD DETAILS
A-1.1	GENERATOR PAD DETAILS
E-1	ELECTRICAL PLAN
E-2	EQUIPMENT & CONDUIT DETAILS
E-3	ALARM DETAILS & ONE LINE DIAGRAM
G-1	GROUNDING DETAILS

# **APPROVALS**

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS & AUTHORIZE THE SUBCONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT & MAY IMPOSE CHANGES OR MODIFICATIONS. AT&T

SITE ACQUISITION CONSTRUCTION MANAGER

## **DRIVING DIRECTIONS**

CONTINUE ONTO DUVAL RD
MERGE ONTO I-295 VIA THE RAMP TO I-10
TAKE EXIT 21B TO MERGE ONTO I-10 W TOWARD LAKE CITY

7. TAKE EXIT 301 FOR US-41 TOWARD LAKE CITY
8. TURN RIGHT ONTO US-41 S
9. TURN RIGHT ONTO NW BASCOM NORRIS DR
10. TURN RIGHT ONTO NW REAL TERRACE
11. TURN RIGHT ONTO US-90 W/W US HWY 90
12. TURN RIGHT ONTO WS BROWN RD
DESTINATION WILL BE ON THE RIGHT

# **SCALE**



Know what's below. Call before you dig.

# **PROJECT TEAM**

CLIENT REPRESENTATIVE (NATIONAL): MASTEC NETWORK SOLUTIONS 3443 AIRPORT RD SACRAMENTO, CA 95834 CONTACT: CLEON MITCHELL FMAIL: Clean Mitchell@mastec.com

ENGINEERING (NATIONAL):
MASTEC NETWORK SOLUTIONS
507 AIRPORT BLVD., STE. 111
MORRISVILE, NC 27560
CONTACT: RAPHAEL MOHAMED PH: (919) 674—5895 EMAIL: Raphael.Mohamed@mastec.com

SITE ACQUISITION (NATIONAL): MASTEC NETWORK SOLUTIONS 2189 PARKWAY LAKE DR. HOOVER, AL 35244 CONTACT: CLEON MITCHELL EMAIL: Cleon, Mitchell@mastec.com

IRECTIONS FROM: JACKSONVILLE INTERNATIONAL AIRPORT
. HEAD SOUTHEAST ON DIXIE CLIPPER DR
. TAKE THE INTERNATIONAL AIRPORT BLVD RAMP TO SERVICE RD/I-295/I-10
. TURN RIGHT ONTO INTERNATIONAL AIRPORT BLVD (SIGNS FOR I-295/I-10)

THE DRAWING SCALES SHOWN IN THIS SET REPRESENT THE CORRECT SCALE ONLY WHEN THESE DRAWINGS ARE PRINTED IN A 11"X17" OR 24"X36" FORMAT.

#### **GENERAL NOTES:**

- ALL SUB-CONTRACTORS ARE TO SIGN INTO THE LL AND AT&T NOC'S ALONG WITH BEFORE THE START OF WORK
  AND END OF WORK EACH DAY. THE AT&T LOGBOOK MUST ALSO BE SIGNED EACH DAY ON SITE.
  ALL ORIGINAL PERMITS MUST BE POSTED ON SITE BEFORE WORK CAN COMMENCE. ALL PERMITS ARE REQUIRED TO BE IN A NOTICEABLE LOCATION
  FOR REVIEW BY THE PERMITTING JURISDICTION.
- FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
- CONTRACTOR: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION CARRIER: AT&T

#### TOWER OWNER: CROWN CASTLE

- CARMILEY: AT&I

  TOWER OWNER: CROWN CASTLE

  THOUSE OWNER: CROWN CASTLE

  THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR
  CIRCLMSTRANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN
  EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS
  AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE
  DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.

  THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL
  PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPEPTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT
  BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SIT VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF
  THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
  NOTES AND DETAILS IN THE CONSTRUCTION PAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS
  ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS.
  WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, SCHERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL
  GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.
  SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION
  AND/OR PLACEMENT OF CONSTRUCTION OF CONTRUCTION LOCKMENTS BUILDINGNS, SA
- AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE
- CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.

  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 MASTEC NETWORK SOLUTIONS.

  ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND CRDINANCES.

  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.

  UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE TURNISHING 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 CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND CROWN CASTLE PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION. CONTRACTOR IS TO PEFFORM A SITE INVESTIGATION AND IS TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.

  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 CROWN CASTLE VAI INC.

  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. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

#### CONCRETE, FOUNDATIONS, AND REINFORCING STEEL (FOR CAST IN PLACE OPTION)

- 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.

  UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.

  ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STERNOTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90'F AT TIME OF PLACEMENT.

  CONCRETE EXPOSED TO FREEZE—THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER—TO—CEMENT PARTO (MCC) OF 0.45
- RATIO (W/C) OF 0.45.
- ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fv) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:

#5 BARS AND LARGER

60 ksi
THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS: CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH......
CONCRETE EXPOSED TO EARTH OR WEATHER:

#6 BARS AND LARGER .... #5 BARS AND SMALLER..... CONCRETE NOT EXPOSED TO EARTH OR WEATHER

SLAB AND WALLS.. BEAMS AND COLUMNS

A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

#### GREENFIELD GROUNDING NOTES:

- 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 IN ACCORDANCE WITH THE NEC THE CONTRACTOR SHALL PERFORM EEE FALL-OF-POTENTAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE
- A TEST RESULT OF 5 OHMS OR LESS.

  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 CONTRICTOR 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 CONTRICTOR THE CONTRICT
- BTS EQUIPMENT. BIS EQUIPMENT.

  EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.

  ALL EXTERIOR GROUND CONDUCTORS DETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.

  ALLUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.

  USE OF 90' BENDS IN THE PROTECTION GROUNDING CONNECTIONS SHALL BE AVOIDED WHEN 45' BENDS CAN BE ADEQUATELY SUPPORTED.

- OSE OF 90 BENDS IN THE PROTECTION GROUNDING CONDUCTIONS SHALL BE AVOIDED WHEN 43 BENDS CAN BE ADEQUATELT SUPPLEXOFFERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.

  ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.

  COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.

  ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.

- . ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
  APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE LOOR PASTES SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.

  ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.

  MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.

  BOND ALL METALLIC OBJECTS WITHIN 6 ft OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.

  GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING 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 CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.

  ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 1/2" NON-METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE CROUNTS STANDARD DETAIL AS WELL)
- THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).

  BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY).

#### **ELECTRICAL INSTALLATION NOTES:**

- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.

- CODES/ORDINANCES.

  CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED. 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.

  1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT
- SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED. VERYIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING
- JURISDICTION.
  EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA. ALL ELECTRICAL CAMPONENTS SHALL BE CLEARLY LABELED WITH LAWIGCID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER
- OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND
- PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
  ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE
- SHARP EDGES.
  ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED. POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SROW CORD (#41 OR LARGER) WINLESS OTHERWISE SPECIFIED.
- 11. POWER AND CONINGU WINNG IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.

  12. POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, THW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.

  13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE
- LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT 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.
  ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID
  METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- 16. ELECTRICAL METALLIC TUBING (EMT) OR METAL—CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.

  17. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL

  18. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL
- ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
- B. LIQUID/JUSA AND ALL APPROVED ABOVE GRADE PVC CONDUIT.

  8. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.

  19. CONDUIT AND TUBING FITTINGS SHALL BE THERADED OR COMPRESSION—TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.

  20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN
- ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.
  WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER,
  DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECMATE WIREWAY).
- 22. SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR
- EQUAL).
  CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANCERS. EXPLOSIVE DEVICES (i.e., POWDER-ACTUATED) FOR ATTACHING HANCERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLIET BODIES. CONDUIT SHALL BE INSTALLED IN A NEXT AND WORKMANLIKE MANNER. PARALLEL AND PERFENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO ROYER BY CALVANIZED MAILED FOR PERFENDING PROMERT.
- CONCRETE, PLASTER OR DITH FROM ENTERING. CONDUTS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.

  EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY—COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3R (OR BETTER) FOR
- EXTERIOR LOCATIONS.

  25. 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 BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
- NONMETALLIC RECEPTACLE SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA
- NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCLEED NEMA
  OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR
  LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
  THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE
  CARRIER AND/OR CROWN CASTLE USA INC. 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
  ASSECUED ASSECUED.
- SAFEGUARD LIFE AND PROPERTY.
- 29. INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "AT&T".

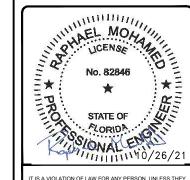
  30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.





FA CODE:	FA # 10096114
DRAWN BY:	EL

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	)	10/26/2021	FOR CONSTRUCTION
RE	€V	DATE	DESCRIPTION



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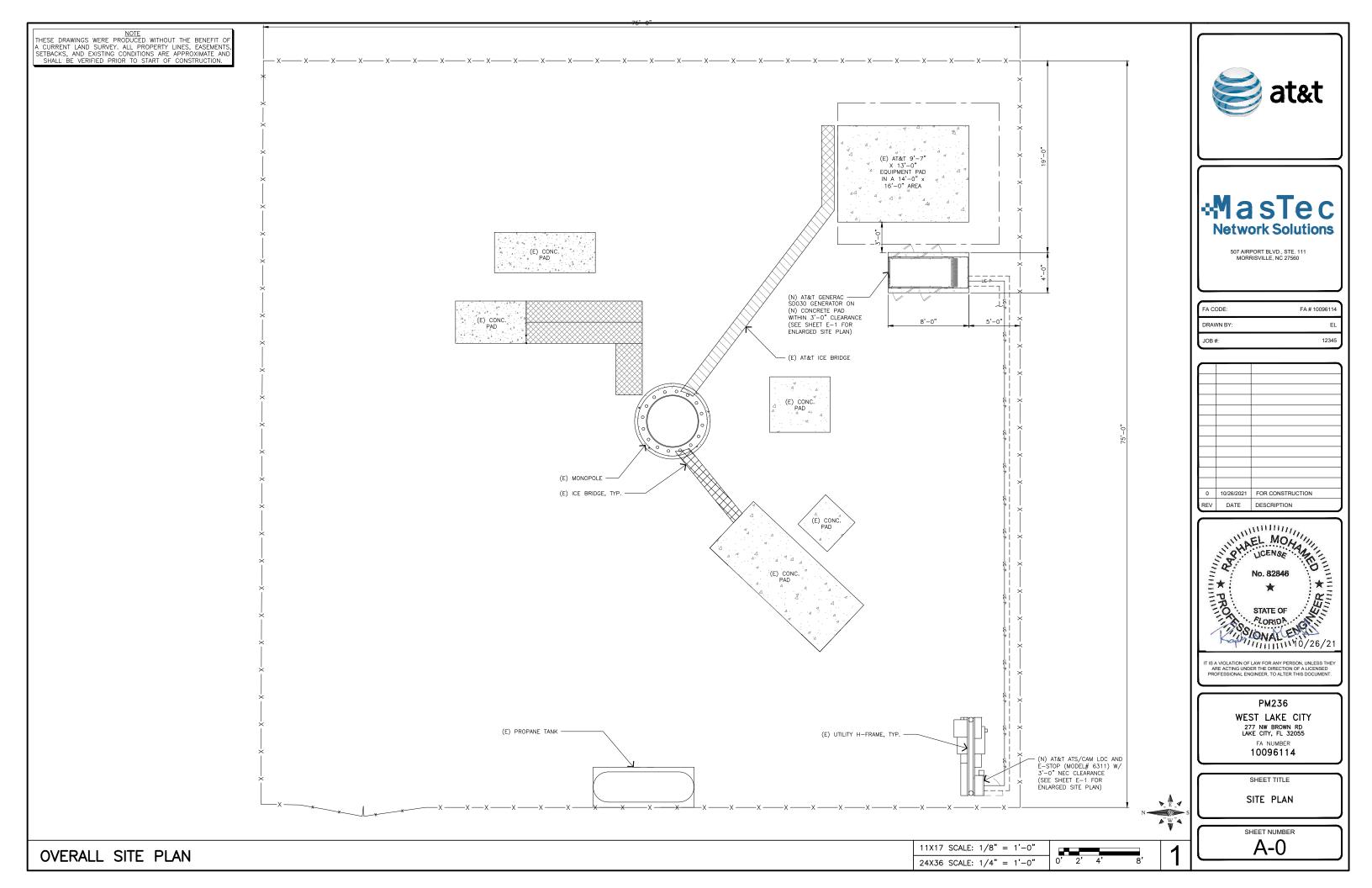
PM236

WEST LAKE CITY 277 NW BROWN RD LAKE CITY, FL 32055 FA NUMBER

> 10096114 SHEET TITLE

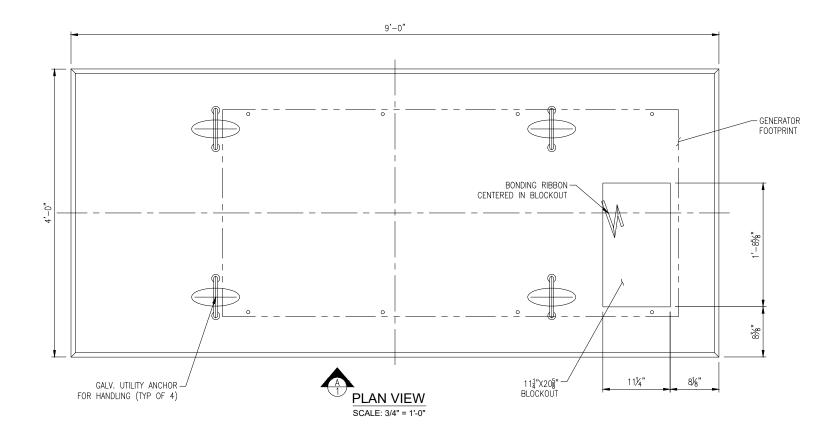
GENERAL NOTES

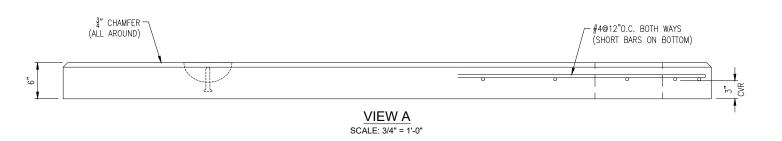
GN-1



## GENERAL NOTES

- 1. CONCRETE: 28 DAY COMPRESSIVE STRENGTH F'c = 5,000 PSI (MIN).
- 2. REINFORCING: ASTM A-615, GRADE 60.
- 3. SLAB DESIGNED BY OTHERS PER CONTRACT DRAWING #C-2.
- 4. SLAB SHALL BE SUPPORTED IN ACCORDANCE WITH PROJECT SPECIFICATIONS (I.E. LEVEL AND COMPACTED BEARING SURFACE).
- 5. ELECTRICAL STUB-UP COORDINATE SIZE & PLACEMENT W/ MANUFACTURER DRAWINGS.





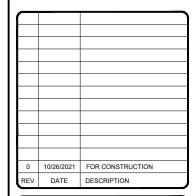
WEIGHT		
SECTION	CONCRETE (CY)	
6" THK PAD	2,600	0.64

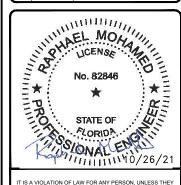




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LAKE CITY, FL 32055
FA NUMBER
10096114

SHEET TITLE

GENERATOR PAD DETAILS

SHEET NUMBER

A-1

PRECAST GENERATOR PAD DETAILS

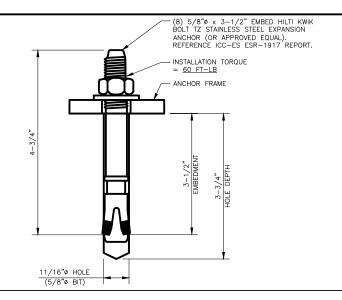
SCALE: NONE

**∃** 1

## GENERAL NOTES

- 1. CONCRETE SHALL REACH A MINIMUM COMPRESSIVE STRENGTH OF 3,0000 PSI IN 28 DAYS FOR FOUNDATIONS, SLABS, AND CONDUIT ENCASEMENTS. CONCRETE SHALL HAVE A 4" NOMINAL SLUMP AND 4.5-6.5% AIR CONTENT. COMPRESSIVE STRENGTH TEST TO BE PERFORMED ON CONCRETE USED FOR FOUNDATION ONLY.
- ALL REINFORCING STEEL SHALL BE ASTM A-615, GRADE 60 DEFORMED BARS.
- 3. ALL DETAILING, FABRICATION AND PLACING OF REINFORCING STEEL SHALL CONFORM TO THE MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES (ACI 318).

  4. ALL BAR SPLICES SHALL BE CLASS "B" TENSION SPLICES.
- 5. CHAMFER ALL EXPOSED EXTERNAL CORNERS OF CONCRETE WITH A  $3/4^{\prime\prime}$  X 45' CHAMFER.
- 6. FINISHED SLAB TO BE LEVEL ±1/4".
- 7. FLEXIBLE UTILITY CONNECTIONS SHOULD BE USED AT UNDERGROUND TO GENERATOR INTERACTIONS.
- EQUIPMENT PAD DESIGN BASED ON AN ASSUMED ALLOWABLE SOIL BEARING CAPACITY OF 2000 PSF. EQUIPMENT FOUNDATIONS BEARING ON CLAY SOILS SHALL HAVE A MAXIMUM SOIL PLASTICITY INDEX OF 27.
- 9. INSTALL EQUIPMENT ANCHORAGE PER MANUFACTURER'S WRITTEN
- 10. THE ATTACHMENT OF THE GENERATOR TO THE FOUNDATION SLAB AND THE FOUNDATION ITSELF ARE DESIGNED TO RESIST A 3 SEC. GUST WIND SPEED OF 143 MPH (ULTIMATE WIND SPEED).
- 11. ELECTRICAL STUB-UP AREA WILL BE DETERMINED BY GENERATOR ORIENTATION.







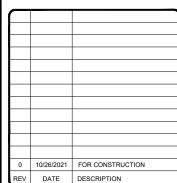
507 AIRPORT BLVD., STE. 111 MORRISVILLE, NC 27560

SCALE: 2 NONE

SCALE:

NONE

FA CODE: FA#10096114 DRAWN BY JOB #: 12345



No. 82846 STATE OF CORIDA

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PM236 WEST LAKE CITY 277 NW BROWN RD LAKE CITY, FL 32055 FA NUMBER 10096114

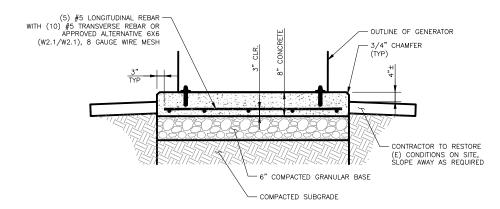
SHEET TITLE

GENERATOR PAD DETAILS

SHEET NUMBER

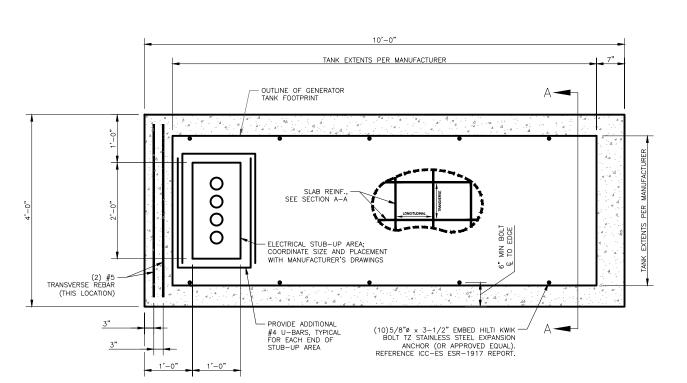
TYPICAL ANCHOR DETAIL

INSTALLER NOTE:
BASE FLOOD ELEVATION (BFE) NOT
PROVIDED. CONTRACTOR TO ENSURE
TOC OF GENERATOR PAD MATCHES OR
EXCEEDS TOC OF EXISTING AT&T
EQUIPMENT PAD/FOUNDATION.



# GENERATOR PAD DETAIL - SECTION A-A

INSTALLER NOTE:
CONDUIT STUB-UP LOCATIONS SHALL
BE COORDINATED ON SITE WITH
CONSTRUCTION MANAGER, PRIOR TO
INSTALLING CONCRETE PAD



CAST-IN-PLACE GENERATOR PAD DETAIL

NONE

SCALE:

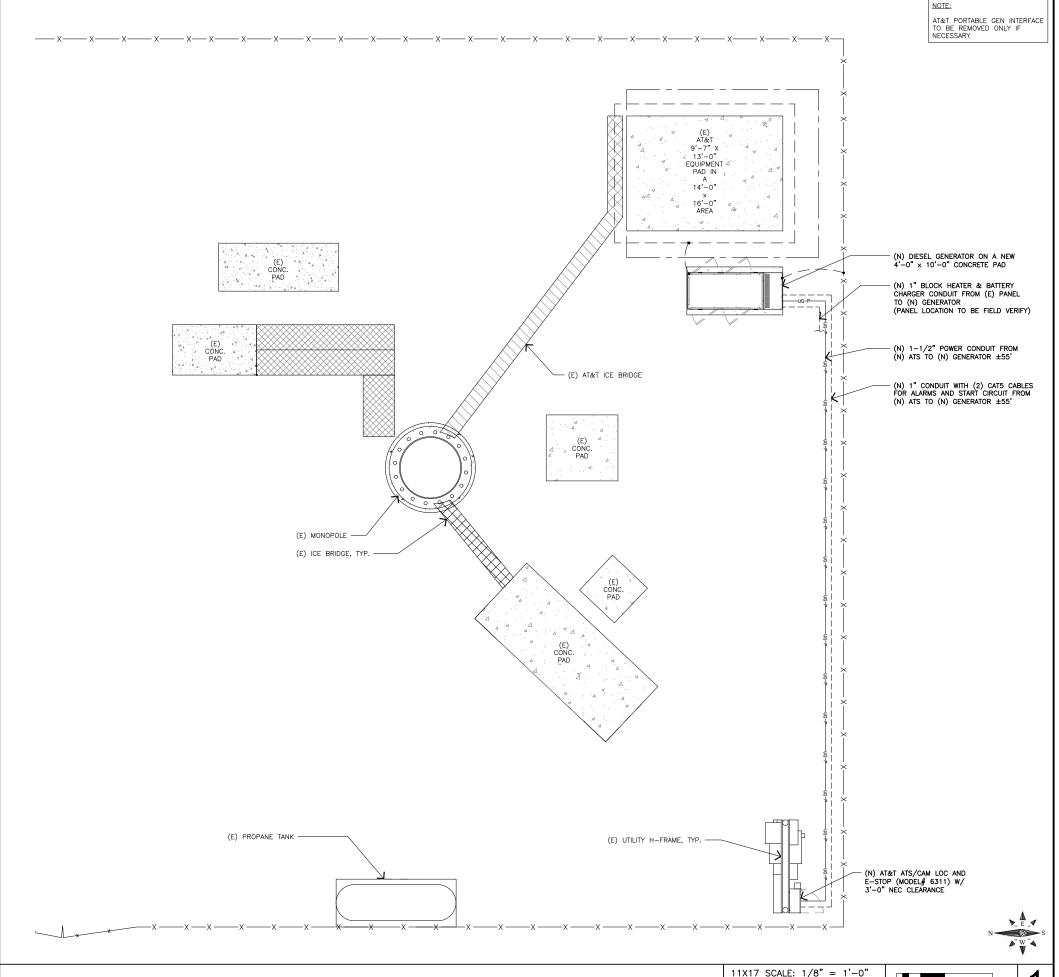
A-1.1

#### NOTES AND SPECIFICATIONS

- 1. ALL ELECTRICAL WORK SHALL COMPLY WITH NEC, STATE, AND LOCAL CODES.
- 2. CONTRACTOR SHALL OBTAIN OWNER/TENANT SPECIFICATIONS AND REVIEW FOR ADDITIONAL DETAILS AND REQUIREMENTS THAT MAY NOT BE SHOWN IN THESE DRAWINGS. CONTRACTOR SHALL COMPLY WITH ANY ADDITIONAL OWNER/TENANT SPECIFICATIONS AND REQUIREMENTS.
- 3. CONTRACTOR SHALL COORDINATE WITH THE ELECTRIC UTILITY FOR THE EXACT TRANSFORMER LOCATION, METERING REQUIREMENTS, AND SERVICE ROUTING. CONTRACTOR SHALL COORDINATE WITH THE TELEPHONE UTILITY FOR THE EXACT TELEPHONE REQUI
- 4. PRIOR TO PURCHASING EQUIPMENT, THE CONTRACTOR SHALL CONTACT THE ELECTRIC COMPANY AND OBTAIN IN WRITING THE MAXIMUM AVAILABLE FAULT CURRENT AT THE UTILITY SERVICE POINT. THE CONTRACTOR SHALL ENSURE ALL ELECTRICAL EQUIPMENT, CIRCUIT BREAKERS, DISCONNECTS, FUSES, AND PANELBOARDS HAVE A FAULT CURRENT INTERRUPTING RATING GREATER THAN THE AVAILABLE FAULT CURRENT. IN NO CASE SHALL THE FAULT CURRENT INTERRUPTING RATING BE LESS THAN 10,000 AMPS.
- 5. CONTRACTOR TO PROVIDE 2-200 LB TEST POLYETHYLENE PULL CORDS SECURELY FASTENED AT EACH END OF POWER AND TELCO CONDUIT. PROVIDE CAPS ON END OF UNUSED CONDUIT.
- 6. CONTRACTOR TO PROVIDE A REBAR MARKER WITH AT LEAST 2 FEET EXPOSED ABOVE GRADE AND PAINTED BRIGHT ORANGE TO INDICATE LOCATION OF CONDUIT CAPPED BELOW GRADE.
- 7. PRIOR TO TRENCHING CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITIES. CONTRACTOR SHALL REPAIR AT CONTRACTOR'S EXPENSE ANY DAMAGE TO EXISTING UTILITIES.
- 8. CONTRACTOR TO VERIFY EXACT ROUTING OF POWER AND TELCO CONDUIT WITH LOCAL UTILLITIES AND OWNER/TENANT. ENSURE ALL CONDUIT STUB-UPS ACCOMMODATE EQUIPMENT REQUIREMENTS.
- 9. UNDERGROUND CONDUITS SHALL BE SCHEDULE 40 PVC UNLESS NOTED OTHERWISE. USE SCHEDULE 80 PVC UNDER ROADS.
- 10. CONDUIT RUNS SHALL HAVE A CONTINUOUS SLOPE DOWNWARDS AND AWAY FROM THE EQUIPMENT TO ALLOW WATER TO FLOW AWAY FROM THE EQUIPMENT AND SHELTER. EXCAVATE TRENCHES ALONG STRAIGHT LINES PRIOR TO INSTALLING CONDUIT TO ACCOMMODATE ADJUSTING THE ELEVATION, AS NEEDED.
- 11. CONDUIT ENTERING EQUIPMENT SHALL BE SEALED WITH A SEALANT THAT IS IDENTIFIED FOR USE WITH THE CABLE/CONDUCTOR INSULATION, SHELDING, ETC.
- 12. THE OWNER SHALL FURNISH AND THE CONTRACTOR SHALL INSTALL ADDITIONAL SIGNAGE TO BE LOCATED AT THE COMPOUND FENCE. CONTRACTOR SHALL COORDINATE WITH OWNER/TENANT CONSTRUCTION MANAGER FOR PLACEMENT OF SIGNAGE.
- 13. UPON COMPLETION OF CONSTRUCTION, CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE CAUSED BY CONSTRUCTION ACTIVITIES TO THE LANDSCAPING AREA.
- 14. CONTRACTOR TO ENSURE A MIN. 3' CLEARANCE IN FRONT OF ELECTRICAL PANELS PER NEC.
- ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES AND EQUIPMENT SHALL BE LABEL TESTED BY AN APPROVED THIRD PARTY TESTING AGENCY.

CONDUCTOR COLOR CODE				
SYSTEM	CONDUCTOR	COLOR		
	A PHASE	BLACK		
120/240V. 1ø	B PHASE	RED		
120/2400, 19	NEUTRAL	WHITE		
	GROUND	GREEN		
	A PHASE	BLACK		
	B PHASE	RED		
120/208V, 3ø	C PHASE	BLUE		
	NEUTRAL	WHITE		
	GROUND	GREEN		
	A PHASE	BROWN		
	B PHASE	ORANGE OR PURPLE		
277/480V, 3ø	C PHASE	YELLOW		
	NEUTRAL	GREY		
	GROUND	GREEN		
DC VOLTAGE	POS (+)	RED**		
DC VOLIAGE	NEG (-)	BLACK**		
* SEE NEC 210.5(C)(1) AND (2) ** POLARITY MARKED AT TERMINATION				

OVERALL SITE PLAN







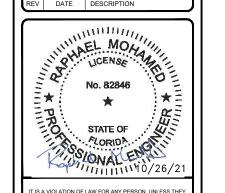
MORRISVILLE, NC 27560

FA CODE: FA # 10096114

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LAKE CITY, FL 32055
FA NUMBER
10096114

SHEET TITLE

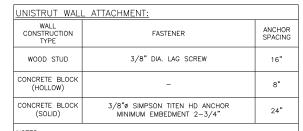
ELECTRICAL & LTE SCHEMATIC DIAGRAM

SHEET NUMBER

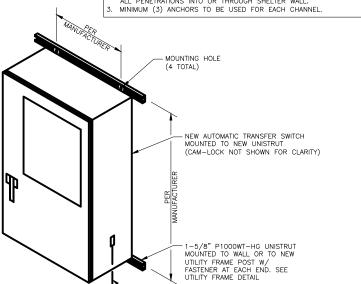
E-1

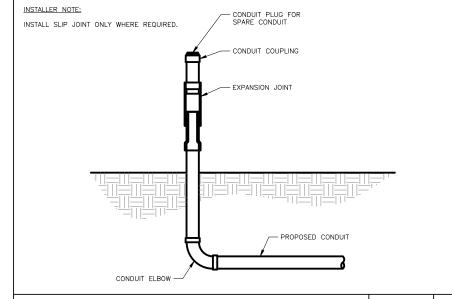
24X36 SCALE: 1/4" = 1'-0"

#'



USE GALVANIZED OR STAINLESS STEEL HARDWARE FOR WALL MOUNT AND CONNECTION OF CHANNELS. GC SHALL USE NON-SHRINKING CAULK TO WEATHER SEAL ALL PENETRATIONS INTO OR THROUGH SHELTER WALL.





SLIP JOINT DETAIL

FINISHED GRADE OR GROUND COVER MATCH SLOPE AND THICKNESS OF EXISTING

UNDISTURBED SOIL -

2" SCH 40 PVC AUXILIARY POWER CONDUIT WITH PULL

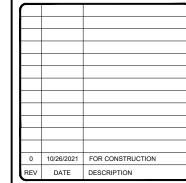
SCALE: NONE FA CODE

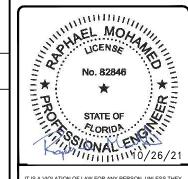
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**Network Solutions** 





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PM236 WEST LAKE CITY 277 NW BROWN RD LAKE CITY, FL 32055 FA NUMBER 10096114

SHEET TITLE

**EQUIPMENT &** CONDUIT DETAILS

SHEET NUMBER E-2

SCALE: NOT USED NONE

# U.I. SYSTEM NO. C-AJ-1150 CONDUIT THROUGH BEARING WALL SIMILAR TO U.L. DESIGN NO. U902 F RATING = 3 HR T RATING = 0 HR

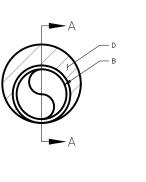
- A. FLOOR OR WALL ASSEMBLY: MINIMUM 4-1/2" THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF)
  CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS\*. MAX DIAMETER OF OPENING
  IS 4". (SEE CONCRETE BLOCKS CATZ) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.
- B. THROUGH PENETRATIONS: ONE METALLIC PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE ANNULAR SPACE SHALL BE MINIMUM 0". (POINT CONTACT) TO MAXIMUM 1-3/8". THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES OR CONDUITS MAY BE USED:

  a. STEEL PIPE-NOMINAL 6" DIAMETER (OR SMALLER) SCHEDULE 40 (OR HEAVIER) STEEL PIPE
  - b. IRON PIPE-NOMINAL 6" DIAMETER (OR SMALLER) CAST OR DUCTILE IRON PIPE.

    c. CONDUIT NOMINAL 4" DIAMETER (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR NOMINAL 3-1/2" DIAMETER (OR SMALLER) STEEL CONDUIT.
- C. PACKING MATERIAL: MINIMUM 6" THICKNESS OF MIN 4.0 PCF MINERAL WOOL BATTING INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL.
- FILL, VOID, OR CAVITY MATERIAL\*: SEALANT: MINIMUM 1/4" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH TOP SURFACE OF FLOOR AND WITH BOTH SURFACES OF WALL. AT THE POINT CONTACT LOCATION BETWEEN PIPE AND CONCRETE, A MINIMUM 1/2" DIAMETER BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE CONCRETE/PIPE INTERFACE ON THE TOP SURFACE OF FLOOR AND ON BOTH SURFACES OF WALL. W-RATING APPLIES ONLY WHEN CP601S OR CP604 SEALANT IS USED.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC. : CP601S, CP604, CP606, OR FS-ONE SEALANT.

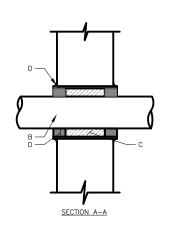
\* BEARING THE UL CLASSIFICATION MARK



### INSTALLER NOTES:

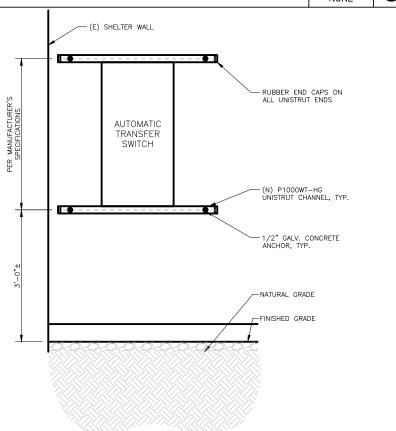
1. IF EXISTING CONSTRUCTION VARIES FROM THIS DETAIL, AN EQUAL 3-HR U.L. PENETRATION APPROPRIATE FOR THE EXISTING WALL TYPE

APPROPRIATE FOR THE EXISTING WALL THE SHALL BE CONSTRUCTED GC SHALL USE NON—SHRINKING CAULK TO WEATHERSEAL ALL PENETRATIONS INTO OR THRU SHELTER WALL.



# ATS MOUNTING DETAIL

SCALE: NONE



NEW MECHANICAL CONNECTION

WITH #2 TO (E) GROUND ROD

SCALE: TRENCH DETAIL NONE (E) WALL/CEILING/PAVEMENT VERTICAL UNISTRUT P1000WT-HG. REQUIRED LENGTH BASED ON QUANTITY OF CONDUIT TO BE CONDUIT (TYP) PIPE CLAMP MOUNTED. INSTALL AT 5'-0" O.C. MAX W/ FASTENER AT EACH END. CONDUIT (TYP) PIPE CLAMP (E) WALL/CEILING/PAVEMENT

O

24" MIN.

SCALE:

UTILITY FRAME ELEVATION

SCALE: NONE

SCALE: NONE

OUTER WALL PENETRATION DETAIL

CAUTION TAPE 12" MIN. DEPTH

COMPACTED BACKFILL WITH SATISFACTORY

NATIVE OR IMPORTED SOIL TO 95% PROCTOR

COMPACTED SAND

CONDUITS WITH PULL STRING

CONDUIT WITH PULL STRING

SCH 40 PVC ALARM

(SEE NOTE 1)

CONDUIT WALL MOUNT DETAIL

GENERATOR ALARM IDENTIFICATION CHART			
NAME	DESCRIPTION		
CF	CRITICAL FAILURE		
FL	FUEL LEAK OVERFILL		
GR GENERATOR RUNNING			
FL	FL LOW FUEL		
MAF MAJOR FAULT			
MF	MF MINOR FAULT		
FL GEN FUEL LEAK TANK WHT/SLATE			
NOTE: CONTRACTOR TO LABEL WIRES W/ P-TOUCH OR SIMILAR LABELS ONLY. ABSOLUTELY NO HANDWRITTEN LABELS.			

ALARM REQUIREMENTS
AT&T REQUIRES FOUR ALARMS CONFIRMED WORKING: NORMALLY
CLOSED VOLT-FREE CONTACT FOR:

1. GENERATOR RUN

- 2. GENERATOR FAIL
- 3. LOW FUEL 4. FUEL LEAK 5. RBS GENERATOR MJ

# COLOR CODE GENERATOR:

- A. CABLE FOUR 12-PAIR DIRECT BURIAL
  B. COLOR CODE
  1. GENERATOR RUN ALARM PORT #14 (ORANGE & WHITE)
- 2. GENERATOR FAIL ALARM PORT #15 (BLUE & WHITE) 3. LOW FUEL ALARM (PORT P32) ON I/O BOARD (GREEN &
- WHITE)
- WHITE)
  4. FUEL LEAD P32 ON I/O BOARD) (BROWN & WHITE)
  AUTOMATIC TRANSFER SWITCH (IF APPLICABLE)
  A. CABLE cat5e
  B. COLOR CODE

- 1. COMMERCIAL POWER FAIL IF REQUIRED (BLUE WHITE)
  2. TRANSFER SWITCH POSITION (BROWN WHITE)
- CAM LOCK ALARM
  A. CABLE cat5e
  B. COLOR CODE
- PORTABLE GENERATOR RUNNING (ORANGE WHITE) (IF REQUIRED)

#### NOTES:

- ALL NEW CONDUCTORS TO BE INSTALLED SHALL BE COPPER. ALL CONDUCTORS SHALL BE THHW, THWN, THWN-2, XHHW, OR XHHW-2 UNLESS NOTED OTHERWISE.
- CONTRACTOR IS TO FIELD VERIFY ALL EXISTING ITEMS SHOWN ON THE ELECTRICAL ONE—LINE DIAGRAM AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- 3. ALL GROUNDING AND BONDING PER THE NEC.
- 4. INSTALL ATS ALARM RELAY

#### INSTALLER NOTE:

CONTRACTOR TO VERIFY EXISTING LOAD PANEL AND INSTALL NEW 20A BREAKER FOR BLOCK HEATER AND NEW 20A BREAKER FOR BATTERY

# INSTALLER NOTES:

- 1. THE GENERATOR SIZE HAS BEEN DETERMINED BY AT&T BASED ON AN INTERNAL LOAD ANALYSIS OF THEIR EQUIPMENT. THE GENERATOR SIZE WAS PROVIDED AS PART OF THE SCOPING ANALYSIS. AT&T SHALL BE RESPONSIBL-FOR ENSURING THAT THEIR SYSTEM CONFIGURATION DOES NOT EXCEED THE MANUFACTURER POWER RATING OF THE SPECIFIED GENERATOR.

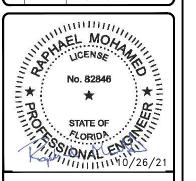
  2. CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING A SPOT READING OF THE PANEL AT PEAK OPERATING HOURS TO VERIFY THE AT&T PANEL SCHEDULE CALCULATIONS ARE NOT EXCEEDED. IN THE EVENT THE READING EXCEEDS THE CALCULATED PANEL SCHEDULE LOADS, RECORD THE READING AND CONSULT AT&T ENGINEERING MANAGER PRIOR TO PROCEEDING WITH GENERATOR INSTALLATION. GENERATOR INSTALLATION.





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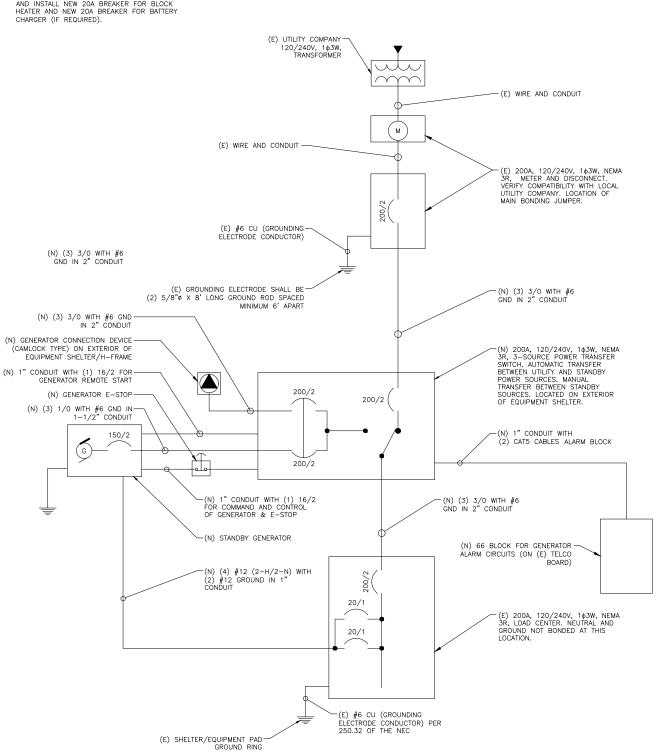
10096114

SHEET TITLE

ALARM DETAILS & ONE LINE DIAGRAM

SHEET NUMBER

E-3

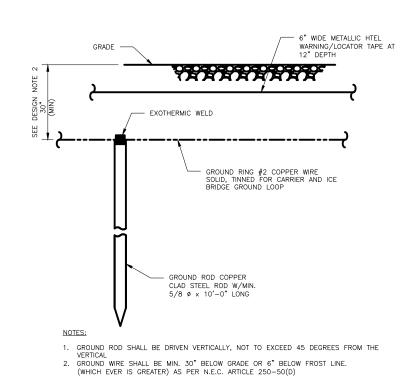


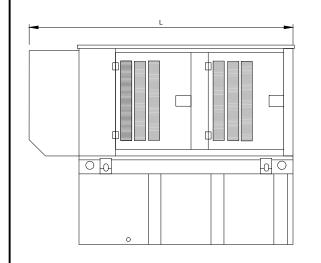
SCALE: NONE

ONE LINE DIAGRAM

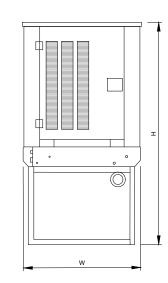
ALARM DETAILS

SCALE: NONE





GROUND ROD DETAIL



SCALE:

NONE

3

## WEATHER PROTECTED ENCLOSURE

GENERATOR SPECIFICATION DETAIL

Run Time	Usable Capacity	L x W x H - in (mm)	Steel Weight	Steel Weight		
	- Gal (L)	,	Minimum - Ibs (kg)	Maximum - lbs (kg)	Weight Min. - Ibs (kg)	Weight Maximu

94.8 (2,409) x 38.0 (965) x 49.5 (1,258) 2,158 (979) 2,286 (1,037) 1,935 (878) 2,965 (1,345)

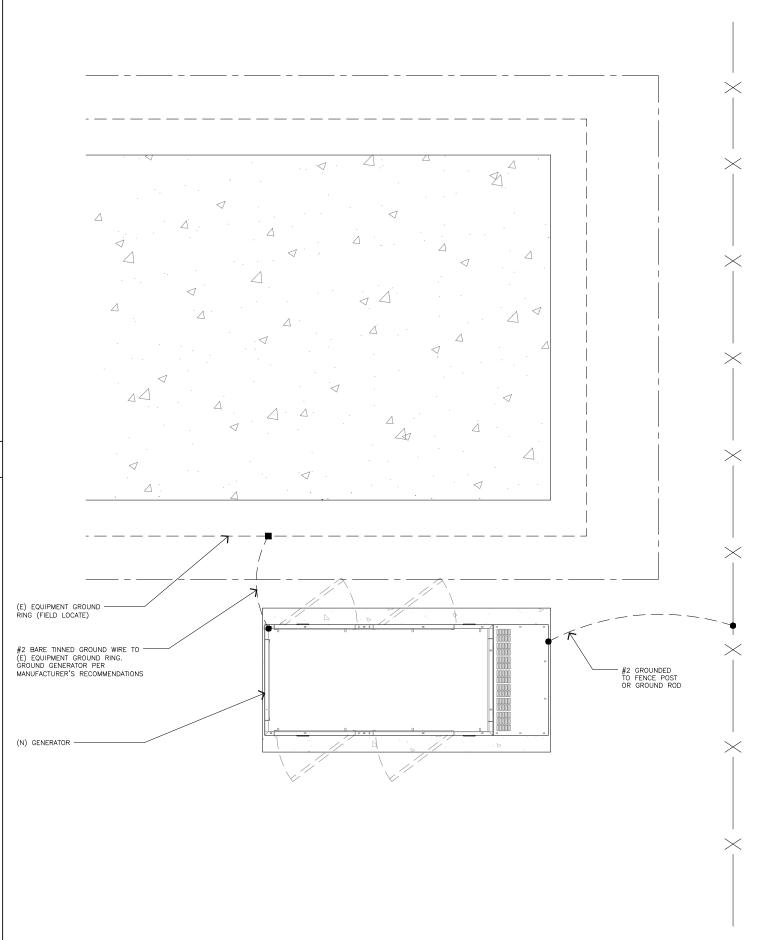
12 54 (204) 94.8 (2,409) x 38.0 (965) x 62.5 (1,588) 2,638 (1,197) 2,766 (1,255) 2,415 (1,096) 3,445 (1,563)

30 132 (499) 94.8 (2,409) x 38.0 (965) x 74.5 (1,893) 2,868 (1,301) 2,996 (1,359) 2,645 (1,200) 3,675 (1,667)

44 190 (719) 94.8 (2,409) x 38.0 (965) x 86.5 (2,198) 3,077 (1,396) 3,205 (1,454) 2,854 (1,295) 3,884 (1,762)

49 211 (799) 106.0 (2,692) x 38.0 (965) x 99.0 (2,516) 4,316 (1,958) 4,572 (2,074) 3,870 (1,755) 5,930 (2,690)

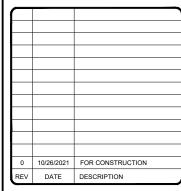
69 300 (1,136) 94.8 (2,409) x 38.0 (965) x 90.0 (2,287) 3,140 (1,424) 3,268 (1,482) 2,917 (1,323) 3,947 (1,790)

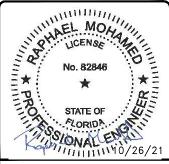






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Ц	JOB #:	12345





PM236 WEST LAKE CITY 277 NW BROWN RD LAKE CITY, FL 32055 FA NUMBER 10096114

SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER

G-1

SCALE:

NONE

TYPICAL GROUNDING SCHEMATIC

SCALE: NONE